Toronto's Health Status:

A Profile of Public Health in 2001

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Table of Contents

Table of Contents i

List of Figures ii

I. Introduction 1

II. The People of Toronto 4

III. Summary: The State of the City's Health 6

IV. Chronic Disease, Injury and Substance Abuse Prevention 8
- 1) Heart Health 8
- 2) Physical Activity 9
- 3) Nutrition and Food Access 10
- 4) Cancer Prevention/Early Detection of Cancer 11
- 5) Tobacco Use Prevention and Control 12
- 6) Injury Prevention 13
- 7) Alcohol and Drug Abuse Prevention 14

V. Family Health 15
- 1) Reproductive Health 15
- 2) Child Health 16
- 3) Seniors' Health 17
- 4) Dental Health 18
- 5) Homelessness 19
- 6) Mental Health and Violence Prevention 20

VI. Communicable Disease Control and Sexual Health 21
- 1) Vaccine Preventable Diseases 21
- 2) Tuberculosis 22
- 3) STDs and HIV 23
- 4) Sexual Health 24
- 5) Control of Other Infectious Diseases 25

VII. Health and the Environment 26
- 1) Food Safety 26
- 2) Safe Water 27
- 3) Air Quality 28
- 4) Health Hazard Investigation 29
- 5) Animal Services and Rabies Control 30

VIII. Postscript: "Filling in the Gaps" 31

Topic Index 33

Indicator Index 37

Appendix A: Tobacco Use and Alcohol Use Data from CAMH 41

Appendix B: References 43

Appendix C: Sources of Data 45

Appendix D: Gaps in Data Identified Through this Report 49

Appendix E: Supporting Data .... Available on request

List of Figures

Figure 1: Standardized Ischaemic Heart Disease Mortality Rates by Sex for Toronto and Ontario Total, 1988 – 1997 8

Figure 2: Standardized Female Breast Cancer Incidence Rates for Toronto and Ontario, 1988 – 1998 11

Figure 3: Standardized Lung Cancer Incidence Rates by Sex for Toronto, 1988 – 1998 12

Figure 4: Standardized Hospitalization Rates for Pedal Cycle Injuries for Toronto Males and Females and Ontario, 1996 – 1999 13

Figure 5: Hospitalization Rates Due to Falls Among Seniors (65 to 74, 75 to 84 and 85 plus years) for Toronto, 1995 – 1999 13

Figure 6: Percent of Students (Grades 7, 9, 11, 13) Reporting Alcohol Use in the Previous 12 Months, Toronto and Ontario, 1981-1999 14

Figure 7: Low Birth Weight (LBW) Rates for Toronto and Ontario, 1988 – 1997 15

Figure 8: Leading Causes of Hospitalization Among Children (one-day-old to 12-years-old) for Toronto Males and Females Compared to Ontario, 1995 – 1999 Combined 16

Figure 9: Population Projections (% of the Total Population) for Ages 65 to 74 Years, 75 to 84 Years and 85 Plus Years, Toronto, 1997 to 2021 17

Figure 10: Crude Hospitalization Rates Due to Attempted Suicide Among Teens (15 to 19 years) for Toronto Males and Females and Ontario, 1995 – 1999 20

Figure 11: Crude Incidence Rate of Measles for Toronto, 1990 – 1999 21

Figure 12: Distribution of Active Tuberculosis Cases by Origin, Toronto, 1990 – 1999 22

Figure 13: Crude Incidence Rates of Selected STD Infections for Toronto, 1990 – 1999 23

Figure 14: Teen (15 to 19 Years) Pregnancy Rates for Toronto and Ontario Total, 1993 – 1997 24

Figure 15: Number of Outbreaks Investigated by Type of Disease and Month, Toronto, 1999 25

Figure 16: Crude Incidence Rate of Reported Campylobacter and Salmonella, in Toronto, 1990 – 1999 26

Figure 17: Percent of Potential Swim Days that Beaches Were Posted (Closed), Toronto, 1996 – 2000 27

Figure 18: Number of Smog Alert Days, Toronto, 1993 – 2000 28

Toronto's Health Status: A Profile of Public Health in 2001

I. Introduction

Purpose

The purpose of this report, "Toronto's Health Status: A Profile of Public Health in 2001", is to:

1. Provide a broad overview of the current health status of Toronto's 2.4 million residents along with selected public health activities that respond to related health issues.
2. Create a baseline of selected health status indicators that can be monitored over time in order to evaluate the progress of Toronto Public Health (TPH) towards the accomplishment of its mission.
3. Identify gaps in community health status data.
4. Demonstrate the city's leadership in public health issues, policy and programs and to promote public health priorities for the coming years.
5. Inform TPH's decision-making and program-planning processes.

The report is directed primarily to Board of Health members, City Councillors and public health staff. We hope that community agencies and partners, researchers and the general public may also find the information helpful for their specific areas of interest. It is our intention to produce this report every three years to coincide with the establishment of a new Board of Health.

TPH Vision and Mission Statements

Following municipal amalgamation in 1998, the newly formed Toronto Public Health embarked on a strategic planning process. One outcome of that was the creation of new vision and mission statements. These are:

Vision Our Toronto will be the healthiest city possible, where all people enjoy the highest achievable level of health. (1)

Mission We strive for excellence and innovation in public health practice. We work to enhance the health of all communities and individuals who live, work and play in Toronto. (1)

Through our public health practices, we are committed to developing policies and programs that will enable us to successfully meet this mission. As a division of the City of Toronto, with responsibilities under the provincial Health Protection and Promotion Act, we strive for excellence and innovation in public health practice through:

- **Health Promotion:** Raising awareness and educating people about health issues; working with communities to meet their health needs.
- **Advocacy:** Working with policymakers to recognize possible health consequences of their activities and decisions; developing policies that promote the health of the public.
- **Health Protection:** Controlling infectious diseases; reducing exposure to health hazards in our environment; enforcing laws that protect the health of the public.
- **Prevention:** Reducing the risk of disease, injury and premature death.
- **Health Assessment:** Monitoring community health; identifying health trends and needs; effectively communicating information on community health.

Through these practices, TPH pledges to work with the people of Toronto to make our programs and services effective, efficient and responsive to the health needs of all the people of Toronto.

Legislative Basis for Services

In Ontario, public health units are governed by a board of health as required under the Health Protection and Promotion Act, 1990 (HPPA). The HPPA requires boards of health to provide or ensure provision of a minimum level of public health programs and services in specified areas as well as to respond to local health needs.

The Mandatory Health Programs and Services Guidelines set out minimum requirements for public health programs and services targeted at prevention of disease, health promotion and health protection. It is also expected that boards of health will deliver other programs and services in response to local needs, as acknowledged in Section 9 of the HPPA.

Organization of This Report

This report is organized into six main sections and a postscript. Listed below are the first two sections:

- *The People of Toronto* provides a demographic and socio-economic profile of the residents of Toronto, and explains some of the challenges and opportunities this demographic presents.
- *Summary: The State of the City's Health* provides a synopsis of the January 2001 report to the Toronto Board of Health. It identifies significant emerging trends in public health and the challenges we face addressing them in the coming years.

The next four sections of the report are used to reflect program groupings in TPH. These include:

- Chronic Disease, Injury and Substance Abuse Prevention
- Family Health
- Communicable Disease Control and Sexual Health
- Health and the Environment.

Within each of these four sections in the report, we have allocated one page to illustrate a specific program area. This includes a description of the program's goals, related high-level health status indicators and selected activities that are linked to these indicators.

1. *Goals*: These have been paraphrased from the goals developed during the 1999 operational planning process.
2. *Selected Health Status Indicators*: These indicators are based on the draft set of Core Population Health Indicators for Ontario. (2) These were developed in response to the need for a set of health status indicators that were consistent and could be compared across the province. Since this report is not intended to be a comprehensive health status report, but rather is high-level in nature, a subset of these indicators was chosen for inclusion. The criteria for choosing these indicators included timeliness, availability, relevance to programs and clarity. Indicators of health disparities are included where data were readily available. Program staff were consulted on the selection of indicators. More detailed information about the selected indicators and other supporting data are available in Appendix E.
3. *Selected Activities*: We have chosen key public health activities to describe highlights of our responses to the issues linked to the indicators. Therefore, they are by no means a comprehensive description of the broad diversity or range of public health work or strategies. Some of the activities described under particular program headings may in fact also be connected to other program areas. For example, certain activities described under "seniors programming" may also relate to "injury prevention". Similarly, activities that are described under "children's programming" may also relate to "health hazard investigation". To avoid redundancy, these have only been described in one area of the report.

   Other activities, although not specifically mentioned such as health status monitoring, program planning and evaluation, and administrative functions, support the delivery of effective and efficient programs and services. As well, access and equity are guiding principles for all our programs.

The Postscript describes the gaps in data that were identified through the development of this report. Where possible, future plans to address these gaps are identified.

Health Status Indicators and Their Significance to Public Health

Traditionally, health status reports in Ontario have limited themselves to the presentation of health status information related to birth, morbidity, mortality, risk factors, health-related behaviours and demographics. In this report, however, the focus is on the end use of health status information. Throughout these pages, we will be emphasizing the important link between health status information and the development of public health programs and initiatives aimed at improving community health status.

Isolation tent for tuberculosis. c. 1910.

Ensuring this link has led us to some of our greatest public health successes in the last century:

- In **1910**, the Toronto maternal mortality rate was 8 maternal deaths per 1,000 live births. (3) **Today**, maternal mortality is so rare it is seldom reported.
- In **1910**, 131 out of every 1,000 live babies died before they were a year old. (3) **Today**, the rate of infant mortality is around 6 per 1,000 live births. (4)
- Between October **1919** and March 1920, 2,864 cases of smallpox in Toronto were reported to the health department. (3) Largely because of vaccinations, the disease is now eradicated. "*In fact, the **last case** of smallpox in North America occurred in one member of a missionary family returning to Toronto from Brazil on furlough in 1962.*" (3) and
- In the **early 1900s** it was not uncommon, by middle age, for people to have all of their teeth extracted. **Today**, for most children, it is uncommon to have a cavity.

Prenatal class for first-time fathers, late 1950's.

The U.S. Department of Health and Human Services states that indicators should be "*... grounded in science, built through consensus and designed to measure progress.*". (5) With this in mind, the indicators used in this report will help TPH identify the challenges, set the targets and monitor the successes of our work as we embark into the 21st century. Specifically, health indicators are intended to help us gain a better understanding of key aspects of our programs. For example, we may be looking at a need in the community (or specific sub-set of the community), we may be looking at high-level outcome objectives (e.g. a cause-specific mortality rate for the city) or we may be looking at a process indicator that is logically related to the achievement of the overall outcome indicator (e.g. percentage of a group screened for dental disease).

Often these indicators are derived from the programs' operational plans or program logic models. They are then used as important components in an ensuing planning process, whose purpose is to develop new programs in response to new or emerging issues. In the same way, existing programs are realigned or adjusted in response to information derived from program monitoring and/or evaluations. Thus, indicators help us to gain an understanding in all the key aspects of our program planning, implementation and evaluation.

The health indicators we use are based on our need to understand a variety of health issues. For example:

- We monitor heart disease and other chronic diseases because of their prevalence (i.e. almost 40% of deaths are due to diseases of the circulatory system);
- We monitor communicable diseases because of their potential immediate and wide-spread threat;
- We monitor tobacco related issues because of tobacco's continued presence as a social and health concern (the continued leading cause of preventable mortality); and
- We continue to monitor food premises to ensure safe dining and, as a new initiative, are sharing inspection results with the public.

As you read through the rest of this report, it is our hope that you will see how TPH has quantified key characteristics of health and social conditions and how this helps us understand our challenges, set our targets and identify our successes.

School milk drinking program, 1923

II. The People of Toronto

Toronto, with a population in 1996 of 2,385,421 people, is one of the most populous cities in North America – fifth after Mexico City, New York, Los Angeles and Chicago. It has a larger population than seven provinces in Canada and has more people than over 40 countries. About one-half of the U.S. population is within a one-day drive from Toronto. Each morning over 350,000 people enter the city, primarily from the Greater Toronto Area (GTA), to work at jobs in the city's core. (6)

While overall Toronto is a thriving, prosperous city, the social character and make-up are changing, which has a significant impact on the public health issues that lie ahead for us. Many of the fastest-growing demographic groups in the city are considered the most vulnerable or at-risk to what we call "poor health outcomes". This, of course, poses challenges for TPH programming in the coming years.

As the city continues to grow in numbers, its population is aging. By 2021, we expect one-fifth of the residents to be over 65. Immigrants and refugees, many of whom have little or no English-language ability, continue to arrive in large numbers. The number of lone-parent families is growing faster than ever before.

Toronto has been enjoying a period of economic growth. Yet not everyone is benefiting equally from this boom. The number of homeless people remains high and more of our children are living in poor families as the disparity in income between the city's rich and poor continues to grow. (6) Recent research shows that income disparity in Ontario is highest in Toronto. (7) Even our young people are facing special challenges in establishing independent lives, as the youth unemployment rate remains double that of older workers. (6)

Toronto's size and diversity make it unique. The statistics below (6) give us a better picture of Toronto's changing demographic profile:

- By 2011, we expect the population of Toronto to increase by 16% or 400,000 residents. Much of this growth will result from international migration, further enhancing Toronto's ethno-cultural diversity.
- Like most core cities, the demographic profile of Toronto's population contrasts with that of the larger region that surrounds it. Toronto has both a smaller proportion of children and a larger proportion of seniors than the rest of the Greater Toronto Area (GTA). It also includes a significantly higher proportion of vulnerable groups. Toronto has:
  - 52% of the GTA population
  - 62% of the GTA lone-parent families
  - 66% of the GTA poor children
  - 69% of the GTA seniors living alone
  - 69% of the GTA low-income families
  - 75% of the GTA households receiving social assistance
  - 75% of the GTA tenant households
  - 78% of the GTA youth living on their own
  - 80% of the GTA recent immigrants
- In 1996, 72% of families with children in Toronto were two-parent families and 28% (117,340) were lone-parent families. This represents an increase of 23%, since 1991, for lone-parent families. At the same time, in Ontario, 22% of families with children were lone-parent families
- Toronto is one of the world's most culturally diverse cities, and it continues to be a primary destination for new immigrants. On an annual basis, Toronto receives approximately 36% of all new arrivals to Canada. According to the 1996 Census, 47% of the population were born outside the country and 37% were members of a visible minority*. While the majority of the recent arrivals have English language ability, close to 40% have little or no English.

* "Visible Minority" is a term used in the Canada Census to mean: persons (other than Aboriginal persons), who are non-caucasian in race or non-white in colour.

