This is the sixth edition of a publication that was created in a joint effort between the Wisconsin Department of Health Services (DHS) and the Department of Public Instruction (DPI) to summarize and provide context for Wisconsin data related to sexual risk behaviors and their outcomes, including sexually transmitted diseases, HIV, and unintended pregnancies.

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Overview

Purpose
- To present data available from a variety of sources regarding youth sexual behaviors and outcomes.

Sections
- Sexual behaviors
- Sexually transmitted diseases
- HIV infection
- Births to teens

Display of data
- Trends
- Comparisons by gender, race/ethnicity, geography within Wisconsin and to other jurisdictions in the United States

Data sources
- Listed at the end of each section

Data for the United States (U.S.) and other states and cities were obtained from national sources that have a lag of one to two years compared to Wisconsin data. In some cases, data for Wisconsin and Milwaukee presented here were obtained from national sources, rather than state or local sources, in order to facilitate comparisons with other jurisdictions.
The data in this section are from the high school Youth Risk Behavior Survey, conducted biennially by state and local jurisdictions, with oversight and support from the Centers for Disease Control and Prevention (CDC). The majority of questions are part of the core national survey. Jurisdictions also have the option of adding questions, such as the question regarding sex of sex partners, which is asked in both Wisconsin and Milwaukee.

Before viewing the data in this section, the reader is encouraged to estimate the percentage of high school students in both Wisconsin and Milwaukee who answered affirmatively (“yes”) to the following items:

1) Ever had sexual intercourse

Of students who have had intercourse:

2) Had intercourse with 4 or more partners during their life
3) Used a condom the last time they had intercourse
4) Drank alcohol or used drugs before the last time they had intercourse
5) Had intercourse before age 13

Of students who have had sexual contact:

6) Had sexual contact with a partner of the same sex
The percentage of high school students who reported having had sexual intercourse nationally was 47% in 2011. The percentage in Wisconsin was 42%. It was considerably higher in Milwaukee—60%. The percentage has remained stable over the decade in each of the three jurisdictions.
Wisconsin has the seventh lowest percentage of students who reported ever having had sexual intercourse of the 36 states reporting data.
The percentage of Milwaukee students who reported that they have ever had sexual intercourse in 2011 is among the highest of participating jurisdictions. The differences among the four districts with the highest percentages, Memphis (62%), Philadelphia (61%), Milwaukee (60%), and Detroit (60%), are not statistically significant. In Chicago, Milwaukee’s closest neighboring large city, the rate is significantly lower (52%).
The percentage of students, both male and female, in Milwaukee who reported four or more lifetime partners is substantially higher than those for Wisconsin and the U.S. One in three males in Milwaukee reported having four or nearly twice the percentage for males nationally.
A higher percentage of Blacks than Hispanics or Whites reported four or more lifetime partners, with larger differences between Black males and females than was the case for Hispanics.

Forty-three percent (43%) of Black male students in Milwaukee reported that they have had sex with four or more partners during their life, the third highest of participating districts after Philadelphia and Boston. Breakdowns by sex for Whites in Milwaukee are not available because of the limited sample size.
The percentage of sexually active high school students who report having used a condom at last intercourse was higher in Milwaukee (65%) than in Wisconsin (64%) or the U.S. (60%) in 2011. Condom use declined in all three jurisdictions (by 7% in Milwaukee, by 5% in Wisconsin, and by 2% in the U.S.) from 2003 to 2011.

Rates of condom use at last intercourse are higher among Blacks than among Hispanics and Whites, both nationally and in Milwaukee. Data are not available for White students in Milwaukee due to the limited sample size.
The percentage of sexually active students who reported that they had used alcohol or drugs before the last time they had sexual intercourse is comparable in the U.S., Wisconsin, and Milwaukee.

Use of substances before sex is more prevalent in males than in females.

Wisconsin’s rate of drinking before sex in the previous 30 days (24%) is comparable to the rate for the U.S. (22%); Milwaukee’s rate is substantially lower (14%) (data not shown).
The percent of sexually active high school students who reported having had sexual intercourse before age 13 is considerably higher in Milwaukee (14%) than in the U.S. (6%) or Wisconsin (4%).

