

Case Western Reserve University

# Youth Risk Behavior Survey Project

2015 Item Rationale



CUYAHOGA COUNTY  
BOARD OF HEALTH



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**Question Priority Type:  
National, CFHS, Local**

**Demographics**

**QUESTION(S):**

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

**RATIONALE:**

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

## Obesity, Overweight, and Weight Control

### QUESTION(S):

- |   |                       |
|---|-----------------------|
| 6. How tall are you without your shoes on?      | <b>National, CFHS</b> |
| 7. How much do you weigh without your shoes on? | <b>National, CFHS</b> |
| 60. How do you describe your weight?            | <b>National</b>       |

### RATIONALE:

These questions measure self-reported height and weight and perceived body weight.

Data on self-reported height and weight is 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> It is critical to continue monitoring height and weight because the prevalence of obesity among adolescents has tripled since 1980.<sup>(6)</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>(7)</sup> Further, obese adolescents are more likely to become obese adults.<sup>(8,9)</sup> Nationwide in 2013, 14% of high school students were obese and 17% were overweight.<sup>(10)</sup> During 1999–2013, significant linear increases occurred in the percentage of students who were obese (11%–14%) and who were overweight (14%–17%).<sup>(10)</sup>

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#### **QUESTION(S):**

61. Which of the following are you trying to do about your weight?

**National**

#### **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.(1) 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.(2) The Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child 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.(2) Nationwide in 2013, 48% of high school students were trying to lose weight.(3) The percentage of students who were trying to lose weight increased significantly during 1991–2013 (42%–48%).

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## Behaviors that Result in Unintentional Injuries

### QUESTION(S):

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

### 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):**

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

**RATIONALE:**

This question measures the frequency with which seat belts are worn when riding in a car driven by someone else. In 2006, 1,537 young people ages 15 and under were killed and 203,819 were injured in passenger vehicle crashes; of those injured, approximately 9% had an injury that was so severe they were unable to walk, drive, or continue the activities they normally engaged in prior to the crash.<sup>(1)</sup> Motor-vehicle related injuries kill more young adults ages 15–19 years than any other single cause in the United States.<sup>(2)</sup> Safety 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>(3)</sup> In 2012, among all fatally injured 16- to 19-year-old occupants, seat belt use among passengers (30%) was considerably lower than among drivers (42%).<sup>(4)</sup> In 2012, the use of seat belts in passenger vehicles saved an estimated 12,174 lives.<sup>(5)</sup> In 2013, 8% of high school students nationwide rarely or never wore a seat belt when riding in a car driven by someone else.<sup>(5)</sup> During 1991–2013, among students nationwide, a significant linear decrease occurred in the prevalence of rarely or never wearing a seat belt (26%–8%).<sup>(6)</sup>

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**QUESTION(S):**

10. 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**

11. During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol? **National**

**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 2012, 28% of 15- to 20-year-old drivers who were killed in motor vehicle crashes and 4% of those injured in crashes had been drinking alcohol.<sup>(1)</sup> In 2012, 15% of fatally injured passenger vehicle drivers ages 16–17 years old had a blood alcohol concentration (BAC) of 0.08 grams per deciliter (g/dL) at the time of the crash.<sup>(2)</sup> In 2013, among the 64% of high school students who had driven a car or other vehicle during the 30 days before the survey, 10% had driven a car or other vehicle one or more times when they had been drinking alcohol. Among high school students nationwide, 22% 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> During 1991–2013, among students nationwide, a significant linear decrease occurred in the prevalence of riding with a driver who had been drinking alcohol (40%– 22%).<sup>(3)</sup>

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### QUESTION(S):

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

### RATIONALE:

This question measures the frequency with which students engage in texting or e-mailing while driving a motor vehicle. Motor vehicle accidents are the leading cause of death among U.S. adolescents age 16-19. <sup>(1)</sup> In 2011, distracted driving accounted for 10% of all road fatalities; 11% 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 2013, among the 64% 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 41%. <sup>(5)</sup>

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**QUESTION(S):**

13. During the past 12 months, did you suffer a blow or jolt to your head which caused you to get “knocked out,” have memory problems, double or blurry vision, headaches or “pressure” in the head, or nausea or vomiting?