- Over 160 languages and dialects are spoken in Toronto. Approximately 29% of residents speak a language other than English or French in their homes, compared to 12% in Ontario. Six percent have no knowledge of English or French.
- Toronto's population is aging. In 1996, 319,800 people aged 65 and over lived in the city, making up 13% of the total population. Seniors are the fastest-growing age group, rising by 87% since 1971. By 2021, it is expected that one-fifth of the city's residents will be seniors. In 1996, 27% of people 65 years and over lived alone.
- In 1996, 296,205 people aged 15-24 lived in the city, making up 12% of the total population. After declining during the 1990s, the youth population is expected to grow by almost 20% over the next decade.
- The highest education level achieved in Toronto differs slightly from Ontario. Of people 15 years of age and over, 12% have less than a grade 9 education in Toronto (compared to 10% in Ontario) and 32% have a university degree or higher (compared to 24% in Ontario).
- In October 2000, Toronto's residential vacancy rate was 0.6%. This means that only 6 of every 1,000 rental units were available to rent. A "healthy" vacancy rate is considered to be 2 to 3%. This low vacancy rate is expected to continue due to the lack of new rental housing construction. The shortage of affordable housing contributes to homelessness and now there are more than 63,000 households on waiting lists for subsidized housing.
- Homelessness is getting worse. A growing number of people cannot find stable housing and are forced to rely on emergency shelters. In 1999 nearly 30,000 people stayed in emergency shelters; an increase of 40% since 1988. The number of children using shelters has increased by 130% to 6,200 since 1988.
- Toronto has experienced significant economic changes including a boom (1983 –'89), a bust (1989 – '94) and a jobless recovery (post 1994). Jobs only started to increase in Toronto in 1996. Not all groups are benefiting from the opportunities arising from this economic growth. Analysis of both income and employment data over time shows increasing polarization. There is growing concern regarding a pending downturn in the economy. Should this occur, the number of people affected by poverty could dramatically increase.
- According to the 1996 Census, 8% of Toronto's families had incomes below $10,000 (compared to 5% in Ontario) and 13% had incomes of $100,000 or more (compared to 12% in Ontario). Between 1995 and 1997 the number of families with incomes below $10,000 increased as did the number of families in the highest-income categories, while the number in the middle-income categories decreased. In 1998, 18% of two-parent families, 41% of lone-parent families and 50% of persons living alone or with others to whom they were not related, had annual incomes of less than $20,000.

Further statistics from the 1996 census can be found in Appendix E.

The statistics listed above, along with other social issues, are key determinants for the state of the city's health. TPH sees these issues as both challenges and opportunities for the path ahead and has recognized them in two of our guiding principles as described below:

Determinants of Health
Public Health addresses conditions affecting health including safe environments; adequate income, education and shelter; safe and nutritious food; and peace, equity and social justice. (1)

Diversity, Access and Equity
Public Health celebrates the diversity of the people of Toronto, promotes universal access to services and resources and works to eliminate health inequities. (1)

The programs and services outlined in following sections of this report are built on these guiding principles, and are aimed at meeting Toronto's changing health needs.

III. Summary: The State of the City's Health

In its second annual report on the status of health in communities across Canada, *Maclean's* magazine ranked Toronto fifth out of 51 cities it surveyed. (8) Toronto scored better than Canada as a whole for nine out of 16 broad indicators of health and rated lower on two health predictors.

"According to Statistics Canada data in the survey, the sprawling region, bustling with newly arrived immigrants, economic growth and new housing projects, has above-average life expectancy and below-norm death rates from the three main causes: cancer, heart failure and respiratory disease." (8) Although the full results for Canada's largest city places it among the top five healthiest cities in the country, the magazine also points out that it ranks above the national average in the number of babies with low birth weight – a condition that often leads to poor health later in life.

As we enter the 21st century, Toronto remains one of the best places in the world to live. Canada's largest metropolis is one of the wealthiest cities in the world, and over the past five years Toronto's economy has recovered significantly from the recession of the early 1990s. Despite the strong economy, however, the number of people living in low-income households has been increasing. In fact, between 1995 and 1998, the number of children living in low-income families grew by 7% and the number of low-income seniors increased by 22%. (9)

In the same way that people with the lowest incomes have not reaped the benefits of the city's overall economic growth, health benefits and risks are not equitably distributed across the population.

Clearly, the social character and make-up of Toronto has a major impact on the public health issues that lie ahead for us. By 2011, we expect the city's population to increase by 16%, an addition of 400,000 residents, which has tremendous implications for the ability of the city's infrastructure to keep pace with this accelerating growth. Much of this projected growth will come from immigration.

Integration and settlement for newcomers is a long and complex process. Many new immigrants and refugees face inadequate housing and income, lack of access to trade and professional accreditation and few social supports. This, combined with any underlying health conditions, the transition to a different culture and lifestyle, plus exposure to new diseases, can result in a higher incidence of health problems such as tuberculosis and dental disease. (9)

TPH, therefore, continues to face the challenges of providing services that are racially sensitive, culturally and linguistically appropriate and specific to our diverse communities.

The challenges for optimizing the health of Toronto's children continues to be a high priority for TPH. A multiplicity of inter-related factors pertaining to the child, the family, the neighbourhood, the community and the society are connected to health and development outcomes for children, and our early intervention approach will continue to take these factors into consideration.

The rising numbers and health needs among our growing population of seniors is another pressing concern. We believe it will require the Board of Health to re-examine TPH's role and services in relation to its overall mandate for health promotion and the prevention of disease and injuries in this age group.

Family health and the adoption and maintenance of healthy lifestyles are high priorities for our programming, whether it is to promote physical activity, prevent injuries, reduce substance abuse, ensure adequate nutrition, provide dental screenings or promote safe and healthy dining.

Of course, chronic disease prevention and communicable disease control remain major public health concerns. Smoking is the leading cause of preventable death in Canada, a contributor to many cancers and chronic heart and respiratory diseases. Therefore, using a variety of strategies, we will continue to pursue our goal of ensuring 100% of restaurants in Toronto are smoke-free by June 2001 when the second phase of the Environmental Tobacco Smoke By-law is implemented. We are also reducing the sale of tobacco to people under the age of 19 by working with retailers and the general public to increase compliance with the Tobacco Control Act to 90 percent.

Canada is considered a low-incidence country for TB, however Toronto's rate is three times higher than the rest of Canada. While it is important to note that TB is not out of control in Toronto at this time, with international travel and home-grown TB, the disease can spread quickly if not kept in check.

Increased globalization has also resulted in the introduction of organisms into Canada that were rarely seen or previously unknown here. In order to respond to these emerging and re-emerging diseases, it will be crucial to have a strong and flexible public health infrastructure at the local, provincial, federal and international levels.

HIV still remains a major issue for TPH. Almost 65% of Ontario's HIV positive diagnoses are here. While the annual number of new HIV positive diagnoses has been decreasing slightly over the past few years, continued vigilance and renewed efforts to combat HIV, along with other communicable and sexually transmitted diseases, are clearly needed.

Torontonians are now exposed to environmental contaminants in a myriad of ways: in the food they eat, the air they breathe and the water they drink. We are, therefore, committed to enhancing the environmental quality of Toronto's air and water by preventing exposures to hazardous biological, physical and chemical agents.

It is evident to us as the largest and highest-need urban health unit in Ontario, that TPH has to forge a clear, systematic path to safeguard and protect the health of our population as a whole. However, we can only make a difference in the overall health of all our citizens if we also make gains in those specific communities and amongst our most vulnerable groups where health outcomes are likely to be much worse. In particular, we cannot be complacent about the growing poverty or homelessness in our city. Achievement of a broader public good lies at the heart of good government. Adverse consequences of social neglect on individuals affects us all.

TPH will continue to deliver high-quality programs and services, evaluate and redesign programs, and strive for effective service in a variety of areas including child and family health, healthy lifestyle choices, control of communicable diseases and healthy environments.

IV. Chronic Disease, Injury and Substance Abuse Prevention

1) Heart Health

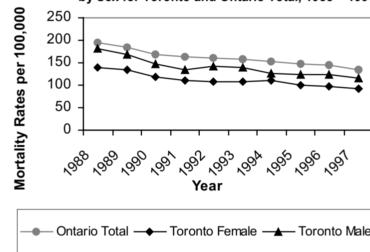
Goals:

- ➤ To promote heart health.
- ➤ To reduce morbidity and mortality caused by heart disease and stroke by reducing the prevalence of modifiable risk factors.

Selected Health Status Indicators

Ischaemic Heart Disease (IHD): IHD mortality rates for both men and women are consistently lower in Toronto than Ontario (Figure 1). The rates in males are higher than in females and, in 1997, the IHD mortality rate per 100,000 was 93.4 for Toronto females and 114.5 for Toronto males (Ontario females – 121.5 per 100,000; Ontario males – 148.1 per 100,000). The total IHD rates have been declining steadily from 159.5 per 100,000 in 1988 to 103.9 per 100,000 in 1997 in Toronto. Death rates in 1996 due to coronary heart disease and other circulatory diseases are lower among Toronto residents than for Canada. (8)

Figure 1: Standardized Ischaemic Heart Disease Mortality Rates* by Sex for Toronto and Ontario Total, 1988 – 1997



* Rates per 100,000 population, standardized to the 1991 Canadian population
Data Sources: CEHIP and Ontario Ministry of Health Provincial Health Planning Data Base (PHPDB)

Stroke: Mortality rates for stroke in both men and women in Toronto are slightly lower than in Ontario. In 1997, the overall mortality rate due to stroke was 46.9 per 100,000 in Toronto and 49.1 per 100,000 in Ontario. Rates per 100,000 are consistently higher for females than males (53.4 compared to 40.2 in 1997) and overall have been declining – from 52.0 per 100,000 in 1988 to 46.9 per 100,000 in 1997. Toronto death rates for stroke are similar to Canada in 1996. (8)

Hypertensive Diseases: In general, the mortality rates for hypertensive disease in both men and women in Toronto are slightly higher than Ontario from 1988 to 1997. Toronto rates per 100,000 are higher for females than males (5.1 compared to 3.7) in 1997. No consistent trends in the mortality from hypertensive disease are shown during this period. Between 1995 and 1999, the annual rate of hospitalization due to hypertensive disease has remained stable with a five year average rate of 32 per 100,000. In Ontario, rates for males and females showed a steady decline over this period with the rate from both sexes combined decreasing from 34.8 per 100,000 in 1995 to 26.0 in 1999.

Health Disparity: Hospitalization due to heart disease (which includes IHD, stroke, hypertension and other specific causes) is 40% higher among women age 30-64 living in the lowest-income areas of Toronto compared to the highest-income areas.

Selected Activities

Ontario Heart Health Program: We work closely with local and city-wide networks as part of the Ontario Heart Health Program to develop heart health activities.

Physical Activity: In addition, we are promoting walking initiatives, among the community in general, to address physical inactivity as a risk factor for heart disease. We are training “walk leaders” so that they can set up walking groups. Walking maps of the city are available for everyone to use and a social marketing campaign promotes the value of walking as a way to improve one’s health.

Schools: We are providing curriculum and other supports to address unhealthy eating, physical inactivity and tobacco use as heart health risk factors among students.

Restaurants: We assess and award the “Eat Smart” designation to restaurants that offer a variety of healthy foods, have a track record of food safety, offer at least 90% non-smoking seating and provide barrier-free access. We promote the “Eat Smart” program through a booklet and our web site to encourage patronage of restaurants with this designation.

See also *Physical Activity, Nutrition and Food Access,* and *Tobacco Use Prevention*

2) Physical Activity

Goals:

- To promote health by increasing physical activity.
- To reduce premature mortality and morbidity from preventable chronic diseases.

Selected Health Status Indicators

Activity Levels: Eighteen percent of Torontonians 12 years and older were rated as active, 20% as moderately active and 58% as inactive, according to the 1996 Ontario Health Survey (OHS). In comparison with Ontario, Toronto had a slightly higher rate of inactive people. Males and females rated roughly the same. Among 12 to 19 year-olds in Toronto, 19% reported being moderately active and 45% as being inactive. The 1990 OHS found that in Ontario the greatest increase in inactivity occurs between ages 14 and 15 for girls (from 28% to 42%) and between the ages 15 and 16 for boys (from 15% to 32%).

In 1995, 65% of Ontario children aged 5 to 12, 60% of teenage boys and 79% of teenage girls (aged 13 to 17) were not active enough to lay a solid foundation for future health and well-being. (10) In 1998, three out of five Canadian children and youth aged 5 to 17 were not active enough for optimal growth and development. (11)

Distribution of BMI (Body Mass Index): According to 1996 statistics, almost half of adults in Toronto (48%) were of acceptable weight. Those who were underweight (11%) tended more often to be women. Eighteen per cent of women in Toronto were in the underweight category, compared with 4% of men. Twenty-two per cent of the population was overweight, including 26% of men and 17% of women (compared to 33% and 20% in Ontario). Toronto tends to have slightly more underweight people and slightly fewer who are overweight than Ontario as a whole. (Note: The BMI compares body weight in kilograms over height in meters squared.)

While there is a general lack of prevalence data on childhood obesity in Canada and specifically in Toronto, a recent study reported that Canadian children aged 7 to 13 years are becoming increasingly overweight and obese. (12) It reported that between 1981 and 1996, the prevalence of overweight children increased from 15% to 28.8% for boys and from 15% to 23.6% among girls. Obesity among Canadian children has increased from 5% to 13.5% for boys and 5% to 11.8% among girls in Canada in this same time period.

See also *Heart, Nutrition and Food Access* and *Child Health*

American studies have also shown a decrease in physical activity related to similar increases in the proportion of children who are overweight. (12) Obesity can have negative impacts on child health and development.

Selected Activities

Youth: A research team from the University of Toronto is conducting several studies to address the problem of a decline in physical activity during the teenage years (13 to 18). We are providing input into one of the studies, which involves focus groups among male and female teenagers to examine perceived barriers to physical activity and perceptions of how to overcome them.

Children: "Playground Games" is an initiative to increase physical activity specifically among children aged 3 to 12. We worked with childcare providers to develop a resource to promote outdoor playground activities and games. This is being followed up with training to help childcare providers effectively use the resource. This initiative builds on Public Health's success in developing and disseminating the "Rainbow Fun" children's physical activity program. In addition, we work with Parks and Recreation to promote physical activity to 15,000 families through the "Be Active Be Healthy" campaign.

In partnership with Greenest City and school administrators, teachers, parent councils and students, TPH promotes the "Active and Safe Routes to School Program". We also promote and support the "International Walk to School Day", "Walking School Bus Program" and "Safety Walkabout".

3) Nutrition and Food Access

Goals:

- To promote nutrition and food access.
- To reduce the premature mortality and morbidity from preventable chronic diseases.

Selected Health Status Indicators

Fruits and Vegetables: Only 36% of people 12 years of age and over, in Toronto, reported that they consumed the recommended five or more servings of fruit and vegetables per day, similar to the rate in Ontario (1990 OHS). Among the 12 to 17 year age group, 38% reported consuming five or more servings.

Milk Products: The 1990 Ontario Health Survey (OHS) reports that 47% of males and 29% of females aged 12 to 17 in Toronto consumed three or more servings of milk products per day (the recommended level). Toronto is below the Ontario average of 49%. The recommended range of intake of milk products for adults is two to four servings per day. In Toronto 38% of adults reported consuming 2 or more servings of milk products per day compared to 45% for Ontario (1990 OHS).

Breads and Cereals: Twenty-one per cent of people 12 years of age and over consumed the recommended minimum five or more servings of breads and cereals; 26% of men, 16% women ate the recommended servings, comparable with Ontario as a whole (1990 OHS).

Food Access: In Toronto, poverty is the biggest barrier to food security and access. In April 2000, the two major food banks found that people who use food banks had, on average, only $4.95 a day to spend on all of their needs other than rent. This can mean having to make a choice between going hungry or paying the rent. (13)

In 1995, only 5% of people who used food banks needed food more than once a month. This increased to 28% in 2000. Approximately one-third of (or over 13,000) children whose families rely on food banks still miss at least one meal a week and more seniors are now having to turn to food banks. In some parts of Toronto ready access to affordable supermarkets to purchase good quality, reasonably priced food is an additional challenge.

Data Gaps: At present, there is a lack of data related to food consumption patterns of children, or vegetable and fruit intake in general, especially within the diverse ethnic communities in Toronto. TPH is collaborating with Cancer Care Ontario on an upcoming baseline nutrition survey to address some of these data needs.

Selected Activities

Ethno-cultural Nutrition: Food and culture are closely linked. Nutrition programs, including programs to train others in nutrition education, are developed with cultural sensitivity and are inclusive of the diverse communities within Toronto.