The percentage of Milwaukee students reporting early initiation of sex increased by 27% from 2003 to 2011.
Black males in Wisconsin reported much higher rates of sexual intercourse before age 13 (38%) compared to Black females (9%) or Hispanic and White males and females. The percentage for Black males in Wisconsin is also much higher than for Black males nationwide (21%).
In 2007, 2009, and 2011 combined, 10% of Wisconsin students who have had sexual contact reported having had sexual contact with at least one partner of the same sex; the figure was 13% for Milwaukee. Some of these students also had opposite-sex partners. Presently, the question is not part of CDC’s core set of questions, so national data are not available.
During 2007-2011, students reporting same-sex sexual contact were more likely to have had sexual intercourse and engage in sexual risk behaviors than students with only opposite-sex partners. Youth with same-sex partners were nearly three times as likely to have had sexual intercourse before age 13 and twice as likely to have had more than four sexual partners throughout their lifetime.
Key Points: Sexual Behaviors of Wisconsin Students

Overall, students in Wisconsin report sexual risk behaviors at about the same frequency as their peers nationally in 2011.

- Ever had sexual intercourse: Wisconsin, 42%; U.S., 47%
- Used a condom at last sexual intercourse: Wisconsin, 64%; U.S., 60%
- Used alcohol or drugs before or during last intercourse: Wisconsin, 20%; U.S., 22%
- Had intercourse before age 13: Wisconsin, 4%; U.S., 6%
  - Variability by sex and race/ethnicity: Wisconsin Black males, 38%; White males and females, 2%
- Same-sex contact (of students with sexual contact): Wisconsin, 10%
  - Students with same-sex partners had higher rates of sexual risk behaviors, particularly early initiation of sex and four or more lifetime partners.
Key Points: Sexual Behaviors of Milwaukee Students

Overall, students in Milwaukee report riskier sexual behaviors than their peers nationally and in Wisconsin:

- Ever had sexual intercourse: Milwaukee, 62% (third highest of participating school districts)
- Had intercourse before age 13: Milwaukee, 14%; 27% increase from 2003 to 2011
- Same-sex contact (of students with sexual contact): Milwaukee, 13%

For these behaviors, Milwaukee students had lower risk behaviors than their peers nationally and in Wisconsin:

- Used a condom at last intercourse: Milwaukee, 65%; declined from 2003 to 2011
- Used alcohol or drugs before or during last intercourse: Milwaukee, 14%
Data Sources: Sexual Behaviors
Youth Risk Behavior Survey

Wisconsin Department of Public Instruction
Wisconsin Youth Risk Behavior Survey, 2011
http://www.dpi.state.wi.us/sspw/yrbsindx.html

Centers for Disease Control and Prevention
Youth Risk Behavioral Surveillance System, 2011

The Youth Risk Behavior Survey and Sexual Minority Youth in Wisconsin 2007-2011
This section provides data about the following three sexually transmitted diseases (STDs):

- **Chlamydia**
- **Gonorrhea**
- **Syphilis**

This section provides data about the following three sexually transmitted diseases (STDs):

**Chlamydia** is a sexually transmitted disease (STD) caused by bacterium called *Chlamydia trachomatis*. Although chlamydia can easily be screened for and cured with antibiotics, the majority of individuals do not experience symptoms and are unaware of an infection. If left untreated, chlamydia can cause pelvic inflammatory disease (PID) in women, which may result in chronic pelvic pain, infertility, and ectopic pregnancies (a life-threatening condition in which a fertilized egg grows outside the uterus). In rare cases, chlamydia infection may lead to sterility among men.1,2

**Gonorrhea** is a sexually transmitted disease (STD) caused by a bacterium called *Neisseria gonorrhea*. One-third of men and two-thirds of women who are infected with gonorrhea do not experience symptoms. Untreated gonorrhea can cause serious and permanent health problems in both women and men. Gonorrhea is a major cause of pelvic inflammatory disease (PID) in women, which may result in chronic pelvic pain, infertility, and ectopic pregnancies (a life-threatening condition in which a fertilized egg grows outside the uterus). In men, gonorrhea can cause a painful condition called epididymitis in the tubes attached to the testicles, and, in rare cases, cause sterility. Untreated gonorrhea can also spread to the blood or joints, a potentially life-threatening condition.2,3