**Local**

**RATIONALE:**

This question measures self-reported head injury or concussions, or concussion-like symptoms. While data related to the long-term effects of such injury in children has not been established, studies have shown that children 8 to 16 have been found to have persistent deficits in processing complex visual stimuli up to three months after a concussion and additional physical and mental health effects are hypothesized.(1) Additionally, compared with similar students without a history of concussion, adolescent athletes with 2 or more concussions also demonstrate statistically significant lower grade-point averages.(2)

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## Behaviors that Result in Violence

### QUESTION(S):

14. During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club?

**National**

15. 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**

### 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 second leading cause of death among youth ages 13–19 years (6.3 per 100,000).<sup>(1)</sup> Homicide is the leading cause of death among non-Hispanic black youth ages 13–19 years (23.7 per 100,000) and the second leading cause of death for Hispanic youth ages 13–19 years (7.8 per 100,000).<sup>(1)</sup> Approximately 12% of homicide victims in the United States in 2010 were aged 13–19; of these victims, 85% 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 2012, 261,976 (884.1 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 2013, 18% had carried a weapon, 6% had carried a gun, and 5% 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 1997–2013 (18%–18%).<sup>(4)</sup> Among high school students nationwide in 2013, 7% 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 7% 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 1993–2013 (4%–7%).<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 2003–2013 (9%–7%).<sup>(4)</sup>

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**QUESTION(S):**

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

**RATIONALE:**

These questions measure the frequency and severity of physical fights in general and on school property. 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 2013, 25% had been in a physical fight and 8% had been in a physical fight on school property one or more times during the 12 months before the survey.<sup>(4)</sup> The percentage of high school students who were in a physical fight decreased significantly during 1991–2013 (42%–25%).<sup>(4)</sup> The percentage of high school students who were in a physical fight on school property also decreased significantly during 1993–2013 (16%–8%).<sup>(4)</sup>

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**QUESTION(S):**

17. Have you ever been physically forced to have sexual intercourse when you did not want to? **National**

18. 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, CFHS**

19. 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, CFHS**

**RATIONALE:**

These questions measure the frequency of sexual violence and dating violence experienced by students. Dating violence victimization is associated with participation in other high risk behaviors,<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 Centers for Disease Control and Prevention’s 2010 National Intimate Partner and Sexual Violence Survey, nearly 1 in 10 women in the United States (9.4%) has been raped by an intimate partner in her lifetime, and an estimated 16.9% of women and 8.0% of men have experienced sexual violence other than rape by an intimate partner at some point in their lifetime.<sup>(8)</sup> About 1 in 4 women (24.3%) and 1 in 7 men (13.8%) 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, 22% of women and 15% of men first experienced some form of partner violence between 11 and 17 years of age.<sup>(8)</sup> Forced sexual intercourse is associated with negative psychosocial and mental health consequences.<sup>(9,10)</sup> In 2013, 7% of high school students nationwide had ever been physically forced to have sexual intercourse when they did not want to.<sup>(11)</sup> Among the 74% 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 10% experienced sexual dating violence by a dating partner.<sup>(11)</sup>

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**QUESTION(S):**

20. During the past 12 months, have you ever been bullied on school property? **National**
21. During the past 12 months, have you ever been electronically bullied? (Count being bullied through email, chat rooms, instant messaging, websites, or texting.) **National**

**RATIONALE:**

These questions measure the frequency and severity 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 2013, 20% reported that they had been bullied on school property during the 12 months before the survey and 15% 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):**

22. 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? **CFHS**

23. 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, CFHS**

24. During the past 12 months, did you ever seriously consider attempting suicide? **National, CFHS**

25. During the past 12 months, how many times did you actually attempt suicide? **National, CFHS**

**RATIONALE:**

These questions measure self-injurious behavior, sadness, suicide ideation, attempted suicide, and the seriousness of those attempts. Suicide is the third leading cause of death among youth aged 15–19 years.<sup>(1)</sup> The suicide rate for persons aged 15–19 years was 7.5 per 100,000 in 2010.<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 2013, 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 2013, 17% had seriously considered attempting suicide, 14% had made a plan about how they would attempt suicide, and 8% 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 2009–2013 (14%–17%).<sup>(4)</sup> The prevalence of having made a suicide plan decreased from 1991–2009 (19%–11%) and then increased from 2009–2013 (11%–14%).<sup>(4)</sup>