Nutrition for School-aged Children: We provide training and support to over 310 child nutrition programs serving 60,330 meals a day and are working with community partners to develop additional nutrition programs. We are working with schools and community partners to develop strategies to promote and support healthy eating in schools. We provide a health and physical education curriculum resource and training to teachers through "Discover Healthy Eating! A Teacher's Resource for Grades 1-8".

Food Access/Food Security: We conduct nutritious food basket pricing on an annual basis to determine the cost of healthy eating in Toronto. We continue to advocate for improved food security. We also support community networks working to address food access issues by providing expertise on nutrition and food skills (e.g. acquisition, preparation, food handling/storage), with emphasis on meeting the diverse ethno-cultural needs of our community.

Food Skills: We continue to provide training and resources to community organizations on food skills and healthy eating. Some of these activities include "Cooking Club for Kids" and "Cooking Healthy Together". Through a new peer nutrition program, we reach parents of children aged six months to six years with nutrition education and food skills workshops in a variety of languages.

See also *Heart Health, Physical Activity, Cancer Prevention /Early Detection of Cancer* and *Child Health*

4) Cancer Prevention/Early Detection of Cancer

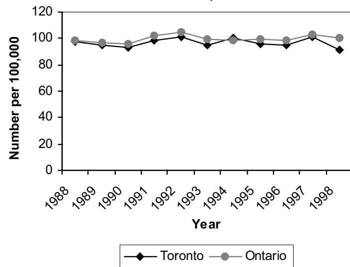
Goals:

- ➤ To reduce the morbidity and mortality from cancers.
- ➤ To promote prevention and early detection of cancers.

Selected Health Status Indicators

Female Breast Cancer: In 1998, 1,404 new cases of female breast cancer were recorded in Toronto for an age-standardized rate of 91.3 per 100,000. This rate was approximately 9% lower than observed for Ontario. From 1988 through 1997 the female breast cancer incidence rates were similar in Toronto and Ontario and were fairly stable (Figure 2). Ontario's breast cancer incidence rate is among the highest in the world. Deaths due to breast cancer decreased 9% from 1986 to 1996 in Ontario. (14) A population-based trial found that screening mammography can reduce breast cancer mortality by approximately 30% in women aged 50-69. (15) Toronto death rates for breast cancer are similar to Canada in 1996, according to the *Maclean's* October 2000 article. (8)

Figure 2: Standardized Female Breast Cancer Incidence Rates* for Toronto and Ontario, 1988 – 1998



* Rates per 100,000 population, standardized to the 1991 Canadian population.
Data Sources: Cancer Care Ontario and Ministry of Health, PHPDB

Cervical Cancer: There were 102 new cases of cervical cancers in Toronto in 1998, comparable to the numbers seen across Ontario. The incidence of cervical cancer has been steadily declining, from a rate of 12.3 in 1988 to 7.1 per 100,000 in 1998 (a drop of approximately 43%).

See also *Nutrition and Food Access* and *Tobacco Use Prevention*

Skin Cancer: Toronto rates for skin cancer in males are higher than females, 8.2 versus 6.6 per 100,000 in 1998. The Toronto skin cancer incidence rates are consistently lower than for Ontario (males 13.3 per 100,000 and females 10.2 per 100,000 in 1998). The Toronto skin cancer incidence rates have declined slightly among females and remained fairly stable among males from 1988 through 1998. The Ontario rates have remained fairly stable for both males and females over the same time period.

Health Disparities: Nationally, immigrant women are three times less likely to have had mammograms and pap tests compared to Canadian-born women.

Selected Activities

In General: We offer a variety of programs that provide information and skill development to reduce preventable risk factors for cancer, including nutrition, tobacco, physical activity, heart health and alcohol consumption.

Breast and Cervical Cancer Prevention: TPH is collaborating with the Ontario Breast Screening Program by co-ordinating events designed to increase first-time visits to breast cancer screening centres. We are also developing resources and outreach steps to encourage women from Toronto's diverse communities to go for breast and cervical screening and pilot-testing a program in high schools to help young women understand the importance of cervical health.

Ultraviolet Radiation: We are working with internal and external organizations in the development of policies, guidelines and environmental-support strategies to reduce the incidence of cancers from ultraviolet radiation. For example we are: advocating for workplace policies that address exposure to ultraviolet radiation, particularly for employees working outdoors; advocating for shade trees to be planted in the play yards of schools and day care centres; encouraging the use of awnings on lawn mowers or tractors.

Toronto Cancer Prevention Coalition: We continue to support this coalition made up of 130 representatives from 45 different agencies. The action plan for the coalition will be available in the spring of 2001. The recommendations in the action plan will guide the coalition and TPH in addressing specific cancer issues and risk factors (e.g. tobacco, alcohol, dietary factors, physical activity, ultraviolet radiation, occupational carcinogens and environmental carcinogens).

5) Tobacco Use Prevention and Control

Goals:

- To promote tobacco-free living.
- To reduce morbidity and mortality from tobacco use and exposure to second-hand smoke.

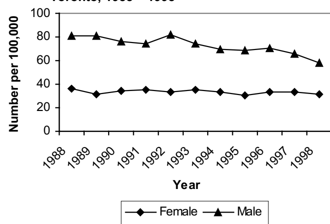
Selected Health Status Indicators

Smoking Rates: In 1999, approximately 25% of students (Grades 7, 9, 11 and 13) in Toronto reported smoking more than one cigarette in the previous 12 months, compared to 28% in Ontario. While there was a decrease in smoking rates among students through the 1980s and early 1990s, rates in 1999 returned to those of the early 1980s. (In 1994 the federal tax on cigarettes was cut.) In Toronto, about 10% of students reported smoking more than 20 cigarettes per day compared to 6% in Ontario. (16)

The self-reported student smoking rates are higher than those found in the adult population in 1999 where about 21% of Toronto adults reported smoking, compared to 25% in Ontario. Among adults, 25% of Toronto males reported smoking compared to 17% of females. (17)

Lung Cancer: In 1998, the standardized lung cancer incidence rates per 100,000 for males were higher than for females (58.3 compared to 31.3 per 100,000). From 1988 to 1998, lung cancer incidence decreased by 5% among females and by 28% among males (Figure 3). Toronto's rates are consistently lower than those in Ontario and Canada (8).

Figure 3: Standardized Lung Cancer Incidence Rates* by Sex for Toronto, 1988 – 1998



* Rates per 100,000 population, standardized to the 1991 Canadian population.
Data Sources: Cancer Care Ontario and Ministry of Health, PHPDB

Note: Tobacco use data should be reviewed in the context of the 95% confidence intervals. Detailed data with confidence intervals are included in Appendix A.

Cost of Tobacco Use: Tobacco kills 12,000 people in Ontario every year. More than one million hospital days are required every year to treat the diseases caused by tobacco, resulting in more than one billion dollars in health care system spending. In addition, another $2.6 billion is lost due to reduced productivity each year in Ontario. (18)

Tobacco Control Act (TCA): All of the 4,215 tobacco vendors are inspected for compliance to the TCA. In 2000, 199 complaints were investigated. The leading charges made under the TCA were for selling tobacco to a minor (46.9%), smoking on school property (36.6%) and supplying cigarettes to a minor (8.7%).

Smoke-free Restaurants: Approximately 15% of Toronto's 9,400 restaurants had voluntarily become smoke-free as of December 2000.

Selected Activities

Harmonized Environmental Tobacco Smoke (ETS) By-law Initiative: We are promoting and enforcing the present by-law in workplaces, restaurants and other public places. Under this by-law, all restaurants are required to be smoke-free as of the first of June 2001.

Not To Kids: We provide the public and tobacco vendors with information about the TCA, the legal restrictions on tobacco use and the prohibition on the sale of tobacco to minors (under 19 years of age). We also conduct compliance checks of tobacco vendors to increase knowledge about the TCA and to reduce illegal tobacco sales to minors.

Youth Tobacco Intervention: We provide supports to schools to reduce youth smoking. This includes support in the development of no-smoking policies and the delivery of youth based prevention and cessation programs and resources.

Community Based Smoking Cessation: We provide community smoking cessation interventions to individuals and groups that include counselling, support programs and self-help resources.

Breathing Space: We are distributing resources to increase awareness of the effects of environmental tobacco smoke and to encourage smoke-free homes and cars. The main focus of this program is people who have children under the age of 18 years in their home and are either smokers themselves or allow others to smoke in their homes. We are also participating in a GTA-wide media campaign to raise awareness of the effects of second-hand smoke on children.

See also *Cancer Prevention/Early Detection of Cancer*

6) Injury Prevention

Goals:

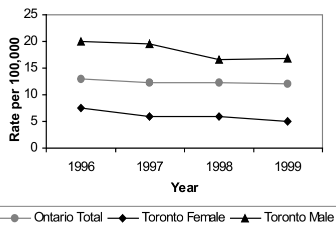
- To reduce the rate of injuries related to falls, motorized vehicles and environmental factors (e.g. violence, alcohol and other substance use, building conditions).
- To reduce the number of illnesses, disabilities and deaths caused by all types of injuries.

Selected Health Status Indicators

Motor Vehicle Crashes: The annual rate of hospitalization due to motor vehicle traffic crashes is consistently lower in Toronto than in Ontario. In 1999, the rate in Toronto was 52.9 per 100,000 compared to 66.7 in Ontario. In both Toronto and Ontario, the rate continues to be higher for males than females.

Cycling Injuries: In 1999, 263 Torontonians were hospitalized due to cycling injuries. Of those, 20% (or 52 individuals) were 1 to 9 years of age, and 17% (or 44) were 10 to 19. The rates for both males and females decreased between 1996 to 1999, from 7.6 to 4.9 per thousand for females, and from 20 to 16.9 for males (Figure 4).

Figure 4: Standardized Hospitalization Rates* for Pedal Cycle Injuries for Toronto Males and Females and Ontario, 1996 – 1999

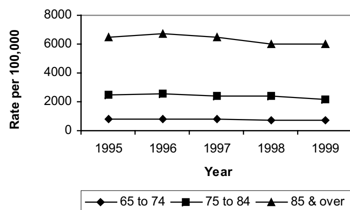


* Rates per 100,000 population, standardized to the 1991 Canadian population.
Data Sources: Ministry of Health PHPDB.

Children: Research in Canada has shown that the home is the most common place of injury for children under the age of 10. Twenty percent of injuries that result in an emergency room visit among children 10 to14 years of age happen in the home and 25% of unintentional injury deaths in this age group happen in the home. The leading causes of emergency room visits for home injury are falls, poisonings and fire/burns/scalds. (19, 20)

Falls in Seniors: Approximately 6,000 Toronto seniors aged 65 and over are hospitalized each year due to injuries from falls. The rate of falls among females is almost double that for males, and rates for seniors 85 and over are more than double the hospitalization rates of those aged 75 to 84 (Figure 5).

Figure 5: Hospitalization Rates* Due to Falls Among Seniors (65 to 74, 75 to 84 and 85 plus years) for Toronto, 1995 – 1999



* Rates per 100,000 population.
Data Sources: Ministry of Health PHPDB.

Health Disparities: Children in low-income families are more likely to die from injury at home than children in higher-income families. The Canadian Institute for Child Health found that in 1994, 33% of Canadian children are latchkey children. (19, 20)

Selected Activities

Bike Safety: We work with the city's road and trail safety ambassadors on their campaigns in elementary schools, and are producing a school bike safety manual including the promotion of proper bike helmet use.

Seniors Falls Prevention: Working with coalitions, other partnerships and GTA health units, we are implementing initiatives to reduce environmental and physical risk factors for falls among seniors. These initiatives include, workshops, community-based events, in-home assessments, physical activity instruction, coalition building and referral to other community resources.

At Home Alone: Our workshops and resources help families prepare their 10 to 14 year-olds to be home alone safely. When interviewed, parents, key stakeholders and children have expressed the need for additional and convenient services and resources to prepare children to be home alone. We are expanding and marketing the program to more elementary schools and communities across the city to reach more children aged 10 to 14 years.

Injury Prevention Week: Working with a Toronto/GTA injury prevention coalition, we use a variety of communication strategies to promote key safety messages during Injury Prevention Week each spring.

7) Alcohol and Drug Abuse Prevention

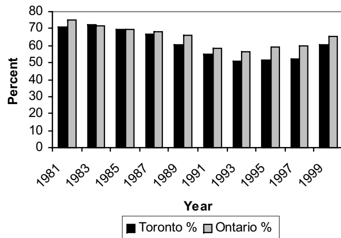
Goals:

- To reduce the rate of injuries, disease, disabilities and deaths related to alcohol and other substance misuse.

Selected Health Status Indicators

Alcohol Use: In 1999, approximately 59% of Toronto students in grades 7 to 13 reported that they had consumed alcohol in the previous 12 months. Ontario students reported a slightly higher rate of about 68%. (16) There was a decrease in the student drinking rates between 1981 and 1993, with a slight increase in both Ontario and Toronto to 1999 (Figure 6). Approximately 18% of Toronto students who reported drinking in the previous 12 months indicated that they drink at least once a week (compared to 20% in Ontario). In the group of Toronto student drinkers, 26% had been drunk at least once in the previous four weeks (compared to 39% in Ontario) and 33% had five or more drinks on a single occasion at least once (compared to 42% in Ontario).

Figure 6: Percent of Students (Grades 7, 9, 11, 13) Reporting Alcohol Use in the Previous 12 Months, Toronto and Ontario, 1981-1999



Data Source: Ontario Student Drug Use Survey, Centre for Addiction and Mental Health

The percent of adults (18 years and over) who reported drinking in the previous 12 months decreased over the 1990s to approximately 72% in Toronto and 79% in Ontario in 1999. (17) In 1999, about 13% of Toronto adults compared to 14% of Ontario adults met the definition of harmful or hazardous drinking. (This means a pattern of drinking that is causing health problems now [harmful] or increases the probability of health and physical problems in the future [hazardous].)

Note: Alcohol use data should be reviewed in the context of the 95% confidence intervals. Detailed data with confidence intervals are included in Appendix A.

Drug Use: Over the last decade, drug use among youth has increased in Toronto and other areas of the province. According to the 1999 Ontario Student Drug Use Survey, approximately 26% of students reported using cannabis in the previous 12 months, twice the rate in 1989. Youth reporting LSD use ranges from 3 to 6%. MDMA or ecstasy has increased from less than one percent in 1991 to 7% in 1999. (21)

Selected Activities

Youth: Through “Party in the Right Spirit”, we provide workshops and resources to help high school students develop safe partying strategies and skills for responsible decision-making around alcohol and drug use. All high schools in Toronto are invited to send student and teacher representatives to a day-long workshop that focuses on liability, impairment and personal safety. The students are encouraged to implement some of the safety strategies at social events sponsored by their schools, including graduation celebrations.

Municipal Alcohol Policy: TPH also provides support to the development of a harmonized Municipal Alcohol Policy in collaboration with the Economic Development, Culture and Tourism Department. The policy encourages a responsible and managed approach to the sale and consumption of alcohol at events held on city property in order to protect the public and staff by preventing alcohol-related injury and damage. TPH will increase public awareness of the benefits of low-risk drinking and of the requirements of city policies.

Raves: We are co-operating with the Centre for Addiction and Mental Health to develop a comprehensive drug prevention and harm reduction strategy to deal with club drugs, such as ecstacy and GHB. The strategy is built around a 30-second public service announcement advertising an 800 number for young people and parents to find further information and advice about club drugs.

