

Peterborough County and City 2009 Tobacco Use Report



This report was compiled by Jane Hoffmeyer, MHSc and Sarah Peacock, MSc.

Distribution:

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For more information on this report, please contact:

Peterborough County-City Health Unit
10 Hospital Drive
Peterborough, ON K9J 8M1

Phone: (705) 743-1000

Peterborough County and City
Tobacco Use Report
2009

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OVERVIEW

The purpose of the **Peterborough County and City 2009 Tobacco Use Report** is to provide information that can be used to assess local needs and capacity for tobacco control and to identify emerging issues relevant to tobacco use within the communities serviced by the Peterborough County-City Health Unit. This report is intended to provide population health assessment with respect to tobacco use. Under the Ontario Public Health Standards (*OPHS, 2008*),¹ the Health Unit is mandated to use information to understand the health status and needs of the local population and to make this information available to the community. This report helps the Health Unit to meet the population health assessment requirements set out within the *OPHS (2008)*¹ by providing information on current health status, describing local capacity, and a considering emerging trends. The report is a community resource which can contribute to:

- the identification of priority populations;
- the tailoring of programs and services;
- the monitoring of trends and changes in health status; and
- the creation of shared knowledge amongst the public, community partners and health care providers about the local efforts to reduce tobacco use.

The information is organized according to the comprehensive model of tobacco control which ensures that public health activities address the three goals of prevention, cessation, and protection. The comprehensive model is prescribed within the new Ontario Public Health Standards and internationally supported by the World Health Organization's Framework Convention for Tobacco Control. The strategies of prevention, cessation and protection are mutually reinforcing.

Methodology

Data for this report was obtained from a variety of sources. The majority of the information relating to tobacco use was obtained from 4 cycles of the Canadian Community Health Survey (CCHS). The CCHS collected data from people aged 12 years or older living in households across Canada. One respondent was randomly selected for each participating household. People living in First Nations communities were not included in the sample for the CCHS, so the data presented for Peterborough does not include data from residents of Curve Lake or Hiawatha First Nations.

There are several limitations with the statistical data presented in this report. There is a lack of reliable, local level data available for Peterborough. There are a limited number of surveys of Peterborough residents that provide information about tobacco use and associated factors. The CCHS sample size for Peterborough was small, and as a result there is large variability associated with some of the estimates provided. Estimates from the CCHS have been presented with a 95% confidence interval, to provide an indication of the reliability of the estimate. In some cases, where Peterborough data is not presented, reliable estimates could not be obtained. Data collected for the Ontario Student Drug Use and Health Survey (OSDUHS) are not available at the local level for Peterborough County and City. As well, at the time of writing this report, no data was available to describe tobacco use within local First Nations Communities. Additionally, regional data has not been collected on the use of contraband tobacco products across the province or country.

“Capacity” was minimally described through the identification of human resources and programs available through the Health Unit. However, this does not adequately depict the full range of capacity

available within the County and City. It does not include the considerable contributions made by other institutions and agencies at both the local, provincial and national levels.

The identification of emerging issues was achieved through consultation with Tobacco Use Prevention staff within the Peterborough County-City Health Unit. The opinions expressed were based on both work-related experiences and networking with their colleagues in other health units.

Notes

In this document unless otherwise specified, the term “Peterborough” refers to both the County and City of Peterborough.

BACKGROUND

The Peterborough County-City Health Unit (PCCHU) is located in central-east Ontario. The PCCHU provides public health services over the geographical area of the County of Peterborough, the City of Peterborough, Curve Lake First Nation and Hiawatha First Nation (see Figure 1).

The PCCHU has signed agreements with two First Nations communities. The Board of Health and Curve Lake First Nation Council signed a letter of agreement on March 26, 1999 authorizing the Medical Officer of Health to make Health Unit programs and services available to Curve Lake First Nation. A similar agreement was signed on May 3, 2007 with Hiawatha First Nation. At this time, these are the only known signed agreements between an Ontario Public Health Unit and First Nation communities.

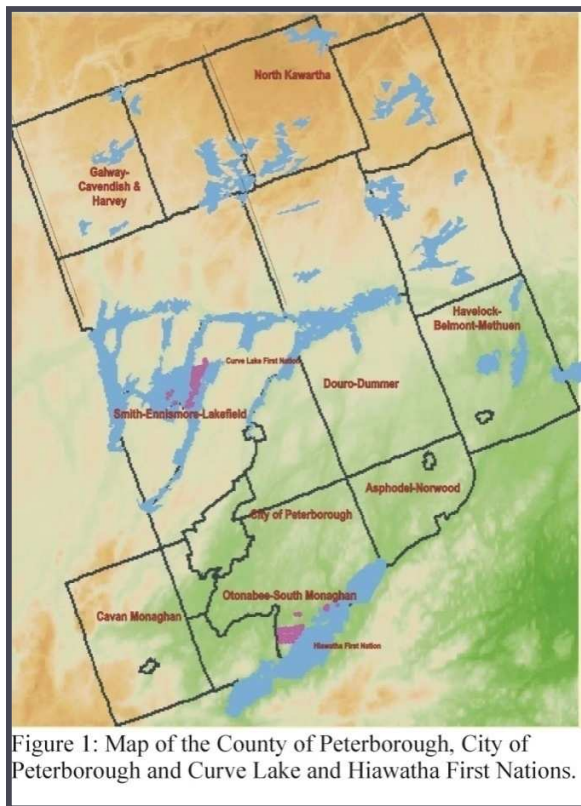


Figure 1: Map of the County of Peterborough, City of Peterborough and Curve Lake and Hiawatha First Nations.

Demographics of the Peterborough Region

In 2009, approximately 135,214 people lived in the County or City of Peterborough. Based on 2007 estimates, about 57% of the population served by the Peterborough County-City Health Unit was living within the City of Peterborough. In 2007, about 56,000 people were living in the 8 townships that form the County of Peterborough. The two local First Nation communities, Curve Lake and Hiawatha, had populations of 751 and 203 respectively in 2009.² Many First Nations people also live throughout the County and City of Peterborough; aboriginal people account for about 3% of the total population of Peterborough County and City.

The population of Peterborough is approximately 49% male and 51% female. Peterborough has an aging population: 19% of the population is 65 years or older and about 14% is under the age of 15. The distribution of the Peterborough population can be seen in Figure 2.

