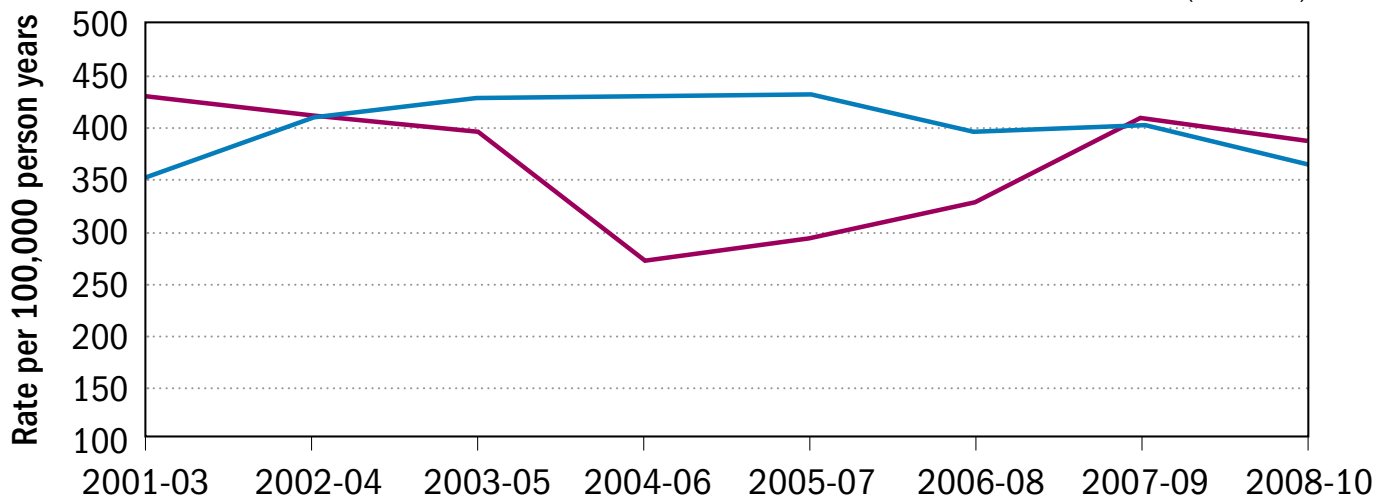


Cancer Incidence

- 111 new cases of cancer are diagnosed on average each year in the NWT.
- Cancer incidence in the NWT is the same as in Canada for all cancers combined.
- There were no differences in incidence between males or females or between Aboriginal or Non-Aboriginal populations when all cancer types were combined.
- Cancer occurs more frequently in aging populations. When the aging of the NWT population is taken into account, NWT cancer rates increased very little between 2001 - 2010.

Age-Standardized Cancer Incidence Rate by Sex, Three-Year Rolling Average

NWT 2001-2010 (N=1107)

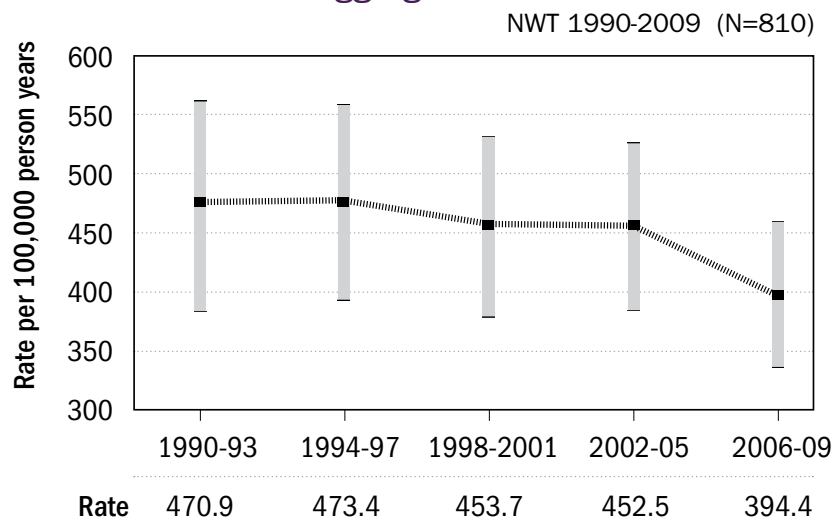


Male	358.2	411.4	431.9	432.3	435.5	397.2	407.2	367.7
Female	431.7	413.1	398.9	278.6	300.8	334.7	411.4	390.8

