

Diseases Spread by Close Personal Contact



HIGHLIGHTS

- In Peel, meningococcal disease is most common among children aged less than one year, followed by those aged 15 to 19 years and one to four years.
 - The incidence of reported Group A streptococcal (GAS) infection in Peel has been increasing steadily since 1992. Part of the increase can be explained by a more inclusive case definition that has been used since 1995. Two outbreaks in 2001 raised rates in that year.
 - Group A streptococcal (GAS) infection is most common in children less than one year and those over 60 years.
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INTRODUCTION

Diseases spread by close personal contact are most often passed between family members or people who share living arrangements. Spread also occurs among casual contacts; however, it is much less likely since repeated, close and prolonged exposure is usually required for infection. Streptococcal and meningococcal infections are spread from the nasal and throat secretions of a person infected by or carrying the bacteria. Infection can occur directly or from large droplets produced by coughing and sneezing. Many people carry these organisms without being sick. Some types of meningococcal disease can be prevented by non-routine immunization. Tuberculosis (TB) is spread in the air when a person with active disease coughs up TB bacteria from their lungs (*TB is covered earlier in this report*).

MENINGOCOCCAL DISEASE

Invasive (life-threatening) meningococcal disease is caused by the bacterium *Neisseria meningitidis* (also known as meningococcus). Invasive disease arises as a result of infection of the lining of the brain (meningitis) or the blood stream. Canadian children under one year of age are most at risk for meningococcal infection, followed by children under five and those 15 to 19 years of age.³¹

Figure 5.1: Incidence of Meningococcal Disease, Region of Peel and Ontario, 1992–2001

NA: 2000 and 2001 Ontario data not available.

Note: Rates age-standardized using 1991 (adjusted) Canadian population.

Sources: Ontario Data from RDIS, Ontario Ministry of Health and Long-Term Care as of 07/17/2001.

Peel Data from RDIS, Region of Peel Health Department as of 02/15/2002.

Statistics Canada, Population Estimates and Projections distributed by the Ontario Ministry of Health and Long-Term Care.

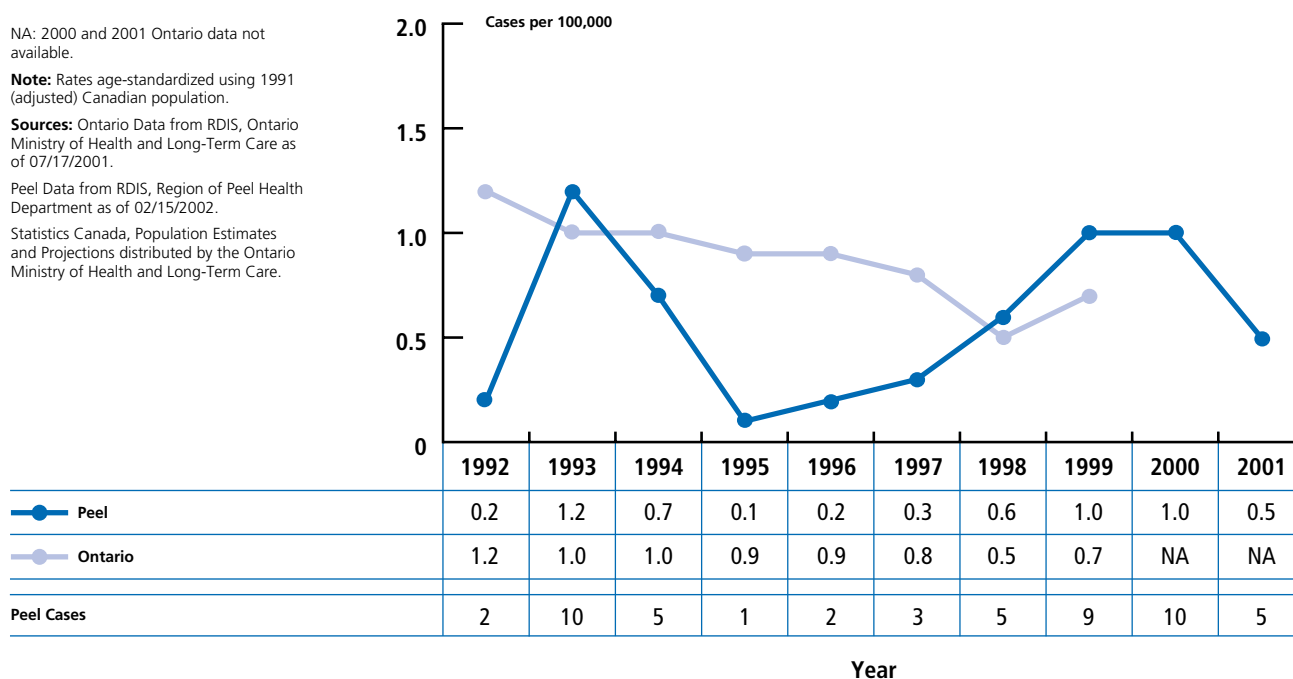
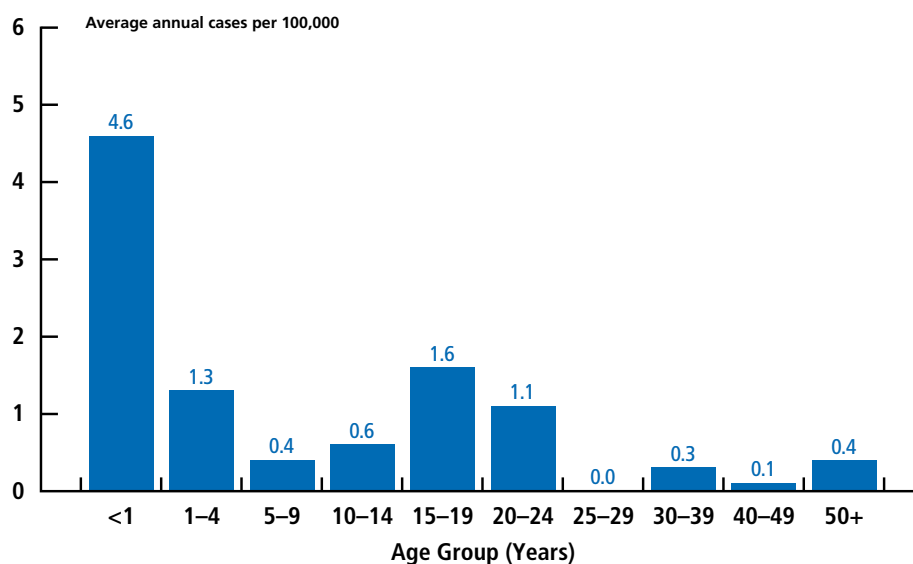


