

References for the 2003 Michigan Youth Risk Behavior Survey Fact Sheets

Violence and Unintentional Injury

Approximately nine out of ten homicide victims in the United States are killed with a weapon of some type, such as a gun, knife, or club.¹² Homicide is the second leading cause of death among all youth aged 15 to 19 (10.6 per 100,000) and is the leading cause of death among black youth aged 15 to 19 (37.2 per 100,000).¹³ Homicide rates increase substantially from 1.3 per 100,000 in youth aged 10-14 years to 10.6 per 100,000 in youth aged 15 to 19 years.¹³ Firearms markedly elevate the severity of the health consequences of violent behavior.¹⁴ In 1998, 82% of homicide victims 15 to 19 years old were killed with firearms.¹² In 2001, 6% of high school students reported carrying a gun.⁷ Nearly 100% of school districts have a policy prohibiting weapon possession or use by high school students.¹⁶ A significant decrease in weapon carrying (e.g. a gun, knife, or club) among high school students on school property from 1993 to 2001 occurred. In 2001, 7% of high school students felt unsafe at school or traveling to or from school.⁷ In 1999, about 1.6 million thefts of student property occurred at school.¹⁵

Suicide is the third leading cause of death among youth aged 15 to 19. The suicide rate for persons aged 15 to 19 was 8.2 per 100,000 in 1999, down from a high of 11.0 per 100,000 in 1994.^{9,13} In 2001, 15% of high school students had made a specific plan to attempt suicide and 9% had attempted suicide one or more times in the past year. From 1991 to 2001, the percentage of high school students who seriously considered suicide decreased from 29% to 19%.⁷

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Related National Health Objectives for the Year 2010

- 15-38 Reduce physical fighting among high school students to 32%.
- 15-39 Reduce weapon carrying by high school students on school property to 6%.
- 18-02 Reduce the rate of suicide attempts by high school students to a 12-month average of 1%.

Tobacco

Tobacco use is considered the chief preventable cause of death in the United States with approximately one fifth of all deaths attributable to tobacco use.¹⁹ Cigarette smoking is responsible for heart disease; cancers of the lung, larynx, mouth, esophagus, and bladder; stroke; and chronic obstructive pulmonary disease.¹⁹ In addition, cigarette smokers are more likely to drink alcohol and use marijuana and cocaine as compared to non-smokers.²⁰ If current patterns of smoking behavior persist, an estimated five million United States people who were under the age of 18 in 1995 could die prematurely from smoking-related illnesses.²¹ In 2001, despite laws prohibiting the sale of tobacco to minors in all states, 19% of underage high school students who were current smokers reported that they usually bought cigarettes in a store or gas station.⁷ Of those, 67% were not asked to show proof of age when buying cigarettes.⁷ Approximately 46% of school districts in the United States prohibit tobacco use in buildings, on all school property, in school vehicles, and during school events on or off campus.²² In 2001, 10% of high school students reported smoking cigarettes in the last month on school property. The percentage of high school students who ever smoked cigarettes was steady from 1991-1999 and then decreased from 1999-2001.

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19. United States Department of Health and Human Services. Preventing Tobacco Use Among Young People: A Report of the Surgeon General. Washington, DC: United States Government Printing Office, 1994.
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Related National Health Objectives for the Year 2010

- 27-02a Reduce use of tobacco products in the past month by high school students to 21%.
- 27-02b Reduce use of cigarettes in the past month by high school students to 16%.
- 27-07 Increase tobacco use cessation attempts by adolescent smokers to 84%.
- 27-02c Reduce use of spit tobacco in the past month by high school students to 9%.
- 27-02d Reduce use of cigars in the past month by high school students to 22%.

Alcohol and Other Drugs

Approximately 30% of all motor vehicle crashes that result in injury involve alcohol,¹⁰ and motor vehicle crashes are the leading cause of death among youth aged 15 to 19 in the United States.⁹ Heavy drinking among youth also has been linked to increased numbers of sexual partners, use of marijuana, and poor academic performance.²⁶ In 2001, 78% of high school students had one or more drinks of alcohol in their lifetime, 47% had one or more drinks of alcohol in the past 30 days, and 30% had five or more drinks of alcohol on one or more occasions during the past 30 days.⁷

In addition to morbidity and mortality due to injury, drug abuse is related to suicide, early unwanted pregnancy, school failure, delinquency, and transmissions of sexually transmitted diseases (STD), including human immunodeficiency virus (HIV) infection.²⁷ Despite improvements in recent years, drug use is greater among youth in the United States than has been documented in any other industrialized nation in the world.²⁸

7. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance -United States, 2001. Morbidity and Mortality Weekly Report 51:SS-4, 2002.
9. Hoyert DL, Arias E, Smith BL, Murphy SL, Kochanek KD. Deaths: Final Data for 1999. National Vital Statistics Reports 49: 1-113, 2001.
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Sexual Behavior

