THE HEALTH OF OHIO’S ADOLESCENTS

21 CRITICAL INDICATORS

The Ohio Department of Health
Acknowledgements

The Health of Ohio’s Adolescents: 21 Critical Indicators is a compilation of health data prepared by the Ohio Department of Health, Division of Family and Community Health Services. We hope this report is a useful tool that can guide Ohio’s health professionals in developing meaningful programs that meet the health needs of our youth.

This report was prepared by:

Angela M.H. Smith, Adolescent Health Coordinator
Bureau of Community Health Services and Systems Development

John E. Bonza, Epidemiology Investigator 3
Bureau of Health Services Information and Operational Support

Shalin Desai, Epidemiology Investigator 3
Bureau of Health Services Information and Operational Support

Connie Geidenberger, Epidemiology Investigator Project Manager
Bureau of Health Services Information and Operational Support

Carrie A. Hornbeck, Epidemiology Investigator 3
Bureau of Health Services Information and Operational Support

Ike Mgbatogu, Researcher 3
Bureau of Health Services Information and Operational Support
# Table of Contents

## Introduction
- Background ..................................................................................................................................1  
- Design of the Report ................................................................................................................3  
- 21 Critical Indicators ...........................................................................................................4-7

## 21 Critical Indicators
- Objective 06-02/Objective 18-07 (developmental) .................................................................8-9  
- Objective 09-07 ....................................................................................................................10-11  
- Objective 13-05 ....................................................................................................................12-13  
- Objective 15-15a ..................................................................................................................14-15  
- Objective 15-19 ....................................................................................................................16-17  
- Objective 15-32 ....................................................................................................................18-19  
- Objective 15-38 ....................................................................................................................20-21  
- Objective 15-39 ....................................................................................................................22-23  
- Objective 16-03 ....................................................................................................................24-25  
- Objective 18-01 ....................................................................................................................26-27  
- Objective 18-02 ....................................................................................................................28-29  
- Objective 19-03b ...................................................................................................................30-31  
- Objective 22-07 ....................................................................................................................32-33  
- Objective 25-01 ....................................................................................................................34-35  
- Objective 25-11 ....................................................................................................................36-37  
- Objective 26-01a ....................................................................................................................38-39  
- Objective 26-06 ....................................................................................................................40-41  
- Objective 26-10b ...................................................................................................................42-43  
- Objective 26-11d ...................................................................................................................44-45  
- Objective 27-02a ...................................................................................................................46-47

## References ................................................................................................................................48-58

## Definitions .................................................................................................................................59-62
**Introduction**

Adolescence is a normal period of accelerated growth and change that bridges the complex transition from childhood to adulthood. This period is often challenging as adolescents experience hormonal changes, physical maturation and frequently, opportunities to engage in risky behaviors. Because of the rapid physical, cognitive and emotional developments that take place during this age period, adolescence is also a time when many health problems may first emerge. Adolescents may also experience developmental or situational vulnerabilities, health concerns and barriers to accessing health care that are unique to their age group.\(^1\)

As their autonomy increases, adolescents experience opportunities to assume increasing responsibility for their health behaviors including exposure to health risks such as tobacco, alcohol, sexually transmitted diseases (STDs), overeating and under-exercising. Adoption of healthy behaviors by adolescents helps prevent the development of many serious chronic diseases of later adulthood including lung and heart disease, cancer and other chronic diseases.\(^2\) As adolescents represent the next generation of Ohio adults, making concerted investments in their health becomes imperative today.

**Background**

Ohio is the seventh-most populous state in the union with a population of 11,478,006, according to the 2006 census population estimates.\(^3\) Of that total, approximately 1,602,953 are adolescents between the ages of 10 and 19 years.\(^4\) The State of Ohio comprises eight major urban cities surrounded by suburban and rural counties. Out of 88 counties, 29 are classified as rural Appalachian.

According to the 2006 Census Population Estimates, adolescents aged 10-19 years are 14.0 percent of the total Ohio population.\(^5\) Ohio’s profile mirrors that of the national population.\(^5\) Adolescents aren’t spared from the influences of health inequities of the whole population. Differences in racial and ethnic backgrounds contribute to the complexities of understanding the health behaviors of the adolescent population. Adolescents of different races and ethnicities often show large differences in many areas of well-being including health, mortality, school performance and access to family and community resources.\(^6\)

The challenge for public health is to implement culturally relevant and evidence-based prevention and education programs that lead to improved health behaviors in youth. Ohio has placed a high priority on the health and well-being of all children through the development and implementation of the Ohio Family and Children First (OFCF) Initiative. This initiative is a multifaceted, public-private approach to reform Ohio’s education, family services and social service delivery systems at state and local levels. Outcome indicators include: Children and Youth Succeed in School; Youth Choose Healthy Behaviors; and Youth Successfully Transition into Adulthood.\(^7\)

This report is an update of *The Health of Ohio’s Adolescents: 21 Critical Indicators* from 2003 and is based on the Healthy People 2010 Objectives for the Nation which has two overarching goals: (1) to increase quality and years of life and (2) to eliminate health disparities. From the 467 national objectives, 21 critical health objectives were chosen that represent the most serious health problems among young people aged 10 to 24 years.\(^2\) These 21 critical health objectives for adolescents have been identified as part of a national initiative to improve the health of all adolescents.
This report details the 21 critical objectives of the health status of Ohio’s adolescent population and is designed to assist decision makers (in roles such as Ohio’s Family and Children's First councils, youth advocates, legislators, schools and program developers) who are interested in developing policies and programs to benefit the health and welfare of Ohio’s adolescent population. For each of the 21 critical objectives, available data are presented to articulate how Ohio’s adolescent population compares to the nation’s adolescent population and the Healthy People 2010 measures.

Ohio’s adolescent population met and/or exceeded four of the Healthy People 2010 targets established in the 21 critical objectives.

### Healthy People 2010 Goals Achieved

- **(09-07) Reduce pregnancies among adolescent females**
  - HP 2010 Goal: 43 per 1,000 adolescents aged 15-17
  - Ohio: 39.6 per 1,000

- **(15-38) Reduce physical fighting among adolescents**
  - HP 2010 Goal: 32%
  - Ohio: 30.4%

- **(15-39) Reduce weapon carrying by adolescents on school property**
  - HP 2010 Goal: 4.9% in the past 30 days
  - Ohio: 4.1% in the past 30 days

- **(26-06) Reduce the proportion of adolescents who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol**
  - HP 2010 Goal: 30% in the past 30 days
  - Ohio: 22.8% in the past 30 days
Design of the Report

In the next section, the 21 Critical Indicators have been organized into the seven major categories: 1) unintentional injury; 2) violence; 3) substance abuse; 4) reproductive health; 5) mental health; 6) chronic disease prevention and health promotion; and 7) overall mortality. Each category contains general information about that subject and the indicators included under that heading.

The remainder of the report will list the 21 Critical Indicators in numerical order and include for each indicator a definition of the Healthy People 2010 Objective, a data source for the charts and graphs, public health importance, risk factors, some prevention efforts and the key findings in Ohio.

While Healthy People 2010 has determined these objectives are important to the health and well-being of adolescents, other programs and initiatives also use some of these same objectives to determine what’s important to their specific focus areas. Some of these include: The Leading Health Indicators, which reflect the major health concerns of the total population in the United States at the beginning of the 21st century. The leading health indicators were selected from the Healthy People 2010 objectives on the basis of their ability to motivate action, the availability of data to measure progress and their importance as public health issues; The Maternal and Child Health Block Grant, which reflects those objectives that are priorities for the Maternal and Child Health Bureau within the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services; The Ohio Family and Children First, which is a collaborative effort of Ohio’s education, health and social service systems, working together to ensure all children are safe, healthy and ready to learn. These objectives relate to OFCF’s outcome indicators for measuring child well-being.

Note, during the midcourse review of the Healthy People 2010: 21 Critical Health Objectives for Adolescents and Young Adults, some of the objectives were updated so there may be differences between the baseline numbers, target numbers or the text of the objective from the 2003 report and this updated 2008 report. The objectives that changed were: 9-07, 15-15, 15-32, 16-03, 18-01, 18-07, 25-11, 26-01a, 26-10b and 26-11d.
21 Critical Indicators

Unintentional Injury
Nationally in 2005, unintentional injury was the leading cause of death for adolescents aged 15-19 and accounted for 48.3 percent of all deaths for that age group.\(^8\)
Motor vehicle crashes were the leading cause of injury mortality among 15- to 19-year-olds, and accounted for 73 percent of unintentional injuries among teenagers.\(^8\)

Per mile driven, teen drivers ages 16 to 19 are four times more likely than older drivers to crash.\(^9\) Several factors known to contribute to the risk of motor vehicle fatalities include: following too closely, speeding, violating traffic signs and signals, the presence of other teenage passengers, alcohol and failure to use a seat belt.\(^10\)

- (15-15) Reduce deaths caused by motor vehicle crashes
- (15-19) Increase use of safety belts
- (26-01) Reduce deaths and injuries caused by alcohol- and drug-related motor vehicle crashes
- (26-06) Reduce the proportion of adolescents who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol

Violence
Nationally, homicide was the second-leading cause of death among teens ages 15-19, accounting for 15.1 percent of all deaths in 2005.\(^8\) Firearms were the cause of death in more than 80 percent of teen homicides in 2005.\(^8\) The presence of a weapon, such as a gun, knife or club, increases the chances that violent behavior will have serious health consequences. The presence of weapons at school can create an atmosphere that makes both teaching and learning more difficult.\(^11\)

Physical fighting can also lead to serious injury and even death. Youth attending schools where fighting is common may be unable to maintain the focus necessary for academic success.\(^12\)

- (15-32) Reduce homicides: 10-14 years of age, 15-19 years of age
- (15-38) Reduce physical fighting among adolescents
- (15-39) Reduce weapon carrying by adolescents on school property
**Substance Abuse**

Drug use by adolescents can have immediate as well as long-term health and social consequences. Marijuana is the most commonly used illicit drug among high school students\(^1\) and can cause memory problems, loss of coordination, anxiety attacks, increased heart rate, respiratory problems, a weakened immune system and cognitive deficits.\(^{13}\) The use of marijuana by adolescents and young adults remains well below levels seen in the 1970s and 1980s, but it has increased from the lows reached in the early 1990s\(^ {13}\) and is much higher than the 2010 target levels.

Alcohol use is associated with motor vehicle crashes, injuries, deaths, problems in school with fighting, crime and other serious consequences. Heavy drinking or binge drinking increases the likelihood of negative outcomes.\(^1\) Early initiation of alcohol use among adolescents has been associated with increased risk for alcohol-related problems later in life.\(^ {14}\)

- (26-10) Reduce past-month use of illicit substances
- (26-11) Reduce the proportion of persons engaging in binge drinking of alcoholic beverages

**Reproductive Health**

Pregnancy and sexually transmitted diseases (STDs) can result from unprotected sexual behaviors. Condoms, if used correctly and consistently, can help prevent both unintended pregnancy and STDs.\(^ {15}\) Abstinence is the only method of complete protection.

