Item Rationale for the 2011 Standard Questionnaire

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Item Rationale for the 2011 Standard Questionnaire

Behaviors that Result in Unintentional Injuries and Violence

QUESTION(S):

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

RATIONALE:

This question measures the frequency of helmet use while riding a bicycle. In 2000-2001, bicycle activities were the third leading type of sports and recreation-related activities in which 15- to 19-year-old males were injured and had to be treated at an emergency department.[1] In 2008, 13% of bicyclists who were killed and 25% of those injured and treated in a hospital emergency department were under age 16. [2] Head injury is the leading cause of death in bicycle crashes[3,4] and use of bicycle helmets is the single most effective way of reducing head injuries and fatalities.[2] Estimates indicate bicycle helmets may prevent approximately 56% of bicycle-related deaths,[5] 65%-88% of bicycle-related brain injuries,[6,7] and 65% of serious facial injuries to the upper and middle regions of the face.[8] In 2009, among the 70% of high school students nationwide who had ridden a bicycle during the 12 months before the survey, 85% had rarely or never worn a bicycle helmet.[9] During 1991–2001, a significant linear decrease occurred in the percentage of students who rarely or never wore a bicycle helmet (96%–85%), and then did not change significantly during 2001–2009 (85%–85%).[9]

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QUESTION(S):

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

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.[(1)] Motor-vehicle related injuries kill more young adults ages 5-19 years than any other single cause in the United States.[(2)] 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%.[(3)] During 2006, a total of 1,537 children from birth to age 15 were killed in passenger vehicle crashes; in approximately 50% of these fatalities, the children were unrestrained: 40% of children 5 to 7 were unrestrained; 52% of children 8 to 12 were unrestrained; and 65% of children 13 to 15 were unrestrained.[(1)] In 2009, 10% of high school students nationwide had rarely or never worn a seat belt when riding in a car driven by someone else.[(4)] During 1991–2009, a significant linear decrease occurred in the percentage of students who rarely or never wore a seat belt (26%–10%).[(4)]

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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?

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

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 2008, 22% 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.[(1)] In 2008, 31% of drivers ages 15- to 20-years old who were killed in crashes had a blood alcohol concentration (BAC) of .01 grams per deciliter (g/dL) or higher; 25% had a BAC of .08 or higher at the time of the crash.[(1)] In 2009, 10% of high school students nationwide had driven a car or other vehicle one or more times when they had been drinking alcohol and 28% of high school students nationwide 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.[(2)] The percentage of students who drove when they had been drinking alcohol did not change significantly during 1991 –1997 (17%–17%) and then decreased during 1997–2009 (17%–10%). During 1991–2009, a significant linear decrease occurred in the percentage of students who rode with a driver who had been drinking alcohol (40%–28%).[(2)]

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2. CDC. Youth Risk Behavior Surveillance – United States, 2009. *MMWR Surveillance Summary* 2010;59(No. SS-5):1-142.

QUESTION(S):

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

13. During the past 30 days, on how many days did you carry a gun?

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

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?

16. 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?

RATIONALE:

These questions measure violence-related behaviors and school-related violent behaviors. Homicide is the second leading cause of death among all youth ages 15-19 years (9.6 per 100,000) and is the leading cause of death among black youth ages 15-19 years (33.8 per 100,000).[(1)] Approximately 84% of homicide victims in the United States in 2004 were killed with a weapon, such as a gun, knife, or club.[(2)] In 2006, 85% of homicide victims 15-19 years old were killed with firearms.[(1)] Firearms intensify violence and increase the likelihood of fatality in a conflict.[(3)] Of all violent deaths that occurred on school property between 1994 and 2006, 65% involved firearms.[(4)] Nearly 100% of school districts have a policy prohibiting weapon possession or use by high school students on school property.[(5)] Among high school students nationwide in 2009, 17% had carried a weapon, 6% had carried a gun, and 6% had carried a weapon on school property on at least 1 day during the 30 days before the survey.[(6)] The percentage of students who carried a weapon decreased during 1991–1999 (26%–17%) and then did not change significantly during 1999–2009 (17%–17%).[(6)] Among high school students nationwide in 2009, 5% 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 8% had been threatened or injured with a weapon on school property 1 or more times during the 12 months before the survey.[(6)] The percentage of students who did not go to school because of safety concerns increased during 1993–2001 (4%–7%) and then decreased during 2001–2009 (7%–5%).[(6)]

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QUESTION(S):

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

18. During the past 12 months, how many times were you in a physical fight in which you were injured and had to be treated by a doctor or nurse?