Age at first intercourse and number of sexual partners is associated with increased risk for unwanted pregnancy and other sexually transmitted diseases, including HIV infection.²⁹ Latex condoms, when used consistently and correctly, are highly effective in preventing transmission of HIV and can reduce the risk of other sexually transmitted diseases (STDs).^{29a} Gonorrhea rates are highest among females between the ages of 15 and 19 (715.8 cases per 100,000) and males between the ages of 20 and 24 (589.7 per 100,000).³⁰ Between 1990 and 1995, AIDS incidence among people aged 13 to 25 years rose nearly 20%. In 2000, 1,6898 young people were reported with AIDS, bringing the cumulative total to 31,293 cases of AIDS in this age group.³¹ In 2000, 821,810 females aged 15-19 years old became pregnant.^{32a} In 2000, among females aged 15-19, the birth rate was 48.5 per 100,000 and nearly 469,000 gave birth.³³ Sixty-six percent of all births among teenagers are the results of unintended pregnancy.³⁴ Among females aged 15-19 years, pregnancy rates decreased 19% from 116.5 per 1,000 in 1991 to 94.3 per 1,000 in 1997,³⁵ and birth rates decreased 26% from 62.1 per 1,000 in 1991 to 45.9 per 1,000 in 2001.³⁶ The percentage of high school students who ever had sexual intercourse decreased from 54% in 1991 to 46% in 2001, while condom use among currently sexually active students increased from 46% in 1991 to 58% in 1999 and then leveled off in 2001 (58%).⁷ In 2001, 18% of currently sexually active high school students used birth control pills at last sexual intercourse. In 2000, 86% of high schools required HIV prevention education.¹⁶

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Related National Health Objectives for the Year 2010

- 25-11 Increase the proportion of high school students who abstain from sexual intercourse or use condoms if currently sexually active to 95%.

Weight and Nutrition

Overweight and obesity are increasing in both genders and among all population groups. In 1999, an estimated 61% of United States adults and 14% of adolescents aged 12-19 years were overweight. In 1999, there were nearly twice as many overweight children and almost three times as many overweight adolescents as there were in 1980.⁴⁰ Approximately 300,000 deaths a year in the United States are currently associated with overweight and obesity. Left unabated, overweight and obesity may soon cause as much preventable disease and death as cigarette smoking.⁴¹ Overweight or obesity acquired during childhood or adolescence may persist into adulthood and increase the risk later in life for coronary heart disease, gallbladder disease, some types of cancer, and osteoarthritis of the weight-bearing joints.⁴² In adolescence, obesity is associated with hyperlipidemia, hypertension, abnormal glucose tolerance, and adverse psychological and social consequences.⁴³ Studies have shown high rates of body dissatisfaction and dieting among adolescent females, with many engaging in unhealthy weight control behaviors, such as fasting and self-induced vomiting which can lead to abnormal physical and psychological development.⁴⁴⁻⁴⁸

Fruits and vegetables are good sources of complex carbohydrates, vitamins, minerals, and other substances that are important for good health. Dietary patterns with higher intakes of fruits and vegetables are associated with a variety of health benefits, including a decreased risk for some types of cancer.^{50-53, 7} In 2001, only 23% of male high school students and 20% of female high school students met the minimum daily goal of at least five servings per day of vegetables and fruits.⁷ Milk is by far the largest single source of calcium for adolescents.⁵⁴ Only about half of male high school students and more than 80% of female high school students do not meet dietary recommendations for calcium intake.⁵⁵ Calcium is essential for the formation and maintenance of bones and teeth. Low calcium intake during the first two to three decades of life is an important risk factor in the development of osteoporosis.^{56, 57}

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Related National Health Objectives for the Year 2010

- 19-5 Increase to 78% the proportion of persons aged 2 years and older who consume at least two daily servings of fruit.
- 19-6 Increase to 50% the proportion of persons aged 2 years and older who consume at least three daily servings of vegetables, with at least one-third being dark green or orange vegetables.
- 19-7 Increase to 50% the proportion of persons aged 2 years and older who consume at least six daily servings of grain products, with at least three being whole grains.
- 19-8 Increase to 75% the proportion of persons aged 2 years and older who consume less than 10% of calories from saturated fat.
- 19-9 Increase to 75% the proportion of persons aged 2 years and older who consume no more than 30% of calories from total fat
- 19-10 Increase to 65% the proportion of persons aged 2 years and older who consume 2,400 mg or less of sodium daily.
- 19-11 Increase to 75% the proportion of persons aged 2 years and older who meet dietary recommendations for calcium.

Physical Activity

Participating in regular physical activity helps build and maintain healthy bones and muscles, control weight, build lean muscle, and reduce fat; reduces feelings of depression and anxiety; and promotes psychological well-being.⁵⁸ Over time, regular physical activity decreases the risk of dying prematurely, dying of heart disease, and developing diabetes, colon cancer, and high blood pressure.⁵⁸ Decreases in vigorous physical activity occur during grades 9-12, particularly for girls; by 11th grade, half of female high school students do not participate regularly in sufficient levels of vigorous physical activity.⁷ School physical education classes can increase adolescent participation in moderate to vigorous physical activity^{59, 60} and help adolescents develop the knowledge, attitudes, and skills they need to engage in lifelong physical activity.⁶¹ The percentage of high school students enrolled in daily physical education class decreased from 1991-1995 and increased from 1995-2001, but still remained far below the 1991 level.⁷ Television viewing is the principal sedentary leisure time behavior in the United States. Television viewing in young people is related to obesity.^{62, 63}

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Related National Health Objectives for the Year 2010

- 22-06 Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes on 5 or more of the previous 7 days to 35%.
- 22-07 Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion to 85%.
- 22-09 Increase the proportion of adolescents who participate in daily physical education to 50%.
- 22-10 Increase the proportion of adolescents who spend at least 50% of school physical education class time being physically active to 50%.
- 22-11 Increase the proportion of children and adolescents who view television 2 or fewer hours on a school day to 75%.