STDs are the most commonly reported infectious diseases among sexually active adolescents. This is attributed to: increased likelihood of having multiple sexual partners, more short-term relationships, engaging in unprotected intercourse and having partners who are themselves at high risk for STDs.\(^1\)

- (09-07) Reduce pregnancies among adolescent females
- (13-05) Reduce the number of cases of HIV infection among adolescents and adults
- (25-01) Reduce the proportion of adolescents and young adults with *Chlamydia trachomatis* infections
- (25-11) Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if currently sexually active
Mental Health

Suicidal behavior has been related to mental health problems including depression and adjustment or stress reactions. Nationwide, about one in six students in grades nine-12, has seriously considered attempting suicide. Some of the factors influencing suicidal thoughts may include a family history of suicide, stressful life events, physical illness, co-occurring substance or alcohol abuse and mental disorders, poor communication with parents and depression. Females are twice as likely to attempt suicide, but males are more likely to actually commit suicide.

- (06-02) Reduce the proportion of children and adolescents with disabilities who are reported to be sad, unhappy or depressed
- (18-01) Reduce the suicide rate
- (18-02) Reduce the rate of suicide attempts by adolescents
- (18-07) Increase the proportion of children with mental health problems who receive treatment

Chronic Disease Prevention and Health Promotion

While the majority of adolescents report good or excellent health, some adolescents face a greater array of health challenges. Poor health is correlated with lower income, less education, racial or ethnic minority status and other social variables.

Children and adolescents who are overweight are at an increased risk of developing type 2 diabetes, cardiovascular problems, orthopedic abnormalities, gout, arthritis and skin problems. Also, being overweight is likely to negatively affect children’s social and psychological development.

Overweight adolescents are more likely to become overweight or obese as adults, and overweight adults experience serious, long-term morbidity. Physical activity provides important health and emotional benefits for teens. It lowers blood pressure, aids in weight management, improves cardiorespiratory function, increases self-esteem and reduces anxiety and stress.

Cigarette smoking, the primary preventable cause of death in the United States, is an addictive behavior usually established in adolescence. Youth who smoke are more likely to drink alcohol, use illicit drugs and engage in other risky behaviors. They are also less likely to be physically fit and more likely to suffer from respiratory problems.

- (19-03) Reduce the proportion of children and adolescents who are overweight or obese
- (22-07) Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness three or more days per week for 20 or more minutes per occasion
- (27-02) Reduce tobacco use by adolescents
Overall Mortality

The majority of deaths among adolescents and young adults are preventable. Among 10- to 14-year-olds, the top causes of death are motor vehicle accidents (20 percent), cancer (14 percent), suicide (7 percent) and other unintentional injuries (15 percent) and account for 56 percent of preventable deaths in that age group. Among 15- to 19-year-olds, the top causes of death are motor vehicle accidents (35 percent), homicide (15 percent), suicide (12 percent) and other unintentional injuries (13 percent) and account for 75 percent of preventable deaths in that age group. Among 20- to 24-year-olds, motor vehicle accidents (28 percent), homicide (17 percent), suicide (13 percent) and other unintentional injuries (16 percent) account for 74 percent of preventable deaths.

- (16-03) Reduce deaths of adolescents and young adults who are 10 to 14 years, 15 to 19 years and 20 to 24 years
21 Critical Indicators
Healthy People 2010 Objective 06-02:
Reduce the proportion of children and adolescents with disabilities who are reported to be sad, unhappy or depressed.

Healthy People 2010 Objective 18-07 (developmental):
Increase the proportion of children with mental health problems who receive treatment.

Data Source:
No data sources are available to measure the Healthy People 2010 goals. Data presented are from Ohio Youth Risk Behavior Survey (YRBS).

Public Health Importance:
Youth with better mental health are physically healthier, demonstrate more socially positive behaviors and engage in fewer risky behaviors. Conversely, youth with mental health problems such as depression are more likely to engage in health risk behaviors.\(^3\)

Risk Factors:
Some risk factors include a family or personal history of depression; a long-term illness or disability; experiencing a trauma or loss including abuse, divorce of parents, death of a loved one or a break-up; or difficulties at home, school or with friends.\(^4\)

Prevention:
For teens who have suffered from depression or who have risk factors for depression, some things you can do to prevent an episode of depression include avoiding anything you know may trigger depression; developing a good social support system with family, teachers and/or friends; consider keeping a journal or finding positive ways to deal with your emotions; getting exercise which helps manage stress and fight depression; getting help if you suffer from any other disorders.\(^4\)

Key Findings:
- The proportion of Ohio and U.S. students who reported feeling depressed within the past 12 months remained relatively stable from 1999 to 2007.
- Compared with the United States, Ohio was similar in the proportion of students who reported feeling depressed within the past year.
- In Ohio, female students were more likely than their male counterparts to report feeling depressed within the past year.
- In Ohio, in 2005 and 2007, nearly one-fifth of students reported seeing a doctor, nurse, therapist, social worker or counselor for a mental health problem within the past year.
- In Ohio, a higher proportion of black students reported seeing a doctor, nurse, therapist, social worker or counselor for a mental health problem within the past year than white or Hispanic students.
Percent of Students who Reported seeing a Mental Health Professional within the Past Year, by Race and Ethnicity, Ohio, 2005 - 2007

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Black, non-Hispanic</th>
<th>White, non-Hispanic</th>
<th>Hispanic*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>18.6%</td>
<td>30.7%</td>
<td>16.8%</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>19.4%</td>
<td>27.3%</td>
<td>17.3%</td>
<td>23.8%</td>
</tr>
</tbody>
</table>

*Data for Hispanic students is not available for 2005

Percent of Students who Reported Depression within the Past Year, by Sex, Ohio, 1999 - 2007

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>22.9%</td>
<td>23.9%</td>
<td>20.5%</td>
<td>20%</td>
</tr>
<tr>
<td>Females</td>
<td>34.8%</td>
<td>37.4%</td>
<td>33.9%</td>
<td>30.4%</td>
</tr>
</tbody>
</table>
Healthy People 2010 Objective 09-07:
Reduce pregnancies among adolescent females 15- to 17-years-old to 43 per 1,000.

Data Source:
Ohio Department of Health, Vital Statistics

Public Health Importance:
Teen pregnancy has negative consequences for both the mother and the child. Mothers who have a teen birth are more disadvantaged, on average, than are other teens and have children who face negative health, cognitive and behavioral outcomes.³

Teen mothers are more likely to be high school dropouts, which will limit future earnings and the financial support they can provide for their child, and they are more likely to rely on public assistance.⁴

Risk Factors:
A number of risk factors in a teen’s life increase her chances of having sex and becoming pregnant. Some of these include alcohol or drug use; peers’ alcohol and drug use and deviant behavior; having school problems; being part of a gang; physical fighting and carrying weapons; dating more frequently; greater number of sexual partners; history of prior sexual coercion or abuse; and mother’s or older sibling’s early age at first birth.⁵

Prevention:
Abstinence from intercourse is the only 100 percent effective way to prevent pregnancy.⁶ Condoms, if used correctly, can greatly reduce, though not eliminate, the risk of unwanted pregnancies.⁷ Programs that seek to decrease teen pregnancies must either increase abstinence, reduce the frequency of sex and/or the number of sexual partners or increase the use of condoms or other contraception.⁵

Key Findings:
- Ohio’s teen pregnancy rate for 15- to 17-year-olds remained below the national rate from 1997 to 2004.
- In Ohio, the teen pregnancy rate for 15- to 17-year-olds met the Healthy People 2010 goal in 2001 and continued to decrease thereafter.
- Teen pregnancy rates among 15- to 17-year-olds differed greatly by race and ethnicity.
- Blacks and Hispanics in this age category had substantially higher rates of pregnancy than white teens.
- Teen pregnancy rates among 15- to 17-year-olds fell from 1997 to 2004 in all racial and ethnic groups, though the rate for black teenagers in this age group experienced a more steep decline than that of other groups.
Healthy People 2010 Objective 13-05:
Reduce the number of new cases of HIV/AIDS diagnosed among adolescents and adults.

Data Source:
Ohio Department of Health and Centers for Disease Control and Prevention HIV/AIDS Surveillance

Public Health Importance:
Young people in the United States are at persistent risk for HIV infection. This risk is especially notable for youth of minority races and ethnicities.\(^3\) In general, middle and late adolescence is a time when young people engage in risk taking and sensation-seeking behaviors such as drug and alcohol use that may put them in jeopardy of contracting HIV.\(^4\)

Risk Factors:
Some risk factors for contracting HIV/AIDS include early age at sexual initiation, presence of an STD, substance abuse, lack of awareness, poverty, young people who have dropped out of school and the coming of age of HIV-positive youth who contracted HIV through perinatal transmission.\(^3\)

Prevention:
A multifaceted approach to HIV/AIDS prevention, which includes individual, peer, familial, school, church and community programs, is necessary to reduce the incidence of HIV/AIDS in young people.\(^3\)

Key Findings:
- The number of new cases of HIV/AIDS diagnosed in Ohio 13- to 24-year-olds increased from 102 in 2000 to 152 in 2006.
- Across the U.S. in 2006, the prevalence of HIV/AIDS cases was highest among non-Hispanic blacks. The rate per 100,000 population among this group was nearly nine times higher than that of their white peers.
- The second-highest prevalence rate of HIV/AIDS cases in the U.S. was among Hispanics (33.7 per 100,000 population).
HIV/AIDS Prevalence Rate (per 100,000) Among Adolescents and Adults 13 Years and Older, by Race and Ethnicity, 2006

- White, non-Hispanic: 9.6
- Black, non-Hispanic: 85.6
- Hispanic: 33.7
- Asian/Pacific Islander: 8.2
- American Indian/Alaska Native: 11.0

Number of HIV/AIDS Diagnoses Among 13 - 24 Year-Olds, Ohio, 2000 - 2005

- 2000: 102
- 2001: 120
- 2002: 106
- 2003: 114
- 2004: 148
- 2005: 152
Healthy People 2010 Objective 15-15a
Reduce deaths caused by motor vehicle crashes to 8.0 per 100,000 people (please note that this goal addresses all age groups and is not specific to adolescents).

Data Sources:
CDC WISQARS and Ohio Vital Statistics
- WISQARS (Web-based Injury Statistics and Reporting System) from CDC is an interactive database of injury-related data.