19. During the past 12 months, how many times were you in a physical fight on school property?

20. During the past 12 months, did your boyfriend or girlfriend ever hit, slap, or physically hurt you on purpose?

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

22. During the past 12 months, have you ever been bullied on school property?

23. During the past 12 months, have you ever been electronically bullied? (Include being bullied through e-mail, chat rooms, instant messaging, Web sites, or texting.)

RATIONALE:

These questions measure the frequency and severity of physical fights, school-related fights, and abusive and bullying behavior. Physical fighting is a marker for other problem behaviors [(1)] and is associated with serious injury-related health outcomes.[(2,3)] Among high school students nationwide in 2009, 31% had been in a physical fight and 11% had been in a physical fight on school property one or more times during the 12 months before the survey.[(4)] The percentage of high school students who were in a physical fight decreased during 1991–2003 (42%–33%) and then did not change significantly during 2003–2009 (33%–31%).[(4)] During 1993–2009, a significant linear decrease occurred in the percentage of students who had been in a physical fight on school property (16%–11%).[(4)]

Intimate partner abuse victimization is associated with participation in other high risk behaviors,[(5)] including suicide ideation and attempts, as well as post traumatic stress disorder and major depressive episodes.[(6,7)] In 2009, 10% of high school students nationwide had been hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the 12 months before the survey.[(4)] Forced sexual intercourse is associated with negative psychosocial and mental health consequences.[(8,9)] In 2009, 7% of high school students nationwide had ever been physically forced to have sexual intercourse when they did not want to.[(4)]

Bullying victimization is associated with depression,[(10)] suicidal ideation,[(10)] increased odds of repeated common health problems,[(11)] school absenteeism,[(12)] psychological distress,[(11)] and feeling unsafe at school.[(12)] Among high school students nationwide in 2009, 20% had been bullied on school property during the 12 months before the survey.[(4)] Electronic bullying victimization has been associated with discipline problems in school, skipping school, weapon carrying [(13)] and social anxiety.[(14)]

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QUESTION(S):

24. During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?

25. During the past 12 months, did you ever seriously consider attempting suicide?

26. During the past 12 months, did you make a plan about how you would attempt suicide?

27. During the past 12 months, how many times did you actually attempt suicide?

28. If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?

RATIONALE:

These questions measure sadness, suicide ideation, attempted suicide, and the seriousness of those attempts. Suicide is the third leading cause of death among youth ages 15-19 years.[1] The suicide rate for persons ages 15-19 was 7.3 per 100,000 in 2006 down from 8.2 per 100,000 in 2003.[1] A prior suicide attempt is one of the most signficant risk factors for a fatal adolescent suicide attempt.[2,3] Among high school students nationwide in 2009, 26% felt so sad or hopeless almost every day for 2 or more weeks in a row that they stopped doing some usual activities.[4] Among high school students nationwide in 2009, 14% had seriously considered attempting suicide, 11% had made a plan about how they would attempt suicide, and 6% had attempted suicide one or more times during the 12 months before the survey.[4] The percentage of students who seriously considered attempting suicide decreased rapidly during 1991–1993 (29%–24%) and then decreased less rapidly during 1993–2009 (24%–14%).[4]

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Tobacco Use

QUESTION(S):

