April 26, 2004

To: Board of Health

From: Dr. Barbara Yaffe, Acting Medical Officer of Health

Subject: Toronto's Health Status: Focus on Tobacco & Toronto Public Health's Tobacco Control Program

Purpose:

This report provides current information regarding the effects of tobacco use and exposure to second-hand smoke on the health status of Toronto's 2.4 million residents, along with current estimates of the use of tobacco industry products by Toronto residents. It also provides a summary of Toronto Public Health's comprehensive response to these issues and illustrates how health status information is used to plan, monitor, and evaluate programming as directed by the Provincial Mandatory Health Programs and Services Guidelines.

Financial Implications and Impact Statement:

There are no financial implications stemming directly from this report.

Recommendations:

It is recommended that:

(1) the Board of Health urge the provincial government to take action to fulfill its promise to make all public places and workplaces in Ontario smoke-free within three years;

(2) the Board of Health encourage the provincial government to reinstate an agreement with Health Canada to make federal funding available to local public health initiatives to reduce youth access to tobacco;

(3) the Board of Health urge the federal and provincial levels of government to increase their per-capita spending on tobacco control;

(4) the Board of Health forward this report to key stakeholders including: Canadian Cancer Society (Ontario Division), Cancer Care Ontario, Central East Health Information

Partnership, Centre For Addiction and Mental Health, Council For Tobacco-Free Toronto, Ontario Ministry of Health and Long-Term Care (MOH<C), Health Canada – Ontario and Nunavut Regions, Toronto Cancer Prevention Coalition, Toronto District Health Council, Toronto Heart Health Partnership, Public Health Units in Ontario, Association of Local Public Health Agencies (alPHa), Ontario Public Health Association (OPHA), Heart and Stroke Foundation of Ontario, Non-Smokers Rights Association, Ontario Lung Association, Ontario Tobacco Research Unit, Program Training and Consultation Centre of MOH<C, University of Toronto Department of Public Health Sciences, University of Waterloo Centre For Behavioural Research and Program Evaluation;

(5) the Board of Health forward this report to: Federal Members of Parliament and Provincial Members of Parliament for Toronto; and,

(6) the appropriate City Officials be authorized and directed to take the necessary action to give effect thereto.

Background:

The Provincial Mandatory Health Programs and Services Guidelines (MHSPG) state that "the board of health shall assess annually the community health status in the health unit using as a minimum, data on: demographics; mortality rate; morbidity rates; reproductive outcomes; risk factor prevalence; health conditions that are known or suspected to be associated with exposure to health hazards; and dental health indices". In addition, the MHSPG requires the board of health to "…ensure the use of community health status information in assessing local health needs and in the planning and evaluating of programs".

Both of these requirements are addressed on an ongoing basis through Toronto Public Health's strategy for health status reporting and the linkage of this information to the program planning process. These help to ensure that local programs address the health needs of the community, with cost-effective, efficient, evidence-based approaches. The health status reporting strategy includes a series of reports that assess and report community health status at various levels. These include an overview of general health status every three years, and more focussed reports relating to specific health issues. These issues are selected using a set of criteria that include: the degree of the burden of illness imposed on the community, whether or not the issue is appropriate for local public health response, the extent to which the report can be utilized for decision making or planning, and the breadth of the issue as represented across public health programs. The application of these criteria resulted in tobacco use being identified as the first issue to be examined in terms of its relationship to community health status.

"Toronto's Health Status: Focus on Tobacco" (see Appendix A) is the first in a series of reports that examine the relationship between specific health issues and their effect on community health status. Work to produce other reports, including an overview of general health status and a series of reports focussing on children's health status, is currently underway. These will assist Board of Health members, City staff, partner agencies, stakeholders, and the general public in

understanding the link between the health status of Toronto residents and the programs and services carried out by Toronto Public Health in response to specific health needs.

Comments:

The "Toronto's Health Status: Focus on Tobacco" report:

(1) provides the most current information on the effects of the use of tobacco industry products and exposure to second-hand smoke on the health status of Toronto's 2.4 million residents;

(2) provides current estimates of the use of tobacco industry products by Toronto residents;

(3) describes Toronto Public Health's comprehensive response to these issues including prevention, protection and cessation activities, and demonstrates its leadership in reducing/eliminating tobacco use and exposure to second-hand smoke;

(4) establishes a baseline of selected health status indicators that can be used to evaluate the progress of Toronto Public Health in achieving the goals of prevention and reduction of tobacco use and protection from the effects of exposure to second-hand smoke;

(5) promotes this issue as a public health priority; and,

(6) informs Toronto Public Health's decision-making and program planning.

Tobacco use continues to be the leading cause of preventable death and illness. It results in the premature death of an estimated 3,000 Toronto residents every year, not including those who die from exposure to second hand smoke. Estimates of Toronto residents who continue to smoke range from 21 to 25 percent, or roughly one in four to one in five residents. Of particular concern is the fact that smoking prevalence increases nearly seven-fold for youth between grades 7 and 12. Exposure to second hand smoke in the home and private places also remains a concern.

What is not known, is how smoking rates vary in different subpopulations in Toronto. In order to reflect strategies that are effective for Toronto's diverse population, more information on smoking is needed for factors such as ethnicity, income, and prenatal status. The indicators used in this report will help identify the challenges, set the targets and monitor the successes of our work to mitigate the ongoing chronic disease epidemic caused by the use of tobacco industry products.

Toronto Public Health strives to address this health issue through comprehensive strategies that include prevention (reducing the rate of smoking initiation among young people), protection from second-hand smoke, and cessation (helping smokers of all ages to quit). In order to support these broad strategies, Toronto Public Health seeks to increase community partnerships and our involvement in tobacco control policy and advocacy initiatives. Successful continued coordination of these strategies can be expected to result in a reduction of tobacco product use and future improvements to Toronto's health status.

Tobacco Control Funding Issues:

Toronto Public Health's tobacco control program is undertaken in coordination with provincial and federal tobacco strategies. Some elements of an effective strategy are beyond the scope of a local public health agency (e.g. increasing taxes on tobacco products), and some elements are likely to be more effective if they are undertaken from a provincial or national perspective (e.g. infrastructure mechanisms to enhance coordination and communication). Overall, funding of strategies at the national and provincial levels in Canada has not been sufficient, nor has it been sustained over a long enough period of time to generate meaningful outcomes in terms of improved health and reduced health care costs (1).

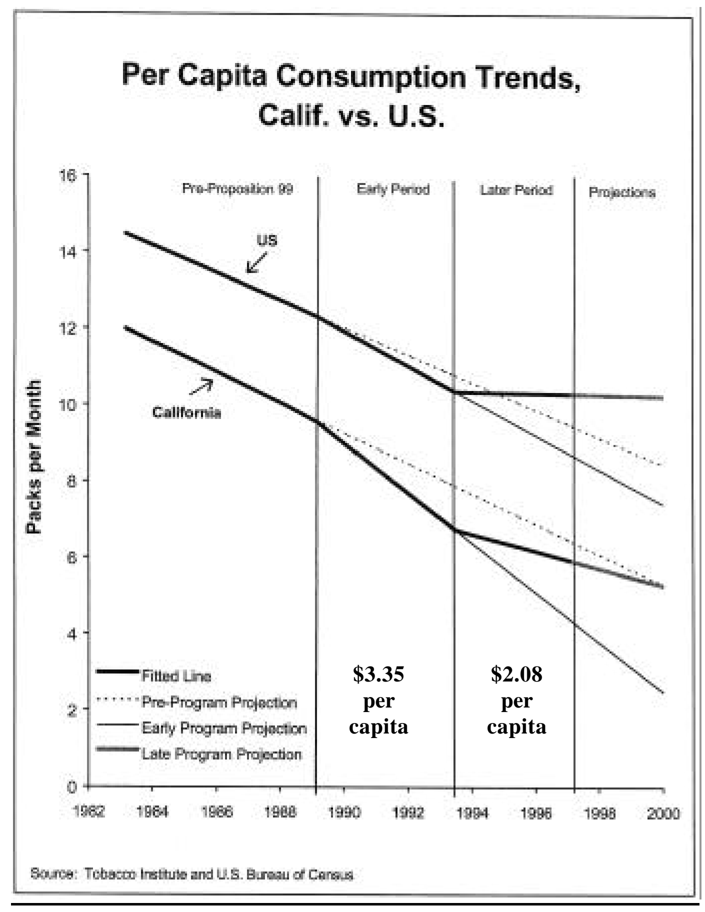
Toronto Public Health's tobacco control program is funded through cost-shared municipal and provincial dollars. Some activities have been developed and undertaken with funds made available through a competitive process by the Ontario Tobacco Strategy of the Ministry of Health and Long-Term Care (MOHLTC) and Health Canada's Tobacco Control Program. Two of these activities (Not to Kids and Breathing Space) have been recognized as recommended practices by the Program Training and Consultation Centre, a resource centre of the MOHLTC. In addition, a federal-provincial agreement that made funds available to public health agencies to enhance initiatives to reduce youth access to tobacco has not been in place since 2001. The availability of funding from both levels of government has been problematic; it is unpredictable and is offered only for specific periods of time, often with significant interruptions. This makes it difficult to plan and sustain effective programming in the community.

Research has clearly shown that increases in funding for tobacco control result in reduced tobacco use. For example, in 1988, California enacted legislation that raised tobacco taxes and earmarked 25% of the new tax for state-sponsored tobacco control campaigns. The result has been a more than 50% decline in per capita cigarette consumption and a 25% reduction in prevalence (2). Rates declined faster than those for the rest of the US, although the rate of decline levelled off following a reduction in per capita spending on tobacco control in 1993, when funds were diverted to other areas (see Figure 1).

In Ontario, the tobacco control expenditure for the 2002-2003 fiscal year was $1.60 per capita. Ontario's funding continues to lag behind that of other provinces, and falls well short of the US$ 5.00 to US$ 16.00 per capita recommended for large jurisdictions (populations greater than 7 million) by the United States Centers for Disease Control and Prevention (3).

Figure 1

Trends in Per Capita Tobacco Consumption – California vs. U.S. (1982-1998)



Conclusions:

The report entitled "Toronto's Health Status: Focus on Tobacco" provides current information on the effects of tobacco use and exposure to second-hand smoke on the health status of Toronto's 2.4 million residents, along with current estimates of the use of tobacco industry products by Toronto residents. This report also provides a summary of Toronto Public Health's comprehensive response to these issues. The indicators used in the report help identify the challenges, set targets and monitor the success of the comprehensive tobacco control program. The current development of an operational planning system and more information on smoking in Toronto-specific subpopulations will help to further support regular ongoing program planning, monitoring and evaluation. The information in this report illustrates Toronto Public Health's commitment to evidence-based decision-making and practice to address these population health needs.

Although progress has been made, smoking among Toronto youth and adults and exposure to second hand smoke clearly remain areas of concern. Continued attention to reducing the use of tobacco industry products, and thus the negative impact on the health of Torontonians, our health care system and our community is critical. This can only be achieved through a comprehensive tobacco control program. The program's multi-faceted efforts must continue in order to mitigate the effects of the ongoing chronic disease epidemic caused by the use of tobacco industry products.