Public Health Importance:
Motor vehicle crashes are the leading cause of death and injury in teens and young adults.¹

Risk Factors:
The major risk factors for adolescent motor vehicle crash deaths include new driver inexperience and/or recklessness, riding in a car with two or more teen passengers, speeding or ignoring signs and traffic signals, not using appropriate restraints, riding in a car as a passenger with a new teen driver, alcohol use while driving or riding with a driver under the influence of alcohol and driving between midnight and 6 a.m.² ³

Prevention:
Graduated driver licensing (GDL) programs are considered effective in reducing the crash risk in teen drivers. GDLs reduce inexperienced driving time and allow new drivers to improve driving skills under relatively low-risk conditions. GDLs include three stages: a learner’s permit phase allowing only supervised driving; a provisional license phase restricting unsupervised driving in high-risk situations (e.g., late at night, with teenage passengers); and a license with full privileges. Parental involvement is also an important component of prevention. Increasing parental skills for managing their teen’s driving and access to vehicles may be an effective intervention.⁴

Key Findings: United States
- In 2005, the motor vehicle death rate for youth aged 15 to 24 years was 26.0 per 100,000.
- The motor vehicle death rate among males in this age group was greater than twice that of females, 36.6 versus 14.7 per 100,000, respectively.
- White youth were more likely to die as a result of motor vehicle crashes than their same-aged black counterparts.

Ohio
- The 2005 Ohio motor vehicle death rate for youth aged 15 to 24 was 19.1 per 100,000. Among males in this age group the rate was 25.3 per 100,000, while for females it was 12.7 per 100,000.
- Ohio white youth died at a rate of 21.1 per 100,000, compared with blacks, whose motor vehicle death rate was 8.2 per 100,000.
- Ohio’s motor vehicle death rate in 15- to 24-year-olds was lower than the nation’s motor vehicle death rate for the same age group (19.1 and 26.0, respectively).
- Motor vehicle fatality rates were highest for youth in the 18- to 19-year-old age group.
- Males suffered motor vehicle fatalities at twice the rate of females.
Motor Vehicle Death Rates for Adolescents and Young Adults (15-24 years) by Race and Gender, Ohio and United States, 2005*

![Graph showing motor vehicle death rates by race and gender for Ohio and the United States.](image1)

<table>
<thead>
<tr>
<th>Race</th>
<th>Gender</th>
<th>Deaths per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>Female</td>
<td>8.2</td>
</tr>
<tr>
<td>White</td>
<td>Female</td>
<td>21.1</td>
</tr>
<tr>
<td>Black</td>
<td>Male</td>
<td>12.7</td>
</tr>
<tr>
<td>White</td>
<td>Male</td>
<td>25.3</td>
</tr>
<tr>
<td>U.S.</td>
<td>Female</td>
<td>19.5</td>
</tr>
<tr>
<td>Black</td>
<td>Female</td>
<td>27.9</td>
</tr>
<tr>
<td>White</td>
<td>Female</td>
<td>14.7</td>
</tr>
<tr>
<td>Black</td>
<td>Male</td>
<td>36.6</td>
</tr>
<tr>
<td>White</td>
<td>Male</td>
<td>26.0</td>
</tr>
</tbody>
</table>

*Data Source: National Center for Injury Prevention and Control WISQARS Injury Mortality Reports (Accessed 02/2008)

Motor Vehicle Death Rates of Adolescents and Young Adults (10-24 years) by Race, Ethnicity, Gender, and Age Group, Aggregated, Ohio, 2001-2005*

![Graph showing motor vehicle death rates by race, ethnicity, gender, and age group for Ohio, 2001-2005.](image2)

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Gender</th>
<th>Age Group</th>
<th>Deaths per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>Female</td>
<td>10-14 Age Group</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15-17 Age Group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>18-19 Age Group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20-24 Age Group</td>
</tr>
<tr>
<td>Hispanic**</td>
<td>Female</td>
<td>10-14 Age Group</td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15-17 Age Group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>18-19 Age Group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20-24 Age Group</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>Female</td>
<td>10-14 Age Group</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15-17 Age Group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>18-19 Age Group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20-24 Age Group</td>
</tr>
<tr>
<td>Female</td>
<td>Male</td>
<td>10-14 Age Group</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15-17 Age Group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>18-19 Age Group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20-24 Age Group</td>
</tr>
<tr>
<td>Male</td>
<td>Male</td>
<td>10-14 Age Group</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15-17 Age Group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>18-19 Age Group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20-24 Age Group</td>
</tr>
</tbody>
</table>

*Data Source: Ohio Vital Statistics, 2001-2005
**Rates are unstable due to small numbers
Healthy People 2010 Objective 15-19:
Increase the use of safety belts to 92 percent (please note that this goal addresses all age groups and is not specific to adolescents).

Data Source:
Ohio Youth Risk Behavior Survey (YRBS)

Public Health Importance:
Motor vehicle crashes are the leading cause of death and injury to teens and young adults. Not wearing a safety belt places drivers and passengers of motor vehicles at greater risk of injury and death.³

Risk Factors:
Studies of teenage safety belt use have found that seat belts were used less frequently in back seats; among students of rural schools; by occupants of pick-up trucks, vans and older vehicles; and by those using alcohol.³

Prevention:
Average seat belt usage is higher in states with primary enforcement policies, where enforcement of safety belt use laws is highly publicized and where fines for not wearing them are higher.⁴ Citations for not wearing safety belts may be stronger motivators for teens to wear seat belts than for adults. Graduated licensure programs incorporating seat belt use in all phases of licensure may also be effective.⁴

Key Findings:
- In Ohio, the overall percentage of students reporting seat belt use significantly increased from 75.7 percent in 1997 to 85.7 percent in 2007.
- In 2007, there was no difference between the percent of Ohio students (85.7 percent) and students nationally who reported seatbelt use (88.9 percent).
- While showing improvement over the past decade, the percentage of Ohio adolescents reporting seat belt use in 2007 remained below the HP 2010 objective of 92 percent.
- During any given year, both in Ohio and nationally, females were significantly more likely to report seat belt use than males.
- A larger percentage of 10th graders generally reported use of seat belts than students in other grades, but these differences were not statistically significant.
- White students (88.4 percent) were significantly more likely to report seat belt use than black (76.2 percent) or Hispanic (76.6 percent) students in 2007.
Percent of Students Using a Seat Belt While Riding with Someone Else, Ohio and US, 1997-2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Ohio</th>
<th>Total U.S.</th>
<th>HP 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>75.7%</td>
<td>80.7%</td>
<td>92.0%</td>
</tr>
<tr>
<td>1999</td>
<td>84.2%</td>
<td>83.6%</td>
<td>92.0%</td>
</tr>
<tr>
<td>2001*</td>
<td>84.6%</td>
<td>85.9%</td>
<td>92.0%</td>
</tr>
<tr>
<td>2003</td>
<td>83.5%</td>
<td>81.8%</td>
<td>92.0%</td>
</tr>
<tr>
<td>2005</td>
<td>85.7%</td>
<td>89.8%</td>
<td>92.0%</td>
</tr>
<tr>
<td>2007</td>
<td>88.9%</td>
<td>81.8%</td>
<td>92.0%</td>
</tr>
</tbody>
</table>

*2001 YRBS was not administered in Ohio

Percent of Students by Grade and Race Using a Seat Belt While Riding with Someone Else, Ohio, 1997-2007

<table>
<thead>
<tr>
<th>Year</th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
<th>White, non-Hispanic</th>
<th>Black, non-Hispanic*</th>
<th>Hispanic*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>70.7%</td>
<td>77.4%</td>
<td>78.3%</td>
<td>77.8%</td>
<td>79.6%</td>
<td>61.7%</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>83.9%</td>
<td>87.6%</td>
<td>83.0%</td>
<td>82.5%</td>
<td>86.5%</td>
<td>71.9%</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>81.8%</td>
<td>88.5%</td>
<td>86.3%</td>
<td>81.5%</td>
<td>87.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>83.2%</td>
<td>84.7%</td>
<td>84.7%</td>
<td>81.4%</td>
<td>85.4%</td>
<td>73.3%</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>86.2%</td>
<td>86.7%</td>
<td>85.3%</td>
<td>84.2%</td>
<td>88.4%</td>
<td>76.2%</td>
<td></td>
</tr>
</tbody>
</table>

*Data not available
Healthy People 2010 Objective 15-32

Reduce homicides to 2.8 per 100,000 people (please note that this goal addresses all age groups and is not specific to adolescents).

Data Source:
Centers for Disease Control and Prevention (CDC) WISQARS
- WISQARS (Web-based Injury Statistics and Reporting System) from CDC is an interactive database of injury-related data.

Public Health Importance:
The U.S. adolescent homicide rate is higher than that of any other developed country in the world. Homicide is the second-leading cause of death among adolescents in the United States.\(^2\)

Risk Factors:
According to the U.S. Department of Justice, teen homicides are similar to homicides in adults. Most victims of teen homicides are male. Perpetrators of teen homicide deaths are most frequently non-related males aged 18 years or older, and firearms are the most common instrument of death.\(^3\) Other risk factors for teen homicide death include gang involvement, minority race and urban residence.\(^4\)

Prevention:
The Office of Juvenile Justice and Delinquency Prevention of the U.S. Department of Justice sponsors programs such as Comprehensive Strategy for Serious, Violent and Chronic Juvenile Offenders; the Comprehensive Gang Model; victim-offender mediation; conflict resolution training; and Partnerships to Reduce Juvenile Gun Violence. These coordinated community initiatives seek to control gang activity, stop the flow of guns to juveniles, improve supervision of delinquent youth, counsel victims of violence and teach alternatives to violence.\(^3\)

Key Findings:
- Homicide death rates in Ohio were consistently lower than those of the United States, until 2005 when the Ohio rate (5.9 per 100,000) rose higher than the U.S. rate (5.4 per 100,000), though the difference between Ohio and the U.S. was not significant. The increase in Ohio from 2004 to 2005 was a significant increase.
- Homicide death rates for black adolescents were much higher than those of their white peers, both in Ohio and across the United States.
- In Ohio, the homicide death rate for black adolescents was more than 12 times higher than that of white adolescents.
- Younger adolescents (ages 10 to 14) had a much lower rate of homicide deaths than older adolescents (ages 15 to 19) in both Ohio and the United States.
Homicide Six-Year Rate (per 100,000) Among 10 - 19 Year-Olds, by Race and Ethnicity, Ohio and U.S., 2000 - 2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Ohio</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>18.61</td>
<td>17.43</td>
</tr>
<tr>
<td>2001</td>
<td>1.47</td>
<td>2.89</td>
</tr>
<tr>
<td>2002</td>
<td>4.33</td>
<td>7.89</td>
</tr>
<tr>
<td>2003</td>
<td>3.86</td>
<td>4.66</td>
</tr>
</tbody>
</table>

#Racial groups include Hispanic and non-Hispanic ethnicity
*Rate may be unreliable due to small numbers

Homicide Rate (per 100,000) Among 10 - 19 Year-Olds, Ohio and U.S., 1999 - 2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Ohio</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>3.76</td>
<td>5.79</td>
</tr>
<tr>
<td>2000</td>
<td>3.22</td>
<td>5.27</td>
</tr>
<tr>
<td>2001</td>
<td>3.5</td>
<td>5.1</td>
</tr>
<tr>
<td>2002</td>
<td>3.6</td>
<td>5.12</td>
</tr>
<tr>
<td>2003</td>
<td>3.72</td>
<td>5.18</td>
</tr>
<tr>
<td>2004</td>
<td>3.64</td>
<td>5.12</td>
</tr>
<tr>
<td>2005</td>
<td>5.85</td>
<td>5.43</td>
</tr>
</tbody>
</table>
Healthy People 2010 Objective 15-38:
Reduce physical fighting among adolescents to 32 percent.