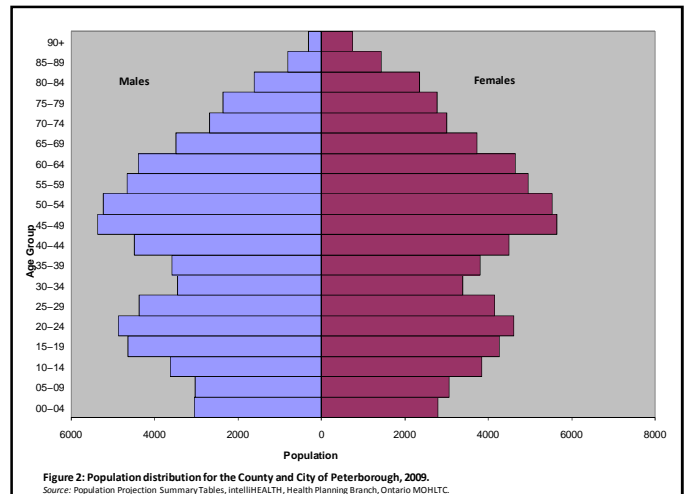


Figure 2: Population distribution for the County and City of Peterborough, 2009.

Source: Population Projection Summary Tables, IntelliHEALTH, Health Planning Branch, Ontario MOHLTC.

Tobacco Attributable Mortality and Morbidity

For many years, tobacco use has been the leading cause of death and preventable illnesses in Canada.³ Tobacco use contributes to the development of many chronic health problems including, cancers, respiratory conditions, and cardiovascular disease. It has been estimated that 22% of all deaths each year in Canada can be attributed to smoking.⁴ This means that, in Peterborough, about 286 deaths every year are caused by tobacco use.

Cancers

Cancers affect a large number of people in Ontario each year. In 2007 alone, an estimated 62,780 Ontarians were diagnosed with cancer.⁵ In fact, cancer is the leading cause of premature death in Canada.⁶ As of 2007, it is expected that about 44% of Ontario men and 39% of Ontario women will develop cancer in their lifetime.⁵ In 2003, 760 new cases of cancer were diagnosed to people living in Peterborough County or City. As seen in Figure 3, the cancer incidence rates for men and women living in Peterborough are similar to the provincial rates. It has been estimated that 30% of cancer deaths are due to smoking.⁷

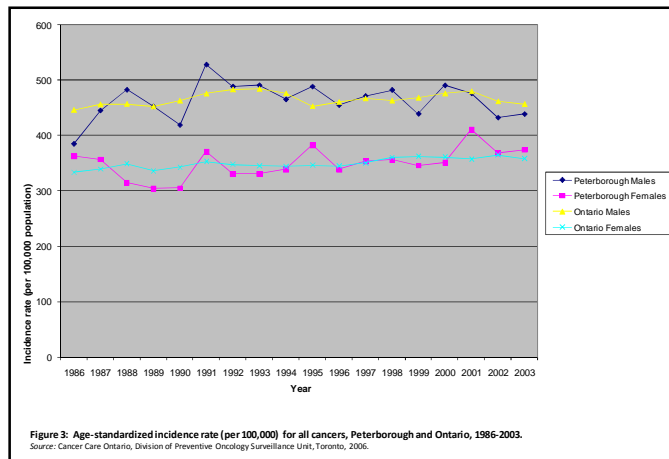


Figure 3: Age-standardized incidence rate (per 100,000) for all cancers, Peterborough and Ontario, 1986-2003. Source: Cancer Care Ontario, Division of Preventive Oncology Surveillance Unit, Toronto, 2006.

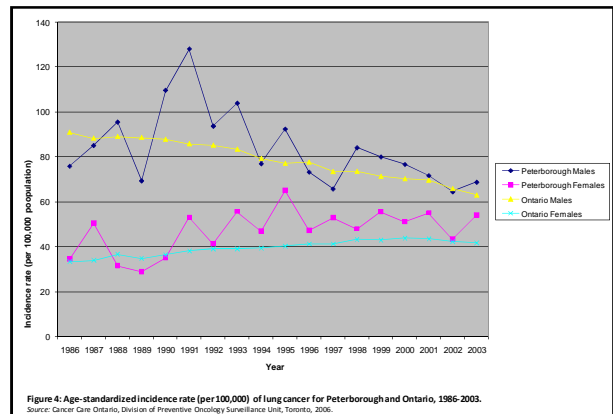
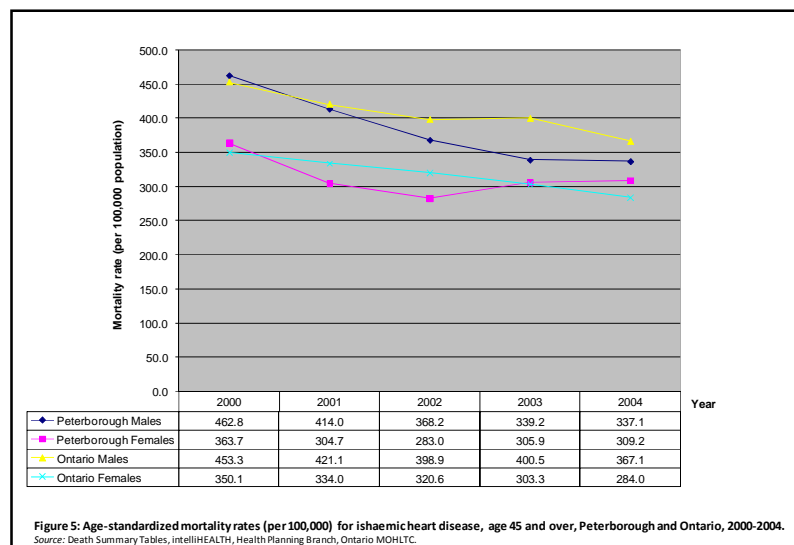


Figure 4: Age-standardized incidence rate (per 100,000) of lung cancer for Peterborough and Ontario, 1986-2003. Source: Cancer Care Ontario, Division of Preventive Oncology Surveillance Unit, Toronto, 2006.

Lung cancer is the most common type of cancer and is responsible for the most cancer deaths. Lung cancer has a particularly strong link to smoking.⁸ About 85% of lung cancers are caused by smoking.⁹ In recent decades, there has been a decline in the incidence of lung cancer rates among men (Figure 4). In 1986, 76 of every 100,000 men living in Ontario were diagnosed with lung cancer. By 2003, only 69 out of every 100,000 men living in Ontario were diagnosed with lung cancer. This decline in lung cancer among men followed the decline in men’s smoking rates which had been steadily decreasing in Ontario from 1960s until recent years. Women have lower rates of developing lung cancer than men. In women, the incidence of lung cancer increased between 1986 and 2003 from 34 per 100,000 to 54 per 100,000. Lung cancer rates in Peterborough are slightly above the provincial rates for both men and women.