Cancer Mortality

- Cancer is the leading cause of death in the NWT. Cancer accounts for 25% of all deaths in the NWT.
- 22% of deaths in males and 30% of deaths in females are due to cancer.
- 45 cancer-related deaths occur on average in the NWT every year.
- Mortality due to cancer is trending downward when aging of the population is taken into account.
- NWT males have significantly lower mortality from all cancers combined compared to Canadian males.
- NWT females have similar mortality from all cancers combined compared to Canadian females.
- 25% of all cancer deaths are due to lung cancer.
- Lung cancer mortality in NWT females is 1.5 times the rate for Canadian females.
- Colorectal cancer is the second most common cause of cancer-related death, followed by breast and prostate cancers.
- Colorectal cancer mortality in NWT males is nearly double the rate for Canadian males.
- Colorectal cancer mortality in NWT females is double the rate for Canadian females.

Age-Standardized Mortality Rates
For All Cancers Combined,
Four Years Aggregated

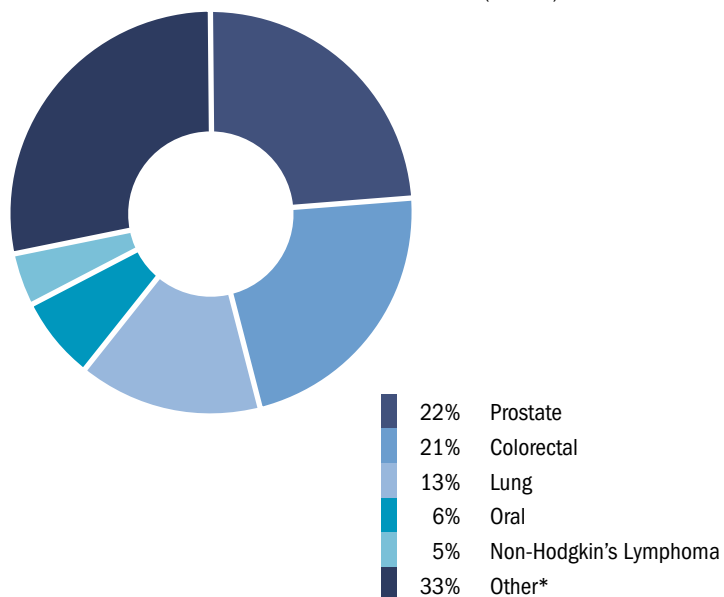


Cancer in Males

- The age-standardized incidence rate for all cancers combined in males was 388 per 100,000 person-years. This rate was lower compared to Canadian males.
- Colorectal, prostate and lung cancers were the most commonly diagnosed cancers in NWT males.
- Colorectal cancer incidence in NWT males was higher than in Canadian males.
- Prostate cancer incidence in NWT males was lower than in Canadian males.
- 22% of all deaths in males are due to cancer.
- Lung, colorectal and prostate cancers are the most common cancers resulting in deaths in males.
- NWT males had significantly lower cancer mortality from all cancers combined compared to Canadian males.

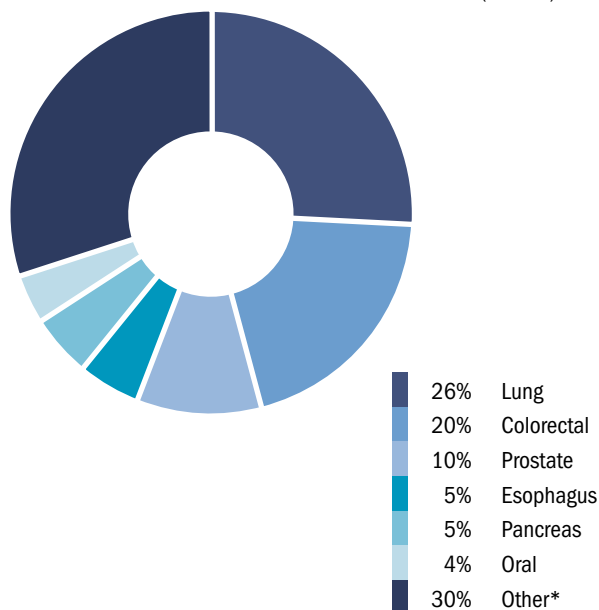
Cancer Diagnoses in Males

NWT 2001-2010 (n=566)