Data Source:
Ohio Youth Risk Behavior Survey (YRBS)

Public Health Importance:
Physical fighting by youth can lead to serious injury and even death. Youth attending schools where fighting is common may be unable to maintain the focus necessary for academic success. Adolescents who are victims of violence are also more likely to be victims or perpetrators of violence during adulthood.3

Risk Factors:
Risk factors that predict violence by youth include substance abuse by the youth, conflict and abuse in the home, harsh or inattentive parenting, antisocial and delinquent peers and neighborhoods where crime and drug use are prevalent. Youth who are involved in physical fighting are also often engaged in other high-risk activities such as illegal drug use, binge drinking, carrying weapons and having unsafe sex.3

Prevention:
At this time, the effectiveness of most conflict resolution programs in reducing physical violence has not been adequately assessed. A number of programs have been shown to be effective in improving academic performance and increasing cooperation, communication skills, assertiveness, self-esteem and self-control.4

Key Findings:
- In Ohio, the overall percentage of students who engaged in physical fighting significantly decreased from 37.3 percent in 1997 to 30.4 percent in 2007.
- Ohio students (30.4 percent) were significantly less likely have engaged in fighting than students nationally (35.5 percent) in 2007.
- During any given year, both in Ohio and nationally, males are significantly more likely to report engaging in physical fighting than females.
- In 2007, the overall percentage of students engaging in physical fights in Ohio was below the Healthy People (HP) 2010 goal of 32 percent. The percentage of males engaging in physical fights is still above the HP 2010 goal.
- Black (41.4 percent) and Hispanic (44.1 percent) students were significantly more likely to engage in physical fighting than white (26.4 percent) students in 2007.
Percent of Students Who Engaged in Physical Fighting in the Past 12 Months, Ohio and US, 1997-2007

*2001 YRBS was not administered in Ohio

Percent of Students Who Engaged in Physical Fighting in the Past 12 Months by Gender, Ohio and US, 1997-2007

*2001 YRBS was not administered in Ohio
Healthy People 2010 Objective 15-39:
Reduce the number of adolescents carrying weapons on school property in the past 30 days to 4.9 percent.

Data Source:
Ohio Youth Risk Behavior Survey (YRBS)

Public Health Importance:
The presence of a weapon such as a gun, knife or club, increases the chances that violent behavior will have serious health consequences. Of students carrying weapons, more than one-third report carrying guns or carrying a weapon on school grounds. Minor disputes, however, can quickly become much more serious when one or both of the parties involved is carrying a weapon. The presence of weapons at a school can create an atmosphere that makes both teaching and learning more difficult.³

Risk Factors:
Once a child becomes a teenager, friends and peers are much more important, and friendships with antisocial or delinquent peers, membership in a gang and involvement in other criminal activity are the most important predictors of serious violence for teenagers. Teens who commit acts of serious violence are often involved in other types of criminal behavior and often live a lifestyle that involves a number of risky behaviors including using drugs, carrying weapons, driving recklessly and having unsafe sex.⁴

Prevention:
Studies have shown that violent behavior can be decreased or even prevented if risk factors are significantly reduced or eliminated. Most importantly, efforts should be directed at dramatically decreasing the exposure of children and adolescents to violence in the home, community and through the media.⁵

Key Findings:
- In Ohio, the overall percentage of students carrying weapons on school property significantly decreased from 8.1 percent in 1997 to 4.1 percent in 2007.
- In 2007, the percentage of Ohio students (4.1 percent) was significantly less likely to report carrying a weapon on school property in the past 30 days than students nationally (5.9 percent).
- During the past decade, the percentage of students who carried a weapon on school property achieved the Healthy People (HP) 2010 goal of 4.9 percent.
- In 2007, males (5.7 percent) were significantly more likely to have carried a weapon on school property than females (2.2 percent).
- There was no significant difference in the percentage of students who carried a weapon on school property based upon their grade level.
- While the percentage of Hispanic students (9.0 percent) who carried a weapon on school property was greater than that of white (3.8 percent) and black (3.0 percent) students, this difference was not statistically significant.

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>8.1%</td>
<td>8.5%</td>
</tr>
<tr>
<td>1999</td>
<td>5.6%</td>
<td>4.9%</td>
</tr>
<tr>
<td>2001*</td>
<td>3.6%</td>
<td>4.9%</td>
</tr>
<tr>
<td>2003</td>
<td>6.4%</td>
<td>4.9%</td>
</tr>
<tr>
<td>2005</td>
<td>4.9%</td>
<td>4.9%</td>
</tr>
<tr>
<td>2007</td>
<td>4.1%</td>
<td>4.9%</td>
</tr>
</tbody>
</table>

*2001 YRBS was not administered in Ohio


<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>13.1%</td>
<td>12.5%</td>
</tr>
<tr>
<td>1999</td>
<td>9.0%</td>
<td>11.0%</td>
</tr>
<tr>
<td>2001*</td>
<td>5.2%</td>
<td>10.2%</td>
</tr>
<tr>
<td>2003</td>
<td>5.7%</td>
<td>9.2%</td>
</tr>
<tr>
<td>2005</td>
<td>5.7%</td>
<td>10.2%</td>
</tr>
<tr>
<td>2007</td>
<td>3.1%</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

*2001 YRBS was not administered in Ohio
Healthy People 2010 Objective 16-03
Reduce deaths of adolescents and young adults to 16.8 per 100,000 for age 10 to 14 years, 39.8 per 100,000 for age 15 to 19 years and 49.0 per 100,000 for age 20 to 24 years.

Data Source:
The National Center for Injury Prevention and Control WISQARS Injury Mortality Reports (as of 02/2008)

Public Health Importance:
The majority of adolescent and young adult deaths are due to preventable causes. In 2005, 72 percent of deaths among adolescents and young adults ages 10 to 24 were due to preventable causes of unintentional injury, homicide and suicide.

Risk Factors:
Risk factors for adolescent and young adult deaths can be related to the leading causes of death in this age group. The leading cause of death for teens is motor vehicle crashes. Risk factors for motor vehicle deaths include lack of driving experience and maturity, following too closely, driving too fast, violating traffic signs and signals, the presence of other teenage passengers, use of alcohol and not wearing safety belts.

Prevention:
Some ways to prevent motor vehicle deaths for teens are to increase the use of safety belts and reduce alcohol-impaired driving.

Key Findings:
- In the United States in 2005, the adolescent death rate was 9.0 per 100,000 for 10- to 14-year-olds, 49.7 per 100,000 for 15- to 19-year-olds and 73.8 per 100,000 for 20- to 24-year-olds.
- Ohio’s adolescent death rates in 10- to 14- and 15- to 19-year-old age groups were similar to the nation’s (8.7 per 100,000 and 47.8 per 100,000, respectively, for Ohio).
- Ohio had a lower death rate than the nation among the 20- to 24-year-old age group (59.8 per 100,000).
- Healthy People (HP) 2010 goals were met for only the 10- to 14-year-old age category in both Ohio and the U. S.
- Among 15- to 24-year-olds, the highest death rates occurred for young people 20 to 24 years of age.
- In 2005, the adolescent death rates were higher for males when compared to the female cohort.
- For Ohio and the nation, young black males continued to have the highest death rate of all adolescent and young adult age groups.
Death Rates for Adolescents and Young Adults (10-24),
Ohio and United States, 2005

Deaths per 100,000

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Ohio</th>
<th>U.S.</th>
<th>HP 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-14 Years Old</td>
<td>8.7</td>
<td>9.0</td>
<td>16.8</td>
</tr>
<tr>
<td>15-19 Years Old</td>
<td>47.8</td>
<td>49.7</td>
<td>39.8</td>
</tr>
<tr>
<td>20-24 Years Old</td>
<td>59.8</td>
<td>73.8</td>
<td>49.0</td>
</tr>
</tbody>
</table>

Death Rates for Adolescents and Young Adults (10-24)
by Age Group, Ohio, 2001-2005

Deaths per 100,000

<table>
<thead>
<tr>
<th>Year</th>
<th>10-14 Years</th>
<th>15-19 Years</th>
<th>20-24 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>7.7</td>
<td>43.3</td>
<td>56.8</td>
</tr>
<tr>
<td>2002</td>
<td>10.7</td>
<td>45.9</td>
<td>61.0</td>
</tr>
<tr>
<td>2003</td>
<td>7.3</td>
<td>39.1</td>
<td>56.5</td>
</tr>
<tr>
<td>2004</td>
<td>9.0</td>
<td>50.4</td>
<td>62.5</td>
</tr>
<tr>
<td>2005</td>
<td>8.7</td>
<td>47.8</td>
<td>59.8</td>
</tr>
</tbody>
</table>
Healthy People 2010 Objective 18-01

Reduce the suicide rate to 4.8 suicides per 100,000 total people (please note that this goal addresses all age groups and is not specific to adolescents).