Cardiovascular Disease

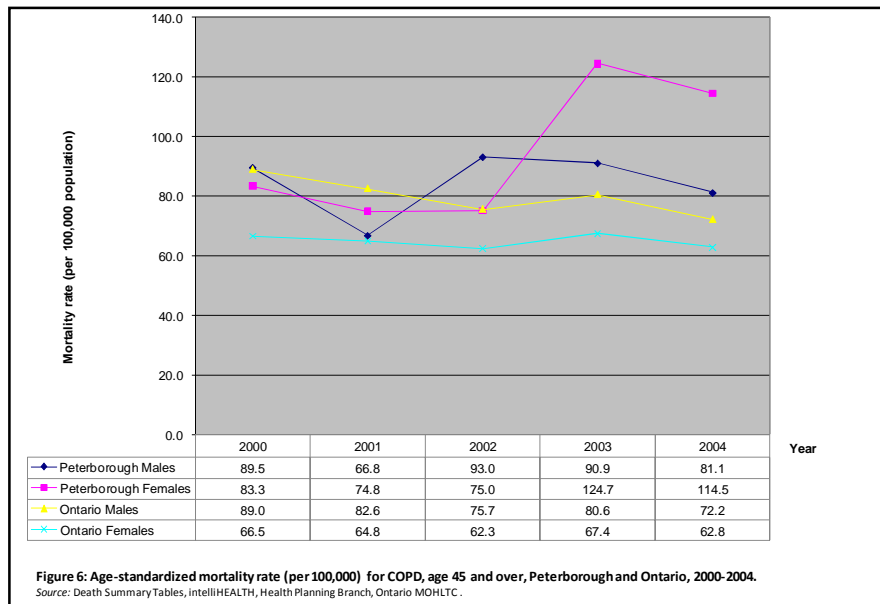
Cardiovascular disease is the leading cause of death in Canada.¹⁰ Smoking is responsible for 23% of deaths due to cardiovascular disease.⁴ Ischaemic heart disease is a cardiovascular disease that occurs when there is a reduced supply of blood to the heart muscle. In 2004, 15,170 Ontario adults over age 45 died as a result of ischaemic heart disease, this includes 225 deaths in Peterborough. From 2000 to 2004, mortality rates for ischaemic heart disease decreased among both men and women over 45 years of age (Figure 5). Mortality rates for ischaemic heart disease are higher among men than women. Among men 45 years of age or older who were living in Peterborough, mortality rates for ischaemic heart disease were below the provincial rates for men. For women aged 45 or older living in Peterborough, mortality rates from ischaemic heart disease dropped between 2000 and 2002, but then rose again in 2003 and 2004, so that by 2004 the mortality rate for women living in Peterborough was above the provincial rate.



Respiratory Disease

Smoking can cause or exacerbate several respiratory diseases. Chronic obstructive pulmonary disease (COPD) is caused by a narrowing of the airways in the lungs and results in shortness breath. COPD includes chronic bronchitis and emphysema. Smoking is the underlying cause of 80% to 90% of all cases of COPD.¹¹ In Ontario, from 2000 to 2004 there was a gradual decrease in the mortality rate of COPD for both men and women aged 45 years or older (Figure 6). For women, 45 years or older living in Peterborough the mortality rate of COPD appears to have increased drastically between 2002 and 2003. However, this increase may in part be due to a change

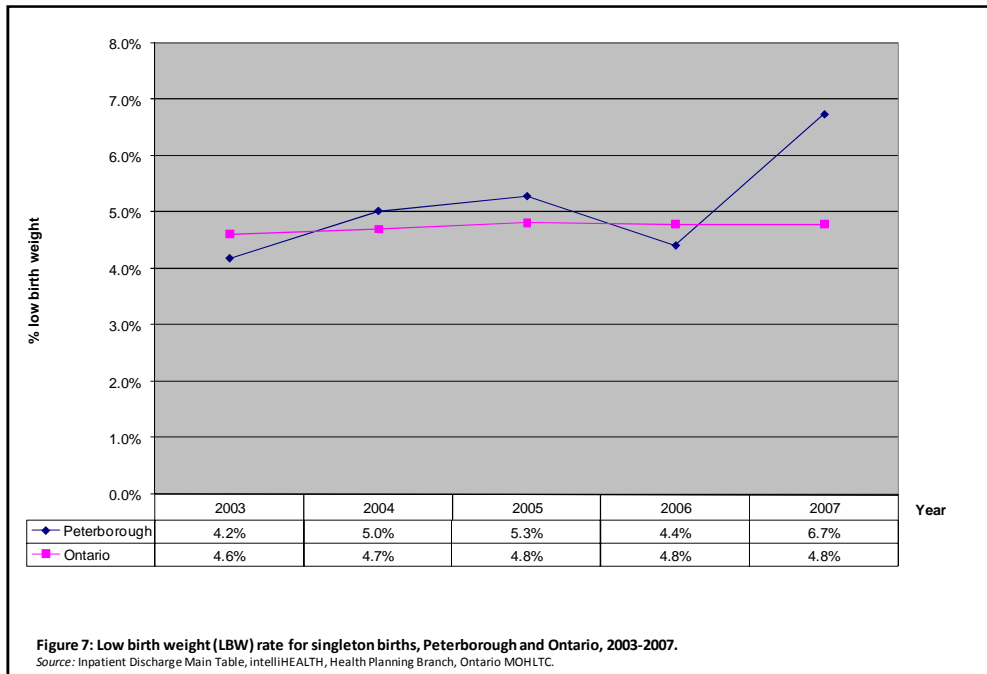
in the system used to classify disease which occurred between 2002 and 2003. Prior to 2003, hospitals in Ontario used the ICD-9 to classify illnesses. The ICD-10 replaced the ICD-9 and permits a more detailed description of illnesses; it allows diagnoses to be captured that would not have been described using the ICD-9. In 2004, the mortality rate of COPD for Peterborough women (aged 45 or above) was 115 per 100,000, while the mortality rate of COPD for Peterborough men (age 45 or older) was 81 per 100,000. Peterborough mortality rates of COPD are notably above provincial rates.



Low Birth Weight

Smoking during pregnancy can affect the health of the fetus. Both low birth weight and pre-term births are associated with a mother smoking while pregnant.¹² A baby is considered to have a low birth weight, if it weighs less than 2,500 grams. Babies that are low birth weight are more likely to develop health problems, have delayed development and are more likely to die in their early years.¹³ From 2003 to 2006, Peterborough had a low birth weight rate similar to the provincial rate (see Figure 7). In 2006, 4.4% of

Peterborough babies had a low birth weight, and 4.8% of babies born in Ontario had a low birth weight. In 2007, the low birth weight rate in Peterborough increased to 6.7%, noticeably above the provincial rate of 4.8%. The reason for this increase is not known, but it appears that 2007 was an unusual year and that this increase is not part of a trend. Preliminary data from the Niday Perinatal Database for 2008 indicate that the low birth weight rate in Peterborough has returned to pre-2007 levels.



Fires

Many fires are started from cigarettes or other smoking materials. The Ontario Fire Marshall estimates that 8% of all fires in Ontario during 2003-2007 were ignited by cigarettes.¹⁴ A large proportion of fatal fires in homes in Ontario are caused by smoking materials: 29% of fatal fires were lit by cigarettes and another 11% of residential fatal fires were lit by matches or lighters.¹⁴ On average, each year, 12 people in Ontario die in fires caused by cigarettes and 45 people are injured in fires caused by cigarettes.¹⁴

Locally, during 2007 there were 12 fires started in Peterborough that were caused by smoking articles.¹⁵ Fires ignited by smoking materials, accounted for 8.3% of the total fires in Peterborough. Smoking articles are the second leading cause of fires in Peterborough after stove top fires. There were no deaths in Peterborough during 2007 due to fires started by smoking articles.

