

# Nova Scotia



# Annual Statistical Report

Fiscal 2006-2007

**NOVA SCOTIA DEPARTMENT OF HEALTH  
ANNUAL STATISTICAL REPORT  
2006 – 2007**

COMPILED BY:  
INFORMATION MANAGEMENT SERVICES  
INFORMATION STRATEGIES, STANDARDS, SOLUTIONS AND SERVICES  
(IS4) BRANCH

For additional information on the data included in this report, please contact the Information Management Services Section of the Department of Health at (902) 424-5663

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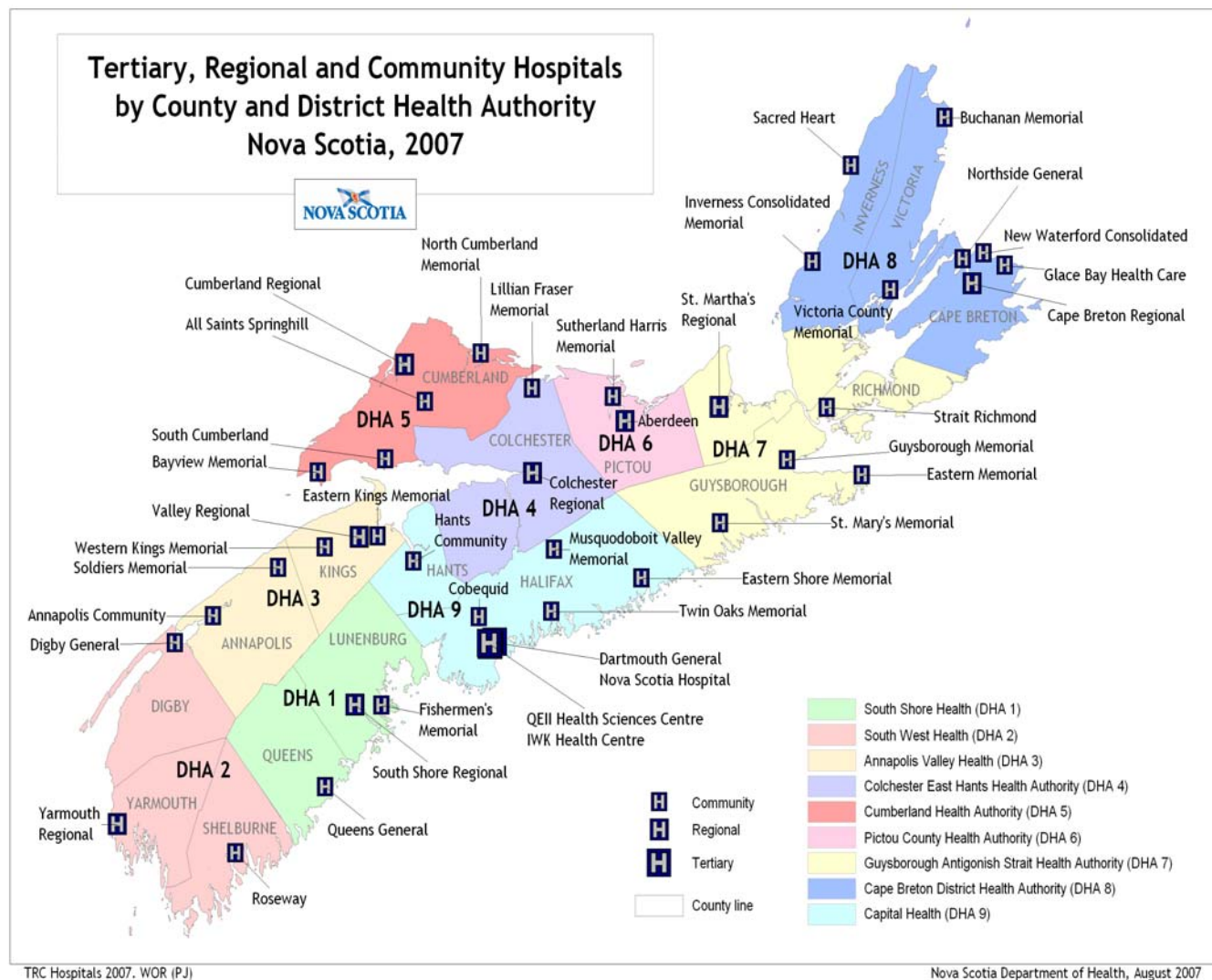
# Introduction

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The 2006 – 2007 Annual Statistical Report provides data from all District Health Authorities, informing Nova Scotians of health measures and the health care system performance in Nova Scotia. All of these facilities work together to provide the utmost quality of care to the people of Nova Scotia in accordance with the following tenets of the *Canada Health Act*: portability, accessibility, universality, comprehensiveness and public administration.

In this report, various health measures, from cancer mortality and incidence rates to patient days at hospitals, will be reported. Each indicator reported will include technical specifications, significance and rationale for reporting, analysis and data graphs or tables for the 2006/07 fiscal year.

**Figure 1: Tertiary, Regional and Community Hospitals by County and DHA 2007**



### Acknowledgements

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#### Primary Report Author:

Jo-Anne Douglas, Information Management Services

#### Contributors:

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##### Nova Scotia Provincial Government Department of Health:

Continuing Care Branch, Monitoring & Evaluation

Donna Dill

Susan Kent

Heather MacMullin

Emergency Health Services

Donna Leblanc

John Muir

Paula Poirier

Information Strategies, Standards, Solutions and Services (IS4), Information Management Services

Maureen Aucoin

Pam Jones

Bryan Levangie

Jason Sidney

Mengxuan (Annie) Xu

Management Information Systems

Dorothy Forse

##### Nova Scotia Provincial Government Department of Health, Provincial Programs

Cancer Care Nova Scotia, Surveillance and Epidemiology Unit

Ron Dewar

Gordon Walsh

Diabetes Care Program of Nova Scotia

Peggy Dunbar

Nova Scotia Breast Screening Program (NSBSP)

Theresa Foley

##### Nova Scotia Provincial Government Department of Health Promotion and Protection

Addiction Services

Carolyn Davison

Wanda MacDonald

Tobacco Control Strategy

Steve Machat

Provincial Epidemiologist

Dr. Assaad Al-Azem

# Population Distribution

## Population Pyramids, Nova Scotia and DHAs 2006 and 2021: A Comparison

### Highlights

- All DHAs show increased proportions of their populations moving into 'retirement' age and thus, potentially, increased Health Care use
- The size of this 'retirement age cohort' varies between DHAs