29. Have you ever tried cigarette smoking, even one or two puffs?

30. How old were you when you smoked a whole cigarette for the first time?

31. During the past 30 days, on how many days did you smoke cigarettes?

32. During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?

33. During the past 30 days, how did you usually get your own cigarettes?

34. During the past 30 days, on how many days did you smoke cigarettes on school property?

35. Have you ever smoked cigarettes daily, that is, at least one cigarette every day for 30 days?

36. During the past 12 months, did you ever try to quit smoking cigarettes?

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[(1)] and accounts for approximately 440,000 deaths each year.[(2)] 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.[(1)] 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.[(3- 6)] If current patterns of smoking behavior persist, an estimated 6.4 million U.S. persons who were under the age of 18 in 2000 could die prematurely from smoking-related illnesses.[(7)] In 2006, approximately 64% of schools had adopted policies that 1) prohibited cigarette smoking and smokeless tobacco use among students, faculty and staff, and school visitors in school buildings; outside on school grounds; on school buses or other vehicles used to transport students; and at off-campus, school-sponsored events; and 2) prohibited cigar or pipe smoking by students, faculty and staff, and school visitors.[(8)] Among high school students nationwide in 2009, 46% had ever tried cigarette smoking, 19% had smoked cigarettes on at least 1 day during the 30 days before the survey, and 5% had smoked cigarettes on school property on at least 1 day during the 30 days before the survey.[(9)] 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 1999–2009 (70%–46%).[(7)] 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 1997–2009 (36%–19%).[(9)]

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QUESTION(S):

37. During the past 30 days, on how many days did you use chewing tobacco, snuff, or dip, such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen?

38. During the past 30 days, on how many days did you use chewing tobacco, snuff, or dip on school property?

39. During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?

RATIONALE:

These questions measure smokeless tobacco use, smokeless tobacco use on school property, and cigar use. Smokeless tobacco contains 28 known human carcinogens.[1] Use of smokeless tobacco products increases the risk of developing cancer of the oral cavity.[1] Other oral health problems strongly associated with smokeless tobacco use are leukoplakia (a lesion of the soft tissue that consists of a white patch or plaque that cannot be scraped off) and recession of the gums.[2-4] Smokeless tobacco use also causes an increased risk of heart disease and stroke.[5] Among high school students nationwide in 2009, 9% had used smokeless tobacco (e.g., chewing tobacco, snuff, or dip) on at least 1 day during the 30 days before the survey and 6% had used smokeless tobacco on school property on at least 1 day during the 30 days before the survey.[6] The percentage of students who reported smokeless tobacco use on at least 1 day during the 30 days before the survey decreased during 1995–2003 (11%–7%) and then did not change significantly during 2003–2009 (7%–9%).[6]

Cigar smoking can cause lung cancer, coronary heart disease, and chronic obstructive pulmonary disease.[7,8] The overall risk of oral and pharyngeal cancer is 7-10 times higher among cigar smokers compared to those who never smoked.[9] In 2009, 14% of high school students nationwide had smoked cigars, cigarillos, or little cigars on at least 1 day during the 30 days before the survey.[6] The percentage of students who had smoked cigars, cigarillos, or little cigars on at least 1 day during the 30 days before decreased during 1997–2005 (22%–14%) and then did not change significantly during 2005–2009 (14%–14%).[6]

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Alcohol and Other Drug Use

QUESTION(S):

40. During your life, on how many days have you had at least one drink of alcohol?

41. How old were you when you had your first drink of alcohol other than a few sips?

42. During the past 30 days, on how many days did you have at least one drink of alcohol?

43. 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?