In planning future directions, Toronto Public Health must continue to broaden support for its comprehensive tobacco control program by increasing community partnerships and our involvement in the number and type of tobacco control policy initiatives. This requires the commitment of both the federal and provincial governments to support local action.

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List of Attachments:

Appendix A: Toronto Public Health's "Toronto's Health Status: Focus on Tobacco" report, April 2004

References:

(1) The Fiscal Impact of Tobacco Control in Ontario. Toronto, ON: Ontario Tobacco Research Unit, Special Report Series, December 2003

(2) Pierce JP, Gilpin EA, Emery SL, Farkas AJ, Zhu SH, Choi WS, Berry CC, Distafan JM, White MM, Soroko s, Navarro A. *Tobacco Control in California: Who's Winning the War? An Evaluation of the Tobacco Contol Program 1989-1996.* La Jolla, CA: University of California, San Diego: 1998

(3) Enhancing Health in Ontario by Strengthening the Ontario Tobacco Strategy. Toronto ON: Ontario Tobacco Strategy Steering Committee, June 2002

Appendix A

Toronto's Health Status: Focus on Tobacco

Toronto's Health Status: Focus on Tobacco

Dr. Barbara Yaffe
Acting Medical Officer of Health

April 2004

Reference:
Toronto Public Health. *Toronto's Health Status: Focus on Tobacco.* City of Toronto: Toronto, Canada. April 2004.

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Toronto Public Health uses a number of strategies to reduce morbidity and mortality from the use of tobacco industry products. These include health status monitoring, program planning and evaluation, health promotion and education, health protection and enforcement, and more. We would like to recognize the ongoing efforts of all Toronto Public Health staff who use these strategies, and are dedicated to the goal of a smoke-free Toronto.

Distribution:
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Executive Summary

Tobacco use is the leading cause of disease burden and preventable death in developed countries including Canada. Every year, approximately 3,000 Toronto residents, and 15,500 Ontario residents, die from smoking-related causes. Tobacco use can affect non-smokers through second-hand smoke, which is another cause of death and disability for people of all ages. Infants and children do not have the opportunity to remove themselves from smoke-filled environments. This report describes the current health status of Toronto residents with respect to diseases and conditions that are associated with smoking, and smoking rates and trends among Toronto adults and youth. The report also outlines the activities and key indicators of the Toronto Public Health (TPH) tobacco control program.

Every year, approximately 3,000 Toronto residents die from smoking-related causes.

Current Smoking and Health Status Trends

Over the past few decades, smoking rates have been decreasing in most jurisdictions in North America, including Toronto. When the federal government first started monitoring Canadian smoking rates in 1965, the smoking rate among adults was approximately 50%. By 2003 the national rate was 20% of the population aged 15 and over. Estimates of smoking prevalence in Toronto range from 20.1% to 24.9%. Smoking prevalence has declined among Toronto students in grades 7 through 12 from 20.6% in 1999 to 15.5% in 2003. The decline in smoking rates is associated with improvements in health status. This report shows that the incidence rate of lung cancer among females and males declined approximately 6% and 18% respectively between 1990 and 2000 in Toronto. The larger decline in male lung cancer incidence coincides with the proportionately larger decline in male smoking rates over the past several decades. There have also been declines in the past few years for rates of other diseases and conditions associated with smoking, such as ischemic heart disease and low birth weight. Some of these reductions can be attributed to reductions in tobacco use.

Estimates of smoking prevalence in Toronto range from 20.1% to 24.9%.

Despite improvements, an estimated 20% of all deaths are still attributable to tobacco use. While a reduction in smoking prevalence over the past several decades has occurred, youth smoking is still a great concern, as there are approximately 185,100 Ontario students in grade 7 to 12 who reported smoking in 2003. Smoking prevalence increases almost seven-fold between grades 7 and 12. The earlier someone starts smoking, the more likely he or she is to suffer from smoking related diseases later in life. Most smokers start during their teen years, so many of the 15,500 deaths that occur each year as a result of cigarette smoking in Ontario are among those who started smoking while in their teens. Second-hand smoke also remains a problem, with 20% of Toronto residents reporting exposure in the home.

Youth smoking is still a great concern.

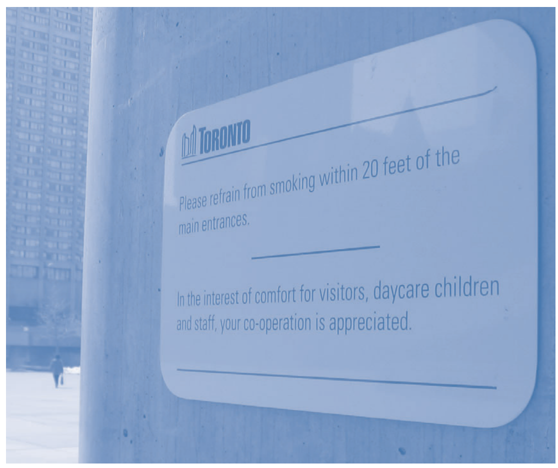
Second-hand smoke also remains a problem, with 20% of Toronto residents reporting exposure in the home.

Comprehensive Tobacco Control

The best way to reduce the morbidity and mortality associated with tobacco industry products is to reduce or prevent the consumption of these products. The best way to reach this goal is through a comprehensive tobacco control program, which uses consistent, coordinated, evidence-based activities, focused on the goals of:

- Prevention of the initiation of tobacco use among young people;
- Protection of people from exposure to second-hand smoke; and
- Cessation support for smokers of all ages.

These goals are supported by strategies that are recognized as best practices in the tobacco control literature. These include public education, research, and policy harmonization. Some jurisdictions such as the states of California and Massachusetts have implemented long-term comprehensive public health programs, which include a full range of regulatory and educational measures. As a result, tobacco-use rates in these jurisdictions have drastically declined.

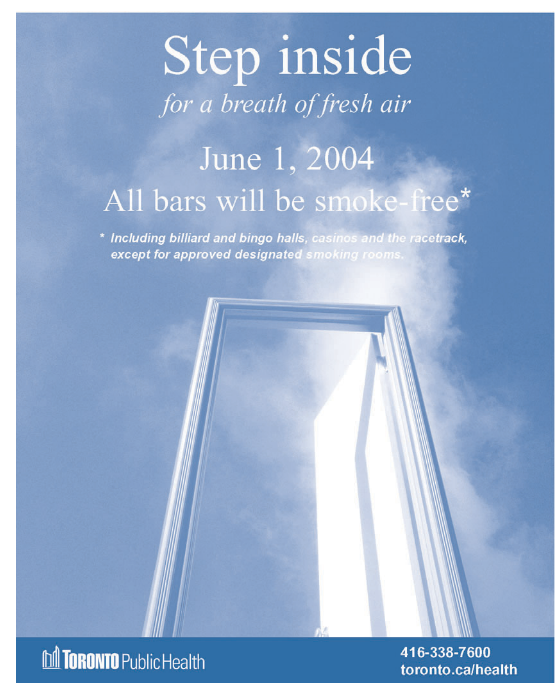


Some jurisdictions have implemented long-term comprehensive public health programs. As a result, tobacco-use rates in these jurisdictions have drastically declined.

Toronto Public Health's Response

The Health Protection and Promotion Act and the provincial Mandatory Health Programs and Services Guidelines mandate Toronto Public Health to reduce the morbidity and mortality associated with smoking. In response, TPH has built a comprehensive tobacco control program that articulates goals and objectives, depicts relationships among program components, and specifies indicators for monitoring the program. Activities have been selected from descriptions of best practices found in the tobacco control literature. Toronto Public Health employs a variety of strategies including education, enforcement, community capacity building, policy development, advocacy, and counter-advertising. Toronto Public Health advocates for legislative initiatives that are known to have an impact on the prevalence of tobacco use that fall outside of its authority (e.g. raising tobacco taxes and instituting marketing and retail controls). Toronto Public Health is committed to coordinating its programs and services with those offered by non-governmental agencies and other levels of government to maximize the impact of all activities.

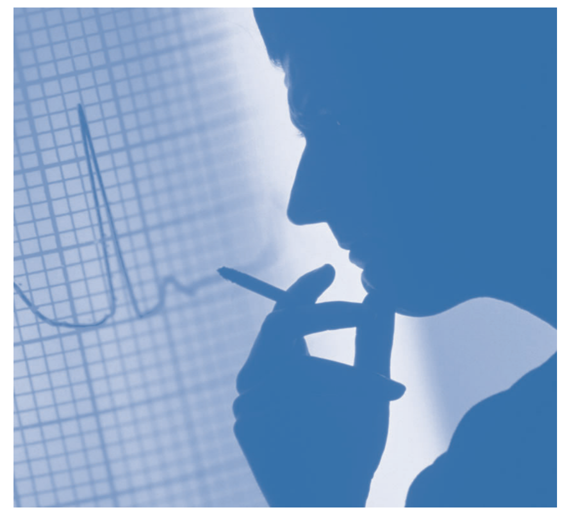
The key indicators presented in this report will be tracked to monitor progress towards the ultimate goal of reducing tobacco-associated morbidity and mortality. With the continuation of the comprehensive control program and consistent monitoring of indicators, smoking rates in Toronto can be reduced to their lowest possible levels. With reduced smoking levels, Toronto will also see substantially less smoking-associated disease and premature death.



With the continuation of the comprehensive control program and consistent monitoring of indicators, smoking rates in Toronto can be reduced to their lowest possible levels.

Background

Ontario's Mandatory Health Programs and Services Guidelines (MHPSG) state that local boards of health "…shall assess annually the community health status in the health unit using as a minimum, data on: demographics; mortality rates; morbidity rates; reproductive outcomes; risk factor prevalence; health conditions that are known or suspected to be associated with exposure to health hazards; and dental health indices." In addition, the MHPSG requires the board of health to "…ensure the use of community health status information in assessing local health needs and in the planning and evaluating of programs".[1]



Both of these requirements are addressed, on an ongoing basis, through Toronto Public Health's strategy for health status reporting and its link to the program planning process. This helps to ensure that local programs address the health needs of the community, with cost-effective, efficient, and evidence-based approaches. This health status reporting strategy includes a series of reports, including an overview of general health status every three years, and more focused reports relating to specific health issues. The issues are selected using a set of criteria, including: the degree of the burden of illness imposed by the issue, whether or not the issue is appropriate for local public health response, the extent to which the report can be utilized for decision making or planning, and the breadth of the issue as represented across public health programs. The application of these criteria identified tobacco use as a priority health status issue.

Toronto Public Health's strategy for health status reporting helps to ensure that local programs address the health needs of the community, with cost-effective, efficient, and evidence-based approaches.

