Tobacco and Health— Successes and Challenges

HIGHLIGHTS

- Smoking is the greatest cause of premature and preventable death and disease in Canada.
- While adult rates of smoking have continued to decline into the 1990s, smoking rates for youths aged 15–19 years have actually increased from 1990 onward.
- Four important smoking related diseases are ischemic heart disease, chronic obstructive pulmonary disease, stroke, and lung cancer. They rank among the top ten causes of death for both men and women.
- As smoking rates have fallen, mortality rates from these diseases have declined. The improvement in mortality from chronic obstructive lung disease and lung cancer has affected mostly men. In Ontario as a whole, lung cancer mortality rates among women are rising.
- If the trend toward increased youth smoking rates continues, this group will experience increased disease and death rates over the next twenty years.

Tobacco and Health

Smoking is by far the greatest cause of *premature* death in Canada with over half of expected deaths attributable to smoking.[5] Smoking is also the largest cause of *preventable* death and disease in Canada.

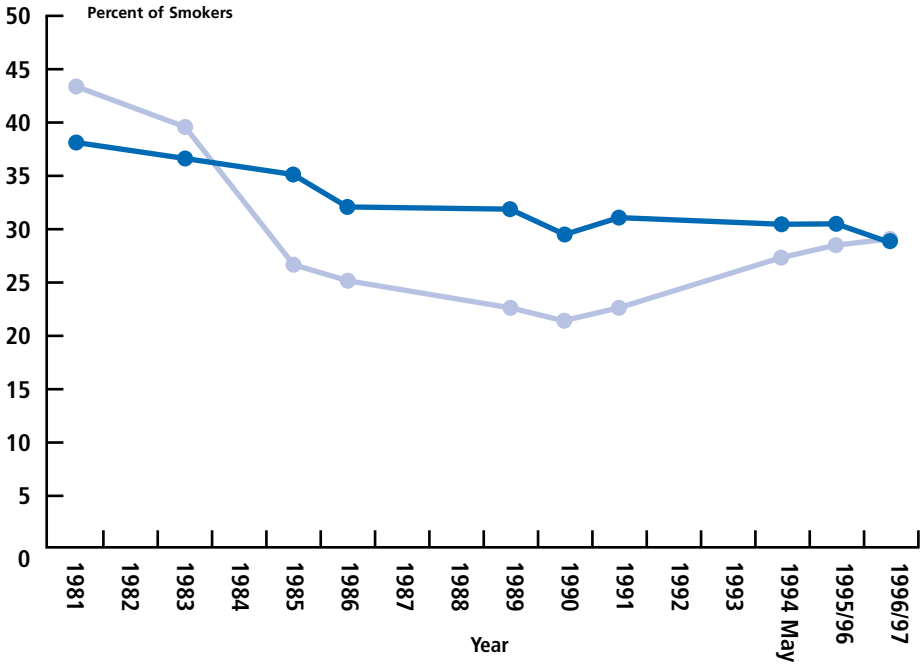
Tobacco use causes many health problems for smokers and non-smokers. This report focuses on four important smoking related diseases; ischemic heart disease, chronic obstructive pulmonary disease, stroke and lung cancer. Recent trends and statistics are presented to provide a snapshot of how the Region of Peel has progressed.

Trends in Smoking

Smoking rates in Canada and Ontario have shown substantial decreases over the past twenty years. A variety of surveys tracking smoking rates indicate that the proportion of adults who are smokers has declined from 36 per cent in 1981 to 26 per cent in 1996/97 as shown in Figure 4.[6] The proportion of Peel Region residents who reported being current (daily or occasional) smokers was 24 per cent in the 1996/97 Ontario Health Survey.

In Canada, smoking among males and females age 15–19 years declined until 1990 *(see Figure 4)*. However, during the 1990s there has been an increase in youth smoking rates for both sexes. Although not shown in the graph, smoking rates are slightly higher for female youths than males.[6]

Figure 4 — Tobacco Smoking Trends, Canadian Adults and Youth, 1981–1997



Source: Health Canada, Smoking in Canada During the Past 16 Years., 1999 January [cited 2001 July 6]:[2 screens]. Available from: URL: http://www.hc-sc.gc.ca/hppb/wired/smoking.htm

Trends in Smoking Related Diseases

Ischemic heart disease, chronic obstructive pulmonary disease, stroke and lung cancer are four important diseases caused by smoking.