44. During the past 30 days, how did you usually get the alcohol you drank?

45. During the past 30 days, on how many days did you have at least one drink of alcohol on school property?

RATIONALE:

These questions measure ever and current use of alcohol, age of initiation, binge drinking, access to alcohol, and drinking on school property. Alcohol is used by more young people than tobacco or illicit drugs.[1] Heavy alcohol drinking among youth is associated with risky sexual behaviors (including sexual initiation, multiple sex partners, reduced condom use, and pregnancy)[2] and use of cigarettes,[3,4] marijuana, cocaine, and other illegal drugs.[3] Motor vehicle crashes are the leading cause of death among youth ages 15–19 years in the United States[5] and alcohol use is associated with 9% of all motor vehicle crashes that result in injury and approximately one-third of all traffic-related fatalities.[7] 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.[8] Limiting youth access to alcohol has reduced underage alcohol use and alcohol-related problems.[9] 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. Nearly 100% of school districts in the United States explicitly prohibit alcohol use by students on school property.[10] Among high school students nationwide in 2009, 72% had had at least one drink of alcohol on at least 1 day during their life and 42% had had at least one drink of alcohol on at least 1 day during the 30 days before the survey.[11] In addition, 24% 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 and 5% of students had drunk at least one drink of alcohol on school property on at least 1 day during the 30 days before the survey.[11] The percentage of high school students who had had at least one drink of alcohol on at least 1 day during their life decreased during 1991-2009 (82%–72%).[11]

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QUESTION(S):

46. During your life, how many times have you used marijuana?

47. How old were you when you tried marijuana for the first time?

48. During the past 30 days, how many times did you use marijuana?

49. During the past 30 days, how many times did you use marijuana on school property?

50. During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?

51. During the past 30 days, how many times did you use any form of cocaine, including powder, crack, or freebase?

52. During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?

53. During your life, how many times have you used heroin (also called smack, junk, or China White)?

54. During you life, how many times have you used methamphetamines (also called speed, crystal, crank, or ice)?

55. During your life, how many times have you used ecstasy (also called MDMA)?

56. During your life, how many times have you taken steroid pills or shots without a doctor's prescription?

57. 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?

58. During your life, how many times have you used a needle to inject any illegal drug into your body?

59. During the past 12 months, has anyone offered, sold, or given you an illegal drug on school property?

RATIONALE:

These questions measure ever and current use of marijuana and cocaine, and ever use of inhalants, heroin, methamphetamines, ecstasy, steroids, injected drugs, and prescription drug abuse. Among youth, illicit drug use is associated with heavy alcohol and tobacco use,[(1)] violence and delinquency,[(2-5)] and suicide.[(6)] All school districts prohibit illegal drug possession

or use by students on school property.[7] Among high school students nationwide in 2009, 37% had used marijuana, 6% had used any form of cocaine, 3% had taken steroid pills or shots without a doctor's prescription, 8% had used hallucinogenic drugs, 2% had used heroin, 4% had used methamphetamines, and 7% had used ecstasy one or more times during their life.[8] In addition, 12% 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. [8] The percentage of high school students who had used marijuana one or more times during their life increased during 1991–1999 (31%–47%) and then decreased during 1999–2009 (47%–37%).[8]

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

QUESTION(S):

60. Have you ever had sexual intercourse?

61. How old were you when you had sexual intercourse for the first time?

62. During your life, with how many people have you had sexual intercourse?

63. During the past 3 months, with how many people did you have sexual intercourse?

64. Did you drink alcohol or use drugs before you had sexual intercourse the last time?

65. The last time you had sexual intercourse, did you or your partner use a condom?

66. The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy?

84. Have you ever been taught about AIDS or HIV infection in school?

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 received HIV prevention education. Early initiation of sexual intercourse is associated with having a greater number of lifetime sexual partners.[1-6] In addition, adolescents who initiate sexual intercourse early are less likely to use contraception[6-8] and are at higher risk for pregnancy.[9,10] Recent estimates suggest that while representing 25% of the ever sexually active population, persons ages 15-24 years acquire nearly half of all new STDs.[11] Gonorrhea rates are highest among females between the ages of 15 and 19 years (636.8 cases per 100,000 females) and males between the ages of 20 and 24 years (433.6 cases per 100,000 males).[12] In 2007, there were an estimated 6,610 cases of HIV/AIDS among persons ages 15–24 years.[13] Among high school students nationwide in 2009, 46% had ever had sexual intercourse, 14% 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.[14] During 1991–2009, significant linear decreases occurred in the percentage of students who ever had sexual intercourse (54%–46%), who had sexual intercourse with four or more persons during their life (19%–14%), and who had had sexual intercourse with at least one person during the 3 months before the survey (37%–34%).[14] In 2009, among the 34% of students who were currently sexually active, 61% reported that either they or their partner had used a condom during last sexual intercourse.[14] 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 2003–2009 (63%–61%).[14] In 2006, 88% of high schools taught HIV prevention education in a required health education course.[15] Among high school students