Drug Abuse Prevention Grants: We award grants to community groups to take preventive action against substance abuse. The grants fund community projects that will help build the capacity of communities to assist families and citizens to resist drug use. Funding priorities include young people at risk and their families, promotion of healthy alternatives to drug-using lifestyles, multicultural outreach, harm reduction and building networks and coalitions.

Drug Awareness Week: Held in November, this week is part of the work we do with schools and communities to raise awareness about drug and alcohol issues. Materials and support are provided to schools to help them educate students in innovative ways.

V. Family Health

1) Reproductive Health

Goals:

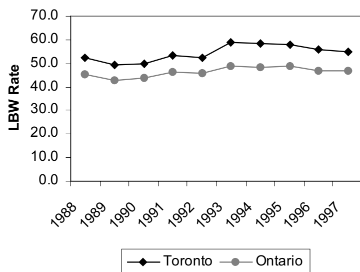
- ➤ To promote and support healthy behaviours and environments for people in their reproductive years.
- ➤ To support optimal reproductive health.

Selected Health Status Indicators

Pregnancy Rates: The general pregnancy rates of Toronto and Ontario showed a decreasing trend from 1993 to 1997. For this five year period, the general pregnancy rate for Toronto was consistently higher than for Ontario. In 1997 the pregnancy rate was 73.2 per 1,000 in Toronto and 61.2 per 1,000 in Ontario. It is estimated that approximately 25% of all pregnant women experience risk factors that may have an impact on their health and/or the health of their babies. (22)

Low Birth Weights: Low birth weight (LBW) is defined as single live births between 501 grams and 2499 grams to mothers aged 15 to 49. Over the ten year period between 1988 and 1997, LBW rates were consistently higher in Toronto than in Ontario (Figure 7). In 1996, the LBW rate was higher in Toronto compared to Canada. (8) Low birth weight rates in Toronto increased from 1989, peaking at 59.4 per 1,000 live births in 1993, and then decreased slightly to 54.9 per 1,000 in 1997. By comparison the LBW rate in Ontario for 1997 was 46.6 per 1,000 live births. The highest LBW rates were found among births to women aged 45 to 49 years. Low birth weight is an important indicator as it can lead to poor health later in life.

Figure 7: Low Birth Weight (LBW)+ Rates* for Toronto and Ontario, 1988 – 1997



+ Low Birth Weight includes single live births between 501 grams to 2499 grams to mothers aged 15 to 49.

* Rates per 1,000 live births.

Data Sources: Ministry of Health HELPS.

Health Disparities: In Toronto, LBW rates are 80% higher in the lowest-income areas compared to those in the highest-income areas.

Selected Activities

Reproductive health programs are offered in collaboration with many community partners.

HBHC: Our "Healthy Babies, Healthy Children" Program is part of a province-wide program that provides prenatal screening, one-to-one counselling and referral of pregnant women.

HBP: The "Healthiest Babies Possible" Program addresses the nutrition needs of high-risk prenatal women through one-to-one counselling, education, support and referral.

Prenatal Classes: We provide prenatal group education to expectant parents throughout the city to support learning about having a healthy pregnancy, expectations of labour and birth, and preparation for breastfeeding and parenting. We work in partnership with 35 community-based Canada Prenatal Nutrition Programs (CPNP) to deliver individual and group outreach, support and education to high risk prenatal women in Toronto.

See also *Nutrition and Food* Access, *Child Health* and *Sexual Health*

2) Child Health

Goals:

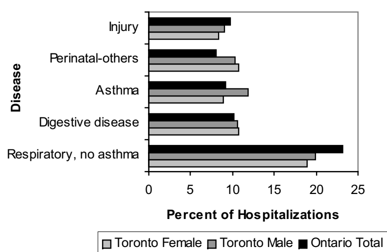
➤ To promote the achievement of full health and development potential in all children and youth.

Selected Health Status Indicators

Breastfeeding: In 1996, 84% of new mothers in Toronto and Ontario reported that they were breastfeeding or had tried to breastfeed their babies. The duration, or length of time a baby is breastfed, is also an important indicator of child health and currently data are not available.

Hospitalization: The leading causes of hospitalization for children are respiratory diseases (excluding asthma) at 19.5%, asthma (10.7%), digestive diseases (10.7%), perinatal conditions (excluding those related to labour and delivery; 10.5%) and injury (8.7%; Figure 8). There has been a decline in total hospitalizations since 1996.

Figure 8: Leading Causes of Hospitalization Among Children (one-day-old to 12-years-old) for Toronto Males and Females Compared to Ontario, 1995 – 1999 Combined



* Percent of total hospitalizations for children one-day to 12 years old.
Data Source: Ministry of Health PHPDB.

Income Disparities and Families: In Toronto, 38% of children lived in families that were below the Statistics Canada low-income cut-off in 1996. Over 17% of families with children age 12 years and under were on social assistance in 1999. The foundations of health for one's entire life are laid during the prenatal period and early childhood. "Poor social and economic circumstances present the greatest threat to a child's growth, and launch the child on a low social and educational trajectory." (23)

Twenty-eight percent of families with children in Toronto are lone-parent families, higher than the Ontario rate of 22%. The median income of lone-parent families in 1998 was approximately half that of two-parent families.

Selected Activities

Healthy Babies, Healthy Children: We are part of a province-wide program of prevention and early-intervention services for families. Through universal screening at birth of all newborns, children at risk for poor developmental outcomes are identified. We provide home visiting for these families to increase parenting capacity and provide linkages to other community services. In collaboration with community partners, a system to monitor child development at other points prior to school entry is being developed.

Postpartum Follow-up: As part of the "Healthy Babies, Healthy Children" Program, we contact all families within 48 hours of discharge from hospital following the birth of a baby. All families are offered a home visit. In conjunction with local hospitals, we provide more intensive public health nursing services for mothers and newborns discharged early from hospital. These postpartum services are provided seven days a week.

Parenting: In collaboration with community agencies, we provide group programs and resources for families with children from birth to age 18 to develop and/or enhance parenting skills and confidence.

Preschool Speech and Language Program: This program, aimed at identifying speech and language problems and providing appropriate intervention early, continues to grow. Additional funding from the province has addressed the transition needs of children moving into the school system. Funded services include a wide range of parent-training workshops, home programming suggestions for families, and therapy for groups and individuals. A universal infant hearing screening program will be introduced in the fall of 2001.

Early Years Community Co-ordinators Initiative: This provincial initiative is designed to enhance early child development and parenting support programs within the community. Community co-ordinators support community groups to develop proposals for the provincial Early Years Challenge Fund.

See also *Physical Activity, Nutrition and Food Access, Tobacco Use Prevention & Control, Injury Prevention, Alcohol & Drug Abuse Prevention, Dental Health* and *Air Quality*.

Data Gaps: There are many gaps in data that prevent a relevant and clear description of the health of children. These include, for example, breastfeeding duration, early childhood development indicators and data on non-hospital-related illness.

3) Seniors' Health

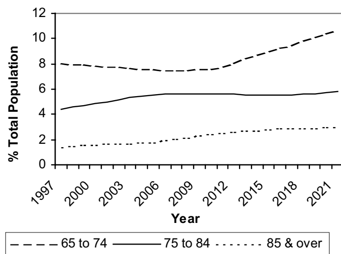
Goals:

➤ To promote the health of seniors.

Selected Health Status Indicators

Aging Population: In 1997, approximately 13.9% of Toronto's population was 65 years of age and over, slightly higher than for Ontario. This number is estimated to increase to 19.5% in Toronto by 2021 (Figure 9). The proportion of women 65 and over will continue to be greater than for men, reaching an estimated 22.3 % compared to 16.4% of men in 2021. The 65 to 74 year age group will increase from 8.1% in 1997 to 10.7% in 2021, the 75 to 84 age group will increase from 4.4% to 5.8% and the 85 plus age group will jump from 1.4 to 3.0%. The over 85 age group is considered the most frail and in need of health and social services including long-term care and home support.

Figure 9: Population Projections (% of the Total Population) for Ages 65 to 74 Years, 75 to 84 Years and 85 Plus Years, Toronto, 1997 to 2021



Data Source: Ministry of Health, HELPS

Living Conditions: Twenty-seven per cent of people over 65 live alone. Close to 25% of seniors in Toronto live below the Statistics Canada low-income cut-off. Research from the Daily Bread Food Bank shows that the percent of people using food banks aged 60 years and older has almost doubled from 6% in 1995 to 11% in 2000. In 2000, 54% of seniors using food banks indicated that they paid more than 50% of their income in rent.

Activity Limitation: Twenty-one percent of seniors indicated they are limited in the activities they can do at home due to one or more long-term physical, mental or health conditions (1996 OHS).

Selected Activities

Supporting Health Programs and Services: We work with health care providers, community agencies and groups to provide health programs and services to everyone who lives and works in Toronto, including seniors. Programs and services for seniors Sinclude family health, chronic disease prevention, injury prevention, communicable disease control and dental health. Some program activities specifically targeting seniors include the promotion of healthy eating, active living, informal caregiver support initiatives and falls prevention as well as dental services for low-income seniors.

Addressing the Needs of the Frail Elderly Population: We continue to work with Community Care Access Centres (CCACs) and other groups to address the needs of frail, "non-receptive", at-risk seniors in Toronto. CCACs are mandated to meet the health needs of vulnerable and frail seniors who do not require hospitalization. The bulk of their resources are directed towards the seniors discharged from hospital who require acute health care in the home, rather than to health and support services for chronically ill or frail seniors in the community.

Promoting Access to Health Care Resources and Services: In collaboration with community partners and the Toronto Seniors Assembly, we work on joint initiatives to address priority issues to increase access to health care, resources and services for the diverse seniors population. The Toronto Senior's Assembly is an advisory group to the Senior's Advocate on city council.

See also *Nutrition and Food Access, Dental Health* and *Injury Prevention*

4) Dental Health

Goals:

- ➤ To promote the dental health of children, youth, mothers at risk and seniors.
- ➤ To reduce the prevalence of oral disease and improve oral health, function and aesthetics.

Selected Health Status Indicators

Average deft and DMFT per Child: The average number of decayed, extracted and filled baby teeth (deft) and adult teeth (DMFT) per child is similar for Toronto and Ontario. Among 5 year-olds, the mean deft and DMFT decreased in the 1980s followed by a slight increase in the 1990s. Among 13 year-olds the mean DMFT has decreased steadily since the early 1970s and in 2000 was 1.13 DMFT per child in Toronto.

Dental Decay in Children: Early childhood tooth decay affects 6 to 10% of all preschoolers. It is a rapidly progressing disease, often rotting front teeth completely to the gum line within a year. The cost of treating a child with this condition can range from $228 to $7,000. In 1994 and 1999, 30% of 5 year-old children in Toronto had caries (dental decay), similar to Ontario. At age 5, nearly 11% of children have two or more teeth with open, untreated cavities and almost 7% have need for urgent dental care. In 2000, 9.6% of 5 year-olds had one or more top front baby teeth affected by decay.

In 1999, 40% of 13 year-old children in Toronto had caries; 12% of all children suffer from dental neglect and require immediate care. Dental decay is the most frequent condition suffered by children other than the common cold and is one of the leading causes of absences from school.

Seniors: Seventy percent of Ontario's seniors do not have dental insurance. Many are struggling with ill-fitting, broken and loose dentures, and find chewing their food and speaking difficult and embarrassing. Fifty-two percent of elderly residents of long-term care facilities have some natural teeth. Of these, 86% suffer from gum disease, 50% have untreated dental decay and 40% have broken-down teeth that require extraction.

Forty-eight percent of elderly residents in long-term care facilities have lost their teeth (edentulism). Thirty-three percent suffer from a chronic inflammation and infection of the palate and gums. Fifty percent of edentulous residents do not have dentures, limiting them to a diet of soft food. Of those who have dentures, 45% are wearing ill fitting, loose dentures.

Health Disparities: Recent immigrant children and their families have twice the rate of dental disease and twice the likelihood of not having dental insurance; 35% of English as a second language high school students have severe dental disease that requires immediate treatment.

Selected Activities

Education and Screening: We provide oral health education for 26,000 children, 5,000 high school students, 1,500 mothers at risk and 5,000 seniors. Dental screening will be provided for 175,000 elementary school children and 3,000 high school students.

Preventive and Treatment Services: In 2001, preventive and treatment services will be provided in public health dental clinics for 20,000 children, 1,000 adolescents, 900 mothers at risk and 9,000 seniors. Dental services will include oral examinations, x-rays, extractions, fillings, root-canal treatments, dentures and denture repairs.

Dental treatment will be given to over 6,000 children under the "Children In Need of Dental Treatment" (CINOT) program and over 16,000 children and adolescents will receive dental treatment under the Ontario Works program in public health dental clinics or private dental offices.

Residents of Nursing Homes: In most cases, TPH is the only dental presence and the sole provider of dental services for the residents of long-term care facilities. Our mobile dental team will offer assessments, preventive services and minor treatment to residents in 50 long-term care facilities – 2,500 residents will have their teeth and dentures cleaned, 3,000 dentures will be labelled with the residents' names. Denture loss is a serious problem in nursing homes. Once lost, chances of replacement are virtually non-existent due to high cost and unavailability of services. Six hundred residents will receive minor dental treatment.

New Child Health Initiatives: We are starting a few new initiatives in 2001. Working with community partners, we are implementing a co-ordinated population-wide approach to reduce early childhood tooth decay. We will be doing a study of the oral health of adolescents to determine the distribution of oral health needs. High school students in need of urgent dental treatment will be identified and referred for treatment.

5) Homelessness

Goals:

➤ To play an active role in ensuring Torontonians have the physical, mental, social and environmental resources to obtain or maintain adequate housing.

Selected Health Status Indicators

Emergency Shelter Use: The City's "Report Card on Homelessness 2001" shows that in 1999 nearly 30,000 people stayed in emergency shelters, an increase of 40% since 1988. The number of children has increased steadily to approximately 6,200 in 1999, an increase of 130% since 1988. (24) Youth represented 23% of admissions (up from 20% in 1998) as of September 2000. An estimated 6,000 youth stayed in Toronto shelters in 1999. Most people in shelters are adult single men. However, two-parent families and couples without children are now the fastest growing groups using shelters.

About 18% of emergency shelter users have stayed in the shelter system for a year or more. Some of these people have addictions and/or mental health issues and do not have access to appropriate housing and supports to leave the shelter system. Street outreach services continue to report a large number of people living on the street. About one quarter are women. Living outside can have serious consequences for a person's health, safety and well-being. (24)

Out of the Cold: In the winter of 2000/01, Out of the Cold staff estimate that 450 people used overnight programs and 1,800 people used meal programs every day.

Food Banks: In the last quarter of 2000, over 140,000 people relied on food relief each month in the GTA, up from 125,000 at the beginning of the year. 75% of these people are in Toronto. (24)

Selected Activities

Prevention of Homelessness: There is considerable evidence that health and socio-economic status are linked. People living in poverty tend to have more health problems than the rest of the population and this is particularly true for the homeless population.

In collaboration with community partners, we are involved in community development initiatives to address the broader systemic issues in order to provide more affordable and supportive housing, and to increase people's capacity to secure and maintain permanent forms of housing.

Homeless Health Reference Group: We provide leadership and support to this group of community stakeholders working on a homeless health strategy proposed by the Mayor's Task Force. Presently, the reference group is focused on discharge planning, infirmary development and harm reduction.

Public Health Support in the Homeless Sector: We continue to provide some nursing and community health support to homeless people in hostels, shelters, drop-ins and out-of-the cold programs. TPH also trains staff and volunteers on violence prevention/personal safety, anger management, communicable disease control and other health needs of the homeless. In addition we provide Directly Observed Therapy for homeless and under-housed people who have TB, as well as flu vaccination clinics.