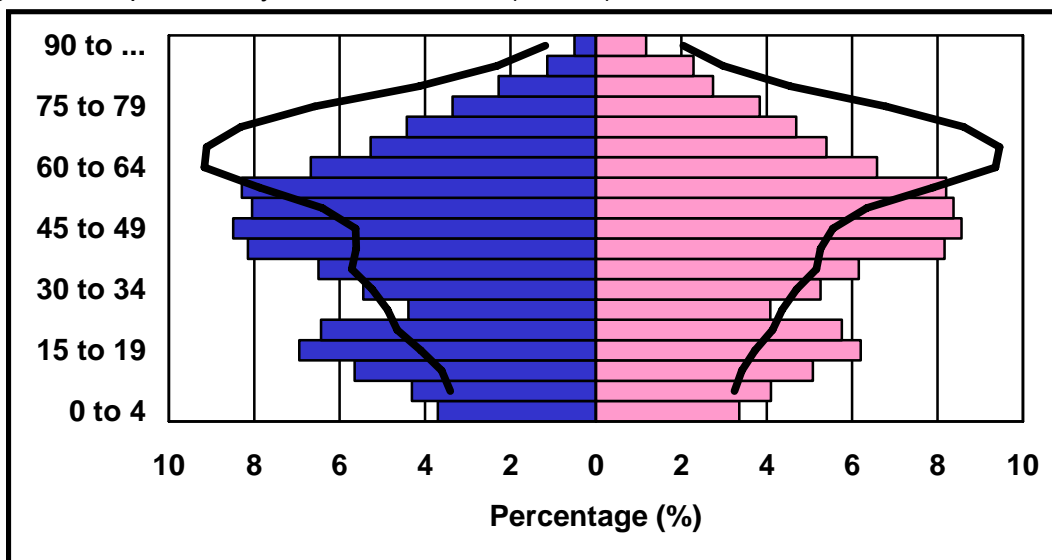
### Legend for all Population Pyramids

Blue = Male

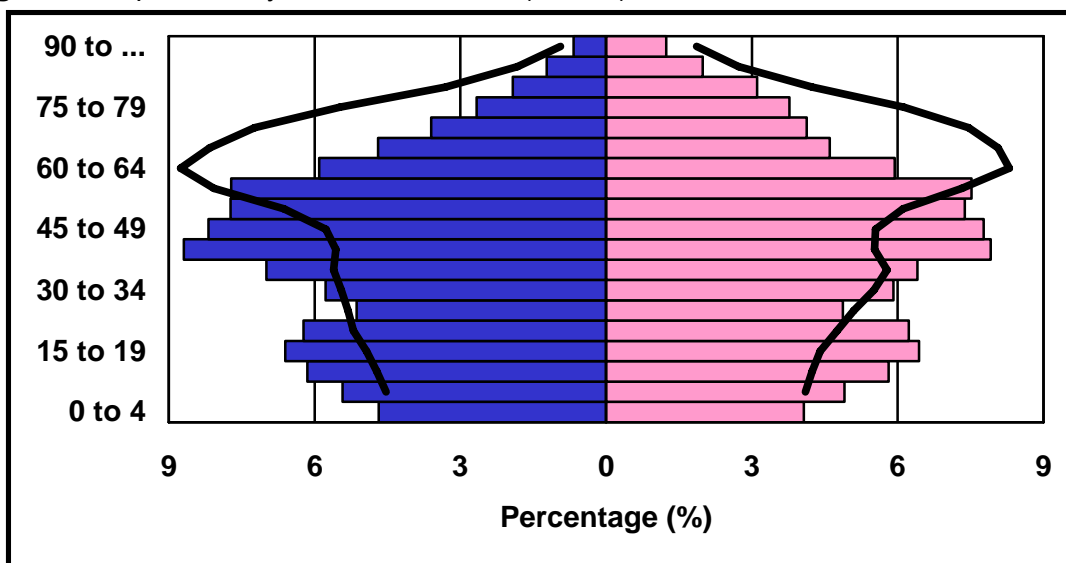
Pink = Female,

Black Lines = 2021 population projection

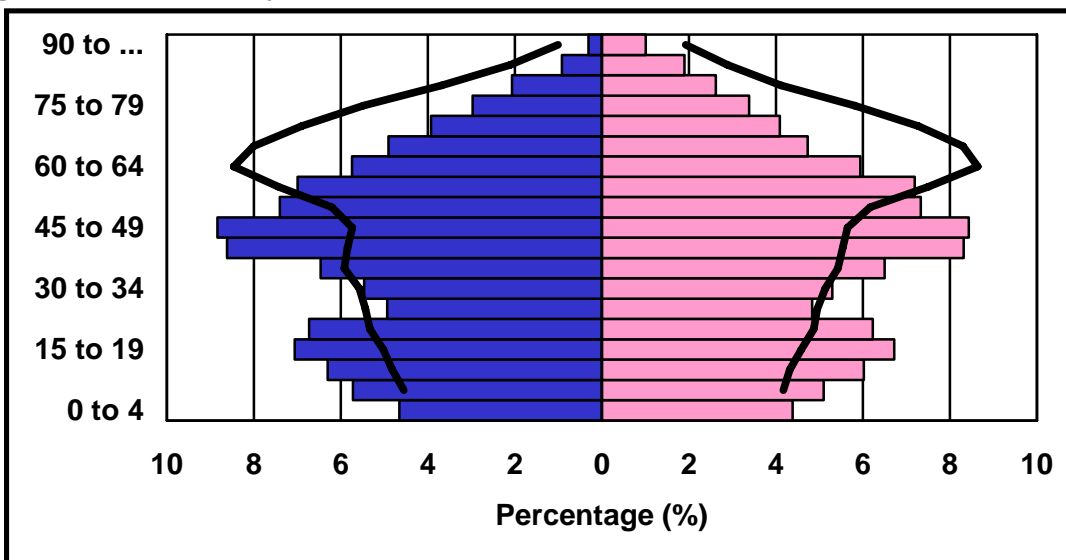
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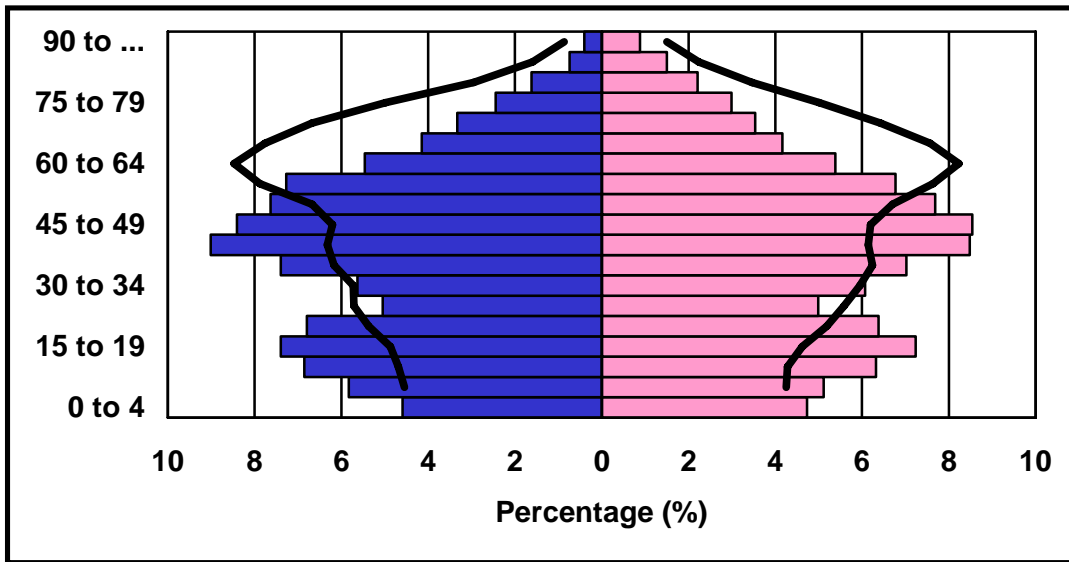
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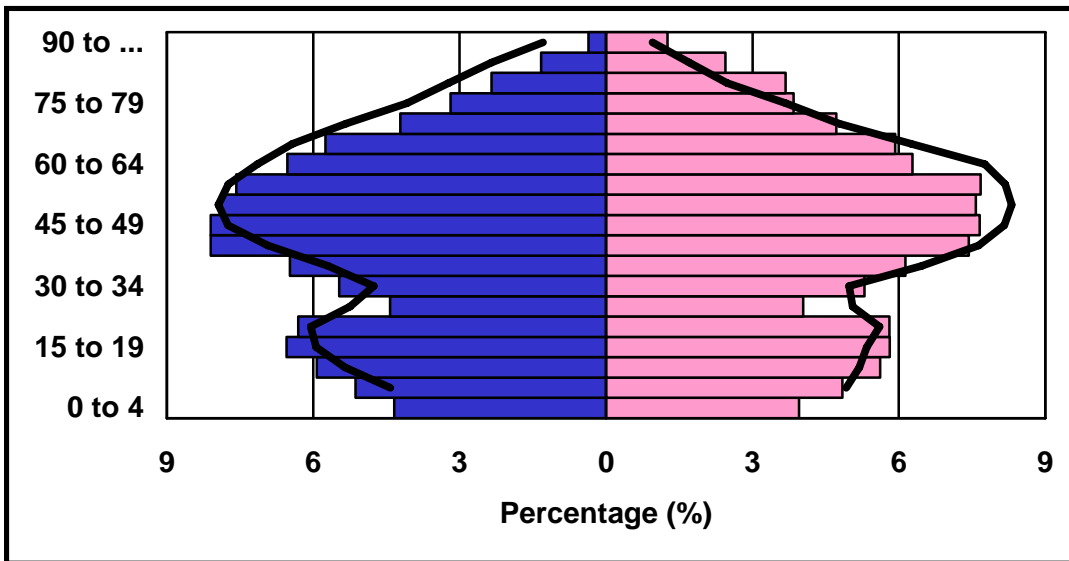
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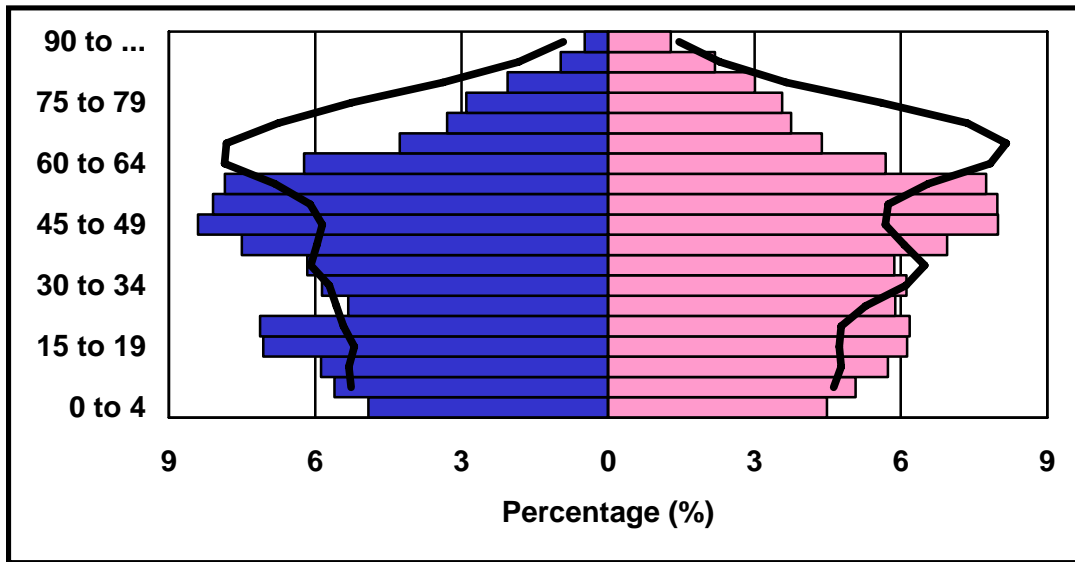


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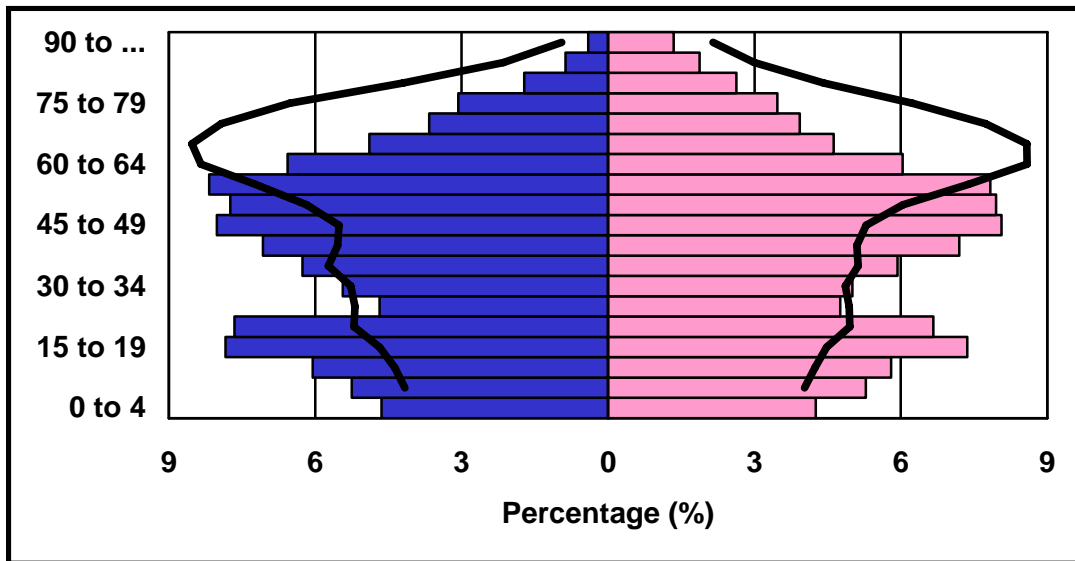