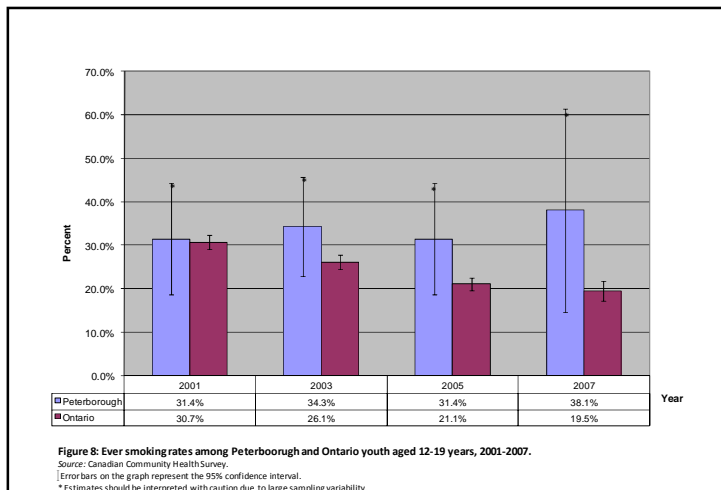
TRENDS IN TOBACCO USE

Ontario Trends

- In 2007, 2.2 million Ontarians aged 12 years and older were current smokers.¹⁶ The prevalence of current smoking has decreased only slightly in Ontario between the years 2003 and 2007: 22% of people age 12 or older were current smokers in 2003, and 21% were current smokers in 2007.
- Current smoking rates vary substantially among the 36 health units across the province. In 2007, current smoking rates (age 12+) ranged from a low of 15% in York Region to a high of 31% in Oxford County.¹⁶ In 20 of the 36 health units in Ontario, current smoking rates were 25% or greater.
- Over the past several years, the majority of smokers have smoked daily. In 2007, 79% of current smokers were daily smokers.¹⁶ Over the period from 2000 to 2007 there was a significant decrease in the average number of cigarettes smoked each day by daily smokers from an average of 17.6 cigarettes per day in 2000, to 15.2 cigarettes per day in 2007.

Tobacco Use by Youth

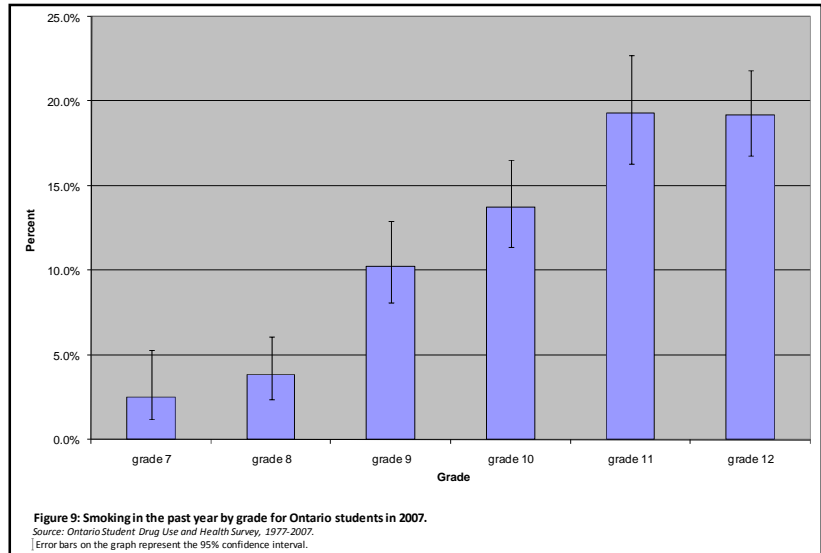
Most smokers begin smoking before they reach the age of 18.¹⁷ Earlier smoking initiation increases the likelihood of being a smoker later in life.¹⁸ Public health programs and education efforts have informed youth about the dangers of smoking and encouraged them not to smoke. However, many youth are still experimenting with smoking and other tobacco products. In 2007, in Ontario 19.47% of youth aged 12 to 19 years had ever smoked a cigarette.¹⁹ Since 2001, provincial ever smoking rates among youth have been decreasing (see Figure 8). Among youth living in Peterborough, ever smoking rates have not declined between 2001 and 2007. In 2007, it was estimated that 38% (95% confidence interval: 14.71%, 61.43%) of Peterborough youth had ever smoked a cigarette. Although, the difference between the Peterborough and Ontario rates in 2007 appears to be quite large, the difference between the rates is not statistically significant. It is important to note that there is a large amount of variation associated with ever smoking rates among Peterborough youth, and the CCHS estimates may not be accurately reflecting the true rates of ever smoking among Peterborough youth as only a very small number of Peterborough youth were surveyed.



In 2007 in Ontario about 11.9% of youth attending grade 7 through 12 reported having smoked in the past year.²⁰ This means that in 2007, 119,900 youth in grades 7 to 12 had smoked in the past year. While this figure indicates the problem of youth smoking is still substantial across the province, there has been a significant decline in youth smoking rates in recent years. In 1999, the prevalence of smoking was 28.4% among Ontario students in grades 7-12.²⁰ By 2004 the prevalence of smoking had dropped to 14.4% for students in grades 7 to 12, and the youth smoking prevalence rate continued to drop significantly between 2005 and 2007.

Across Ontario, male and female youth are taking up smoking at similar rates. The data indicate that girls are smoking at slightly higher rates than boys, but this difference is not significant. In 2007, 11.7% of boys in Grade 7 through 12 in Ontario were smokers, while 12.1% of girls were smokers.²⁰