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## Tobacco Use

### QUESTION(S):

26. Have you ever tried smoking cigarettes, even one or two puffs? **National**
27. During the past 30 days, on how many days did you smoke cigarettes? **National, CFHS**
28. During the past 12 months, did you ever try to quit smoking cigarettes? **National, CFHS**

### RATIONALE:

These questions measure ever and current smoking patterns, age of initiation, access to cigarettes, smoking on school property, and attempts to quit smoking. 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 2013, 41% had ever tried cigarette smoking, 16% 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 1999–2013 (70%–41%).<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 1997–2013 (36%–16%).<sup>(6)</sup>

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**QUESTION(S):**

29. 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? **CFHS**

**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 2013, 13% 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>(6)</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 1997–2001 (22%–15%) and then decreased more gradually during 2001–2013 (15%–13%).<sup>(6)</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):**

30. During the past 30 days, on how many days did you smoke tobacco out of a water pipe or hookah? **Local**
31. What was the first tobacco product you ever tried? **Local**
32. 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):**

33. Have you ever used an electronic vapor product? **National**
34. During the past 30 days, on how many days did you use an electronic vapor product? **National**

**RATIONALE:**

These questions measure the prevalence of use of electronic vapor 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-cigarette), electronic cigars (e-cigar), electronic hookahs (e-hookah), and vape pens. Electronic cigarettes, or 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> E-cigarettes that are not marketed for therapeutic purposes are currently unregulated by the U.S. Food and Drug Administration, and in most states there are no restrictions on the sale of e-cigarettes to minors.<sup>(2)</sup> Data from the 2011 and 2012 National Youth Tobacco Survey (NYTS) revealed that ever and past 30-day e-cigarette use increased significantly from 4.7% to 10.0% and 1.5% to 2.8%, respectively.<sup>(2)</sup>

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## Alcohol and Other Drug Use

### **QUESTION(S):**

35. During your life, on how many days have you had at least one drink of alcohol? **National**
36. How old were you when you had your first drink of alcohol other than a few sips? **National**
37. During the past 30 days, on how many days did you have at least one drink of alcohol? **National**
38. During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours? **National**

### **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>(2-7)</sup> Persons who begin drinking alcohol before the age of 15 years are five times as likely to report alcohol dependence or abuse than those who first drank alcohol at age 21 or older.<sup>(8)</sup> Initiation of alcohol use before 13 years of age also has been associated with an increased risk for suicide.<sup>(9,10)</sup> Little is currently known about the largest number of drinks consumed by high school students when they drink. However, persons 18-24 years of age consume an average of 9.5 drinks per binge episode<sup>(11)</sup> and binge drinking by high school students is strongly correlated with binge drinking by adults in the same state.<sup>(12)</sup> Motor vehicle crashes are the leading cause of death among youth ages 15-19 years in the United States<sup>(13)</sup> and alcohol use is associated with 22% of all traffic-related fatalities, including 18% of all traffic fatalities among drivers 16 to 20 years of age.<sup>(14)</sup> Limiting youth access to alcohol has reduced underage alcohol use and alcohol-related problems.<sup>(15)</sup> However, youth continue to obtain alcohol from a variety of sources, reflecting the need for improved enforcement of underage drinking laws as well as greater public awareness of restrictions on drinking alcohol by underage youth.

Among high school students nationwide in 2013, 66% had had at least one drink of alcohol on at least 1 day during their life and 35% had had at least one drink of alcohol on at least 1 day during the 30 days before the survey.<sup>(16)</sup> In addition, 21% 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>(16)</sup> The percentage of high school students who had at least one drink of alcohol on at least 1 day during their life did not change significantly during 1991-1999 (82%-81%) and then decreased during 1999-2013 (81%-66%).<sup>(16)</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 study did not change significantly during 1991-1999 (51%-50%) and then decreased during 1999-2013 (50%-35%).<sup>(16)</sup> The percentage of students who had 5 or more drinks of alcohol in a row on at least 1 day increased from 1991-1999 (31%-32%) and then decreased from 1999-2013 (32%-21%).<sup>(16)</sup>

