Council Direction:
Some members of the Board of Health have expressed interest in receiving information about rates of cancer and related trends. This report includes the most prevalent types of cancer in Hamilton, with comparisons to Ontario, as well as an update on related Public Health Services activities.

Information

**Common Cancers – Rates and Recommendations:**
Hamilton has higher than the average Ontario rates of the most common cancers, including lung, colorectal, and breast, related largely to Hamilton’s aging population (colorectal and breast cancers are more likely to develop in older age groups, i.e. over age 50); and, Hamilton’s higher rates, compared to the rest of Ontario, of risk factors such as obesity, tobacco use and alcohol consumption (Cancer Care Ontario, 2006). For more details, please see Appendix A.

**Lung Cancer:**
Lung cancer, the most preventable of all cancers, remains the leading cause of cancer death for both men and women. It is estimated that cigarette smoking accounts for 85% of all new cases of lung cancer in Canada (Health Canada, 2006). There are currently no effective Screening programs for lung cancer.

**Breast Cancer:**
Breast cancer is the most common cancer diagnosed in Canadian women and is second only to lung cancer as the most common cause of cancer death among women over age 50. Screening
recommendations in Canada include a mammogram every two years in women over age 50. Current evidence suggests that such screening could reduce breast cancer mortality by as much as 25% (Cancer Care Ontario, 2006).

**Cervical Cancer:**
Cervical cancer is the 10th most common cancer in Ontario females of all ages, however, it is the second most common cancer among women under 50 years of age (National Cancer Institute of Canada, Canadian Cancer Statistics, 2006). Woman who are older (aged 40-59), immigrant, Aboriginal or have a lower socio-economic status are at higher risk of developing cervical cancer, primarily because they have not been screened at all or have been screened irregularly (Health Canada, 2006; Cancer Care Ontario, 2005).

**Colorectal Cancer:**
Colorectal cancer is the second leading cause of death from cancer in Canadian men and women. Approximately 90% of all cases are diagnosed in men and women over the age of 50. Regular screening with the Fecal Occult Blood Test (FOBT) can reduce colorectal cancer death rates by between 15% and 33% (Cancer Care Ontario, 2006).

**Prostate Cancer:**
Prostate cancer is the most common cancer diagnosed in Canadian men and the third most common cancer-related death. More than 98% of prostate cancer cases are diagnosed in men 50 years of age or older. Several expert panels recommend prostate specific antigen (PSA) testing for men who already have prostate cancer or whose doctors suspect they have it. The panels do not currently recommend PSA testing for healthy men with no symptoms, unless they are at high risk for the disease. High risk groups include those males of African decent and those with a family history of prostate cancer. Prostate screening recommendations state that men over the age of 50 should discuss with their doctor the potential benefits and risks of early detection of prostate cancer using the PSA test and digital rectal examination (DRE). This reflects scientific opinion that the value of testing for early prostate cancer is insufficient to recommend that average-risk men undergo regular screening (Cancer Care Ontario, 2006).

**Mandate/standards:**
Public Health Services’ activities are guided by the Ontario Mandatory Health Programs and Services Guidelines (MHPSG) (Ministry of Health, 1997).

To meet the Early Detection of Cancer guidelines, the Chronic Disease Prevention - Adult Program works to increase early detection of cancer by working with women and the community to reduce barriers to breast and cervical screening. Health Units in Ontario are also mandated to meet the Equal Access requirement to increase access to Public Health programs for those who are underserved.

The Chronic Disease Prevention Programs address risk reduction of cancer within the Chronic Disease Prevention mandate by promoting healthy behaviours such as healthy eating, active living, and smoke free environments. This mandate is clearly supported by a report released by Cancer Care Ontario and the Canadian Cancer Society (2006), which indicates that unhealthy eating, physical inactivity and obesity contribute to about 30% of cancer deaths. As well, the Tobacco Control Program has a mandate to reduce morbidity and mortality associated with tobacco use, utilizing the three pillars of tobacco control - prevention, enforcement, and cessation.

Currently, a draft of the new revised Ontario Public Health Standards (2007) is being reviewed.
These guidelines include the above mandates as well as the mandate to promote colorectal cancer screening.

**Overview of Program Activities:**

**Cancer Prevention**

All cancer prevention messaging through Public Health Services promotes healthy eating, an active lifestyle, weight management and smoke free living as part of risk reduction of cancer.

**Breast cancer screening**

Promotion of mammography every two years for women 50 years of age and older through:
- provision of resources to promote Ontario Breast Screening Program
- a media campaign (the campaign of 2006 resulted in almost 300 women having a mammogram at OBSP)
- multicultural educational sessions combined with mass media via the Women’s Health Educator program
- collaboration with interagency network to promote Aboriginal breast health, funded by the Canadian Breast Cancer Foundation
- education via community presentations and workshops

**Cervical cancer screening**

Promotion of screening of women of all ages who are, or ever have been sexually active, for cancer of the cervix by having regular Pap tests through:
- promotion of increased access to Pap tests at Public Health Services Sexual Health and Well Women clinics
- multicultural educational sessions combined with media via the Women’s Health Educator Program
- development of display and promotional items, and
- education through community presentations and media

**Women’s Health Educators**

Promotion of screening and health promotion for women of various cultural groups, through:
- provision of education sessions on how to stay healthy (cancer prevention and screening) and how to access health care services (particularly cancer screening)
- accompanying women to cancer screening appointments for cultural interpretation and support

In 2006, Women’s Health Educators provided 48 free education sessions (in Chinese, Vietnamese, Punjabi, Hindi, Urdu and Arabic languages) to help an estimated 700 multi-cultural women and 80 men.