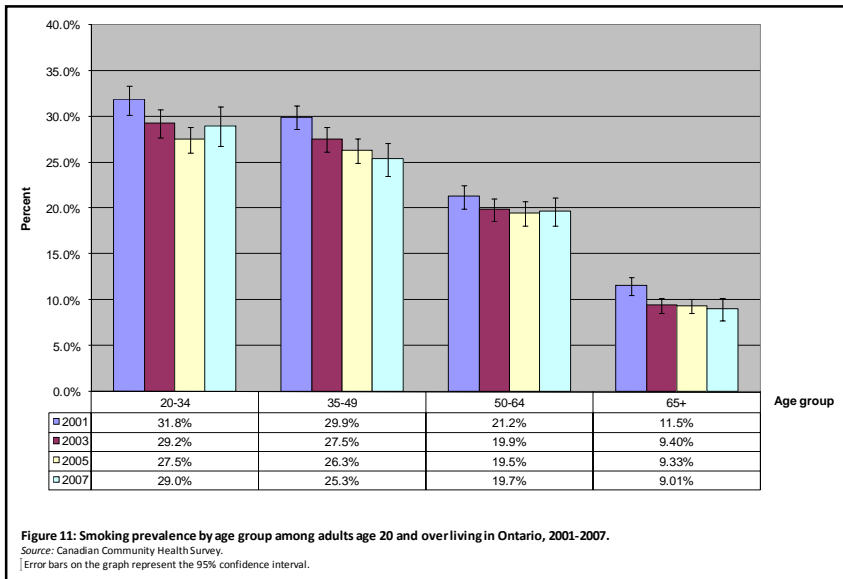
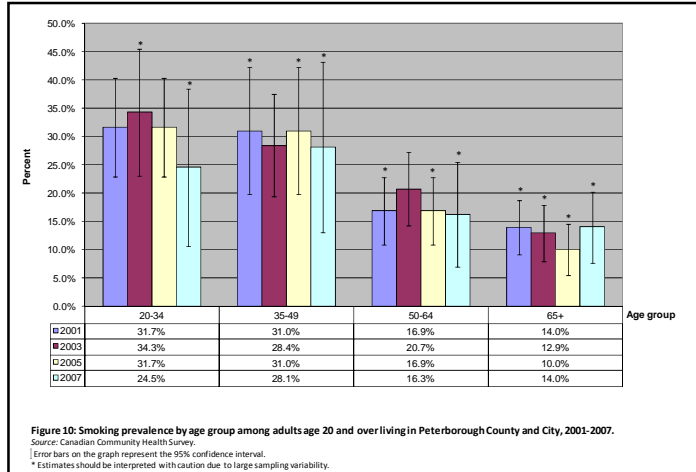
As would be expected, smoking rates increase significantly with age among Ontario youth. For students attending Ontario intermediate and high schools, smoking rates increase from grade 7 to grade 11, and smoking prevalence is similar among grade 11 and grade 12 students (see Figure 9).



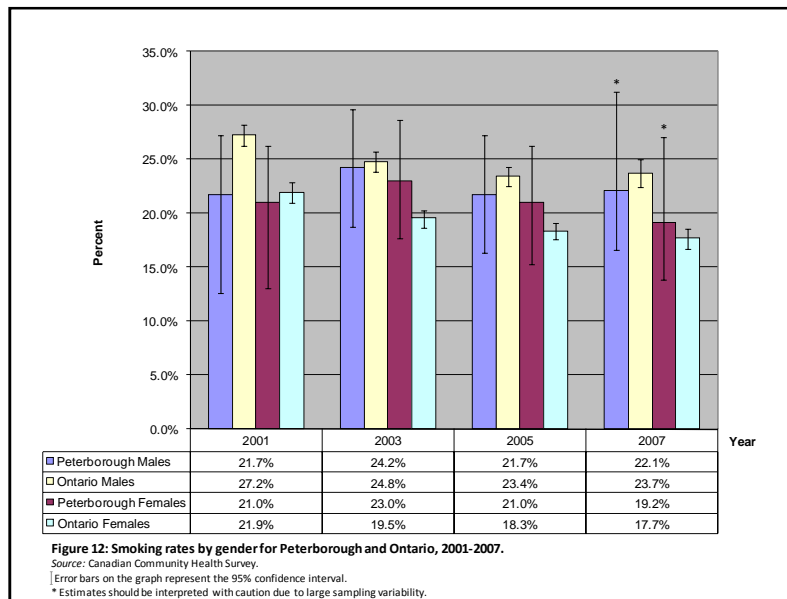
Tobacco Use by Adults

Tobacco Use by Age Group

The prevalence of current smoking has not changed significantly in recent years among Ontario adults. The overall current smoking rate in 2007 for Ontario adults over age 15 was 18%.²¹ Among adults smoking rates vary by age group. In both Peterborough and Ontario smoking rates are highest in younger age groups (see Figures 10 and 11). In both Peterborough and Ontario adults under age 50, smoke at visibly higher rates than adults over age 50. As seen from Figure 10, smoking prevalence in Peterborough has remained fairly stable from 2001 to 2007.



Local and provincial data show that smoking rates were similar among males and females 12 years of age or older from 2001 to 2007 (see Figure 12). Across the province, the smoking rate among women was slightly less than for men. Smoking rates for Peterborough males are similar to provincial levels, while Peterborough females smoke at slightly higher rates than Ontario females.



Tobacco Use by Socioeconomic Status

- It is well established that individuals with lower socioeconomic status (including people with lower education levels and/or lower income levels) are at higher risk of smoking.
- There has been a significant decline in current smoking rates of Ontario adults with a university degree over the period 2000 to 2007 (16% vs. 8%).¹⁶ However, there has been no significant change between 2000 and 2007 in the prevalence of smoking among Ontarians having a high-school diploma (30% vs. 27%) or among those with less than a high-school education (30% vs. 35%).
- There has been no significant change in the prevalence of smoking among blue-collar workers between 2000 and 2007. In 2007, smoking prevalence ranged from a high of 30% for blue-collar workers to a low of 15% for professionals.¹⁶
- Unequal smoking rates by level of education and income levels suggest the need for targeted tobacco control interventions to reach individuals of lower socioeconomic status.

Tobacco Use in First Nations Communities

Tobacco has traditional uses by First Nations peoples in North America. Traditional tobacco is intended to be used in small amounts for prayers and ceremonies.²²

First Nation peoples, like the general population, also use the commercial form of tobacco. Smoking rates are substantially higher among First Nations people than the general population. From the 2002/2003 First Nations Regional Health Survey, it was estimated that 46% of First Nations peoples are daily smokers, and another 12.8% are occasional smokers.²³ Smoking rates were highest among young adults aged 18-29 years. Among youth, females smoke at a higher rate than males.

Due to high smoking rates, First Nations peoples have become burdened with increasing rates of lung cancer in recent years.²⁴ In their 2007 analysis paper, Physicians for a Smoke-Free Canada, predict that higher rates of smoking amongst First Nation peoples coupled with a young population structure will result in continued increases in some smoking-related diseases; contrasting with the downward trends currently being experienced in the general population.²⁴

PREVENTION

Prevention focused strategies aim to prevent children, youth and young adults from starting to smoke or use commercial tobacco products.

Sources of Tobacco

A local survey conducted by the Youth Action Alliance found that most smoking youth reported obtaining cigarettes from friends.²⁵ Daily smokers were more likely to report acquiring cigarettes from parents (bought or given) than occasional smokers. Daily smokers were more likely to report purchasing cigarettes themselves than occasional smokers. Notable was that 74% of these youth surveyed were under the legal age to purchase cigarettes in Ontario. Despite legislation to prevent youth tobacco use, some youth are still able to obtain tobacco products and many youth continue to experiment with different forms of tobacco.