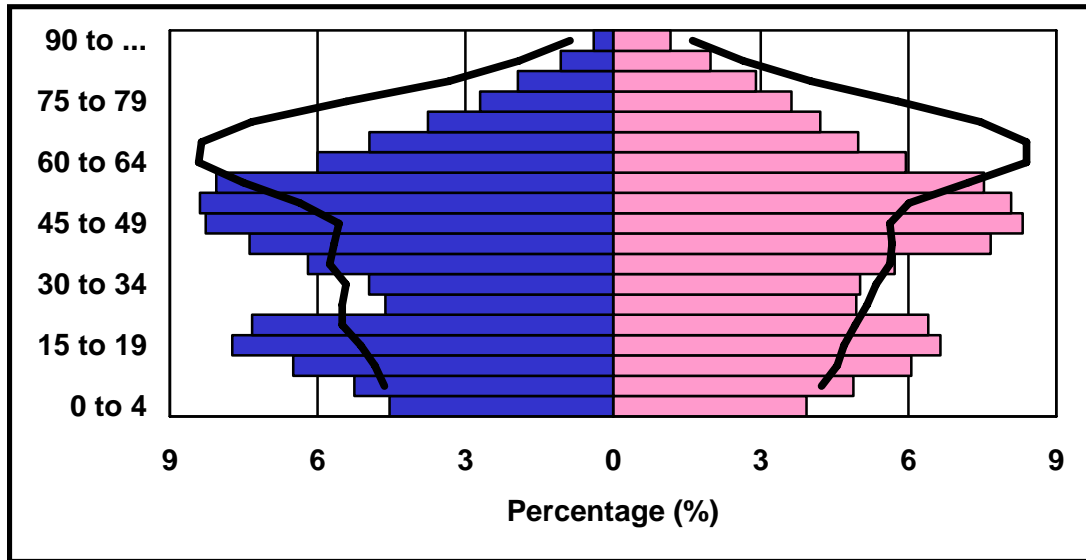
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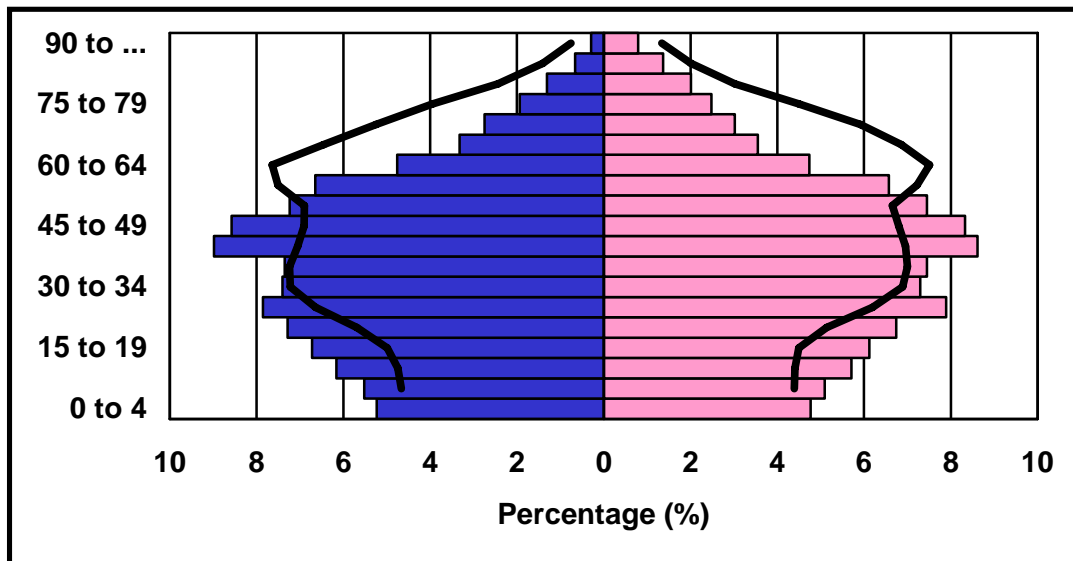
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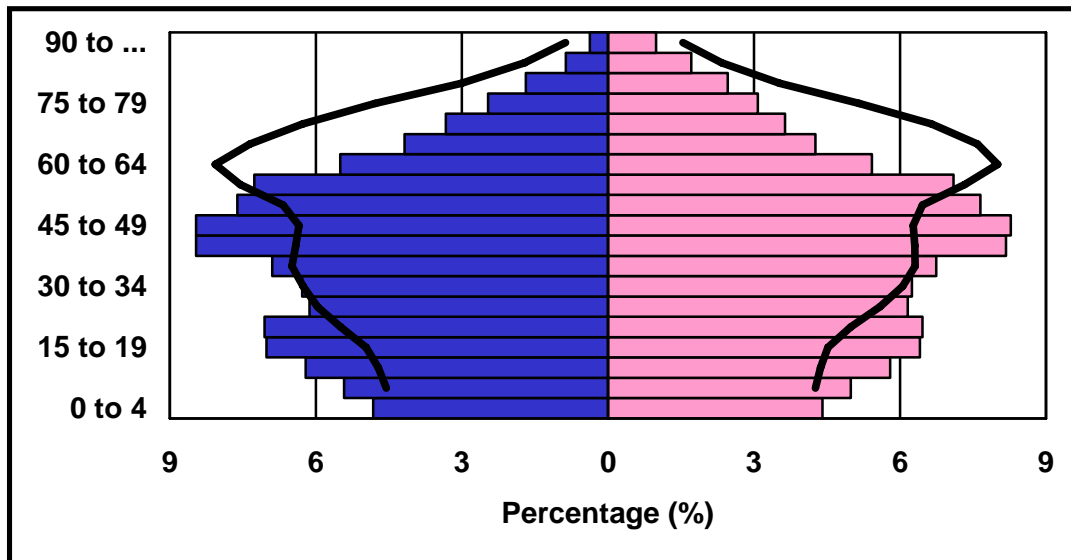
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**Figure 10:** Population Pyramid for CDHA (DHA 9) for 2006 and 2021



**Figure 11:** Population Pyramid for Nova Scotia for 2006 and 2021



# Health Promotion and Population Health

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Health is defined as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”<sup>1</sup> Our health status is influenced by a variety of factors, called “Determinants of Health”, from genetic predisposition to disease to personal health practices such as nutrition and exercise. The determinants of health are factors that have been shown to predict or influence disease later in life. The determinants of health are:

- Income and Social Status
- Social Support Networks
- Education and Literacy
- Employment/Working Conditions
- Social Environments
- Physical Environments
- Personal Health Practices and Coping Skills
- Healthy Child Development
- Biology and Genetic Endowment
- Health Services
- Gender
- Culture

For instance, studies have shown that obesity plays a major role in the development of Type 2 diabetes and cardiovascular disease. We know that obesity most often results from poor nutrition or lack of physical activity. People could have poor nutrition habits for a number of reasons, including a lack of education on appropriate nutrition, or perhaps not having sufficient income or time to buy and prepare nutritious foods. By examining the characteristics of obese people in our population, we can plan effective programs and services targeted at the underlying causes of obesity such as inadequate income or inadequate nutrition education. Enacting programs and services to get at the root causes of obesity could result in reduced rates of Type 2 diabetes and cardiovascular disease in the long run.

In this section, indicators that reflect the determinants of health, called “population health indicators,” are included to give us an idea of how healthy our population really is. Health promotion indicators show us the number of people using the services and programs in place that promote proactive health and disease prevention.

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<sup>1</sup> Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.

One of the ways that we collect information on population health and health promotion indicators is through population surveys such as the Canadian Community Health Survey and the National Population Health Survey.

Several of the indicators in this report are from the Canadian Community Health Survey Cycle 3.1. The Canadian Community Health Survey (CCHS) collected information from about 130,000 Canadians, aged 12 to 102 years, about health conditions, health practices and lifestyle, access to health care and general information such as age, sex, income, and education. People in the military, living on Indian Reserves or living in some remote areas were not included in the Canadian Community Health Survey.

All Canadian Community Health Survey data responses are self-reported. Canadian Community Health Survey data for Nova Scotia are weighted to represent the proportion of Nova Scotia's population in each Health Zone. The Nova Scotia Department of Health has further analyzed the data to yield DHA level results. All Canadian Community Health Survey data must include a measure of variance in order to illustrate the reliability of the estimate.

**Disclosures:**

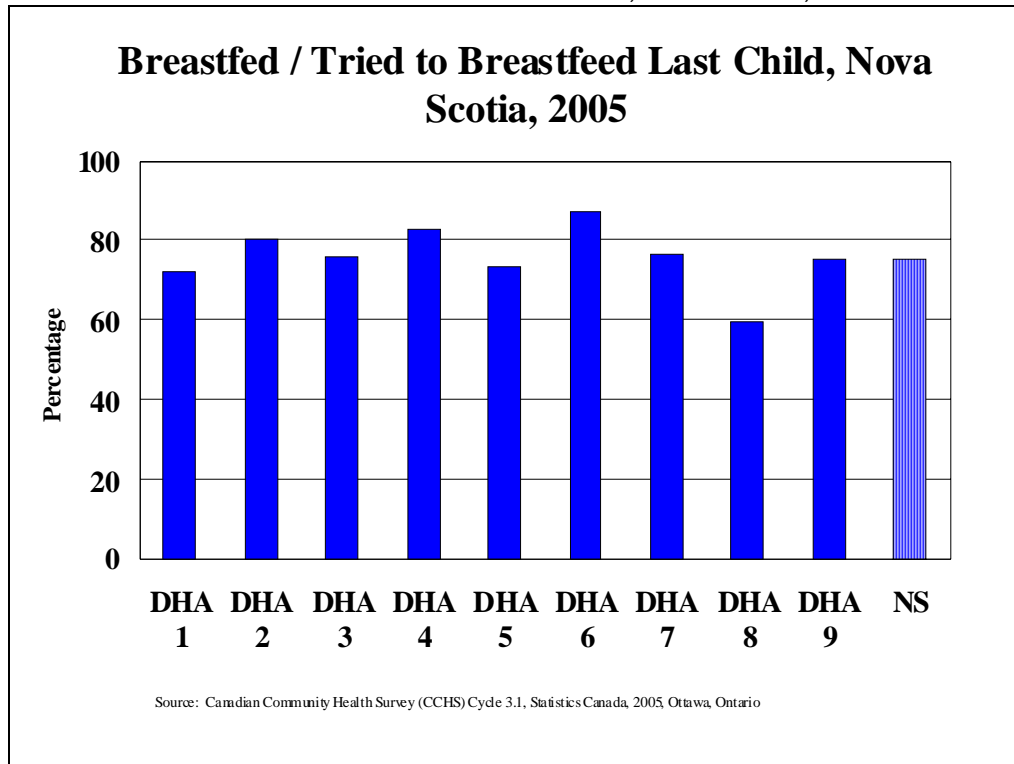
Small sample sizes may affect the validity of the data. Due to this, you will also want to look at confidence intervals. Information on confidence intervals and the analysis of these indicators are available from Annie Xu (902-424-5245) at the Department of Health.

For more information on the Canadian Community Health Survey, visit Statistics Canada Website at [www.statcan.ca](http://www.statcan.ca), or visit the Nova Scotia Department of Health's comprehensive publication on the Canadian Community Health Survey at <http://www.gov.ns.ca/health/reports/>

Data sourced from the Canadian Community Health Survey (CCHS) Cycle 3.1, Statistics Canada, 2005, Ottawa, Ontario is identical to information published in the 2005 – 2006 Nova Scotia Department of Health Annual Statistical Report due to CCHS' two year cycle of data collection.

## Breastfeeding

**Figure 12:** Breastfed / Tried to Breastfeed Last Child, Nova Scotia, 2005



### Definition

Fig 12. The percentage of women aged 15 to 55, of those who gave birth in the last 5 years, who breastfed or tried to breastfeed their last child.

Fig 13. The percentage of women aged 15 to 55, of those who gave birth in the past five years and breastfed their last child (but do not anymore), by length of time breastfeeding.

### Significance - Rationale and Notes for Interpretation

Measuring the prevalence of breastfeeding is one indicator of healthy choices in early childhood development. Measuring the duration of breastfeeding is another indicator of healthy choices in early childhood development. Although rates vary between DHAs they are not statistically significant.

