

DISEASE

2012 Report



Introduction

For an electronic
copy of the 2012
Disease Report

www.co.ramsey.mn.us/ph

The 2012 Disease Report provides final numbers, rates and trends for selected reportable diseases among Ramsey County residents for the year 2012. The source of information is a disease surveillance and reporting system maintained by the Minnesota Department of Health in conjunction with local jurisdictions, including Saint Paul – Ramsey County Public Health. The system is authorized by a State of Minnesota disease reporting rule (Minnesota Rules 4605.7000 - 4605.7800) and includes confirmed reports of disease from laboratories, clinics, schools and other partners throughout Minnesota. Multiple sources describe the analytic processes used in this report.¹⁻³

¹ Roush, S. (2011). Manual for the surveillance of vaccine-preventable diseases (5th ed.). Centers for Disease Control and Prevention. Retrieved from <http://www.cdc.gov/vaccines/pubs/surv-manual/chpt20-analysis-surv.html>

² Nelson, K. (2007). Infectious disease epidemiology: Theory and practice (2nd ed.). Sudbury, Mass.: Jones and Bartlett.

³ Minnesota Department of Health. Disease control newsletter. Retrieved from <http://www.health.state.mn.us/divs/idepc/newsletters/dcn/index.html>

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Sexually Transmitted Diseases



The number of cases of sexually transmitted diseases (STDs) reported is affected by several factors, including the availability of screening resources and programs in a community, changes in the type and accuracy of diagnostic tests and completeness of case reporting. Because of these factors, it can be difficult to interpret the reason for changes in the rates of STDs.

Clinic 555 (sexual health services) of Saint Paul – Ramsey County Public Health, along with community clinics and other community health care providers, offer many services related to the prevention and treatment of STDs.

Chlamydia

Infections caused by *Chlamydia trachomatis* are the most frequently occurring reportable disease in Ramsey County and Minnesota. There were 2,696 infections reported in Ramsey County in 2012, corresponding to a rate of 530 cases per 100,000 persons, which is higher than the rate in Minnesota and the United States. This represents a decrease of 1.3% from the previous year and accounts for 15% of the total cases reported in Minnesota.¹ However, the burden of disease is much greater in the City of Saint Paul. The incidence of chlamydia infection in Saint Paul was 795 cases per 100,000 persons, compared to 193 cases per 100,000 persons in the rest of Ramsey County. The City of Saint Paul alone made up 84% of cases in Ramsey County and 13% of the total cases reported in Minnesota.^{1,2} The incidence of chlamydia in the City of Saint Paul has increased 16% since 2009 from 687 to 795 cases per 100,000 persons. In contrast, the incidence in the rest of Ramsey County has decreased 11% for two years in a row from 217 to 193 cases per 100,000 persons.²

In 2012, ages ranged from 7 days to 63 years. Adolescents and young adults, however, make up the largest percentage of chlamydia infections. People between the ages of 15 and 24 years consistently make up approximately 70% of cases in Ramsey County, which was true in 2012. The mean and median age of cases was 23 and 21 years, respectively, which is also consistent with previous years.²

The majority of infected people have no symptoms, but serious complications can occur if infections are not detected and treated. In 2012, females accounted for 71% of chlamydia cases in Ramsey County.²

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Females are at higher risk of complications from chlamydia, which include pelvic inflammatory disease, permanent damage to the fallopian tubes, uterus, chronic pelvic pain, infertility, and potentially fatal ectopic pregnancy. Chlamydia infection can also increase the chances of becoming infected with other STDs, including HIV. Infections in pregnant women can potentially lead to premature delivery and eye and respiratory infections in their newborns. Women can also be re-infected by their sexual partners, which underscores the importance of having sexual partners of infected women screened and treated for chlamydia.