nationwide in 2009, 87.0% of students had ever been taught in school about AIDS or HIV infection.[14] The percentage of students who were taught in school about AIDS or HIV infection increased during 1991–1997 (83.3%–91.5%) and then decreased during 1997–2009 (91.5%–87.0%).[14]

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Obesity, Overweight, and Weight Control

QUESTION(S):

6. How tall are you without your shoes on?

7. How much do you weigh without your shoes on?

67. How do you describe your weight?

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,[1] and is recommended for assessing weight status in youth ages 2-20.[2] Although BMI calculated from self-reported height and weight underestimate the prevalence of obesity compared to BMI calculated from measured height and weight,[3] 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[4] have been consistent with trend data from national surveys using measured height and weight.[5] It is critical to continue monitoring height and weight because the prevalence of obesity among adolescents has tripled since 1980.[6] 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.[7] Further, obese adolescents are more likely to become obese adults.[8,9] Nationwide in 2009, based on national YRBS data, 12% of high school students were obese and 16% were overweight.[10] During 1999–2009, significant increases occurred in the percentage of students who were obese (11%–12%) and who were overweight (14%–16%).[10]

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QUESTION(S):

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

69. During the past 30 days, did you go without eating for 24 hours or more (also called fasting) to lose weight or to keep from gaining weight?

70. During the past 30 days, did you take any diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight? (Do not include meal replacement products such as Slim Fast.)

71. During the past 30 days, did you vomit or take laxatives to lose weight or to keep from gaining weight?

RATIONALE:

Current recommendations promote healthy eating and physical activity as effective weight control behaviors.[1,2] Unhealthy weight control behaviors include fasting, taking diet pills or

laxatives, or inducing vomiting. Engaging in unhealthy weight control behaviors may result in physical and psychological health problems such as obesity, eating disorders such as anorexia and bulimia,[3] and stunted growth.[4] Disordered eating behaviors are correlated with inadequate nutrient intake,[5] low self-esteem, high levels of depression, suicidal ideation, high levels of stress, and alcohol and drug use.[6] Nationwide in 2009, 44% of high school students were trying to lose weight.[7] In 2009, 11% of high school students did not eat for 24 or more hours to lose weight or to keep from gaining weight, 5% of high school students had taken diet pills, powders, or liquids without a doctor's advice, and 4% had vomited or taken laxatives to lose weight or to keep from gaining weight during the 30 days before the survey.[7] The percentage of students who did not eat for 24 or more hours to lose weight or to keep from gaining weight did not change significantly during 1999–2001 (13%–13%) and then decreased during 2001–2009 (13%–11%).[7] The percentage of students who took diet pills, powders, or liquids to lose weight or to keep from gaining weight increased during 1999–2001 (8%–9%) and then decreased during 2001–2009 (9%–5%).[7] The percentage of students who vomited or took laxatives to lose weight or to keep from gaining weight did not change significantly during 1995–2003 (5%–6%) and then decreased during 2003–2009 (6%–4%).[7]

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Dietary Behaviors

QUESTION(S):

72. 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.)

73. During the past 7 days, how many times did you eat fruit? (Do not count fruit juice.)

74. During the past 7 days, how many times did you eat green salad?

75. During the past 7 days, how many times did you eat potatoes? (Do not count french fries, fried potatoes, or potato chips.)

76. During the past 7 days, how many times did you eat carrots?

77. During the past 7 days, how many times did you eat other vegetables? (Do not count green salad, potatoes, or carrots.)