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**QUESTION(S):**

39. During the past 30 days, how often have you been at a party or gathering in a home where parents permitted underage alcohol use? **Local**

**RATIONALE:**

This question is intended to assess local observance of social host laws, monitoring whether students attended gatherings or parties in which parents permitted alcohol for student use. This question assesses the success of the “Parents Who Host, Lose the Most” campaign in many local communities.<sup>(1)</sup>

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**QUESTION(S):**

40. During your life, how many times have you used marijuana? **National**
41. How old were you when you tried marijuana for the first time? **National**
42. During the past 30 days, how many times did you use marijuana? **National, CFHS**
43. During the past 30 days, how did you usually use marijuana? **Local**
45. During your life, how many times have you used synthetic marijuana (also called K2, Spice, fake weed, King Kong, Yucatan Fire, Skunk, or Moon Rocks)? **National**
46. During your life, how many times have you taken a prescription drug (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) without a doctor’s prescription? **National**

## **RATIONALE:**

These questions measure ever and current use of marijuana (including synthetic marijuana) and ever use of cocaine, inhalants, heroin, methamphetamines, ecstasy, steroids, and injected drugs; use of prescription drugs without a doctor's prescription; 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>(2-5)</sup> and suicide.<sup>(6)</sup> All school districts prohibit illegal drug possession or use by students on school property.<sup>(7)</sup>

Among high school students nationwide in 2013, 41% had used marijuana.<sup>(8)</sup> According to data from a recently released survey of 9th to 12th graders, synthetic marijuana (THC) was the third most prevalent substance reported as being used at 12% behind alcohol and marijuana.<sup>(9)</sup> Synthetic THC (also called K2 or Spice) consists of plant material treated with synthetic cannabinoids, psychoactive substances designed to bind to and stimulate the same receptors in the brain as THC. Synthetic THC use has been linked with adverse effects such as increased heart rate and blood pressure, anxiety, agitation, and acute kidney injury. In addition, 9% of high school students had sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high and 2% had used a needle to inject any illegal drug into their body one or more times during their life.<sup>(8)</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>(8)</sup> The percentage of high school students who had used marijuana one or more times during their life increased during 1991–1997 (31%–47%) and then decreased during 1997–2013 (47%–41%).<sup>(8)</sup>

Smoking marijuana as a blunt vs. as a joint increases heart rate and exposure to carbon dioxide.<sup>(11)</sup>

Those who smoke marijuana as a joint are more likely to be dependent on nicotine and cannabis than those who smoke marijuana in other forms.<sup>(12)</sup>

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**QUESTION(S):**

44. During your life, how many times have you used any illicit drug, such as any form of cocaine, heroin, methamphetamines, or ecstasy? **CFHS**

**RATIONALE:**

Among youth, illicit drug use is associated with heavy alcohol and tobacco use,<sup>(1)</sup> violence and delinquency,<sup>(2-5)</sup> and suicide.<sup>(6)</sup> All school districts prohibit illegal drug possession or use by students on school property.<sup>(7)</sup> Among high school students nationwide in 2011, 40% had used marijuana, 7% had used any form of cocaine, 3% had used heroin, 4% had used methamphetamines, and 8% had used ecstasy one or more times during their life, and 4% had taken steroid pills or shots without a doctor’s prescription.<sup>(8)</sup> Due to the relatively low prevalence of illicit drug use among high school students in Cuyahoga County, all illicit drugs have been combined into one question. Individual drug use will be asked about every 4 years.

