

## **Executive Summary**

Communicable diseases are illnesses caused by living organisms or the toxins they produce. They are spread directly from an infected person, animal or environmental source. Sometimes spread occurs indirectly by contaminated animals and objects.

The Communicable Disease Report 2003 is the second in a series of annual reports on communicable diseases in the Region of Peel. Most of the information comes from the mandated reporting of specific “Reportable Diseases” to the local Medical Officer of Health by Peel health care professionals, hospitals, labs and schools for the ten years ending in 2002.

This report provides data on a selected list of communicable diseases that are organized by mode of transmission (sexually transmitted and bloodborne diseases; vaccine preventable diseases; diseases spread by food and water; diseases spread by close personal contact and diseases spread by insects). In addition, it has an appendix section providing the number of cases and incidence of all communicable diseases reported in Peel, along with Ontario data. Diseases not reported in Peel during the time period covered in this report (i.e. no cases reported from 1993 to 2002 – or earlier) were not included in the appendix.

The report is intended to be a resource for individuals and organizations for whom communicable diseases are a concern. Further information on communicable diseases in Peel may be obtained by contacting the Region of Peel Health Department.

The key findings of the report are summarized below.

### **Sexually Transmitted Diseases (STD) and Blood-Borne Diseases**

In Peel, the incidence of AIDS has remained low and stable since 1997 (1.1 cases per 100,000 or less). Any variability from year to year may be due to the small number of cases.

The incidence of chlamydia, the most common STD (and most commonly reported communicable disease) in Peel, increased approximately 60% from 1996 to 2002 (100.6 to 160.8 cases per 100,000 population). The incidence of gonorrhea in Peel has remained stable from 2000 to 2002 (approximately 30-32 cases per 100,000). The incidence of chlamydia and gonorrhea were highest in those 15 to 24 years of age.

In Peel, the incidence of hepatitis B has been low since 1997 (approximately one case per 100,000 or less). The incidence of hepatitis C has steadily decreased since 1995, however it has been stable the last two years (approximately 30 cases per 100,000).

## **Vaccine Preventable Diseases**

The incidence of most vaccine- preventable diseases was low and had decreased over the past ten years. This is most likely due to high rates of immunization. Only two cases of measles have occurred since a second dose of measles vaccine was made mandatory in 1996. The incidence of mumps and rubella has also decreased since 1996, probably because vaccines for these diseases are routinely given a second time along with the measles vaccine as “MMR” (Measles/Mumps/Rubella conjugate vaccine). The incidence of influenza in the 2001/02 season was the highest in the previous nine years.

## **Diseases Spread by Food and Water**

The incidence of most diseases spread by food and water was generally higher for Peel than Ontario and was highest in those under five years of age. The increase in the incidence of shigellosis in 2002 was due to an outbreak associated with a prepared food product, involving several public health units in Ontario. These diseases were examined in more detail in the *State of the Region's Health 2003 – Focus on Foodborne Disease*.

## **Diseases Spread by Close Personal Contact**

One to ten cases of invasive meningococcal disease are reported in Peel every year. The incidence of this disease is highest in those less than one year of age, followed by those 15 to 19 and then those one to four. The incidence of invasive group A streptococcal infections decreased in 2002, after steadily increasing from 1993 to 2001. Much of this increase can be explained by improved reporting starting in 1996. The incidence of tuberculosis was generally stable in Peel from 1993 to 2002 and more common in the older age group.

## **Diseases Spread by Insects**

In Peel, approximately one to six cases per 100,000 of malaria are reported each year, with the exception of 1996 and 1997 which had a dramatic increase in incidence (16.4 and 15.6 cases per 100,000 respectively).

Cases of locally acquired West Nile Virus (WNV) occurred for the first time in 2002, with a total of 37 confirmed cases and 20 probable cases in Peel. There were also 28 hospitalizations and two deaths attributed to WNV in 2002.