Data Sources:
The National Center for Injury Prevention and Control WISQARS Injury Mortality Reports (as of 2/2008) and Ohio Youth Risk Behavior Survey (YRBS)

Public Health Importance:
Suicide is the third-leading cause of death for adolescents and young adults, with males being much more likely to commit suicide than their female peers.\(^1\)

Risk Factors:
Researchers identify risk factors associated with an increased risk for suicide such as previous suicide attempts; mental/behavioral disorders or co-occurring mental and alcohol or substance abuse disorders; family history of suicide; stressful life event or loss; violence victimization; violence perpetration; incarceration; exposure to suicidal behavior of others; and school problems.\(^2\)

Prevention:
Some keys to prevention include: 1) promoting overall mental health among school-aged children by reducing early risk factors for depression, substance abuse and aggressive behaviors; 2) building resiliency; 3) developing and implementing strategies to reduce the stigma associated with accessing mental health, substance abuse and suicide prevention services; 4) supporting efforts to limit young people’s access to lethal agents; and 5) detecting youth most likely to be suicidal by confidentially screening for depression and suicidal ideation.\(^2\)

Key Findings:
- Ohio’s suicide rate in 10- to 24-year-olds was slightly higher than the nation’s for the same age group in 2005 (7.8 per 100,000 and 7.1 per 100,000, respectively).
- Neither the U.S. nor Ohio met the Healthy People 2010 goal of reducing adolescent suicides to five or less per 100,000.
- Among adolescents and young adults 10 to 24 years of age, the 20- to 24-year-old age group had the highest suicide rates in Ohio and the nation.
- Males continued to suffer suicide fatalities at more than four times the rate of females.
- While males had higher completed suicide rates, female students (15 to 19 years old) were significantly more likely than males to report having attempted suicide in the past 12 months.
Suicide Rates for Adolescents and Young Adults (10-24) by Age Group, Ohio and United States, 2005

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Ohio</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 to 14</td>
<td>1.1</td>
<td>1.3</td>
</tr>
<tr>
<td>15 to 19</td>
<td>9.1</td>
<td>7.7</td>
</tr>
<tr>
<td>20 to 24</td>
<td>13.0</td>
<td>12.4</td>
</tr>
</tbody>
</table>

Suicide Rates for Adolescents and Young Adults (10-24) by Gender, Ohio, 2001-2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>1.4</td>
<td>12.2</td>
</tr>
<tr>
<td>2002</td>
<td>2.0</td>
<td>11.7</td>
</tr>
<tr>
<td>2003</td>
<td>1.7</td>
<td>9.6</td>
</tr>
<tr>
<td>2004</td>
<td>3.7</td>
<td>12.5</td>
</tr>
<tr>
<td>2005</td>
<td>2.4</td>
<td>12.9</td>
</tr>
</tbody>
</table>
Healthy People 2010 Objective 18-02:
Reduce the rate of suicide attempts by adolescents to 1.0 percent.

Data Source:
Ohio Youth Risk Behavior Survey (YRBS)

Public Health Importance:
Suicide is the third-leading cause of death for adolescents and young adults. Among those ages 15 to 24 years old, there are 100-200 attempts for every one suicide. Those who attempt and survive may have serious injuries like broken bones, brain damage or organ failure and often have depression and other mental health problems.

Risk Factors:
While suicide affects everyone, some groups are at higher risk than others. Men are four times more likely than women to die from suicide. However, three times more women than men report attempting suicide. Some risk factors for attempting or committing suicide include previous suicide attempt, history of depression or other mental illness, alcohol or drug abuse, physical illness or feeling alone.

Prevention:
The “AIM” approach, which was proposed in the 1999 Surgeon General’s Call to Action, includes 15 key recommendations that represent a framework for suicide programs. “AIM,” which stands for Awareness, Intervention and Methodology, is used to categorize and organize these recommended actions.

Key Findings:
- In Ohio, the overall percentage of students reporting suicide attempts that required medical attention in the past 12 months has not significantly changed from 1997 to 2007.
- In 2007, there was no significant difference between the percentage of Ohio students (2.3 percent) and students nationally (2.0 percent) who reported suicide attempts that required medical attention in the past 12 months.
- The percentage of Ohio students who reported suicide attempts that required medical attention in the past 12 months is above the Healthy People (HP) 2010 goal of 1.0 percent.
- In 2007, there was no significant difference between the percentage of males and females who reported suicide attempts that required medical attention in the past 12 months.
- There was no significant difference between grade levels in the percentage of students who reported suicide attempts that required medical attention in the past 12 months.
- There was no significant difference between the percentages of white, black or Hispanic students who reported suicide attempts that required medical attention in the past 12 months in 2007.
Percentage of Students, by Gender, Whose Attempted Suicide During the Past 12 Months Resulted in an Injury, Poisoning, or Overdose That Had to be Treated by a Doctor or Nurse, Ohio and US, 1999 - 2007

*2001 YRBS was not administered in Ohio

Percentage of Students Whose Attempted Suicide During the Past 12 Months Resulted in an Injury, Poisoning, or Overdose That Had to be Treated by a Doctor, Ohio, 1999 - 2007

*2001 YRBS was not administered in Ohio
Healthy People 2010 Objective 19-03b

To reduce the proportion of children and adolescents aged 12 to 19 who are overweight (85th percentile) or obese (95th percentile) to 5 percent.

Data Source:
Ohio Youth Risk Behavior Survey (YRBS)

Public Health Importance:
Children who are overweight are at an increased risk of developing type 2 diabetes, cardiovascular problems, orthopedic abnormalities, gout, arthritis and skin problems. Childhood obesity has been linked to the premature onset of puberty. In addition, being overweight can negatively affect children’s social and psychological development.¹

Risk Factors:
For the vast majority of individuals, overweight and obesity result from excess calorie consumptions and/or inadequate physical activity.²

Prevention:
Given the seriousness of the health consequences associated with being overweight, and the rate of increase in the past few decades, the Surgeon General has declared overweight prevalence in children and adolescents “a major public health concern.” Reducing child and adolescent obesity requires efforts by families, schools, communities, government and industry. Parents can play an important role in preventing and reducing child and adolescent obesity by promoting healthy eating through family meals, providing healthy foods in the home, limiting television watching and other sedentary behavior and encouraging physical activity.¹

Key Findings:
- In 2005, Ohio was similar to the nation in the percentage of students who were overweight.
- There were no significant differences between racial and ethnic groups in the percentage of students who were overweight in Ohio or the nation in 2007.
- Based on body mass index (BMI) calculations from students’ reported heights and weights, significantly more males were classified as overweight than females (16.0 percent of males compared to 8.5 percent of females in 2007).
- In 2007, approximately 27.4 percent of high school students in Ohio were at risk for becoming overweight (15.0 percent) or were overweight (12.4 percent).
- There were no significant differences in the percentage of students who were overweight or at risk for overweight in 2007 when compared to the same groups from previous years.
- Significantly more females than males described themselves as being overweight (35.7 percent of females, compared to 24.8 percent of males in 2007).
- There were no significant differences between racial and ethnic groups in the percentage of students who described themselves as being overweight in Ohio in 2007.
### Percentage of Students Who Were Overweight by Race and Ethnicity, Ohio & U.S., 2007

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Ohio</th>
<th>U.S.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>15.9%</td>
<td>18.3%</td>
<td>12.4%</td>
</tr>
<tr>
<td>White</td>
<td>11.6%</td>
<td>10.8%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>13.9%</td>
<td>16.6%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>14.1%</td>
<td>11.4%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Percentage of Students Who Were Overweight by Gender, Ohio, 1999-2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>13.3%</td>
<td>7.6%</td>
</tr>
<tr>
<td>2003</td>
<td>18.2%</td>
<td>9.4%</td>
</tr>
<tr>
<td>2005</td>
<td>16.0%</td>
<td>9.2%</td>
</tr>
<tr>
<td>2007</td>
<td>16.0%</td>
<td>8.5%</td>
</tr>
</tbody>
</table>
Healthy People 2010 Objective 22-07

*Increase the number of adolescents engaging in vigorous physical activity three or more days per week for 20 or more minutes per occasion to 85 percent.*

**Data Source:**
Ohio Youth Risk Behavior Survey (YRBS)

**Public Health Importance:**
Regular physical activity has both short- and long-term health benefits. For adolescents, participation in sports, physical education classes or any other type of regular exercise helps to build and maintain healthy bones and muscles, controls weight and has positive psychological benefits.¹

Adolescents who exercise also improve their long-term health. Participation in physical activity decreases the risk of developing diabetes, heart disease and hypertension. Additionally, people who are active in their youth tend to remain active and physically fit as adults.¹

**Risk Factors:**
Physical inactivity increases the risk of dying prematurely, dying of heart disease and developing diabetes, colon cancer and high blood pressure.²

**Prevention:**
Children and teens should participate in at least 60 minutes of moderate intensity physical activity most days of the week, preferably daily. In addition to encouraging physical activity, children should be helped to avoid too much sedentary time. The time children watch television, play video games or surf the Web should be limited to no more than two hours per day.³

**Key Findings:**
- Nationwide, the percentage of students participating in adequate vigorous physical activity consistently remained between 63 percent and 66 percent since 1993.
- Ohio was not significantly different than the nation, with the percentage of students participating between 59 and 68 percent since 1993.
- From 2001 through 2005 in Ohio and nationwide, significantly more males than females reported participating in vigorous physical activity.
- In 2005, there was no significant difference in vigorous physical activity when comparing racial and ethnic groups.
- In 2007, students in the ninth grade were significantly more likely to be physically active for 60 minutes or more than their peers in the 11th or 12th grades (51.3 percent, compared to 39.1 percent and 39.3 percent, respectively).
Percentage of Students Who Exercised or Participated in Physical Activity that Made Them Sweat or Breathe Hard for 20 Minutes or More Three or More of the Past Seven Days by Race and Ethnicity, Ohio and U.S., 2005*

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>Black</th>
<th>Other</th>
<th>Hispanic+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio</td>
<td>63.1</td>
<td>59.2</td>
<td>69.2</td>
<td></td>
</tr>
<tr>
<td>U.S.</td>
<td>65.5</td>
<td>58.5</td>
<td>61.2</td>
<td>66.1</td>
</tr>
</tbody>
</table>

*Question not asked in Ohio YRBS in 2007
+Data not available

Percentage of Students Who Exercised or Participated in Physical Activity that Made Them Sweat and Breathe Hard for 20 Minutes or More on Three or More of the Past Seven Days, by Gender, Ohio, 2001-2005*

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>49.8</td>
<td>73.2</td>
</tr>
<tr>
<td>1997</td>
<td>49.5</td>
<td>68.2</td>
</tr>
<tr>
<td>1999</td>
<td>52.7</td>
<td>72.3</td>
</tr>
<tr>
<td>2003</td>
<td>60.3</td>
<td>74.7</td>
</tr>
<tr>
<td>2005</td>
<td>53.9</td>
<td>71.1</td>
</tr>
</tbody>
</table>

* Question not asked in Ohio YRBS in 2007
**Healthy People 2010 Objective 25-01**

Reduce the proportion of adolescents and young adults with Chlamydia trachomatis infections.

a. Females aged 15 to 24 years attending family planning clinics.
b. Females aged 15 to 24 years attending STD clinics.
c. Males aged 15 to 24 years attending STD clinics.