Cancer Deaths in Males

NWT 2000-2009 (n=240)



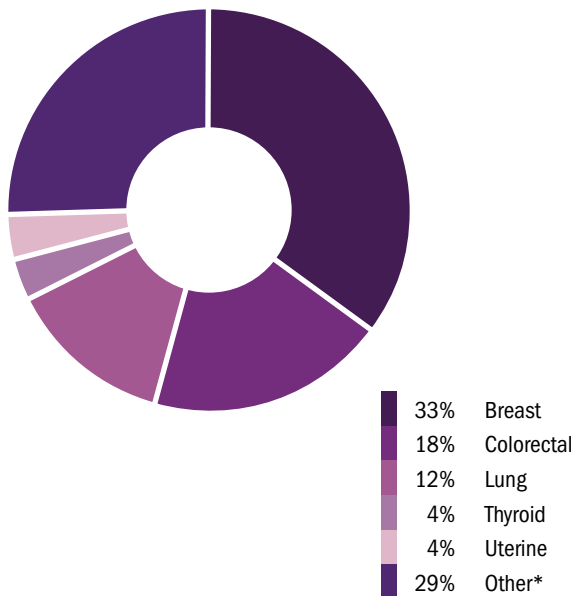
* 'Other' includes multiple cancer types with each accounting for less than 5% of all cancers.

Cancer in Females

- The age-standardized incidence rate for all cancers combined was higher for NWT females compared to Canadian females.
- Breast, colorectal, and lung cancers were the most commonly diagnosed cancers in females.
- Colorectal cancer incidence in NWT females was higher than in Canadian females.
- 30% of all deaths in females is due to cancer.
- Lung, breast and colorectal cancers are the most common cancers resulting in deaths in females.
- NWT females had a similar cancer mortality rate from all cancers combined compared to Canadian females.

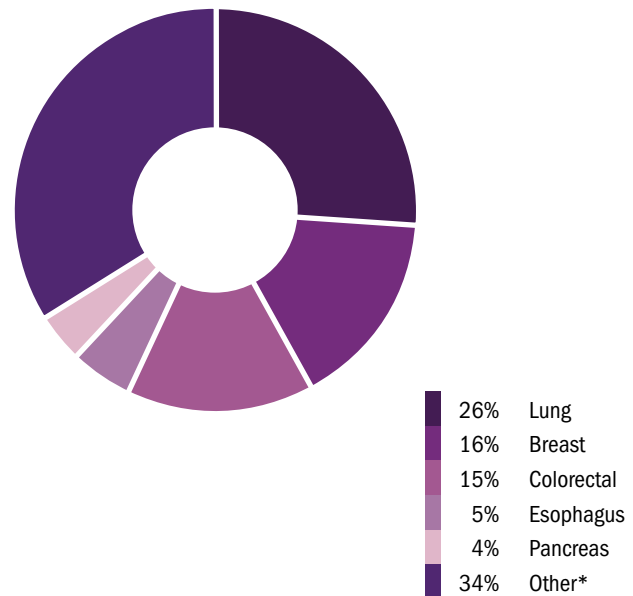
Cancer Diagnoses in Females

NWT 2001-2010 (n=541)



Cancer Deaths in Females

NWT 2000-2009 (n=210)



* 'Other' includes multiple cancer types with each accounting for less than 5% of all cancers.

Cancer by Community Type

- Data from different communities was combined because of small numbers of cancers in each individual community. Community groupings are: Yellowknife (including N'Dilo and Dettah), 'Regional Centres' (Hay River, Inuvik and Fort Smith), and 'Small Communities' (all other NWT communities)
- Males living in the NWT had lower cancer incidence compared to Canadian males.
- Males living in Small Communities also had a lower incidence than Canadian males.
- Females living in Yellowknife had lower incidence of cancer than females in Regional Centres.
- Lung and colorectal cancers were the most common causes of cancer death in males in all community types.
- The rank order of the most frequent cancers causing death in females varied by community but included lung, breast and colorectal cancers.