**Syphilis** is a sexually transmitted disease (STD) caused by a bacteria called *Treponema pallidum*. If left untreated, syphilis can result in destructive lesions in the skin, bones, brain, or internal organs and damage to one or more organ systems in the body including the brain and nervous system and the heart and circulatory system. Syphilis prevention remains an important objective because of the serious consequences of untreated or inadequately treated syphilis and its role as a potential risk factor for HIV infection and transmission.4,5

Sexually transmitted diseases are the most common reportable diseases of adolescence. In 2010, more than 23,000 cases of Chlamydia were reported in all age groups in Wisconsin, including more than 7,600 among adolescents ages 15 to 19 and 5,000 cases of gonorrhea were reported, with more than 1,600 cases among adolescents. Syphilis affects a much smaller number of individuals. More than 180 cases were reported in Wisconsin in 2010; 13 of these were in adolescents.

More than 70% of chlamydia and gonorrhea cases in adolescents are reported among females. By contrast, the majority of syphilis cases are reported among males, an indication that male-to-male sexual transmission plays a bigger role in syphilis than in the other STDs.
From 2001 to 2010, the rate of chlamydia infection increased by 32% in Wisconsin while the gonorrhea rate declined modestly (-14%).

Chlamydia is the most commonly reported infectious disease in Wisconsin and in the U.S. Although chlamydia can be screened for and easily cured with antibiotics, the majority of individuals do not experience symptoms and are unaware of an infection so the numbers reported above do not fully capture the prevalence of the disease.

The majority of cases reported in Wisconsin in 2010 were female. According to the Centers for Disease Control and Prevention (CDC), the increase in reported chlamydia infections reflects the expansion of screening activities and more sensitive tests, an increased emphasis on case reporting from providers and laboratories, and improvements in the information systems used for reporting. However, many women who are at risk are not being tested.
Syphilis is much less common than chlamydia or gonorrhea. This slide shows cases, rather than rates per 100,000 because of small numbers of cases among persons ages 15-19. Thirteen cases were reported in 2010 in this age group, an increase from two cases in 2005. Of the 13 cases, 10 were reported from Milwaukee County, 10 were Black and nine were male.
In 2010, Blacks had the highest rates of chlamydia and gonorrhea in Wisconsin, substantially higher than rates of all other racial/ethnic groups.
Milwaukee has the second highest rates of both chlamydia (shown in Figure 17) and gonorrhea (not shown) of the 51 largest cities in the nation. Milwaukee’s rate (738 per 100,000) is more than 60% higher than the average rate of U.S. cities (452 per 100,000).

Wisconsin’s chlamydia rate for all age groups (410 per 100,000) is similar to the national rate (426 per 100,000), and the state’s gonorrhea rate (90 per 100,000) is lower than the U.S. rate (101 per 100,000, data not shown).
In 2010, adolescents and young adults ages 15-24 accounted for 72% of the chlamydia cases in the state and 66% of the gonorrhea cases (data not shown).

In Milwaukee County in 2010, nearly 6% of the 15-19 population was diagnosed with chlamydia (5,737 per 100,000), a rate more than four times greater than that for the rest of the state (1,293 per 100,000). The rate of gonorrhea for Milwaukee adolescents ages 15-19 (1,695 per 100,000) was nearly nine times greater than the rest of the state (197 per 100,000; data not shown).
This map illustrates the diversity in chlamydia case rates in adolescents ages 15-19 across Wisconsin counties. Menominee and Milwaukee Counties have the highest case rates.
The map shows chlamydia case rates in adolescents by City of Milwaukee zip code. The zip codes 53206 and 53210, had the highest rates in 2010.
Key Points: Sexually Transmitted Diseases in Wisconsin Youth

• More than 7,600 cases of chlamydia and 1,600 cases of gonorrhea were reported in Wisconsin adolescents aged 15-19 in 2010.