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## QUESTION(S):

47. During the past 30 days, how many times did you use prescription drugs (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription? **CFHS**

48. What type of prescription drug do you usually take without a doctor's prescription?—Needs item rationale. **Local**

## RATIONALE:

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>(1)</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>(2)</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>(3)</sup>

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

**QUESTION(S):**

- |   |                       |
|---|-----------------------|
| 49. Have you ever had sexual intercourse?   | <b>National</b>       |
| 50. How old were you when you had sexual intercourse for the first time?  | <b>National, CFHS</b> |
| 51. During your life, with how many people have you had sexual intercourse?   | <b>National</b>       |
| 52. During the past 3 months, with how many people did you have sexual intercourse?   | <b>National</b>       |
| 53. Did you drink alcohol or use drugs before you had sexual intercourse the last time?   | <b>National</b>       |
| 54. The last time you had sexual intercourse, did you or your partner use a condom?   | <b>National</b>       |
| 55. 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, CFHS</b> |
| 84. Have you ever been taught about AIDS or HIV infection in school?  | <b>CFHS</b>           |
| 85. Have you ever been tested for HIV, the virus that causes AIDS?  | <b>National, CFHS</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 adults between the ages of 20 and 24 years (2501.5 cases per 100,000 individuals and 520.1 cases per 100,000 individuals, respectively).<sup>(8)</sup> Between 2006 and 2009, the rate of HIV diagnoses in the 40 states with mature confidential name-based HIV infection reporting increased 24% among persons ages 13–19 years and 31% among persons aged 20 to 24 years. By the end of 2008, in the 40 states with confidential name-based HIV infection reporting there were an estimated 7,859 persons ages 13–19 years living with a diagnosis of HIV infection and 3,388 living with a diagnosis of AIDS.<sup>(9)</sup> In 2010, young people aged 13–24 accounted for 26% of all new HIV infections in the United States.<sup>(10)</sup>

Among high school students nationwide in 2013, 47% had ever had sexual intercourse, 15% had had sexual intercourse with four or more persons during their life, and 34% 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 1991–2001 (54%–46%) and then did not change significantly during 2001–2013 (46%–47%).<sup>(11)</sup> The percentage of students who had sexual intercourse with four or more persons during their life decreased during 1991–2003 (19%–14%) and then did not change significantly during 2003–2013 (14%–15%).<sup>(11)</sup> During 1991–2013, 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%– 34%).<sup>(11)</sup> In 2013, among the 34% of students who were currently sexually active, 59% 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– 2013 (63%–59%).<sup>(11)</sup>

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>(12)</sup> Each year, about 50,000 people get infected with HIV in the US. 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>(13,14)</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>(15)</sup> Further, schools have a critical role to play in facilitating delivery of such needed HIV preventive services for adolescents.<sup>(15)</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>(15)</sup>

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**QUESTION(S):**

56. How many times have you been pregnant or gotten someone pregnant?

**CFHS**

**RATIONALE:**

These questions measured 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):**

- |  |                 |
|--|-----------------|
| 57. During your life, with whom have you had sexual contact? | <b>National</b> |
| 58. Which of the following best describes you?               | <b>National</b> |
| 59. Which of the following best describes your feelings?     | <b>Local</b>    |

**RATIONALE:**

These questions measure sexual identity, sexual feelings/attraction 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 indicates 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 is 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):

62. 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**
63. During the past 7 days, how many times did you eat fruit? (Do not count fruit juice.)  
**National, CFHS**
64. During the past 7 days, how many times did you eat green salad?  
**National, CFHS**
65. During the past 7 days, how many times did you eat potatoes? (Do not count French fries, fried potatoes or potato chips.)  
**National**
66. During the past 7 days, how many times did you eat carrots?  
**National, CFHS**
67. During the past 7 days, how many times did you eat other vegetables (Do not count green salad, potatoes, or carrots)?  
**National, CFHS**
68. During the past 7 days, how many times did you drink a can, bottle, or glass of soda or pop, such as Coke, Pepsi, or Sprite? (Do not include diet soda or diet pop.)  
**National, CFHS**
71. During the past 7 days, on how many days did you eat breakfast?  
**National, CFHS**

### RATIONALE:

These questions measure dietary behaviors, including consumption of fruits and vegetables, and soda or pop. 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> In 2013, during the 7 days before the survey, 33% of high school students nationwide had eaten fruit or drunk 100% fruit juice two or more times per day and 16% of students had eaten vegetables three or more times per day.<sup>(11)</sup> The percentage of students who ate fruit or drank 100% fruit juice two or more times per day decreased during 1999–2005 (35%–30%) and then increased during 2005–2013 (30%–33%).<sup>(11)</sup> The percentage of students who ate vegetables three or more times per day did not change significantly during 1999–2007 (14%–13%) and then increased from 2007–2003 (13%–16%).<sup>(11)</sup>