"Toronto's Health Status: Focus on Tobacco" provides the most recent information on the effects of tobacco use and exposure to second-hand smoke on the health status of Toronto's 2.4 million residents, along with current estimates of the use of tobacco industry products by Toronto residents. It also provides a summary of Toronto Public Health's comprehensive response to these issues. The indicators used in this report help Toronto Public Health (TPH) to identify the challenges, set the targets, and monitor the success of the comprehensive tobacco control program. Establishing the link between community health status

and the response of public health programs and initiatives is a goal of the health status reporting strategy. With this purpose in mind, the specific objectives of this report are:

- To provide the most current information on the effects of the use of tobacco industry products and exposure to second-hand smoke on the health status of Toronto's 2.4 million residents;
- To provide current estimates of the use of tobacco industry products by Toronto residents;
- To describe Toronto Public Health's comprehensive response to these issues including prevention, protection and cessation activities, and demonstrate its leadership in reducing/eliminating tobacco use and exposure to second-hand smoke;
- To establish a baseline of selected health status indicators that can be used to evaluate the progress of Toronto Public Health towards the goals of prevention and reduction of tobacco use and protection from the effects of exposure to second-hand smoke;
- To promote this issue as a public health priority; and,
- To inform Toronto Public Health's decision making and program planning.

Much of the data included in this report is provided by the Ministry of Health and Long-Term Care or other agencies. TPH has direct involvement with the Rapid Risk Factor Surveillance System and the Toroonto Healthy Environments Information System. More details on these data sources are found in Appendix A.

The authors hope that this report will be useful not only for Toronto's Board of Health members and public health staff, but also for our many community partners who work with TPH to reduce the toll of this public health epidemic.

The indicators used in this report help Toronto Public Health to identify the challenges, set the targets, and monitor the success of the comprehensive tobacco control program.

Impact of the Use of Tobacco Industry Products

Tobacco use is the leading cause of preventable disease and premature death in Canada.[2] Mortality data from 1995 to 1997 for Canadians over 35 years of age shows that 45,000 deaths, or 22% of all-cause mortality could be attributed annually to smoking,[3] with 3000 of these deaths occurring each year in Toronto.[4] These figures were calculated by researchers and published in peer reviewed journals. The researchers used an established formula for population attributable risk. Included in the calculation are deaths due to cancers, cardiovascular diseases (CVD), and respiratory diseases, but not those from exposure to second-hand smoke or fires. In 1996, smoking prematurely killed three times more Canadians than car accidents, suicides, drug abuse, murder and AIDS combined.[5] Children and infants can also be affected. For example, smoking during pregnancy is associated with higher risk of low birth weight, and second-hand smoke is associated with exacerbation of children's respiratory problems.[6,7] In terms of the overall burden of illness, tobacco use is the most important risk factor in developed countries like Canada.[8]

In terms of the overall burden of illness, tobacco use is the most important risk factor in developed countries like Canada.

Smokers who quit by their early thirties avoid almost all of the risk of premature death from smoking-related diseases, and there are clear health benefits, even for those who quit at age 60 and over. The risk of a heart attack decreases after just 1 day of abstinence. Within 1 year, the risk of a smoking-related heart attack is cut in half. After 15 years, the risk of dying from a heart attack is equal to that of a person who never smoked.[9] Quitting smoking cannot reduce a person's risk of lung cancer to the level of someone who has never smoked. Nonetheless, there is a major reduction in risk for former smokers in comparison with those who continue to smoke.

Smoking is associated with other factors or conditions that are known to contribute to CVD, such as obesity and hypertension.[10] Smoking is also a strong risk factor for adult periodontal disease, an association that is not well known.[11] The effects of smoking are not only limited to health status, but impact society economically and socially, in ways such as lost

productivity from time off due to smoking related illness, and burden on the health care system.[12] Because of its addictive nature, most smokers find it very difficult to quit smoking, and failed attempts can be a source of stress and anxiety.

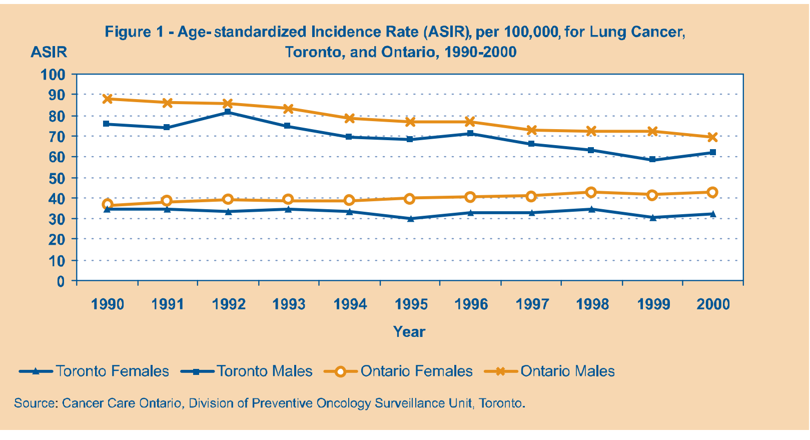
This section of the report presents incidence, prevalence, and mortality rates, and risk factors for selected diseases associated with smoking. Chronic diseases that are associated with smoking usually develop over a protracted period of time. Therefore, the population that is currently experiencing these effects may not be the population that is currently being exposed.

A note on confidence intervals: Because estimates are based on a subset of the total population, they are presented with 95% confidence intervals. This means that the probability that the true rate lies within the range of the confidence interval is 95%. Confidence intervals are represented by error bars on graphs where appropriate.

Cancer

All cancers are characterized by uncontrolled growth and spread of abnormal cells in the body. The leading cause of cancer death for both sexes combined continues to be lung cancer.[13] More than 90% of lung cancers in men and at least 70% in women are directly attributable to cigarette smoking.[14]

Lung cancer incidence rates were lower in Toronto than Ontario for each of the years from 1990 to 2000 (Figure 1). In Toronto, the female lung cancer incidence rate declined from 34 per 100,000 in 1990 to 33 per 100,000 in 2000, while the male lung cancer incidence rate declined from 76 per 100,000 to 62 per 100,000 over the same time period (approximately a 6% and 18% decline, respectively). The declining rates for lung cancer are correlated with past reductions in the overall rate of cigarette smoking.



Lung cancer incidence rates have consistently been higher for men than for women. The higher rate of lung cancer for men reflects the historically higher rates of smoking among men. The decline in male lung cancer incidence has been more pronounced, and this corresponds to the proportionately larger decline in male smoking rates over the past several decades.

In 2003, an estimated 4,000 men and 3,500 women were diagnosed with lung cancer, and an estimated 3,500 men and 2,800 women died of lung cancer in Ontario. In the same year, an estimated 12,200 men and 9,000 women were diagnosed with lung cancer, and an estimated 10,900 men and 7,900 women died of lung cancer in Canada.[15]

Other cancers are also associated with cigarette smoking and the use of other tobacco industry products. For example, in 1998 there were 1,157 deaths in Ontario from esophageal, pancreatic, laryngeal, and oral cancer that were directly attributed to smoking.[2] Also, women who have been infected with the human papilloma virus (HPV), an extremely common sexually transmitted disease, are at increased risk for cervical cancer if they smoke.[16] In 2000, the incidence rate of cervical cancer was 7 per 100,000 in Toronto, and 8 per 100,000 in Ontario.

In 2003, an estimated 4,000 men and 3,500 women were diagnosed with lung cancer in Ontario.

Cardiovascular Diseases

Twenty-three percent of cardiovascular disease (CVD) mortality in Canada is attributable to smoking.[3] CVD is responsible for almost 40% of all deaths in Canada each year.[17] These deaths are from a wide range of cardiovascular diseases including rheumatic heart disease, hypertension, ischemic heart disease, cerebrovascular disease, atherosclerosis, aortic aneurysm, and other arterial disease.

For the Canadian population over 35 years of age, approximately 45,000 premature deaths occurred yearly between 1995 and 1997 in Canada as a result of tobacco smoking.[3] Cardiovascular deaths annually account for 18,200 of these premature smoking-related deaths. Twelve hundred of these cardiovascular deaths occurred in Toronto, while 6,600 occurred in Ontario.[4] When respondents to the Canadian Community Health Survey 2000/2001 were asked whether they had been diagnosed with heart disease, significantly more smokers than non-smokers responded affirmatively.*

Ischemic heart disease (IHD) is one type of cardiovascular disease that has been linked to smoking. Ischemic heart disease includes any condition in which heart muscle is damaged or works inefficiently because of an absence or relative deficiency of blood supply. Ischemic heart disease death rates have decreased in Toronto and Ontario since 1988, and Toronto rates are consistently lower than those for Ontario (Figure 2). The most recent numbers show that the overall mortality rates for ischemic heart disease in 1999 for Toronto and Ontario were 104 per 100,000 and 137 per 100,000, respectively. Ischemic heart disease death rates are higher among males compared to females for both Toronto and Ontario (Figure 2).

Another type of cardiovascular disease associated with smoking is stroke. Stroke occurs when there is a reduction of blood flow to a region of the brain. The age-standardized mortality rate for stroke for those 35 years of age and over was 75 per 100,000 for men and 94 per 100,000 for women in Toronto, while the rate for Ontario was 80 per 100,000 for men and 106 per 100,000 for women in 1999 (Ontario Ministry of Health and Long Term Care, Population Health Planning Database, 2003).

Between 1995 and 1997, 1,200 premature smoking-related cardiovascular deaths occurred in Toronto.

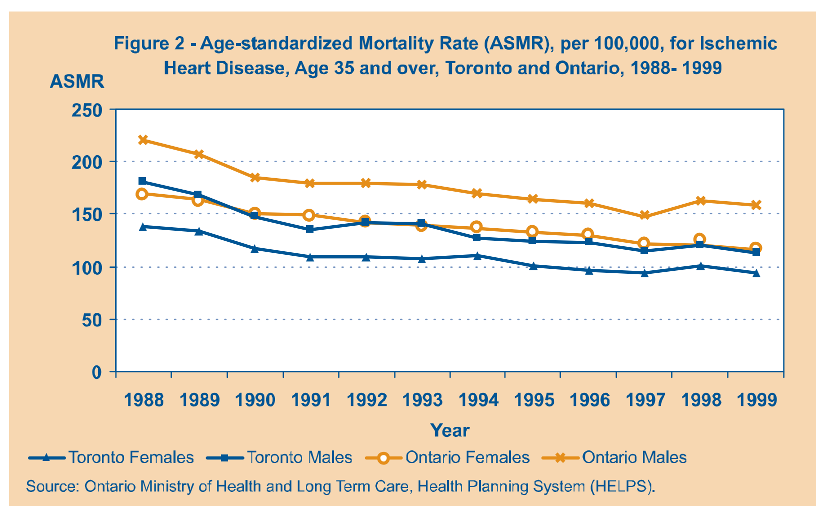


Figure 2 - Age-standardized Mortality Rate (ASMR), per 100,000, for Ischemic Heart Disease, Age 35 and over, Toronto and Ontario, 1988- 1999

Source: Ontario Ministry of Health and Long Term Care, Health Planning System (HELPS).

*Estimates with 95% confidence intervals: smokers diagnosed with heart disease: 6.4%, CI$_{95\%}$: 4.9 to 7.9%. Non-smokers diagnosed with heart disease: 3.7%, CI$_{95\%}$: 2.6 to 4.7%.