• From 2001 to 2010, the rate of chlamydia infection increased by 32% in Wisconsin while the gonorrhea rate declined modestly (-14%).

• STD rates are especially high in Milwaukee. For both chlamydia and gonorrhea Milwaukee’s rates are the second highest among major cities in the nation.

• Large racial/ethnic disparities are evident in STD rates. In 2010, STD rates for Blacks were more than ten times higher than those of Whites.
Data Sources: Sexual Transmitted Diseases

Wisconsin Department of Health Services, Division of Public Health, Wisconsin STD Program

Centers for Disease Control and Prevention
Sexually Transmitted Diseases - Interactive Data 1996-2008
This section provides data for cases of HIV and AIDS reported to Wisconsin Division of Public Health AIDS/HIV Program.

Because HIV is often diagnosed several years after the infection is acquired, this section uses the age group 15-24 rather than adolescents aged 15-19, as is used in the rest of this document.

HIV is the human immunodeficiency virus. It is the virus that can lead to acquired immune deficiency syndrome, or AIDS. There are two types of HIV, HIV-1 and HIV-2. In the United States, unless otherwise noted, the term “HIV” primarily refers to HIV-1. Both types of HIV damage a person’s body by destroying specific blood cells, called CD4+ T cells, which are crucial to helping the body fight diseases. (http://www.cdc.gov/hiv/topics/basic/)
The HIV diagnosis rate per 100,000 for the Milwaukee area (10.5) in 2009 was about half that for large cities nationally (22.2) and lower than that of nearby large cities. Madison’s diagnosis rate (6.6) and that for non-metro Wisconsin counties (approximately 2, not shown) are also considerably lower than for areas with comparable populations nationally (11.6 for metro areas and 7.4 for non-metro areas).
Figure 22 shows reported cases of HIV for males and females, ages 15-24 and 25 and older in Wisconsin. The only group with an increase in cases over this period is males, ages 15-24 (+167%). Cases remained level among older males and females and declined in younger females (-58%).

Younger males also account for a much greater proportion of all reported cases than in the past—23% in 2011, compared to 9% in 2002. The three other groups account for a declining percentage of cases over the decade.

The number of cases reported among young males in 2012 was eight times higher than among young females.
Reported cases of HIV among young Black males, ages 15-24 more than quadrupled, whereas, they increased by about 40% among both Hispanic/Latino and White males from 2002 to 2011.
More than 90% of reported cases among persons ages 15-24 in Wisconsin in 2011, were attributable to sexual transmission—84% in men who have sex with men (MSM) (including a small number of MSM who also injected drugs), 9% in females with high-risk heterosexual contact [sex with a person known to be HIV-positive, an MSM, or an injection drug user (IDU)], and 3% in males with high-risk heterosexual contact. Injection drug use accounts for about 3% of cases in this age group.
Cases of HIV in young people ages 15-24, were reported in 35 of Wisconsin’s 72 counties during the period 2005-2009. Of the 277 cases reported with an initial HIV or AIDS diagnosis in Wisconsin, 55% were from Milwaukee County and 14% from Dane County. Five cases (not shown) were reported from correctional settings.
Key Points: HIV Infection

• Reported cases of HIV increased by four-fold among young males, ages 15-24 over the decade. Most of the increase is attributable to an increase in cases in young Black men who have sex with men (MSM).

• Male-to-male sexual contact accounts for 84% of HIV transmission in young people, ages 15-24.
Data Sources: HIV Infection

Wisconsin Department of Health Services, Division of Public Health, Wisconsin AIDS/HIV Program
http://www.dhs.wisconsin.gov/aids-hiv/Stats/index.htm

Centers for Disease Control and Prevention, 2010
Diagnoses of HIV infection and AIDS in the United States and Dependent Areas, 2009, HIV Surveillance Report, Volume 21
According to the Centers for Disease Control and Prevention (CDC), childbearing by teenagers is a matter of public concern because of the elevated health risks for teen mothers and their infants, as well as significant public costs. (CDC: Birth Rates for U.S. Teenagers Reach Historic Lows for All Age and Ethnic Groups. http://www.cdc.gov/nchs/data/databriefs/db89.pdf)
Teen birth rates declined by 28% in the City of Milwaukee and by 17% and 16% in the United States and Wisconsin respectively from 2000 to 2010. Milwaukee’s teen birth rate was 74% higher than the national rate in 2010.
From 2000 to 2010, the rates of teen births have declined for each racial and ethnic group in Wisconsin. The overall rate of decline was 26%; the greatest decline occurred among Asians (50%), followed by Hispanics (40%), Blacks (36%), and Whites (30%). After an increase mid-decade, teen birth rates also declined among American Indians from 2007 to 2010.

In 2010, teen birth rates were similar among American Indians, Blacks, and Hispanics/Latinas—more than three times higher than that of Whites.
The percentage of all births that are to teens declined in all racial/ethnic groups from 2000 to 2010, with the greatest percentage decline in Laotian/Hmong women.

Births to teens continue to make up a considerable proportion of births in some groups. In 2010, one in five births to Black women and one in six births to American Indian women were to teen mothers ages 15-19.
About one in six (16%) births in Milwaukee is to a mother under the age of 20, the sixth highest rate among large U.S. cities.
Birth rates declined by 24% among Blacks between 2000 and 2009 and by 7% among Hispanics/Latinas. Rates for both groups were more than five times higher than those of Whites in 2009. Birth rates dropped by 68% among Whites over the decade.
In 2008-2010, teen birth rates per 1,000 were highest in Menominee County (137), followed by Adams (60) and Milwaukee (57) Counties.
Key Points: Births to Wisconsin Teens

- The rate of births to teens, ages 15-19, declined by 26% in Wisconsin between 2000 and 2010 with the greatest declines in rates among Asians, Hispanics, and Blacks.

- Birth rates among American Indians, Blacks and Hispanics/Latinas were more than three times higher than those of Whites in 2010.

- The percentage of all births that were to teen mothers declined in all racial/ethnic groups between 2000 and 2010. The groups with the largest percentages of all births that were to teens were Blacks (20%) and American Indians (16%).

- Menominee, Adams, and Milwaukee Counties had the highest teen birth rates in 2008-2010.
Key Points: Births to Milwaukee Teens

- Of large U.S. cities, Milwaukee was sixth highest in the percentage of all births to teens.
- Milwaukee’s rate was 66% higher than the national rate in 2010.
- Milwaukee’s teen birth rate declined by 17% from 2000 to 2010.
- In Milwaukee, teen birth rates are five times higher among Blacks, American Indians, and Hispanics/Latinas, compared to those of Whites.
Births to Teens: Data Sources


Wisconsin Interactive Statistics on Health (WISH), Wisconsin resident birth certificates.


Resident Birth Certificates, Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics
The table shows disparity ratios for four health outcomes with Whites as the reference group. For chlamydia, gonorrhea and HIV, Blacks have rates that far exceed those of any other racial/ethnic group. For births to teens, rates are highest in American Indians, followed by Blacks.
Key Points: Sexual Behaviors, STDs, HIV, and Teen Births in Wisconsin

- Youth sexual risk behaviors are associated with STDs, HIV infection, and teen births.

- Compared to their U.S. peers, Wisconsin youth have lower rates of sexual risk behaviors and related adverse outcomes.

- However, teens in Milwaukee, especially Blacks, have higher rates of teen births, sexually transmitted diseases, and HIV than do adolescents in other ethnic groups. In some cases, these rates are among the highest in United States cities. Teen birth rates are high among Hispanics/Latinas and American Indians as well as among Blacks.

- There are a few favorable trends:
  - Reported cases of HIV attributed to heterosexual transmission and injection drug use among teens declined from 2001 to 2010.
  - Teen birth rates declined by 26% in Wisconsin from 2000 to 2010, including by more than 30% among Asians, Hispanics/Latinas, and Blacks.
Sexual behaviors in youth and their adverse outcomes, including sexually transmitted diseases, HIV infection, and unplanned pregnancies, are addressed in the section Sexual and Reproductive Health of the state health plan, Healthiest Wisconsin 2020, released July 2010.
Links to additional reports


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