In recent years, sugar-sweetened beverage consumption has significantly increased among children and adolescents.<sup>(12,13)</sup> Among persons ages 2–18 years, soft drinks (i.e. sugar-sweetened beverages) comprised 3% of the total daily calories consumed in 1977–1978 compared to 7% in 1999–2001.<sup>(12)</sup> Sugar-sweetened beverages are the primary source of added sugars in the diet of U.S. children and adolescents and contributes an average of 173 kcal/day (8.5% of daily energy intake).<sup>(13)</sup> Consumption of sugar-sweetened beverages is associated with a less healthy diet,<sup>(14)</sup> decreased bone density,<sup>(15)</sup> and dental decay<sup>(16)</sup>, and appears to be associated with increased risk of being overweight among children<sup>(17,18)</sup> and the development of metabolic syndrome and type 2 diabetes.<sup>(19)</sup> Nationwide in 2013, 27% of high school students had drunk a can, bottle, or glass of soda or pop (not counting diet soda or diet pop) one or more times per day during the 7 days before the survey.<sup>(11)</sup> The percentage of students who drank soda or pop one or more times per day decreased significantly during 2007–2013 (34%–27%).<sup>(11)</sup>

Milk is an important source of many nutrients, including calcium.<sup>(2)</sup> Eating breakfast is associated with weight loss and weight loss maintenance,<sup>(2)</sup> improved nutrient intake,<sup>(2)</sup> and better cognitive function, academic performance, school attendance rates, psychosocial function, and mood.<sup>(21,22)</sup> In 2013, 38% of high school students nationwide ate breakfast on all 7 days before the survey.<sup>(11)</sup>

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**QUESTION(S):**

69. During the past 7 days, how many times did you drink a bottle or glass of plain water? (Count tap, bottled, and unflavored sparkling water.) **Local**

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? **Local**

**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 food from a fast food restaurant, such as McDonalds, Burger King, Pizza Hut, Taco Bell, Kentucky Fried Chicken, or Subway? **CFHS**

**RATIONALE:**

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>(1-3)</sup>

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**QUESTION(S):**

73. During the past 7 days, how many meals (breakfast, lunch, and dinner) did you eat dinner with your family?

**RATIONALE:**

Frequency of family dinner is a developmental asset or protective factor that may curtail high-risk behaviors among youth.<sup>(1)</sup> Number of family meals per week is also inversely associated with tobacco, alcohol, and marijuana use; low grade point average; depressive symptoms; and suicide involvement.<sup>(2)</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?

**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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**QUESTION(S):**

75. During the past 7 days, on how many days did you take multivitamins (such as Flintstones, Centrum, Centrum Kids, or Gummy Vites)? **CFHS**

**RATIONALE:**

This question was included in the survey in response to a statewide CFHS priority to address pre-conception health. Regular use of multi-vitamins has been favorably associated with improved nutritional status.

Adolescents who take multivitamins or other individual vitamin/mineral supplements had a more nutrient dense diet and took in less fats than adolescents who do not take dietary supplements.<sup>(1)</sup>

Children and adolescent vitamin users are less likely to receive food assistance. Vitamin use is associated with a decrease in food insecurity. Physically active children and adolescents are more likely to use vitamins.<sup>(2)</sup>

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## Physical Activity

### QUESTION(S):

76. 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, CFHS**

77. On an average school day, how many hours do you watch TV? **National**

78. 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 iPod, an iPad, or tablet, a smartphone, YouTube, Facebook or other social networking tools and the Internet.) **National, CFHS**

79. During the past 12 months, on how many sports teams did you play? (Include any teams run by your school or community groups.) **National**

### RATIONALE:

These questions measure participation in physical activity, physical education classes, and sports teams, as well as 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 well-being.<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 ages 6–17 participate in at least 60 minutes of physical activity daily.<sup>(2)</sup> In 2013, 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 the report titled *Educating the Student Body: Taking Physical Activity and Physical Education to School*.<sup>(5)</sup> This IOM report also stressed the importance of a comprehensive, multi-component, whole school approach to physical activity in schools. School physical education classes can increase adolescent participation in physical activity<sup>(6–12)</sup> and help high school students develop the knowledge, attitudes, and skills they need to engage in lifelong physical activity.<sup>(4,13,14)</sup> In 2013, 48% of high school students nationwide went to physical education classes on 1 or more days in an average week when they were in school.<sup>(3)</sup>