Respiratory Diseases

Several respiratory diseases are associated with smoking. Asthma can be exacerbated by cigarette smoke,[18] and there is a known association between smoking and chronic obstructive pulmonary diseases such as bronchitis and emphysema.[19] The age-standardized mortality rate of all chronic obstructive pulmonary diseases for the population 35 years of age and over was 45 per 100,000 for men and 31 per 100,000 for women in Toronto, compared to 59 per 100,000 for men and 42 per 100,000 for women in Ontario in 1999 (Figure 3). When respondents to the Canadian Community Health Survey 2000/2001 were asked whether they had been diagnosed with bronchitis, significantly more current smokers (3.6%) replied affirmatively than non-smokers (1.3%).*

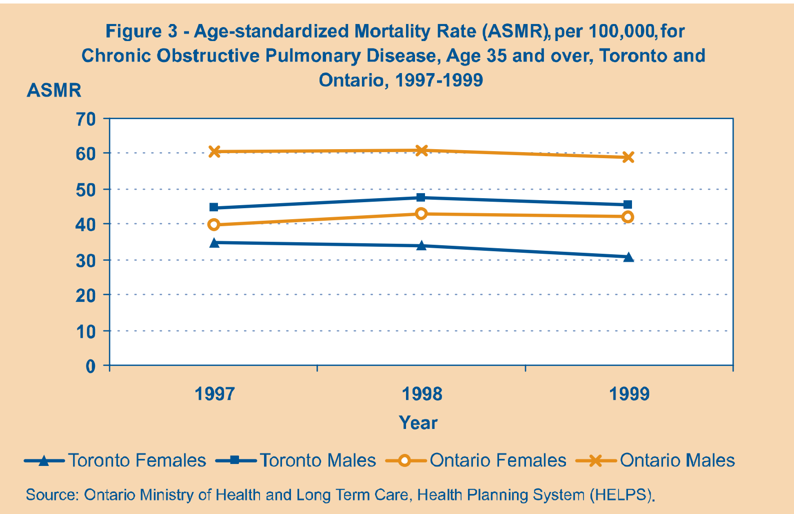


Figure 3 - Age-standardized Mortality Rate (ASMR), per 100,000, for Chronic Obstructive Pulmonary Disease, Age 35 and over, Toronto and Ontario, 1997-1999

Source: Ontario Ministry of Health and Long Term Care, Health Planning System (HELPS).

When asked whether they had been diagnosed with bronchitis, significantly more current smokers replied affirmatively than non-smokers.

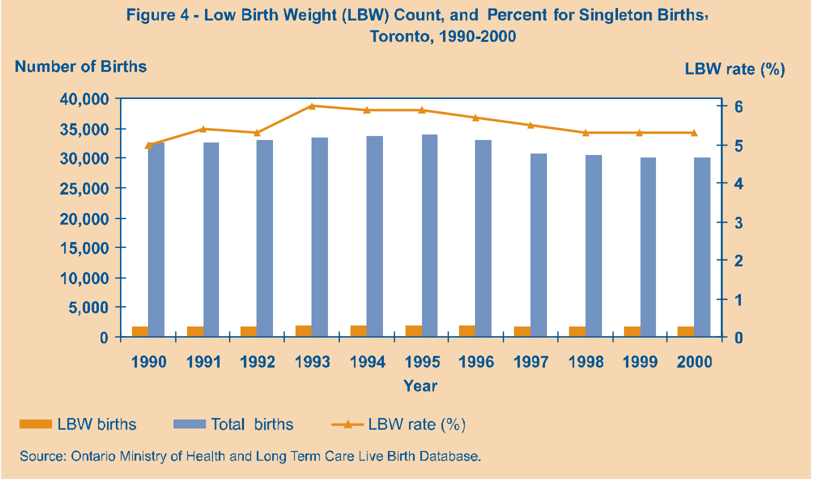
*Estimates with 95% confidence intervals: smokers diagnosed with bronchitis: 3.6%, $CI_{95\%}$: 2.6 to 4.7%. Non-smokers diagnosed with bronchitis: 1.3%, $CI_{95\%}$: 0.7 to 1.9%.

Low Birth Weight

The harmful health effects of smoking are not only experienced by adults. Maternal smoking is associated with adverse health effects for the fetus, such as low birth weight (LBW) and pre-term birth. In fact, Health Canada uses "tobacco smoke hurts babies", and "cigarettes hurt babies" as two of the standard warnings on cigarette packages.[20] Smoking during pregnancy can limit the growth of the fetus and may result in a LBW baby, that is a baby with a birth weight of less than 2,500 grams. LBW babies are more likely to die in infancy, or to experience health or developmental problems.[21] Toronto's low birth weight rate, while improved between 1993 and 1998, leveled off at 5.3% between 1998 and 2000 (Figure 4).[22] This is higher than the province-wide rate of 4.5% in 1999. Toronto's LBW rate is related to a number of other factors besides maternal smoking, including income, maternal age, and maternal country of origin. The Ministry of Health and Long Term Care has set a target of a low birth weight rate of 4.0% by 2010.[1]

Toronto's low birth weight rate is related to a number of factors including maternal smoking.

Figure 4 - Low Birth Weight (LBW) Count, and Percent for Singleton Births, Toronto, 1990-2000



Source: Ontario Ministry of Health and Long Term Care Live Birth Database.

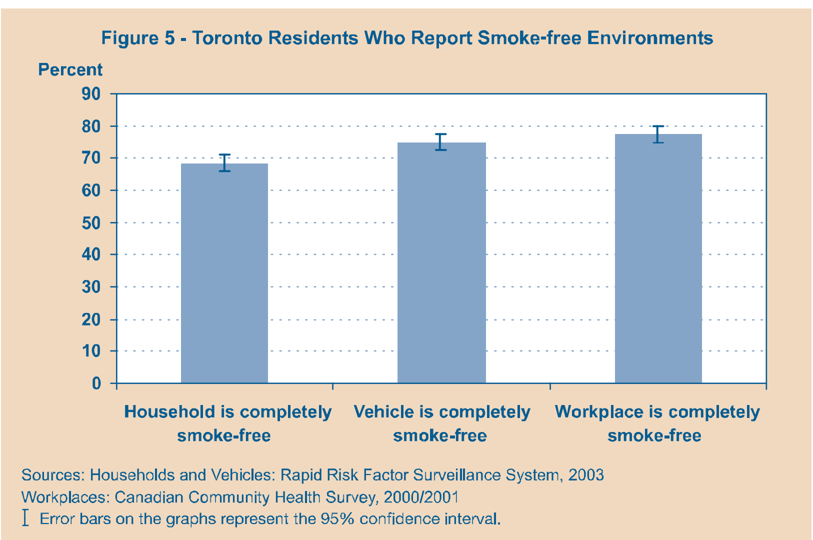
Second-Hand Smoke

Cigarette smoke affects non-smokers as well as smokers. Medical evidence demonstrates that second-hand smoke causes serious health effects in both adults and children and is the third major preventable cause of death after active smoking and alcohol.[23] Second-hand smoke also has greater amounts of ammonia, benzene, carbon monoxide, nicotine, and carcinogens such as nitrosamines, than the smoke that is inhaled by the active smoker.[24]

Exposure to second-hand smoke has been associated with heart disease, lung cancer, exacerbation of asthma and cystic fibrosis, stroke, cervical cancer, spontaneous abortion, and other conditions and diseases.[23] Numbers for Toronto are not available, but researchers have estimated that exposure to second-hand smoke causes between 1,100 and 7,800 deaths per year in Canada, with at least one-third of them in Ontario.[24] In 2000/2001, 20% of Toronto respondents to the Canadian Community Health Survey reported exposure to second-hand smoke in the home within the past month. The rates of past month second-hand smoke exposure in the home ranged from 18% to 36% among Ontario communities, while the all-Ontario rate was 25%.[25] In 2003, 68.4% of Toronto households were reported as being completely smoke-free, and 75.0% of Toronto residents who drove reported not allowing any smoking inside their vehicle. 77.4% of workers reported that their workplaces were completely smoke-free in 2000/2001 (Figure 5).

Researchers in England and Wales have studied childhood lower respiratory illness and middle ear disease in homes where at least one parent smokes. They found that the percentage of these conditions attributable to second-hand smoke ranged from 9% for asthma to 25% for hospital admission for lower respiratory illness.[26] Studies have also documented that smoking during pregnancy and after birth are two major and independent risk factors for Sudden Infant Death Syndrome (SIDS).[27]

Second-hand smoke is the third major preventable cause of death after active smoking and alcohol.



Sources: Households and Vehicles: Rapid Risk Factor Surveillance System, 2003
Workplaces: Canadian Community Health Survey, 2000/2001
Error bars on the graphs represent the 95% confidence interval.

Trends in Tobacco Use

The percentage of students who report daily or occasional smoking has declined in Ontario and Toronto in recent years. In 2003, 15.5% of students in grades 7-12 smoked in the Toronto area. Toronto students are also significantly less likely to smoke than their peers in the North, East, and West regions of Ontario. Despite improvements, smoking among youth remains a concern, as seven times more grade 12 students than grade 7 students report smoking. Data for Ontario and Canada show that female students are more likely to smoke than males. Although data by gender is not available for Toronto students, it is reasonable to conclude that this trend is a concern in our area as well. A total of 185,100 Ontario students reported smoking in 2003.

Adult smoking rates have also declined over the past several decades. The decline has been less pronounced in recent years and the rate has fluctuated since 1997, although the differences have not been significant. Estimates from several different sources are presented in Table 3. The most recent figures from 2003 show that 20.1% of the Toronto population 18 years of age and over smoked daily or occasionally. In the adult population, the groups that are most likely to smoke are men, and the 18-24 years age group. It is not known how smoking rates vary in different subpopulations in Toronto. In order to reflect Toronto's diverse population, more information on smoking is needed for factors of interest such as ethnicity, income, and prenatal status.

More detail on the trends in youth and adult smoking behaviour are presented in this section.

Despite improvements, smoking among youth remains a concern, as seven times more grade 12 students than grade 7 students report smoking.

The decline in adult smoking rates has been less pronounced in recent years.