**Data Source:**
Ohio Department of Health and Centers for Disease Control and Prevention Sexually Transmitted Disease (STD) Surveillance

**Public Health Importance:**
Each year, there are approximately 19 million new STD infections, and almost half of them are among youth aged 15 to 24.³

**Risk Factors:**
Sexually active teenagers are at an immediate risk of becoming pregnant and/or acquiring an STD.⁴ The more sex partners a person has, the greater the risk of Chlamydia infection. Sexual relationships between young teens and older individuals are associated with risky sexual behaviors that could lead to STDs. Having sex with someone older has been associated with reduced and inconsistent use of contraception, including reduced use of condoms.⁵

**Prevention:**
Teens can reduce their risk of STDs by abstaining from sex, limiting the number of sexual partners, increasing the amount of time between sexual partners, reducing the frequency of sex, using condoms and being tested and treated for STDs.⁶

**Key Findings:**
- In Ohio, there was a statistically significant increase in the overall rate of Chlamydia diagnosis in adolescents and young adults between 2002 and 2007.
- The rate of Chlamydia diagnosis in adolescents and young adults in Ohio was significantly higher than the rate for the same age group across the United States.
- The number of cases of Chlamydia diagnosed in young women at family planning clinics increased from 1998 to 2007, but this does not take into consideration how many tests were performed.
- Since 2001 in Ohio, more young men have been diagnosed with Chlamydia at STD clinics than their female peers. This count, however, does not take into consideration the number of tests that were performed at the clinics.
Chlamydia Diagnosis Rate (per 100,000) Among 15 - 24 Year-Olds, Ohio, 1997 - 2005

<table>
<thead>
<tr>
<th>Year</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate</td>
<td>1144.7</td>
<td>1338.1</td>
<td>1433</td>
<td>1550.2</td>
<td>1714.3</td>
<td>1891.8</td>
<td>1948.5</td>
<td>1790.3</td>
<td>1948</td>
</tr>
</tbody>
</table>

Chlamydia Diagnosis Rate Among 15 - 19 Year-Olds, by Sex, Ohio and U.S., 1998 - 2006

<table>
<thead>
<tr>
<th>Year</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio Male</td>
<td>280.4</td>
<td>340.7</td>
<td>383</td>
<td>429.1</td>
<td>496.3</td>
<td>500.6</td>
<td>514.9</td>
<td>583.4</td>
<td></td>
</tr>
<tr>
<td>Ohio Female</td>
<td>2601.3</td>
<td>2641</td>
<td>2765</td>
<td>2989.9</td>
<td>3418.7</td>
<td>3490.1</td>
<td>3177.9</td>
<td>3467.1</td>
<td></td>
</tr>
<tr>
<td>U.S. Male</td>
<td>302</td>
<td>340.6</td>
<td>352.1</td>
<td>383.9</td>
<td>411.7</td>
<td>423.4</td>
<td>458.3</td>
<td>505.2</td>
<td>545.1</td>
</tr>
<tr>
<td>U.S. Female</td>
<td>2299.3</td>
<td>2458.7</td>
<td>2395.9</td>
<td>2547.2</td>
<td>2626.4</td>
<td>2687.3</td>
<td>2761.5</td>
<td>2796.6</td>
<td>2862.7</td>
</tr>
</tbody>
</table>

*Ohio data for 2006 not available
Healthy People 2010 Objective 25-11

Increase the proportion of adolescents who:

a. Have never had sexual intercourse to 56 percent.
b. If sexually experienced, are not currently sexually active to 30 percent.
c. If currently sexually active, used a condom the last time they had sexual intercourse to 65 percent.

Data Source:
Ohio Youth Risk Behavior Survey (YRBS)

Public Health Importance:
Adolescents who become sexually experienced at an early age have a greater time period during which they are at risk for pregnancy and sexually transmitted diseases (STDs). A younger age at first sexual intercourse is associated with a variety of negative sexual consequences among male and female teens, including a greater likelihood of having non-voluntary or unwanted sex, having multiple sexual partners and having a teenage birth.³

Risk Factors:
Young people in the U.S. use alcohol and other drugs at high rates. Adolescents are more likely to engage in high-risk behaviors such as unprotected sex when they are under the influence of drugs or alcohol. In 2005, 23 percent of high school students who had sexual intercourse during the past three months drank alcohol or used drugs before their last sexual intercourse.⁴

Prevention:
Abstinence from vaginal, anal and oral intercourse is the only 100 percent effective way to prevent HIV and other STDs. The correct and consistent use of a male latex condom can reduce the risk of STD transmission, but no protective method is 100 percent effective.⁴

Key Findings:
- The proportion of students who have never had sexual intercourse remained relatively stable from 1999 to 2007.
- Among Ohio students who are sexually active, black students were less likely to abstain recently from sex than their white and Hispanic peers.
- The proportion of students in Ohio who reported using a condom at their last intercourse stayed at about 60 percent from 1999 to 2007.
- Ohio remained slightly higher or about equal with the nation in the percentage of students who have never had sex.
- For all races and ethnicities, Ohio fell short of the HP 2010 goal for sexually active students who recently abstained from intercourse and those who used a condom at last intercourse.

<table>
<thead>
<tr>
<th>Year</th>
<th>Ohio</th>
<th>U.S.</th>
<th>HP 2010 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>53.1%</td>
<td>50.1%</td>
<td>56.0%</td>
</tr>
<tr>
<td>2003</td>
<td>58.3%</td>
<td>53.3%</td>
<td>56.0%</td>
</tr>
<tr>
<td>2005</td>
<td>52.2%</td>
<td>53.2%</td>
<td>56.0%</td>
</tr>
<tr>
<td>2007</td>
<td>55.5%</td>
<td>56.0%</td>
<td>56.0%</td>
</tr>
</tbody>
</table>

Percent of Students Who Had Sexual Intercourse in the Past Three Months and Used a Condom at Last Sexual Intercourse, Ohio, 1999 - 2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Ohio</th>
<th>HP 2010 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>59%</td>
<td>65%</td>
</tr>
<tr>
<td>2003</td>
<td>59.8%</td>
<td>65%</td>
</tr>
<tr>
<td>2005</td>
<td>61.7%</td>
<td>65%</td>
</tr>
<tr>
<td>2007</td>
<td>60.1%</td>
<td>65%</td>
</tr>
</tbody>
</table>
Healthy People 2010 Objective 26-01a
Reduce deaths caused by alcohol-related motor vehicle crashes to 4.8 per 100,000 people (please note that this goal addresses all age groups and is not specific to adolescents).

Data Sources:
Ohio Youth Risk Behavior Survey (YRBS) and U.S. Department of Transportation, Fatality Analysis Reporting System (FARS)

Public Health Importance:
Alcohol and/or drug use are involved in up to one-third of deaths due to motor vehicle crashes among teens and young adults.² Motor vehicle crashes are the leading cause of death in this age group in the U.S.

Risk Factors:
Adolescents who drink alcohol prior to driving are significantly more likely to be involved in car crashes than adults, and the risk is greater at all levels of blood alcohol concentration.³ Peer and social norms, such as feelings of control over alcohol, risk perceptions and friends’ acceptance of driving while intoxicated impact alcohol-related adolescent driving behavior.⁴

Prevention:
Effective laws, strong enforcement and highly visible public information and education are important in preventing drinking and driving. Graduated driver licensing (GDL) programs are considered effective in reducing the overall crash risk in teen drivers.⁴

Key Findings:
- In 2006, Ohio was similar to the United States in the percentage of motor vehicle deaths that were alcohol-related (40.1 percent and 41.3 percent, respectively).
- The majority of alcohol related motor vehicle fatalities to young adults 15 to 24 years of age were to the drivers of the motor vehicles.
- Significantly fewer students reported to driving after drinking alcohol in 2007 when compared to students in 1997, in both Ohio and the U.S.
- Hispanic students in Ohio had the highest percentage of students who reported driving after drinking alcohol in 2007.
*Any motor vehicle fatality reported by Police as being alcohol-related.
**includes pedestrians, cyclists, and other innocent bystanders.

Rate of Alcohol-related Motor Vehicle Fatalities* for Adolescents and Young Adults (15-20) by Person Type, Ohio, 2001-2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Others**</th>
<th>Passengers</th>
<th>Drivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>0.1</td>
<td>0.4</td>
<td>2.2</td>
</tr>
<tr>
<td>2002</td>
<td>0.0</td>
<td>0.1</td>
<td>2.6</td>
</tr>
<tr>
<td>2003</td>
<td>0.1</td>
<td>0.1</td>
<td>2.3</td>
</tr>
<tr>
<td>2004</td>
<td>0.3</td>
<td>0.0</td>
<td>2.4</td>
</tr>
<tr>
<td>2005</td>
<td>0.1</td>
<td>0.1</td>
<td>1.5</td>
</tr>
<tr>
<td>2006</td>
<td>0.0</td>
<td>0.0</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Percent of Students Who Drove a Car or Other Vehicle When They had been Drinking Alcohol During the Last 30 Days, Ohio & U.S., 1997-2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Ohio</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>13.6%</td>
<td>16.9%</td>
</tr>
<tr>
<td>1999</td>
<td>16.6%</td>
<td>13.1%</td>
</tr>
<tr>
<td>2001*</td>
<td>9.6%</td>
<td>13.3%</td>
</tr>
<tr>
<td>2003</td>
<td>8.6%</td>
<td>12.1%</td>
</tr>
<tr>
<td>2005</td>
<td>9.5%</td>
<td>9.9%</td>
</tr>
<tr>
<td>2007</td>
<td>10.5%</td>
<td></td>
</tr>
</tbody>
</table>

*2001 YRBS was not administered in Ohio
Healthy People 2010 Objective 26-06:
*Reduce the proportion of adolescents who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol to 30 percent.*

**Data Source:**
Ohio Youth Risk Behavior Survey (YRBS)

**Public Health Importance:**
Alcohol use among youth is associated with a wide variety of risky behaviors, including driving while under the influence of alcohol. The American Medical Association reports that all alcohol consumption, even at low levels, has a negative impact on driver skills, perceptions, abilities and performance and poses significant health and safety risks. Motor vehicle crashes are the leading cause of death for young drivers. Drinking and driving or riding in a car with someone who has been drinking are clearly significant health risks for America’s youth.³

**Risk Factors:**
Vehicle deaths are the leading cause of death among those aged 15 to 20. Combining the lack of driving experience among teens with the use of substances that impair cognitive and motor abilities can be deadly.⁴

**Prevention:**
All states and the District of Columbia have 21-year-old minimum drinking age laws. It has been estimated that these laws have reduced traffic fatalities involving drivers 18 to 20 years by 13 percent.⁵

**Key Findings:**
- In Ohio, the overall percentage of students who rode with drivers who have been drinking alcohol decreased from 34.7 percent in 1997 to 22.8 percent in 2007.
- Ohio students (22.8 percent) were significantly less likely to ride with drivers who have been drinking alcohol than students nationally (29.1 percent) in 2007.
- The percentage of Ohio adolescents who have ridden with drivers who have been drinking alcohol has achieved the Healthy People (HP) 2010 goal of 30 percent.
- In Ohio, there was no significant difference between gender, grade level or race in the percentage of students who rode with drivers who have been drinking alcohol in 2007.
21 Critical Indicators


<table>
<thead>
<tr>
<th>Year</th>
<th>Ohio</th>
<th>U.S.</th>
<th>HP 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>34.7%</td>
<td>36.6%</td>
<td>30.0%</td>
</tr>
<tr>
<td>1999</td>
<td>31.9%</td>
<td>33.1%</td>
<td>30.0%</td>
</tr>
<tr>
<td>2001*</td>
<td>23.2%</td>
<td>30.7%</td>
<td>30.0%</td>
</tr>
<tr>
<td>2003</td>
<td>21.3%</td>
<td>30.2%</td>
<td>30.0%</td>
</tr>
<tr>
<td>2005</td>
<td>22.8%</td>
<td>28.5%</td>
<td>30.0%</td>
</tr>
<tr>
<td>2007</td>
<td>22.8%</td>
<td>29.1%</td>
<td>30.0%</td>
</tr>
</tbody>
</table>

*2001 YRBS was not administered in Ohio


<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>35.7%</td>
<td>38.3%</td>
</tr>
<tr>
<td>1999</td>
<td>33.0%</td>
<td>34.4%</td>
</tr>
<tr>
<td>2001*</td>
<td>23.7%</td>
<td>29.2%</td>
</tr>
<tr>
<td>2003</td>
<td>22.2%</td>
<td>27.2%</td>
</tr>
<tr>
<td>2005</td>
<td>23.6%</td>
<td>29.5%</td>
</tr>
<tr>
<td>2007</td>
<td>33.6%</td>
<td>34.5%</td>
</tr>
</tbody>
</table>

*2001 YRBS was not administered in Ohio
Healthy People 2010 Objective 26-10b
Reduce the percent of adolescents using marijuana in the past 30 days to 0.7 percent.