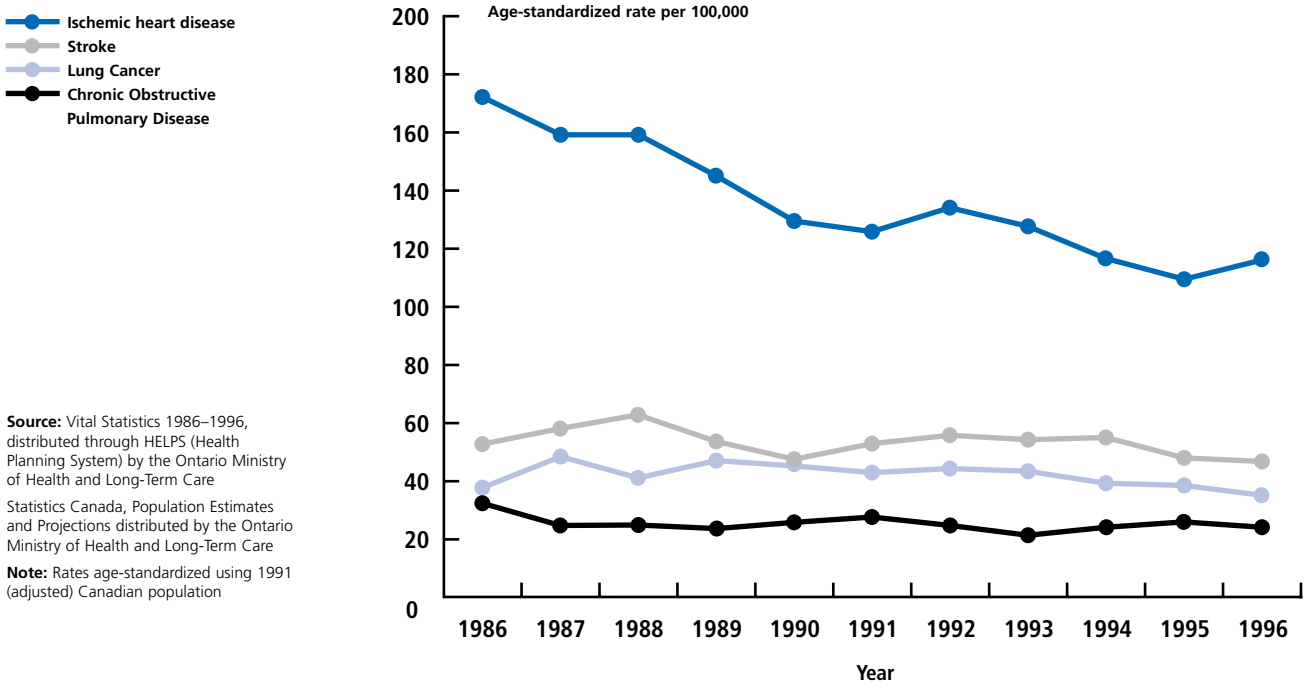
Risk factors for many of these diseases are similar and include smoking, inadequate physical activity, high blood pressure, being overweight, excessive alcohol consumption, diabetes and excessive blood cholesterol.[7]

Ischemic Heart Disease

- Ischemic heart disease involves narrowing of the arteries, and can lead to angina and heart attack. It is the leading cause of death in Peel and Ontario for both males and females. Male mortality rates for ischemic heart disease are twice as high as those for females.

- Between 1986 and 1996, the age-standardized mortality rate for ischemic heart disease declined by 32 per cent for the Region of Peel *(see Figure 5 on following page)*. Both males and females experienced declines in mortality over this period. This trend is part of a longer-term decrease in heart disease mortality in Canada since the late 1960s.[7] If the 1986 mortality rates had not declined, an additional 130 deaths due to ischemic heart disease would have occurred in the Region in 1996.

Figure 5 — Mortality Rates from Smoking Related Diseases Region of Peel, 1986–1996



Source: Vital Statistics 1986–1996, distributed through HELPS (Health Planning System) by the Ontario Ministry of Health and Long-Term Care

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

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

Chronic Obstructive Pulmonary Disease

- Chronic obstructive pulmonary disease refers to a group of diseases which cause obstruction of airways in the lungs and difficulty breathing. These diseases include asthma, emphysema and chronic bronchitis. In the Region of Peel, chronic obstructive pulmonary disease is the fifth leading cause of death for males, and the seventh leading cause of death for females. Male mortality rates are almost twice as high as those for females.