### Technical Specifications

#### Calculation:

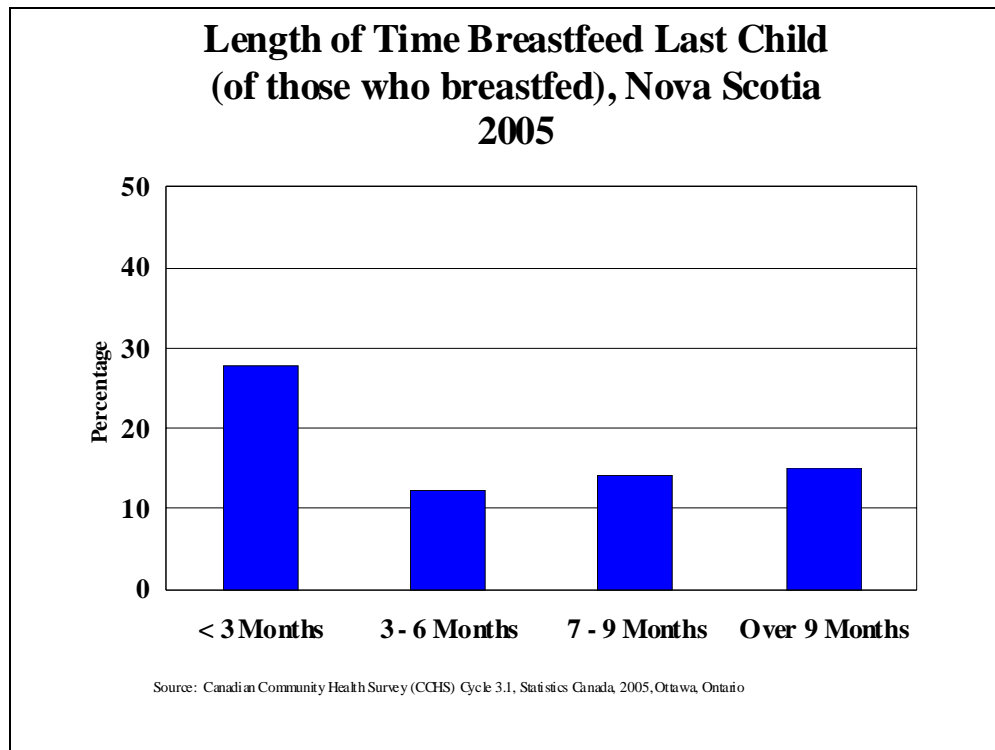
Fig 12.  $\left( \frac{\text{The number of women aged 15 to 55 who have given birth in the last five years who breastfed or tried to breastfeed their last child even if only for a short time}}{\text{The total number of women aged 15 to 55 who have given birth in the last 5 years}} \times 100 \right)$  for each of Nova Scotia's nine District Health Authorities, Nova Scotia.

Fig 13. ((The number of women aged 15 to 55 who have given birth in the last five years and who breastfed up to 3 months, 3-6 months, 6-9 months, or over 9 months)/ (The total number of women aged 15 to 55 who have given birth in the last 5 years and who have breastfed their last child) X100) for all of Nova Scotia.

**Note:** all duration categories are mutually exclusive.

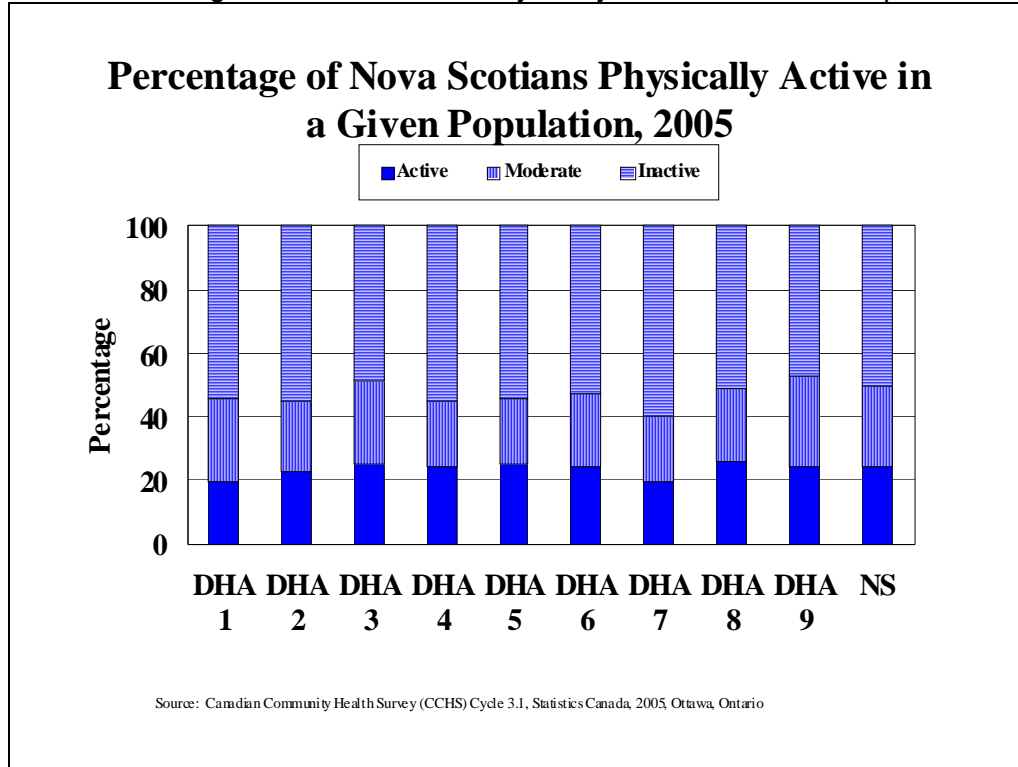
*Source:* Canadian Community Health Survey (CCHS) Cycle 3.1, Statistics Canada, 2005, Ottawa, Ontario.

**Figure 13:** Length of Time Breastfeed Last Child (of those who breastfed), Nova Scotia 2005



## Percentage of People Physically Active in a Given Population

**Figure 14:** Percentage of Nova Scotians Physically Active in a Given Population, 2005



### Definition

Fig 14. The percentage of people whose physical activity level was either active, moderate, or inactive.

Fig 15. The percentage of male and female youth (aged 12 to 19) whose physical activity level was active, moderate, or inactive.

### Significance - Rationale and Notes for Interpretation

Regular sustained physical activity along with a healthy diet, maintenance of appropriate weight, avoidance of smoking, and adequate rest forms the basis of a healthy lifestyle. The links between regular and sustained physical activity and improved health for individuals has been clearly demonstrated in medical literature. Therefore, physical activity is an important indicator for estimating the general health and possible future health problems of a population.

If moderate and active activity levels are combined the difference between DHA 7 and the provincial rate is statistically significant, as is the difference between males and females, males being higher.



### Technical Specifications

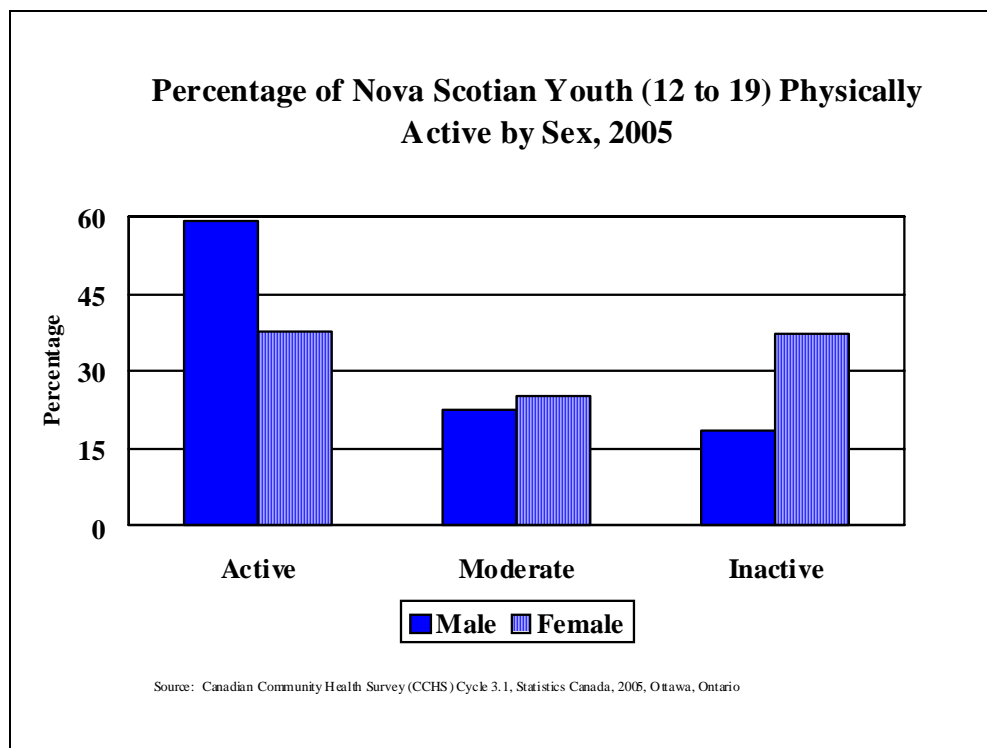
#### Calculation:

Fig 14.  $\left( \frac{\text{The number of people aged 12 years or older, who were either active, moderately active, or inactive; [based on energy expenditure of physical activity (amount and duration)]}{\text{The total number of people aged 12 years or older}} \times 100 \right)$  for each of Nova Scotia's nine District Health Authorities and Nova Scotia.

Fig 15.  $\left( \frac{\text{The number of males and females aged 12 to 19, who were either active, moderately active, or inactive; [based on energy expenditure of physical activity (amount and duration)]}{\text{The total number of males and females aged 12 to 19}} \times 100 \right)$  for all of Nova Scotia.

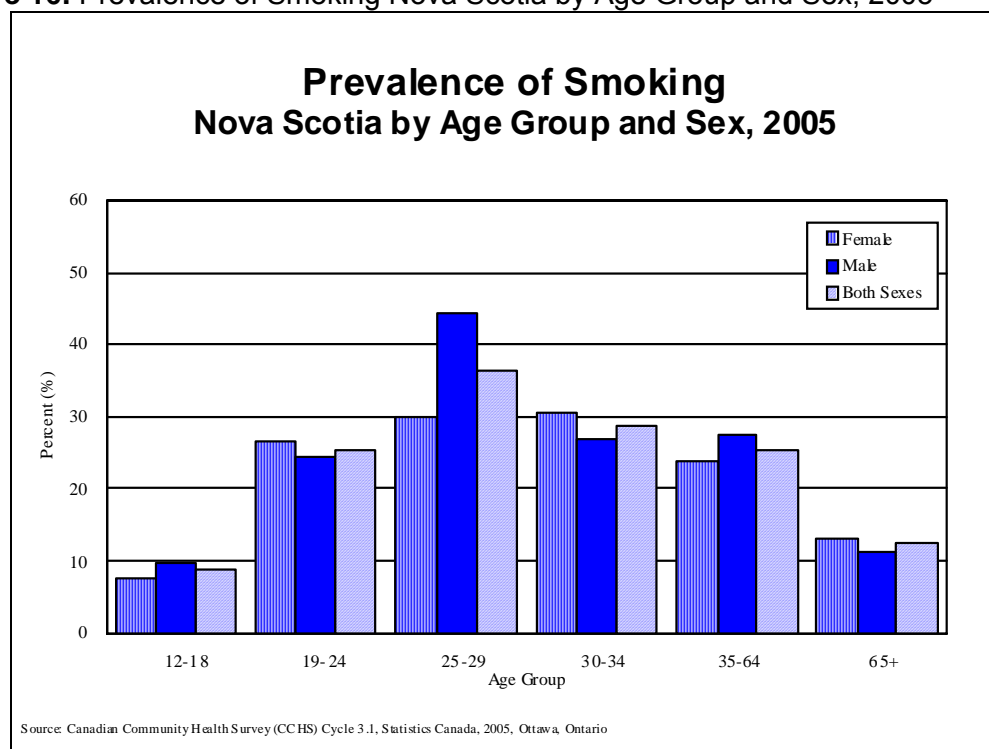
Source: Canadian Community Health Survey (CCHS) Cycle 3.1, Statistics Canada, 2005, Ottawa, Ontario.