Data Source:
Ohio Youth Risk Behavior Survey (YRBS)

Public Health Importance:
Marijuana is used for the intoxication or high that it gives most users. For most youth, marijuana is not difficult to obtain. Many think marijuana is not as harmful as other illicit drugs; however, it has both short- and long-term health effects. The short-term effects include memory problems, loss of coordination, anxiety attacks and increased heart rate. Possible long-term effects include respiratory problems, a weakened immune system and cognitive deficits.³

Risk Factors:
Factors associated with marijuana use in teens include a history of cigarette smoking and/or use of alcohol, the use of alcohol and other drugs by family members, having friends that use drugs and who urge them to do the same, not getting along with their parents, coping with anger, anxiety or depression and physical and/or sexual abuse.⁴

Prevention:
While programs are often targeted to prevent particular types of substance use (tobacco, alcohol or illicit drugs), the ultimate goal of most social policy in this area, and of most parents, is to ensure teens are substance free. Because teens who are known to use one substance often use other substances, prevention programs that target multiple substances may be more successful than those that focus on only one.⁵ ⁶

Key Findings:
- In Ohio, the overall percentage of students who used marijuana in the past 30 days has significantly decreased from 24.6 percent in 1997 to 17.7 percent in 2007.
- In 2007, there was no significant difference between the percentage of Ohio students (17.7 percent) and students nationally (19.7 percent) who used marijuana in the past 30 days.
- While showing improvement over the past decade, the percentage of Ohio students who have used marijuana in the past 30 days was significantly above the Healthy People (HP) 2010 goal of 0.7 percent.
- In 2007, there was no significant difference between the percentage of males and females who have used marijuana in the past 30 days.
- In 2007, 11th and 12th graders were significantly more likely to have used marijuana in the past 30 days than ninth graders.
- There was no significant difference between the percentages of white, black or Hispanic students who used marijuana in the past 30 days in 2007.

<table>
<thead>
<tr>
<th>Year</th>
<th>Ohio</th>
<th>U.S.</th>
<th>HP 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>24.6%</td>
<td>26.2%</td>
<td>0.7%</td>
</tr>
<tr>
<td>1999</td>
<td>26.1%</td>
<td>26.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>2001*</td>
<td>21.4%</td>
<td>23.9%</td>
<td>0.7%</td>
</tr>
<tr>
<td>2003</td>
<td>20.9%</td>
<td>22.4%</td>
<td>0.7%</td>
</tr>
<tr>
<td>2005</td>
<td>17.7%</td>
<td>20.2%</td>
<td>0.7%</td>
</tr>
<tr>
<td>2007</td>
<td>19.7%</td>
<td>20.2%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

*2001 YRBS was not administered in Ohio


<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>28.8%</td>
<td>30.2%</td>
</tr>
<tr>
<td>1999</td>
<td>29.3%</td>
<td>30.8%</td>
</tr>
<tr>
<td>2001*</td>
<td>21.6%</td>
<td>27.9%</td>
</tr>
<tr>
<td>2003</td>
<td>22.9%</td>
<td>25.1%</td>
</tr>
<tr>
<td>2005</td>
<td>20.0%</td>
<td>22.1%</td>
</tr>
<tr>
<td>2007</td>
<td>22.8%</td>
<td>21.4%</td>
</tr>
</tbody>
</table>

*2001 YRBS was not administered in Ohio
Healthy People 2010 Objective 26-11d

Reduce adolescents engaging in binge drinking during the past month to 3.2 percent.

Data Source:
Ohio Youth Risk Behavior Survey (YRBS)

Public Health Importance:
Binge drinking seriously impairs judgment and places adolescents acutely at increased risk for the leading causes of death for this population: unintentional injuries (car crashes), intentional injuries (sexual assault, firearm injury and suicide) and alcohol poisoning. Additional consequences associated with binge drinking include increased risk for unprotected sexual intercourse, poor academic performance, use of other substances including nicotine and marijuana and serious health issues that may not become evident for a long time.

Risk Factors:
Environmental risk factors associated with adolescent drinking include having alcoholic parents; a lack of parental support, monitoring and communication; and having peers who drink.

Prevention:
Evidence-based interventions to prevent binge drinking and related harms include increasing alcoholic beverage costs and excise taxes; restricting the number of locations that sell alcoholic beverages in a given area; consistent enforcement of laws against underage drinking and alcohol-impaired driving; campus-based strategies to reduce high-risk drinking among college students; and physician screening, counseling and/or referral for alcohol problems.

Key Findings:
- In Ohio, the percentage of students who engaged in binge drinking during the past 30 days decreased significantly between 1999 and 2007.
- In 2007, there was no significant difference in the percent of Ohio students (28.8 percent) and students nationally (26.0 percent) who engaged in binge drinking.
- While showing slight improvement over the past decade, the percent of Ohio students who engaged in binge drinking during 2007 was still significantly above the HP 2010 objective of 3.2 percent.
- In 2007, there was no significant difference between the percentage of males (31.0 percent) and females (26.5 percent) who engaged in binge drinking.
- 11th (31.3 percent) and 12th (41.2 percent) graders were significantly more likely to have engaged in binge drinking than ninth graders (20.1 percent).
- White (29.4 percent) and Hispanic (34.7 percent) students were significantly more likely than black students (20.1 percent) to have recently engaged in binge drinking.
Healthy People 2010 Objective 27-02a
Reduction in tobacco use by students in grades nine through 12 to 21 percent.

Data Source:
Ohio Youth Risk Behavior Survey (YRBS)

Public Health Importance:
Cigarette smoking, an addictive behavior usually established in adolescence, is the primary preventable cause of death in the U.S. Youth who smoke are more likely to drink, use other drugs and engage in a variety of other risky behaviors. They are also less likely to be physically fit and more likely to suffer from respiratory problems.¹

Risk Factors:
Tobacco use is associated with alcohol and illicit drug use, and acts as a “gateway drug.” Tobacco use in adolescence is also associated with a range of other risky, health-compromising behaviors including being involved in fights, carrying weapons, engaging in high-risk sexual behavior and using alcohol and other drugs.²

Prevention:
Concerned parents may have more power over whether their children start using tobacco than they think. In a recent study, teens who thought their parents would disapprove of them smoking were less than half as likely to smoke as those who thought their parents didn’t care. Remember that despite the impact of movies, music and TV, parents can be the greatest influence in their kids’ lives. Parents should start talking about tobacco use when children are five or six years old and continue through their high school years. Parents should know if their children’s friends use tobacco, talk about ways to say “no” to tobacco and talk to children and teens about the false glamorization of tobacco on billboards and in other media.³

Key Findings:
- From 1993 to 2007, Ohio was similar to the nation in the percentage of students who reported smoking cigarettes in the past month.
- Males were significantly more likely than females to have used tobacco in the past month in Ohio in 2007.
- White and Hispanic students were significantly more likely than black students to have used tobacco in the past 30 days in Ohio in 2007.
- In 2007, Ohio students in the 12th grade were significantly more likely than ninth graders to have used tobacco in the past 30 days.

<table>
<thead>
<tr>
<th>Year</th>
<th>Ohio</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>29.7%</td>
<td>30.5%</td>
</tr>
<tr>
<td>1995+</td>
<td>34.5%</td>
<td>34.8%</td>
</tr>
<tr>
<td>1997</td>
<td>40.3%</td>
<td>36.4%</td>
</tr>
<tr>
<td>1999</td>
<td>22.2%</td>
<td>28.5%</td>
</tr>
<tr>
<td>2001*</td>
<td>24.4%</td>
<td>21.9%</td>
</tr>
<tr>
<td>2003</td>
<td>21.6%</td>
<td>23.0%</td>
</tr>
<tr>
<td>2005</td>
<td>20.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>2007</td>
<td>19.0%</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

+Data not available

*2001 YRBS was not administered in Ohio

### Percentage of Students Who Used Any Tobacco During the Past 30 Days, Ohio, 1999-2007

<table>
<thead>
<tr>
<th>Grade</th>
<th>1999</th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th Grade</td>
<td>36.4%</td>
<td>24.3%</td>
<td>20.2%</td>
<td>20.8%</td>
</tr>
<tr>
<td>10th Grade</td>
<td>49.1%</td>
<td>20.6%</td>
<td>31.1%</td>
<td>25.7%</td>
</tr>
<tr>
<td>11th Grade</td>
<td>55.0%</td>
<td>32.8%</td>
<td>35.9%</td>
<td>32.3%</td>
</tr>
<tr>
<td>12th Grade</td>
<td>49.8%</td>
<td>32.8%</td>
<td>42.1%</td>
<td>32.7%</td>
</tr>
</tbody>
</table>
References

Introduction


2. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Adolescent and School Health; Health Resources and Services Administration, Maternal and Child Health Bureau, Office of Adolescent Health; National Adolescent Health Information Center, University of California, San Francisco. *Improving the Health of Adolescents and Young Adults: A Guide for States and Communities*. Atlanta, GA: 2004.


