

Report to Residents of the Northwest Territories on Comparable Health and Health System Indicators

2004

This report is consistent with the Federal/Provincial/Territorial agreement by Ministers of Health to report on comparable health indicators



Minister's Message



I am pleased to bring you the 2004 Report to Residents of the Northwest Territories on Comparable Health and Health System Indicators. It is one of a set of reports that was released by all provinces and territories on November 30, 2004, and is part of a commitment First Ministers made to provide clear accountability reporting to Canadians.

This report is part of our ongoing work to show you how well our health system is doing. Together with the federal government and the other provinces and territories, we developed a set of indicators that we can use to make better decisions about how to spend health care dollars, to show you about the quality of our services, and to help people all across Canada learn more about how our health services are provided.

Our report shows some areas where NWT health indicators continue to improve, and other areas that are still challenges for our territory. We continue to emphasize health promotion and the effect of personal choices on individual health. Unhealthy behaviours like smoking, drinking too much alcohol, eating too much unhealthy food and not exercising enough can contribute to health problems. Disease prevention is another priority for us: stopping the spread of infectious diseases like tuberculosis and protecting our population from vaccine-preventable diseases like measles.

As a health and social services system, we can use the information in this report to improve the services we provide to NWT residents. I look forward to continuing to participate in Canada-wide reporting to Canadians and NWT residents.

A handwritten signature in dark ink, reading "J. Michael Miltenberger". The signature is fluid and cursive.

J. Michael Miltenberger
Minister of Health and Social Services

Table of Contents

Executive Summary	1
Introduction	2
Primary Health Care	4
1-PC Difficulty obtaining routine or on-going health services	4
2-PC Difficulty obtaining health information or advice	4
3-PC Difficulty obtaining immediate care	4
4-PC Proportion of population that reports having a regular family doctor	4
5-PC Patient satisfaction with overall health care services	4
6-PC Patient perceived quality of overall health care services	4
7-PC Patient satisfaction with community-based care	5
8-PC Patient perceived quality of community-based care	5
9-PC Patient satisfaction with telephone health line or tele-health services	5
10-PC Patient perceived quality of telephone health line or tele-health services	6
11-PC Proportion of the population reporting contact with a telephone health line or tele-health service	6
12-PC Hospitalization rate for ambulatory care sensitive conditions	6
13-PC Proportion of female population aged 18 - 69 with at least one PAP smear test in the past three years	7
14-PC Proportion of women aged 50 - 69 obtaining mammography in the past 2 years	7
Home Care	8
15-HC Home care clients per 100,000 population, all ages	8
16-HC Home care clients per 100,000 population, aged 75 plus	8
Other Programs & Services	8
17-OI Wait times for cardiac bypass surgery	8
18-OI Wait times for hip replacement surgery	8
19-OI Wait times for knee replacement surgery	8
20-OI Self-reported wait times for surgery	8
21-OI Self-reported wait times for specialist physician visits	8
22-OI Re-admission rate for acute myocardial infarction	8
23-OI Re-admission rate for pneumonia	8
24-OI 30-day in-hospital acute myocardial infarction mortality rate	8
25-OI 30-day in-hospital stroke mortality rate	9
26-OI 365-day survival rate for acute myocardial infarction	9
27-OI 180-day survival rate for stroke	9
28-OI Patient satisfaction with hospital care	9
29-OI Patient perceived quality of hospital care	10
Catastrophic Drug Coverage & Pharmaceutical Management	10
30-DR Prescription drug spending as a percentage of income	10
Diagnostic & Medical Equipment	10
31-DM Wait times for radiation therapy for prostate cancer	10
32-DM Wait times for radiation therapy for breast cancer	10
33-DM Self-reported wait times for diagnostic services	10
Health Human Resources	10
34-HR Patient satisfaction with physician care	10
35-HR Patient perceived quality of physician care	11
Healthy Canadians	11
Life Expectancy	11
36-HLT Life expectancy	11
37-HLT Health adjusted life expectancy	12

<i>Infant Health</i>	12
38-HLT Infant mortality	12
39-HLT Low birth weight	13
<i>Mortality by Selected Causes</i>	13
40-HLT Mortality rate for lung cancer	13
41-HLT Mortality rate for prostate cancer	14
42-HLT Mortality rate for breast cancer	14
43-HLT Mortality rate for colorectal cancer	14
44-HLT Mortality rate for acute myocardial infarction	15
45-HLT Mortality rate for stroke	15
<i>Cancer Survival Rates</i>	15
46-HLT Five-year relative survival rate for lung cancer	15
47-HLT Five-year relative survival rate for prostate cancer	15
48-HLT Five-year relative survival rate for breast cancer	15
49-HLT Five-year relative survival rate for colorectal cancer	15
<i>Cancer Incidence</i>	16
50-HLT Incidence rate for lung cancer	16
51-HLT Incidence rate for prostate cancer	16
52-HLT Incidence rate for breast cancer	17
53-HLT Incidence rate for colorectal cancer	17
<i>Potential Years of Life Lost by Selected Causes</i>	17
54-HLT Potential years of life lost due to suicide	17
55-HLT Potential years of life lost due to unintentional injury	18
<i>Communicable Diseases</i>	18
56-HLT Incidence rate for invasive meningococcal disease	18
57-HLT Incidence rate for measles	18
58-HLT Incidence rate for haemophilus influenza b(invasive)(Hib) disease	18
59-HLT Incidence rate for tuberculosis	18
60-HLT Incidence rate for Verotoxogenic <i>E. Coli</i>	19
61-HLT Incidence rate for Chlamydia	19
62-HLT Rate of newly reported HIV cases	19
<i>Other Indicators</i>	20
63-HLT Prevalence of diabetes	20
64-HLT Exposure to second-hand tobacco smoke rate	20
65-HLT Self-reported health	21
66-HLT Teenage smoking rates	21
67-HLT Physical activity	22
68-HLT Body Mass Index	23
69-HLT Immunization for influenza	24
70-HLT Prevalence of depression	24
Conclusion	25
Appendices	26
Appendix A: FMM Accord	26
Appendix B: Methodology and Data Sources	28
Appendix C: Auditor General's Report	40

Executive Summary

This is the second *Report to Residents of the Northwest Territories on Comparable Health and Health System Indicators*. The report's purpose is to fulfill an ongoing commitment made by the federal/provincial/territorial (FPT) First Ministers to provide clear accountability reporting to Canadians. First in 2000, and then again in 2003, the First Ministers directed their Ministers of Health to develop a set of indicators that could be used to produce comprehensive and regular public reporting on health status, health outcomes and quality of service.

The FPT Ministers of Health established the Performance Indicators Reporting Working Group (PRTWG) to develop a common set of indicators. The indicator work of the PRTWG was first showcased in the 2002 reports, and has now been supplemented with more indicators for reporting in 2004.

Highlights

In 2003, residents of the Northwest Territories were just as likely to be satisfied with the way health care was provided, as a whole, as were people nationally.

In 2001/02, Northwest Territories residents were three times more likely to be hospitalized for ambulatory care sensitive conditions, conditions where hospitalization generally can be prevented, than was the case nationally.

In 2003, Northwest Territories women received PAP smears and mammograms as often as Canadian women.

In 2003, residents of the Northwest Territories were just as likely to be satisfied with the way care was provided in a hospital, or provided by a physician, when compared to national numbers.

Life expectancy was lower in the Northwest Territories at 75.9 years, compared to 79.6 years nationally in 2001.

Between 1999 and 2001, the Northwest Territories had a lower rate of death due to acute myocardial infarction at 30 deaths per 100,000 compared to the national rate of 56 deaths per 100,000.

Between 1998 and 2000, the rate of prostate cancer was much lower in the Northwest Territories at 63 cases per 100,000, than it was nationally at 119 cases per 100,000.

Between 1998 and 2000, the rate of colorectal cancer was higher in the Northwest Territories, at 88 cases per 100,000 compared to the national rate of 51 cases per 100,000.

Between 1999 and 2001, the potential years of lost life due to suicide in the Northwest Territories was twice the national rate (1,008 versus 419 per 100,000).

Between 1999 and 2001, the potential years of lost life due to unintentional injuries was three times the national rate in the Northwest Territories (1,878 versus 628 per 100,000).

Between 2000 and 2002, there were no cases of invasive meningococcal disease in the Northwest Territories in the population under the age of 20.

Between 2000 and 2002, there were no cases of measles in the Northwest Territories.

In 2003, non-smokers in the Northwest Territories were more likely to be exposed to second-hand tobacco smoke in the home (15% versus 11%), private cars (18% versus 10%) and public places (32% versus 20%) than was the case for non-smokers nationally.

In 2003, teenage smoking rates were twice as high in the Northwest Territories than they were nationally (31% versus 15%).

While there was no difference in the proportion of the population physically active or inactive between the Northwest Territories and Canada, the proportion of population considered obese was higher than the Canadian average (22% versus 15%).

These observations and many others made in the report, offer a perspective on the health of the people of the Northwest Territories, and on the state of their health care services in comparison to national averages. Given this perspective is general, and covers a wide range of indicators, readers should be careful in drawing strong conclusions from this report alone. Readers can find more in-depth reporting on the health conditions of the Northwest Territories in reports written by the Department of Health and Social Services, including *Cancer in the Northwest Territories 1990-2000: A Descriptive Report* (2003), *The Facts About Smoking in the Northwest Territories* (2001), *A Profile of NWT Seniors* (2003), *The NWT Health Services Report 2000* (2002), the upcoming *Injuries in the Northwest Territories* (2004) and next year's 2005 *NWT Health Status Report*.

The federal, provincial and territorial governments are currently working on developing more indicators to better report in the future to all Canadians about their health status and health care system. The next report in this series of reports is due out in 2006.

Introduction

In September 2000, First Ministers agreed to provide clear accountability reporting on health to Canadians. First Ministers directed Ministers of Health to provide comprehensive and regular public reporting and to develop a comprehensive framework using comparable indicators on health status, health outcomes and quality of service. In September 2002, the Northwest Territories along with all other provincial and territorial jurisdictions, as well as the federal government, released their first comparable indicators reports.

In February 2003, First Ministers produced an Accord on Health Care Renewal that directed Health Ministers to develop further indicators to supplement the work begun in September 2000.

Based on the review of the 2003 Health Accord, input from a range of stakeholders and experts, consultation with other Federal-Provincial-Territorial (FPT) groups, and a comprehensive review and assessment process, 70 indicators were recommended (see Table of Contents). These indicators are divided into core (18) and non-core indicators (52). The core indicators are to be featured in jurisdictional reports, while the remaining non-core indicators (52) are optional for reporting. Core indicators are indicated by the word **feature** in brackets next to the indicated heading. Data on all 70 indicators, where available, are posted on a common website: (www.cihi.ca/comparable-indicators).

The *Report to Residents of the Northwest Territories on Comparable Health and Health System Indicators* examines all core and non-core indicators for the Northwest Territories, with national comparisons, where data are available. The indicators are grouped under the following subject areas:

- Primary Care
- Home Care
- Other Programs & Services
- Catastrophic Drug Coverage and Pharmaceutical Management
- Diagnostic and Medical Equipment
- Health Human Resources
- Healthy Canadians

This report follows a simple structure, where a description of each indicator or indicator area is first provided. Following the indicator's description, the most recent results for both the Northwest Territories and Canada are presented. Where appropriate, multiple year averages are provided – single years of data combined into an average of three-years (i.e., 2000-2002). These averages are used to minimize year-to-year variability associated with small numbers.

For indicators where data are not available, an explanation is provided as to why the Northwest Territories cannot report on the indicator. Generally, there are three reasons why data are not available: the indicator relies on administrative databases that do not exist in the Northwest Territories; the indicator relies on data from a survey that was not conducted in the Northwest Territories; or the data that does exist for the Northwest Territories cannot provide a large enough sample to produce results in a reliable manner.

Three appendices follow the presentation of data, Appendix A provides a copy of the First Ministers' 2003 Accord on Health Care Renewal, Appendix B provides details on methodology, data limitations and data sources, and Appendix C provides the Auditor General's Report.

The reader should become familiar with the following three concepts used regularly throughout the report.

1. Population-based Rates

Some information is presented as population-based rates. Population-based rates allow for comparisons between populations of different sizes. A population-based rate takes an indicator, such as the number of people with Tuberculosis, and divides it by the population. The next step is to take the number and multiply it by 100,000, or any factor of 10, providing a whole number. For example, if there were 25 cases of Tuberculosis in the NWT, then the rate would be 62.5 cases of TB per 100,000 (i.e., 25 cases divided by 40,000 population, then multiplied by 100,000).

2. Age Standardization

While population-based rates ensure that differences in population size have been taken into consideration, these crude rates may still be misleading if there are substantial differences between populations being compared. For example, the age structure of two populations may be very different, as is the case of the Northwest Territories, with a relatively younger population, than Canada, with an older population. Since age influences the risk of most diseases and death, any differences in crude rates between populations may be due to the age of their population, and not other factors such as high-risk behaviours. To remove this effect and of age, and still provide one summary measure for the total population, it is necessary to adjust for differences in age structure through the process of age standardization.

Age standardization uses the age distribution of an external reference or standard population as the basis for comparison. In this report the 1991 Canadian population was used as the reference of standard population. It is important to point out that standardized rates are not “real” rates but are fictional rates based on an arbitrarily chosen standard population. If a different standard population had been used, the magnitude of the standardized rates would be different. However, the adjusted rate can be trusted in a head-to-head comparison with other age-adjusted rates.

3. Statistical Significance

Throughout the report where comparisons to Canada are possible, the reader is provided with an indication of whether or not there is a statistically significant difference between the Northwest Territories and Canada.

A difference between two numbers is deemed statistically significant when the difference was not caused by chance. There are two data sources where such testing is especially important: with surveys and where small numbers are involved.

When surveys conducted in the Northwest Territories have small sample sizes (number of people surveyed) they often produce results showing what appears to be a large difference between the territory and national survey results. For example, the Canadian Community Health Survey is used as a data source for many indicators in this report. The survey is based on a small sample of the Northwest Territories population (around 1,000 people). There is no guarantee that if everyone in the Northwest Territories had been surveyed that the results would have been the same as they were from a sample of the population. Therefore, in order to remove the possibility of chance, statistical tests have to be performed in order to determine whether a difference between two populations is real or occurred by chance.

Similar to surveys, when dealing with administrative data an apparently large difference between two numbers could occur by chance because the number of cases is small for one population, i.e. Northwest Territories, whereas the numbers of cases is relatively larger in another population, i.e. Canada. For example, the rate of cancer may appear to be much higher in the Northwest Territories when compared to Canada. However, this apparent difference may be based on a few cases, given the small population of the Northwest Territories.

The opposite can be true, as well, where an apparently small difference between two numbers did not occur by chance, and is thus statistically significant. Small significant differences occur when there are a large number of cases, as is the case with the rate of diabetes.

Therefore, just as in the case of a survey, statistical tests have to be performed in order to remove chance from the equation when relying upon administrative data.

Finally, the reader should be aware that any future reports on these indicators could provide revisions of the data presented in this 2004 report. The main reason for changes to data is the periodic revision on population estimates by Statistics Canada. These revisions are used by the NWT Bureau of Statistics to develop more detailed estimates for the Northwest Territories. Any Northwest Territories population-based rate or percentage is therefore subject to minor revisions. In addition, there is the potential for database revisions when data are used from the NWT Department of Health and Social Services as these databases are updated on a constant basis, usually changing the most recent data.

Primary Health Care (PC)

1-PC Difficulty obtaining routine or on-going health services (Feature)

2-PC Difficulty obtaining health information or advice (Feature)

3-PC Difficulty obtaining immediate care (Feature)

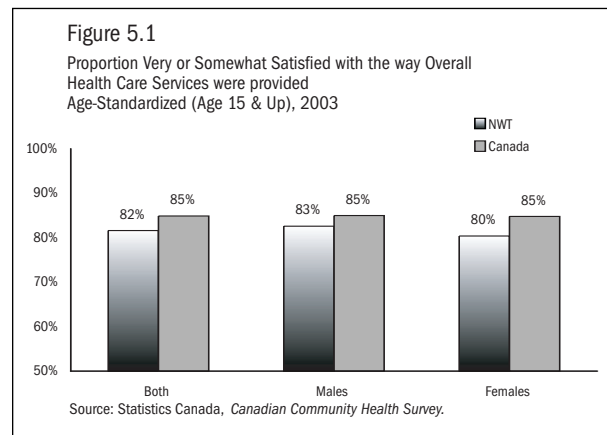
4-PC Proportion of population that reports having a regular family doctor

The data source for indicators 1-PC to 4-PC is the Health Services Access Survey. This survey was conducted by Statistics Canada and did not include the Northwest Territories. Therefore, no data can be reported.

5-PC Patient satisfaction with overall health care services (Feature)

Patient satisfaction with health care services is a pressing issue across Canada.¹ In the 2003 Canadian Community Health Survey (CCHS), people were asked about their level of satisfaction with the way overall health care service was provided in the last twelve months (regardless of whether or not those services were received in a hospital or a community health setting).

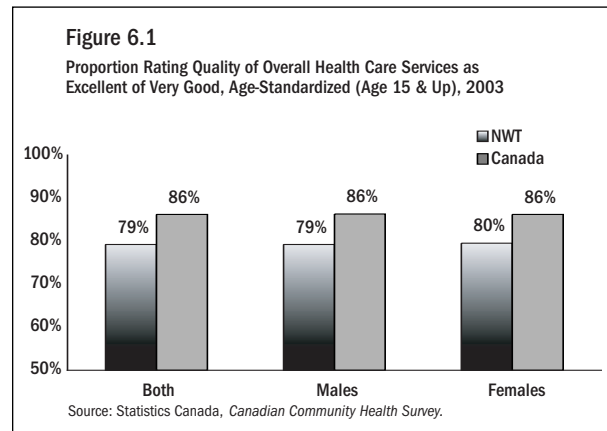
Figure 5.1 shows the proportion of the population (age-standardized), age 15 and up, that were very or somewhat satisfied with the way overall health care service was provided. In 2003 82% of the people who had some contact with the Northwest Territories health care system were very or somewhat satisfied, compared to 85% nationally. There were no significant differences between the results for the Northwest Territories and Canada for either sex, or both sexes combined.



6-PC Patient perceived quality of overall health care services

Similar to satisfaction of health services, patients were asked their opinion of the quality of overall health services they received in the previous twelve months.

Figure 6.1 shows the proportion of the population (age-standardized), age 15 and up, that rated the quality of any health care service as excellent or very good. Approximately 79% of Northwest Territories residents rated the quality of overall health care as excellent or very good, compared to 86% nationally. The results were significantly different for each sex, and both sexes combined.

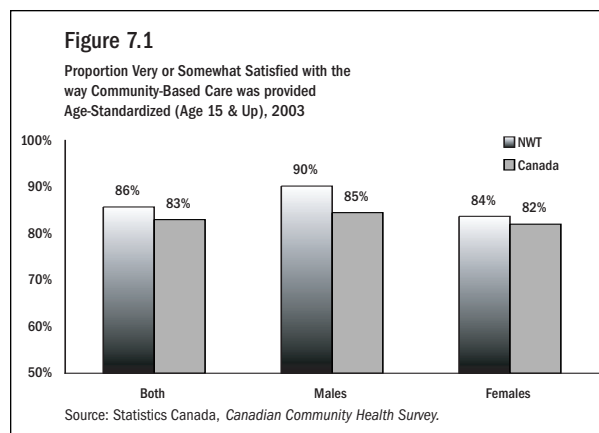


¹ Indicators 5-PC to 11-PC exclude the following: persons living on First Nation Reserves and on Crown lands, residents of institutions, full-time members of Canadian Armed Forces, and residents of certain remote regions are excluded from the sample.

7-PC Patient satisfaction with community-based care (Feature)

As with overall health care services, the CCHS asked people about specific types of health care services, such as community-based care. The CCHS definition for 'community-based care' includes any health care received outside of a hospital or doctor's office (e.g., health centres, public health units, home nursing care, home-based counselling or therapy, personal care, community walk-in clinics). In the Northwest Territories community-based care is more central to the health system than it is nationally, as a larger proportion of the population accesses care through health centres and public health units.

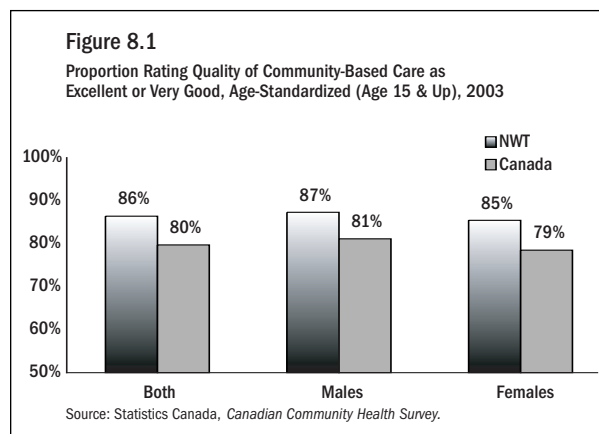
Figure 7.1 shows the proportion of the population (age-standardized), age 15 and up, that were very or somewhat satisfied with the way community-based care was provided in the previous twelve months. In 2003, approximately 86% were very or somewhat satisfied with way community-based care was provided in the Northwest Territories compared to 83% nationally. There were not any significant differences for either sex, or for both sexes combined.



8-PC Patient perceived quality of community-based care

Similar to satisfaction of overall health services, patients were asked their opinion of the quality of the community-based care they received in the previous twelve months.

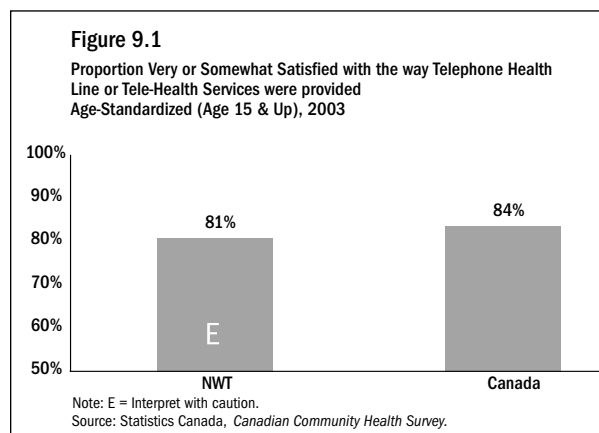
Figure 8.1 shows the proportion of the population rating the quality of community-based care excellent or very good. In 2003, approximately 86% of Northwest Territories residents rated the quality of overall health care as excellent or very good, compared to 80% nationally. There were not any significant differences for either sex, or for both sexes combined.



9-PC Patient satisfaction with telephone health line or tele-health services (Feature)

A telephone health help line service was launched in the Northwest Territories in the Spring of 2004. The CCHS asked people about their use of telehealth services in 2003. Results for the Northwest Territories only include those people who used the phone to contact a health care professional before the formal service was set up. Only a few people received services over the phone: approximately 2% compared to just under 10% nationally. Therefore, due to very small sample sizes, the following results for indicators 9-PC and 10-PC should be interpreted with caution.

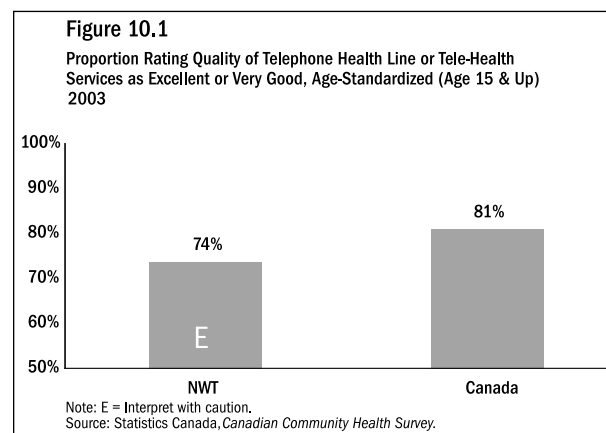
Figure 9.1 shows the proportion of the population that said they were very or somewhat satisfied with the way telephone health line or tele-health services were provided. Results by sex were suppressed due to small sample sizes, and the results of both sexes combined were not significantly different between the Northwest Territories and Canada.



10-PC Patient perceived quality of telephone health line or tele-health services

Similar to satisfaction of tele-health services, patients were asked their opinion of the quality of the telephone health line or tele-health services received.

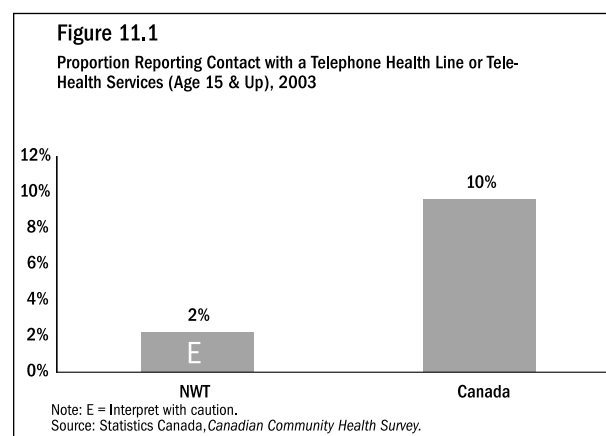
Figure 10.1 shows the proportion of the population rating the quality of the telephone health line or tele-health services excellent or very good. Results by sex were suppressed due to small sample sizes, and the results for both sexes combined were not significantly different between the Northwest Territories and Canada.



11-PC Proportion of the population reporting contact with a telephone health line or tele-health service

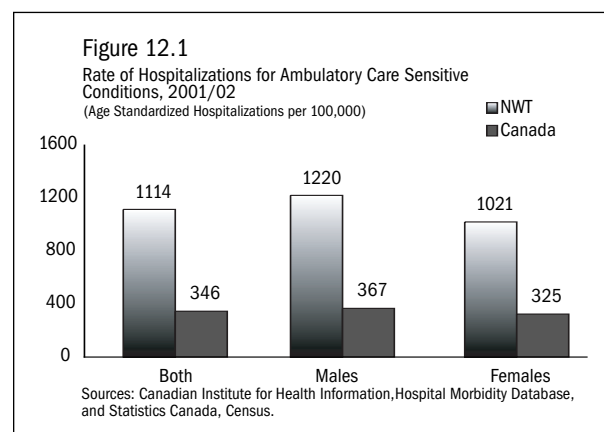
Proportion of the population reporting contact with a telephone health line or tele-health service is intended to provide an indication of the use of health-lines by the general public. The information for this indicator comes from the 2003 Canadian Community Health Survey. The Northwest Territories did not have a formal tele-health service at the time of the survey. A formal telephone help-line service was set up in the Northwest Territories in Spring 2004.

Nonetheless, some residents of the Northwest Territories would have had informal contact over a telephone with a health professional for advice. Figure 11.1 shows the proportion of the population reporting contact with a telephone health line or tele-health service. Approximately 2% of Northwest Territories residents (age 15 and over), reported contact, significantly lower than the 10% reporting contact nationally.² Results by gender were suppressed due to the small number of people reporting “yes” to this survey question.



12-PC Hospitalization rate for ambulatory care sensitive conditions (Feature)

Hospitalization rate for ambulatory care sensitive conditions – those conditions that may often be cared for in the community – is one indicator of appropriate access to community-based care. These are long-term health conditions that can often be managed with timely and effective treatment in the community, without hospitalisation. These conditions include diabetes, asthma, alcohol and drug dependence and abuse, neurosis, depression, and hypertensive disease. Although preventative care, primary care and community-based management of these conditions will not eliminate all hospitalizations, such steps could prevent many of them.



² Age-standardized results were suppressed for this indicator.

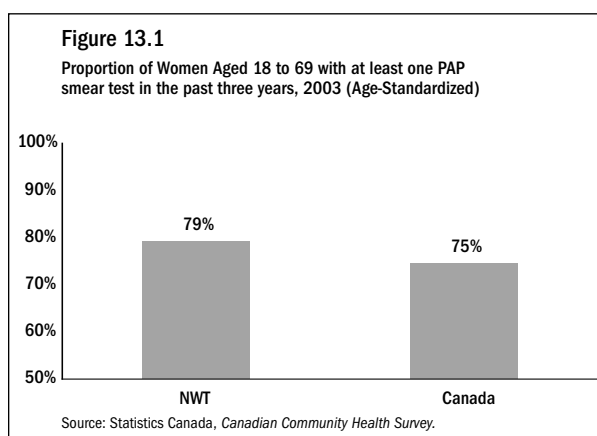
As seen in Figure 12.1, the Northwest Territories have a significantly higher rate of hospitalization due to ambulatory care sensitive conditions (ACSC) than Canada for 2001/02.³ The rates for both males and females were both higher in the Northwest Territories when compared to Canada.

A study designed to examine the consistency of coding hospitalizations due to ACSC found a 10.8% overall discrepancy rate nationally. This discrepancy rate does not necessarily represent the rate of possible discrepancies within the Northwest Territories.⁴

13-PC Proportion of female population aged 18 - 69 with at least one PAP smear test in the past three years

PAP smear tests detect pre-malignant lesions before cancer of the cervix develops, allowing time for treatment that avoids progressive, fatal disease.

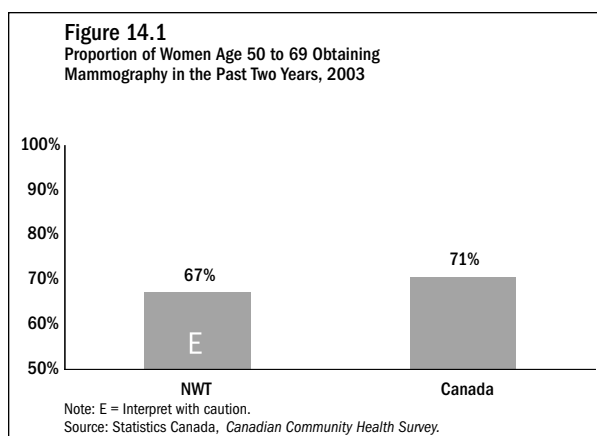
The CCHS asked women how often they had a PAP smear.⁵ Figure 13.1 shows the age-standardized proportion of the population having had a PAP smear in the previous three years. For 2003, there was not a significant difference between the Northwest Territories and Canada.



14-PC Proportion of women aged 50 - 69 obtaining mammography in the past 2 years

Screening by mammography is an important strategy for early detection of breast cancer. Early detection reduces breast cancer deaths among women age 50 - 69.

The CCHS asked women how often they had a mammogram. Figure 14.1 shows the proportion of the population, age 50 to 69, who reported having had a mammogram in the previous two years. For 2003, there was not a significant difference between the Northwest Territories and Canada with approximately two-thirds of Northwest Territories women reporting having had a mammogram in the last two years.



³ Patients not treated as inpatients in acute care hospitals (e.g., those seen only in an emergency department or chronic care institution) are excluded from this indicator.

⁴ The discrepancy rates reported here represent an overall average and cannot be directly attributed to individual facilities, provinces or territories. This means that while the overall rate includes results from a number of jurisdictions, the rate for a particular subgroup of the population (e.g. a specific region or jurisdiction) may differ to some degree from the overall rate and therefore caution should be used when making comparisons across subgroups. See Appendix B for more details on discrepancy rates for this indicator.

⁵ Indicators 13-PC and 14-PC exclude the following: persons living on First Nation Reserves and on Crown lands, residents of institutions, full-time members of the Canadian Armed Forces and residents of certain remote regions.

Home Care (HC)

Home care provides a variety of health and supportive services to enable individuals with health related problems to remain in their own homes. Home care may also reduce the use of hospital services by preventing a hospital admission or reduce hospital stays by providing post-acute care.

National home care rates are not available due to incomplete and inconsistent reporting by provincial and territorial jurisdictions.⁶

15-HC Home care clients per 100,000 population, all ages

There were 3,735 home care clients per 100,000 population in 2002/03 – approximately 3.7% of the population receiving at least one home care service during the year.

16-HC Home care clients per 100,000 population, aged 75 plus

There were 88,980 home care clients, age 75 and over, per 100,000 population in 2002/03 – approximately 89% of the population, age 75 and over, receiving at least one home care service during the year.

Other Programs and Services (OI)

17-OI Wait times for cardiac bypass surgery

18-OI Wait times for hip replacement surgery

19-OI Wait times for knee replacement surgery

20-OI Self-reported wait times for surgery

21-OI Self-reported wait times for specialist physician visits

Data for all wait time indicators are not available for the Northwest Territories. The data for indicators 17 to 19-OI are based on jurisdictional administrative databases. The data source for indicators 20-OI and 21-OI is the Health Services Access Survey. This survey was conducted by Statistics Canada and did not include the Northwest Territories.

22-OI Re-admission rate for acute myocardial infarction (AMI)

Northwest Territories readmission numbers for acute myocardial infarction are too small to publish in a reliable manner.

23-OI Re-admission rate for pneumonia

Readmission numbers for all jurisdictions are not available due to reporting inconsistencies across Canada. Efforts to make reporting consistent across jurisdictions will be made so that this indicator can be reported on in future reports.

24-OI 30-day in-hospital acute myocardial infarction (AMI) mortality rate

The NWT numbers of 30-day in-hospital acute myocardial infarction deaths were too small to publish in a reliable manner.

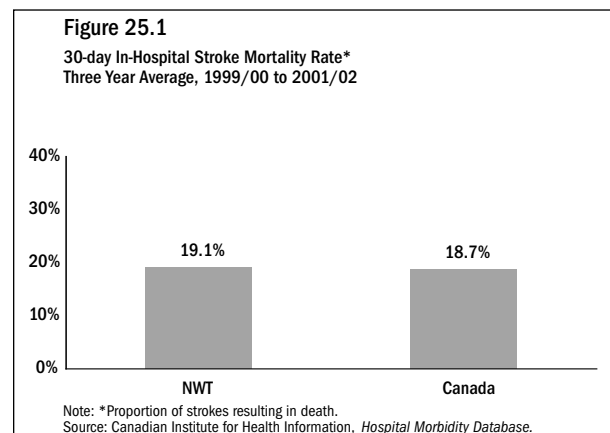
⁶ Jurisdictions report home care numbers differently across Canada, making comparison difficult. NWT home care figures are estimates. See Appendix B: Methodology and Data Sources for more detail on limitations of NWT home care estimates.

25-OI 30-day in-hospital stroke mortality rate ⁷

Stroke is an important cause of death and disability in the Canadian population. The mortality rate is an important measure of variations in mortality, which may be due to a number of factors, including emergency treatments, quality of care in hospitals, primary care and prevention, or socioeconomic factors, for example. The mortality rate is an important indicator in comparing stroke outcomes between jurisdictions.

Mortality rates following stroke may reflect, for example, the underlying effectiveness of treatment and quality of care. Inter-regional variations in rates may be due to jurisdictional and institutional differences in standards of care, as well as other factors that are not included in the calculation of the rate.

Figure 25.1 shows the 30-day in-hospital stroke mortality rate, on average, between 1999/00 to 2001/02. There was not a significant difference in the 30-day in-hospital stroke mortality rate, with both the Northwest Territories and Canada averaging around 19%.⁸



26-OI 365-day survival rate for acute myocardial infarction (AMI)

27-OI 180-day survival rate for stroke

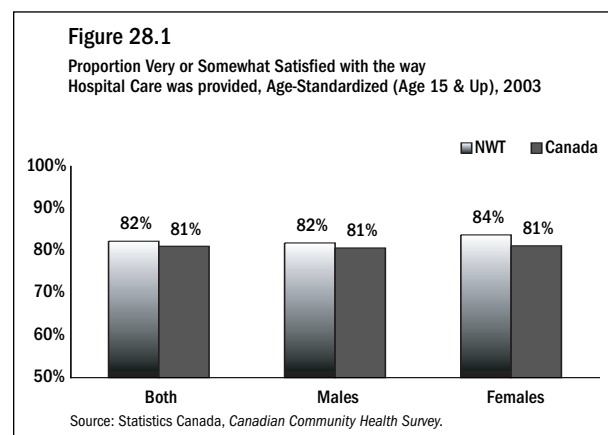
Northwest Territories data for indicators 26-OI and 27-OI were not available. The Northwest Territories was excluded because of the high volume of patients hospitalized outside of the territory. Statistics Canada excludes hospitalizations of non-residents in the calculation of both these indicators.

28-OI Patient satisfaction with hospital care (Feature)

Good hospital care is essential to any health care system. One indicator of the performance of that care is whether or not hospital patients are satisfied with the way hospital care was provided. In the 2003 Canadian Community Health Survey (CCHS), people were asked about their last visit to a hospital in the previous twelve months.⁹

Figure 28.1 shows the proportion of the population (age-standardized), age 15 and up, that was very or somewhat satisfied with the way hospital care was provided. In 2003, 82% were very or somewhat satisfied with the way hospital care was provided, compared to 81% nationally. There were no significant differences between the results for the Northwest Territories and Canada for either sex, or both sexes combined.

Statistics Canada has found that the some of the differences in the results between the Northwest Territories and Canada for indicator 28-OI could be due to the different way the Canadian Community Health Survey was delivered in the Northwest Territories compared to the rest of Canada. The Northwest Territories relied on a larger proportion of face-to-face interviews when compared to the national average, which had a larger proportion of telephone interviews.



⁷ See Appendix 2 for list of exclusions for 25-OI.

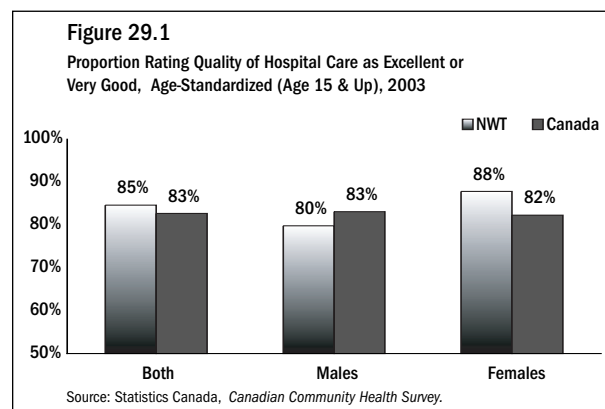
⁸ Canadian average rate only includes provinces and territories for which comparable data were available.

⁹ Indicators 28-PC and 29-PC exclude the following: persons living on First Nation Reserves and on Crown lands, residents of institutions, full-time member of Canadian Armed Forces and residents of certain remote regions are excluded from the sample.

29-01 Patient perceived quality of hospital care

Similar to satisfaction with hospital care, patients were asked their opinion of the quality of the hospital services they received.

Figure 29.1 shows the proportion of the population (age-standardized), age 15 and up, that rated the quality of hospital care as excellent or very good. Approximately 85% of Northwest Territories residents rated the quality of hospital care as excellent or very good, compared to 83% nationally. There were no significant differences between the results for the Northwest Territories and Canada for either sex, or both sexes combined.



Catastrophic Drug Coverage and Pharmaceutical Management (DR)

30-DR Prescription drug spending as a percentage of income (Feature)

Northwest Territories results for the survey that provides the data for this indicator were not available due to data quality issues.

Diagnostic and Medical Equipment (DM)

31-DM Wait times for radiation therapy for prostate cancer

32-DM Wait times for radiation therapy for breast cancer

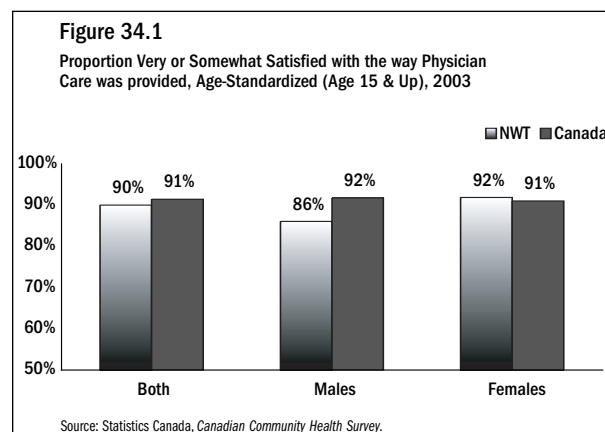
33-DM Self-reported wait times for diagnostic services (Feature)

Data for all wait time indicators are not available for the Northwest Territories. The data for indicators 31 and 32-DM are based on jurisdiction-specific administrative databases that do not exist in the Northwest Territories. The data source for indicator 33-DM is the Health Services Access Survey. This survey was conducted by Statistics Canada and did not include the Northwest Territories.

Health Human Resources (HR)

34-HR Patient satisfaction with physician care (Feature)

Physicians are often the first contact with the health system and are the health providers who deliver the most intensive procedures to patients. Patient satisfaction with physicians is of crucial importance when considering the success of any health care system. In the 2003 CCHS, people were asked about their level of satisfaction with the way physician services were provided.¹⁰



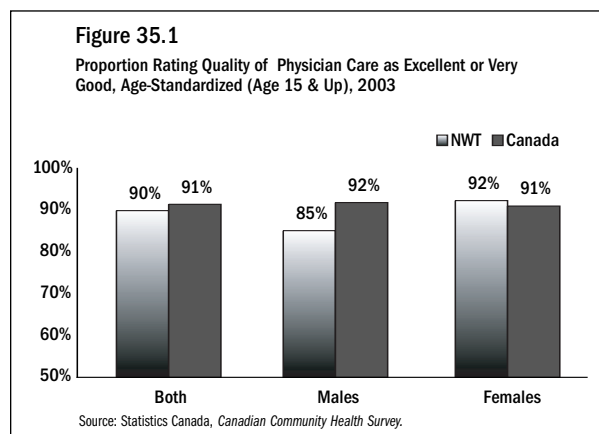
¹⁰ Indicators 34-PC and 35-PC exclude the following: persons living on First Nation Reserves and on Crown lands, residents of institutions, full-time members of the Canadian Armed Forces and residents of certain remote regions.

Figure 34.1 shows the proportion of the population (age-standardized), age 15 and up, that was very or somewhat satisfied with the way physician care was provided during their most recent visit in the previous twelve months. In 2003, 90% were very or somewhat satisfied, compared to 91% nationally. There were no significant differences between the results for the Northwest Territories and Canada for either sex, or both sexes combined.

35-HR Patient perceived quality of physician care

Similar to satisfaction of physician care, patients were asked their opinion of the quality of the physician services they received.

Figure 35.1 shows the proportion of the population (age-standardized), age 15 and up, that rated the quality of physician care as excellent or very good. Approximately 90% of Northwest Territories residents rated the quality of physician care as excellent or very good, compared to 91% nationally. There were no significant differences between the results for the Northwest Territories and Canada for either sex, or both sexes combined.



Healthy Canadians (HLT)

Life Expectancy

Life expectancy is a widely used indicator of the overall health of a population. The highest life expectancy in the world in 2002 was in Japan at 81.5 years.¹¹ In developed countries, life expectancy is higher for women than for men, and is related to socio-economic factors such as poverty and education levels.

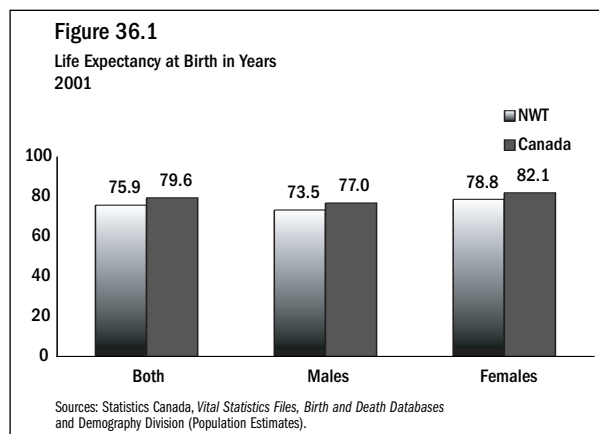
Life expectancy (at birth and age 65) is a statistical average, calculated from the average age at which people die, and is intended to facilitate comparisons among populations. How many years a newborn can actually expect to live is a function of many factors including, for example, genetics, personal health practices and lifestyle, and advancements in medicine.

36-HLT Life expectancy

36a-HLT Life expectancy for overall population

Figure 36.1 shows life expectancy at birth in years for the Northwest Territories and Canada. In 2001, life expectancy for both sexes combined was 75.9 years from birth for the Northwest Territories, significantly lower than the 79.6 years nationally. Men, as is generally the case, had a lower life expectancy than women. When compared to the Canada, both Northwest Territories men and women had significantly lower life expectancies.

When people reach age 65 their life expectancy increases from what it was originally estimated to be at birth. This occurs due to the fact they have avoided and/or survived diseases and injuries that could have shortened their life.

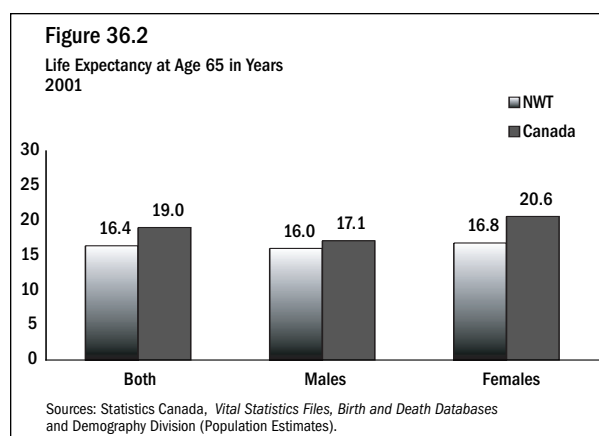


¹¹ United Nations, Human Development Report 2004, p. 139.

Figure 36.2 shows life expectancy at age 65 for the Northwest Territories and Canada in 2001. On average, a person at age 65 could expect to live a further 16.4 years in Northwest Territories, significantly lower than the national average of 19 years. There was not a significant between Northwest Territories and Canada for men at age 65, but there was a significant difference for women.

36b-HLT Life expectancy by income

The Northwest Territories cannot report on life expectancy by income because the Statistics Canada surveys that were used to calculate this indicator were not done in the Northwest Territories.



37-HLT Health adjusted life expectancy (HALE) (Feature)

Life expectancy simply looks at the number of years a person is expected to live from birth, regardless of quality of life. HALE goes beyond basic life expectancy to predict the number of years in perfect health that an individual can expect to live during his or her lifetime.

37a-HLT HALE for overall population

37b-HLT HALE by income

Data for indicators 37a and 37b were unavailable for the Northwest Territories. This indicator relies on data from Statistics Canada survey that was not done in the Northwest Territories.

Infant Health

Two measures of infant health are the infant mortality rate and the low birth weight rate.

The infant mortality rate is a long-established measure of child health and the overall well being of a society. It reflects not only the level of mortality, but also the health status and health care of a population, the effectiveness of preventative care, and the attention paid to maternal and child health. It also reflects broader social factors, such as maternal education, smoking and relative deprivation. Generally, low birth weight is the principal risk factor associated with infant mortality in Canada.

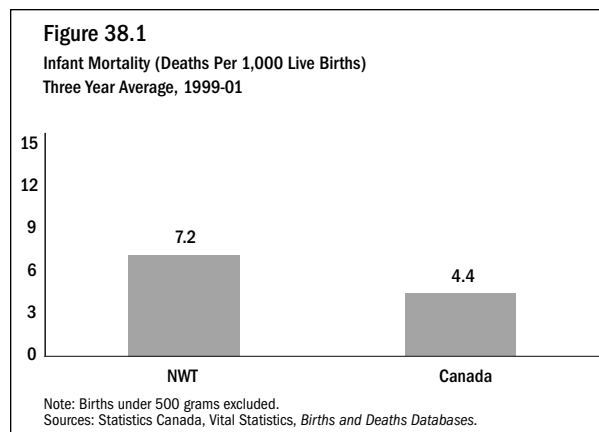
Low birth weight is an indicator of the general health of newborns, and a key determinant of infant survival, health and development. Low birth weight infants are at a greater risk of dying during the first year of life, and if they survive, they have a greater risk of disability and diseases such as cerebral palsy, visual problems, learning disabilities and respiratory problems. Low birth weight is associated with multiple births (twins, triplets, etc.), pre-term births, poor maternal health, lifestyle and economic circumstances. It is also associated with assisted conception (and related multiple births). Appropriate medical care and a healthy lifestyle for the mother can improve the chances that the baby will have a healthy birth weight.

38-HLT Infant mortality

Figure 38.1 shows the number of infant deaths per 1,000 live births, on average between 1999 and 2001 (births under 500 grams are excluded).

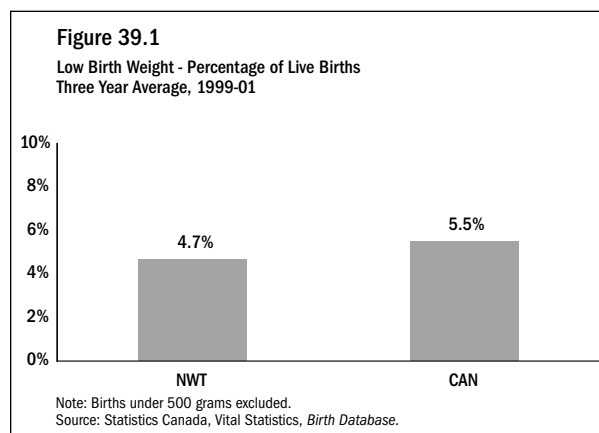
The Northwest Territories rates are based on a small number of infant deaths (14).

There was not a significant difference between the Northwest Territories and Canada.



39-HLT Low birth weight

Figure 39.1 shows the proportion of low birth weight babies born, on average, between 1999 and 2001 (births under 500 grams excluded). There is not a significant difference, between the Northwest Territories and Canada, in the proportion of low birth weight babies born (4.8% versus 5.6%).



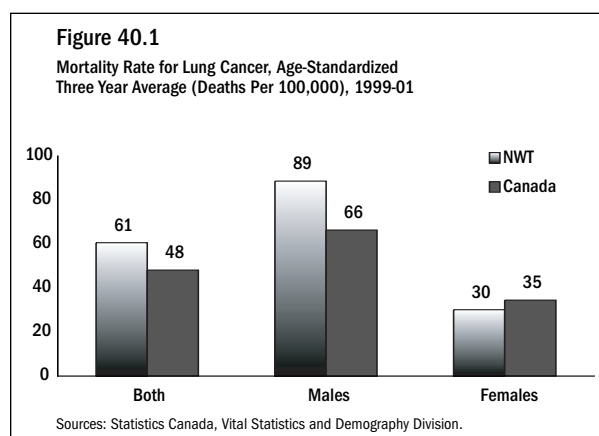
Mortality by Selected Causes

Cancer and cardiovascular diseases (Acute Myocardial Infarction and Stroke) are leading causes of death in both the Northwest Territories and Canada. To a large extent cancer and cardiovascular diseases are preventable through health lifestyle choices and treatable through early detection.¹²

40-HLT Mortality rate for lung cancer

The 2003 report found that neoplasms (which include malignant, benign and in situ tumours) were the leading cause of death in the Northwest Territories.¹³ The majority of neoplasm deaths were due to malignant tumours. Of these deaths due to malignant tumours, lung cancers were the most common.

Figure 40.1 shows the three-year average age-standardized rate for lung cancer deaths for the Northwest Territories and Canada. The results for both sexes combined, and women separately were not significantly different between the Northwest Territories and Canada. However, the results for men were significantly higher in the Northwest Territories than they were nationally.¹⁴



¹² For details on Cancer prevention and detection see NWT Department of Health and Social Services, *Cancer in the Northwest Territories 1990-2000: A Descriptive Report*.

¹³ Ibid, p. 18.

¹⁴ The coding system classifying the cause of death changed in 2000. This change is estimated to have had a marginal effect on comparable reporting over time. See Appendix B for more detail on the impact of the change.

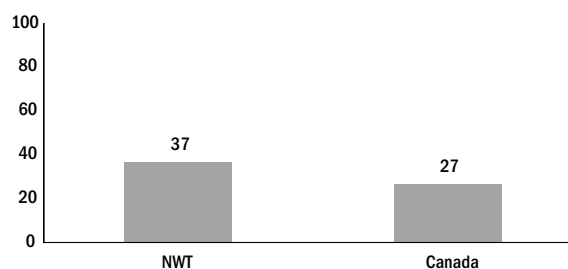
41-HLT Mortality rate for prostate cancer

The rate of death due to prostate cancer in the Northwest Territories has historically been the same as Canada, though the actual incidence of prostate cancer has been significantly lower in the Northwest Territories.¹⁵ In terms of cancer deaths, prostate cancer was the third highest cause of death amongst men in the Northwest Territories between 1990 and 1999.

Figure 41.1 shows the three-year average age-standardized rate for prostate cancer deaths for the Northwest Territories and Canada (1999-01). There was not any significant difference between the Northwest Territories and Canada in terms of death due to prostate cancer.¹⁶

Figure 41.1

Mortality Rate for Prostate Cancer, Age-Standardized
Three Year Average (Deaths Per 100,000), 1999-01



Sources: Statistics Canada, Vital Statistics and Demography Division.

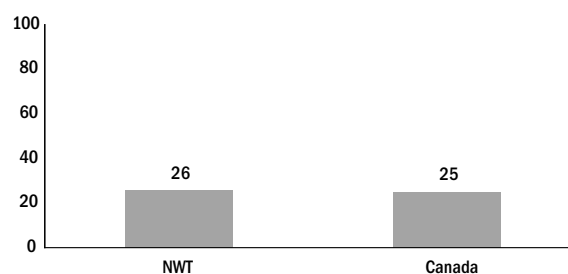
42-HLT Mortality rate for breast cancer

The rate of death due to breast cancer in the Northwest Territories has throughout the 1990s been the same as the rate nationally. In terms of cancer deaths, breast cancer was the leading cause of death amongst women in the Northwest Territories between 1990 and 1999.¹⁷

Figure 42.1 shows the three-year average age-standardized rate for breast cancer deaths for the Northwest Territories and Canada (1999-01). There was not any significant difference between the Northwest Territories and Canada in terms of death due to breast cancer.

Figure 42.1

Mortality Rate for Breast Cancer, Age-Standardized
Three Year Average (Deaths Per 100,000), 1999-01



Sources: Statistics Canada, Vital Statistics and Demography Division.

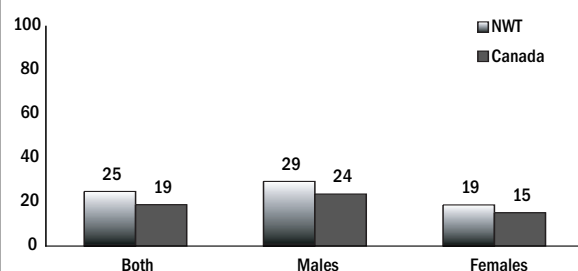
43-HLT Mortality rate for colorectal cancer

In the 1990s, the rate of death due to colorectal cancer has been significantly higher for women in the Northwest Territories than women nationally. However, for the same time period, the rate of death due to colorectal cancer was not significantly higher for men in the Northwest Territories compared to men nationally, though the actual incidence of colorectal cancer was higher amongst men in the Northwest Territories.¹⁸

Figure 43.1 shows the three-year average age-standardized rate for colorectal cancer deaths for the Northwest Territories and Canada (1999-01). There were not any significant differences between the Northwest Territories and Canada for either both sexes combined, or either sex alone. It is important for the reader to exercise caution in drawing conclusions based on a small number of deaths each year.

Figure 43.1

Mortality Rate for Colorectal Cancer, Age-Standardized
Three Year Average (Deaths Per 100,000), 1999-01



Sources: Statistics Canada, Vital Statistics and Demography Division.

¹⁵ Ibid, pp. A-7 and A-11.

¹⁶ The coding system classifying the cause of death changed in 2000. This change is estimated to have had a marginal effect on comparable reporting over time. See Appendix B for more detail on the impact of the change.

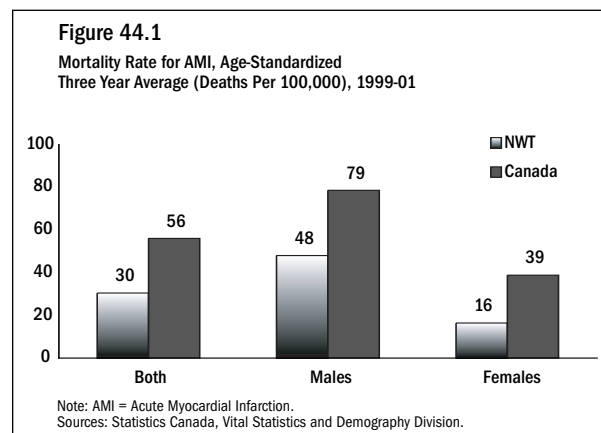
¹⁷ Ibid, p. A-19

¹⁸ Ibid, pp. A-7, A-11, A-15 and A-19

44-HLT Mortality rate for acute myocardial infarction (AMI)

Death due to acute myocardial infarction (AMI), or commonly known as heart attacks/health failure, has fluctuated over the course of the 1990s in the Northwest Territories.¹⁹

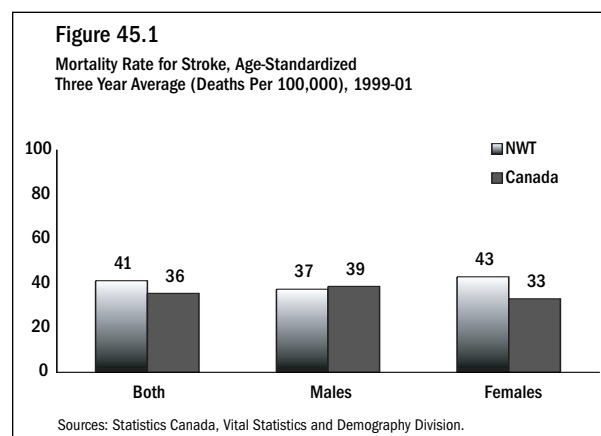
Figure 44.1 shows the three-year average age-standardized rate for AMI deaths for the Northwest Territories and Canada (1999-01). The results for both sexes combined and separately were significantly lower in the Northwest Territories than in Canada.²⁰



45-HLT Mortality rate for stroke

Death due to stroke has remained relatively consistent over the 1990s in the Northwest Territories.²¹

Figure 45.1 shows the three-year average age-standardized rate for stroke deaths for the Northwest Territories and Canada (1999-01). The results for both sexes combined and separately were not significantly different between the Northwest Territories and Canada.²²



Cancer Survival Rates

46-HLT Five-year relative survival rate for lung cancer

Given the small number of cancer cases in the Northwest Territories, the rate for this indicator is too small to report in a reliable manner.

47-HLT Five-year relative survival rate for prostate cancer

Given the small number of cancer cases in the Northwest Territories, the rate for this indicator is too small to report in a reliable manner.

48-HLT Five-year relative survival rate for breast cancer

Given the small number of cancer cases in the Northwest Territories, the rate for this indicator is too small to report in a reliable manner.

49-HLT Five-year relative survival rate for colorectal cancer

Given the small number of cancer cases in the Northwest Territories, the rate for this indicator is too small to report in a reliable manner.

¹⁹ NWT Department of Health and Social Services, *Report to Residents of the Northwest Territories on Comparable Health and Health System Indicators*, 2002, p. 12.

²⁰ The coding system classifying the cause of death changed in 2000. This change is estimated to have had a marginal effect on comparable reporting over time. See Appendix B for more detail on the impact of the change.

²¹ Ibid, p. 12.

²² The coding system classifying the cause of death changed in 2000. This change is estimated to have had a marginal effect on comparable reporting over time. See Appendix B for more detail on the impact of the change.

Cancer Incidence

Age-standardized incidence rates measure the appearance of new cancers. This incidence rate is influenced by two main groups of factors: (1) the underlying rate of cancer incidence, which in turn reflects, in part, the prevalence of risk factors such as smoking, and hence the success of primary prevention efforts, and (2) the rate of detection and diagnosis of cancers, which in turn can be influenced by the intensity and effectiveness of cancer screening programs.

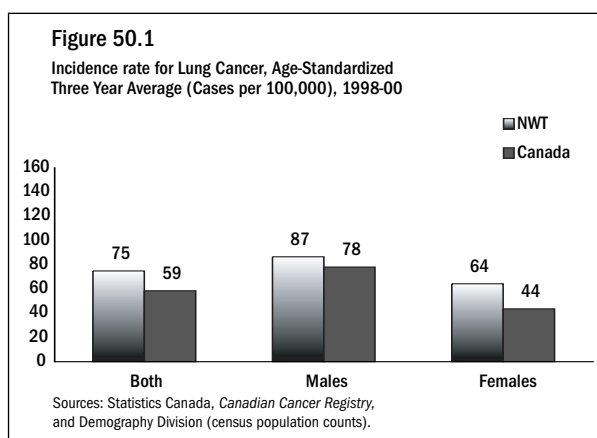
Unfortunately from the viewpoint of interpreting this indicator, these two factors work in opposite directions. For example, an increase in measured cancer incidence could reflect either a deterioration in healthy life style or an improvement in screening. However, this latter kind of “screening artifact” is unlikely to carry on for a long period of time so that generally, a declining incidence of cancer suggests a positive change in population health. This interpretation issue is being addressed by the addition of staging data to the cancer registry systems. Cancer staging provides information on how advanced (serious) the cancer is at the time of diagnosis.

The following four indicators compare cancer incidence rates for the top four cancers in both the Northwest Territories and Canada. As with cancer deaths, a more in-depth analysis of cancer in the Northwest Territories can be found in *Cancer in the Northwest Territories 1990-2000: A Descriptive Report*.

50-HLT Incidence rate for lung cancer

Lung cancer has been the second most diagnosed cancer overall in the Northwest Territories during the 1990s.

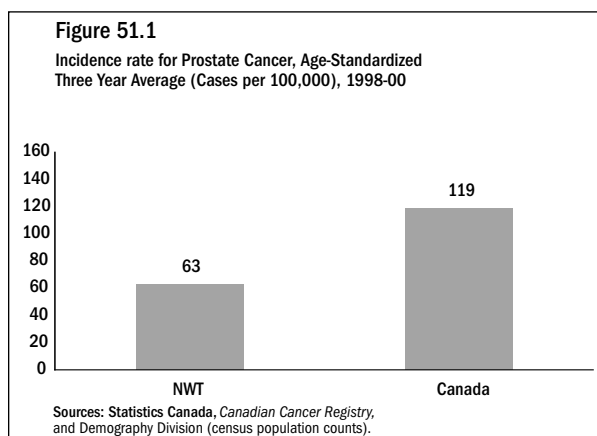
Figure 50.1 shows the incidence rate for lung cancer between 1998 and 2000 for both the Northwest Territories and Canada. The Northwest Territories had a significantly higher rate of lung cancer for both sexes combined and for females, but not for males.



51-HLT Incidence rate for prostate cancer

The Northwest Territories has historically had a lower rate of prostate cancer than the national average.

Figure 51.1 shows the incidence rate for prostate cancer between 1998 and 2000 for both the Northwest Territories and Canada. Men in the Northwest Territories had a significantly lower rate of prostate cancer than men nationally.²³



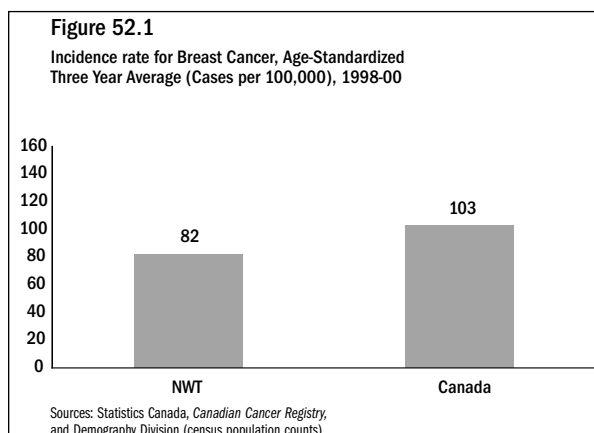
²³ In 41-HLT, mortality rate for prostate cancer, there was no difference between the Northwest Territories and Canada. Readers should note that some cancers are more common than others but have a higher chance of survival than others. Therefore, the rate of death and the rate of incidence of a particular cancer or disease are not always the same.

52-HLT Incidence rate for breast cancer

Breast cancer is the most common cancer for women in the Northwest Territories, and is the third highest overall, behind colorectal and lung cancer.²⁴

Figure 52.1 shows the incidence rate for breast cancer between 1998 and 2000 for the Northwest Territories and Canada.

For 1998-2000, women in the Northwest Territories had a significantly lower rate of breast cancer than women nationally. However, despite the lower rate in recent years, for the 1990s as a whole there was not a significant difference in the rate of breast cancer between the Northwest Territories and Canada.²⁵



53-HLT Incidence rate for colorectal cancer

Colorectal cancer is the most common cancer, overall, in the Northwest Territories.

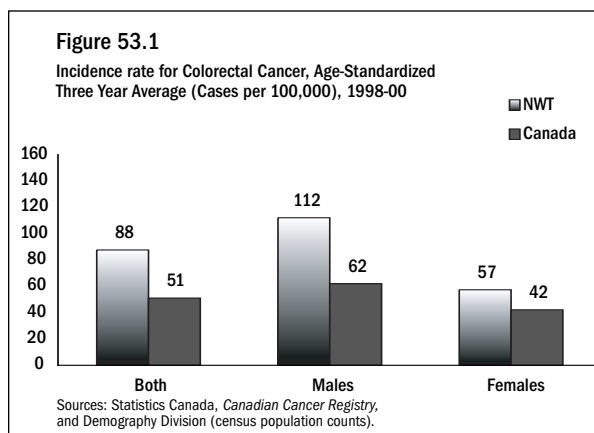
Figure 53.1 shows the incidence rate for colorectal cancer from 1998 to 2000 for the Northwest Territories and Canada. The Northwest Territories had a significantly higher rate of colorectal cancer for both sexes combined and for men, but not for women.

Potential Years of Life Lost by Selected Causes

The most widely used mortality-based indicator of population health is life expectancy. It measures the average expectation of life, and therefore reflects both changing lengths of life for seniors, and changes in mortality rates for the non-elderly (under age 75).

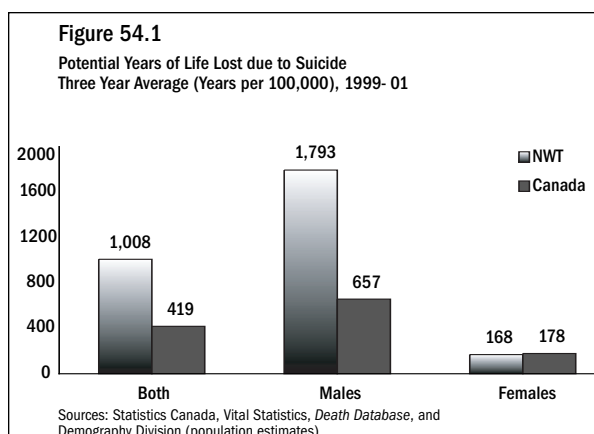
Potential years of life lost (PYLL) is a complementary indicator focusing on mortality amongst the non-elderly. It is an overall indicator of population health and wellbeing, as well as effectiveness of preventative programs.²⁶

PYLL is calculated by assuming that an average productive life span is 75 years, and by subtracting the age at which a person dies from 75. For example, if a person dies at age 50, then the PYLL is 25 years. The PYLL for an entire population is simply the sum of all the years of life lost by those who died prior to reaching the age of 75.



54-HLT Potential years of life lost due to suicide

Figure 54.1 shows the rate of PYLL due to suicide for 1999 to 2001 for the Northwest Territories and Canada. The Northwest Territories rate of PYLL due to suicide is twice that of the national rate. The rate of PYLL due to suicide for men in the Northwest Territories was nearly three times compared to men nationally, whereas it was essentially the same for women between the Northwest Territories and Canada.



²⁴ Ibid, *Cancer in the Northwest Territories 1990-2000: A Descriptive Report*, Tables 1 and 2, p. 11.

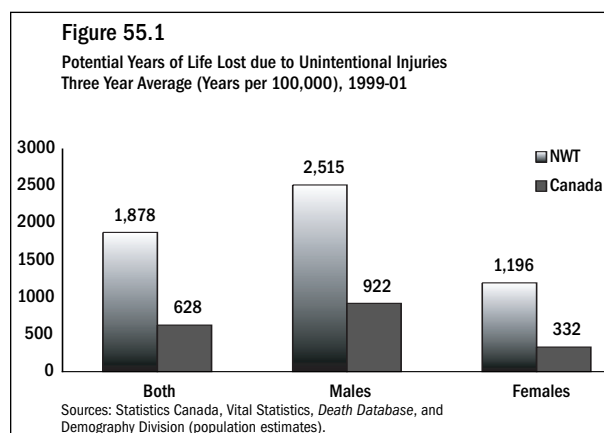
²⁵ Ibid, p. A-15.

²⁶ At older ages, co-morbidity becomes very frequent and death is often the result of a complex process. This can make PYLL more meaningful for diseases (conditions) that can be identified as the sole cause of death and for those that die at an early age, such as injuries or suicide.

55-HLT Potential years of life lost due to unintentional injury

Figure 55.1 PYLL due to unintentional injuries between 1999 and 2001. The Northwest Territories rate of PYLL due to unintentional injuries was nearly three times that of the national rate. As was the case with suicide, men were more likely than women to die prematurely due to an unintentional injury.

The soon to be released *Injuries in the Northwest Territories* provides an in-depth analysis on unintentional injuries in the Northwest Territories.



Communicable Diseases ²⁷

The spread of communicable diseases is preventable, either through vaccination, screening, treatment, or prevention.

A health care system's success in reducing the incidence of communicable disease is dependent on the strength of its public health activities (i.e., immunization, environmental health and health promotion).

56-HLT Incidence rate for invasive meningococcal disease (Age under 20 years)

Invasive meningococcal disease can cause bacterial meningitis. Most cases of this disease occur in the 0-19 age group. Very effective vaccines are available against invasive meningococcal disease, and can be given to infants as young as two months old.

The most recent comparable data on invasive meningococcal disease is for 2002. There were no cases of invasive meningococcal disease among 0 to 19 year olds in Northwest Territories for the time period 1998 to 2002.

57-HLT Incidence rate for measles

The Pan-American Health Organization adopted the goal of measles elimination by 2000; it is also the only national goal and objective that has been adopted by all provinces and territories. There has not been a case of measles since 1993 in the Northwest Territories.

58-HLT Incidence rate for haemophilus influenza b(invasive)(Hib) disease

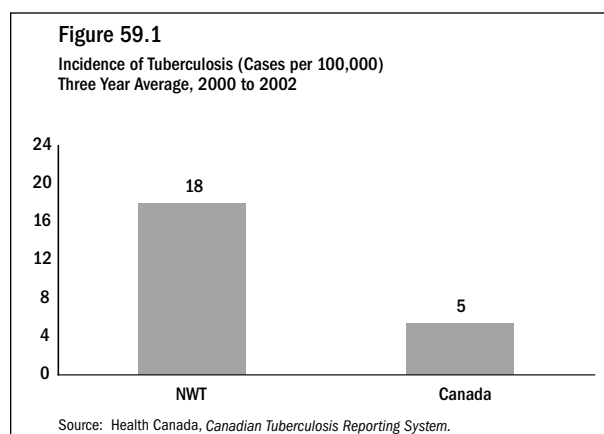
Before the introduction of Hib vaccines, Hib was the most common cause of bacterial meningitis and a leading cause of other serious infections in children. Between 2000 and 2002, there was one case of Hib in a child under the age of five in the Northwest Territories.

59-HLT Incidence rate for tuberculosis

Tuberculosis (TB) is an important public health concern that has become more prominent nationally in recent years. Multiple drug resistance to TB is also emerging as a problem.

TB cases are few in actual numbers in the Northwest Territories, and tend to occur in relatively large numbers (clusters) in the course of one year, due to an outbreak, where in other years there are relatively few cases.

Figure 59.1 shows the incidence rate of pulmonary TB between 2000 and 2002. The rate of TB in the Northwest Territories was three times higher than the rate nationally. While the rate is significantly higher, it represents 22 cases in total over the three-year period.

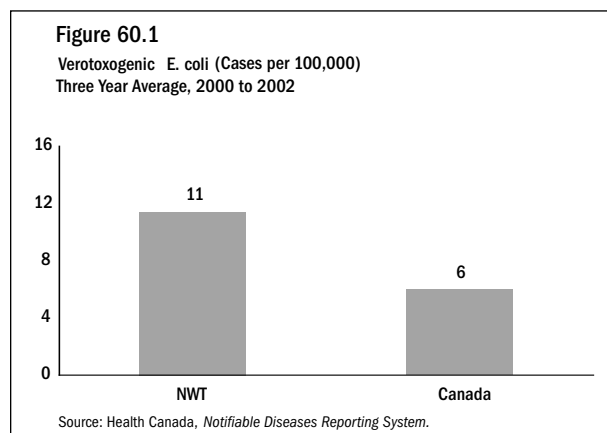


²⁷ See Appendix B: Methodology and Data Sources for more detail on data sources and data limitations for indicators 56-HLT to 62-HLT.

60-HLT Incidence rate for Verotoxogenic E. Coli

Verotoxogenic *E.coli* is a food and water borne disease which can cause extreme illness, and in some cases, death.

Figure 60.1 shows the average incidence of Verotoxogenic *E.coli*, between 2000 and 2002 for the Northwest Territories and Canada. While the difference between the Northwest Territories and Canada was significant, outbreaks are inconsistent in the Northwest Territories. Due to a small population, the varying severity of infection (some people may not seek medical attention if resulting illness is not severe) and the nature of an *E. coli* outbreak (one incident can result in several people becoming ill), total cases vary from year to year. In the time period above, there were approximately 14 cases, none resulting in death. In contrast, in the time period between 1994 and 1996 there were no reported cases of *E. coli*.²⁸



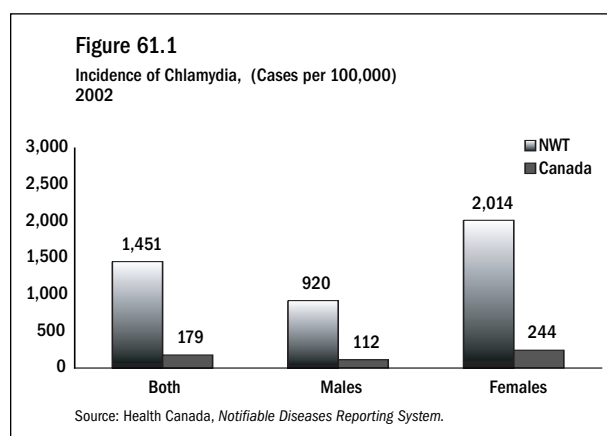
61-HLT Incidence rate for Chlamydia

Chlamydia is a common sexually transmitted infection (STI) that may result in female infertility and ectopic pregnancy. The higher incidence rates relative to other STIs may be a more sensitive indicator of change in risk behaviours and reflect the effectiveness of primary and secondary prevention.

Unlike other communicable diseases in this report, there are a large number of cases of Chlamydia in the Northwest Territories each year.

Figure 61.1 shows the incidence of Chlamydia in 2002 for Northwest Territories and Canada.

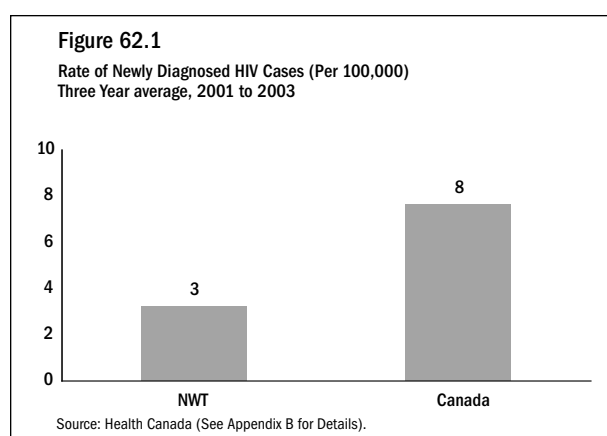
The incidence of Chlamydia was 8 times higher amongst women and men in the Northwest Territories when compared to their peers nationally.



62-HLT Rate of newly reported HIV cases

The number of new HIV diagnoses is a function of both HIV incidence and HIV testing patterns. The number of HIV test reports in a given year includes individuals infected in that year as well as individuals infected in previous years; most individuals will not be diagnosed in the year they are infected. In addition to changes in HIV incidence and testing patterns, the number of new diagnoses is also influenced by reporting delays and improved removal of duplicate reports. Thus, the numbers/rates of reported positive tests must be interpreted with caution.

Figure 62.1 shows the three-year average number of newly diagnosed HIV cases per 100,000 person years in the Northwest Territories and Canada for 2001 to 2003. The difference between the Northwest Territories and Canada was not significant. Moreover, readers should interpret the results with caution as the rate for the Northwest Territories is based on four cases over the three-year period.



²⁸ NWT Department of Health and Social Services, *Report to Residents of the Northwest Territories on Comparable Health and Health System Indicators*, September 2002, Figure 13c, p. 28.

Other Indicators

63-HLT Prevalence of diabetes (Feature)

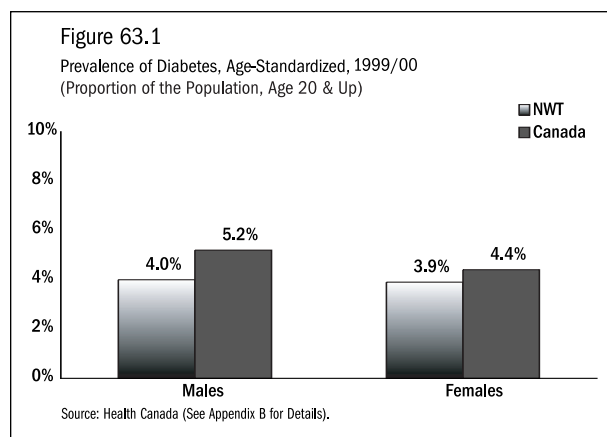
Diabetes, undiagnosed and untreated, can lead to a large number of serious health problems including: blindness, limb amputations, and death.

There are three types of diabetes: Type 1, Type 2 and gestational. Type 1 usually occurs before age 30, and affects about 10% of all diabetics. Type 2 generally begins after the age of 40, though it is on the increase in younger ages, and accounts for about 90% of all diabetics. Gestational diabetes occurs during pregnancy and ends after giving birth. Nevertheless, 40 to 50% of women with gestational diabetes will go on to develop Type 2 diabetes within 15 years after giving birth.²⁹

Type 2 is of the greatest concern for the population of the Northwest Territories. Generally, Type 2 diabetics are overweight or obese and have a sedentary or inactive lifestyle. A family history of diabetes increases the risk of getting the disease.³⁰

The prevalence of diabetes – the total number of people with diabetes – gives an idea of the importance or burden of this disease at a given time and is widely used in public health monitoring and planning. It has been estimated that approximately 5% of all Canadians (age 20 and over) are affected by diabetes, thereby generating direct costs related to physician and hospital care, prescription drugs, and other costs borne by individuals, as well as indirect costs including premature death or disability.³¹

In 1999 the National Diabetes Surveillance System (NDSS), as part of the Canadian Diabetes Strategy, began operations to determine the prevalence of diabetes across Canada. Figure 63.1 shows the most recent results released by the NDSS. Approximately 4% of men and women in the Northwest Territories were found to be diabetics, significantly lower, than the 5.2% of men and 4.4% of women nationally.³² Readers should be cautious in interpreting these diabetes prevalence rates (See Appendix B for details).

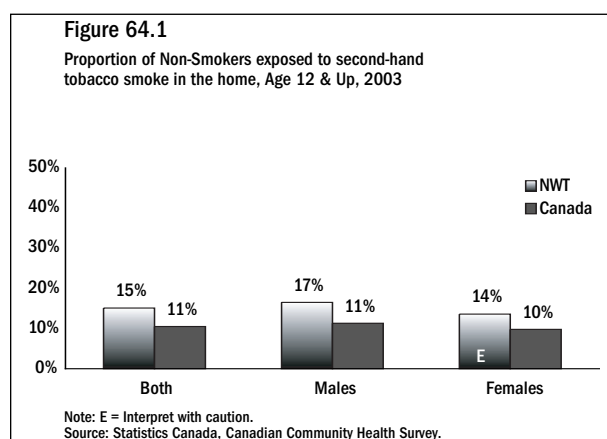


64-HLT Exposure to second-hand tobacco smoke rate

The relationship between second-hand tobacco smoke and adverse health effects is well accepted. Besides being a known mucous membrane irritant, second-hand smoke exposure is linked to increases in mortality from lung cancer and cardiovascular disease. Second-hand smoke has serious consequences for children: smoking mothers bear children with lower birth weights, and children living in homes where they are exposed to tobacco smoke have higher rates of asthma and respiratory tract problems. There is strong evidence of an association between exposure to second-hand tobacco smoke and respiratory illness.

The CCHS asked non-smokers, age 12 and up, whether or not they had been regularly exposed to second-hand tobacco smoke in the home, private cars, or public places.

Figure 64.1 shows the proportion of non-smokers exposed to second-hand tobacco smoke in the home. In 2003, approximately 15% of Northwest Territories residents reported regular exposure to tobacco smoke in the home, compared to 11% of Canadians. The differences between the results for the Northwest Territories and Canada were significant for both sexes, together and for men but not for women.



²⁹ Elsie De Roose, et al, "Gestational Diabetes Mellitus" in Epi North, Fall 2001, Vol. 12, Issue 4, p. 12.

³⁰ NWT Department of Health and Social Services, *A Profile of NWT Seniors* May 2003, pp. 37-38.

³¹ Health Canada, *Responding to the Challenge of Diabetes in Canada: First Report of the National Diabetes Surveillance System (NDSS) 2003*, p. 3.

³² Proportions for Canada exclude Newfoundland and New Brunswick.

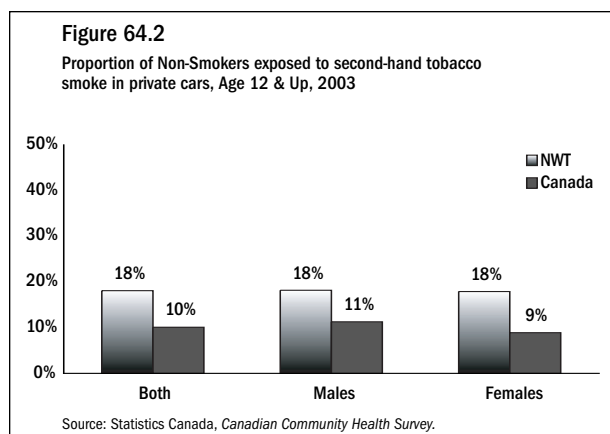


Figure 64.2 shows the proportion of non-smokers exposed to second-hand tobacco smoke in private cars. Similar to exposure in homes, Northwest Territories residents were more likely to report exposure to tobacco smoke in private cars in 2003 than was the case nationally. Results are significantly different between the Northwest Territories and Canada for both sexes together and each separately.

65-HLT Self-reported health (Feature)

Studies indicate that when individuals rate their health in response to this question, they tap into information that has important predictive power relating to chronic disease incidence, functional decline and ultimately survival. Numerous longitudinal studies have found that self-reported health is predictive of mortality even when more objective measures such as clinical evaluations are taken into account.

The CCHS asked Canadians to rate their health using a five point reporting scale, ranging from excellent to poor. Figure 65.1 shows the age-standardized proportion of the population reporting their health to be either excellent or very good in 2003. Approximately 54% of Northwest Territories residents reported their health to be excellent or very good compared to 60% of Canadians. This difference is significant for both sexes combined, and for women, alone. However, there is no significant difference for men.

66-HLT Teenage smoking rates (Feature)

66a-HLT Teenage smoking rates: proportion of current teenage smokers³³

Tobacco use is the leading cause of preventable illness and death in Canada. Because of the addictive nature of nicotine, youth smoking is of particular concern. It is estimated that approximately eight out of every 10 people who try smoking become habitual smokers.

The CCHS asked teenagers aged 12 to 19 whether they smoked tobacco or not, and how often they smoked. Figure 66a.1 shows the proportion of teens the reported they were current smokers (daily and occasional).

³³ Health Canada, The Scoop on Smoking – Health Canada for Youth.
<http://www.hc-sc.gc.ca/hecs-sesc/tobacco/youth/scoop.html>.

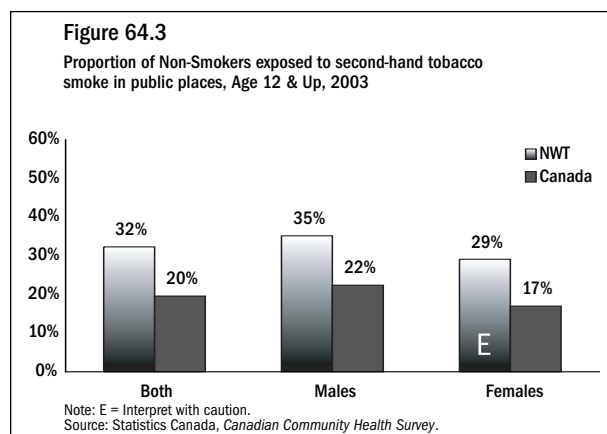
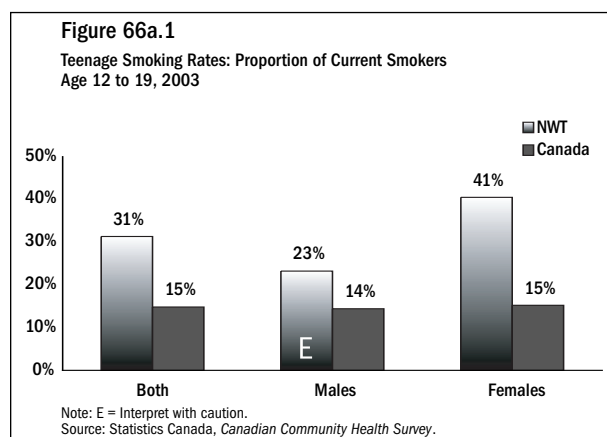
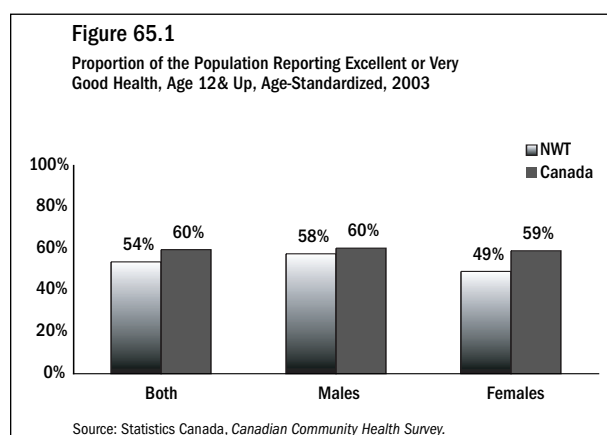


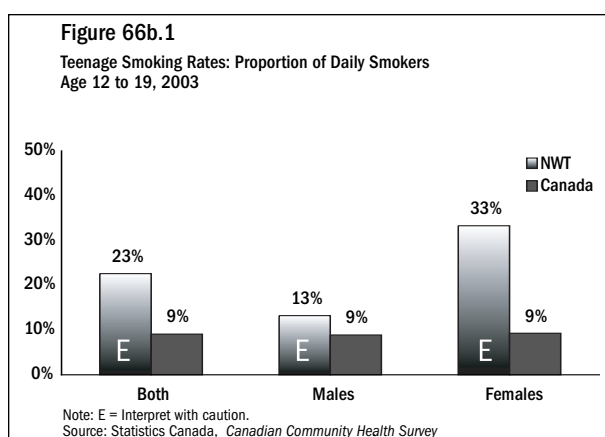
Figure 64.3 shows the proportion of non-smokers exposed to second-hand tobacco smoke in public places, such as bingo halls, restaurants or bars. Similar to exposure in private care, Northwest Territories residents were more likely to report exposure to tobacco smoke in public places than was the case nationally. Thirty-two percent of Northwest Territories residents reported exposure in public places, significantly higher than the national results. Results are also significantly different for women and men, individually.



In 2003, the Northwest Territories had a significantly higher number of teens that reported they were current smokers than was the case nationally. Teen girls were almost three times as likely to be smokers in the Northwest Territories when compared to the national average. The results for Northwest Territories teen boys were not significantly different from their peers nationally but they should be interpreted with caution due to small sample sizes.

66b-HLT Teenage smoking rates: proportion daily smokers

Daily smokers are more likely than occasional smokers to become addicted, as well as, to negatively impact their health. Figure 66b.1 shows the proportion of teens reporting they were daily smokers in 2003. While all the results for the Northwest Territories should be interpreted with caution, a significantly higher proportion of teens in the Northwest Territories were more likely to be daily smokers than was the case nationally. Once again, teen girls made up most of the difference, with more than three times the national average - a significant difference. There was not a significant difference between teen boys nationally and teen boys in the Northwest Territories.



67-HLT Physical activity (Feature)

Maintaining physical activity is associated with a range of health benefits. Many studies have shown that regular physical activity confers major heart health benefits and that inactivity is a major risk factor for heart disease. Recent evidence from the National Population Health Survey supports this conclusion, and also shows that physically active individuals are less likely to become depressed.

The CCHS asked people about what activities they participated in and how often. From these answers, respondents were placed in three categories based on calories burned from their level of activity: active, moderate or inactive.

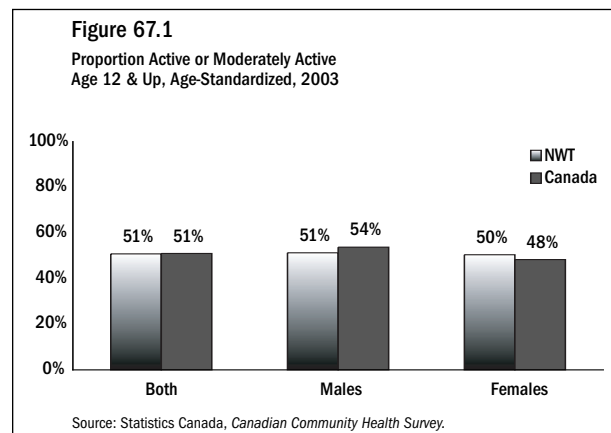


Figure 67.1 provides the combined results (age-standardized) of those respondents found to be active or moderately active for 2003. Just over 50% of both populations were considered to be active or moderately active. There were not any significant differences for each sex or combined between the Northwest Territories and Canada.

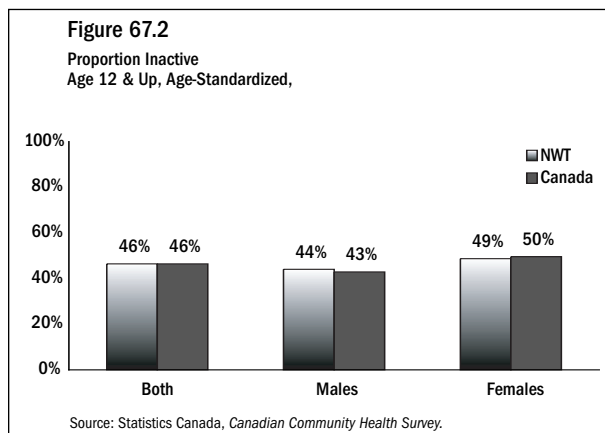


Figure 67.2 shows the proportion of population found to be inactive. There were not any differences between the Northwest Territories and Canada for either sex or both sexes combined.

Approximately 46% of the population was considered inactive in both the Northwest Territories as well as nationally.

Statistics Canada has found that some of the differences in the results between Northwest Territories and Canada for indicator 67-OI could be due to the different way the Canadian Community Health Survey was delivered in Northwest Territories compared to the rest of Canada. The Northwest Territories relied on a larger proportion of face-to-face interviews when compared to the national average, which had a larger proportion of telephone interviews.

68-HLT Body Mass Index (Feature)

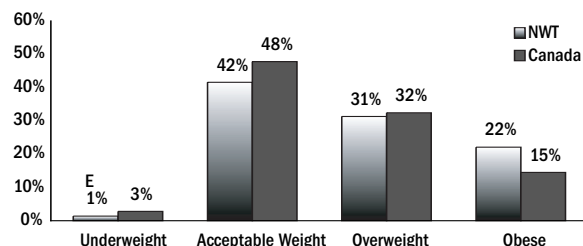
Obesity has been identified as a major risk factor contributing to a number of chronic illnesses such as diabetes and heart diseases. The Body Mass Index is most common method of determining if an individual's weight is in health range. The BMI is based on self-reported height and weight to the CCHS, and is calculated for people age 18 and over, excluding pregnant women and people who are shorter than 91.4 centimetres (3 feet) or taller than 210.8 centimetres (6 feet, 11 inches).

Figure 68.1 compares the Northwest Territories to Canada in terms of the four weight categories: underweight, acceptable weight, overweight and obese. Approximately 22% of the Northwest Territories population was obese in 2003, significantly higher than the national rate of 15%.

There was not a significant difference in the proportion overweight between the Northwest Territories and Canada. Given a higher proportion of the population were obese, there was a significantly lower proportion of people at an acceptable weight in the Northwest Territories when compared to Canada. While the Northwest Territories had a significantly lower proportion of the population found to be underweight, the results should be interpreted with caution due to the small survey sample size falling into this weight category.

Figure 68.1

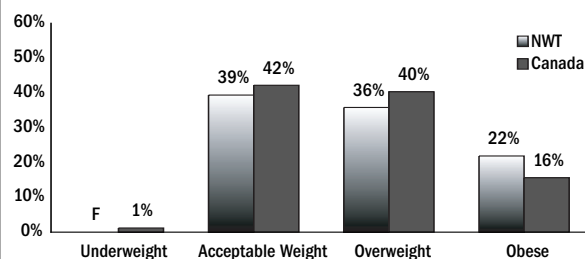
Proportion of the Population by Body Mass Index
Both Sexes, Age 18 & Up, Age-Standardized, 2003



Note: E = Interpret with caution.
Source: Statistics Canada, Canadian Community Health Survey.

Figure 68.2

Proportion of the Population by Body Mass Index
Males, Age 18 & Up, Age-Standardized, 2003

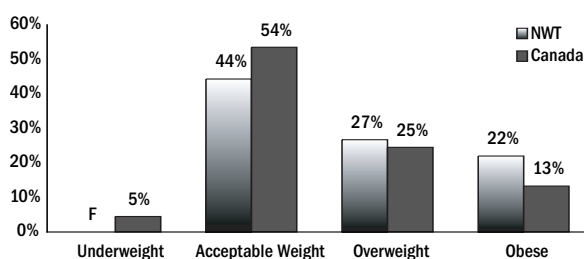


Note: F = Data suppressed.
Source: Statistics Canada, Canadian Community Health Survey.

Figure 68.2 compares men across the same four weight categories. A significantly higher proportion of men in the Northwest Territories were obese than was the case nationally in 2003. In the categories of acceptable weight and overweight there were not any significant differences between the Northwest Territories and Canada.

Figure 68.3

Proportion of the Population by Body Mass Index
Males, Age 18 & Up, Age-Standardized, 2003



Note: F = Data suppressed.
Source: Statistics Canada, Canadian Community Health Survey.

Figure 68.3 compares women across the same four weight categories. Similar to men, approximately 22% of women in the Northwest Territories were obese, significantly higher than the national rate of 13%. Also, the Northwest Territories had a significantly lower proportion of women considered to be at an acceptable weight.

Statistics Canada has found that the some of the differences in the results between Northwest Territories and Canada for indicator 68-OI could be due to the different way the Canadian Community Health Survey was delivered in Northwest Territories compared to the rest of Canada. The Northwest Territories relied on a larger proportion of face-to-face interviews when compared to the national average, which had a larger proportion of telephone interviews.

69-HLT Immunization for influenza, aged 65 plus ("Flu Shot") (Feature)

Each year North Americans are faced with potentially deadly strains of influenza. For many people the flu is a mild nuisance, at worst resulting in a few days off work to recover. However, for people in high-risk groups, such as seniors, influenza can be a serious health concern, sometimes resulting in death.

Vaccines are developed each year to target the particular strain(s) of influenza expected to hit North America during the flu season (usually November to March). The CCHS asked seniors whether or not they had been immunized, and when the last immunization took place. Seniors living in institutions have been excluded from the survey. Because the CCHS only involved a small sample of seniors, only a few results on immunizations can be reported.

Table 69.1 provides the survey results on the flu shot for seniors (age-standardized) as of 2003. There were no significant differences between seniors in the Northwest Territories and seniors nationally.

Table 69.1
Immunization for Influenza (Flu Shot), Age 65 and Up
Time since last shot, 2003 (Age-Standardized)

	NWT			Canada	
	Past Year	1 Year or More	Never	Past Year	1 Year or More
Both	63%	F	25%	62%	10%
Males	58%	F	F	61%	10%
Females	67%	F	F	63%	11%

Notes: Grey = Interpret with Caution; F=Data Suppressed
Source: Statistics Canada, Canadian Community Health Survey.

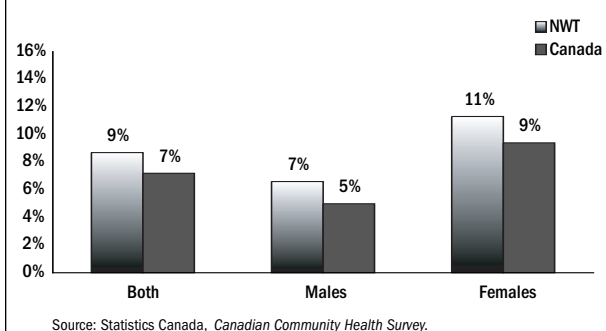
70-HLT Prevalence of depression

Depression is the most common form of mental illness and one of the major causes of suicide. Depression is also sometimes linked with other conditions such as alcoholism and substance abuse. It is often characterized by feelings of profound sadness and sense of helplessness and hopelessness. This depressed mood is often accompanied by a variety of other symptoms including: changes in appetite or weight, a general lack of energy, disruptions of usual sleep patterns, variations in routine activities, decreased feeling of self-worth, and difficulties concentrating or making decisions.

The CCHS asked the respondents aged 12 and over a series of questions to determine whether or not they showed symptoms of depression, and establishes the probability that they may suffer a "major depressive episode". Figure 70.1 shows the proportion of the population in 2000-01 (age-standardized) who were probably depressed in the Northwest Territories versus Canada.³⁴

Approximately 9% of the Northwest Territories population was probably depressed compared to 7% nationally, a small but significant difference. A significantly higher proportion of men were probably depressed in the Northwest Territories than for Canada. The results for women were not significantly different.

Figure 70.1
Proportion of the Population Probably Depressed
Age 12&Up, Age-Standardized, 2000-01



³⁴ National results are not available for 2003, as the questions around depression were optional content on the CCHS.

Conclusion

This report offers one perspective on the health of the people of the Northwest Territories, and on their health care system. It is a report that fulfills an ongoing commitment made by First Ministers to provide regular reporting to Canadians on health status, health outcomes and quality of health care services.

The reader is cautioned against drawing too many conclusions from this report. Although the data are presented in a standardized fashion, the relatively low numbers of actual cases of specific diseases, and the relatively small sample sizes for survey data, can make it difficult to draw meaningful comparisons.

Overall, the report provides a strong case for the need to maintain health promotion and disease prevention initiatives. While there are many positive findings, there are also many challenges still to be overcome.

Finally, it is intended that a similar report be prepared every two years, with the next one tentatively planned for release in 2006. This will supplement the NWT Health Status Report, and the NWT Health Services Report, which are published on a five-year cycle. Taken together, these reports reflect a commitment to keep the people of the Northwest Territories well informed about the health care system and its impact on their health and well being.

Appendix A:

Annex A to the First Ministers' Accord on Health Care Renewal (February 5, 2003)

Performance Indicators

First Ministers directed Health Ministers to develop further indicators to supplement the work undertaken in follow-up to the September 2000 Communiqué. This work is to be completed by September 2003, following review by experts and stakeholders, to ensure these new indicators measure progress on achieving the reforms set out in this Accord and meet the following objectives:

- **Timely Access:** the measurement of access to essential services across the country as well as waiting times;
- **Quality:** the measurement of quality of health care services across the country, including patient safety, patient satisfaction and health outcomes;
- **Sustainability:** including measurements of the state of health human resources, equipment, information systems and value for money from the system; and
- **Health Status and Wellness.**

Ministers are to consider the following:

Timely Access Indicators

Access to health care providers/services

- % of population having a regular family doctor (FMM 2000)
- % of doctors accepting new patients
- number of multi-disciplinary primary health care organizations or teams by region (rural/urban)
- % of population having access to 24/7 primary care provider (e.g. nurse practitioner, doctor)/telehealth/online health information
- % of population routinely receiving needed care from a multi-disciplinary primary health care organization or team
- % of population with public coverage of core set of home care services

Wait Times/Volume measures for

- radiation therapy for breast and prostate cancer, cardiac bypass surgery, hip and knee replacement surgery (FMM 2000)
- referral to specialists for cancers (lung, prostate, breast, colo-rectal), heart and stroke
- emergency rooms from entry to discharge (seasonally adjusted)
- diagnostic tests (MRI, CT)
- from referral to provision of first home care service
- waiting period before being eligible for public coverage of home care services in another jurisdiction
- proportion of services/facilities linked to a centralized (provincial/regional) wait list management system for selected cancers and surgeries, referral to specialists, emergency rooms and diagnostic tests (all of the above wait time indicators)

Catastrophic Drug Coverage

- to be developed

Quality Indicators

Patient Safety

- reported medical error/events (e.g., disease surveillance, adverse drug reactions) – to be determined by proposed Institute on Patient Safety

Patient Satisfaction (FMM 2000)

- overall health care services
- hospital care
- physician care
- community-based health care
- telehealth/online information

Health Outcomes

- readmissions for selected conditions
 - AMI, pneumonia (FMM 2000)
 - congestive heart failure, GI haemorrhage
- mortality rate for cancers (FMM 2000)
- survival rate for cancers (FMM 2000)

Sustainability (Efficiency and effectiveness) Indicators

Health Human Resources

- age distribution of practicing providers by area of specialty
- number of providers (by specialty) leaving/entering the system each year
- a 10-year rolling forecast of providers expected to enter system (trained in Canada, incoming from other countries)

Equipment

- number and types of equipment installed
- number of diagnostic professionals to operate equipment
- volume flow/wait times for MRI, CT (covered under access indicators)

Information Systems

- progress on building information systems
- degree of standardization of information collected and shared for evidence-based decision-making
- degree of technology utilization based on evidence

Value for Money – qualitative indicators primarily

- annual health reports on plans and priorities reported by every jurisdiction
- expenditures linked to reform areas (link inputs to outputs)
- lessons learned and best practices shared within and between provinces/territories
- comparisons of productivity measures

Health Status and Wellness

- % of Canadians engaged in physical activities
- % of Canadians with recommended Body Mass Index (BMI)
- Potential years of life lost (PYLL)
- Disability-Free Life Expectancy (DFLE)
- Cost of Illness

Appendix B: Methodology and Data Sources

The following provides further detail on methodology and data sources for each of the indicators presented in this report.

Indicator Methods and Data Sources

For each indicator reported on, relevant exclusions are listed, followed by the formula used to calculate the rate (if relevant), data limitations and comparability issues (if any), and a detailed list of data sources.

Statistics Canada provided population statistics for all rates, unless otherwise noted.

(5-PC) Patient satisfaction with overall health care services

- Exclusions: Persons living on First Nation Reserves and on Crown lands, residents of institutions, full-time members of Canadian Armed Forces, and residents of certain remote regions are excluded from the sample. Persons less than 15 years of age are not asked this question.
- Calculation: $(\text{Numerator}/\text{denominator}) \times 100$
- Numerator: Number of individuals reporting “very satisfied” or “somewhat satisfied” with the way the health care services were provided.
- Denominator: Total population aged 15 and older who received health care services in past 12 months.
- Source: Statistics Canada, Canadian Community Health Survey, 2003.

(6-PC) Patient perceived quality of overall health care services

- Exclusions: Same as 5-PC.
- Calculation: $(\text{Numerator}/\text{denominator}) \times 100$
- Numerator: Number of individuals who rate the quality of the service received as “excellent” or “good”.
- Denominator: Total population aged 15 and older who received health care services in past 12 months.
- Source: Statistics Canada, Canadian Community Health Survey, 2003.

(7-PC) Patient satisfaction with community-based care

- Exclusions: Same as 5-PC.
- Calculation: $(\text{Numerator}/\text{denominator}) \times 100$
- Numerator: Number of individuals reporting “very satisfied” or “somewhat satisfied” with the way the community-based care was provided.
- Denominator: Total population aged 15 and older who received community-based care in past 12 months.
- Source: Statistics Canada, Canadian Community Health Survey, 2003.

(8-PC) Patient perceived quality of community-based care

- Exclusions: Same as 5-PC.
- Calculation: $(\text{Numerator}/\text{denominator}) \times 100$
- Numerator: Number of individuals who rate the quality of the care received as “excellent” or “good”.
- Denominator: Total population aged 15 and older who received community-based care in past 12 months.
- Source: Statistics Canada, Canadian Community Health Survey, 2003.

(9-PC) Patient satisfaction with telephone health line or tele-health services

- Exclusions: Same as 5-PC.
- Calculation: $(\text{Numerator}/\text{denominator}) \times 100$
- Numerator: Number of individuals reporting “very satisfied” or “somewhat satisfied” with the way the tele-health service was provided.
- Denominator: Total population aged 15 and older who used tele-health services in past 12 months.

Considerations for Indicator Quality and Comparability

At this point there is nothing leading us to think there has been misunderstanding of this survey question that would lead to poor quality of the responses or misinterpretation of the question.

This module is only asked of those respondents aged 15 or over. Respondents are asked if they have ever used a telephone health line, and if so they are asked to rate the quality of this service. Telephone health line or tele-health service was defined as: Phone based services, which offers health information often provided by a nurse or other health specialists.

Please note that there are no telephone health line services offered in Nunavut, Yukon or Northwest Territories at the time of the survey.

Source: Statistics Canada, Canadian Community Health Survey, 2003.

(10-PC) Patient perceived quality of a telephone health line or tele-health services

Exclusions: Same as 5-PC.

Calculation: $(\text{Numerator/denominator}) \times 100$

Numerator: Number of individuals who rate the quality of the service received as “excellent” or “good”.

Denominator: Total population aged 15 and older who used tele-health services in past 12 months.

Considerations for Indicator Quality and Comparability

Same as 9-PC.

Source: Statistics Canada, Canadian Community Health Survey, 2003.

(11-PC) Proportion of the population reporting contact with a telephone health line or tele-health services

Exclusions: Same as 5-PC.

Calculation: $(\text{Numerator/denominator}) \times 100$

Numerator: Number of respondents who answered yes to using a health hotline.

Denominator: Total number of respondents answering this question.

Considerations for Indicator Quality and Comparability

Same as 9-PC.

Source: Canadian Community Health Survey Cycle 2.1, Statistics Canada, 2003 (sub-sample content module).

(12-PC) Hospitalization rate for ambulatory care sensitive conditions

Technical Specifications

Exclusions: Patients not treated as inpatients in acute care hospitals (e.g., those seen only in an emergency department or chronic care institution).

Calculation: Standardized rates are age-adjusted using a direct method of standardization based the July 1, 1991 Canadian population (see figures under OI-13)

Diagnosis code(s): Based on the Alberta Health reference below, primary diagnosis code of:

Most responsible diagnosis	ICD-9 or ICD-9-CM code(s)	ICD-10 code(s)
Diabetes	250	E10, E11, E13, E14
Drug and alcohol dependency	291, 292, 303, 304, 305	F10, F11, F12-F19 (excluding F12.6, F13.6, F14.6, F15.6, F16.6, F17.6, F18.6 and F19.6), F55
Neurotic depressive disorders	300, 311	F32.0, F32.9, F34.1, F40, F41, F42, F44, F45.0, F45.1, F45.2, F48, F53.0, F68.0, F99
Hypertension	401, 402, 403, 404, 405	I1
Asthma	493	J45

Numerator: Number of ACSC inpatient separations from acute care hospitals (discharges and deaths) during the year, by age and gender categories.

Denominator: Population by age and gender categories, either from census or census estimates, for the year.

Considerations for Indicator Quality and Comparability

A re-abstraction study designed to examine the consistency of coding for this indicator yielded a 10.8% discrepancy rate overall. In the majority of discrepant records, however, an ACSC condition did appear as a diagnosis on the patient record, although not as a most responsible diagnosis. Only 13 of 272 re-abstracted records did not have an ACSC condition recorded in any diagnosis field. Almost half of these (6) were originally coded as neurotic or depressive disorders, and all of these records were re-abstracted as a mental disorder, although the re-abstracted condition did not strictly qualify as ACSC. This suggests that the ACSC indicator is consistently coded and may be compared inter-jurisdictionally and across time, with one exception. Caution is advised when comparing 2001/02 rates with previous years rates for provinces coding in ICD-10-CA/CCI. It is important to note that some of the differences identified may not be due to the implementation of ICD-10-CA/CCI but may reflect other factors such as the establishment or withdrawal of programs and services specific to the conditions comprising this indicator.

Source: Hospital Morbidity Database, CIHI. Census, Statistics Canada; ISQ.

(13-PC) Proportion of female population aged 18 - 69 with at least one PAP smear test in the past three years

Exclusions: Persons living on First Nation Reserves and on Crown lands, residents of institutions, full-time member of Canadian Armed Forces and residents of certain remote regions are excluded from the sample.

Calculation: $(\text{Numerator}/\text{denominator}) \times 100$

Numerator: Number of women aged 18 - 69 who reported having a PAP smear test within the past three years.

Denominator: Total number of women aged 18 - 69.

Source: Statistics Canada, Canadian Community Health Survey, 2003.

(14-PC) Proportion of women aged 50 - 69 obtaining mammography in the past two years

Exclusions: Same as 13-PC.

Calculation: $(\text{Numerator}/\text{denominator}) \times 100$

Numerator: Number of women who indicate that "most recent mammogram" was within the last two years.

Denominator: Women age 50 - 69 who answered the CCHS questions on mammography.

Source: Statistics Canada, Canadian Community Health Survey, 2003.

(15-HC) Home care clients per 100,000 population, all ages

Note: Numbers are average monthly count estimates based on administrative data.

Calculation: $(\text{Numerator}/\text{denominator}) \times 100,000$.

Numerator: Number of distinct individuals receiving publicly funded home care services

Denominator: Total population.

Considerations for Indicator Quality and Comparability

NWT home care rates are based on an estimate of monthly client counts and are not based on unique counts.

Source: Provincial/Territorial administrative databases and NWT Bureau of Statistics.

(16-HC) Home care clients per 100,000 population, aged 75 plus

Exclusions: Numbers are average monthly count estimates based on administrative data.

Calculation: $(\text{Numerator}/\text{denominator}) \times 100,000$.

Numerator: Number of distinct individuals age 75 or older receiving publicly funded home care services

Denominator: Total population age 75 or older.

Considerations for Indicator Quality and Comparability

Same as 15-HC

Source: Provincial/Territorial administrative databases and NWT Bureau of Statistics.

(25-01) 30-day in-hospital stroke mortality rate

Calculation: A logistic regression model is fitted with age, gender, type of stroke, and select co-morbid conditions as independent variables. Coefficients derived from the logistic model are used to calculate the probability of in-hospital death following stroke for each case (episode). The expected in-hospital death rate of a province/territory is the sum of these case probabilities divided by the total number of cases. The risk-adjusted mortality rate (RAMR) is calculated by dividing the observed in-hospital death rate of each province/territory by the expected in-hospital death rate of the region and multiplying by the average in-hospital death rate. A 95 percent confidence interval for the RAMR is also calculated. The co-morbid conditions entered in the model, coefficient values and the method used to calculate confidence intervals are available upon request.

Denominator (Index Episode)

Inclusion Criteria:

Most responsible diagnosis of stroke (ICD-9 or ICD-9-CM 430, 431, 432, 434 or 436 or ICD-10 I60-I62, I63.3-I63.5, I63.8, I63.9, I64)

1. Admission between April 1, and March 1 of the following year (period of case selection ends March 1 to allow for 30 days of follow-up)
2. Age at admission between 20 and 105 years
3. Gender recorded as male or female
4. Admission to an acute care institution

Exclusion Criteria:

5. Records containing an invalid Health Card Number
6. Records indicating that a provincial resident was seen in a facility outside of the province (to prevent duplicate counts)
7. Patients who had a stroke admission within one year prior to the date of the index episode
8. Records where stroke is coded as a complication

Numerator: Number of deaths from all causes that occur in-hospital within 30 days of admission for stroke.

Denominator: Total number of stroke episodes in an 11- month period.

Considerations for Indicator Quality and Comparability

In a study designed to assess the consistency of coding for stroke, 4.9% of cases re-abstracted were found to have a condition other than stroke recorded as the most responsible diagnosis. This suggests that the overall level of agreement is high and that the rates are based on data consistently coded. The effect of implementation of the ICD-10-CA classification system upon 30-day in-hospital stroke mortality was minimal, therefore rates may be compared across the three individual years of data and between jurisdictions.

Source: CIHI, Hospital Morbidity Database.

(28-01) Patient satisfaction with hospital care

Exclusions: Same as 5-PC.

Calculation: $(\text{Numerator}/\text{denominator}) \times 100$

Numerator: Number of individuals reporting "very satisfied or "somewhat satisfied" with the way hospital services were provided.

Denominator: Total population aged 15 and older who received any health care services in hospital in the past 12 months.

Source: Statistics Canada, Canadian Community Health Survey, 2003.

(29-01) Patient perceived quality of hospital care

Exclusions: Same as 5-PC.

Calculation: $(\text{Numerator}/\text{denominator}) \times 100$

Numerator: Number of individuals reporting "excellent" or "good" with the care received.

Denominator: Total population aged 15 and older who received any health care services in hospital in the past 12 months.

Source: Statistics Canada, Canadian Community Health Survey, 2003.

(34-HR) Patient satisfaction with physician care

Exclusions: Same as 5-PC.
Calculation: $(\text{Numerator/denominator}) \times 100$
Numerator: Number of individuals reporting “very satisfied” or “somewhat satisfied” with the service provided.
Denominator: Total population aged 15 and older who used health care services in past 12 months.
Source: Statistics Canada, Canadian Community Health Survey, 2003.

(35-HR) Patient perceived quality of physician care

Exclusions: Same as 5-PC.
Calculation: $(\text{Numerator/denominator}) \times 100$
Numerator: Number of individuals reporting “excellent” or “good” with the care received.
Denominator: Total population aged 15 and older who used health care services in past 12 months.
Source: Statistics Canada, Canadian Community Health Survey, 2003.

(36a-HLT) Life expectancy for overall population

Note: Detailed information on calculations and exclusions for life expectancy can be provided upon request (Planning, Accountability and Reporting Division, NWT Department of Health and Social Services, ph 867-873-7918 or 867-920-8946).
Exclusions: Non-residents of Canada are excluded from the deaths and population estimates used for the life tables.
Source: Statistics Canada, Vital Statistics files, Birth and Death Databases and Demography Division (population estimates); ISQ.

(38-HLT) Infant mortality

Exclusions: Births to mothers not resident in Canada, and infant deaths to non-residents of Canada. Infants born outside the province/territory of residence of their mothers or infants who die outside the province/territory of their mother are included in the rates for the mother's province/territory of residence. For example, Yellowknife, NWT babies who die in Edmonton, Alberta are not counted in the infant mortality rates for Alberta; they are counted in the infant mortality rates for the NWT.
Calculation: $(\text{Number of deaths/total live births}) \times 1,000$
Numerator: Number of deaths (excluding estimated number weighing less than 500 grams at birth) at less than one year of age, in a given year [for the jurisdiction].
Denominator: Total live births weighing at least 500 grams in a given year [for the jurisdiction].

Considerations for Indicator Quality and Comparability

Estimates for more recent years than provided by Statistics Canada/ISQ may be calculated using births and deaths statistics available to each jurisdiction and are therefore preliminary estimates subject to future revisions.

Source: Statistics Canada, Vital Statistics, Births and Deaths databases; ISQ.
Statistics Canada will provide an infant mortality indicator adjusted to exclude the number of live births of infants with a birth weight less than 500 grams from the numerator (infant deaths) and the denominator (live births).

(39-HLT) Low birth weight

Exclusions: Births with unknown birth weight; births to mothers not resident in Canada are excluded from the numerator and denominator; infants born outside the province/territory of residence of their mothers are included in the rates for the mother's province/territory of residence.
Calculation: $\text{Low birth weight percentage} = (\text{numerator/denominator}) \times 100$
-births are assigned to jurisdiction by mother's P/T of residence.
-no adjustment for age of mother.
Numerator: Number of live births ≥ 500 and < 2500 grams within the specified year.
Denominator: Total live births with known birth weight ≥ 500 grams within the specified year.
Sources: Statistics Canada, Vital Statistics, Birth database; ISQ.

(40-HTL) Mortality rate for lung cancer
(41-HTL) Mortality rate for prostate cancer
(42-HTL) Mortality rate for breast cancer
(43-HTL) Mortality rate for colorectal cancer
(44-HTL) Mortality rate for acute myocardial infarction (AMI)
(45-HTL) Mortality rate for stroke

Exclusions: Deaths of non-residents of Canada.

Calculation: The age-standardized death rate for each cancer site (colon/rectum, female breast, and prostate) and for acute myocardial infarction and cerebrovascular disease is calculated by multiplying each observed age-specific death rate by the standard population in the corresponding age-group, summing the results, multiplying the sum by 100,000 and then dividing the product by the total standard population. The 1991 Canadian Census population is used as the standard population. Causes of death are classified according to the ICD-9 from 1979 to 1999. The year 2000 and subsequent years available are coded to ICD-10. The selected causes are presented here with corresponding codes from each ICD revision.

Cause	ICD-9	ICD-10	Impact of ICD-10
colorectal cancer	153-154	C18-C21	-
lung cancer	162	C33-C34	2% decrease
breast cancer	174	C50 (and specify sex=F)	-
prostate cancer	185	C61	3.3% increase
acute myocardial infarction	410	I21-I22	2.7% decrease
Cerebrovascular disease	430-438	I60-I69 *	6.9% increase
selected cerebrovascular diseases **	430-432, 434, 436	I60-I66	?

* I60-I69 does not include a category comparable to ICD-9 code 435, transient cerebral ischemia (ICD-10 G45)

** PIRC refers to "all stroke" for this subset which is not an accurate description. The STC Vital Statistics classification experts would refer to this unconventional grouping as "selected cerebrovascular diseases".

Considerations for Indicator Quality and Comparability

Note regarding comparable reporting over time: From 1979 to 1999, the underlying cause of death was coded using ICD-9; beginning with 2000, the underlying cause of death was coded using ICD-10, thus introducing discontinuity to the trend data. To help users interpret the impact of the conversion, i.e., the extent to which it affects comparability, a sample of the data for 1999 were also coded to ICD-10 (see Impact of ICD-10 in Table above). Bridge coding reveals a significant impact on comparability (break in series) for lung cancer and prostate cancer death, unintentional injuries, AMI, and cerebrovascular disease deaths due to the implementation of ICD-10.

Source: Statistics Canada, Vital Statistics, and Demography Division; ISQ.

(50-HLT) Incidence rate for lung cancer
(51-HLT) Incidence rate for prostate cancer
(52-HLT) Incidence rate for breast cancer

(53-HLT) Incidence rate for colorectal cancer

- Exclusions: Non-residents of Canada.
- Calculation: The age-standardized rate for each cancer site is calculated by multiplying each observed age-specific incidence rate by the standard population in the corresponding age-group, summing the results, multiplying the sum by 100,000 and then dividing the product by the total standard population. The 1991 Canadian population is used as the standard population.
- Specific site codes: colon/rectum (ICD-9 153-154), lung (ICD-9 162), female breast (ICD-9 174), and prostate (ICD-9 185) applies to years 1976 to 1991.
- Specific site codes: colon/rectum (ICD-O-3 C180:C189, C260, C199, C209; excluding M 9590:9989), lung (ICD-O-3 C340:C349; excluding M 9590:9989), female breast (ICD-O-3 C500:C509; excluding M 9590:9989), and prostate (ICD-O-3 C619; excluding M 9590:9989) applies to years 1992 to 2000.
- Source: Statistics Canada, Canadian Cancer Registry, and Demography Division (census population estimates); ISQ.

(54-HLT) Potential years of life lost due to suicide

- Exclusions: Non-residents of Canada are excluded from the deaths and population estimates used in the numerator and denominator.
- Calculation: See Performance Reporting Technical Working Group, Considerations for Data Production for Reporting Comparable Health Indicators in November 2004.
- Numerator: Deaths of persons under exact age 75, by age group, sex and cause. Take the midpoint in each age group, subtract from 75 and multiply the number of deaths in that age group disaggregated by sex and cause of death. This represents PYLL.
- Denominator: Population estimate (only if a rate is desired; otherwise, no denominator)

Considerations for Indicator Quality and Comparability

From 1979 to 1999, the underlying cause of death was coded using ICD-9; beginning in year 2000, the underlying cause of death was coded using ICD-10, introducing discontinuity to the trend data.

Multi-year trends should be examined when making comparisons using PYLL for suicide, since there can be variation for certain years due to delays in the certification of suicide cases.

In Ontario the legal standard for certifying suicide deaths was changed in July 9, 1992 when the Ontario Court of Appeal (Beckon v. Young, 1992) accepted the common definition, but strengthened the legal standard of proof for suicide. Since then, a rise in the number of cases certified as cause "undetermined" may indicate that these cases may have previously been certified as suicide.

- Source: Statistics Canada, Vital Statistics, Death Data Base and Demography Division (population estimates); ISQ.

(55-HLT) Potential years of life lost due to unintentional injury

- Exclusions: Non-residents of Canada are excluded from the deaths and population estimates used in the numerator and denominator.
- Calculation: See Performance Reporting Technical Working Group, Considerations for Data Production for Reporting Comparable Health Indicators in November 2004.
- Numerator: Deaths of persons under exact age 75, by age group, sex and cause. Take the midpoint in each age group, subtract from 75 and multiply the number of deaths in that age group disaggregated by sex and cause of death. This represents PYLL.
- Denominator: Population estimate (only if a rate is desired; otherwise, no denominator)

Considerations for Indicator Quality and Comparability

From 1979 to 1999, the underlying cause of death was coded using ICD-9; beginning in year 2000, the underlying cause of death was coded using ICD-10, introducing discontinuity to the trend data.

- Source: Statistics Canada, Vital Statistics, Death Data Base and Demography Division (population estimates); ISQ.

(56-HLT) Incidence rate for invasive meningococcal disease

Exclusions: None.
Calculation: $(\text{Numerator}/\text{denominator}) \times 100,000$
Numerator: Total number of cases in population under 20 years of age.
Denominator: Population under 20 years of age.

Considerations for Indicator Quality and Comparability

Some data produced for the September 2002 Comparable Health Indicators Reports may have changed due to updated provincial and territorial numbers therefore, data tables provided for the November 2004 Comparable Health Indicators Reports, replaces all previous data tables.

Minor variations in data will occur when comparing data with other federal and provincial/territorial publications because of reporting delays, different cut-off dates and date of access to Statistics Canada's population estimates.

Source: Health Canada, Notifiable diseases reporting system and enhanced surveillance system.

(57-HLT) Incidence rate for measles

Exclusions: None.
Calculation: $(\text{Numerator}/\text{denominator}) \times 100,000$
Numerator: Total number of cases.
Denominator: Total population.

Considerations for Indicator Quality and Comparability

Reporting should take into consideration the fact that the nature of this disease is such that it occurs as a periodic outbreak, which makes data subject to significant fluctuation and misinterpretation. Since the data can be unstable from year to year, it may be useful to also report rolling averages to partially address this problem.

See 56-HLT for considerations of indicator quality and comparability.

Source: Health Canada, Notifiable Diseases Reporting System.

(58-HLT) Incidence rate for Haemophilus influenzae b (invasive) (Hib) disease

Exclusions: None.
Calculation: $(\text{Numerator}/\text{denominator}) \times 100,000$
Numerator: Number of cases in children < 5 years of age.
Denominator: Number of children < 5 years.

Considerations for Indicator Quality and Comparability

Same as 56-HLT for considerations of indicator quality and comparability.

Source: Health Canada, Notifiable Diseases Reporting System

(59-HLT) Incidence rate for tuberculosis

Exclusions: None.
Calculation: $(\text{Numerator}/\text{denominator}) \times 100,000$
Numerator: Number of reported cases of new active and relapsed tuberculosis.
Denominator: Total population.

Considerations for Indicator Quality and Comparability

Provinces/territories update their reportable disease data frequently, even after Health Canada finalizes the data for a given period, so provinces/territories will always have the most up-to-date data for their respective jurisdictions.

Same as 56-HLT for considerations of indicator quality and comparability.

Source: Health Canada, Canadian Tuberculosis Reporting System (CTBRS).

(60-HLT) Incidence rate for Verotoxigenic *E. coli*

Exclusions: None.
Calculation: $(\text{Numerator}/\text{denominator}) \times 100,000$
Numerator: Number of reported cases of Verotoxigenic *E. coli*.
Denominator: Total population.

Considerations for Indicator Quality and Comparability

Same as 59-HLT for considerations of indicator quality and comparability.

Source: Health Canada, Notifiable diseases reporting system.

(61-HLT) Incidence rate for chlamydia

Exclusions: None.
Calculation: $(\text{Numerator}/\text{denominator}) \times 100,000$
Numerator: Reported cases of genital chlamydia infection.
Denominator: Total population.

Considerations for Indicator Quality and Comparability

The introduction of non-invasive and more sensitive tests for chlamydia can increase the reported rate in a jurisdiction; timing of the implementation of such tests should be noted.

See 59 HLT for further for considerations of indicator quality and comparability.

Source: Health Canada, Notifiable diseases reporting system.

(62-HLT) Rate of newly reported HIV cases

Exclusions: None
Calculation: $(\text{Numerator}/\text{denominator}) \times 100,000$
Numerator: Number of newly diagnosed cases of HIV infection
Denominator: Total population

Considerations for Indicator Quality and Comparability

There are currently varying practices in terms of reporting HIV, which may make comparisons between jurisdictions difficult.

See 59 HLT for further for considerations of indicator quality and comparability.

Source: Health Canada, HIV and AIDs in Canada. Surveillance Report to June 30, 2003 Surveillance and Risk Assessment division, Centre for Infectious Diseases Prevention and Control, Health Canada, 2003.

(63-HLT) Prevalence of diabetes

Exclusions: Persons younger than 20 year of age, New Brunswick and Newfoundland & Labrador.
Calculation: $(\text{Numerator}/\text{denominator}) \times 100,000$
Numerator: Number of cases in persons 20 years of age and older.
Denominator: Estimated population using health registry and census data for those persons 20 years and older.

Considerations for Indicator Quality and Comparability

Data is based on administrative data therefore its quality is constrained by the accuracy of those systems.

Minor variations in data will occur when comparing data with other federal and provincial/territorial publications because of reporting delays, different cut-off dates and date of access to Statistics Canada's population estimates.

Note to Readers: Readers should be cautious when interpreting these data;

Disclosure of Limitations:

- Three types of diabetes are included in the database: Type 1, Type 2, and gestational diabetes. Note that gestational diabetes is only included when coded as diabetes mellitus (ICD9 code 250).
- A baseline error rate of 20% to 25% exists in the published (1999/2000) data;
- This level of error is accepted by Health Canada and by those national experts identified by Health Canada;
- Since 1997-98, these data have been accumulating false positives. For the data published here this may not have a significant impact. Health Canada plans to work to reduce these errors so that by the time it publishes the 2001-02 data, this accumulation will not become significant; and
- This "baseline error rate" is likely to vary by age and sex groups.

Source: Health Canada (2003), Responding to the Challenge of Diabetes in Canada. First Report of the National Diabetes Surveillance System (NDSS) Ottawa.

(64-HLT) Exposure to second-hand tobacco smoke rate

Exposure to second-hand smoke in the home

Exclusions: Current daily or occasional smokers, persons living on First Nation Reserves and on Crown lands, residents of institutions, full-time member of Canadian Armed Forces and residents of certain remote regions are excluded from the sample.

Calculation: $(\text{Numerator}/\text{denominator}) \times 100$

Numerator: Total non-smoking population reporting exposure to second-hand tobacco smoke in their home.

Denominator: Total non-smoking population.

Source: Statistics Canada, Canadian Community Health Survey, 2003.

Exposure to second-hand smoke in private vehicles

Exclusions: Same as above.

Calculation: $(\text{Numerator}/\text{Denominator}) \times 100$

Numerator: Total non-smoking population reporting exposure to second-hand tobacco in private vehicles.

Denominator: Total non-smoking population.

Source: Statistics Canada, Canadian Community Health Survey, 2003.

Exposure to second-hand smoke in public places (such as bars, restaurants, shopping malls, arenas, bingo halls, bowling alleys)

Exclusions: Same as above.

Calculation: $(\text{Numerator}/\text{denominator}) \times 100$

Numerator: Total non-smoking population reporting exposure to second-hand tobacco smoke in public places.

Denominator: Total non-smoking population.

Source: Statistics Canada, Canadian Community Health Survey, 2003.

Considerations for Indicator Quality and Comparability

The questions about second-hand smoke exposure have changed in CCHS 2003, which affects comparability with previously reported rates from CCHS 2000/01.

Exposure to second-hand smoke in the home can be produced for CCHS 2003. Exposure to second-hand smoke in public places and private vehicles can be produced for CCHS 2000/01 and CCHS 2003.

There may be some changes in the data due to changes in the wording between CCHS 2000/01 and CCHS 2003. In 2000/01 respondents were first asked if they were exposed to second-hand smoke most days in the past month. If respondents answered yes, they were then asked if they were exposed to second-hand smoke in a number of different locations. In CCHS 2003 respondents were asked if they were exposed to second-hand smoke in the past month every day or almost every day in a number of different locations.

(65-HLT) Self-reported health

Exclusions: Persons living on First Nation Reserves and on Crown lands, residents of institutions, full-time members of Canadian Armed Forces, and residents of certain remote regions are excluded from the sample.

Calculation: $(\text{Numerator}/\text{denominator}) \times 100$, with weighting adjusted to reflect non-response.

Numerator: Estimated number of persons reporting excellent or very good health within a survey cycle for a given jurisdiction (response categories are excellent, very good, good, fair, poor).

Denominator: Total population aged 12 and over in the jurisdiction.

Source: Statistics Canada, Canadian Community Health Survey, 2003.

(66 - HLT) Teenage smoking rates

(66a-HLT) Teenage smoking rates: Proportion current teenage smokers

(66b-HLT) Teenage smoking rates: Proportion daily smokers

Exclusions: Same as 65-HLT.

Calculation: $(\text{Numerator}/\text{denominator}) \times 100$

Numerators: Number of individuals aged 12 - 19 who report: (a) current smoking; (b) daily smoking.

Denominator: Total population aged 12 - 19.

Source: Statistics Canada, Canadian Community Health Survey, 2003.

(67-HLT) Physical activity

Exclusions: Same as 65-HLT.

Calculation: $(\text{Numerator}/\text{denominator}) \times 100$

The physical activity index is based on an individual's energy expenditure (EE). EE is calculated using the frequency and duration per session of physical activity, as well as the MET (metabolic) value. The MET is the energy cost of the activity expressed as kilocalories expended per kilogram of body weight per hour of activity, doing a physical activity during the past 3 months, the number of times and time spent on each activity.

A physical activity index is calculated to determine energy expenditure values (EE). The derived physical activity index results in the following categories:

Description	Definition
Active	Average 3.0 +kcal/kg/day of energy, or exercise required for cardiovascular health benefit
Moderate	Average 1.5-2.9 kcal/kg/day, some health benefits but little cardiovascular
Inactive	Energy expenditure below 1.5 kcal/kg/day

Numerator: a) Number of individuals reporting combined active (≥ 3.0 kcal/kg/day) and moderately active levels of physical activity (1.5-2.9 kcal/kg/day).
b) Number of individuals reporting an inactive level of physical activity (< 1.5 cal/kg/day)

Denominator: Total population aged 12 and over.

Source: Statistics Canada, Canadian Community Health Survey, 2003.

(68-HLT) Body mass index

- Exclusions: Everyone less than 18 years of age, persons living on First Nation Reserves and on Crown lands, residents of institutions, full-time member of Canadian Armed Forces and residents of certain remote regions are excluded from the sample. Also excluded are pregnant women, and persons measuring less than 914 centimetres (3 feet) or greater than 210.8 centimetres (6 feet 11 inches) in height.
- Calculation: $(\text{Numerator}/\text{denominator}) \times 100$
- Numerators: Population aged 18 years and over reporting a BMI in each of the four categories (underweight, acceptable weight, overweight, and obese).
- Denominator: Total population aged 18 years and over.

Considerations for Indicator Quality and Comparability

The definition for BMI has been modified from the one used with previous data released by Statistics Canada, in order to respect the latest guidelines from Health Canada, which in turn, correspond to those of the World Health Organisation.

- Source: Statistics Canada, Canadian Community Health Survey, 2003.
- Note: The BMI is calculated as weight (in kilograms) divided by height (in metres) squared.

(69-HLT) Immunization for influenza, aged 65 plus ("Flu Shot")

- Exclusions: Same as 65-HLT.
- Calculation: $(\text{Numerator}/\text{denominator}) \times 100$
- Numerator: Estimated population 65+ reporting immunization: a) <1 year ago; b) 1 or more years ago; c) never.
- Denominator: Total population aged 65+.
- Source: Canadian Community Health Survey (sub sample) Cycle 2.1, 2003.

(70-HLT) Prevalence of depression

- Exclusions: Same as 65-HLT.
- Calculation: $(\text{Numerator}/\text{denominator}) \times 100$
- Numerator: Population aged 12 and over who show symptoms of depression, based on their responses to a set of questions that establishes the probability of suffering a "major depressive episode".
- Denominator: Total population aged 12 and over.
- Sources: Statistics Canada, Canadian Community Health Survey, 2003, Canadian Community Health Survey, 2000/01.

Appendix C: Auditor General's Report



AUDITOR'S REPORT

To the Northwest Territories Minister of Health and Social Services

I have audited the 47 health indicators presented in the Government of Northwest Territories report on comparable health indicators of November 2004, as prepared by the Northwest Territories Department of Health and Social Services. The report is published pursuant to the 2003 First Ministers' Accord on Health Care Renewal, which builds on the 2000 First Ministers' Meeting Communiqué on Health. The Conference of Deputy Ministers of Health identified and defined 18 featured indicators required for reporting and an additional 52 optional non-featured indicators to be reported to Canadians. Reporting health indicators is the responsibility of the Government of Northwest Territories which has reported 12 featured and 35 non-featured indicators.

My responsibility is to express an opinion on the completeness, accuracy and adequacy of disclosure of the 47 health indicators presented in the 2004 Government of Northwest Territories comparable health indicators report, based on my audit. However, my responsibility does not extend to assessing the performance achieved by the Northwest Territories health care system, nor the relevance or sufficiency of the health indicators selected for reporting. My work on the analysis and discussion of the health indicators presented in this report was limited to reading such information to make sure that it was not inconsistent with the result of the audited indicators. As well, my audit was limited to information related to the most recent year for which each indicator was reported.

Except as explained in the following paragraph, I conducted my audit in accordance with the standards for assurance engagements established by the Canadian Institute of Chartered Accountants. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the health indicators presented are free of significant misstatement. To this end, I audited these health indicators to determine whether they meet the criteria of completeness, accuracy and adequate disclosure, as presented in Annex A of my report. My audit includes examining, on a test basis, evidence supporting the health indicators and disclosures. My audit also includes assessing significant judgments made in the 2004 Government of Northwest Territories report by management of the Department of Health and Social Services.

Data for the following seven disease surveillance indicators were provided by Health Canada:

- invasive meningococcal disease incidence rate,
- measles incidence rate,
- haemophilus influenzae b (invasive) disease incidence rate for children,
- tuberculosis incidence rate,
- reported HIV diagnosis,
- chlamydia incidence rate
- verotoxigenic E. coli incidence rate.

Health Canada has no legislative mandate to collect data and, while there are some agreements on data sharing, participation in these databases is voluntary. Therefore Health

Canada can not ensure that data are submitted in a timely and consistent format. The quality assurance processes for these databases are inadequate to ensure the accuracy of the data. Therefore, I am unable to form an opinion on the accuracy of the data.

In my opinion, except for my inability to express an opinion on the accuracy of the seven indicators described in the preceding paragraph, the health indicators included in the comparable health indicators report present fairly, in all significant respects, the required information that is complete, accurate and adequately disclosed, using the criteria in Annex A. Further, in my opinion, the report adequately discloses and explains any departures from the criteria; specifically that six of the 18 featured health indicators could not be presented because Northwest Territories is not included in applicable surveys, certain health services are not available in the territory, the data are not available, or there are data quality issues.

The Government of Northwest Territories report includes comparative health indicators relating to the federal government report. I audited the health indicators for the federal report. My findings are included in the federal report and are not reproduced in the Northwest Territories report.

I am encouraged by the work undertaken by the Department of Health and Social Services in the preparation of this report.

A handwritten signature in black ink, appearing to read 'Ron / Thompson', with a stylized flourish at the end.

Ronald C. Thompson, CA
Assistant Auditor General
For the Auditor General of Canada

Ottawa, Canada
November 18, 2004

ANNEX A

Audit criteria

The Government of Northwest Territories has acknowledged the suitability of the following criteria:

Complete

According to the 2003 First Ministers' Accord on Health Care Renewal, the Conference of Deputy Ministers approved 70 indicators, including a subset of 18 indicators that all jurisdictions are to feature in their 2004 reports. All health indicators reported comply with the definitions, technical specifications and standards of presentation as approved. All 18 featured health indicators are reported.

Accurate

The health indicators reported adequately reflect the facts, to an appropriate and consistent level of accuracy, including the ability to make comparisons between jurisdictions and between the 2002 and 2004 reports within each jurisdiction, where applicable.

Adequate disclosure

The health indicators are defined and their significance and limitations on the data are explained. The report states and properly describes departures from what was approved by the Conference of Deputy Ministers and explains plans for the future resolution of the departures.