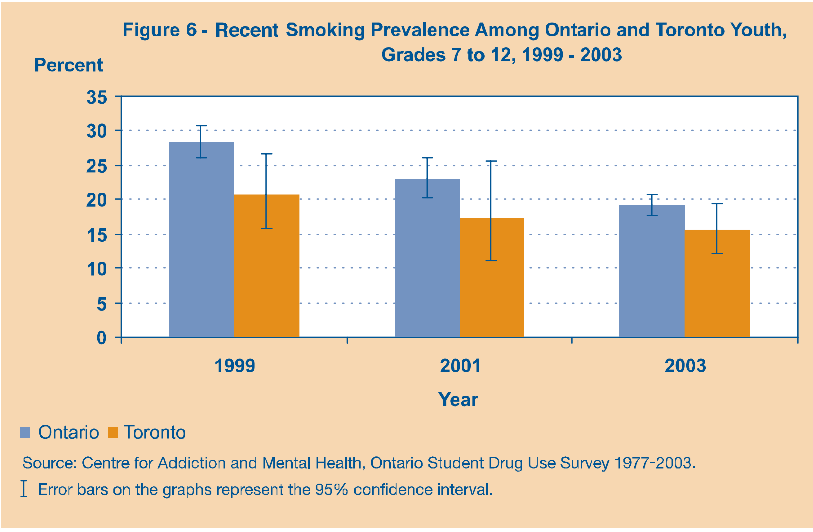
Use of Tobacco Among Youth

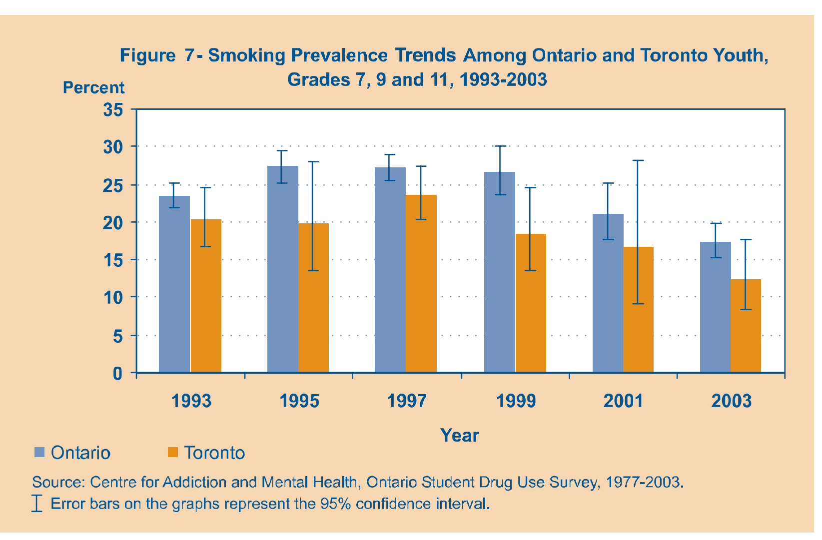
The majority of current smokers in Toronto started before the age of 20.[25] Early age at initiation of smoking is associated with the diagnosis of smoking-related diseases such as chronic obstructive pulmonary disease, heart disease, and rheumatoid arthritis.[28]

Prevalence of daily or occasional cigarette use during the previous 12 months has declined among Toronto students in grades 7 through 12 from 20.6% in 1999 to 15.5% in 2003. The corresponding figure for Ontario in 2003 was 19.2% (Figure 6). Approximately 185,100 Ontario students in grade 7 to 12 reported smoking in 2003.[29]

The majority of current smokers in Toronto started before the age of 20.

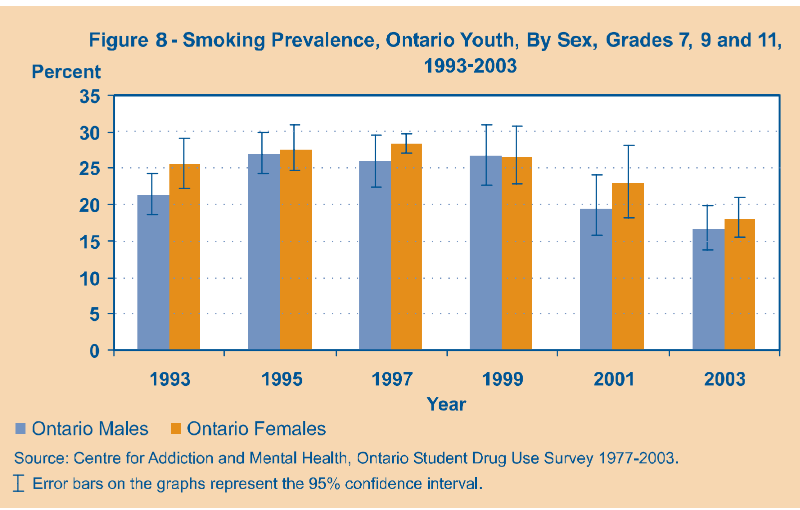
The rate of cigarette use (daily and occasional) for Toronto students in grades 7, 9 and 11 was 25.8% ($CI_{95\%}$: 17.7 to 36.0%) in 1981. The highest prevalence of cigarette use for grade 7, 9, and 11 Toronto students in the 1990s was in 1997, at 23.6%. The prevalence had dropped significantly to 12.3% by 2003 (Figure 7). Smoking prevalence has also significantly declined in Ontario for the same group; males from 26.7% in 1999 to 16.6% in 2003 and females from 26.6% in 1999 to 18.1% in 2003. Figures 6 and 7 illustrate that Toronto youth smoking rates have been consistently lower than rates for Ontario.[29]





The smoking rates for male and female youth in Ontario were similar from 1999 to 2003 (Figure 8). Among Canadian youth aged 15-19 years, 16% of males and 19% of females were smokers in 2003.[30]

Research also shows that smoking is significantly related to grade level among Ontario grade 7 to 12 students (Table 1). The prevalence of smoking among Ontario students in Grade 12 is almost seven times greater than among Grade 7 students in 2003.



Toronto grade 7-12 students are least likely to smoke compared to students in the North, West and East regions of Ontario (Table 2). The daily smoking rate for Toronto grade 7 to 12 students was 10.6% ($CI_{95\%}$: 8.2 to 13.7%) in 2003, the lowest rate of the Toronto, North, West, and East regions of Ontario.[29]

The average number of cigarettes smoked daily among Ontario students in grades 7, 9 and 11 decreased from 6.7 in 1999, to 5.0 in 2003.[29]

Table 1 - Prevalence of Smoking in the Past Year, by Grade Level, Ontario, 2003

Grade level	Smoking Rate	95% Confidence Interval*
7th	4.4%	2.8 to 6.8%
8th	10.2%	7.2 to 14.4%
9th	17.0%	13.9 to 20.6%
10th	21.8%	18.4 to 25.6%
11th	28.3%	24.3 to 32.6%
12th	30.2%	25.7 to 35.2%

* The probability that the true rate lies within this range is 95%.

Source: Centre for Addiction and Mental Health, Ontario Student Drug Use Survey, 1977-2003.

Table 2 - Prevalence of Smoking in the Past Year, by Region, Ontario, 2003

Region	Smoking Rate Among Students Grades 7 to 12	95% Confidence Interval*
Toronto	15.5%	12.2 to 19.4%
North	24.4%	19.7 to 29.7%
West	20.2%	17.9 to 22.8%
East	18.7%	16.2 to 21.6%

*The probability that the true rate lies within this range is 95%.

Source: Centre for Addiction and Mental Health, Ontario Student Drug Use Survey, 1977-2003.

Use of Tobacco Among Adults

As more information has become known about the link been tobacco smoking and health, more efforts have been made to collect data on the prevalence of smoking in the adult population. Estimates of smoking prevalence for Toronto, Ontario, and Canada from three population surveys are presented in Table 3:

The results in Table 3 show that the estimation of smoking prevalence among the adult population within the same geographic area differs by survey. These differences may be a result of question wording, survey methodology, the representativeness of the population, or the age group surveyed. The estimates for smoking rates among Toronto adults vary from 20.1% to 24.9%, with all estimates having overlapping 95% confidence intervals. By comparison, estimates for the smoking rate for Ontario adults ranged from 19.0% to 25.9%. The prevalence of smoking among Canadians aged 15 and over has declined substantially over the past several decades, from approximately 50% in 1965, to 37% in 1981, to 20% in 2003.[31] Appendix A provides more detail on the sources of data used for this report.

Among Toronto adults, the age group reporting the highest current smoking rate in 2002/2003 was 18-24 years at 26.9%.

Table 3 – Percent Current Smokers, Based on Various Surveys, Toronto, Ontario, and Canada

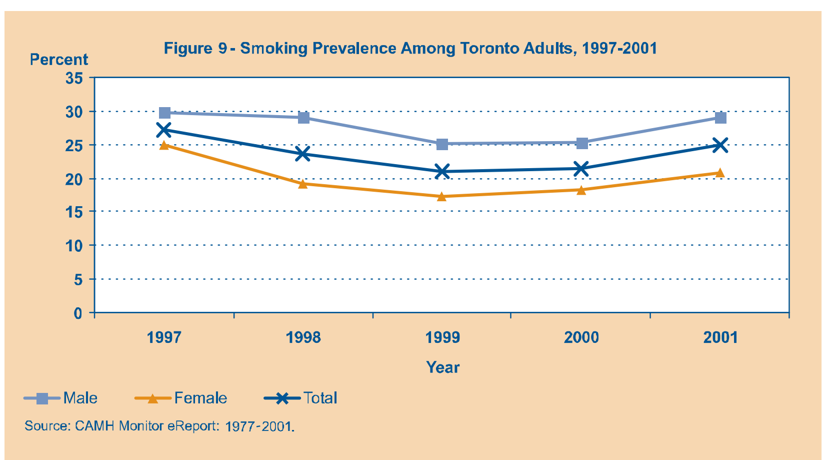
Location	Estimated percent of the population who smoke daily or occasionally	Age Group	95% Confidence Interval*	Data Source
Toronto (2003)	20.1	18 and over	(17.8 to 22.4%)	Rapid Risk Factor Surveillance System, 2003
Toronto (2001)	24.9	18 and over	(20.5 to 29.9%)	Centre for Addiction and Mental Health Monitor eReport, 2001
Toronto (2000/'01)	22.5	18 and over	(20.4 to 24.6%)	Canadian Community Health Survey, 2000/2001
Ontario (2003)	19.0	15 and over	N/A	Canadian Tobacco Use Monitoring Survey, Wave 1 (Feb –June) 2003
Ontario (2001)	24.7	18 and over	(22.8 to 26.7%)	Centre for Addiction and Mental Health Monitor eReport, 2001
Ontario (2000/'01)	25.9	18 and over	(25.1 to 26.6%)	Canadian Community Health Survey, 2000/2001
Canada (2003)	20.0	15 and over	N/A	Canadian Tobacco Use Monitoring Survey, Wave 1 (Feb –June) 2003

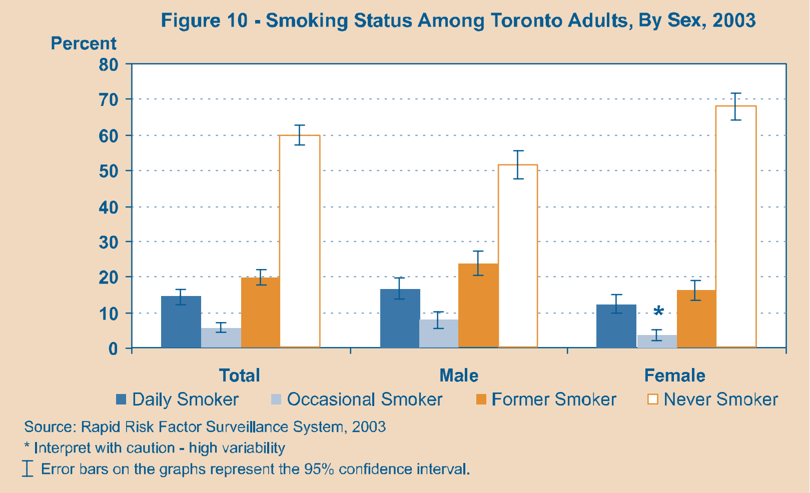
* The probability that the true rate lies within this range is 95%.