Most Frequent Cancer Diagnoses in Males by Community Type

NWT 2001-2010

	Rank		
	1	2	3
Yellowknife (n=203)	Prostate (25%)	Colorectal (16%)	Lung (9%)
Regional Centres (n=162)	Prostate (22%)	Colorectal (22%)	Lung (14%)
Small Communities (n=196)	Colorectal (26%)	Lung (19%)	Prostate (17%)

Most Frequent Cancer Diagnoses in Females by Community Type

NWT 2001-2010

	Rank		
	1	2	3
Yellowknife (n=199)	Breast (38%)	Colorectal (15%)	Lung (9%)
Regional Centres (n=157)	Breast (38%)	Colorectal (17%)	Lung (10%)
Small Communities (n=179)	Colorectal (23%)	Breast (23%)	Lung (18%)

Three Most Frequent Causes of Cancer Deaths Among Males

NWT 2000-2009

	Rank		
	1	2	3
Yellowknife (n=71)	Lung (21%)	Colorectal (16%)	Non-Hodgkin's Lymphoma (7%)
Regional Centres (n=72)	Lung (22%)	Colorectal (17%)	Prostate (15%)
Small Communities (n=94)	Lung (32%)	Colorectal (25%)	Prostate (7%)

Three Most Frequent Causes of Cancer Deaths Among Females

NWT 2000-2009

	Rank		
	1	2	3
Yellowknife (n=73)	Lung (25%)	Breast (22%)	Colorectal (10%)
Regional Centres (n=52)	Breast (25%)	Lung (23%)	Colorectal (15%)
Small Communities (n=83)	Lung (29%)	Colorectal (18%)	Breast (6%), Esophagus (6%)

Cancer by Ethnicity

- The three most frequent cancers diagnosed were similar in all ethnic groups for males (colorectal, lung and prostate) and females (breast, colorectal and lung), but the rank order varied between groups.
- No differences in incidence between males or females, between Aboriginal or Non-Aboriginal populations, or between the four ethnicity categories (Dene, Inuit, Métis and Non-Aboriginal) were observed for all cancer types combined.
- Colorectal cancer incidence in Dene people was higher compared to Non-Aboriginal people.
- Prostate cancer incidence in Non-Aboriginal people was higher compared to Dene people.
- Mortality in Dene people was higher than for Non-Aboriginal people when all cancers were combined. There was insufficient data to determine differences in mortality rates among Inuit, Metis and other ethnic groups.

Most Frequent Cancer Diagnoses in Males by Ethnicity

NWT 2001-2010

	Rank		
	1	2	3
Dene (n=169)	Colorectal (33%)	Prostate (17%)	Lung (16%)
Inuit (n=45)	Colorectal (22%)	Prostate (16%)	Lung (13%)
Métis (n=49)	Prostate (20%)	Lung (16%)	Colorectal (14%)
Non-Aboriginal (n=295)	Prostate (26%)	Lung (16%)	Colorectal (12%)

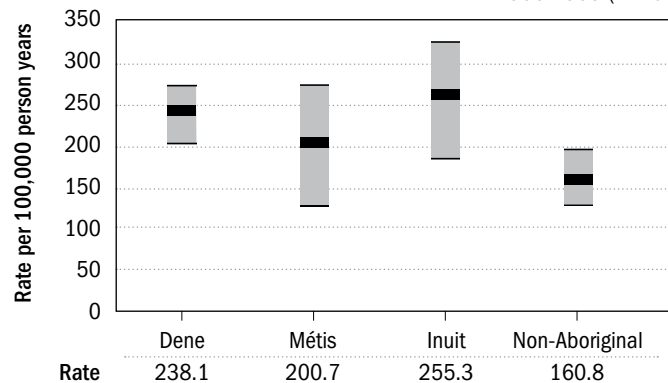
Most Frequent Cancer Diagnoses in Females by Ethnicity

NWT 2001-2010

	Rank		
	1	2	3
Dene (n=204)	Colorectal (28%)	Breast (25%)	Lung (15%)
Inuit (n=51)	Lung (26%)	Breast (24%)	Colorectal (18%)
Métis (n=37)	Breast (43%)	Colorectal (19%)	Lung/Thyroid (5%)
Non-Aboriginal (n=243)	Breast (40%)	Colorectal (11%)	Lung (8%)