**Figure 15:** Percentage (%) of Nova Scotia Youth (12 to 19) Physically Active by Sex, 2005



## Prevalence of Smoking by Age Group and Sex

**Figure 16:** Prevalence of Smoking Nova Scotia by Age Group and Sex, 2005



### Definition

The percentage of survey respondents who answered 'yes' when asked if they smoked. Population aged 12 and over who report being smokers.

### Significance – Rationale and Notes for Interpretation

Tobacco use is the leading cause of preventable illness and death in Canada. Health Canada estimates that smoking is responsible for more than 45,000 deaths per year. This indicator represents the proportion the total population who report current smoking habits. Because of the addictive nature of nicotine, youth smoking is of particular concern. Nova Scotia aims to decrease the percentage of youth who smoke. Strategies to achieve this target include continued implementation of all components of the Comprehensive Tobacco Strategy.

This indicator is designed to assist policy makers in determining where tobacco policies should be directed. By looking at prevalence of smoking by both age and sex, it is easier to identify which populations' policies and programs should be targeted.

In 2003, Nova Scotia implemented a province-wide Comprehensive Tobacco Strategy. The strategy addresses seven key components: taxation, smoke-free places legislation, treatment/cessation, community-based programs, youth prevention, media awareness, and monitoring and evaluation. Through this comprehensive approach, by 2004-2005 the province hopes to decrease the provincial smoking rate to the Canadian average or

less. Nova Scotia's rate has decreased from 23.1 in 2003 to 22.6 in 2005, but has not yet reached the 2005 Canadian average of 21.8.

### **Technical Specifications**

The data are based on the question: At the present time do you smoke cigarettes daily, occasionally or not at all?

*Numerator:* Weighted number of individuals aged 12+, by sex, who report smoking

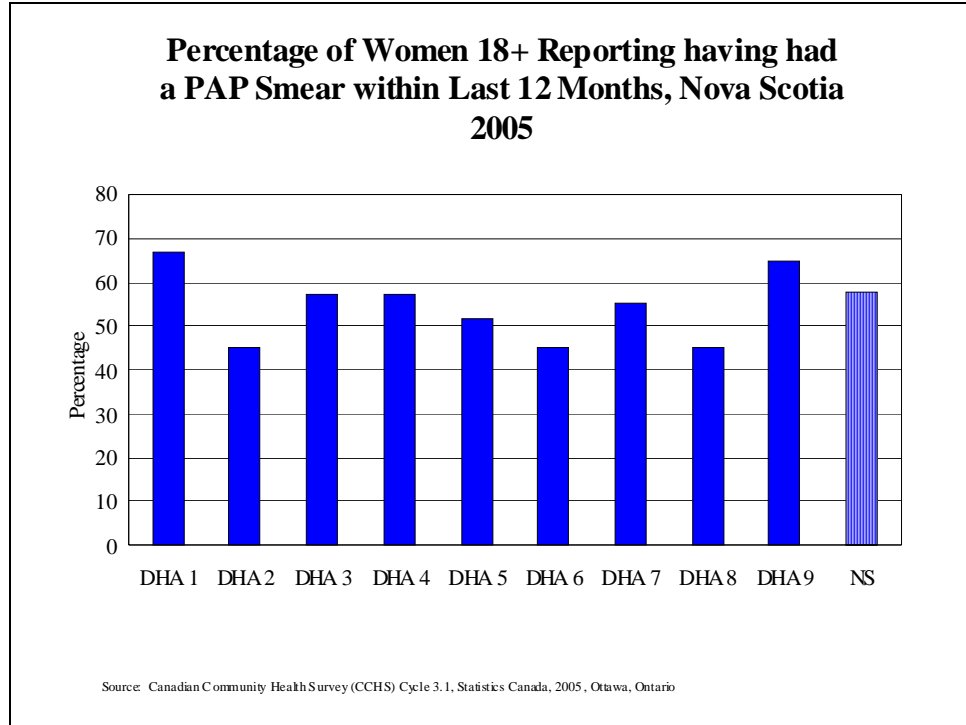
*Denominator:* Total population

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

*Source:* Canadian Community Health Survey (CCHS) Cycle 3.1, Statistics Canada, 2005, Ottawa, Ontario.

## PAP Smear Testing

**Figure 17:** Percentage (%) of Women 18+ Reporting having had a PAP Smear within Last 12 Months, Nova Scotia, 2005



### Definition

The percentage of females aged 18 and over who have had a PAP smear in the last 12 months

### Significance - Rationale and Notes for Interpretation

Pap Smear Tests are used to screen for cervical cancers. These cancers can be better treated with early detection and managed quite effectively. Early and regular testing for these cancers, in the populations at risk, leads to earlier detection and treatment as well as better health outcomes. Measuring the percentage of females having been treated, and the frequency of screening, provides an estimate of health services resources used and perhaps the target areas that education and further testing needs to be focused on. DHA 2 and 8 are significantly lower than the Provincial rate.

### Technical Specifications

#### Calculation:

((The number of females aged 18 and over who have had a PAP smear test within the last 12 months)/ (The total number of females aged 18 and over)) X100 for each of Nova Scotia's nine District Health Authorities and Nova Scotia.

Source: Canadian Community Health Survey (CCHS) Cycle 3.1, Statistics Canada, 2005, Ottawa, Ontario.

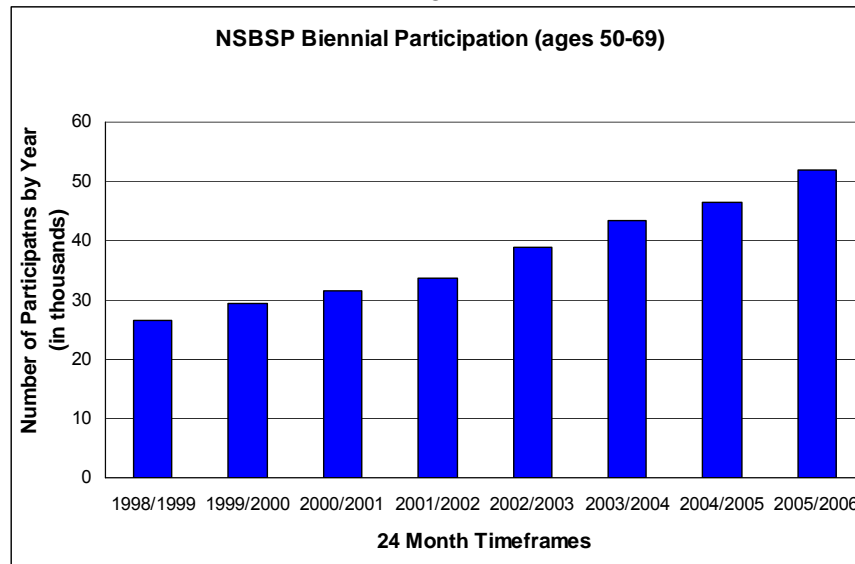
## Mammography Screening

### Percentage of Women Screened Aged 50 – 69 Years

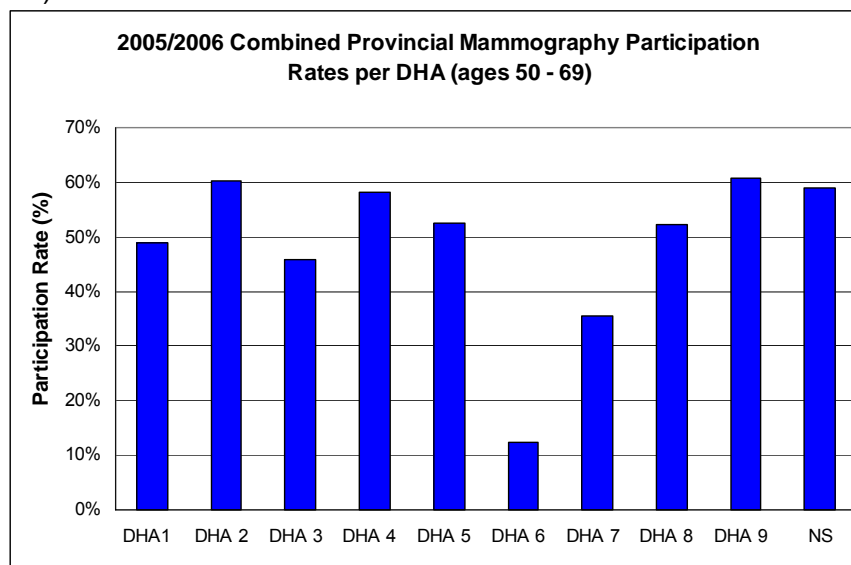
#### Vision of the Nova Scotia Breast Screening Program (NSBSP)

To provide quality standardized mammography access with timely assessment, informed patient navigation and appropriate follow-up of women who have abnormal mammograms on screening, through diagnostic work-ups in accredited work-up centers, before consideration of surgical alternatives.

**Figure 18:** NSBSP Biennial Participation (ages 50-69)



**Figure 19:** 2005/2006 Combined Provincial Mammography Participation Rates per DHA (ages 50 – 69)



### Definition

Fig 18. The number of women ages 50 to 69 who have had a screening mammogram within a 24 month timeframe.

Fig 19. The percentage of women ages 50 to 69 who have had a screening mammogram for 2005/2006 (calculated biennially, 24 months) as a portion of the eligible population per DHA.

### Significance – Rationale and Notes for Interpretation

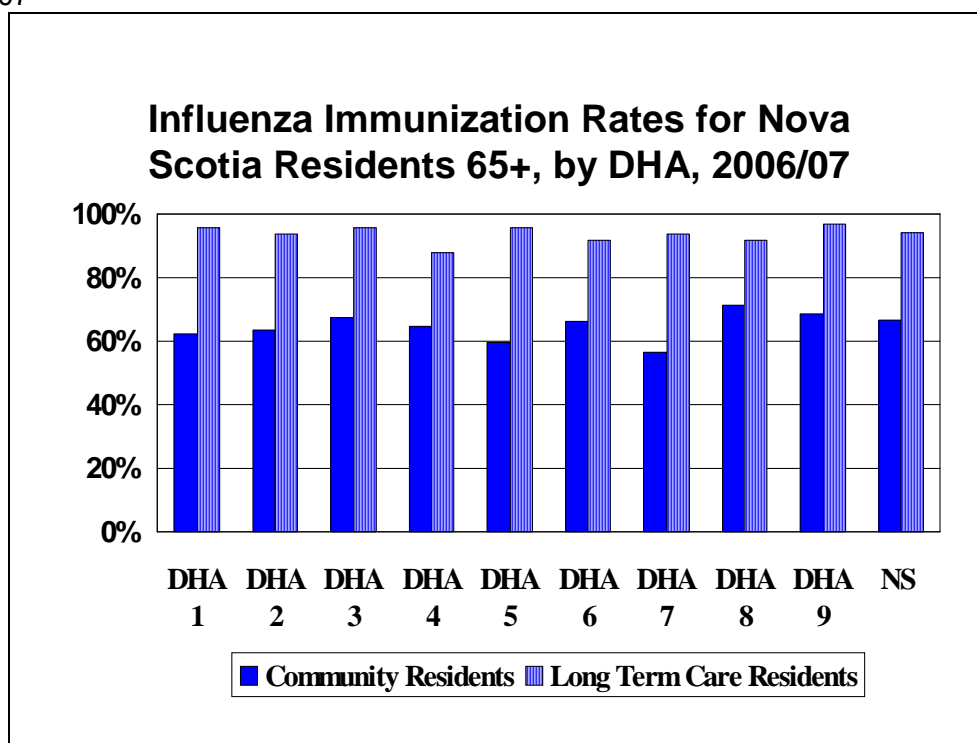
The goal of the Nova Scotia Breast Screening Program (NSBSP) is to reduce the mortality from breast cancer in Nova Scotia women aged 50-69 years of age by 30% within ten years following province wide program status. Women aged 50-69 are more at risk for breast cancer making adequate screening measures imperative for this age group. Examining and reporting the number of first time breast screening women and the number of women returning to the program enables the NSBSP to monitor screening promotion and use in each DHA and indicate where extra resources may be needed. Since the establishment of the NSBSP in 1991 until the end of 2006, 134,002 women have been registered in the provincial breast screening database and 433,833 mammograms have been done.