Young Parents – No Fixed Address: We continue in our leadership role to this coalition of community agencies which addresses the complex needs of the increasing number of young parents on the streets. The group is developing appropriate and accessible responses for homeless young parents and their children, including, a 24-hour, seven-day-a-week parent relief program.

6) Mental Health and Violence Prevention

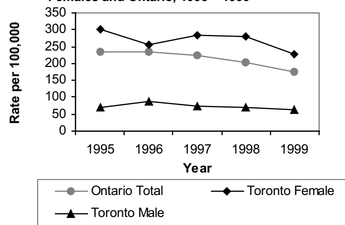
Goals:

- ➤ To ensure positive mental health and well-being.
- ➤ To ensure all individuals, families and communities have the capacity to enhance and support positive mental health and well-being across the life span.
- ➤ To ensure all individuals, families and communities are free of violence.

Selected Health Status Indicators

Attempted Suicide: From 1995 to 1999, the annual rates of hospitalization due to attempted suicide among female teens were three to four times that of male teens (Figure 10). In 1999 among 15 to 19 year-olds, 151 females and 44 males were hospitalized for suicide-related injuries. The rates for both males and females are lower in Toronto than for Ontario respectively. The death rate due to suicide is lower in Toronto compared to Canada in 1996. (8)

Figure 10: Crude Hospitalization Rates* Due to Attempted Suicide Among Teens (15 to 19 years) for Toronto Males and Females and Ontario, 1995 – 1999



* Rates per 100,000 population.
Data Sources: Ministry of Health PHPDB.

The Ontario Child Health Study indicated that almost 15% of children aged 4 to 12 have one or more mental health problems. At the recommendation of the CYAC (Children and Youth Action Committee) and using researchers at McMaster University, we are determining the rates of behavioural and emotional problems among Toronto's children and youth. This mental health needs assessment will provide information to help set public health program priorities for strengthening the mental health and functioning of children and youth in Toronto.

Violent Offences: In 1997, over 5,100 offences against people 1 to 17 years of age were reported. They were victimized by both their peers and adults. In recent years, the proportion of all offenders who were youth has increased. There also is indication that the offenders are getting younger, which may reflect more stringent reporting in schools.

Health Disparities: Hospitalizations for suicides/attempts are over 50% higher among females and males age 20 to 39 in the lowest-income areas compared to the highest-income areas of Toronto.

Selected Activities

Child Mental Health and Child Abuse Prevention: We continue to integrate children's mental health promotion in our family health programming, which includes providing education, training and consultation to public health staff on early attachment, bonding, maternal and postpartum depression and parenting. A review of best practices is being conducted to determine effective strategies to reduce risk and promote mental health. Recommendations regarding the integration of strategies into public health programming will be made to family health and healthy lifestyle programs.

Expansion of "Opening Doors" Youth Violence Prevention Program in the Schools: We continue to work with the Centre for Addiction and Mental Health and both school boards to expand this program, for at-risk Grade 9 students, to eight schools throughout the city.

Framework for Violence Prevention and Mental Health Promotion: Working with community partners, we are researching and designing a framework for TPH. Its vision, mission, goals and objectives will be the basis for a violence prevention and mental health program.

One-on-One Mentoring Program: We match city employees and other volunteers with children between the ages of 5 and 14. The goal is to provide each child with a strong supportive role model in a positive, trusting relationship.

Kids Have Stress Too: This primary prevention program is designed to help parents of children ages 4 to 9 better understand stress and to help them teach their children strategies to manage it. The knowledge and skills learned in this program are intended to support the capacity of families to provide a stable foundation for their children's future healthy lifestyle decisions.

Critical Incident Stress Management: We continue to respond to psycho-social needs following a critical incident in the community and are expanding this service throughout the city. The Co-ordinated Public Health Emergency Response Team will respond to major disasters.

VI. Communicable Disease Control and Sexual Health

1) Vaccine Preventable Diseases

Goals:

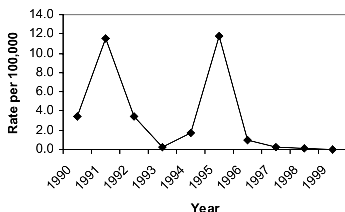
- To reduce illness and death caused by vaccine-preventable disease (VPD).
- To prevent the spread of vaccine-preventable diseases and promote immunization.

Selected Health Status Indicators

Vaccine Coverage in School-Age Children: In the 1999/2000 school year, student immunization records were reviewed in 30% of the schools (300) in Toronto. In these schools, 63% of students had records showing adequate immunization at the beginning of the program; this increased to 98% by the time the program was completed for the school year.

VPD Incidence Rates: In 1995, there was an outbreak of red measles. Toronto had 286 cases reported (11.8 per 100,000). In 1996 Ontario increased the required number of doses of red measles vaccine from one to two doses. In that year public health carried out a measles vaccination program in all schools to bring students up to the new requirement. Since this change was implemented, the measles rate in Toronto has remained at or below one case per 100,000 population (from 1996 to 1999; Figure 11).

Figure 11: Crude Incidence Rate* of Measles for Toronto, 1990 – 1999



* Rates per 100,000 population.
Data Source: Toronto Public Health and the Ministry of Health, PHPDB

Immunization against pertussis (whooping cough) in school-age children currently is not required by law. During the period of 1990 to 1999, incidence rates ranged between 3.6 and 7.0 cases per 100,000 people. These figures are underestimated, as reporting of non-lab-diagnosed pertussis is poor. The great majority of reported cases occur in children aged 14 and under. Toronto's rates are higher than the target rate set by the Ontario Ministry of Health of 2.5 cases per 100,000 people.

Influenza: Influenza season occurs yearly between October and April. In the 1999/2000 season, we investigated and managed 57 confirmed influenza outbreaks in long-term care facilities (LTCFs) involving 1,561 cases and over 23,000 people. Median influenza immunization rates in LTCFs rose from approximately 93% to 95% among residents and from less than 30% to 73% among staff between 1996 and the 2000/2001 influenza season.

Selected Activities

Immunization of School Pupils: We continue to review immunization records and do the appropriate follow-up of elementary and secondary students to ensure that they have up-to-date immunization. This is done under the requirements of The Immunization of School Pupils Act. In the 2000/2001 school year, we are reviewing and following up on student immunization records in 50% of Toronto schools (or 500). We plan to expand the program to cover all 1,000 Toronto schools by the 2002/2003 school year.

Influenza Immunization: We completed the first "Community Flu Immunization" Program by holding 95 flu-shot clinics in community settings. We will evaluate the program for year 2000 and implement a revised program in the fall of 2001. We also offer flu shots and other immunizations to clients who are homeless or under-housed, and we continue to expand this program to new venues. To prevent illness and death, we promote flu shots for vulnerable populations including those who live or work in LTCFs.

Vaccine Storage and Handling Inspections: To ensure the public receives effective vaccines, we provide on-site inspection of doctors' offices to ensure proper storage and handling, in compliance with Ontario Ministry of Health requirements.

Adverse Vaccine Reactions: We investigate all adverse vaccine reactions reported to TPH.

VPD Health Promotion: We continue our work with the public, school community and health professionals to ensure adults and children are properly immunized and able to make informed choices about vaccines.

2) Tuberculosis

Goals:

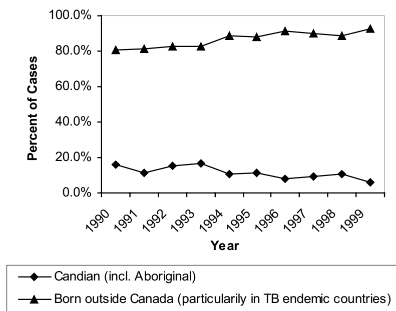
- To reduce the incidence of tuberculosis.
- To provide an accessible and equitable tuberculosis (TB) control program.

Selected Health Status Indicators

The World Context: One-third of the world's population is infected with latent TB. Toronto has between 380 and 500 TB cases a year, which is a rate three times higher than the rest of Canada. Between 1991 and 1996, TB rates in Toronto were more than double the rate for Ontario, representing more than 57% of reported TB in the province. (4)

High Risk Groups: In Toronto, 87% of new TB cases occur in those who were born outside of Canada (in particular in TB endemic countries; Figure 12), and the majority of these are manifested in the first five years after arrival. Thirty-six percent of newcomers to Canada are destined for Toronto and more than 10,000 refugees arrive in the city each year. Other high-risk groups include the homeless, the under-housed and the HIV-positive. In 1996, the Shelter Pilot (TB Testing) Project found that 45% of shelter clients and 24% of shelter staff who completed the skin test were positive for latent TB infection.

Figure 12: Distribution* of Active Tuberculosis Cases by Origin, Toronto, 1990 – 1999



* Percent of cases.
Data Source: Toronto Public Health

Tuberculosis Rates: Active TB rates in Toronto were stable from 1990 to 1997, ranging between 18.2 and 20.4 per 100,000. Since 1997, rates have decreased to 15.2 per 100,000 in 1999. As a comparison, in 1998 the TB rate was 5.9 per 100,000 in Canada and 16.7 per 100,000 in Toronto. In 1999 there were 384 new cases of TB plus an additional 20 cases who were diagnosed elsewhere and then moved to Toronto during treatment. TB cases require follow-up for 6 months to 2 years.

Drug Resistant TB: In 1999, 17.3% of active cases were resistant to at least one antibiotic. Multiple Drug Resistant (MDR) TB is resistant to isoniazid (INH) and rifampin (RIF), the two main antibiotics used to treat TB. MDR TB has increased over the 1990s in Toronto, and ranged from 0.2% of all TB cases to a high of 3%. Between 1990 and 1998, 67.6% of drug-resistant TB cases in Ontario were in Toronto. (25)

Drug-resistant TB treatment takes twice as long and is expensive and difficult. In addition, people with drug-resistant TB are usually contagious for a longer period of time.

Selected Activities

Case Management and Contact Follow-up: The key strategies to reduce the incidence of TB and to prevent its spread include case management and contact follow-up.

In 1993, The World Bank described Directly Observed Therapy (DOT) as one of the most cost-effective health strategies. DOT means that a health care worker directly observes and supervises clients taking their TB medication. At the present time we are able to provide DOT to only 30% of TB cases in Toronto. Priority for DOT is given to those with drug resistant TB, children, patients with HIV and the homeless.

On average we investigate 10.7 contacts per case. In 2000 this meant more than 3,800 contacts of active TB were followed-up. Contact follow-up involves notifying individuals that they have been exposed to TB and advising them of appropriate actions they should take. Contacts who test positive are examined further. Once active TB is ruled out, they are encouraged to be treated for latent TB. If a case of TB is identified in a group setting, we do TB testing of the contacts. For example, if a case is identified in a school, usually over 100 contacts are tested, and if a case is found in an emergency shelter, the number of potential contacts may increase to 800 or more.

Prevention: During 2000 we followed close to 1,500 newcomers who had been placed on surveillance for inactive TB by Citizenship and Immigration Canada. We also continue to provide education, health promotion, advocacy and consultation to the public regarding TB issues.

3) STDs and HIV

Goals:

- ➤ To decrease the incidence of, and complications from, all STDs, including HIV/AIDS.
- ➤ To ensure effective and accessible sexual health and STD/HIV services.

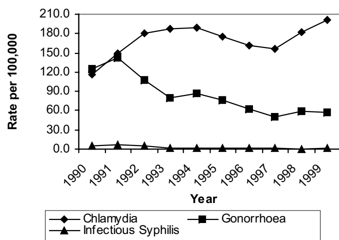
Selected Health Status Indicators

In 1999, TPH received a total of 7,095 reports of sexually transmitted disease cases.

Chlamydia: Since 1990, incidence rates for chlamydia decreased slightly to 155 per 100,000 in 1997 and then increased to 202 per 100,000 in 1999 (Figure 13). Rates are higher in females, particularly the 15 to 19 and 20 to 24 year age groups with rates of almost 1,500 per 100,000 in 1999. The highest rates for men are in the 20 to 24 year-olds (643 per 100,000 in 1999). Rates in Toronto are higher than in Ontario as a whole.

Gonorrhoea: Gonorrhoea incidence rates have steadily decreased from 1990 to 1999 (58 per 100,000; Figure 13). The overall rates are higher in males compared to females. The highest rate for females was among the 15 to 19 year-olds (295 per 100,000 in 1999) and the highest rate for males was among 20 to 24 year-olds (251 per 100,000). Toronto has approximately 63% of all the gonorrhoea cases reported in Ontario.

Figure 13: Crude Incidence Rates* of Selected STD Infections for Toronto, 1990 – 1999



* Rates per 100,000 population.
Data Source: Toronto Public Health and the Ministry of Health, PHPDB

Infectious Syphilis: Over the last 10 years infectious syphilis rates have steadily decreased in Toronto from 5.7 per 100,000 in 1990 to 0.9 per 100,000 in 1999 (Figure 13). The rates have been 1.0 per 100,000 or less over the last three years (1997 – 1999).

HIV: The rate of HIV-positive tests has steadily declined for males from 1990 – 1999, while no clear pattern has emerged for females. This decrease has been less in Toronto than for Ontario. In 1999, 58.6% of first-time positive tests in Ontario were found in Toronto. It is estimated that there are currently over 13,000 people living with HIV in the city, and Toronto has seen nearly 3,000 deaths from AIDS since 1987. In 1996, HIV death rates were higher in Toronto compared to Canada. (8)

In Toronto, the proportion of new cases contributed by the men having sex with men (MSM) exposure category has remained relatively constant. However, according to researchers at the University of Toronto for January to June 2000 there were 192 new positive HIV tests among the MSM risk group in Toronto – 16% higher than expected based on the number of positive tests in 1999. (26) (A corresponding increase in the number of MSM who were tested meant that in the first half of 2000 5.84% of MSM who were tested for HIV were found to be positive compared to 5.76% in 1999. (26))

Toronto receives large numbers of immigrants and refugees from HIV-endemic areas. It is estimated that 15 to 25% of new infections in Ontario occur among those from HIV-endemic regions.

Drug Use: The number of injection drug users in Toronto is estimated at 15,000. Toronto accounts for half of all AIDS/HIV cases among Ontario injection drug users.

Health Disparities: STD rates are two-to-four times higher in the lowest-income areas in the city compared to the highest.

Selected Activities

STD Program: We follow up on all reported STD cases in Toronto to ensure that each client has received appropriate treatment and to provide counselling, education and referrals as necessary. We offer to notify and counsel all named partners to ensure they also receive appropriate testing and treatment. We provide education to health care professionals.

AIDS and Sexual Health Infoline: Information, counselling and referrals are provided in 19 languages on STD/HIV/AIDS, hepatitis, injection drug use and sexual health issues. We are in the process of expanding our language capabilities and hours of operation during days, evenings and weekends.

The Works: We provide this communicable disease prevention program for drug users and sex-trade workers through a fixed site, mobile service and a number of community agencies. Services offered include needle exchange; condom distribution; testing for HIV, hepatitis B and C, syphilis and TB; hepatitis B and flu vaccines; methadone maintenance; food distribution, counselling and referrals to drug treatment, housing and a variety of other health and social services.

See also *Sexual Health.*

4) Sexual Health

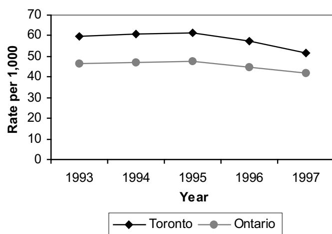
Goals:

- To decrease the incidence of, and complications from, all STDs including HIV/AIDS.
- To decrease the incidence of unintended pregnancies.
- To ensure effective and accessible sexual health and STD services.