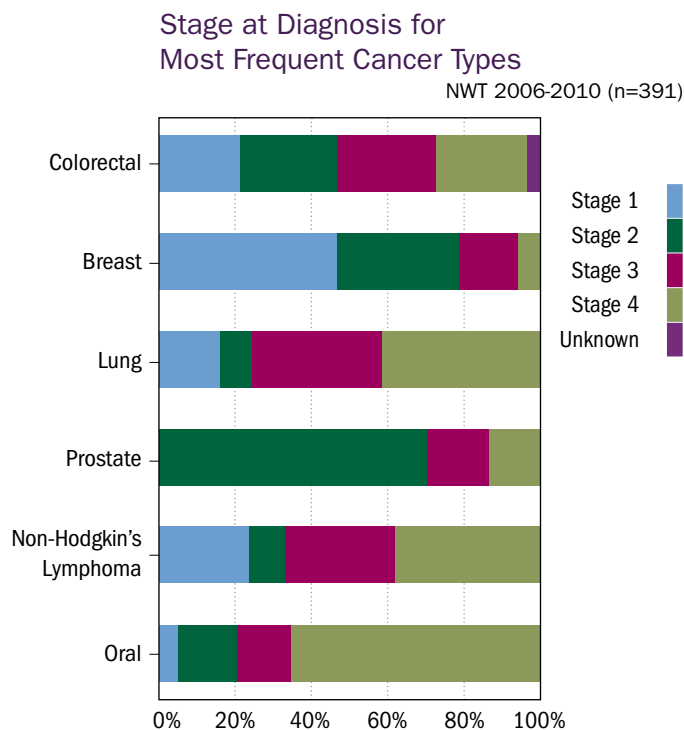
Overall Age-Standardized Cancer Mortality by Ethnicity

NWT 2000-2009 (n=450)



Early Detection of Cancer

- Cancers diagnosed in earlier stages, namely Stage 1 and Stage 2, are easier to treat and have better treatment outcomes than advanced cancers in Stages 3 and 4.
- 50% of colorectal cancers are diagnosed in either Stage 3 or Stage 4. Screening using FIT tests can detect colorectal cancer at an earlier stage
- 41% of lung cancers are diagnosed in stage 4. There is currently no screening test for lung cancer. Most lung cancers are related to tobacco smoke exposure. Reducing exposure to tobacco smoke reduces the risk for lung cancer.
- 78% of breast cancers are detected in Stage 1 or 2. Screening for breast cancer using mammograms allows for earlier detection.
- 61% of prostate cancers are diagnosed in Stage 2.
- 80% of oral cancers are diagnosed in Stage 3 or 4. There is currently no screening test for oral cancer. Most oral cancers are related to tobacco smoke exposure and alcohol consumption. Reducing exposure to tobacco smoke and alcohol consumption reduces the risk for oral cancers.



Cancer Screening Programs

Regular screening of at-risk but seemingly healthy individuals within the population is one of several strategies for improving early detection. The three routine screening programs in place in the NWT are: *mammography* for breast cancer, *Pap tests* for cervical cancer and *Fecal Immunochemical Test (FIT)* for colorectal cancer screening.

Colorectal cancer screening

- Annual or bi-annual screening is recommended for all NWT residents over age 50.
- In 2011 and 2012, approximately 20% of eligible individuals aged of 50 to 74 had a colorectal cancer screening test.

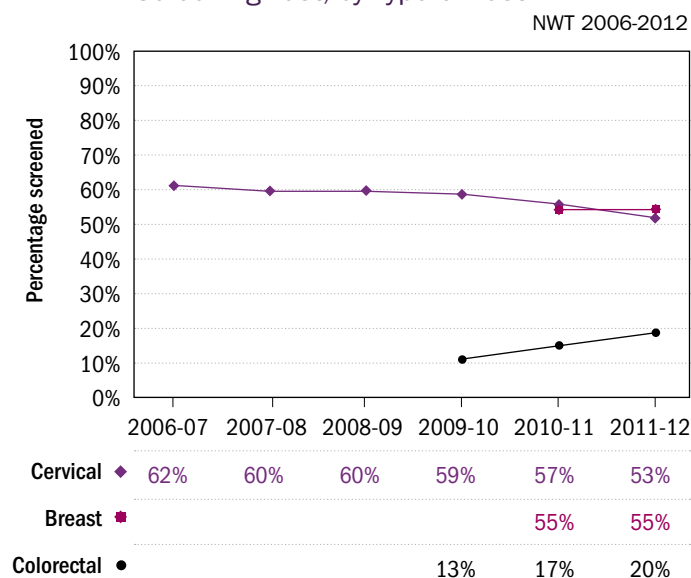
Cervical cancer screening

- Annual or bi-annual Pap screening is recommended for all women from 21 years of age or three years after sexual initiation, whichever comes earliest, until age 69.
- In 2011 and 2012, 53 % of eligible women aged 21 to 69 years had a Pap test.

