

# Niagara Region Cancer: Top 3 Killers

The most common cancers in the Region in men are prostate, colorectal, and lung. Breast cancer, in addition to colorectal and lung, are the most frequent cancers afflicting women. While the mortality rates of prostate cancer, breast cancer, and colorectal cancers have been decreasing since 1986, the incidence of breast and lung cancer in women and prostate cancer in men is on the rise. Incidence rates of colorectal cancer remain unchanged for both men and women.

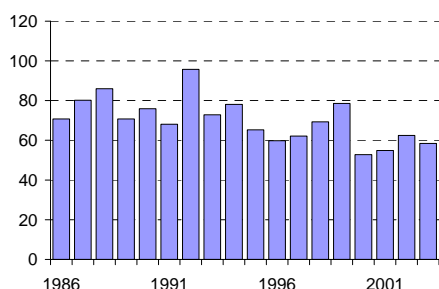
## Lung Cancer Risk Factors:

Lung cancer includes tumours of the trachea, bronchi and lung. Virtually all lung cancers arise in epithelial tissue, and most originate from the lining of the bronchi. Active and passive exposure to tobacco smoke is the foremost cause of lung cancer, but a small proportion is the result of occupational exposures to known asbestos and benzene. Long-term exposure to particulate matter (air pollution) increases the mortality risk of lung cancer (Jerrett et al., 2005; Krewski et al., 2005; Pope et al., 2002).

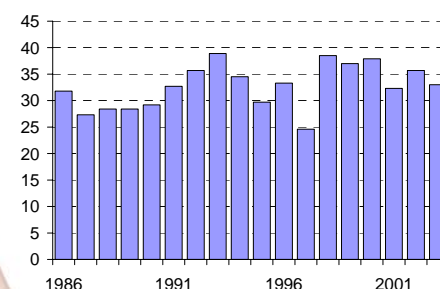
## Lung Cancer Statistics:

Among Women in the Niagara Region, lung cancer incidence rates have increased significantly, approximately 1.3% per year since 1986 (CI: 0, 2.6). With increasing incidence, the mortality rates have remained stable. When comparing women to men, the rates in women are nearly half of those in men but incidence rates in men are decreasing at approximately 1.7 % per year (CI: -2.5, -0.9). Mortality in men has also been decreasing at approximately 1.9% per year (CI: -3.1, -0.7), while the mortality rates in women have remained stable. The patterns for both men and women in the Niagara region follow very similar patterns to Ontario for both incidence and mortality.

Male Lung Cancer Mortality Rate / 100,000



Female Lung Cancer Mortality Rate / 100,000



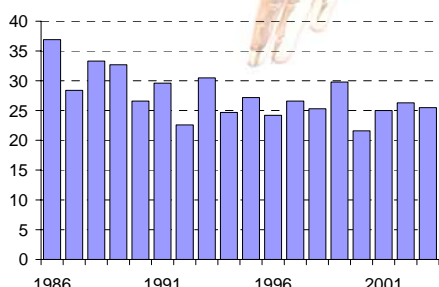
## Colorectal Cancer Risk Factors:

Risk factors for colorectal cancer include: 1. Age, most people who have colorectal cancer are over age 50; 2. A high fat, high calorie and low fibre diet; 3. lack of physical activity; 4. Certain kind of polyps are believed to lead to colorectal cancer; 5. Personal history-people who have had colorectal cancer, as well as ovarian, uterine, or breast cancers, have a slightly increased risk for colorectal cancer; 6. Family history-individuals with first-degree relatives who have had colorectal cancer have an increased risk for colorectal cancer; and 7. Ulcerative colitis-people with ulcerative colitis (inflamed lining of the colon) (WCRF-AICR, 1997; NCI<sup>d</sup>, 2004).

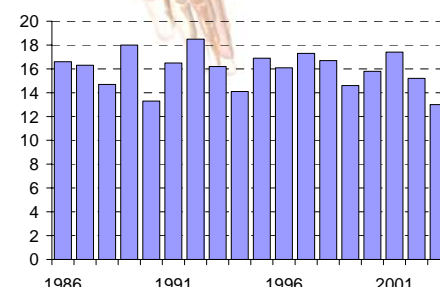
## Colorectal Cancer Statistics:

While there hasn't been a statistically significant change in the incidence of colorectal cancer in women or men in the Niagara Region, the downward trend parallels that of Ontario's decreasing trends. In the Niagara Region, the mortality rate for men has significantly decreased at approximately 1.6% per year between 1986 and 2003 (CI = -2.6,-0.6), while the mortality rate for females has remained relatively stable.

Male Colorectal Cancer Mortality Rate / 100,000



Female Colorectal Cancer Mortality / 100,000



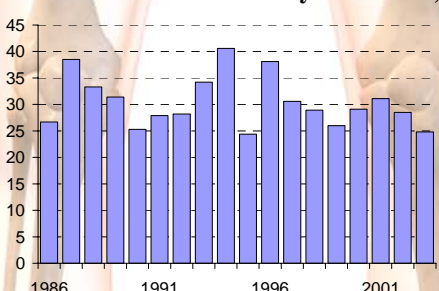
## Prostate Cancer Risk Factors:

The only fully established risk factors for prostate cancer are increasing age, African-American ethnicity, and family history of the disease. Research has almost conclusively established a link for male hormones (androgens) in the causation of prostate cancer, but the effects of these hormones are not fully understood. Although no lifestyle factors (including diet and exercise) have been conclusively established as prostate cancer risk or protective factors, there is some evidence that a diet high in animal fat may account for differences noted in the incidence between different countries (NCI<sup>a</sup>, 2003).

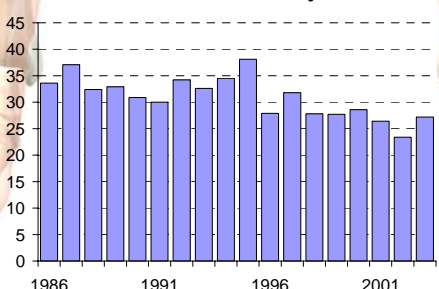
## Prostate Cancer Statistics:

The incidence of cancer of the prostate increased steadily in the Niagara Region at an average annual rate of approximately 3.8%, from 80 cases per 100,000 (1986) to 119 cases per 100,000 (2003). In the 5-year period between 1988 and 1993, the rate of prostate cancer increased by 60%. This spike in cases diagnosed is at least partly due to the detection of cancers following trans-urethral resection of the prostate (TURP) for suspected benign prostatic hypertrophy in addition to improved detection as a result of the Canada-wide introduction of prostate-specific antigen test in 1988. While an increase in rates is also evident at the provincial level, regional rates appear to be slightly lower than Ontario's between 1986 and 2003. Since 1997 rates have not varied significantly.

Male Prostate Cancer Mortality Rate / 100,000



Female Breast Cancer Mortality Rate / 100,000



## Breast Cancer Statistics:

In the Niagara Region, breast cancer results in the largest number of new cancer cases in women, in addition to being the one of the primary causes of cancer mortality.

Between 1986 and 2003 significant increasing time trends are evident in the incidence of breast cancer. During this period there was a 13% increase in the incidence rate, but this was not statistically significant (APC= 0.4; CI = -0.4, 1.2). The increase may be due in part to the rising number of screening mammographies, in addition to changing reproductive histories as a result of bearing children at a later age. While the incidence of breast cancer rose, the rate of women dying from the disease declined by approximately 19% from 33.6/100,000 to 27.2/100,000 (APC = -1.7; CI = -2.6, -0.8).