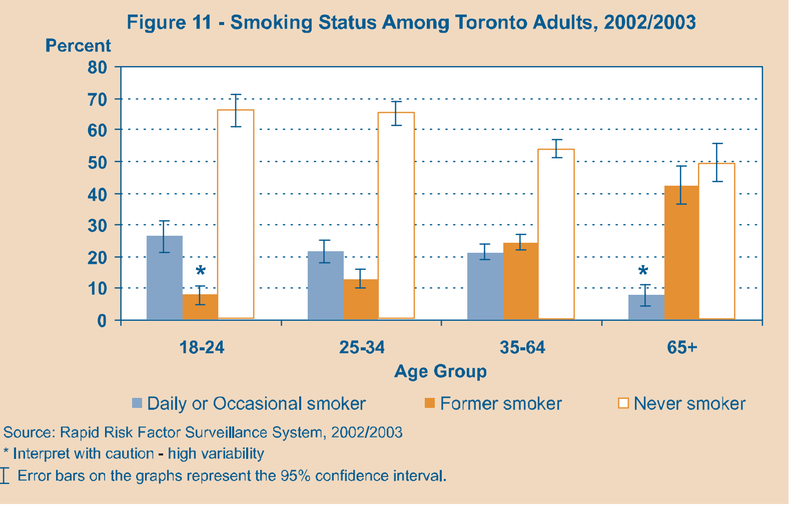
According to the Centre for Addiction and Mental Health, current smoking rates have fluctuated over the past few years in Toronto among adults aged 18 and over. The rate was 27.5% in 1997, decreasing to 21.2% in 1999, and increasing again to 24.9% in 2001. More than three-quarters of current smokers smoke cigarettes daily, while the rest are occasional smokers.[32] The 2001 Toronto smoking rate was significantly higher for men (29.1%) than for women (20.8%) (Figure 9). The 2001 Ontario smoking rate was also significantly higher for men (28.0%) than for women (21.5%).*

The profile of smoking status is similar between males and females in Toronto however, women are more likely than men are to never smoked (Figure 10).

Among Toronto adults, the age group reporting the highest current smoking rate in 2002/2003 was 18-24 years at 26.9%, followed by 25-34 years, and 35-64 years, which were nearly the same at 21.0% and 21.7%, respectively. Smoking prevalence among those 65 years of age and older was by far the lowest at 7.5% (Figure 11).





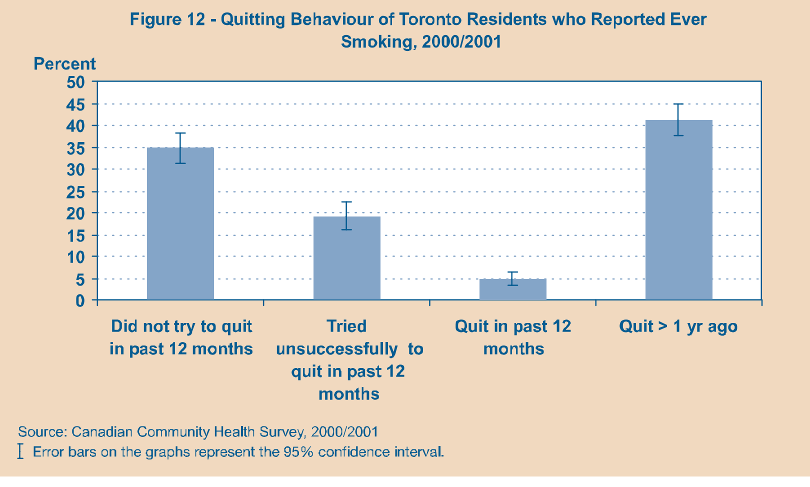


*Estimates and 95% confidence intervals: Toronto smoking rate: in 1997: 27.5%, $CI_{95\%}$: 23.2 to 31.8%, 1999: 21.2%, $CI_{95\%}$: 17.9 to 24.5%, 2001: 24.9%, $CI_{95\%}$: 20.5 to 29.9%, for men: 29.1%, $CI_{95\%}$: 24.2 to 34.0%, for women: 20.8%, $CI_{95\%}$: 16.4 to 25.2%. The Ontario smoking rate, 2001: for men: 28.0%, CI95%: 25.2 to 31.1%, for women: 21.5%, $CI_{95\%}$: 19.1 to 24.1%.

Not only has there been a long-term decrease in the prevalence of smoking, the number of cigarettes consumed daily in Canada is also on the decline. In 1985, daily smokers consumed an average of 20.6 cigarettes per day in Canada.[33] Since then, the number of cigarettes smoked has been gradually decreasing, falling to 15.7 cigarettes per day in 2003. Men continued to smoke more cigarettes than women did, at 17.8 compared with 13.2 cigarettes per day, respectively.[34] An average of 14.7 cigarettes was smoked per day by daily smokers in Toronto in 2001.[35]

It is encouraging to note that many smokers have quit or are considering quitting. Forty-six percent of Toronto residents who reported ever smoking had quit smoking as of 2001. Ninety percent of these former smokers quit more than 12 months before being surveyed, while 10% had quit in the previous year. An additional 19.2% of smokers tried unsuccessfully to quit in the 12 months preceding the survey, while 34.7% of ever smokers did not try to quit during the same 12 month time period (Figure 12).

Figure 12 - Quitting Behaviour of Toronto Residents who Reported Ever Smoking, 2000/2001



Source: Canadian Community Health Survey, 2000/2001
Error bars on the graphs represent the 95% confidence interval.

Tobacco Control Program Components and Indicators

Toronto Public Health's comprehensive Tobacco Control Program is a component of the provincial Mandatory Health Programs and Services Guidelines.[1] The ultimate goal of the program is to reduce the morbidity and mortality from tobacco use and exposure to second-hand smoke. The Tobacco Control Program developed a program logic model to guide and coordinate tobacco program planning and delivery. A program logic model relates various goals and objectives in a hierarchical manner, and identifies long-term outcome objectives. For example, a long-term outcome objective of the program is to decrease the percent of minors who perceive that cigarettes are easy to get, which in turn will have an impact on the percent of adolescents who experiment with cigarettes. The goals and objectives of the program fall into the categories of:

1. Prevention, or reducing the rate of smoking initiation among young people;
2. Protection from second-hand smoke; and
3. Cessation, or helping smokers of all ages to quit.

The program aims to normalize non-smoking as the activity of the majority of the population, and to denormalize tobacco industry products. It uses a comprehensive education and social marketing approach to target several distinct groups, such as adults, youth, children, school boards, businesses, and elected officials. If the program activities are well coordinated, it is likely that we will see a reduction in the prevalence of tobacco use and related health effects in Toronto.

This section of the report outlines the Prevention, Protection, and Cessation components of the Tobacco Control Program, and selected key indicators for tracking progress. The key indicators form the baseline for monitoring progress. The key indicator targets were developed through consultation with staff, taking into account past trends, evidence of the impact of effective programming, resource levels, and availability of data. A brief description of the various activities that comprise Toronto Public Health's Comprehensive Tobacco Control Program is included in Appendix B of this report.

A long-term outcome objective is to decrease the percent of minors who perceive that cigarettes are easy to get, which in turn will have an impact on the percent of adolescents who experiment with cigarettes.

Prevention of Tobacco Use Among Youth

Cigarettes can be highly addictive,[36] and preventing someone from starting to smoke is a key step in tobacco control. One of the goals of the tobacco program is preventing youth from starting to smoke.

Young people start smoking for a variety of reasons, the most common reason being the smoking behaviour of family and friends. Other personal, environmental, and social factors also contribute to smoking initiation.[36]

Because there are so many different factors that influence youth smoking, effective prevention strategies must take a multifaceted approach. Through public education conducted in conjunction with community and media-based activities, it is possible to postpone or prevent smoking onset to some extent in adolescents.

Furthermore, through policy changes, it is possible to curb youth access to tobacco, discourage and reduce consumption, and protect the public from adverse health outcomes of second-hand smoke. If local preventive programs and policies are fully implemented, it is likely that there would be a reduction in the number of young people who experiment with tobacco and, over time, the number of users would gradually decline.

Toronto Public Health prevention activities:

- Tobacco Use Prevention School Initiatives
- Not to Kids
- Tobacco Control Act (1994) Enforcement
- Promotion of Smoke-Free Living

Please refer to Appendix B for a description of these and other TPH program activities.

Preventing someone from starting to smoke is a key step in tobacco control.

Table 4 - Key Indicators - Prevention			
Key Indicators	Baseline	Target	Data Source
1. Daily or occasional smoking among youth in grades 7 to 12 in Toronto.	15.5% in 2003 ($CI_{95\%}$: 12.2 to 19.4%)	12% by 2007	Ontario Student Drug Use Survey, 1977- 2003, Centre for Addiction & Mental Health
2. Tobacco Control Act compliance by vendors in Toronto.	81% in 2002	90% by 2006	Toronto Healthy Environments Information System, 2003

Protection to Ensure Smoke-Free Environments

There is evidence that the existence of smoke-free public places has an impact on tobacco consumption and prevalence. Research also demonstrates that smoke-free public places are effective in deterring people from smoking.[37] Legislation is used to regulate access to tobacco industry products and to create smoke-free public places. Relevant pieces of legislation are:

1. The Ontario Tobacco Control Act (TCA) (1994), which places restrictions on selling and supplying tobacco, prohibits smoking on school property, and restricts smoking in health care facilities and other public places throughout the province. Violation of this law can result in fines and penalties. Toronto Public Health staff have primary responsibility for enforcement of the TCA.
2. City of Toronto Municipal Code Chapter 709 – Smoking is the multi-phase no-smoking bylaw that regulates smoking in Toronto workplaces and public places not covered in the TCA. The final phase of implementation, scheduled for June 1, 2004, will provide smoke-free public places and workplaces throughout Toronto. It also regulates smoking in the public areas of residential and commercial buildings. Toronto Public Health staff also have the responsibility for enforcement of this legislation.
3. The Ontario Occupational Health and Safety Act, which lists toxic agents in cigarette smoke for which any exposure should be avoided.

Toronto Public Health has several programs to reduce or eliminate exposure to second-hand smoke in public areas, homes and vehicles. TPH also educates the public about the dangers of second-hand smoke in order to:

- Increase the percent of smoke-free households;
- Increase the percent of smoke-free vehicles;
- Raise awareness about the bylaw and the TCA;
- Increase indoor workers' awareness of second-hand smoke risks.

These combined strategies will support efforts to reduce youth tobacco use initiation, promote cessation among youth and adults, reduce exposure to second-hand smoke and ultimately reduce related illness and death.

Toronto Public Health protection activities:

- City of Toronto Municipal Code Chapter 709 - No-Smoking bylaw enforcement
- Tobacco Control Act (1994) enforcement
- Breathing Space: Community Partners for Smoke-free Homes

Please refer to Appendix B for a description of these and other TPH program activities.

Smoke-free public places are effective in deterring people from smoking.