Selected Health Status Indicators

Teen Pregnancy Rate: The teen pregnancy rates were consistently higher in Toronto than in Ontario from 1993 to 1997 (in 1997, 52 per 100,000in Toronto compared to 42 per 100,000 in Ontario; Figure 14). The rates for both Toronto and Ontario decreased slightly from 1993.

Figure 14: Teen (15 to 19 Years) Pregnancy+ Rates* for Toronto and Ontario Total, 1993 – 1997



+ Pregnancy includes all live births, stillbirths and therapeutic abortions.
* Rates per 1,000 female population age 15 to 19.
Data Sources: the Ministry of Health HELPS and the Ministry of Health, PHPDB

Sexual Activity: In 1996, 31% of teenagers between the ages 15 and 19 years reported they had had sexual intercourse, slightly lower than reported for Ontario (36%). However, the high non-response (15%) to this question in the Ontario Health Survey may mean that the actual percent of teens who have had sexual intercourse may be higher or lower that this estimate.

Sexually Transmitted Diseases: See previous section for rates of chlamydia, gonorrhoea, syphilis and HIV.

Health Disparities: The teen birth rate is approximately three times higher in the lowest-income areas of Toronto than in the highest-income areas.

See also *STDs and HIV*.

Selected Activities

Sexual Health Clinics: The 14 clinics affiliated with TPH provide birth control education and low-cost contraceptives, pregnancy testing and counselling, sexually transmitted disease testing and free treatment, as well as counselling related to relationships, sexual orientation, etc. There were 38,100 clinic visits for sexual health clinical services in 1999. We are in our second year of redesigning and relocating clinic sites and establishing satellite clinics to ensure service to areas of highest need.

Raising Sexually Healthy Children: We provide workshops for parents and caregivers to foster healthy attitudes towards sexuality and enhance communication between parents and children.

We also deliver peer parent leader projects in the Chinese, Portuguese, Spanish, Tamil and Vietnamese communities that are based on a community-development and capacity-building model. These projects are a joint effort of TPH and our community partners. Parents from each community are recruited and trained to provide peer education to other parents in the community on the topic of "Raising Sexually Healthy Children".

Kids and Sex: These workshops are for teachers, daycare/child care workers and other professionals to learn about sexual growth and development in children and to develop skills in promoting children's sexual health.

Youth: A city-wide adolescent peer-led pilot program in schools provides information and skill-building activities through an interactive sexual health fair.

Emergency Contraceptive Pill (ECP): We use a social marketing campaign in buses and subway cars to raise awareness about the use of ECP in preventing unplanned pregnancy.

"Starphone" Messages: We have collaborated with *The Toronto Star* to place over 40 sexual health messages on its telephone access system, with links back to the "AIDS and Sexual Health Infoline" – our counselling and information hotline.

AIDS Grants: We award grants to 57 projects for community groups and agencies to provide HIV/AIDS prevention and sexual health promotion programming.

5) Control of Other Infectious Diseases

Goals:

- To monitor, prevent and control exposure to infectious diseases.
- To reduce illnesses, outbreaks and deaths due to infectious diseases of public health significance.

Selected Health Status Indicators

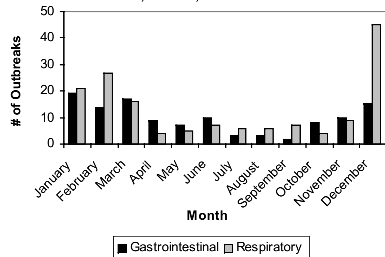
Meningococcal Disease (Meningitis): The number of cases of meningococcal disease remains low in Toronto with 22 cases (0.9 per 100,000) in 1999. Ontario had a rate of 1.0 per 100,000 in 1999.

Invasive Group A Streptococcus (flesh-eating disease): There were 50 sporadic cases of invasive group A streptococcus in Toronto in 1999, a rate of 2.0 per 100,000 compared to 2.8 per 100,000 in Ontario.

Hepatitis A: Toronto had 79 cases of hepatitis A in 1999, a rate of 3.1 per 100,000 compared to 2.3 per 100,000 in Ontario. From 1990 to 1999, the rate remained relatively stable ranging between a low of 3.1 to a high of 10.9 with the exception of 1991 when the rate was 24.3 per 100,000. Toronto has the highest rates in Ontario and males have higher rates than females.

Disease Outbreaks in Institutions: There were 248 disease outbreaks in Toronto institutions in 1999, with 7,082 cases and 76 deaths reported. The majority of outbreaks involved respiratory (157 outbreaks with 3,935 cases) and gastrointestinal diseases (89 outbreaks with 3,140 cases). The remainder was due to Group A Streptococcus ("flesh-eating disease") which caused 2 outbreaks and affected 7 people. In 1999, Toronto's outbreak activity peaked during the winter months (Figure 15) with an unusually high number of influenza outbreaks in December.

Figure 15: Number of Outbreaks Investigated by Type of Disease and Month, Toronto, 1999



Data Source: Toronto Public Health.

Selected Activities

Communicable Disease Surveillance and Follow-up: We followed-up 14,580 communicable disease reports that were received from physicians, principals and laboratories in 1999. Cases (or their physicians) are contacted to identify additional ill persons and/or their contacts, provide information about the disease and ways to prevent further spread, implement control measures and ensure appropriate treatment. We routinely analyze our disease database to identify outbreaks, determine disease trends and provide information for program planning.

Infection Control in Institutions: We offer infection-control expertise to hospitals, nursing homes, homes for the aged, day nurseries and personal services settings. We participate in numerous infection-control committees across the city, conduct inspections, consult on policies and procedures, offer in-service education and provide disease statistics.

Pandemic Influenza Contingency Planning and Bioterrorism Preparedness: Naturally occurring global influenza epidemics (pandemics) occur every 10 to 40 years and result in significant illness, death, and social and health care costs. The risk of an infectious disease epidemic resulting from a terrorist act is also increasing globally with the potential for mass public exposure to deadly agents such as anthrax, smallpox, botulism and plague. We are working in conjunction with other city divisions, such as Fire, Ambulance and Police Services, and with external agencies to minimize the impact of these potentially significant threats to public health.

Emerging Diseases Response: The increase in international travel, migration and changing weather patterns has led to new emerging communicable diseases in Canada. In 2000, we responded to 432 calls related to the threat of West Nile Virus, and 102 dead birds were collected and sent for testing as part of the Ontario surveillance initiative. In 1999, we participated in the investigation of the fourth successive outbreak of cyclosporiasis in Ontario, linked to the consumption of imported berries. This investigation resulted in a nation-wide restriction on the importation of Guatemalan blackberries and raspberries during the spring import season.

See also *Food Safety*

VII. Health and the Environment

1) Food Safety

Goals:

- ➤ To prevent the incidence of food-borne illness and to promote safe food handling practices
- ➤ To reduce the incidence of food-borne illness.

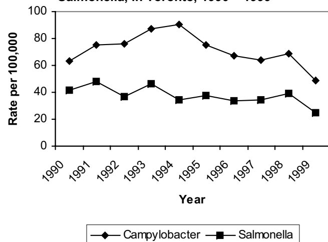
Selected Health Status Indicators

Food Premises Inspections: Each month we conduct more than 2,000 inspections of food premises in Toronto to ensure that the food offered for sale is free from disease and handled in a safe manner. In the first four months of 2001, about 75% of the food premises inspected were in substantial compliance with the Provincial Food Premises Regulation after the initial inspection. Out of the remaining 25% of establishments that did not pass the first inspection, 90% were in compliance within 48 hours at the re-inspection.

Gastrointestinal Diseases: One hundred seventeen outbreaks of gastrointestinal disease were reported in Toronto in 1999, resulting in 3,430 people being affected and putting 26,046 at risk. Most victims contracted the diseases in long-term care facilities. Seven deaths resulted.

The incidence for campylobacter rose from 1990 to 1994, then declined to 1999 (Figure 16). The incidence for reported salmonella has gradually decreased over the past 10 years. Rates for both campylobacter and salmonella are notably higher in Toronto than Ontario, 50% higher for campylobacter.

Figure 16: Crude Incidence Rate* of Reported Campylobacter and Salmonella, in Toronto, 1990 – 1999



* Rates per 100,000 population.
Data Sources: Toronto Public Health and the Ministry of Health, PHPDB

Verotoxin Producing E.coli (Hamburger Disease): The rate of verotoxin producing E.coli (VTEC) has ranged between 2.5 and 4.6 per 100,000 since 1990. Toronto had 64 cases (2.5 per 100,000) of VTEC and Ontario had a rate of 3.4 per 100,000, in 1999.

Selected Activities

Food Premises Inspections: Standardized procedures for food premises inspection and a new disclosure system have been implemented across the city and will help protect consumers from food-borne illness. The disclosure system, the first of its kind in Canada, will provide consumers with easy access to inspection information via mandatory on-site postings at food premises, telephone requests, the city's web site and over the counter at TPH offices. Upon inspection, all violations are categorized as "minor", "significant" or "crucial" based on their risk to public health. Food premises are given a status of "pass" (green notice), "conditional pass" (yellow notice) or "closed" (red notice) based on the infractions observed.

The system also promotes greater compliance with food safety standards and is an incentive for operators to maintain safe, clean and well-run establishments.

Food-Handler Certification: We will continue to provide and promote food safety education to food premises owners and operators. We are working towards mandatory food-handler certification for all food premises in 2002. Each establishment that prepares food for the public will be required to have an owner/operator and one food handler in a supervisory role certified as being trained in safe food handling techniques. In order to meet the demand for training, we are developing partnerships with academic and private-sector organizations to provide courses which are accredited by Public Health.

2) Safe Water

Goals:

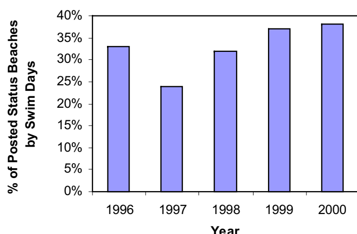
- To prevent or reduce adverse health outcomes from drinking water.
- To improve the safety of Toronto's recreational beach waters.
- To reduce the incidence of water-borne illness.

Selected Health Status Indicators

Drinking Water: Test results of Toronto's drinking water between 1995 and 2000 show nearly perfect compliance with microbiological quality standards, for both total coliforms and fecal coliform bacteria. In 1999/2000, routine tests were taken for 152 organic chemicals, 36 inorganic chemicals and 113 pesticides. Levels of chemicals, other than those that are the result of the treatment process, are found at trace levels below those known to be a health concern. In 1999, the average level of the disinfectant by-product Trihalomethanes (THM) was below the Ontario Drinking Water Objectives of 0.1 mg/L. Over the past 10 years, average THM levels in Toronto have been less than 0.02mg/L.

Recreational Water: Toronto's 14 monitored beaches are frequently posted with warning signs in the summer months when the water becomes contaminated with bacteria from run-off, overflowing storm sewers or sanitary sewers connected to storm sewers. Over the past five years, beaches have been posted for 24% to 38% of the swimming season (Figure 17).

Figure 17: Percent of Potential Swim Days that Beaches Were Posted (Closed), Toronto, 1996 – 2000



Data Source: Toronto Public Health

See also *Injury Prevention*

Selected Activities

We are working with provincial and federal agencies to advocate for protective drinking and recreational water objectives and protocols.

Drinking Water: We continue to monitor Toronto's drinking water and, in order to produce a more effective and efficient response to adverse drinking water, we are modifying the existing drinking water agreement and notification protocol with the Works and Emergency Services Department so that protective measures such as a "boil water" advisory can be taken in the most timely manner. We are preparing a report on the health effects of chemical use in water-treatment plants. We also facilitated the harmonization of the city's Sewer Use By-law and continue to help address issues arising from its implementation (e.g. the requirement for installation of dental amalgam separators to reduce mercury discharge) in order to reduce toxic dumping into the sewer system.

Recreational Water: We have requested Works and Emergency Services to increase sampling frequencies at Toronto beaches in 2001. In addition, we are expanding our existing partnerships with Works and Emergency Services and Police Services to include Parks and Recreation. This will enhance the timeliness of existing communications and improve beach signage so the public will have better information on the current status of the beaches. We continue to advocate for the prevention or reduction of toxic discharges into ground and surface water by industries and development projects.

Swimming Pools and Spas: We continue to inspect and investigate swimming and wading pools and spas and issue an order to close when hazards are identified. A new information package for pool owners and operators has been developed that outlines ways in which pools can be maintained to legislated standards.

3) Air Quality

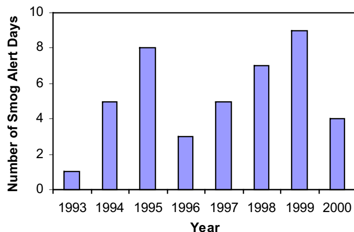
Goals:

- ➤ To prevent or reduce the adverse health outcomes from exposures to air pollutants.
- ➤ To improve the quality of air in outdoor and indoor environments.

Selected Health Status Indicators

Air pollution: Each year, about 1,000 premature deaths and 5,500 hospital admissions are attributable to air pollution in Toronto. In 1995, this was roughly the same number of deaths as lung cancer and twice the number of deaths as female breast cancer. The levels of key air pollutants, i.e. ground-level ozone, particulate matters, nitrogen dioxide and carbon monoxide, have shown no significant decrease in Toronto since 1980. (27) Weather affects the formation of smog. The warmer the summer the more frequent the smog alerts (Figure 18). Between 5 and 10 smog alert days are expected each year in Toronto. A smog-alert is issued by the Ontario Ministry of the Environment when the Air Quality Index reaches or exceeds 50.

Figure 18: Number of Smog Alert Days, Toronto, 1993 – 2000



Data Source: "Air Pollution Burden of Illness in Toronto", Toronto Public Health, Toronto 2000

Indoor Air: Studies are demonstrating that concentrations of some air contaminants such as carbon monoxide, formaldehyde and phthalates can be higher in indoor air than in outdoor environments because of indoor sources such as carpets, glues, paints and cigarette smoke.

Selected Activities

Indoor and Outdoor Air Pollution: We are initiating a major clean-air social marketing campaign called "20/20: The Way to Clean Air" and researching local air-quality concerns and their health effects (e.g. *Air Pollution Burden of Illness In Toronto).* Another report, *Toronto's Air: Let's Make It Healthy*, was released in January 2001 to increase public knowledge and awareness about poor air quality.

In addition, as health advocates, we are facilitating the development and implementation of a comprehensive air quality strategy for the city as recommended by the city's environmental plan. We continue to facilitate the implementation of the smog alert response plan and promote public awareness of the Idling Control By-law. As well, we are participating in regulatory review and policy analysis with all levels of government on air-quality issues.

With the conversion of former commercial and industrial sites into combined living and working facilities, an associated increase in indoor air-quality issues is emerging. We respond to these and all other indoor air-quality complaints within 24 hours as required by provincial legislation. Our partnerships with the Ontario Ministry of the Environment and Ministry of Labour help ensure an effective, co-ordinated response to minimize exposure to air-borne toxins.

See also *Child Health*

4) Health Hazard Investigation

Goals:

- To prevent or reduce exposure to toxic chemical, biological and physical agents and other environmental hazards.
- To promote enhanced environmental quality and health and to prevent or reduce health outcomes resulting from exposure to health hazards.

Selected Health Status Indicators

Hazardous Spills: Between 1995 and 1997, there was an average of 600 hazardous spills each year in Toronto. In 1998, this figure dropped, coinciding with the adoption of a new Ministry of Environment regulation exempting the reporting of spills deemed to have only minor potential to cause damage.