Figure 5.2: Incidence of Meningococcal Disease by Age Group, Region of Peel, 1992–2001 Combined

Sources: Peel Data from RDIS, Region of Peel Health Department, as of 02/15/2002.
Statistics Canada, Population Estimates and Projections distributed by the Ontario Ministry of Health and Long-Term Care.



GROUP A STREPTOCOCCAL (GAS) INFECTIONS

Group A streptococcal (GAS) infections are caused by bacteria that are responsible for a number of different infections. Common infections include pharyngitis and tonsillitis, scarlet fever and ear infections.³² Much more rarely, GAS causes severe, life-threatening (invasive) infections that may result in necrotizing fasciitis (flesh-eating disease) and toxic shock.³²

In 1996, the case definition of Group A streptococcal (GAS) infection was made more inclusive. In Peel in 2001, there were two outbreaks of GAS in long-term care facilities.

Figure 5.3: Incidence of Group A Streptococcal Infections, Region of Peel, 1992–2001

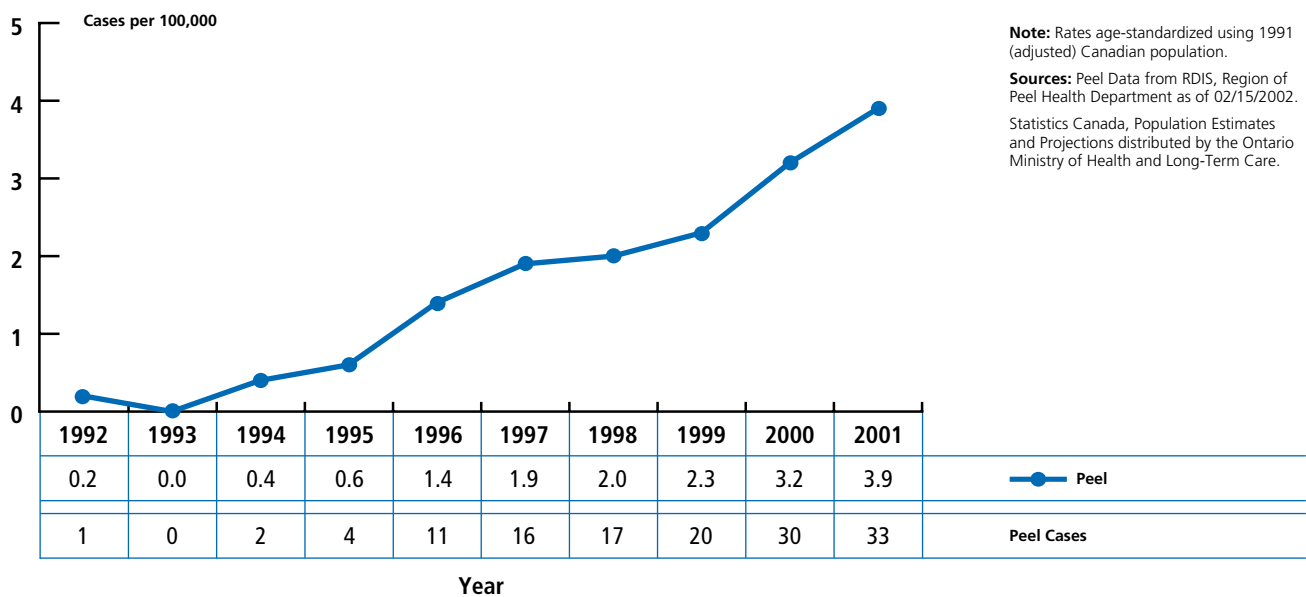