Over one year there was a biennial participation rate increase of 5.36%. For the same time-frame the number of screens increased by 10.4%, compared to a 6.6% increase one year ago. The lowest participation rate of 12.04%, seen in District Health Authority (DHA) 6 (New Glasgow), reflects the lack of database information from this site which began booking mammography through Central Booking and submitting data to the province in January 2007. This is not an accurate representation of the breast screening participation rate in this district.

Source: Nova Scotia Breast Screening Program database, Nova Scotia Department of Health

## Influenza Immunization Rates for Nova Scotia Residents 65+

**Figure 20:** Influenza Immunization Rates for Nova Scotia Residents 65+, by DHA, 2006/07



### Definition

Fig 20. The proportion of adults 65 years of age and older who received an influenza vaccination in the last year by DHA.

Fig 21. The proportion of adults 65 years of age and older who received an influenza vaccination 1998-2007.

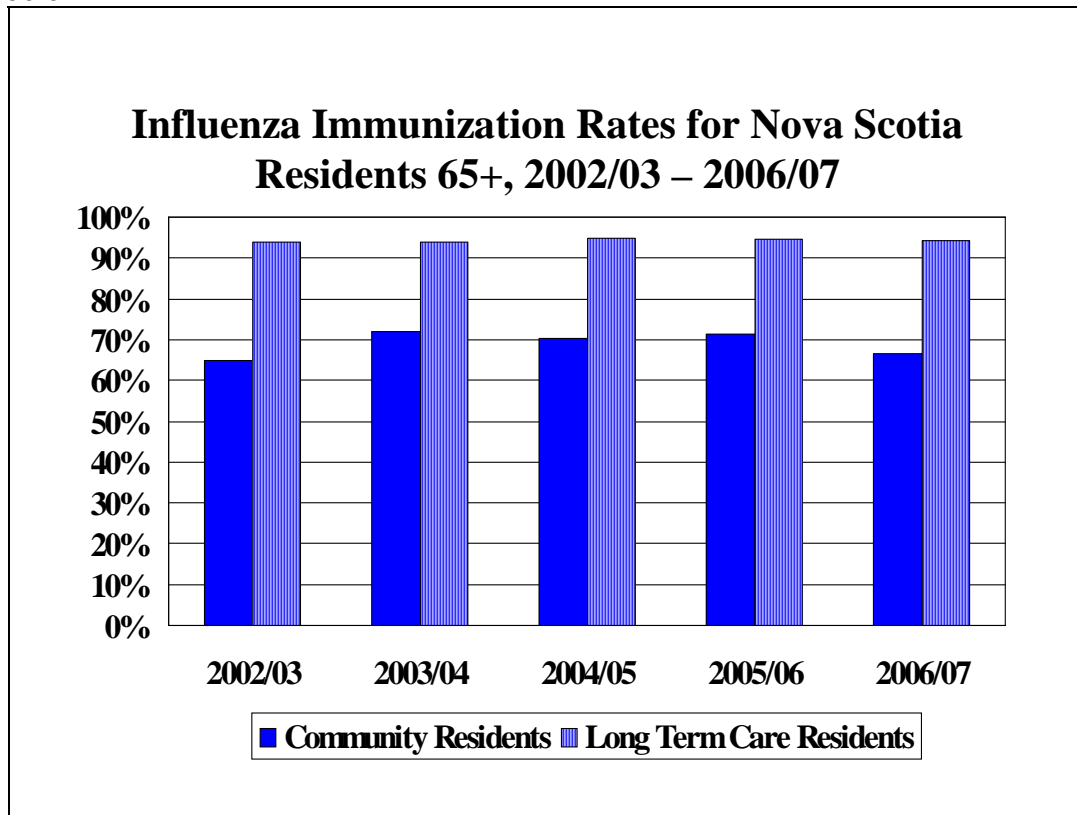
### Significance – Rationale and Notes for Interpretation

The *Canadian Consensus Conference on Influenza* (1993) recommended that by the 2000/01 flu season 70% of individuals in high-risk groups (such as those aged 65+) should receive flu shots. The national target for community residents is 80% and 95% for residents of long term care facilities. Nova Scotia has a comprehensive strategy for the promotion of flu immunizations.

### Technical Specifications

**Calculation:** (Total number of people immunized) / (Total population (for community resident this is based on mid-year population projection from the 2001 census)) x 100 for each of Nova Scotia's nine District Health Authorities and Nova Scotia.

**Figure 21:** Influenza Immunization Rates for Nova Scotia Residents 65+, 2002/03 – 2006/07



Source: Nova Scotia Health Promotion and Protection Influenza Surveillance and Immunization – Annual Report 2006 - 2007. Prepared May 2007



## Disease Prevalence / Incidence

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Unlike health promotion and population health indicators, disease incidence and mortality indicators tell us how healthy our population currently is and at what rate it is experiencing and dying from disease. Incidence is a measure of the rate at which new cases of disease occur in a population previously without disease. In this section, three types of disease are examined: cancers, communicable diseases and diabetes.

Often when looking at disease incidence and disease mortality rates, statisticians use a method of analysis called age standardization. Age standardization is a way of looking at the rate of illness in a specific place and asking, "What would we expect the rate of illness to be if this place had the same age structure as the rest of Canada?" Therefore, the rates shown do not cite the actual number of observed cases, but the numbers of expected cases in the standard population.

Using this method allows for valid comparisons across different parts of the province/country and allows us to see if health problems are actually more serious in one place than in another. Age standardized statistics must be standardized to the same census population data. Data are not comparable if, for instance, some data (for a particular variable) are standardized to 1996 population data and some are standardized to 1991 population data. In this report, 1991 Canadian population data are used.

Age-standardized cancer incidence rates measure the appearance of new cases of cancer. This incidence rate is influenced by two main groups of factors: (1) the underlying rate of cancer incidence, which reflects, in part, the prevalence of risk factors such as smoking, and, in turn, the success of primary prevention efforts, and (2) the rate of detection and diagnosis of cancers, which 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 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 so that generally, a declining incidence of cancer suggests a positive change in population health. This interpretation 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.

As a general comment on using incidence figures, there is an increasing awareness that a successful decrease in one disease may simply lead to an increase in the incidence of some other conditions, with no net benefit. Therefore, when one cause of death or disability is replaced by another, it is important to know if there is a net increase in life span or if there is a significant gap in time between the decrease in mortality for one cause and increased mortality for another. Quality of health during the remaining years is also crucial.

Age-standardized cancer mortality rate trends may indicate long-term success in reducing deaths from these diseases. Lower death rates could indicate success in cancer screening, treatment. However cardio-vascular disease prevention, detection, and treatment could also be responsible.

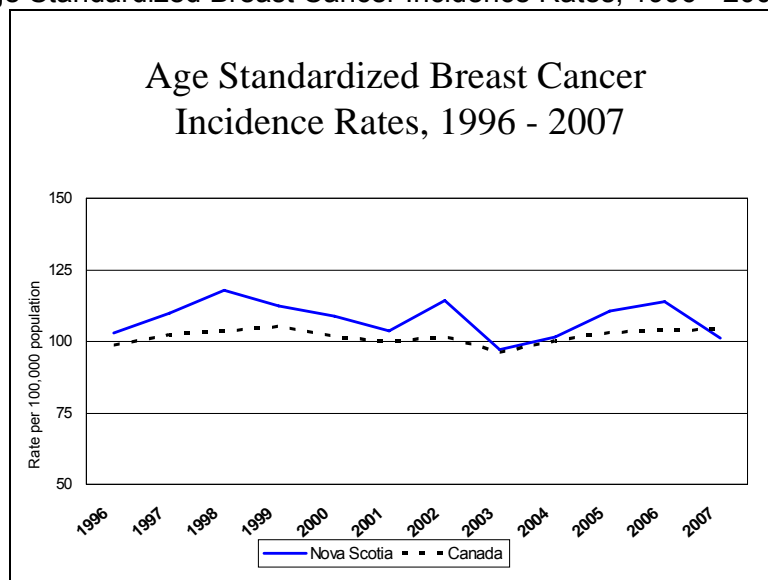
More information on cancer incidence and mortality and cancer programs can be obtained at Cancer Care Nova Scotia's website: <http://www.cancercare.ns.ca> or at the national Cancer Care Society website: [www.cancer.ca](http://www.cancer.ca).

Communicable diseases pass between people through bodily contact, exchange of bodily fluids or gases, or through contact with an infected agent such as food or water. Communicable diseases are often preventable and treatable.

More information on communicable diseases can be obtained through the Nova Scotia Department of Health website: [www.gov.ns.ca/health](http://www.gov.ns.ca/health) or through Health Canada's website: [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca).

## Female Breast Cancer Incidence Rate

**Figure 22:** Age Standardized Breast Cancer Incidence Rates, 1996 - 2007



### Definition

The reported number of newly diagnosed primary breast cancer cases in a given year per 100,000 population that would have occurred in the standard population if the observed age-specific rates in a given population had occurred in the standard population.

### Significance – Rationale and Notes for Interpretation

Incidence rate trends associated with breast cancer can provide important planning information regarding treatment and prevention programs, especially as death from chronic conditions becomes more prevalent.

### Technical Specifications

**Codes:** Malignant neoplasm of the female breast (ICD-9 174), (ICD-10 C50), (ICDO-3 C50)

**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 and sex group, summing the results, multiplying the sum by 100,000. The 1991 Canadian population is used as the standard population. (Non-residents of Canada are excluded from the calculation.)

### Sources:

Canadian Cancer Statistics 2007, National Cancer Institute of Canada  
Surveillance and Epidemiology Unit, Cancer Care Nova Scotia, July 2008

1996 - 2006 (NS) are actual observed rates reported in Surveillance and Epidemiology Unit, Cancer Care Nova Scotia, July 2008

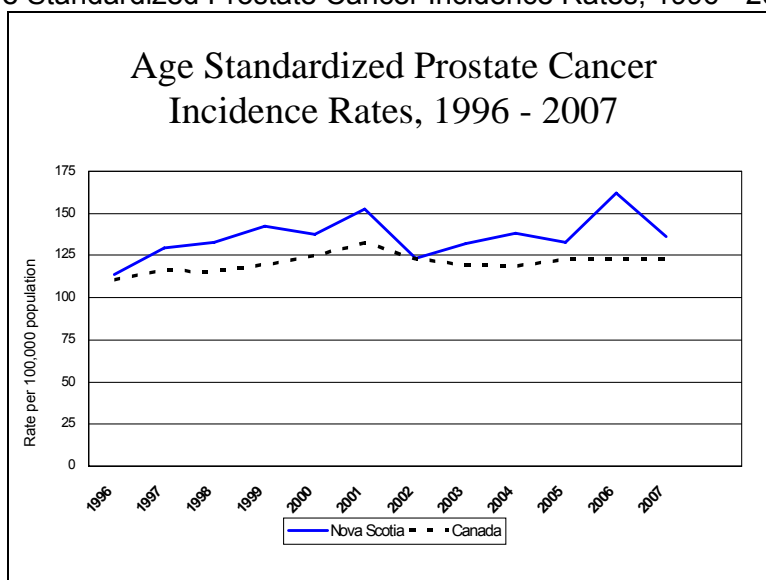
## DISEASE PREVALENCE / INCIDENCE

1996 - 2004 (Canada) are actual observed rates reported in the Canadian Cancer Statistics 2007, National Cancer Institute of Canada

2007(NS) and 2005 - 2007(Canada) rates are estimates reported in the Canadian Cancer Statistics 2007, National Cancer Institute of Canada 2007 publication with its methodology.

## Prostate Cancer Incidence Rate

**Figure 23:** Age Standardized Prostate Cancer Incidence Rates, 1996 - 2007



### Definition

The reported number of newly diagnosed primary prostate cancer cases in a given year per 100,000 male population that would have occurred in the standard population if the observed age-specific rates in a given population had occurred in the standard population.

### Significance – Rationale and Notes for Interpretation

Incidence rate trends associated with prostate cancer can provide important planning information regarding treatment and prevention programs, especially as death from chronic conditions becomes more prevalent. The risk of prostate cancer increases with age, so it is important (in our aging population) for men over 50 to have regular prostate-specific antigen (PSA) tests.

### Technical Specifications

**Codes:** Malignant neoplasm of the prostate (ICD-9 185) (ICD-10 C61) (ICDO-3 C61)

**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 and sex group, summing the results, multiplying the sum by 100,000. The 1991 Canadian population is used as the standard population. (Non-residents of Canada are excluded from the calculation.)

### Sources:

Canadian Cancer Statistics 2007, National Cancer Institute of Canada  
Surveillance and Epidemiology Unit, Cancer Care Nova Scotia, July 2008

1996 - 2006 (NS) are actual observed rates reported in Surveillance and Epidemiology Unit, Cancer Care Nova Scotia, July 2008

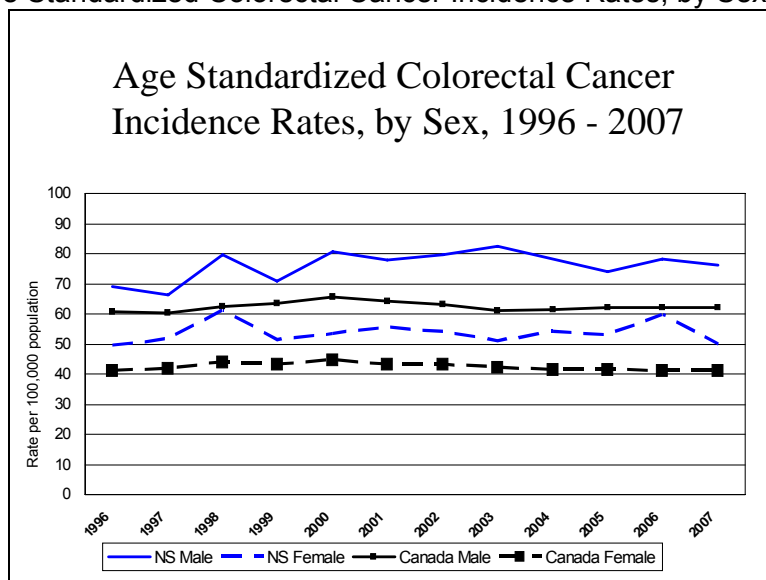
## DISEASE PREVALENCE / INCIDENCE

1996 - 2004 (Canada) are actual observed rates reported in the Canadian Cancer Statistics 2007, National Cancer Institute of Canada

2007(NS) and 2005 - 2007(Canada) rates are estimates reported in the Canadian Cancer Statistics 2007, National Cancer Institute of Canada 2007 publication with its methodology.

## Colorectal Cancer Incidence Rate

**Figure 24:** Age Standardized Colorectal Cancer Incidence Rates, by Sex, 1996 - 2007



### Definition

The reported number of newly diagnosed primary colorectal cancer cases in a given year per 100,000 population that would have occurred in the standard population if the observed age-specific rates in a given population had occurred in the standard population.

### Significance – Rationale and Notes for Interpretation

Incidence rate trends associated with colorectal cancer can provide important planning information regarding treatment and prevention programs, especially as chronic diseases become more prevalent.

### Technical Specifications

**Codes:** Malignant neoplasm of the colon/rectum (ICD-9 153-154) (ICD-10 C18-C21, C26.0) (ICDO-3 C18-C21, C26.0)

**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. The 1991 Canadian population is used as the standard population. (Non-residents of Canada are excluded from the calculation.)

### Sources:

Canadian Cancer Statistics 2007, National Cancer Institute of Canada  
Surveillance and Epidemiology Unit, Cancer Care Nova Scotia, July 2008

1996 - 2006 (NS) are actual observed rates reported in Surveillance and Epidemiology Unit, Cancer Care Nova Scotia, July 2008

## DISEASE PREVALENCE / INCIDENCE

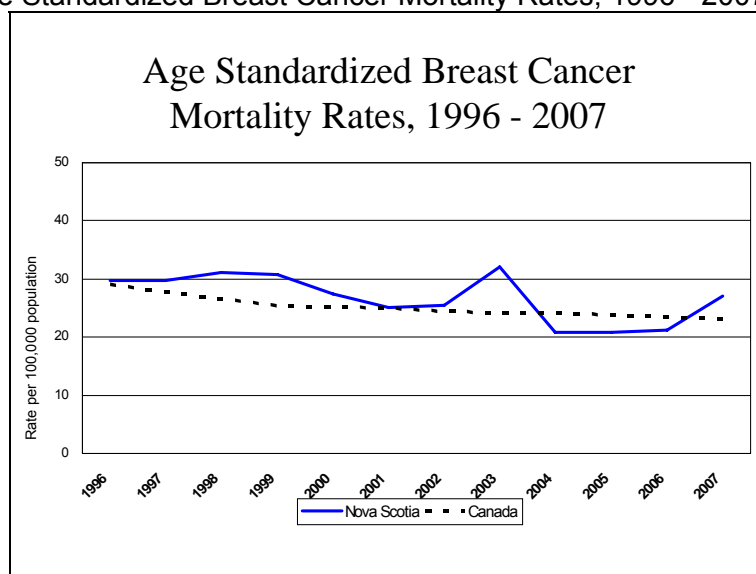
1996 - 2004 (Canada) are actual observed rates reported in the Canadian Cancer Statistics 2007, National Cancer Institute of Canada

2007(NS) and 2005 - 2007(Canada) rates are estimates reported in the Canadian Cancer Statistics 2007, National Cancer Institute of Canada 2007 publication with its methodology.



## Breast Cancer Mortality Rate

**Figure 25:** Age Standardized Breast Cancer Mortality Rates, 1996 - 2007



### Definition

The reported number of deaths of individuals where the underlying cause of death is breast cancer, per 100,000 female population, that would have occurred in the standard population if the observed age-specific rates in a given population had occurred in the standard population.

### Significance – Rationale and Notes for Interpretation

Age-standardized cancer trends may indicate long-term success in reducing deaths from these diseases, compared with other provinces and countries. Lower death rates indicate success in cancer prevention, detection, and treatment.

### Technical Specifications

**Calculation:** The age-standardized rate for each cancer site female breast (ICD-9 174 or ICD-10, ICDO-3, C50), 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. The 1991 Canadian population is used as the standard population. (Non-residents of Canada are excluded from the calculation.)

### Sources:

Canadian Cancer Statistics 2007, National Cancer Institute of Canada  
Surveillance and Epidemiology Unit, Cancer Care Nova Scotia, July 2008

1996 - 2006 (NS) are actual observed rates reported in Surveillance and Epidemiology Unit, Cancer Care Nova Scotia, July 2008

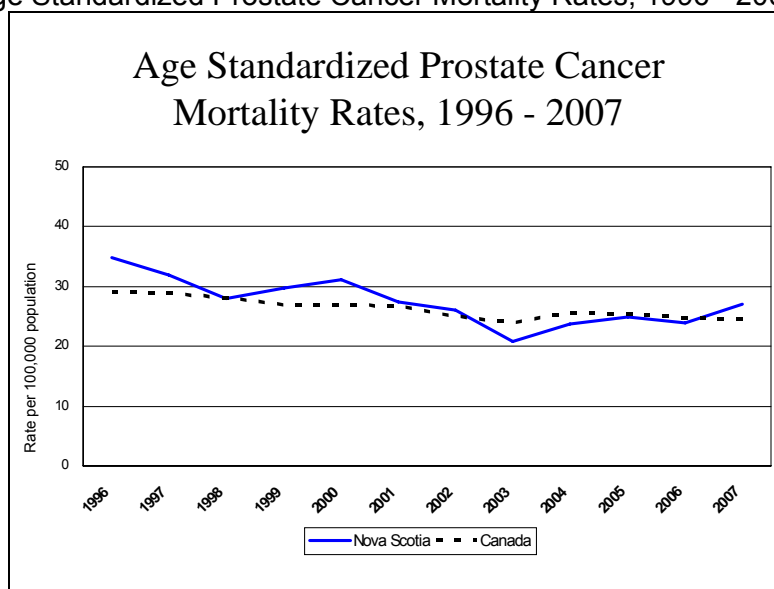
## DISEASE PREVALENCE / INCIDENCE

1996 - 2004 (Canada) are actual observed rates reported in the Canadian Cancer Statistics 2007, National Cancer Institute of Canada

2007(NS) and 2005 - 2007(Canada) rates are estimates reported in the Canadian Cancer Statistics 2007, National Cancer Institute of Canada 2007 publication with its methodology.

## Prostate Cancer Mortality Rate

**Figure 26:** Age Standardized Prostate Cancer Mortality Rates, 1996 - 2007



### Definition

The reported number of deaths of individuals where the underlying cause of death is prostate cancer, per 100,000 male population, that would have occurred in the standard population if the observed age-specific rates in a given population had occurred in the standard population.