Table 5 - Key Indicators – Protection

Key Indicators	Baseline	Target	Data Source
1. Toronto households that are completely smoke-free.	68.4% in 2003 (CI95%: 65.8 to 71.0%)	80% by 2007	Rapid Risk Factor Surveillance System, 2003
2. Toronto residents (drivers) who do not allow any smoking inside their vehicle.	75.0% in 2003 (CI95%: 72.5 to 77.5%)	85% by 2007	Rapid Risk Factor Surveillance System, 2003
3. Toronto establishments visited (compliant response and routine monitoring) in compliance with the No-Smoking bylaw/provincial legislation	70% in 2002	90% by 2006	Healthy Environments, Toronto Public Health

Cessation

Smokers continue to smoke because of addiction, as well as personal or social habit, boredom, to regulate weight, and to relax. Smoking has many long-term health risks, but the many health benefits of quitting become apparent in the short-term. These benefits also reduce demand on the healthcare system, improve productivity in the workforce, and lessen exposure to second-hand smoke. Benefits gained from quitting smoking include improved senses, money savings, and better self-esteem. Within weeks of quitting, people experience lower levels of perceived stress.

Many health benefits of quitting become apparent in the short-term.

The process of cessation can be considered in several stages (i.e. the stages of change): precontemplation, contemplation, preparation, action, and maintenance. Individuals in the precontemplation stage are not thinking at all about quitting. Individuals in the contemplation stage are thinking about quitting within the next six months. Individuals in the preparation stage are getting ready to quit within the next 30 days. Smokers who have quit then move on to the action or maintenance stages. Smokers often transition forwards and backwards between stages. Most cessation programs emphasize that the desire to quit is one of the most important factors in successful quitting.

Community cessation programs have multiple objectives:

- Increase the percent of smokers who are aware of and use cessation resources;
- Increase the percent of youth who are knowledgeable about the cessation process;
- Increase the number of physicians and other healthcare providers who provide cessation support;
- Increase the percent of smokers intending or attempting to quit;
- Increase the percent of program participants who progress along the stages of change;

- Reduce daily cigarette consumption among adults; and
- Reduce the percent of youth who are addicted smokers.

The ultimate goal of these steps is to reduce smoking prevalence among adults and youth, thereby reducing smoking-related morbidity and mortality.

Toronto Public Health Cessation Activities:

- Cessation Support Initiatives including clinical cessation supports
- Mission Possible

Please refer to Appendix B for a description of these and other TPH program activities.

Table 6 – Key Indicators - Cessation

Key Indicators	Baseline	Target	Data Source
1. Daily or occasional smoking among adults aged 18 and over in Toronto.	Estimates range from 20.1% to 24.9% (see Table 3 for years and confidence intervals)	15% by 2006	See Table 3
2. Former smokers who quit more than one year ago.	41.4% in 2000/2001 (of Toronto residents who report ever smoking)	46% by 2006 (of Toronto residents who report ever smoking)	Canadian Community Health Survey, 2000/2001
3. Toronto smokers who have attempted to quit in the past year.	40.8% in 2000/2001 ($CI_{95\%}$: 35.8 to 45.8%)	50% by 2006	Canadian Community Health Survey, 2000/2001
4. Current smokers in Toronto who are contemplating quitting within the next 6 months or are preparing to quit within the next 30 days.	56.0% in 2003 ($CI_{95\%}$: 49.7 to 62.3%)	60% by 2006	Rapid Risk Factor Surveillance System, 2003
5. Knowledge of community support available to help Toronto residents quit smoking.	In 2001: • 12.6% had heard of 1-800 Quitline • 14.5% had heard of a local quit program	By 2006: • 30% aware of 1-800 Quitline • 30% aware of a local quit program	Centre for Addiction & Mental Health, 2001

Conclusion

Toronto's Health Status: Focus on Tobacco provides the most recent information on the effects of tobacco use and exposure to second-hand smoke on the health status of Toronto's 2.4 million residents, along with current estimates of the use of tobacco industry products by Toronto residents. It also provides a summary of Toronto Public Health's comprehensive response to these issues. Of the many statistics presented in this report, four are particularly striking:

1. Nearly 3000 Toronto residents die every year from smoking-related causes.
2. Between 20% and 25% of Toronto adults still smoke.
3. Smoking prevalence increases almost seven-fold among youth between grade 7 and grade 12.
4. Levels of exposure to second hand smoke in the home and private places can be improved.

The messages about the consequences of tobacco are familiar. If these numbers applied to a new, emerging and unfamiliar disease entity, reactions may be different, reflecting a greater concern for an unknown. In the tobacco context, familiarity may breed complacency and, as such, TPH must not lose sight of our objective of a smoke-free Toronto and eradication of all smoking-related illnesses and deaths.

Although progress has been made, smoking among Toronto youth and adults, and exposure to second-hand smoke clearly remain concerns. Continued attention to reducing the use of tobacco industry products, and their negative impact on the health of Torontonians, our health care system and our community is critical. This can only be achieved through a comprehensive tobacco control program. The program' s multi-faceted efforts must continue in order to mitigate the chronic disease epidemic caused by the use of tobacco industry products. Toronto Public Health must continue to broaden support for its comprehensive tobacco control program by increasing community partnerships and involvement in tobacco control policy initiatives. The information presented in this report demonstrates Toronto Public Health's commitment to practice evidence-based decision-making to address population health needs. More data on subpopulations would strengthen TPH's capacity in this area. The indicators used in this report help us identify the challenges, set the targets, and monitor the success of our comprehensive tobacco control program.

Although progress has been made, smoking among Toronto youth and adults, and exposure to second-hand smoke clearly remain concerns.

Continued attention to reducing the use of tobacco industry products, and their negative impact on the health of Torontonians, our health care system and our community is critical.

Appendix A:
Sources of Data

Birth Data

Ontario vital statistics data are collected by the Office of the Registrar General using the birth registration form, which is completed by the parents. A number of live births are not reported in the Ontario vital statistics each year. The last estimate, in 1997, was that 3.2% of Toronto live births were not reported. This was an increase from the previous year. The percentage of unregistered births is higher among births to mothers less than 20 years of age and low birth weight births.

Canadian Community Health Survey (CCHS) 2000/2001

The CCHS 2000/2001 is based on data collected between September 2000, and November 2001. The target population of the CCHS was Canadian household residents aged 12 years and over in all provinces and territories, with the exclusion of populations on Indian Reserves, Canadian Forces Bases, and some remote areas. The survey sampled one randomly selected respondent per household. The CCHS sample size for Toronto is 2,382. The CCHS is weighed to account for proportional representation of groups with different characteristics. To remove language as a barrier to conducting interviews, each of the Statistics Canada Regional Offices recruited interviewers with a wide range of language competencies. When necessary, cases were transferred to an interviewer with the language competency needed to complete an interview. These interviewers translated the survey into the appropriate language in person at the time of the interview. In addition, the survey questions were translated into the following languages: Chinese, Punjabi and Inuktitut.

Cancer Incidence Data

Cancer incidence data were obtained from the Division of Preventive Oncology Surveillance Unit at Cancer Care Ontario's CD release of data: Cancer Incidence, Mortality, Survival, and Prevalence in Ontario, Release 3, June 2003, 1964-2001. Note that changes in incidence may reflect trends in risk factors or changes in early detection and diagnostic practices.

Centre for Addiction and Mental Health Monitor 2001

Estimates of tobacco use for Ontario adults aged 18 years and over were obtained from the Centre for Addiction and Mental Health's 2001 CAMH Monitor, a survey-based telephone interview of 2,627 Ontario adults. Toronto's adult tobacco use rates are based on the 417 respondents to this survey from the Toronto area. Trend data on tobacco use among Toronto and Ontario adults is based on 16 repeated cross-sectional surveys conducted by the Addiction Research Foundation in 1977, 1982, 1984, 1987, 1989, and 1991 through 1998, and the Centre for Addiction and Mental Health in 1999, 2000, and 2001. Earlier interviews (1977-1989) were face-to-face, and more recent surveys (1991-2001) were administered over the telephone using random digit dialing.

Mortality Data

To calculate an age-standardized mortality rate, one calculates the number of deaths that would be expected if the standard population was subject to the death rate of the population that is being studied. The 1991 Canadian population was used in age-standardization calculations for this report. The Office of the Registrar General obtains information about mortality from death certificates that are completed by physicians. Causes are those that initiated the sequence of morbid events leading to death, and co-morbidity can contribute some uncertainty as to underlying cause(s) of death. Residential information is based on the deceased's geographic place of residence and not where he or she died. Ontario residents who died outside of the province were included in the Ontario Ministry of Health and Long Term Care's Health Planning System (HELPS) database from 1981 to 1992 but have been excluded since 1993. Out-of-province residents who died in Ontario are excluded from HELPS. Variation in data collection procedures over time and/or geography may reduce the accuracy of time and/or place-specific comparisons.

Rapid Risk Factor Surveillance System (RRFSS) 2003

The Rapid Risk Factor Surveillance System (RRFSS) is an on-going telephone survey occurring in various public health units across Ontario. Each month, in each health unit area, a random sample of 100 adults aged 18 years and older is interviewed regarding risk behaviours, knowledge, attitudes and awareness of topics of importance to public health. The survey is conducted by the Institute for Social Research (ISR) at York University, on behalf of all RRFSS-participating health units. RRFSS's 2003 Toronto sample of 1210 adults was used for this report. A limitation of RRFSS is that it is only administered in English. The RRFSS sample also tends to have a higher education and income level than the general population.

Toronto Healthy Environments Information System (THEIS)

THEIS is an integrated information system. It is used to manage inspections, public disclosure, on-demand requests and time & activity tracking for Healthy Environments staff at Toronto Public Health. Data is stored in an Oracle database with interfaces to secondary databases linking to the web and remote connectivity environments. The system provides a co-ordinated method of access to environmental health information and services for Toronto Public Health and its clients.

Appendix B:
Toronto Public Health
Comprehensive Tobacco Control Activities

I. Breathing Space: Community Partners for Smoke-free Homes

Description

Breathing Space combines award-winning mass media messages with locally tailored community based activities to increase awareness about second-hand smoke. The campaign focuses on the protection of children, and encourages people to make their homes and vehicles 100% smoke-free.

Goals

- To increase awareness of the effect of second-hand smoke on children.
- To reduce the exposure of children and adults to second-hand smoke.

Objectives

- To increase awareness of the seriousness of the health impacts of second-hand smoke exposure across the target group.
- To decrease exposure to second-hand smoke in homes and vehicles.
- To make smoking in the home less socially acceptable.
- To promote a program identity through mass media messages and an integrated communications plan that motivates positive behavioural change.

Target Groups

The campaign targets parents with children 18 years and under.

Strategies

- Using posters, fact sheets, etc., to raise awareness.
- Breathing space website: www.toronto.ca/health/breathingspace

Partnerships & Collaboration

- Originally conceived in 1998, the Breathing Space partnership includes 23 Ontario Health Units.
- Cancer Care Ontario-Prevention Unit
- Best Start Resource Centre
- Program Training and Consultation Centre
- Toronto Health Communication Unit (THCU) youth portal website

Ongoing Sources of Funding

- City of Toronto (50%)
- Ministry of Health and Long-Term Care (50%)

Additional Sources of Funding

- Ministry of Health and Long-Term Care, April 2000 to March 2001 (provided to Breathing Space Community Partners for Smoke-free Homes, a partnership of health units in Ontario)
- Toronto Heart Health Partnership

II. Mission Possible

Description

Mission Possible is a peer-led, teacher-supported initiative that presents a variety of tobacco control activities for implementation within the high school setting. Mission Possible supports the Ontario Ministry of Education's Health and Physical Education (HPE) curriculum (2000) for grades 9 - 11 students. The program was implemented in July 2002.