In Ontario, it is estimated that approximately 22% of cigarettes are contraband.²⁴ Tobacco “contraband” is any tobacco product sold without all required taxes included in the price. Examples of contraband would include:

- illegally manufactured cigarettes distributed through illicit networks;
- cigarettes manufactured outside of Canada and smuggled into Canada without Canadian taxes paid; and
- cigarettes intended for sale to status Natives on a First Nations reserve, but sold to non-Natives, or diverted for off-reserve sale.²⁶

While the price of legally obtained cigarettes in Ontario range from \$50 to over \$70 per carton (of 200 cigarettes), contraband cigarettes can be purchased for as little as \$6.00 for 200 cigarettes.²⁷ Therefore, it is not surprising that 71% of adult smokers in Ontario report either frequently or occasionally buying contraband cigarettes.²⁷

Programs and Services

Two Tobacco Use Prevention staff (2.0 FTE) provide human resources to the following Health Unit activities:

- provision of prevention programs funded by Smoke Free Ontario e.g. Youth Action Alliance, High School Grants;
- local and provincial policy development and implementation e.g. Tobacco Free Sports and Recreation, Smoke-Free Cars legislation;
- participation in provincial tobacco coalitions e.g. Tobacco Control Area Network, Not to Kids Coalition;
- consultations to education staff/schools; and
- responding to general public enquiries.

Emerging Issues

1. Tobacco Industry Advertising

As cigarette sales drop, manufacturers of tobacco products search for new ways to market and merchandise their products, especially to youth. Tobacco marketers are strategic and innovative in their attempts to circumvent existing marketing regulations. Action needs to be taken to bring an end to these efforts before more citizens increase their use of tobacco products that are being marketed as cheaper, user-friendly, safer, or more sophisticated.

2. Flavoured and smokeless tobacco products

The industry is investing in new products that are aimed at appealing to youth or have a “harm reduction” rationale. The industry aims to create new addicts to nicotine and youth are the targets for these new products. The public is less not well informed about the negative health effects of smokeless tobacco product.

CESSATION

Cessation focused strategies seek to motivate and support people to end their use of commercial tobacco products. As smoking cessation is associated with reduced risk of disease and mortality, it is important to encourage smokers and other tobacco users to stop using tobacco products.

Adult Smoking Cessation

In 2006, the results of a local household survey indicated that 44% of current smokers living within the City of Peterborough were planning to quit smoking within the next 6 months.²⁸ By 2008, the number of smokers considering quitting smoking had grown to 54%.²⁹

Youth Smoking Cessation

Among Grade 7 to 12 students in Ontario, in 2007 53% of smokers had tried to quit smoking during the past year.²⁰ The particular needs of adolescent smokers must be considered in both research and program development.³⁰

Programs and Services

Two Tobacco Use Prevention staff (1.5 FTE) provide cessation programming support through:

- The provision of one-on-one counseling that is community-based (Choose to Be Smoke-Free – funded by a Health Canada project until March 2010);
- Distribution of resource materials to health professionals and individuals;
- Education and awareness activities (e.g. health fairs);
- Provision of group cessation supports; and
- Provision of smoking cessation resources to workplaces.

Emerging Issues

1. Access to contraband tobacco

Availability of contraband is a growing concern. Some forms of contraband tobacco are not monitored and therefore the health impact of their ingredients cannot be determined. Because contraband cigarettes are priced so low, the low cost subverts prevention and cessation efforts.

2. Smoking cessation aids

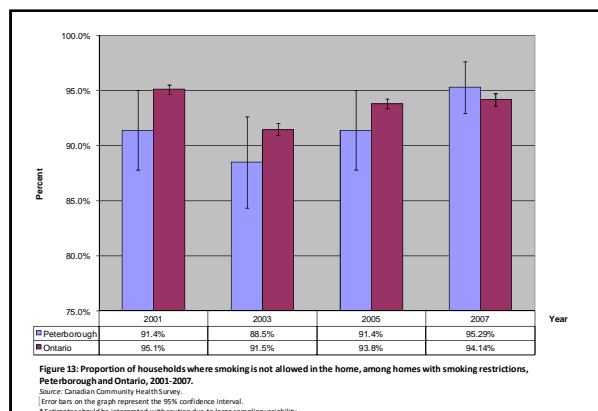
New smoking cessation aids are appearing as a result of both pharmaceutical product development and entrepreneurial enterprise (e.g. e-cigarettes). Research or best practice application information may be limited or non-existent. Program staff are challenged to keep abreast of new information so they can provide appropriate and accurate advice to people seeking cessation support.

PROTECTION

Protection activities seek to eliminate both the exposure to second-hand smoke and youth access to commercial tobacco products.

Second Hand Smoke

In 2008, smoking was not allowed within 72% of households within the City of Peterborough.²⁸ The number of households that have a ban on indoor smoking has increased from 2002 when only 66% of households within the City of Peterborough did not allow smoking inside the home.³¹ In the majority of homes where smoking is permitted, there are restrictions on when and where smoking may take place. Restrictions could include only smoking in certain rooms, or not smoking in the presence of children. Both provincially and locally, the majority of households that limit smoking use do so by not allowing smokers to smoke inside the home (see Figure 13). Generally, over 90% of the households that restrict smoking in the home do so by banning smoking in the home.



Smoking During Pregnancy

Smoking during pregnancy is a concern due to the negative health consequences exposure to smoke can have on a fetus. Women who smoke are encouraged to refrain from smoking during pregnancy by health practitioners and through public health programs. Women in Peterborough have had higher prenatal smoking rates than the provincial average for several years.³² In Peterborough, over the past 5 years, from 2004 to 2008, on average 70% of pregnant women did not smoke during their pregnancy (see Table 1); while in Ontario over this same period, on average 77% of pregnant women did not smoke. It is important to note that smoking status is not known for a large portion of pregnant women; the figures in Table 1 highlight the need for thorough reporting.

	Smoking Status during pregnancy	Year				
		2004	2005	2006	2007	2008
Peterborough	No Smoking	70.58%	64.49%	70.72%	70.70%	73.83%
	Smoking during entire pregnancy	17.83%	17.17%	17.82%	18.41%	18.74%
	Smoking up to 20 weeks	0.82%	4.29%	0.35%	0.08%	0%
	Smoking after 20 weeks	0.82%	1.88%	0.18%	0.42%	0.34%
	Unknown	9.95%	12.16%	10.93%	10.39%	7.09%
Ontario	No Smoking	71.68%	75.08%	79.43%	78.93%	79.82%
	Smoking during entire pregnancy	6.50%	7.48%	8.09%	8.77%	9.53%
	Smoking up to 20 weeks	0.84%	1.00%	1.41%	1.37%	1.43%
	Smoking after weeks	0.96%	0.95%	0.89%	0.84%	0.91%
	Unknown	20.03%	15.49%	10.18%	10.08%	8.32%

Source: Niday Perinatal Database.

Programs and Services

One staff person (1.0 FTE) provides enforcement services related to provincial legislation, the *Smoke-Free Ontario Act (2006)*.