**Colorectal and prostate screening**

- provision of education about cancer screening guidelines
- coordination of Hamilton’s participation in Cancer Care Ontario Fecal Occult Blood Test Pilot project to promote colorectal cancer screening
- involvement in the provincial Stakeholder Communication Workgroup regarding the new Ontario Colorectal Cancer Screening Program
Tobacco Control Program

- support of tobacco use prevention through both curriculum support and youth engagement strategies; in 2006, the Lungs Are For Life tobacco use prevention program was promoted to all elementary and secondary teachers in the Hamilton area; as well, all secondary schools in the Hamilton area received peer-to-peer education initiatives.
- Implementation of strategies serve to limit youth access to tobacco products and protect the public from exposure to second-hand smoke. The Smoke Free Ontario Act came into effect in May of 2006; staff from the Healthy Living and Health Protection divisions continue to educate the population about the Smoke Free Ontario Act and enforce the new legislation.
- increasing the capacity of local health care professionals and service agencies to provide smoking cessation programs and services.
- provision of information and referrals to the public through the City of Hamilton Tobacco Hotline.

Resources:
There are three full time equivalents Public Health Nurses, and four (South Asian, Chinese, Arabic and Vietnamese) Women’s Health Educators who work part-time to promote prevention and early detection of cancer.

Tobacco Control has 27.3 FTEs (18.70 FTE are 100% funded through the Ministry of Health Promotion Smoke-Free Ontario Strategy – including 21 part-time youth Peer Leaders which equate to approximately 7.7 FTE).

Registered Dietitians and Physical Activity Health Promotion specialists are available for consultation regarding healthy eating and active living.

Comparison to Peer Communities:
Hamilton:
- has a higher than the average Ontario rates of the most common cancers - lung, colorectal, and breast.
- has an aging population and are an older population than the Ontario average; most cancers are more likely to develop in older age groups, i.e. over age 50 (including colorectal, breast and prostate cancers).
- has higher rates than the rest of Ontario of cancer risk factors such as obesity, tobacco use and alcohol consumption (Cancer Care Ontario, 2006).
- has a high immigrant population of over 24%, one of the highest in Ontario; therefore, staff have promoted programs within underserved communities through the Women’s Health Educator program. The Women’s Health Educator program is unique to Hamilton; however the success achieved through this program has contributed to the development of other similar programs in Ontario, particularly Peel Public Health Unit.

Please see Appendix A for comparisons of cancer incidence and mortality rates in Hamilton and Ontario.

Emerging Issues/Opportunities:
With the recent announcement of a Colorectal Cancer Screening Program in Ontario, Public Health Services must prepare to increase awareness of this provincial program to health professionals and the community. The Women’s Health Educator program will also need to
expand educational sessions to address colorectal screening and chronic disease prevention as identified by specific ethno-cultural communities.

According to Cancer Care Ontario, it is clear that programs need to apply learnings from tobacco control to increase the impact and to effectively control other known important cancer risk factors. The approach most likely to succeed will involve integrated approach and comprehensive set of interventions including education and social marketing, policies to create a social environment that supports positive change, and programs to assist people in making healthy choices.

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Prostate cancer remains one of the most commonly diagnosed cancers among Hamilton men. In the year 2003, the incidence of prostate cancer was 243 cases per 100,000 population. This rate was slightly lower than the overall incidence rate of 291 cases per 100,000 population in the province of Ontario.

The second and third most frequently diagnosed cancers in men are colorectal and lung cancers. Cancer of the colon and rectum is the leading cause of cancer morbidity in Hamilton males 40 years of age or older, with a crude incidence rate of 148.0 cases per 100,000 population. This rate is higher than that of Ontario (133.6 cases per 100,000 population).
Cancers of the lung and bronchus represent the major leading cause of cancer death among Hamilton men 40 years of age or older, with a mortality rate of 182.2 deaths per 100,000 population. This crude death rate is significantly higher than the death rate in Ontario (128.4 deaths per 100,000 population).
Breast cancer is the most commonly diagnosed cancer among Hamilton women 40 years of age or older, with an incidence rate of 258.4 cases per 100,000 population, compared with a corresponding rate of 236.8 cases per 100,000 population in the province of Ontario.

The second and third most frequently diagnosed cancers in women are lung and colorectal cancer.

Figure 3: Cancer incidence crude rates for female population age 40+ years by site of cancer, City of Hamilton and Ontario, 2003
Figure 4: Cancer mortality rates for female population age 40+ years by site of cancer, City of Hamilton and Ontario, 2003

- Most notably, the number one cause of death due to cancer in women is lung and bronchus cancer with a mortality rate of 92.5 deaths per 100,000 population in Hamilton. The second and third leading causes of cancer death are breast and colorectal cancers.
- Of notable importance is the marked difference in death rates pertinent to these cancers among Hamilton females (40+ years of age) compared with their female counterparts in the province of Ontario.
Between 2006 and 2016, the number of Ontarians diagnosed with cancer is expected to grow from about 62,000 to 86,000.

The increase in the number of cases is mostly attributed to a growing population and an aging population (namely more people at the average age for onset of cancer).

Not surprisingly, Ontario’s most populated and fastest growing LHINs (Central, Central East and Hamilton) have the largest absolute numbers of current and expected cancer cases.