Health Hazard Complaints: In 1998, TPH investigated 5,190 health hazard complaints. This number rose to 5,709 in 1999.

Children's Health: Recent studies suggest that even small amounts of lead in the body (ranging from 2 to 15 µg/dL blood lead level) may be associated with adverse intellectual and behavioural effects in children. In 1994, the Ministry of Environment estimated about 18,000 children or 4% of children 1 to 4 years of age in Ontario had blood lead levels at or above the reference level of 10 µg/dL. A major source of exposure is lead based paint used on the interior and exterior surfaces of dwellings built before the 1950s. (28)

Pesticides are one of the few toxic substances that we intentionally release into the environment. Children are especially vulnerable to the harmful effects of pesticides because of their physiological differences, developmental immaturity and patterns of behaviour. A study in 1997 showed that children playing on the floor can inhale four to six times as much pesticide as an adult and absorb through the skin 30 times as much pesticide as an adult. (29) Recent studies also suggest that pesticides can persist for a long time in the indoor environment because there is no sunlight, rain or microbiological activity to speed their degradation. Currently, there is no Toronto-specific data on indoor or outdoor uses of pesticides in residential areas.

Selected Activities

Investigation of Health Hazard Complaints: We continue to respond to complaints alleging health hazards within 24 hours and work with the Ministries of Environment and Labour to assist in early detection and more effective response to emerging health issues.

Emergency Preparedness: As a result of municipal amalgamation, a new Toronto Public Health Emergency Response Plan was created in order to effectively respond to a major disaster. A new after hours on-call system was also implemented in order to respond to urgent public health issues on a 24 hour-a-day, seven-day-a-week basis. In order to support these initiatives, all sectors of TPH are involved in emergency planning. Co-ordination with other city departments, enhanced staff training and awareness and participation in training exercises help to ensure a heightened state of preparedness in the event of a declared emergency.

Site Redevelopment: We continue to review environmental reports and provide public health comment on urban site re-developments. This includes areas that are potentially contaminated (known as "brownfields") and building demolitions. We are working with other city departments and agencies to create a harmonized development review process that has a strong public health emphasis to protect the public from exposure to contaminants during and after re-development activities.

Child Health and the Environment: We are developing a framework for a community needs assessment in Toronto on child health and the environment.

Access to Information: Public access to environmental information has been increased through the recent creation of the "Healthy People – Healthy Environments" web site (www.city.toronto.on.ca/health/hphe). We are also assessing the feasibility of developing a city-wide environmental geographic information system that would act as an inventory for local environmental data and provide the public with convenient access to information through the internet, free of charge.

Monitoring and Research: Our work includes assessing Toronto residents' knowledge, attitudes, and current practices respecting the uses of pesticides; determining the number of cancer cases attributable to diesel exhaust; assessing the cancer risk presented by 10 potential carcinogens to Toronto residents and workers and providing ongoing monitoring of emerging environmental and health issues.

5) Animal Services and Rabies Control

Goals:

- To prevent the occurrence of rabies in humans and to create an environment where humans and animals can co-exist in harmony.
- To increase responsible pet ownership and promote the value of the human-animal bond.

Selected Health Status Indicators

Animals Sheltered: In 1998, approximately 18,150 animals were sheltered in Toronto. In 1997, of the more than 15,000 stray pets sheltered, over 57% of dogs and 5% of cats were reunited with their owners. In addition, over 3,100 pets were placed in new caring homes. More than 1,100 pets were sterilized at our three clinics in 1997.

Animal Bites: In 1997, 2,514 animal bites were investigated in Toronto. Of these, 126 animals were submitted for rabies testing and 139 courses of rabies vaccine were released. In 1998, it is estimated that more than 2,500 animal bites were investigated.

Field Services: In 1997, field services responded to over 30,000 requests for services.

Licenses: In 1998, an estimated 60,800 pets were licensed or identified in Toronto.

Raccoon Rabies: The first case in Canada was reported north of Brockville in July 1999. To date, over 35 cases have been reported in Eastern Ontario. There have been no reported cases in or near Toronto.

It is estimated that, on average, there are 16 raccoons per square kilometre in Toronto and as many as 85 raccoons per square kilometre in a few areas of the city. Given the city's geographic size of 632 square kilometres, there are likely over 10,000 raccoons living in Toronto.

Selected Activities

Animal Services Headquarters: To improve access and response to the public's needs, we are attempting to establish a centralized headquarters, including an administration office with one phone number and a linked information system. We will create a centralized city-wide dispatch to provide more effective and timely service.

Pet Identification: We are developing strategies to attract corporate and volunteer partnerships to promote micro-chipping, licensing and annual cat and dog registration. Effective pet identification programs are essential in increasing the reunification rate of pets with their owners.

Reunification Service: We offer a "free ride home" for identifiable pets, that have been lost, to reunite them with their owners, on the first occurrence. An intensive cat registration program is under development to address the low cat redemption rate which, although better than the national average, is not acceptable in Toronto.

Pet Adoptions: We are developing promotional strategies and value-added enhancements to promote the adoption of pets into new caring homes through our animal centres. Pets that were not reunited with their owners or were surrendered by their owners, receive vaccinations and microchip identification prior to adoption. An extensive post-adoption incentive program is in place to encourage adopters to enter into relationships with a veterinarian for pet care and spaying/neutering. Pet sterilization is also available at the three spay/neuter clinics operated by animal services.

Bylaw Enforcement: To promote responsible pet ownership and improve the observation of all aspects of the animal care and control by-law, we continue to review, modify and deliver educational programs and enforcement initiatives that foster compliance.

Bite Prevention Education Program: We are increasing public awareness of animal bite prevention to prevent attacks, especially to children, and to reduce the thousands of animal bites occurring each year in Toronto. Children are encouraged to enjoy animal friends and are taught methods to interact safely. In 2000, in addition to the in-house educational programs at the animal centres, instruction was provided at 39 schools and 28 community events.

Wildlife Strategy: The Toronto wildlife strategy encourages long term solutions to nuisance wildlife problems.

Raccoon Rabies: To prevent exposure to raccoon rabies, we are developing strategies and raising public awareness of how to reduce contact and exposure to rabies vector animals, especially raccoons.

VIII. Postscript: "Filling in the Gaps"

In this report, we have described selected public health issues and services and begun to demonstrate the relationship between health status indicators and public health programs. Accordingly, it is our intent to continue to use this information for program planning and priority setting over the next year.

Yet, our work in this regard is truly a "work-in-progress". Preparing this report has been a co-operative effort between epidemiological and other research staff working with program staff to identify the indicators and services to be included in the report. In the process of doing so, we have also identified areas where there are important gaps in data (see Appendix D).

Therefore, it is our intention over the next three years, to develop mechanisms to address some of these gaps. By doing so, we hope to further strengthen our program planning and priority setting in the coming years.

Our plans to "fill in the gaps" are part of a long history of change in the continuum of information/data gathering, analysis, interpretation and follow-up use. Traditionally, public health has used data on births, deaths, hospitalization and communicable diseases to describe the health of the population. These data were readily available and described the important health issues of the day. As our understanding of public health issues expanded, the need for broader data became apparent. Targeted surveys were then added to collect data about specific health problems in the community and related health risk factors and behaviours. Surveys, however, have their shortcomings: for example, reaching only part of the population, addressing only some issues, too costly to repeat, etc. Over the last part of the 20th century, our understanding of public health has expanded to include the importance of looking at social determinants of health. Health indicators now need to be looked at relative to social determinants and disparities.

The indicators we have used in this report are based on all of the above methods of information gathering and analysis, each contributing important information to priority setting and program planning in public health. It is through this complementary process of information gathering that gaps in data were identified in the following areas.

Disparities in Health: In general, most data sets do not include socio-economic information about the individual or geographic information at the census tract level. This prevents an analysis of these data according to income, education and other determinants of health. When health data are available at the census tract level we are able to compare health status for census tracts with different levels of socio-economic status. Increasingly, data are being captured with census tract or postal code information allowing for more of this type of analysis in the future.

Incidence Data: The burden of illness (as measured by incidence or prevalence) for most diseases in the population is unknown. Currently, the most consistent measures of burden of illness come from mortality data, hospitalization data and specific disease registries, of which there are only a few. Not all diseases, however, result in hospitalization or death and for those that do, not all cases of the disease will show up in these statistics.

In addition, there is currently no trustworthy data for prevalence of diseases such as mental illness, diabetes and asthma. The exception to this is Cancer Care Ontario's registry of cancer cases, which provides an ongoing, consistent source of data for these diseases (see Appendix E for data limitations). In the area of communicable disease, only those that are legally reportable are captured in public health data sets. And, of these, reporting is usually less than complete (e.g. not all victims of food-borne illness report their condition to a doctor or to public health).

Fortunately, the Canadian Community Health Survey (CCHS) will provide us with some additional up-to-date data; however these may be limited in their usefulness.

Health Behaviours and Risk Factors: An important area of missing or old data is related to issues such as food consumption patterns, physical activity, use of safety equipment (e.g. helmets), physical environment factors, misuse of over-the-counter drugs, breast feeding, etc. The CCHS mentioned above will address only some of these data gaps.

TPH is planning on joining the new Rapid Risk Factor Surveillance System project in Ontario, which started implementation in January 2001. This will provide us with data on issues of immediate interest to public health program planning, including sun safety, heart disease, cancer risks, food security, etc.

While TPH will continue to use the currently available data for our program planning, we are also committed to enhancing it. We base our programs on evidence, and more timely and comprehensive data will help to provide broader evidence for future endeavours. Clearly, research and program evaluation findings help us to identify effective and efficient means by which to address population health needs. TPH will continue, as ever, to underscore our commitment and develop our capacity to practice evidence-based decision-making.

Notes:

Topic Index

Adults

- Alcohol Consumption 14
- Body Mass Index (BMI) 9
- Breads and Cereals 10
- Breast Cancer 11
- Breastfeeding 16
- Cervical Cancer 11
- Dental Health 3, 6, 18
- Education Level 5
- Family Structure 4, 5, 16, 19
- Food Bank 10
- Fruits and Vegetables 10
- Heart Disease 8
- Homelessness 19
- Income 4, 5,6, 23
- Maternal Mortality 2
- Mental Health 20
- Milk Products 10
- Motor Vehicle Crashes 13
- Parenting 16,
- Physical Activity 9
- Reproductive Health 15
- Sexually Transmitted Diseases (STDs) 23
- Skin Cancer 11
- Smoking 12
- Tobacco Use 12
- Tuberculosis 22

Air Quality

- Air Pollution (Indoor and Outdoor) 28
- Carbon Monoxide 28
- Environmental Contaminants 7
- Formaldehyde 28
- Ground-Level Ozone 28
- Hospitalization and 28
- Nitrogen Dioxide 28
- Particulate Matters 28
- Phthalates 28
- Smog 28

Alcohol

- Adults 14
- Students 14
- Municipal Alcohol Policy (MAP) 14
- Party In The Right Spirit (Youth) 14
- Raves 14

Animal Services

- Adoptions 30
- Animal Bites 30
- Bite Prevention Education Program 30
- By-law Enforcement 30
- Headquarters 30
- Licenses 30
- Pet Identification 30
- Pet Reunification 30
- Rabies 30
- Raccoon Rabies 30
- Shelters 30

Cancer

- Breast Cancer 11
- Cancer Rates 6
- Cervical Cancer 11
- Health Disparities 11
- Lung Cancer 12
- Mammograms 11
- Pap Test 11
- Prevention 11
- Risk Factors 11
- Screening 11
- Skin Cancer 11
- Tobacco Use and 6, 12
- Toronto Cancer Prevention Coalition 11
- Ultraviolet Radiation (UVR) 11

Children

- Blood Lead Levels 29
- Body Mass Index (BMI) 9
- Breastfeeding 16
- Child Abuse 20
- Dental Health 3, 6, 18
- Digestive Diseases 16
- Early Years Community Co-ordinators Initiative 16
- Family Structure 4, 16
- Health Hazards and 29
- Healthy Babies Healthy Children Program 16
- Heart Health 8
- Homelessness 19
- Hospitalization 16
- Immunization 21
- Income Disparities 16
- Infant Hearing Screening 16
- Injury Prevention 13
- Kids and Sex 24
- Lone-Parent Families 16
- Measles, Red 21
- Mental Health 20
- Mentoring (One-on-One) 20
- Nutrition 10
- Obesity (BMI) 9
- Parenting 16
- Perinatal Conditions 16
- Pertussis (Whooping Cough) 21
- Physical Activity 8, 9
- Postpartum Follow-Up 16
- Poverty 4
- Respiratory Diseases 16

(Child Health Cont'd)
Sexual Health 24
Smoking 12
Social Assistance 16
Speech and Language 16
Stress 20
Tobacco Use 12
Vaccination 21

Communicable Disease/Infectious Disease
Bioterrorism 25
Children 21
Cyclosporiasis 25
Emerging Diseases 7, 25
Food Poisoning 26
Gastrointestinal Diseases 25, 26
Health Promotion 21
Hepatitis A 25
Immunization 21
Infection Control in Institutions 25
Influenza 21, 25
Institutions, Infection Control 25
Invasive Group A Streptococcus 25
Meningitis/Meningococcal Disease 25
Outbreaks 25, 26
Pandemic Influenza Contingency Planning 25
Pertussis (Whooping Cough) 21
Red Measles 21
Respiratory Outbreaks 25
Schools 21
Surveillance and Follow-Up 25
Tuberculosis 6, 22
Vaccine Coverage 21
Vaccine Handling and Storage 21
Vaccine Preventable Diseases 21
Vaccine, Adverse Reactions 21
Verotoxin Producing E.Coli (Hamburger Disease) 26
West Nile Virus 25

Dental Health
Adults 3, 6, 18
Care, Dental 18
Caries (Cavities) 18
Children 3, 6, 18
Chronic Inflammation 18
Clinics 18
deft 18
Dental Decay 18
Dentures 18
DMFT 18
Edentulism 18
Gum Infection 18
Immigrants 18
Insurance 18
Periodontal Disease 18
Preventative and Treatment Services 18
Screening 18
Seniors 18
Youth 18

Drug Abuse
Cannabis 14
Drug Awareness Week 14
Drug Use 14
Ecstacy (MDMA) 14
Grants 14
Party in the Right Spirit (Youth) 14
Raves 14
Youth/Students 14

Food Safety
Campylobacter 26
Disclosure System 3, 26
Environmental Contaminants 7
Food-Borne Illness 26
Food Handler Certification 26
Food Handling 26
Food Safety Blitz 26
Food Safety Standards 8, 26
Gastrointestinal Diseases 25, 26
Inspections 3, 26
Salmonella 26
Verotoxin Producing E.Coli (Hamburger Disease) 26

Health Hazards
Blood-Lead Levels 29
Brownfields 29
Child Health 29
Complaints 29
Contamination 29
Emergency Preparedness 29
Hazardous Spills 29
Investigations 29
Pesticides 29
Site Redevelopment 29

Heart Health
Diseases of the Circulatory System 3
Health Disparities 8
Hypertensive Heart Disease 8
Ischaemic Heart Disease (IHD) 6, 8
Ontario Heart Health Program 8
Nutrition and 10
Physical Activity 8, 9
Restaurants (Eat Smart) 8
Schools 8
Stroke (Cerebrovascular Disease) 8

Homelessness
Adults 19
Children 19
Drop-Ins 19

(Homelessness cont'd)
Family Structure and 19
Food Banks 10, 19
Food Programs 19
Homeless Health Reference Group 19
Homelessness 5, 10, 19
Hostels 19
Housing 19
Mental Health 19
Out-Of-The-Cold Programs 19
Parent Relief Program 19
Poverty 4, 5, 10
Prevention 19
Public Health Support 19
Shelters 19
Social Assistance 19
Unemployment 19
Young Parents – No Fixed Address 19
Youth 19