Emerging Issues

1. Outdoor Second Hand Smoke Exposure

Because second hand smoke contains carcinogens, there is no risk-free level of exposure, and breathing even a little can be harmful to health. Current public policy that aims to protect the general public from the effects of second hand smoke in indoor environments has resulted in changing social norms. Second hand smoke is perceived as noxious by the general public. The negative effects of second hand smoke in outdoor situations are being studied through scientific research.

2. Exposure to Second Hand Smoke in Multi-Unit Dwellings (MUDs)

While exposure to second hand smoke in indoor public settings has been reduced, many individuals are still exposed to smoke entering their homes. This smoke comes from neighbouring dwellings, shared indoor spaces, ventilation systems, and through windows and doors. The umbrella term used to describe these settings when referring to second hand smoke is multi-unit dwellings or MUDs.

PRIORITY POPULATIONS

Priority populations are defined by the Ontario Public Health Standards (2008)¹ as populations that are at risk. They may be populations who are vulnerable to illness, or are more likely to have behaviours that endanger health, or who experience barriers to accessing health services. The Health Unit is mandated to identify and address the needs of priority populations. Priority populations for the PCCHU's comprehensive tobacco strategy are proposed in Table 2.

Table 2: Priority populations for Peterborough County-City Health Unit tobacco programs.

	Priority	Rationale
Prevention	<i>Youth sub-populations:</i>	Experimentation with tobacco is above provincial average. This is concerning because most smokers begin smoking before they reach the age of 18.
	<i>Aboriginal youth</i>	Prevention needs to focus on sub-populations having the highest prevalence rates. Although local prevalence data on Aboriginal youth does not exist, the national data strongly suggests that the highest rates are experienced within this sub-population
	<i>Youth affected by poverty and/or youth who are at risk of not completing high school.</i>	Income level and education are inversely related to prevalence.
	<i>Youth and young adult females</i>	Smoking rates are growing amongst females
Cessation	<i>Tobacco users living in poverty with less than a high school education.</i>	Income level and education are inversely related to prevalence.
	<i>First Nations & Aboriginal people</i>	Based on national prevalence rates.
	<i>Pregnant women</i>	To improve pregnancy and birth outcomes.
	<i>Young adults who have not completed high school</i>	Provincial prevalence rates amongst young adults have not decreased as much as those with higher education levels
Protection	<i>Persons within settings affected by provincial regulations under the Smoke-Free Ontario Act, 2006</i>	PCCHU is mandated by provincial legislation to enforce the <i>Smoke-Free Ontario Act</i>
	<i>Federal employees (e.g. federally regulated truck drivers)</i>	The <i>Smoke-Free Ontario Act</i> does not apply to federally regulated workplaces and some federal employees may benefit from provision of information and services.
	<i>Children and youth</i>	To protect the most vulnerable in the community. Short-term health impacts of second hand smoke on children are evident.

CONCLUSIONS

This is the first time that the Peterborough County-City Health Unit has published a comprehensive tobacco-related report. This information was gathered to assist in developing a common understanding about local tobacco use and its impact. While much of the statistical data reported here are only presented at the provincial level, the data provide some insight into issues that may be relevant within our local communities. The data presented here can be used to guide future action, direct future data collection to address the information gaps (see Appendix A).

National, provincial and local comprehensive tobacco control efforts have benefitted the Peterborough region. Some positive developments are evident from the data.

- People are well protected from exposure to second hand smoke in indoor public places and Peterborough homes are becoming increasingly smoke-free.
- The proportion of smokers with intentions to quit within 6 months has increased.

However, there are worrisome trends.

- Some indicators of the health impact of tobacco use are above provincial averages (e.g. ischemic heart disease mortality rates amongst women, lung cancer rates, COPD rates).
- Peterborough youth (ages 12-19) appear to be continuing to experiment with tobacco products at a level greater than the provincial average.
- The rate of decline in current smoking amongst adults appears to be flattening.
- Smoking rates for females are slightly higher than provincial rates. Prenatal smoking rates are a particular concern.

Overall, these findings suggest that public awareness of the risks associated with tobacco use and exposure

to second smoke is high. Issues surrounding access to cigarettes or lack of access to cessation supports are two key barriers to reaching public health goals.

Appendix A

NEXT STEPS

In order to deliver a comprehensive tobacco strategy, the following actions are required:

1. Conduct ongoing health assessment and surveillance

- This fulfills the OPHS¹ Foundational Standard Requirements 1, 2 and 3.
- The Health Unit will conduct similar health assessments on tobacco use every 3-6 years. These assessments will review data on the indicators included in this report and will include information on new indicators as they become available.
- The Tobacco Use Prevention team will undertake continuous monitoring of emerging information related to tobacco use, exposure and the health effects of tobacco.

2. Share the report and engage the community.

- This fulfills the OPHS¹ Foundational Standard Requirements 5, 8 and 9.
- The communication strategy will include circulation of the document both internally, and to external stakeholders. This document will be posted on the PCCHU website.
- Tobacco Use Prevention staff will engage the community to seek input on identifying priority populations; quantifying community capacity; and establishing targets for indicators.
- The Health Unit will continue to partner with other agencies to reduce tobacco use throughout Peterborough.

3. Enhance the availability of local data.

- This fulfills the OPHS¹ Foundational Standard Requirements 1 and 3.
- Tobacco Use Prevention staff will identify information gaps for Peterborough. Three priorities for initial action are recommended here.
- The Health Unit will collaborate with local partners to collect data when possible (e.g. school boards and First Nation communities).

3.1 Increase local data on youth tobacco use

- The Health Unit will explore how to gain more reliable and local data on local trends and patterns in youth smoking rates.
- The following indicators are of interest:
 - smoking cessation attempts by youth;
 - use of chew and spit tobacco by youth; and
 - use of contraband by youth.

3.2 Increase knowledge of tobacco use in local First Nations communities

- The Health Unit will offer support to Curve Lake First Nation and Hiawatha First Nation to build their capacity to collect data that answers their questions related to tobacco use.

3.3 Increase knowledge of the use of contraband

- The Health Unit will explore how to gather more information about the local impact of contraband and consult with stakeholders such as our First Nations communities and local retailers.

4. Prioritize priority populations and develop effective strategies to service these groups.

- OPHS¹ Foundational Standard Requirements 1 and 3.
- Tobacco Use Prevention staff will refine the list of priority populations for tobacco use programming.
- The list of priority populations will be used to guide program planning processes within the Health Unit.