Breast cancer screening

- Mammography is an effective tool for the early detection of breast cancer and is recommended as a screening test every two years for all females aged 50 to 69 years.
- In 2011 and 2012, 55% of eligible women aged 50-69 years underwent a mammogram.

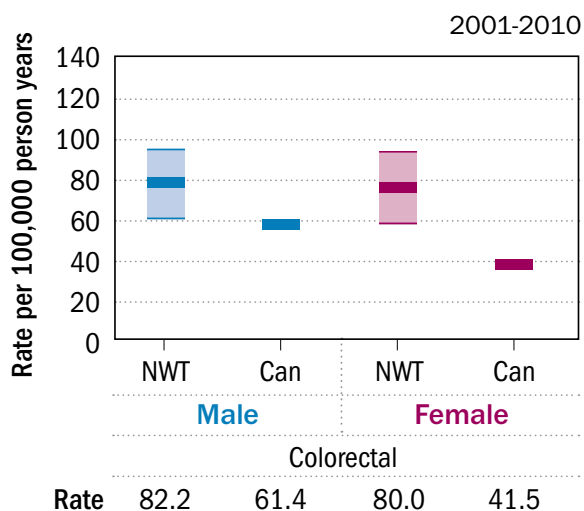
Percentage of Eligible Adults
With At Least One Cancer
Screening Test, by Type of Test



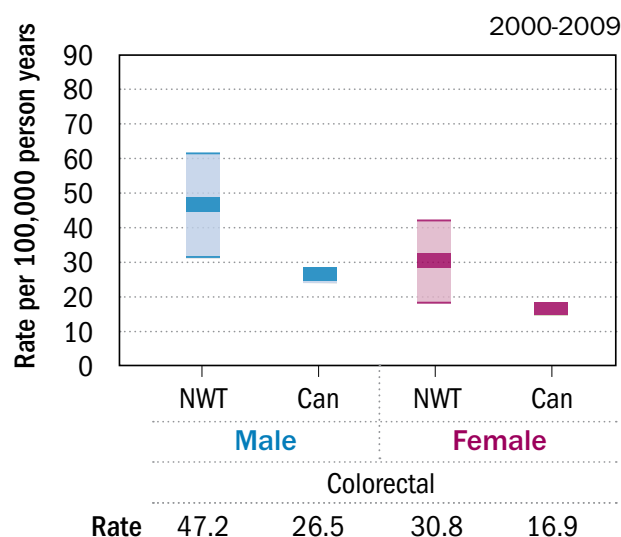
Colorectal Cancer

- Colorectal cancer is the second most common cause of cancer-related death in the NWT.
- 21% of all new cancer diagnoses in NWT males and 18% of new cancer diagnoses in females are due to colorectal cancer.
- Colorectal cancer incidence in NWT males is 1.6 times higher than in Canadian males.
- Colorectal cancer incidence in NWT females is nearly double the rate in Canadian females.
- Mortality from colorectal cancer among NWT males and females is approximately double the Canadian rate.
- Half of colorectal cancers are diagnosed in either Stage 3 or Stage 4, which represent significant spread of the cancer. Earlier detection is possible by screening with the FIT test. FIT tests are available in every health center in the NWT and can be performed at home.
- Only 20% of eligible individuals aged of 50 to 74 in the NWT participated in colorectal cancer screening in 2011 and 2012.
- Eating foods that contain fibre decreases the risk of colorectal cancer. Diets high in red meat or processed meat, particularly meat that has been smoked, cured, salted or otherwise preserved, increase the risk of colorectal cancer. Heavy alcohol consumption also increases the risk of colorectal cancer.