Immigrants and Refugees
Dental Health 18
HIV 23
Immigrants and Refugees 4, 6
STDs 23
Tuberculosis 22

Injury Prevention
At Home Alone 13
Bike Safety 13
Children 13
Cycling Injuries 13
Falls In Seniors 13
Injury Prevention Week 13
Motor Vehicle Crashes 13
Prevention 6
Safety and Prevention 13

Mental Health and Violence Prevention
Adult 20
Child Abuse 20
Children 20
Families 20
Mental Health Promotion 20
Mentoring (One On One Program) 20
Opening Doors – Youth Violence Prevention Pgm . 20
Stress 20
Suicide 20
Violence 20
Youth 20

Nutrition
Breads and Cereals 10
Cancer 11
Children 10
Cooking Club For Kids 10
Cooking Healthy Together 10
Eat Smart Restaurants 8
Education 10
Ethno-Cultural Nutrition 10
Fruits and Vegetables 10
Food Access and Security 10, 19
Food Banks 10, 19
Food Skills 10
Heart Health 8
Milk Products 10
Nutrition for School-Aged Children 8, 10
Poverty 10, 19

Parenting
Breastfeeding 16
Children 16
Family Structure 4, 19
Parenting Support 16
Postpartum Follow-Up 16
Young Parents 19
Youth 16, 19

Physical Activity
Adults 8, 9
Active and Safe Routes To School Program 9
Body Mass Index (BMI) 9
Cancer 11
Children 8, 9
Energy Expenditure 9
Heart Health 8
Obesity 9
Physical Activity 8, 9, 11
Youth 9

Reproductive Health
Adults 15, 16
Health Disparities 15
Healthiest Babies Possible Program (HBP) 15
Healthy Babies Healthy Children Program (HBHC) 15
Income and 15
Infant Mortality 3
Low Birth Weights 6, 15
Maternal Mortality 2
Pregnancy 15, 24
Prenatal Classes 15
Teen Pregnancy 24

Seniors
Activity Limitation 17
Aging Population 5, 17
At-Risk Seniors 17
Chronic Disease Prevention 17
Communicable Disease 17
Demographics 5
Dental Disease 17
Dentures 18

(Seniors cont'd)
- Falls Prevention 13
- Home Support 17
- Hospitalization 17
- Injury 13, 17
- Living Alone 5, 17
- Low-Income Seniors 6, 17

Sexual Health
- Adults 24
- AIDS 24
- Birth Control 24
- Counselling 24
- ECP (Emergency Contraceptive Pill) 24
- Grants 24
- HIV 24
- Income 23
- Kids and Sex 24
- Pregnancy 15, 24
- Raising Sexually Healthy Children 24
- Sexual Activity 24
- Sexual Health Clinics 24
- Sexually Transmitted Diseases (STDs) 24
- Teen Pregnancy 24
- Testing – STD, Pregnancy 24
- Youth 24

STDs and HIV
- Adults 23
- AIDS 23
- AIDS and Sexual Health Info Hotline 23
- Chlamydia 23
- Clinics, Sexual Health 23, 24
- Counselling 23, 24
- Drug Use and 23
- Gonorrhoea 23
- HIV 23
- Infectious Syphilis 23
- Immigrants and Refugees 23
- Income 23
- The Works 23
- Treatment 23
- Youth 24
- Sexually Transmitted Diseases (STDs) 23, 24
- Testing 24

Smoking
- Adults 12
- Breathing Space 12
- Children 12
- Community Based Smoking Cessation 12
- Cost Of Tobacco Use 12
- Harmonized Environmental Tobacco Smoke (ETS) By-law Initiative 6, 12
- Heart Health 8
- Lung Cancer 12
- Not To Kids 12
- Second Hand Smoke 12
- Smoke-Free Restaurants 6, 12
- Smoking Rates (Students, Adults) 12
- Tobacco Control Act (TCA) 12
- Tobacco Related Issues 3, 12
- Youth 12

Tuberculosis
- Case Management 22
- Contact Follow-Up 22
- Directly Observed Therapy 22
- Drug Resistant Tuberculosis 22
- High Risk Groups 22
- Homeless 22
- Incidence/Prevalence 6, 22
- New Immigrants 22
- Prevention 22
- Refugees 22

Water Quality
- Bacteria 27
- Beaches 27
- Drinking Water 27
- Environmental Contaminants 7
- Inorganic Chemical (Aluminium) 27
- Pesticide (Atrazine) 27
- Recreational Water 27
- Run-Off 27
- Sewers 27
- Swimming Pools and Spas 27
- Trihalomethanes (THM) 27
- Water-Borne Illness 27

Youth
- Alcohol Use 14
- Drug Abuse 14
- Dental Health 6
- Homelessness 19
- Mental Health 20
- Parenting 16, 19
- Physical Activity 9
- Population 5
- Pregnancy 24
- Raves 14
- Sexual Activity 24
- Sexual Health 23, 24
- Sexually Transmitted Diseases (STDs) 24
- Smoking 12
- Unemployment 4
- Vaccination 21
- Violence 20

Indicator Index

Activity level 9
Activity limitations and seniors 17
Aging population 4, 17
Alcohol – harmful or hazardous use – adults 14
Alcohol use – students 14
Animal bites 30
Animal licenses 30
Animal shelter use 30
Attempted suicide – youth 20
Beach posting 27
Binge drinking – students 14
Blood-lead levels and children 29
BMI and adults 9
BMI and children 9
Breast cancer incidence 11
Breastfeeding initiation 16
Campylobacter incidence 26
Cervical cancer incidence 11
Child hospitalization 16
Child injury in the home 13
Chlamydia incidence 23
Consumption of breads and cereals 10
Consumption of fruits and vegetables 10
Consumption of milk products 10
Cost of tobacco use 12
Cycling injury – hospitalization 13
Demographics 4
Dental disease and seniors 18
Drinking until drunk – students 14
Drug use – students 14
Edentulism – seniors 18
Education level 4
Emergency shelter use 19
Falls in seniors – hospitalization 13
Family structure 4, 16
Food bank usage 10, 17, 19
Gonorrhoea incidence 23
Hazardous spills 29
Health disparities and suicide 20
Health disparity and dental disease 18
Health disparity and heart disease 8
Health disparity and low birth weight 15
Health disparity and mammograms 11
Health disparity and STDs 23
Health disparity and teen births 24
Health hazard complaints 29
Hepatitis A incidence 25
HIV testing 23
Home language – not English or French 4
Housing 5
Hypertensive diseases mortality 8
Income disparity and families 16
Income 4, 5
Infectious syphilis incidence 23
Influenza immunization – LTCF 21
Influenza outbreaks 21
Injection drug users prevalence 23
Invasive group A streptococcus incidence 25
Ischaemic heart disease mortality 8
Living conditions of seniors 17
Low birth weight rate 15
Lung cancer incidence 12
Meningitis incidence 25
Mental health problems – children 20
Motor vehicle crashes – hospitalization 13
Multiple drug resistant TB 22
New immigrants 4
Outbreaks in institutions 25
Pertussis incidence 21
Pesticide exposure – children 29
Pet reunification 30
Pet sterilization 30
Population growth 4
Poverty 4
Pregnancy rate – all ages 15
Pregnancy rate – teens 24
Red measles incidence 21
Restaurant food safety compliance 26
Salmonella incidence 26
Sexual activity – teens 24
Skin cancer incidence 11
Smog alert days 28
Smoke free restaurants (voluntary) 12
Smoking rates – adults 12
Smoking rates – students 12
Social assistance 4, 19
Stroke mortality 8
TB by place of origin 22
TB incidence 22
TB testing in shelters 22
TCA complaints 12
THMs in water 27
Tooth decay – children 18
Urgent dental problems 18
Vaccine coverage in school aged children 21
Verotoxin producing E coli incidence 25
Violent offences – youth 20

Notes:

Appendices

Appendix A: Tobacco Use and Alcohol Use Data from CAMH 41

Appendix B: References 43

Appendix C: Sources of Data 45

Appendix D: Gaps in Data Identified Through this Report 49

Appendix E: Supporting Data .... Available on request

Appendix A: Tobacco Use and Alcohol Use Data from CAMH

This Appendix presents the details of data presented in section IV: "Chronic Disease, Injury and Substance Abuse Prevention" sub-sections 5: "Tobacco Use Prevention" and 7: "Alcohol and Drug Abuse Prevention".

1) <u>Tobacco Use</u> (Page 12)

a) Tobacco Use Among Students in Grades 7 through 13, Toronto and Ontario, 1999

Description	Toronto		Ontario	
	%	$CI_{.95}$*	%	$CI_{.95}$*
Smoking Rate	24.8	17.1 – 34.5	29.2	26.8 – 31.8
Smokes more than 20 cigarettes per day – Smokers only	10.3	6.2 – 16.5	5.6	NA+

Source: 1. Special data run for Toronto from the 1999 Ontario Student Drug Use Survey, E.M. Adlaf, Addiction Research Foundation, Centre for Addiction and Mental Health, 2001

2. "Drug Use Among Ontario Students – Findings from the OSDUS 1877 – 1999", E.M. Adlaf, A. Paglia and F.J. Ivis, Addiction Research Foundation, Centre for Addiction and Mental Health, 1999

b) Tobacco Use Among Adults (Aged 18 years and over), Toronto and Ontario, 1999

Description	Toronto		Ontario	
	%	$CI_{.95}$*	%	$CI_{.95}$*
Smoking Rate – Total Population	21.0	16.9 – 25.8	24.5	23.5 – 27.4
Smoking Rate – Males	24.9	18.5 – 32.6	28.2	25.2 – 31.3
Smoking Rate – Females	17.3	12.5 – 23.4	22.9	20.4 – 25.5

Source: 1. Special data run for Toronto from the 1999 Ontario Drug Monitor Survey, E.M. Adlaf, Addiction Research Foundation, Centre for Addiction and Mental Health, 2001

2. "1998 Ontario Drug Monitor: Alcohol, Tobacco and Illicit Drug Use, 1977 – 1998", E.M. Adlaf, A. Paglia and A. Ialomiteanu, Addiction Research Foundation, Centre for Addiction and Mental Health, 1998

* **$CI_{.95}$** is the 95% confidence interval; in surveys this means that we are 95% sure that the true value is found in the specified range.

\+ **NA** – Confidence intervals were not available for these values.

(Appendix A Cont'd)

2) Alcohol Use (Page 14)

a) Alcohol Use Among Students in Grades 7 through 13, Toronto and Ontario, 1999

Description	Toronto		Ontario	
	%	$CI_{.95}$*	%	$CI_{.95}$*
Consumed alcohol in previous 12 months	59.4	52.3 – 66.1	67.5	65.2 – 69.7
Frequency of alcohol use in past 4 weeks among drinkers				
1–2 times in past 4 weeks	40.5	34.5 – 46.8	45.1	NA+
1-2 times per week	16.6	9.8 - 26.7	19.6	NA+
3-4 times per week	4.9	2.8 – 8.5	5.4	NA+
5-6 times per week	3.0	1.4 – 6.5	2.2	NA+
Daily	1.3	0.5 – 3.7	1.1	NA+
Frequency became drunk in past 4 weeks among drinkers				
Once	9.1	5.8 – 13.9	16.6	NA+
2 times	7.2	3.9 – 13.0	9.9	NA+
3 times	4.6	2.1 – 9.6	5.0	NA+
4 times	1.1	0.5 – 2.8	3.0	NA+
5+ times	4.3	1.9 – 9.5	4.0	NA+
Frequency of heavy drinking (5 or more drinks on a single occasion) in past 4 weeks among drinkers				
Once	11.9	9.0 – 15.5	16.3	NA+
2 times	7.8	4.4 – 13.4	10.6	NA+
3 times	4.0	2.7 – 6.0	5.1	NA+
4 times	2.6	0.7 – 9.3	3.5	NA+
5+ times	6.5	3.1 – 12.9	6.7	NA+

Source: 1. Special data run for Toronto from the 1999 Ontario Student Drug Use Survey, E.M. Adlaf, Addiction Research Foundation, Centre for Addiction and Mental Health, 2001

2. "Drug Use Among Ontario Students – Findings from the OSDUS 1877 – 1999", E.M. Adlaf, A. Paglia and F.J. Ivis, Addiction Research Foundation, Centre for Addiction and Mental Health, 1999

b) Alcohol Use Among Adults (Aged 18 years and over), Toronto and Ontario, 1999

Description	Toronto		Ontario	
	%	$CI_{.95}$*	%	$CI_{.95}$*
Reported drinking in previous 12 months	71.9	66.7 – 76.6	79.1	77.2 – 80.9
Met the definition of harmful or hazardous drinking**	12.9	9.5 – 17.1	13.6	12.1 – 15.3

** Harmful or hazardous drinking: This means a pattern of drinking that is causing health problems now (harmful) or increases the probability of health and physical problems in the future (hazardous).

Source: 1. Special data run for Toronto from the 1999 Ontario Drug Monitor Survey, E.M. Adlaf, Addiction Research Foundation, Centre for Addiction and Mental Health, 2001

2. "1998 Ontario Drug Monitor: Alcohol, Tobacco and Illicit Drug Use, 1977 – 1998", E.M. Adlaf, A. Paglia & A. Ialomiteanu, Addiction Research Foundation, Centre for Addictions & Mental Health, 1998

* **$CI_{.95}$** is the 95% confidence interval; in surveys this means that we are 95% sure that the true value is found in the specified range.

+ **NA** – Confidence intervals were not available for these values.

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Appendix C: Sources of Data

The People of Toronto

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Summary - The State of the City's Health

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Chronic Disease, Injury and Substance Abuse Prevention

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Appendix D: Gaps in Data Identified Through this Report

In General Through-out All Sections

- Indicators of disparity in health
- Incidence and prevalence of disease

Chronic Disease, Injury and Substance Abuse Prevention

- Heart disease risk factor prevalence
- Physical activity levels
- Physical activity limitation
- Food consumption patterns
- Access to affordable, appropriate food that is close by
- Prevalence of hunger by age and socio-economic factors
- Cancer risk factor prevalence
- Prevalence of the various cancer screening techniques (both physician and self)
- Incidence of injury that does not require ER or hospitalization
- Circumstances of injury including the appropriate denominator (e.g. injury in latch-key kids)
- Physical environment and other risk factors for injury
- Use of safety equipment (e.g. helmets, knee / elbow guards, canes, seatbelts …)
- Over-the-counter drug misuse
- Health outcomes directly and indirectly associated with drug use

Family Health

- Non-hospitalization morbidity by age
- Modifiable risk factors by age
- Number and description of high-risk pregnancies
- Breast feeding initiation, duration and reason for stopping
- Child developmental milestones
- Parenting skills
- Morbidity among the homeless
- Prevalence of modifiable risk factors as they relate to homelessness
- Morbidity incidence/prevalence of mental health problems
- Measures of social supports, self-esteem, mastery, mood, distress, work stress, depression
- Incidence/prevalence of non-criminal acts of violence
- Incidence/prevalence of abuse (child, spousal, elder …)

Communicable Disease Control and Sexual Health

- Link of incidence of vaccine preventable disease with immunization status (vaccine failure)
- Adult immunization coverage in the general population
- Prevalence of risk factors associated with various communicable diseases

Health and the Environment

- Health hazard exposure by type of exposure and sub-population (age …)
- Prevalence of pet rabies vaccination (need denominator)
- Indoor and outdoor uses of pesticides in residential areas

Notes: