

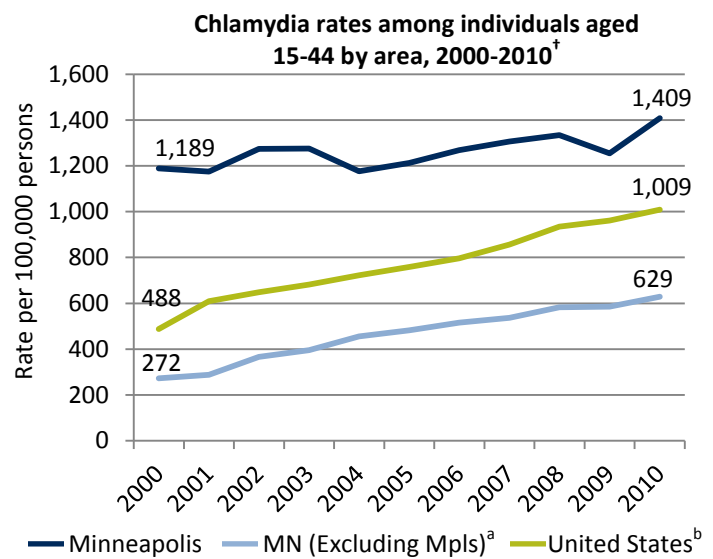


Sexually transmitted diseases (STDs) have enormous health and economic consequences for individuals and communities. STDs can lead to serious reproductive health complications including infertility, pelvic inflammatory disease (PID), and cervical cancer, and some infections can spread to the joints, heart, or brain. The Centers for Disease Control and Prevention estimates that 19 million new sexually transmitted infections occur in the United States each year and that STDs cost the U.S. health care system \$17 billion annually.¹ While the government requires that healthcare providers report cases of several STDs such as chlamydia, gonorrhea, and syphilis, many common STDs such as human papilloma virus (HPV), herpes simplex virus (HSV), and trichomoniasis are not required to be reported. Chlamydia and gonorrhea are the most commonly reported STDs in the United States; however, reported cases are an underestimate of the true incidence because some individuals who are infected do not experience symptoms that typically prompt people to seek STD testing. Studies have shown that nearly 80% of individuals with chlamydia infections do not exhibit common symptoms of disease, and a similarly large proportion of gonorrhea cases are asymptomatic.² As a result, it is estimated that only half of chlamydia and gonorrhea cases are reported each year.^{3,4}

Between 2000 and 2010 the city of Minneapolis experienced an overall increase in chlamydia rates and an overall decrease in gonorrhea rates. This brief report compares STD trends for Minneapolis, Minnesota, and the United States; examines differences within Minneapolis by race/ethnicity, age group, gender, and local community; and highlights some collaborative efforts in Minneapolis designed to decrease the spread of STDs. In order to examine trends in the age group most affected by STDs and compare Minneapolis rates to the Healthy People 2020 targets, most of the data presented in this report focuses on individuals aged 15 to 44.

Chlamydia Trends

Between 2000 and 2010 chlamydia rates for people aged 15-44 increased steadily in Minneapolis as well as in Minnesota and the United States. While the national rate increased by 107% and rates in areas of Minnesota outside Minneapolis rose 131%, Minneapolis experienced a comparatively smaller increase of 18.5%. However, Minneapolis rates remain higher than state and national rates, and Minneapolis continues to account for a disproportionate number of Minnesota's chlamydia cases. In 2010, 19% of the state's chlamydia cases among individuals aged 15 to 44 were in Minneapolis, while the city accounts for only 10% of the state's population in that age group. Chlamydia trends at the local, state, and national levels are shown in the chart at right.

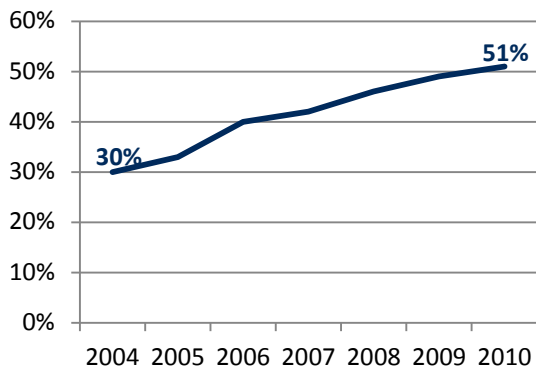


a Source: Minnesota Department of Health

b Source: Centers for Disease Control and Prevention

†Throughout this report, linear modeling was used to recalculate rates over the 10 year period using Census 2000 and 2010

Average percentage of sexually active females aged 16-24 screened for chlamydia among Minnesota medical groups, 2004-2010



Source: MN Community Measurement, MN HealthScores

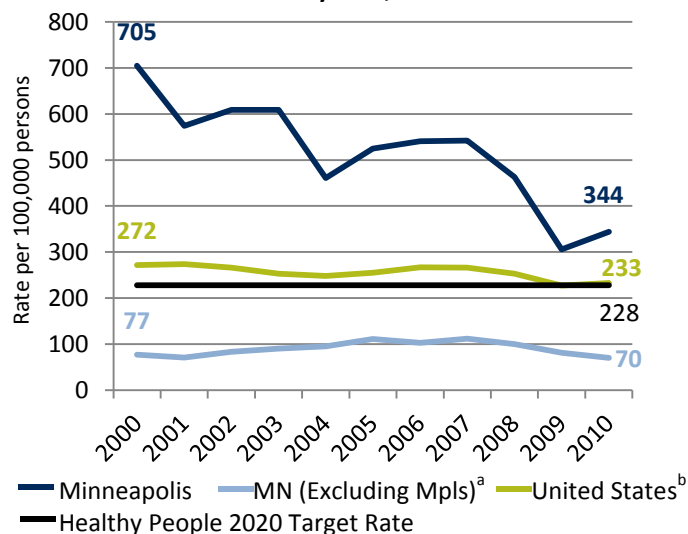
among Minneapolis medical groups were 62% and 63%, while the state averages were 49% and 51%, respectively. The observed increases in chlamydia rates at the city, state, and national levels may therefore reflect improved detection of cases rather than an actual increase in chlamydia infections. The trend in chlamydia screening in Minnesota is shown in the chart at left.

Gonorrhea Trends

In contrast to chlamydia, gonorrhea rates have fluctuated but have shown an overall decline. The rate of gonorrhea declined faster in Minneapolis than in other areas of Minnesota and the United States. Between 2000 and 2010 Minneapolis rates decreased by 51.2% while statewide rates outside of Minneapolis decreased by 9% and national rates declined 14%. While the Minneapolis gonorrhea rate remains higher than the city's Healthy People 2020 target rate of 228 cases per 100,000 persons aged 15-44, significant progress has been made toward meeting this goal. However, gonorrhea rates remain substantially higher in Minneapolis than in other areas of Minnesota, and in 2010 Minneapolis residents aged 15-44 accounted for 34% of gonorrhea cases despite representing only 10% of the state's population in that age group. Gonorrhea trends at the local, state, and national levels are shown in the chart at right.

It is important to note that much of the recent rise in chlamydia rates is due to intensified screening efforts and improvements in diagnostic technology. Studies have shown that, contrary to the increasing rate of reported chlamydia cases, the prevalence of chlamydia has remained stable or even decreased in particular subgroups of the U.S. population.⁵ The CDC recommends annual chlamydia screening for all sexually active females age 25 and under, and between 2000 and 2010 national rates of chlamydia screening nearly doubled.⁶ Similarly, the rate of chlamydia screening among Minnesota females aged 16-25 and enrolled in health plans increased by nearly 126% between 2000 and 2007, and recent data suggest that Minnesota screening rates have continued to increase.⁷ Detection of chlamydia cases through screening may be even higher in Minneapolis than in other areas of the state. In 2009 and 2010 the average screening rates

Gonorrhea rates among individuals aged 15-44 by area, 2000-2010



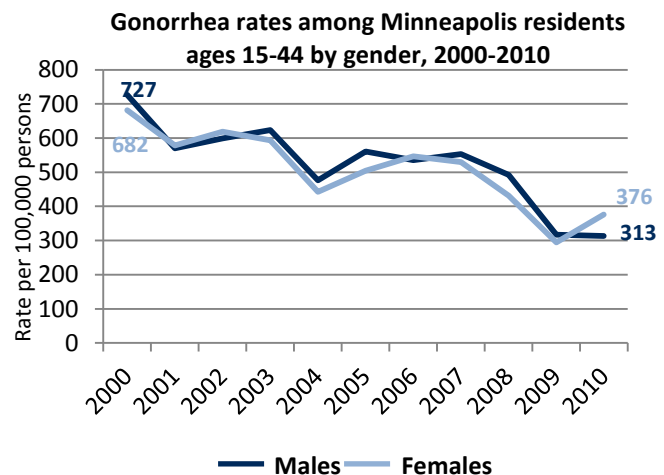
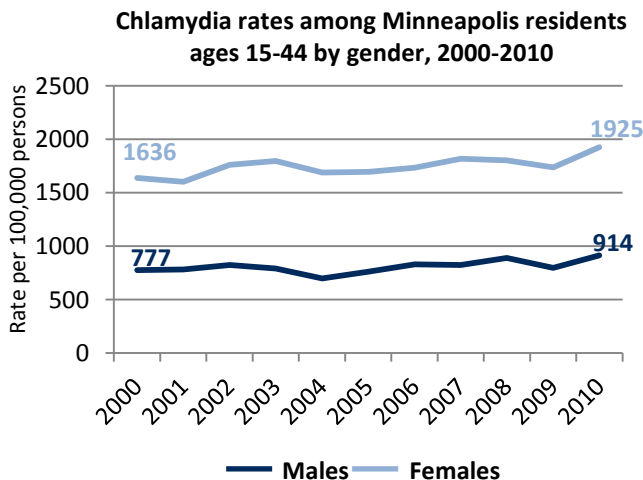
a Source: Minnesota Department of Health

b Source: Centers for Disease Control and Prevention

While the prevalence of gonorrhea is difficult to estimate, results of national surveys such as the National Health and Nutrition Examination Survey (NHANES), which includes testing for gonorrhea and chlamydia, indicate that gonorrhea prevalence is much lower than chlamydia prevalence. Furthermore, data from NHANES and additional studies suggest that gonorrhea prevalence has declined somewhat during the past decade.⁸

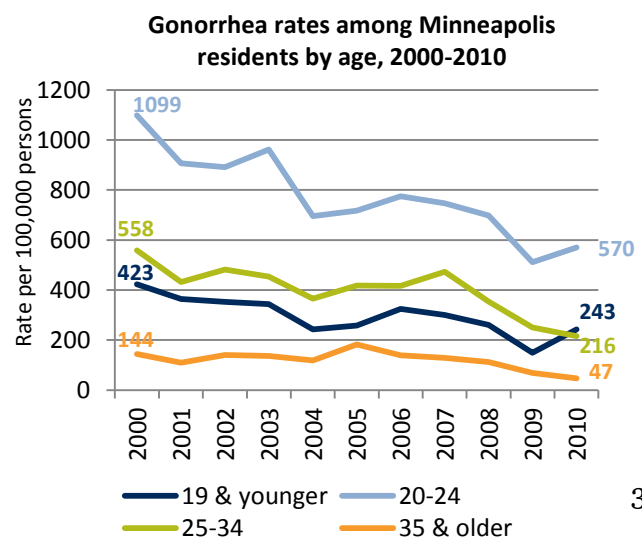
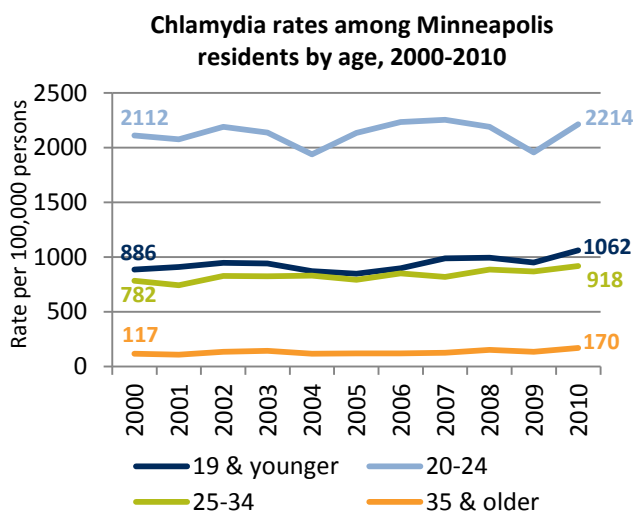
Minneapolis Trends by Gender

Between 2000 and 2010, gonorrhea rates declined substantially for both genders. Gonorrhea rates also remained very similar for males and females throughout that time period. In contrast, the rate of chlamydia increased about 18% in both genders but has consistently been about 2 times higher in females than males. The gender disparity in chlamydia rates is consistent with trends at the state and national levels.^{6,9} Because routine chlamydia screening is recommended only for females, this disparity could potentially reflect increased detection of chlamydia among women. Chlamydia and gonorrhea trends by gender are shown in the charts below.



Minneapolis Trends by Age

In 2010, individuals under age 25 accounted for over 65% of chlamydia and gonorrhea cases in Minneapolis. All age groups showed substantial declines in gonorrhea rates between 2000 and 2010. Rates among those under 20 and 20-24 decreased by 43% and 48%, respectively, and rates among adults 25-34 and 35 and older declined by 61% and 58%, respectively. In contrast, the rate of chlamydia increased in all age groups. Adults age 35 and over showed the largest relative increase, with rates rising by about 45%. The rate among those 19 and under increased nearly 20%, while the rate among adults aged 25-34 increased by 17%. Young adults aged 20-24 experienced a somewhat smaller increase of about 5%. These trends are illustrated in the charts below.

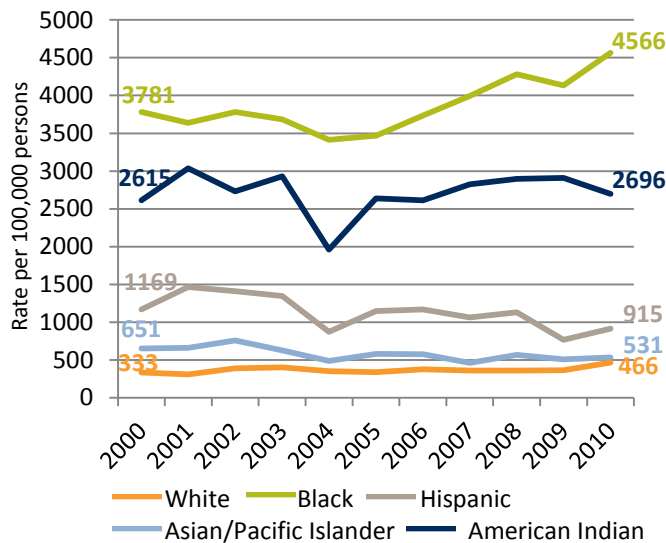


Minneapolis Trends by Race/Ethnicity

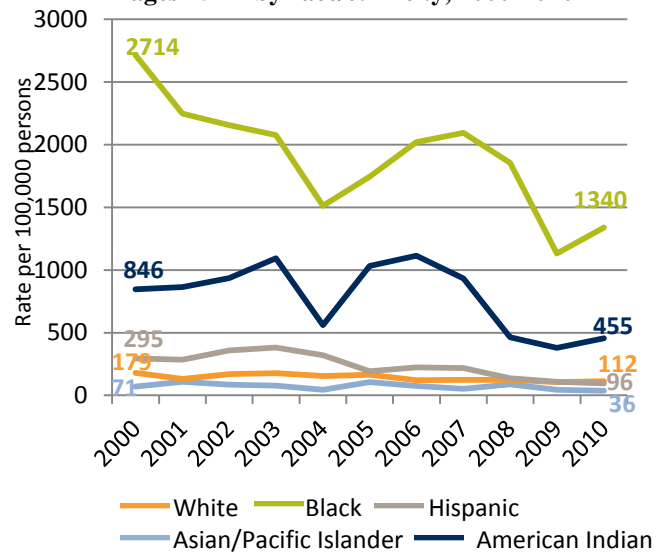
Racial/ethnic disparities in STD rates remain a particular concern in Minneapolis. Between 2000 and 2010, blacks consistently had the highest rates of chlamydia and gonorrhea while American Indians experienced the second highest rates. Disparities between blacks and whites have narrowed somewhat over the past decade. Between 2000 and 2010, the rate of gonorrhea among blacks decreased from 15 to 12 times higher than the rate among whites. The rate of chlamydia among blacks also decreased from 11.3 to 9.8 times higher than the rate among whites. Despite this progress, blacks remain disproportionately affected by STDs. In 2010 they accounted for 63% of gonorrhea cases and 53% of chlamydia cases in Minneapolis while representing only 16% of the city population.

Although gonorrhea rates have fluctuated somewhat, all races/ethnicities experienced overall declines between 2000 and 2010. In contrast, all groups except Hispanics and Asians showed increases in chlamydia rates. Trends for chlamydia and gonorrhea by race/ethnicity are presented in the charts below.

Chlamydia rates among Minneapolis residents ages 15-44 by race/ethnicity†, 2000-2010



Gonorrhea rates among Minneapolis residents ages 15-44 by race/ethnicity, 2000-2010



†Throughout this report, race and ethnicity are mutually exclusive. Hispanics of any race are classified as Hispanic.

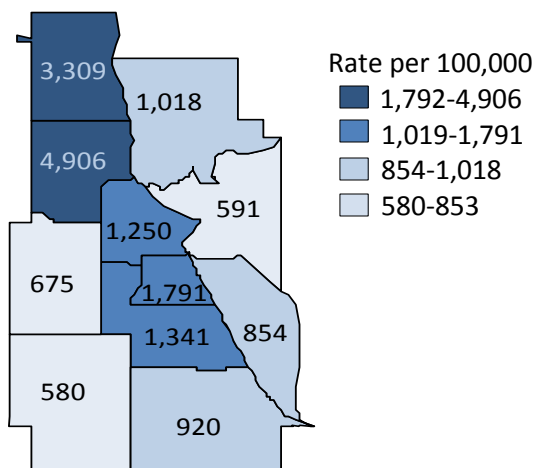
Minneapolis Trends by Community

Chlamydia and gonorrhea rates are concentrated in specific communities, as shown in the maps below with darker shades indicative of higher rates. In addition to high-risk sexual behaviors, community characteristics such as prevalence of STDs, socioeconomic status, and racial segregation are themselves major determinants of STD rates.¹⁰ The higher incidence of chlamydia and gonorrhea in some areas may therefore reflect the effects of social determinants of STD risk as well as the historically high burden of STDs within those communities.

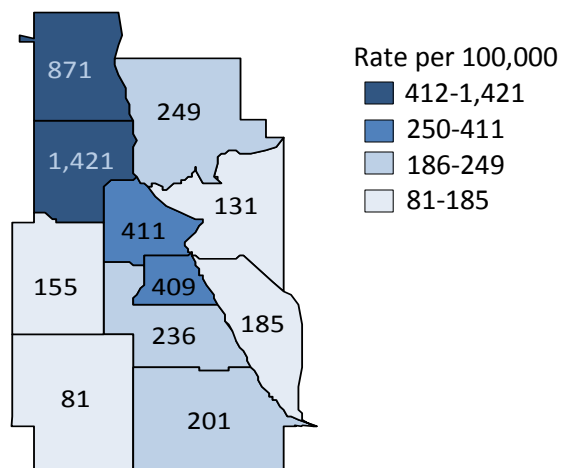
STD trends in individual Minneapolis communities tended to reflect overall Minneapolis trends between 2000 and 2010. All communities experienced declines in gonorrhea rates. The most dramatic declines were in the Powderhorn, Southwest, and Phillips communities, where rates decreased between 68 and 73%. Camden and Northeast experienced smaller declines, as rates decreased less than 10%. In contrast, the rate of chlamydia increased in nearly all communities. The most dramatic increases were in Camden and Calhoun-Isles, where rates increased 94% and 91%,

respectively. The only decreases in chlamydia rates were in Powderhorn and Phillips, where chlamydia rates decreased 9% and 24%, respectively.

Chlamydia rates among Minneapolis residents age 15-44 by community, 2010



Gonorrhea rates among Minneapolis residents age 15-44 by community, 2010



Local Prevention Efforts

Several programs and initiatives in Minneapolis aim to reduce the burden of STDs and improve the reproductive health of the city’s residents. One innovative partnership between the Department of Health and Family Support and Neighborhood HealthSource, *Seen on da Streets*, provides outreach to deliver health education and increase STD screening among young males. This project provides services to more than 2,000 young men each year.

Several efforts at the Minneapolis public schools also aim to prevent STDs and improve the sexual health of the city’s young people. These include adopting an evidence-based comprehensive sexual health education curriculum in Minneapolis middle schools and operating six school-based clinics in Minneapolis public high schools. The clinics provide accessible reproductive health services to high school students, including STD testing and treatment, reproductive health education, and counseling. During 2011 these clinics provided 2,820 reproductive health visits. The clinics have also been involved in several outreach efforts, including developing a peer education program to raise awareness about sexual health and participating in the nationwide Get Yourself Tested campaign to encourage young people to seek STD testing and treatment.

Additional programs in Hennepin County also contribute to STD prevention and treatment efforts in Minneapolis. The Red Door Services of the Hennepin County Public Health Clinic is the largest STD and HIV testing site in the state, providing walk-in STD testing, treatment, and reproductive health education. In recent years, Hennepin County also initiated the Safer Sex Initiative, a program involving several clinics that provide individual reproductive health counseling to sexually active youth in an effort to encourage safer sexual behaviors and prevent STDs and unintended pregnancy. Fourteen Minneapolis clinics including six school-based clinics currently participate in the program.

For more information about this report, please contact the Minneapolis Department of Health and Family Support at (612) 673-2301 or health.familysupport@minneapolismn.gov.

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