Age-Standardized, Sex-Specific Incidence Rate of Colorectal Cancer in the NWT and Canada



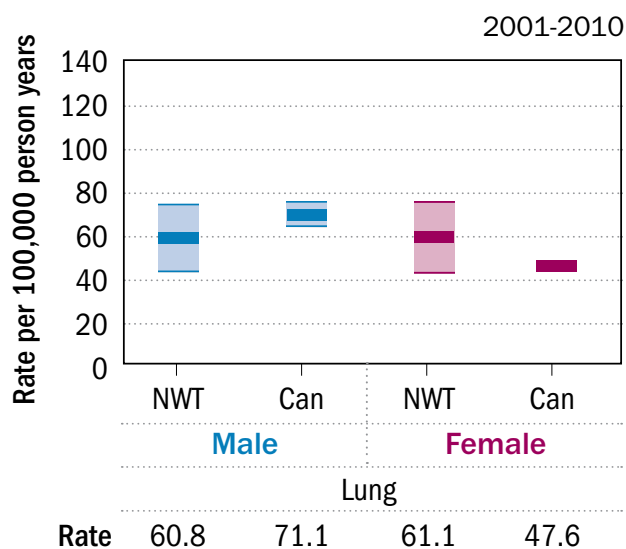
Age-Standardized Colorectal Cancer Mortality in the NWT and Canada



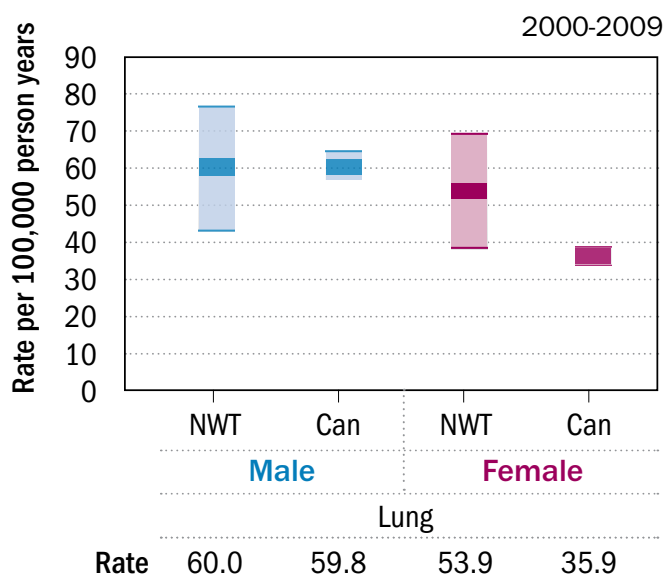
Lung Cancer

- Lung cancer is the number one cause of cancer-related death for both men and women in the NWT and Canada; 25% of cancer deaths in the NWT are due to lung cancer.
- 13% of all new cancer diagnoses in males and 12% in females are lung cancer.
- Incidence and mortality of lung cancer in the NWT is similar to Canadian levels for males.
- Lung cancer mortality in NWT females is 1.5 times higher than the rest of Canada.
- 41% of NWT cancer cases are identified in stage 4, representing very advanced disease. Because of advanced stage at the time of diagnosis with limited treatment options, mortality from lung cancer is high.
- The most important risk factor for lung cancer is tobacco use, including smoking cigarettes and chewing tobacco. Tobacco use is also associated with many different types of cancers, including lung cancer. Second-hand smoke exposure is also associated with lung cancer.
- At more than twice the national rate, smoking in the NWT is a significant public health issue. An estimated 34% of NWT residents 15 years of age and older smoked in 2012, compared to 17% in Canada as a whole.
- There are no organized screening programs for lung cancer in the NWT or anywhere in Canada.

Age-Standardized, Sex-Specific Incidence Rate of Lung Cancer in the NWT and Canada



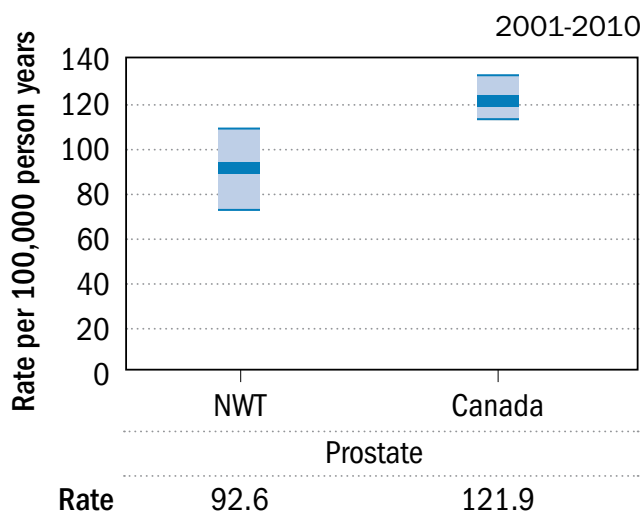
Age-Standardized Lung Cancer Mortality in the NWT and Canada



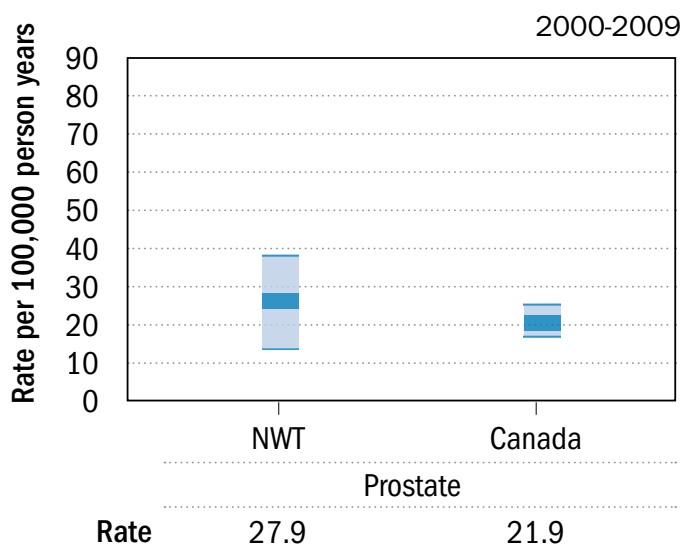
Prostate Cancer

- Prostate cancer is the third most common cause of cancer-related death in NWT males.
- Prostate cancer accounts for 22% of all new cancer diagnoses in NWT males.
- The incidence of prostate cancer was 24% lower in NWT males than in Canadian males.
- 61% of prostate cancers in the NWT are diagnosed in Stage 2 or earlier.
- National screening guidelines for prostate cancer are currently under review. The NWT does not have an organized prostate cancer screening program.
- Eating healthy, being physically active and maintaining a healthy weight are all factors which will protect against many cancers.

Age-Standardized
Rate of Prostate Cancer
in the NWT and Canada



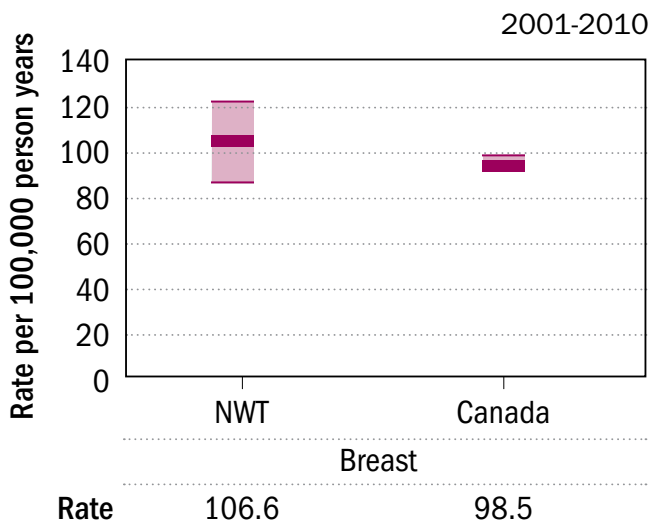
Age-Standardized
Prostate Cancer Mortality
in the NWT and Canada



Breast Cancer

- 33% of all new cancer diagnoses in females are for breast cancer.
- Breast cancer is the third most common cause of cancer-related death in females.
- The incidence of breast cancer in NWT females is similar to the rate in Canadian females.
- Mortality from breast cancer in the NWT is also similar to the national rate.
- 78% of breast cancers in the NWT are detected early, in Stage 1 or Stage 2.
- 55% of eligible women aged 50-69 years participate in screening by getting a mammogram every two years.
- Mammography is an effective tool for the early detection of breast cancer. NWT Breast Cancer Screening Guidelines recommend all women aged 50 to 69 years are screened every two years.
- The Canadian Breast Cancer Foundation encourages females and males to practice breast awareness and *'to know how your breasts normally look and feel, so that you notice any unusual changes earlier and discuss your concerns with a health care provider.'*

Age-Standardized
Rate of Breast Cancer
in the NWT and Canada



Age-Standardized
Breast Cancer Mortality
in the NWT and Canada