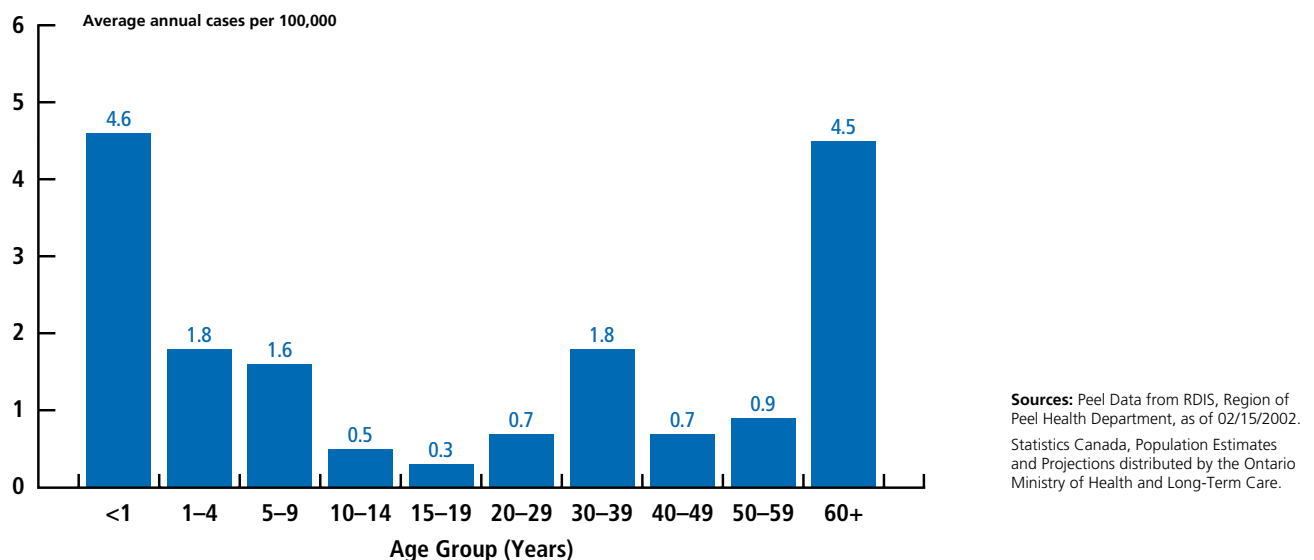


Figure 5.4: Incidence of Group A Streptococcal Infections by Age Group, Region of Peel, 1992–2001 Combined



NEONATAL GROUP B STREPTOCOCCAL (GBS) INFECTIONS

Group B streptococci (GBS) are a major cause of serious infections in infants from birth to three months of age.³³ GBS infections are transmitted from mother to infant during birth.³³ GBS can cause pneumonia, meningitis or a systemic infection. GBS can be prevented by screening women at 35 to 37 weeks of pregnancy and offering antibiotics.³³ Older children and adults can also be infected with GBS.

Figure 5.5: Incidence of Neonatal* Group B Streptococcal Infections, Region of Peel, 1996–2001

* All cases were among children less than one year old.

Note: Rates age-standardized using 1991 (adjusted) Canadian population.

Sources: Peel Data from RDIS, Region of Peel Health Department as of 02/15/2002.

Statistics Canada, Population Estimates and Projections distributed by the Ontario Ministry of Health and Long-Term Care.