The City of Saint Paul alone made up 84% of cases in Ramsey County and 13% of the total cases reported in Minnesota.^{1,2}

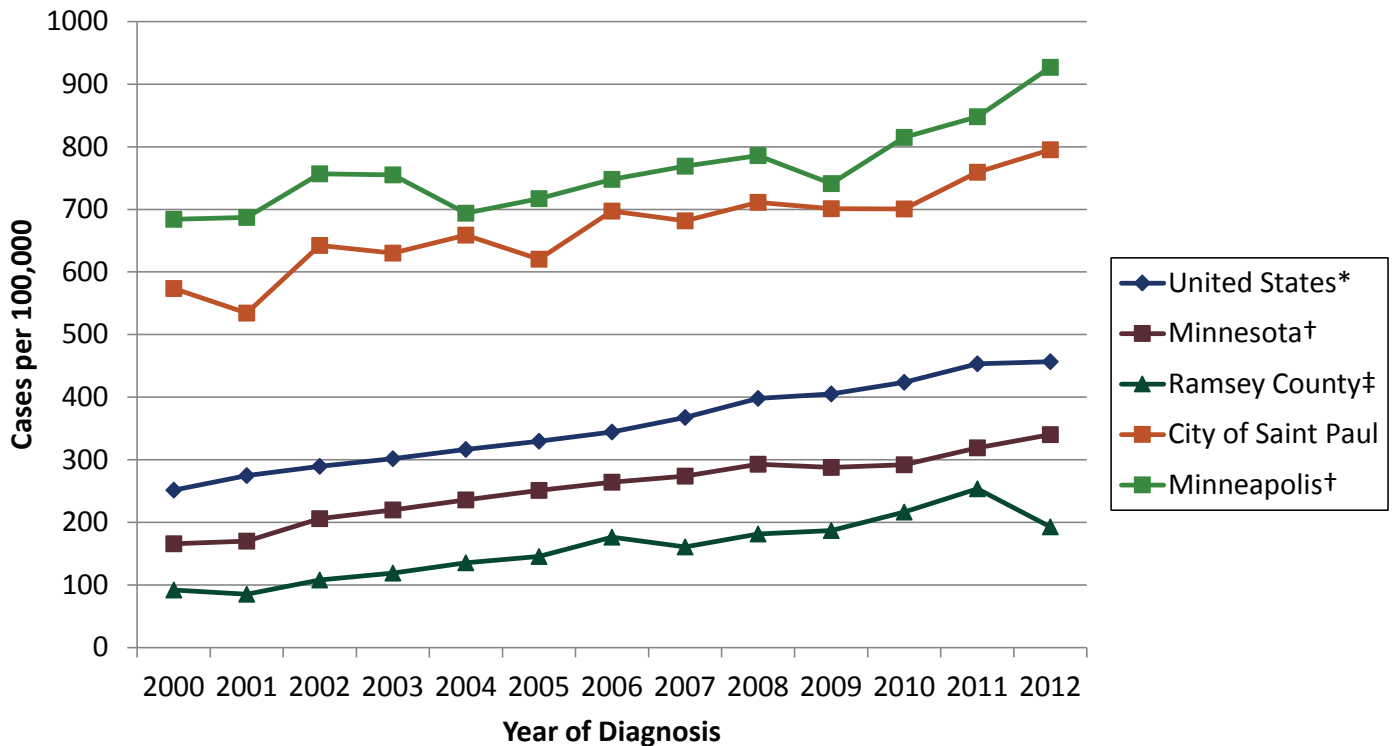
Screening people who are at risk is extremely important in the fight against chlamydia since such a large proportion of people can be infected without having symptoms, and can carry and pass the bacteria to others for up to two years while infected. The Centers for Disease Control and Prevention (CDC) updated the recommendations for chlamydia screening to include:³

- All pregnant females
- All sexually active females 25 years and younger should be screened annually
- All sexually active females older than 25 years who have one or more of the following risk factors:
 - » History of a STD
 - » New or multiple sexual partners
 - » African American race
 - » Cervical ectopy (an inflammation or erosion of cells on the cervix)
 - » Inconsistent use of barrier contraceptives during sex

In 2012, 11% of chlamydia cases in Ramsey County were diagnosed by Saint Paul - Ramsey County Public Health's Clinic 555. STD screening capability exists at Ramsey County Corrections locations (Juvenile Detention Center, Adult Detention Center, and Ramsey County Correctional Facility), however nearly all cases diagnosed by SPRCPH were diagnosed by Clinic 555.²

Sexually Transmitted Diseases

Chlamydia Incidence per 100,000 Population, Select Populations, 2000-2012



*Source: <http://www.cdc.gov/std/stats12/tables/1.htm>

†Source: <http://www.health.state.mn.us/divs/idepc/dtopics/stds/stdstatistics.html>

‡Does not include City of Saint Paul

Gonorrhea

Infections caused by *Neisseria gonorrhoeae* are the second most frequently occurring reportable sexually transmitted disease in Ramsey County and Minnesota. There were 582 infections reported in Ramsey County in 2012, corresponding to a rate of 114 cases per 100,000 persons, which is higher than the rate in Minnesota and just slightly higher than the rate in the United States. This represents an increase of 37% from the previous year and accounts for 19% of the total cases reported in Minnesota.^{1,2} Reported cases of gonorrhea in Ramsey County had decreased to 339 in 2010, the lowest number in over a decade. However, reports increased 72% between 2010 and 2012.²

The burden of disease is much greater in the City of Saint Paul. The incidence of gonorrhea infection in Saint Paul was 183 cases per 100,000 persons, compared to 26 cases per 100,000 persons in the rest of Ramsey

Sexually Transmitted Diseases

County.^{1,2} The City of Saint Paul alone made up 90% of cases in Ramsey County and 17% of the total cases reported in Minnesota.^{1,2} The incidence of gonorrhea in the City of Saint Paul has increased 88% since 2010 from 98 to 183 cases per 100,000 persons.² The incidence in the rest of Ramsey County increased 30% between 2011 to 2012, from 20 to 26 cases per 100,000 persons.²

In 2012, ages ranged from 13 to 59 years. Adolescents and young adults, however, make up the largest percentage of gonorrhea infections. In 2012, people between the ages of 15 and 24 years made up 66% of cases in Ramsey County. The mean and median age of cases was 24 and 22 years, respectively.²

Reports of gonorrhea increased 72% between 2010 and 2012.²

Unlike chlamydia, gonorrhea is diagnosed more evenly between men and women. In 2012, females accounted for 57% of gonorrhea cases in Ramsey County. Untreated gonorrhea infections can cause serious health consequences. Men may develop epididymitis, a painful condition of the testicles that can lead to infertility. Women may develop pelvic inflammatory disease that can lead to infertility and increase the risk of life-threatening ectopic pregnancy. Untreated gonorrhea also increases the risk of acquiring or transmitting HIV.⁴

Neisseria gonorrhoeae has developed resistance to every drug ever used to treat it. Only one class of antibiotics is still able to effectively treat the disease; cephalosporins. However, US surveillance data is indicating that resistant to these antibiotics is beginning. Because of this information, the Centers for Disease Control and Prevention has revised treatment guidelines for gonorrhea.⁴

In 2012, 14% of gonorrhea cases in Ramsey County were diagnosed by Saint Paul - Ramsey County Public Health's Clinic 555. STD screening capability exists at Ramsey County Corrections locations (Juvenile Detention Center, Adult Detention Center, and Ramsey County Correctional Facility), however nearly all cases diagnosed by SPRCPH were diagnosed by Clinic 555.²

¹ Minnesota Department of Health, STD and HIV Section. (2012). 2012 Minnesota sexually transmitted disease statistics. Retrieved from <http://www.health.state.mn.us/divs/idepc/dtopics/stds/stats/2012/stdreport2012.pdf>