Goals

- To empower youth, with support and resources, to achieve a smoke-free lifestyle.

Objectives

- To increase youth smokers' awareness of available smoking cessation resources and supports.
- To increase their knowledge about the process of quitting smoking.
- To increase youth smokers' self-efficacy to quit smoking.

Target Groups

- Youth smokers in secondary schools in Toronto.
- Teachers and Staff Advisors in secondary schools in Toronto.
- Youth non-smokers in secondary schools in Toronto.

Strategies

- Student-teacher resource binder with suggested activities.

Partnerships & Collaboration

- Toronto Heart Health Partnership School Sub-committee
- Toronto Catholic District School Board

  Toronto District School Board

Ongoing Sources of Funding

- City of Toronto (50%)
- Ministry of Health and Long-Term Care (50%)

Additional Sources of Funding

- None

III. Not to Kids (NTK)

Description

A broad-based community wide social marketing and education campaign developed to strengthen and support the enforcement of the Ontario Tobacco Control Act (1994). A central focus for the Not to Kids program is to promote community action to reduce the sale and supply of tobacco to kids. Key messages for the campaign are:

- It is against the law to sell, or supply cigarettes to anyone under 19.
- Stores selling or persons supplying tobacco to kids under 19 should be reported to the Not to Kids Tobacco Hotline at 338-SALE (7253).

Goals

- To reduce youth access to tobacco in the City of Toronto.

Objectives

- To reduce the sale and supply of tobacco to youth under 19 by all community members.
- To increase community awareness about the Tobacco Control Act (TCA) regulations regarding the sale and supply of tobacco to youth under 19.
- To reduce tobacco retailer non-compliance to 10% through education, enforcement and provision of resources.
- To educate school administrators, staff, students and parents about the requirements of the TCA .
- To increase compliance with TCA requirements pertaining to school property
- To increase parents' effective communication with their children about tobacco use.

Target Groups

- The community at large
- Community youth
- Tobacco retailers
- School administrators
- Students
- Parents.

Strategies

- Broad based media campaigns to promote the Not to Kids Tobacco Hotline.
- Presentations at schools to support enforcement of the TCA on school property.
- Development, promotion and distribution of retailer educational and training resources (binder, training video, CD-ROM).

Partnerships & Collaboration

- Canadian Cancer Society
- Council for Tobacco Free Toronto
- East End Community Health Centre
- Health Canada
- Mac's Convenience Stores
- Toronto District School Board
- Toronto Catholic District School Board
- Youthlink

Ongoing Sources of Funding

- City of Toronto (50%)
- Ministry of Health and Long-Term Care (50%)

Additional Sources of Funding

- Ministry of Health and Long-Term Care, April 2000 to March 2001
- Health Canada, January 2002 to March 2002 (provided to the Not to Kids Coalition, a partnership of health units in Ontario)
- Ministry of Health and Long-Term Care, April 2002 to March 2004 (provided to the Not to Kids Coalition, a partnership of health units in Ontario)

IV. Promotion of Smoke-Free Living (PSFL)

Description

Promotion of Smoke Free Living (PSFL) is a committee that co-ordinates tobacco initiatives and activities of a "themed"/time sensitive nature. Examples include the annual co-ordination of events such as National Non-Smoking Week in January, World No Tobacco Day on May 31st, and the Provincial Quit Smoking Contest.

Goals

- To coordinate events to support and promote Toronto Public Health Tobacco Control programs.
- To promote and collaborate on province-wide initiatives such as the Provincial Quit Smoking Contest.

Objectives

- To provide and disseminate information regarding TPH Tobacco Control programs to the media and general public.
- To organize promotional events that showcase TPH Tobacco Control programs and legislation.

Target Groups

- General public
- Media
- Other specific target groups identified by TPH Tobacco Control programs

Strategies

- See program description.

Partnerships & Collaboration

- Breathing Space: Community Partners for Smoke-free Homes
- Not To Kids
- Tobacco Use Prevention Curriculum Resources
- Provincial Quit Smoking Contest
- Community-based Smoking Cessation Clinics and Support Groups

Ongoing Sources of Funding

- City of Toronto (50%)
- Ministry of Health and Long-Term Care (50%)

Additional Sources of Funding

- Toronto Heart Health Partnership, April 2002 to December 2005

V. Tobacco Use Prevention Curriculum Resources

Description

The Tobacco Use Prevention Curriculum Resources (TUPCR)workgroup is a workgroup that is dedicated to increasing the profile, accessibility and uptake of Tobacco Use Prevention (TUP) resources suitable for students in grades K-12. TUPCR reviews, selects and promotes ready-to-use programs that support the Ontario Health and Physical Education Curriculum on tobacco use prevention.

Goals

- To promote TUP resources that are easily accessible, current and meet the needs of the target population. These resources are consistent with the Ontario Health and Physical Education Curriculum, and Toronto Public Health's philosophy and values.
- To prevent students from starting to smoke, and decrease the prevalence of smoking.

Objectives

- To identify, review, and select current TUP resources in accordance with the Ontario Health and Physical Education Curriculum.
- To increase the availability and accessibility of curriculum-appropriate, ready-to-use TUP resources for teachers.
- To increase the profile of TUPCR-endorsed resources through the development of a communication/promotion strategy for internal and external stakeholders.
- To ensure consistency of information from TPH staff regarding TUPCR-endorsed resources.
- To support teachers/schools by responding to their requests for information or inservice education on TUPCR-endorsed resources.
- To support health promotion activities related to TUPCR in schools.

Target Groups

- Teachers: to integrate TUPCR-endorsed resources as appropriate.
- Elementary and high school students (secondary target through teachers)
- TPH Staff – Liaison Nurse: to promote the TUPCR-endorsed resources to their schools.
- TPH Staff – Program Nurse: to respond to tobacco-specific requests.

Strategies

- Health Education
- Environmental Support
- Community Development

Partnerships & Collaboration

- Toronto District School Board
- Toronto Catholic District School Board
- French School Board
- Private Schools

Ongoing Sources of Funding

- City of Toronto (50%)
- Ministry of Health and Long-Term Care (50%)

Additional Sources of Funding

- None

VI. Enforcement of the Tobacco Control Act (TCA)

Description

The Ontario Tobacco Control Act places restrictions on selling and supplying tobacco, and on smoking in public places throughout the province. Violation of these laws may result in fines and penalties. Toronto Public Health inspectors, and on occasion the police, enforce the TCA.

Goals

- To reduce smoking, especially among young people.
- To limit people's exposure to second-hand smoke in public places not covered in Toronto's No-smoking bylaw.

Objectives

- To place restrictions on selling and supplying tobacco to minors.
- To protect children from exposure to smoking behaviour and second hand tobacco smoke.
- To reduce people's exposure to tobacco smoke.

Target Groups

- Tobacco Vendors
- Employers
- Education officials
- Persons that smoke where smoking is prohibited under the TCA
- Persons that sell or supply tobacco to persons under 19 years of age

Strategies

Inspection:

- Inspectors appointed by the Minister of Health, who are employed by a board of health, enforce this law. Police also enforce this law.

Fines:

- The law contains fines and penalties. They vary according to the offence committed and previous convictions.
- Vendors convicted of two or more tobacco sales offences are subject to an automatic prohibition on selling tobacco for 6 months or more.
- Individuals who smoke where smoking is prohibited can be fined up to $1,000 for a first offence and up to $5,000 for additional offences.

Partnerships & Collaboration

- Ontario Ministry of Health and Long-Term Care
- Ontario Campaign for Action on Tobacco (Ontario Medical Association, Canadian Cancer Society, Heart and Stroke Foundation of Ontario, Ontario Lung Association, Non-Smokers' Rights Association)
- Occupational Health and Safety Act
- WSIB

Ongoing Sources of Funding

- City of Toronto (50%)
- Ministry of Health and Long-Term Care (50%)

Additional Sources of Funding

- None

VII. City of Toronto Municipal Code Chapter 709 - No-Smoking Bylaw

Description

The bylaw prohibits smoking (with some exceptions) in all workplaces and public places within the City of Toronto. Toronto Public Health inspectors enforce compliance. In cases where the Tobacco Control Act and the bylaw overlap, the more stringent legislation takes precedence.

Goals

- To reduce the public's exposure to ETS.

Objectives

- To educate the public about the bylaw
- To implement the bylaw
- To enforce the bylaw

Target Groups

- General public
- Employers & Employees
- Owners
- Operators
- Persons that smoke where smoking is prohibited under the bylaw

Strategies

- Public education about bylaw rationale, individual responsibilities, penalties involved, and who to call with complaints or inquiries.
- Compliance with the bylaw is encouraged with communication tools such as owner/operator letters, bylaw pamphlets, and a smoke-free help-line.
- Enforcement includes a proactive monitoring system for public places and a complaint response system for workplaces and public places. Compliance is assessed by public health inspectors during routine food safety inspections

Partnerships & Collaboration

- Ontario Campaign for Action on Tobacco (Ontario Medical Association, Canadian Cancer Society, Heart and Stroke Foundation of Ontario, Ontario Lung Association, Non-Smokers' Rights Association)
- Economic Development, Culture and Tourism, City of Toronto
- Business Improvement Associations
- Private sector: restaurants, bars, billiard halls, bingo halls, and casinos

Ongoing Sources of Funding

- City of Toronto (50%)
- Ministry of Health and Long-Term Care (50%)

Additional Sources of Funding

- None

VIII. Cessation Support Initiatives

Description

Toronto Public Health has been involved in community partnerships to deliver smoking cessation supports at various sites such as hospitals, community health centres, public health offices, and other community settings.

Goal

- To increase the percentage of smokers who quit and stay smoke-free.

Objectives

- Increase the percentage of people who know about smoking cessation supports
- Increase the percentage of people who utilize smoking cessation supports
- Develop a triage & referral system for people wishing to quit smoking
- Develop a network of agencies providing smoking cessation support in Toronto
- Increase capacity of network agencies providing smoking cessation supports
- Develop a community network to support relapse prevention and aftercare

Target Groups

- People in Toronto who smoke
- Agencies providing smoking cessation supports

Strategies

- Promotion of provincial Quit Smoking Contest

The strategic plan for clinical service provision includes:

- Social marketing to promote the idea of quitting & staying quit;
- Access and referral, including enumerating existing resources, marketing existing resources, triaging and referring to appropriate resources;
- Community capacity-building and program development;
- Relapse prevention/aftercare support.

Partnerships & Collaboration

- Toronto East General Hospital
- Sunnybrook & Women's College Health Sciences Centre – Sunnybrook Site
- Rouge Valley Health System – Centenary Site
- LAMP Community Health Centre Site
- Stonegate Community Health Centre Site
- Four Villages Community Health Centre
- Toronto Heart Health Partnership
- The Provincial Quit Smoking Contest

Ongoing Sources of Funding

- City of Toronto (50%)
- Ministry of Health and Long-Term Care (50%)

Additional Sources of Funding

- Toronto Heart Health Partnership

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