   Available at http://www.childtrendsdatabank.org/indicators/19StudentsCarryingWeapons.cfm

   Available at http://www.childtrendsdatabank.org/indicators/22PhysicalFighting.cfm

   Available at http://www.childtrendsdatabank.org/indicators/46MarijuanaUse.cfm

   Available at http://pubs.niaaa.nih.gov/publications/arh27-1/79-86.htm

   Available at http://www.childtrendsdatabank.org/indicators/28CondomUse.cfm

   Available at http://www.childtrendsdatabank.org/indicators/34SuicidalTeens.cfm

   Available at http://www.childtrendsdatabank.org/indicators/70ViolentDeath.cfm

   Available at http://www.childtrendsdatabank.org/indicators/15OverweightChildrenYouth.cfm

   Available at http://www.childtrendsdatabank.org/indicators/3Smoking.cfm
Healthy People 2010 Objectives 06-02/Healthy People 2010 Objective 18-07 (developmental)


---

Healthy People 2010 Objective 09-07


Healthy People 2010 Objective 13-05


Healthy People 2010 Objective 15-15a


Healthy People 2010 Objective 15-19


---

**Healthy People 2010 Objective 15-32**


---

**Healthy People 2010 Objective 15-38**


Healthy People 2010 Objective 15-39


Healthy People 2010 Objective 16-03


Healthy People 2010 Objective 18-01


Healthy People 2010 Objective 18-02


Healthy People 2010 Objective 19-03b


Healthy People 2010 Objective 22-07
   Available at [http://www.childtrendsdatabank.org/indicators/16PhysicalActivity.cfm](http://www.childtrendsdatabank.org/indicators/16PhysicalActivity.cfm)

   Available at: [http://www.cdc.gov/HealthyYouth/physicalactivity/facts.htm](http://www.cdc.gov/HealthyYouth/physicalactivity/facts.htm)


---

Healthy People 2010 Objective 25-01
   Available at [http://dwhouse.odh.ohio.gov/](http://dwhouse.odh.ohio.gov/)

   Available at [http://www.cdc.gov/std/stats/chlamydia.htm](http://www.cdc.gov/std/stats/chlamydia.htm)

   Available at [http://www.cdc.gov/HealthyYouth/sexualbehaviors/index.htm](http://www.cdc.gov/HealthyYouth/sexualbehaviors/index.htm)

   Available at [http://www.childtrendsdatabank.org/indicators/23SexuallyActiveTeens.cfm](http://www.childtrendsdatabank.org/indicators/23SexuallyActiveTeens.cfm)

   Available at [http://www.childtrendsdatabank.org/indicators/100StatutoryRape.cfm](http://www.childtrendsdatabank.org/indicators/100StatutoryRape.cfm)


---

Healthy People 2010 Objective 25-11
   Available at [http://www.cdc.gov/yrbs](http://www.cdc.gov/yrbs)

2. Ohio Department of Health. 2007 *Youth Risk Behavior Survey.*  
   Available at [http://www.odh.ohio.gov/swf/yrbs.html](http://www.odh.ohio.gov/swf/yrbs.html)


---

**Healthy People 2010 Objective 26-01a**


---

**Healthy People 2010 Objective 26-06**


   Available at http://www.drugabuse.gov/newsroom/07/NR10-29.html


---

Healthy People 2010 Objective 26-10b

   Available at http://www.cdc.gov/yrbss

2. Ohio Department of Health. 2007 *Youth Risk Behavior Survey.*
   Available at http://www.odh.ohio.gov/swf/yrbs.html

   Available at http://www.childtrendsdatabank.org/indicators/46MarijuanaUse.cfm

   Available at http://www.nida.nih.gov/MarijBroch/parentpg9-10N.html

   Available at http://www.childtrendsdatabank.org/indicators/80SubstanceFreeYouth.cfm

   Available at http://www.childtrends.org/Files/Child_Trends-008_05_20_FS_WhatWorksSub.pdf

---

Healthy People 2010 Objective 26-11d

   Available at http://www.cdc.gov/yrbss

2. Ohio Department of Health. 2007 *Youth Risk Behavior Survey.*
   Available at http://www.odh.ohio.gov/swf/yrbs.html

   Available at http://www.cdc.gov/alcohol/quickstats/binge_drinking.htm

   Available at http://www.childtrendsdatabank.org/indicators/2BingeDrinking.cfm
Healthy People 2010 Objective 27-02a

   Available at http://www.childtrendsdatabank.org/indicators/3Smoking.cfm

   Available at http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=39871

   Available at http://www.cancer.org/docroot/PED/content/PED_10_2X_Child_and_Teen_Tobacco_Use.asp
Definitions

The following definitions apply to all objectives:

1. A 95 percent confidence interval is the range that, if the sampling was repeated numerous times and the confidence interval recalculated from each sample by the same method, 95 percent of the confidence intervals would contain the true value.

2. When differences between percentages or rates are noted in this report, this means the difference was statistically significant at the .05 level based on a standard test. Terms such as “more likely,” “less likely,” “higher” and “lower” are used in such instances. The terms “similar,” “no difference” or “not significant” are used to describe data when no statistically significant difference was observed. It should also be noted that very small differences may be statistically significant without being considered important clinically.

3. No control for confounding or other variables was undertaken for this report. Thus, differences between groups may be partially or completely due to differences in other variables that were not examined here.

Healthy People 2010 Objective 06-02/Healthy People 2010 Objective 18-07 (developmental)

1. The Youth Risk Behavior Survey (YRBS) is a biannual survey to monitor risk behaviors that contribute markedly to the leading causes of death, disability and social problems among youth and young adults in the United States. The survey was not conducted in Ohio in 2001.

2. Results are based upon the YRBS question: “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?”

3. Results are based upon the YRBS question: “When was the last time you saw a doctor, nurse, therapist, social worker or counselor for a mental health problem?”

Healthy People 2010 Objective 15-19

1. The Youth Risk Behavior Survey (YRBS) is a biannual survey to monitor risk behaviors that contribute markedly to the leading causes of death, disability and social problems among youth and young adults in the United States. The survey was not conducted by Ohio in 2001.

2. Results are based upon the YRBS question: “How often do you wear a seat belt when riding in a car driven by someone else?” Students answering “Never” or “Rarely” comprise the group considered not to wear seat belts. Students answering “Sometimes,” “Most of the time” or “Always” are considered to wear seat belts.
Healthy People 2010 Objective 15-38
1. The Youth Risk Behavior Survey (YRBS) is a biannual survey to monitor risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and young adults in the United States. The survey was not conducted in Ohio in 2001.

2. Results are based upon the YRBS question: “During the past 12 months, how many times were you in a physical fight?” Students answering “zero times” are considered to not have engaged in a physical fight. Students answering “one or more times” are considered to have engaged in a physical fight.

Healthy People 2010 Objective 15-39
1. The Youth Risk Behavior Survey (YRBS) is a biannual survey to monitor risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and young adults in the United States. The survey was not conducted in Ohio in 2001.

2. Results are based upon the YRBS question: “During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?” Students answering “zero times” comprise the group considered not to have carried weapons on school property. Students answering at least one time are considered to have carried weapons on school property.

Healthy People 2010 Objective 18-01
1. The Youth Risk Behavior Survey (YRBS) is a biannual survey to monitor risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and young adults in the United States. The survey was not conducted in Ohio in 2001.

2. A 95 percent confidence interval is the range that, if the sampling was repeated numerous times and the confidence interval recalculated from each sample by the same method, 95 percent of the confidence intervals would contain the true value.

Healthy People 2010 Objective 18-02
1. The Youth Risk Behavior Survey (YRBS) is a biannual survey to monitor risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and young adults in the United States. The survey was not conducted in Ohio in 2001.

2. Results are based upon the YRBS question: “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 a nurse?” Students answering “Yes” were considered to have attempted suicide. Students answering “No” or “I did not attempt suicide during the past 12 months” were considered to not have attempted suicide.
Healthy People 2010 Objective 19-03b

1. The Youth Risk Behavior Survey (YRBS) is a biannual survey to monitor risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and young adults in the United States. The survey was not conducted in Ohio in 2001.

Healthy People 2010 Objective 22-07

1. The Youth Risk Behavior Survey (YRBS) is a biannual survey to monitor risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and young adults in the United States. The survey was not conducted in Ohio in 2001.

2. Data based upon YRBS question: “On how many of the past 7 days did you exercise or participate in physical activity for at least 20 minutes that made you sweat and breathe hard, such as basketball, soccer, running, swimming laps, fast bicycling, fast dancing or similar aerobic activities?”

Healthy People 2010 Objective 25-11

1. The Youth Risk Behavior Survey (YRBS) is a biannual survey to monitor risk behaviors that contribute markedly to the leading causes of death, disability and social problems among youth and young adults in the United States. The survey was not conducted in Ohio in 2001.

2. Results are based upon the YRBS question: “Have you ever had sexual intercourse?”

3. Results are based upon the YRBS question: “During the past 3 months, with how many people did you have sexual intercourse?” Students answering, “I have had sexual intercourse, but not during the past 3 months,” were included.

4. Results are based upon the YRBS question: “The last time you had sexual intercourse, did you or your partner use a condom?”

Healthy People 2010 Objective 26-01a

1. Crashes in which a driver, passenger or non-occupant (usually pedestrian) has a blood alcohol level (BAL) of 0.08 g/dl or greater are defined as alcohol-related.

Healthy People 2010 Objective 26-06

1. The Youth Risk Behavior Survey (YRBS) is a biannual survey to monitor risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and young adults in the United States. The survey was not conducted in Ohio in 2001.
2. Results are based upon the YRBS question: “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?” Students answering “zero times” are considered to not have ridden in a vehicle driven by someone who had been drinking. Students answering “one or more times” are considered to have ridden in a vehicle driven by someone who had been drinking.

**Healthy People 2010 Objective 26-10b**

1. The Youth Risk Behavior Survey (YRBS) is a biannual survey to monitor risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and young adults in the United States. The survey was not conducted in Ohio in 2001.

2. Results are based upon the YRBS question: “During the past 30 days, how many times have you used marijuana?” Students answering “zero times” comprise group considered not to have used marijuana. Students responding that they had used marijuana “one or more times” in the past 30 days were considered to have used marijuana.

**Healthy People 2010 Objective 26-11d**

1. The Youth Risk Behavior Survey (YRBS) is a biannual survey to monitor risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and young adults in the United States. The survey was not conducted in Ohio in 2001.

2. Results are based upon the YRBS question: “During the past 30 days, on how many days did you have five or more drinks of alcohol in a row, that is, within a couple of hours?” Students answering “zero days” are considered not to have engaged in binge drinking. Students answering that they consumed five or more drinks within a couple hours on at least one day in the past 30 days were considered to have engaged in binge drinking.

**Healthy People 2010 Objective 27-02a**

1. The Youth Risk Behavior Survey (YRBS) is a biannual survey to monitor risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and young adults in the United States. The survey was not conducted in Ohio in 2001.

2. Data based upon YRBS question: “During the past 30 days, on how many days did you smoke cigarettes?” “During the past 30 days, on how many days did you use chewing tobacco, snuff or dip, such as Redman, Levi Garrett, Beech Nut, Skoal, Skoal Bandits, or Copenhagen?” and “During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars such as Black & Mild or Swisher Sweets?” Students answering “one or more days” were considered to have smoked cigarettes or used tobacco product.