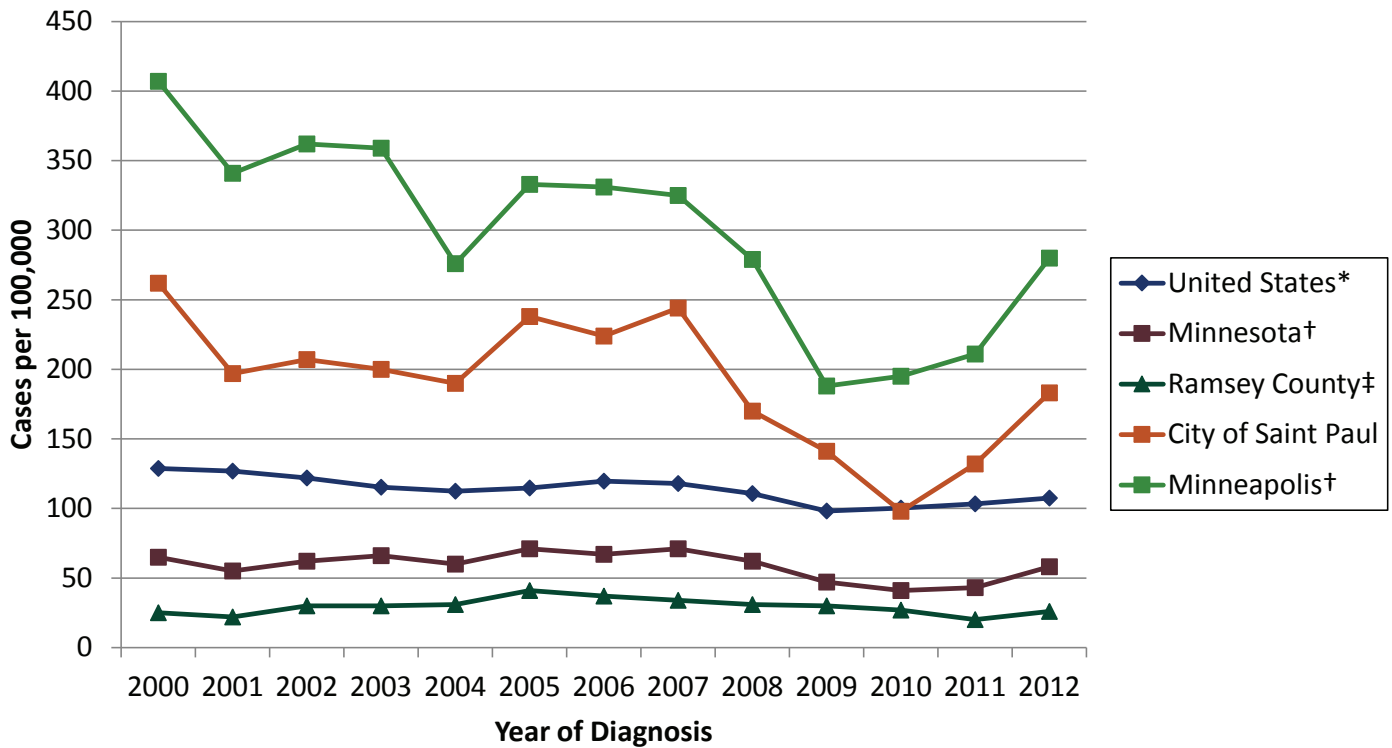
² Saint Paul – Ramsey County Public Health, Epidemiology. (2012)

³ Centers for Disease Control and Prevention. (2012). Chlamydia – CDC fact sheet (Detailed). Retrieved from <http://www.cdc.gov/std/chlamydia/stdfact-chlamydia-detailed.htm>

⁴ Centers for Disease Control and Prevention. (2013). CDC fact sheet: Gonorrhea treatment guidelines. Retrieved from <http://www.cdc.gov/nchhstp/newsroom/docs/Gonorrhea-Treatment-Guidelines-FactSheet.pdf>

Sexually Transmitted Diseases

**Gonorrhea Incidence per 100,000 Population,
Select Populations, 2000 - 2012**



*Source: <http://www.cdc.gov/std/stats12/tables/1.htm>

†Source: <http://www.health.state.mn.us/divs/idepc/dtopics/stds/stdstatistics.html>