References

1. Ministry of Health and Long Term Care. (2008). *Ontario Public Health Standards*. Retrieved on May 2, 2009 from: http://www.health.gov.on.ca/english/providers/program/pubhealth/oph_standards/ophs/index.html
2. Ministry of Health and Long Term Care, Health Analytics Branch. (2009). *First Nations Peoples in Ontario: A Demographic Portrait*. Toronto, Ontario: Ministry of Health and Long Term Care.
3. Makomaski Illing, E.M. & Kaiserman, M. (2004). Mortality attributable to tobacco use in Canada and its regions. *Canadian Journal of Public Health*. 95(1):38-44.
4. Tanuseputro, P., Manual, D., Leung, M., Nguyen, K. & Johansen, H. (2003). Risk factors for cardiovascular disease in Canada. *Canadian Journal of Cardiology*, 19(11):1249-1259.
5. Cancer Care Ontario. (2007). *Ontario Cancer Snapshot*. Retrieved May 2, 2009 from: <http://www.cancercare.on.ca/cms/One.aspx?portalId=1377&pageId=8630>.
6. Canadian Cancer Society. (2009). *Canadian Cancer Statistics 2009*. Toronto: Canadian Cancer Society. Retrieved May 2, 2009 from: www.cancer.ca/statistics.
7. Center for Disease Control (CDC). (2004). *The health consequences of smoking: a report of the Surgeon General*. Atlanta, Georgia: U.S. Department of Health and Human Services, Retrieved on May 2, 2009 from: http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_2004/#full.
8. Holowaty, E., Chin Cheong, S., Di Cori, S., Garcia, J., Luk, R., Lyons, C. & Theriault, M.E. (2002). *Tobacco or Health in Ontario: Tobacco-attributed cancers over the past 50 years... and the next 50*. Toronto: Cancer Care Ontario. Retrieved on May 2, 2009 from: <http://www.cancercare.on.ca/common/pages/UseRFile.aspx?fileId=14456>.
9. Danaei, G., Vander Hoorn, S., Lopez, A.D., Murray, C.J.L. & Ezzati, M. (2005). Causes of cancer in the world: comparative risk assessment of nine behavioural and environmental risk factors. *The Lancet*, 366(9499):1784-1793.
10. Statistics Canada. 2007. Mortality, summary list of causes. *The Daily*, 27 April 2007. Retrieved on May 2, 2009 from: <http://www.statcan.gc.ca/daily-quotidien/070427/dq070427b-eng.htm>.
11. Public Health Agency of Canada. (2008). *Chronic Obstructive Pulmonary Disease (COPD)*. Retrieved on May 2, 2009 from: <http://www.phac-aspc.gc.ca/cd-mc/crd-mrc/copd-mpoc-eng.php>.
12. Surgeon General. *Reducing the Health Consequences of Smoking: 25 Years of Progress*. Washington, D.C.: U.S. Government Printing Office, 1989.
13. Malik, S. & Spiker, D. (2004). Effective early intervention programs for low birth weight premature infants: Review of the infant health and development program (IHDP). In: Tremblay, R.E., Barr, R.G. & Peters, R.DeV. eds. *Encyclopedia on Early Childhood Development* [online]. Montreal, Quebec: Centre of Excellence for Early Childhood Development. Retrieved on May 2, 2009 from: <http://www.enfant-encyclopedie.com/pages/PDF/Mallik-SpikerANGxp.pdf>.
14. Office of the Fire Marshall, Ontario Ministry of Community Safety and Correctional Services. (2008) *Fire Statistics*. Retrieved on May 2, 2009 from: <http://www.ofm.gov.on.ca/english/publications/Statistics/default.asp>.
15. Crowley, M. Peterborough Fire Department. Personal Communication March 12, 2009.
16. Ontario Tobacco Research Unit. (2009). *Toward a Smoke-free Ontario: Progress and Implications for Future Developments*. Toronto, ON: Ontario Tobacco Research Unit.

17. Mao, Y., Gibbons, L. & Wong, T. (1992). The impact of the decreased prevalence of smoking in Canada. *Canadian Journal of Public Health*, 83:413-416.
18. Chassin, L., Presson, C. C., Sherman, S. J., & Edwards, D. A. (1990). The natural history of cigarette smoking: Predicting young-adult smoking outcomes from adolescent smoking patterns. *Health Psychology*, 9(6), 701-716.
19. Canadian Community Health Survey 2007, Statistics Canada.
20. Adlaf, E.M. & Paglia-Boak, A. (2007). *Drug Use Among Ontario Students 1977-2007, Detailed OSDUHS Findings*. Toronto, Ontario: Centre for Addiction and Mental Health.
21. Canadian Tobacco Use Monitoring Survey (CTUMS). *Overview of Historical Trends, Statistics Canada, 1999-2007*. Retrieved on May 2, 2009 from: <http://www.nbatc.ca/documents/CTUMStrends1999-2007.pdf>.
22. Union of Ontario Indians Anishinabek Health Secretariat. (2009). *Through the Eyes of a Child: First Nations Children Environmental Health*. Retrieved on May 2, 2009 from: <http://www.nbatc.ca/documents/CTUMStrends1999-2007.pdf>.
23. Assembly of First Nations (2007). *First Nations Regional Longitudinal Health Survey (RHS) 2002/2003, Results for Adults, Children and Youth Living in First Nations Communities*. Retrieved on May 2, 2009 from: <http://www.rhs-ers.ca/english/pdf/rhs2002-03reports/rhs2002-03-technicalreport-afn.pdf>.
24. Physicians for a Smoke-Free Canada. (2007). *Towards effective tobacco control in First Nations and Inuit communities*. Retrieved on May 2, 2009 from: http://www.smoke-free.ca/pdf_1/Effective%20tobacco%20control%203.pdf.
25. Peterborough County-City Health Unit. (2007) *Peterborough County-City Youth Action Alliance Have Your Say! Survey Report*. Peterborough, Ontario: Peterborough County-City Health Unit.
26. Canadian Cancer Society (2009). *Tobacco Contraband*. Retrieved on May 2, 2009 from: http://convio.cancer.ca/site/PageServer?pagenam e=GEN_CAN_fight_contraband_overview
27. Perley, M. (2009). *Contraband Tobacco In Canada Today: Ontario and Quebec Lead the Way. A Taxing Issue: Public Health and Contraband Tobacco, February 4-5, 2009*. Buffalo, NY: University of Buffalo.
28. Statistics Canada Survey Skills Development Course (SSDC-105). (2006). *Peterborough Health and Recreation Survey*. Ottawa, Ontario: Statistics Canada.
29. Statistics Canada Survey Skills Development Course (SSDC-117). (2008). *Survey of Community Health Awareness in Peterborough*. Ottawa, Ontario: Statistics Canada.
30. Brownrig, J. & Pipe, A. (2007). Smoking cessation and youth: it's never too early to help patients quit. *Smoking Cessation Rounds*, 1(7):1-6.
31. Statistics Canada Survey Skills Development Course (SSDC-84). (2002). *Survey on Health and Access to Health Information in Peterborough*. Ottawa, Ontario: Statistics Canada.
32. The Perinatal Partnership Program of Eastern and Southeastern Ontario. (2009). *Peterborough County-City Health Unit Perinatal Statistical Report, January – December 2007*. Ottawa, Ontario: The Perinatal Partnership Program of Eastern and Southeastern Ontario.