78. During the past 7 days, how many times per day did you usually drink a can, bottle, or glass of soda or pop, such as Coke, Pepsi, or Sprite? (Do not count diet soda or diet pop.)

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 CDC's Behavioral Risk Factor Survey 2009 questionnaire.[1] Fruits and vegetables are good sources of complex carbohydrates, vitamins, minerals, and other substances that are important for good health. 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,[2-4] cardiovascular disease,[5] and stroke.[6] Although data are limited, an increased intake of fruits and vegetables appears to be associated with a decreased risk of being overweight.[7-9] In 2009, 22% of high school students nationwide had eaten fruits and vegetables five or more times per day during the 7 days before the survey.[10] The percentage of students who ate fruits and vegetables five or more times per day decreased during 1999–2005 (24%–20%) and then did not change significantly during 2005–2009 (20%–22%).[10] In recent years, soft drink consumption has significantly increased among children and adolescents. Among persons ages 2-18 years, soft drinks comprised 3% of the total daily calories consumed in 1977–1978 compared to 7% in 1999–2001.[11] In 1999–2004, US youth ages 2-19 years, consumed an average of 224 kcal per capita per day from sugar sweetened beverages (11% of their daily energy intake).[12] Consumption of sugar sweetened beverages, including soft drinks, appears to be associated with increased risk of being overweight among children[13,14] and is associated with a less healthy diet,[15] decreased bone density,[16] and dental decay.[17] Nationwide in 2009, 29% of high school students had drunk a can, bottle, or glass of soda or pop (not counting diet soda or diet pop) at least one time per day during the 7 days before the survey.[10]

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Physical Activity

QUESTION(S):

79. 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.)

80. On an average school day, how many hours do you watch TV?

81. 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? (Include activities such as Xbox, PlayStation, Nintendo DS, iPod touch, Facebook, and the Internet.)

82. In an average week when you are in school, on how many days do you go to physical education (PE) classes?

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

RATIONALE:

These questions measure participation in physical activity, physical education classes, and sports teams and 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.[1,2] Over time, regular physical activity decreases the risk of high blood pressure, heart disease, diabetes, obesity, some types of cancer, and premature death.[1] 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.[3] In 2009, 18% 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 (i.e., physically active at least 60 minutes on all 7 days).[4] School physical education classes can increase adolescent participation in physical activity[5-8] and help high school students develop the knowledge, attitudes, and skills they need to engage in lifelong physical activity.[5,9] In 2009, 56% of high school students nationwide went to physical education classes on 1 or more days in an average week when they were in school.[4] Watching TV and using a computer are considered sedentary behaviors. Among youth, time spent watching TV, in particular, is associated with childhood and adult obesity[10-14] and youth who engage in less than two hours of TV viewing per day tend to be more active.[13] Computer usage and video game playing are associated with physical inactivity among adolescents[11] and young adults.[15] Among high school students nationwide in 2009, 25% 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 33% watched television 3 or more hours per day on an average school day.[4] During 2003–2009, a significant linear increase occurred in the percentage of students who used computers 3 or more hours per

day (22%–25%).[4] During 1999–2009, a significant linear decrease occurred in the percentage of high school students who watched television 3 or more hours per day (43%–33%).[4]

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Asthma

QUESTION(S):

85. Has a doctor or nurse ever told you that you have asthma?

86. Do you still have asthma?

RATIONALE:

Approximately 9.6 million (13%) U.S. children <18 years have been diagnosed with asthma at some time in their lives, and 6.7 million (9%) currently have asthma.[(1)] In 2004, children made 7 million visits to doctors' offices and hospital outpatient departments, 754,000 visits to hospital emergency departments, and had 198,000 hospitalizations due to asthma.[(2)] In 2003, an estimated 12.8 million school days were lost due to asthma among school-aged children.[(2)] Among high school students nationwide in 2009, 22% had ever been told by a doctor or nurse that they ever had asthma and 11% still had asthma.[(3)] The percentage of students who ever had asthma decreased during 2003–2005 (19%–17%) and then increased during 2005–2009 (17%–22%).[(3)]

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