- Mortality due to chronic obstructive pulmonary disease declined by 26 per cent in Peel between 1986 and 1996. Males experienced sharp declines in morality rates of 38 per cent while female rates fluctuated over this time period. In Ontario, male mortality rates have declined more slowly, at 14 per cent, while for females, mortality rates have actually increased by 28 per cent.

Stroke

- Strokes occur when there is a lack of blood flow to the brain; usually as a result of blockages of brain arteries. In Peel, stroke is the second leading cause of death among women and the third leading cause of death among men. Mortality rates for both males and females are similar.

- In the Region of Peel, mortality rates from stroke have fluctuated for both males and females. Mortality rates for both males and females declined in Ontario between 1986 and 1996, at 16 per cent and 17 per cent respectively.

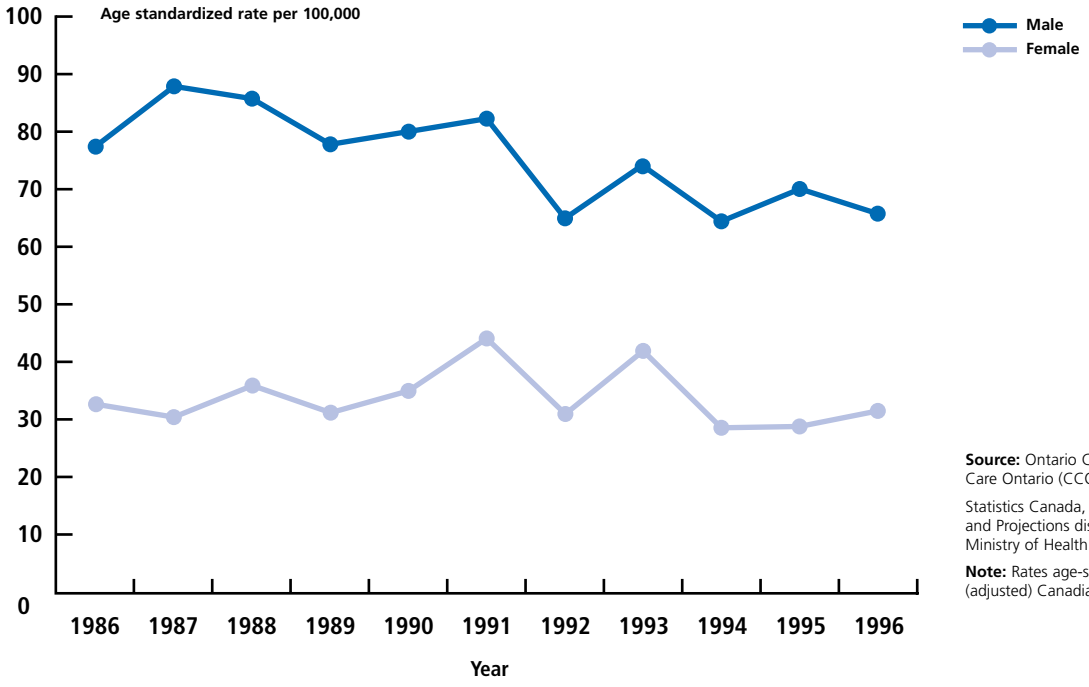
Lung Cancer

- In 1996 in the Region of Peel, lung cancer was the second most common cancer diagnosed among men and the second leading cause of cancer deaths. Lung cancer was the third leading cancer diagnosed for women and the fifth leading cause of cancer deaths. Male mortality rates for lung cancer are almost 2.5 times higher than for females.

- Overall, mortality rates for lung cancer in Peel declined slowly (seven per cent) between 1986 and 1996. This trend is composed of a significant decrease for males (20 per cent) and a level trend for females. In Ontario, mortality rates for males declined by 13 per cent, however, female rates have increased by 27 per cent between 1986 and 1996.

- The age standardized incidence rate (number of new cases per 100,000 population) for lung cancer declined for males by 15 per cent between 1986 and 1996 *(see Figure 6)*. Incidence rates for females have remained constant over time. Although rates for females are still lower than for males, the gap between them is narrowing. In Ontario, rates for males over the same time period declined by 16 per cent while rates for females have increased by 22 per cent.

Figure 6 — Incidence Rates for Lung Cancer by Gender Region of Peel, 1986–1996



Source: Ontario Cancer Registry, Cancer Care Ontario (CCO)

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

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

Summary

The decline in adult smoking in recent decades has been accompanied by a decrease in several important smoking-related diseases, particularly ischemic heart disease and male lung cancer. Increases in youth smoking since 1990 threaten to increase smoking-related illness and death in the future.