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>(15–22)</sup> Youth who engage

in less than two hours of TV viewing per day tend to be more active.<sup>(14)</sup> Computer usage and video game playing are associated with physical inactivity among adolescents and young adults.<sup>(23)</sup> Among high school students nationwide in 2013, 41% 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 32% 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 2009–2013 (25%–41%).<sup>(3)</sup> During 1999–2013, a significant linear decrease occurred in the percentage of high school students who watched television 3 or more hours per day (43%–32%).<sup>(3)</sup>

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**QUESTION(S):**

80. 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? **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>

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## Developmental Assets and Protective Factors

### QUESTION(S):

81. On how many of the past 7 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? **Local**

82. How often does one of your parents talk with you about what you are doing in school? **Local**

83. Do you agree or disagree that in your community you feel like you matter to people? **Local**

91. Besides your parents, how many adults would you feel comfortable seeking help from if you had an important issue or question affecting your life? **Local**

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

### QUESTION(S):

86. How do you describe your health in general?

**Local**

88. 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?

**Local**

89. When was the last time you saw a doctor, nurse, therapist, social worker, or counselor for a mental health issue?

**CFHS**

90. When was the last time you saw a dentist for a checkup, exam, teeth cleaning, or other routine dental work (not for an emergency)?

**National, CFHS**

### 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>

Question 90 measures the prevalence of oral health care, and provides data for one of the named Healthy People 2020 leading health indicators. This question aligns with the Leading Health Indicator for Healthy People 2020 (OH-7 “Increase the proportion of children, adolescents, and adults who used the oral health care system in the past 12 months”) and relates to OH-8 “Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year.”<sup>(1)</sup>

Despite improvements in oral health status in the United States, disparities remain in some population groups as classified by sex, income, age, and race/ethnicity.<sup>(2)</sup> Oral diseases and conditions can occur throughout the life span.<sup>(2)</sup> Nearly every American has had the most common oral disease, dental caries.<sup>(2)</sup> Oral health is related to general health. The examination of oral tissues may be used to determine the presence of disease, disease progression, or exposure to risk factors, and as a diagnostic tool.<sup>(2)</sup> The mouth can be a portal of entry for infections that can affect local tissues and may spread to other parts of the body.<sup>(2)</sup> Oral diseases may also be associated with other diseases such as diabetes, heart disease and stroke, and adverse pregnancy outcomes.<sup>(2)</sup>

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## Sleep

### QUESTION(S):

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

**National**

### 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; and engaging in unhealthy weight-control behaviors.<sup>(11-13)</sup>

Most adolescents need at least 9 hours sleep per night, but less than 8% of high school students report getting this amount.<sup>(14)</sup> The proportion getting 8 or more hours (just marginally sufficient) is less than a third, with this number decreasing with grade in school to less than a quarter of high school seniors.<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>(15)</sup> According to 2013 YRBS data, nationwide, 32% of high school students got 8 or more hours of sleep on an average school night.<sup>(16)</sup>

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## Grades

### QUESTION(S):

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

**National**

### 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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### Additional Information

**QUESTION(S):**

93. Who do you live with most of the time? **Local**

98. During the past 12 months, how many times have you changed homes? **Local**

**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.(1, 2) Additionally, adverse childhood experiences such as childhood abuse, neglect, and childhood health problems are strongly associated with frequent residential mobility.(3) Finally, language preference and English language proficiency have previously been associated with health-related behaviors, disease prevalence, and access to health care (4, 5) and may have implications for delivery of culturally and linguistically appropriate programming.

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**QUESTION(S):**

94. Does your family own a car, van or truck? **Local**

95. Do you have your own bedroom for yourself? **Local**

96. During the past 12 months, how many times did you travel away on vacation with your family? **Local**

97. How many computers (PCs, Macs, laptops, or tablets) does your family own? **Local**

**RATIONALE:**

These four 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(S):**

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

**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:**

100. What is your zip code?

**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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