‡Does not include City of Saint Paul

Tuberculosis

Reported cases of tuberculosis (TB) increased for the first time in the last five years. In 2012, 39 cases of active TB were reported in Ramsey County, an increase of 26% from the previous year. This corresponds to an incidence rate of 7.6 cases per 100,000 persons, which is the highest incidence rate of any county in Minnesota.^{1,2} Ramsey County continues to have higher rates than Minnesota (3.0 cases per 100,000 persons) and the United States (3.2 cases per 100,000 persons).¹ The rates of TB in Ramsey County, Minnesota and nationally have not met the Healthy People 2020 goal of 1.0 cases per 100,000 persons.³



In Ramsey County, the majority of cases continue to be in persons born in high incidence countries. In 2012, 82% of active TB cases were in persons born outside of the United States, which is identical to the average over the last decade. Of the 32 cases born outside of the U.S., 22% were diagnosed with TB disease before residing in the U.S. for a full year.²

These cases stress the importance of considering TB disease in patients who recently immigrated to the U.S. Early identification and treatment can greatly reduce the duration of contagiousness and can help reduce transmission of TB in the community. Sixty-six percent of foreign-born TB cases had resided in the U.S. for three years or longer prior to being diagnosed with TB disease.² These cases show the potential impact that domestic screening and treatment of latent TB infection in recently arrived refugees, immigrants, and other foreign-born persons could have on TB disease in Ramsey County. Cases born in the United States often report other risk factors including immunosuppression due to certain therapies or illnesses, substance abuse, and to a lesser extent being homeless, an inmate of a correctional facility, or a resident of a nursing home.¹

Ramsey County
has the highest
incidence rate of
tuberculosis in
Minnesota.

Of the new cases identified in 2012, 5 (19%) of 29 tested for drug sensitivities were resistant to one or more first line anti-TB medications. None of the 5 resistant cases were multidrug-resistant, which is defined as resistance to at least isoniazid and rifampin.²

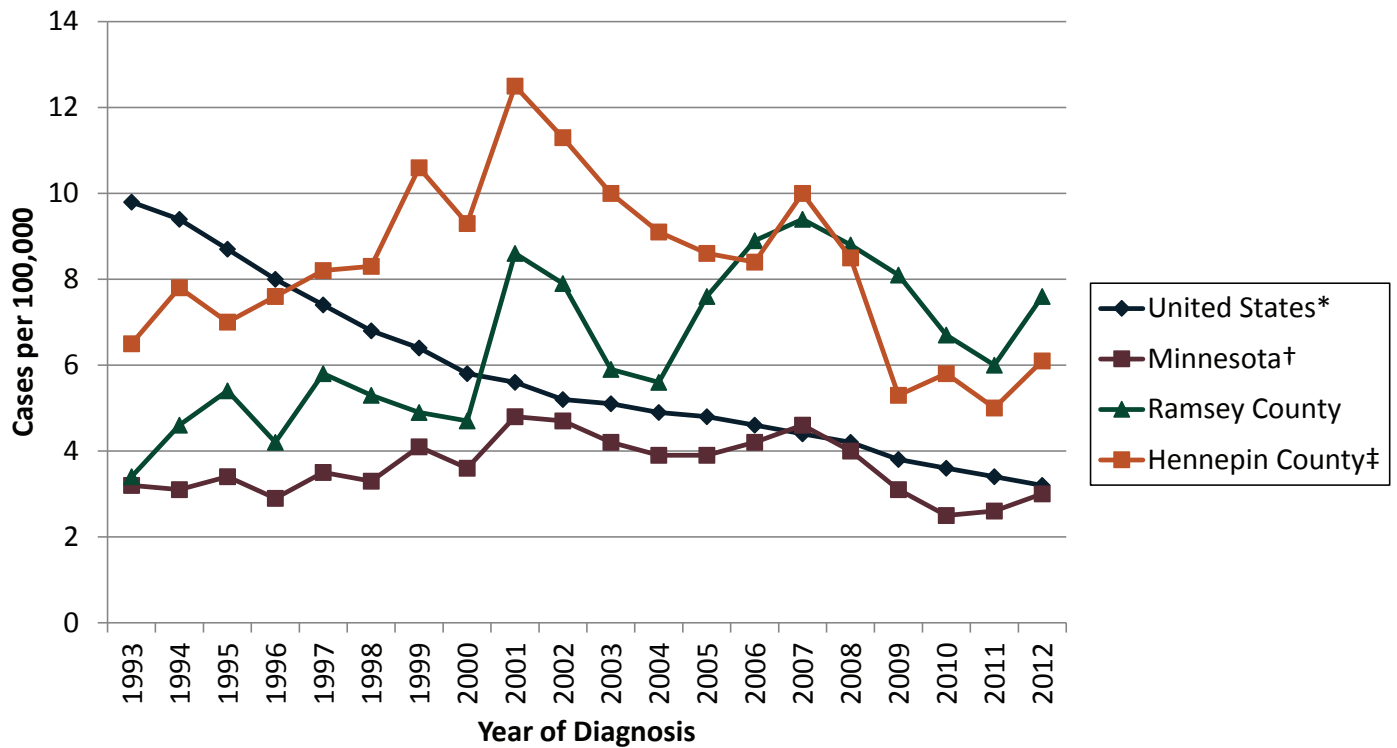
¹ Minnesota Department of Health, Tuberculosis Prevention and Control Program. (2012). The epidemiology of tuberculosis in Minnesota, 2008-2012. Retrieved from <http://www.health.state.mn.us/divs/idepc/diseases/tb/stats/>

² Saint Paul – Ramsey County Public Health, Epidemiology. (2012)

³ U.S. Department of Health and Human Services. Healthy people 2020. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases/objectives>

Tuberculosis

**Tuberculosis Incidence per 100,000 Population,
Select Populations, 1993 - 2012**



*Source: <http://www.cdc.gov/tb/statistics/default.htm>

†Source: <http://www.health.state.mn.us/divs/idepc/diseases/tb/stats/index.html>

‡Source: Hennepin County Epidemiology

In 2012, 233 cases of pertussis (“whooping cough”) were reported in Ramsey County, which is over four times more than the previous year.¹ The majority of cases occurred during the summer months; April through August. This dramatic increase in pertussis activity was seen in many Minnesota counties and many states across the U.S. Data from the Minnesota Department of Health show that we have not seen this level of pertussis activity in the state since before pertussis vaccine became available in the 1940s.²



Every city in Ramsey County, with the exception of Roseville, which reported the same number of cases, experienced an increase in pertussis activity between 2011 and 2012. The City of Saint Paul had the highest number of cases (115), but the cities with the highest incidence were White Bear Lake (115.4 cases per 100,000 persons), New Brighton (79.2 cases per 100,000 persons), and White Bear Township (63.9 cases per 100,000 persons). Overall, the incidence of pertussis was 45.8 cases per 100,000 persons in Ramsey County and 75.0 per 100,000 persons in Minnesota.¹

Pertussis impacts people of all ages. In 2012, ages ranged from 8 days to 76 years and the median age was 12 years. Despite the large range in ages, the majority of pertussis cases are reported in people 18 years or younger.¹ While pertussis affects people of all ages, infants are at greatest risk of complications. In order to protect them, Tdap vaccine is recommended for any woman who might become pregnant. Experts prefer women to receive Tdap vaccine before becoming pregnant. If a woman is not vaccinated prior to pregnancy, experts now recommend that they receive a dose of Tdap vaccine in the third trimester.

We have not seen this level of pertussis activity in the state since before pertussis vaccine became available in the 1940s.²

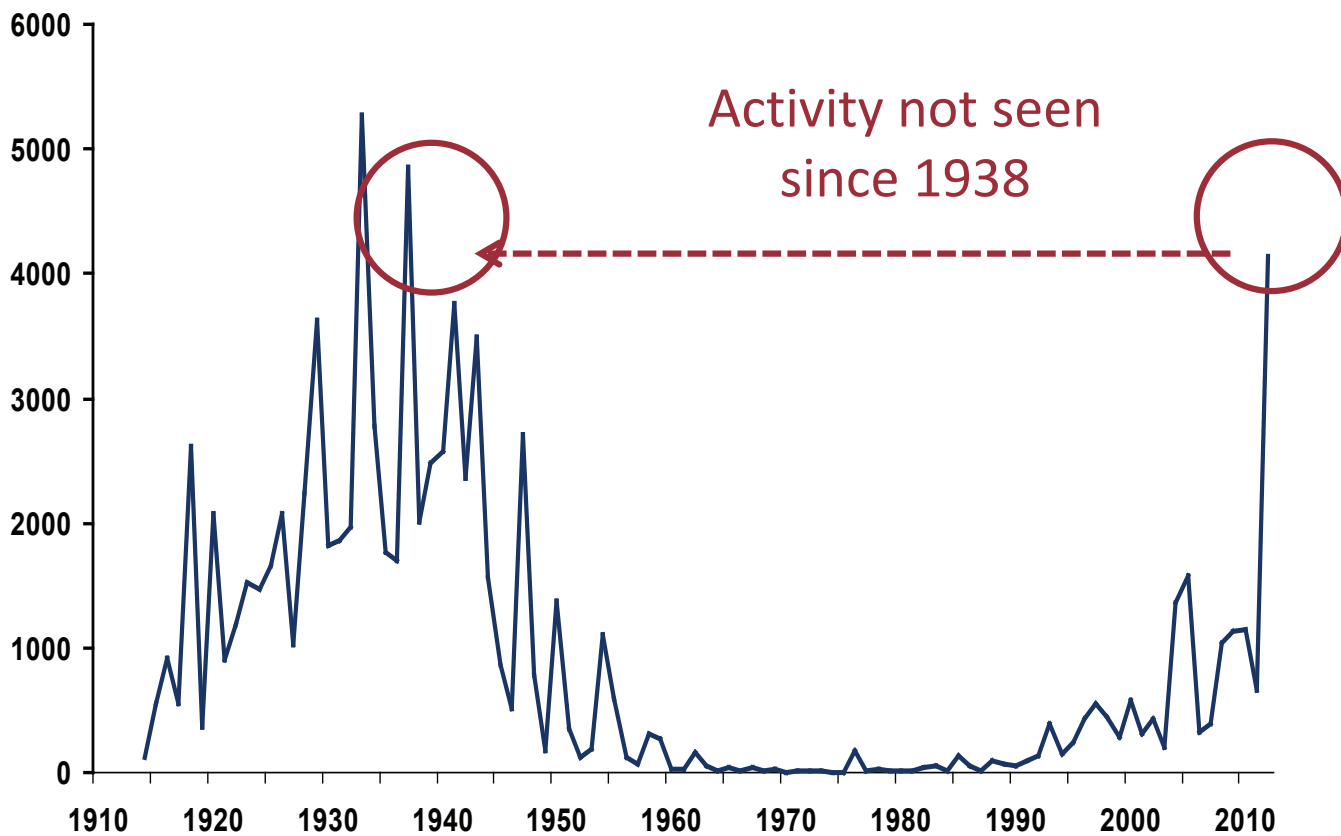
Recent studies suggest that while the vaccine provides excellent protection shortly after administration, immunity wanes in the few years following the last dose.²

¹ Saint Paul – Ramsey County Public Health, Epidemiology. (2012)

² Minnesota Department of Health. (2012). Annual summary of communicable diseases reported to the Minnesota Department of Health, 2012. Retrieved from <http://www.health.state.mn.us/divs/idepc/news-letters/dcn/sum12/pertussis.html>

Pertussis

Reported Cases of Pertussis,
Minnesota, 1914-2012



Source: Minnesota Department of Health

Contact Information

Saint Paul - Ramsey County Public Health has programs that detect and manage communicable diseases, provide childhood and adult immunizations, and promote positive sexual health behaviors.

For more information about public health programs | **651.266.2400**

The Epidemiology Program monitors the occurrence of disease, provides information and consultation on control of communicable diseases, and investigates acute disease outbreaks.

For more information about this disease report | **651.266.1277**