### Significance – Rationale and Notes for Interpretation

Age-standardized cancer death rate trends may indicate long-term success in reducing deaths from these diseases, compared with other provinces and countries. Lower death rates indicate success in cancer prevention, detection, and treatment.

### Technical Specifications

**Calculation:** The age-standardized rate for cancer of the prostate (ICD-9 185 or ICD-10, ICDO-3 C61) 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. The 1991 Canadian population is used as the standard population. (Non-residents of Canada are excluded from the calculation.)

### Sources:

Canadian Cancer Statistics 2007, National Cancer Institute of Canada  
Surveillance and Epidemiology Unit, Cancer Care Nova Scotia, July 2008

1996 - 2006 (NS) are actual observed rates reported in Surveillance and Epidemiology Unit, Cancer Care Nova Scotia, July 2008

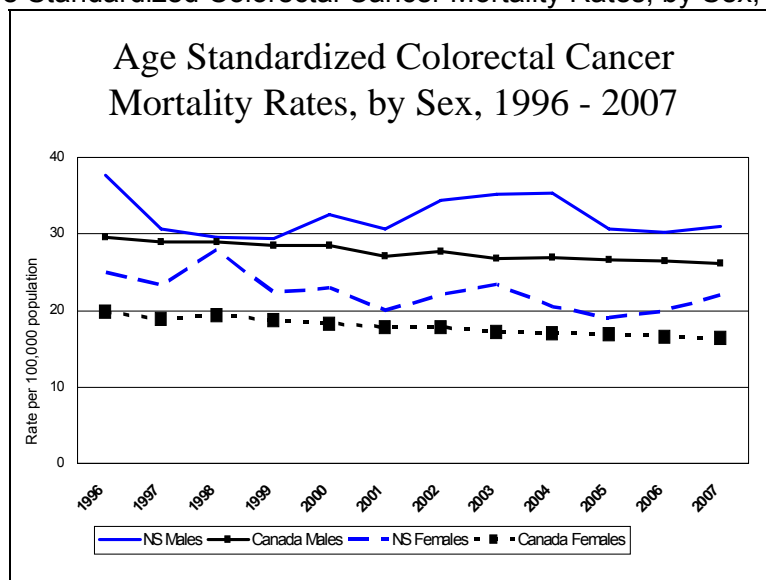
## DISEASE PREVALENCE / INCIDENCE

1996 - 2004 (Canada) are actual observed rates reported in the Canadian Cancer Statistics 2007, National Cancer Institute of Canada

2007(NS) and 2005 - 2007(Canada) rates are estimates reported in the Canadian Cancer Statistics 2007, National Cancer Institute of Canada 2007 publication with its methodology.

## Colorectal Cancer Mortality Rate

**Figure 27:** Age Standardized Colorectal Cancer Mortality Rates, by Sex, 1996 - 2007



### Definition

The reported number of deaths of individuals where the underlying cause of death is colorectal cancer, per 100,000 population, that would have occurred in the standard population if the observed age-specific rates in a given population had occurred in the standard population.

### Significance – Rationale and Notes for Interpretation

Age-standardized cancer death rate trends may indicate long-term success in reducing deaths from these diseases, compared with other provinces and countries. Lower death rates indicate success in cancer prevention, detection, and treatment.

### Technical Specifications

**Calculation:** The age-standardized rate for cancer of the colon/rectum (ICD-9 153-154 or ICD-10, ICDO-3 C18-21, C26.0) 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. The 1991 Canadian population is used as the standard population. (Non-residents of Canada are excluded from the calculation.)

### Sources:

Canadian Cancer Statistics 2007, National Cancer Institute of Canada  
Surveillance and Epidemiology Unit, Cancer Care Nova Scotia, July 2008

1996 - 2006 (NS) are actual observed rates reported in Surveillance and Epidemiology Unit, Cancer Care Nova Scotia, July 2008

1996 - 2004 (Canada) are actual observed rates reported in the Canadian Cancer Statistics 2007, National Cancer Institute of Canada

## DISEASE PREVALENCE / INCIDENCE

2007(NS) and 2005 - 2007(Canada) rates are estimates reported in the Canadian Cancer Statistics 2007, National Cancer Institute of Canada 2007 publication with its methodology.

## Incidence and Mortality Rates for Selected Cancers Nova Scotia by DHA - 2006

**Figure 28:** Female Incidence rates of invasive cancers, District Health Authority (DHA), common cancer sites, Nova Scotia 2006

FEMALES	Age-Standardized Incidence Rate <sup>1</sup> per 100,000							
	BREAST	95% CI <sup>2</sup>	COLORECTAL	95% CI	LUNG	95% CI	ALL SITES	95% CI
DISTRICT HEALTH AUTHORITY								
South Shore Health	113.1	[ 81.4-144.8]	82.8	[ 57.3-108.3]	53.4	[ 32.5-74.2]	471.1	[404.1-538.0]
South West Health	106.2	[ 76.4-136.1]	56.0	[ 35.3-76.6]	61.8	[ 38.2-85.5]	379.8	[322.4-437.2]
Annapolis Valley Health	129.1	[ 98.8-159.5]	49.2	[ 29.8-68.7]	52.8	[ 34.8-70.9]	380.0	[327.5-432.6]
Colchester East Hants Health Authority	81.8	[ 55.4-108.3]	69.7	[ 45.6-93.8]	27.2	[ 12.1-42.2]	358.9	[302.0-415.8]
Cumberland Health Authority	107.7	[ 65.1-150.3]	44.3	[ 17.8-70.7]	37.8	[ 15.7-59.9]	327.5	[255.6-399.3]
Pictou County Health Authority	100.7	[ 67.8-133.5]	69.2	[ 42.0-96.4]	84.5	[ 51.8-117.2]	446.8	[372.3-521.2]
Guysborough Antigonish Strait Health Authority	108.8	[ 73.7-144.0]	60.2	[ 32.1-88.2]	55.9	[ 31.3-80.6]	364.0	[296.1-431.8]
Cape Breton District Health Authority	112.0	[ 90.0-133.9]	60.1	[ 44.9-75.4]	51.3	[ 37.3-65.4]	379.8	[339.1-420.4]
Capital Health	112.6	[ 99.2-125.9]	49.4	[ 40.5-58.2]	46.7	[ 37.9-55.5]	352.5	[328.5-376.4]
All Nova Scotia 2006	114.3	[105.8-122.7]	59.0	[ 53.0-64.9]	54.1	[ 48.4-59.9]	394.8	[379.0-410.7]
Canada <sup>3</sup> 2006	103.5		41.2		49.1		356.7	

<sup>1</sup> Rates are standardized to the age distribution of the 1991 Canadian population.

<sup>2</sup> The 95% confidence interval (range within which a value is expected to fall with a given probability).

<sup>3</sup> Estimated age-standardized incidence rates obtained from Canadian Cancer Statistics 2007 ([http://www.cancer.ca/vgn/images/portal/cit\\_86751114/36/15/1816216925cw\\_2007stats\\_en.pdf](http://www.cancer.ca/vgn/images/portal/cit_86751114/36/15/1816216925cw_2007stats_en.pdf)).

**Figure 29:** Male Incidence rates of invasive cancers, District Health Authority (DHA), common cancer sites, Nova Scotia 2006

MALES	Age-Standardized Incidence Rate <sup>1</sup> per 100,000							
	PROSTATE	95% CI <sup>2</sup>	COLORECTAL	95% CI	LUNG	95% CI	ALL SITES	95% CI
DISTRICT HEALTH AUTHORITY								
South Shore Health	231.7	[188.0-275.5]	55.4	[33.6-77.3]	59.9	[37.6-82.2]	566.2	[494.7-637.8]
South West Health	161.3	[122.4-200.2]	68.6	[43.5-93.8]	101.3	[70.2-132.4]	532.5	[460.4-604.7]
Annapolis Valley Health	168.4	[133.8-203.0]	69.9	[47.5-92.3]	74.9	[51.8-98.0]	497.5	[437.6-557.5]
Colchester East Hants Health Authority	98.5	[68.5-128.5]	87.9	[59.6-116.1]	94.2	[64.5-123.9]	498.5	[429.3-567.7]
Cumberland Health Authority	144.2	[96.9-191.6]	59.1	[29.0-89.2]	95.2	[56.9-133.6]	468.0	[382.7-553.4]
Pictou County Health Authority	196.0	[146.6-245.4]	77.8	[46.9-108.6]	82.3	[49.6-115.0]	553.6	[466.3-640.9]
Guysborough Antigonish Strait Health Authority	118.0	[79.8-156.2]	60.0	[32.9-87.1]	65.4	[37.8-92.9]	397.4	[328.1-466.8]
Cape Breton District Health Authority	126.9	[102.8-150.9]	89.0	[68.7-109.4]	78.1	[59.5-96.7]	509.9	[461.4-558.3]
Capital Health	171.7	[153.2-190.2]	69.6	[57.8-81.3]	70.1	[58.3-82.0]	508.8	[477.1-540.5]
All Nova Scotia 2006	162.0	[151.4-172.7]	76.0	[68.7-83.3]	84.0	[76.3-91.7]	535.9	[516.4-555.4]
Canada <sup>3</sup> 2003	122.3		62.1		69.2		455.4	

<sup>1</sup> Rates are standardized to the age distribution of the 1991 Canadian population.

<sup>2</sup> The 95% confidence interval (range within which a value is expected to fall with a given probability).

<sup>3</sup> Estimated age-standardized incidence rates obtained from Canadian Cancer Statistics 2007 ([http://www.cancer.ca/vgn/images/portal/cit\\_86751114/36/15/1816216925cw\\_2007stats\\_en.pdf](http://www.cancer.ca/vgn/images/portal/cit_86751114/36/15/1816216925cw_2007stats_en.pdf)).

Source: Cancer Care Nova Scotia



**Figure 30:** Female Mortality counts and rates<sup>1</sup>, by gender and District Health Authority (DHA), common cancer sites, Nova Scotia 2006

FEMALES	BREAST <sup>1</sup>	COLORECTAL	LUNG	OTHER	TOTAL MORTALITY <sup>1</sup>	Age-Standardized Incidence Rate <sup>2</sup> per 100,000	
						ALL CANCERS	95% CI <sup>3</sup>
DISTRICT HEALTH AUTHORITY							
South Shore Health	<5*	9	10	34	53*	101.0	[72.5-129.5]
South West Health	15	11	15	28	69	118.7	[89.2-148.3]
Annapolis Valley Health	13	12	22	29	76	111.5	[84.9-138.0]
Colchester East Hants Health Authority	8	10	13	34	65	122.2	[91.6-152.8]
Cumberland Health Authority	<5*	7	11	19	37*	121.8	[82.0-161.6]
Pictou County Health Authority	8	8	13	25	54	125.6	[89.5-161.6]
Guysborough Antigonish Strait Health Authority	5	8	13	20	46	120.7	[84.2-157.1]
Cape Breton District Health Authority	26	23	48	71	168	147.3	[124.4-170.2]
Capital Health	39	41	86	136	302	117.9	[104.2-131.6]
All Nova Scotia 2006	114*	129	231	396	870*	121.4	[113.1-129.8]

\* Cells sizes less than 5 were suppressed to protect patient privacy. Subsequently the total in the column for Breast Cancer only reflects the non-suppressed values. This same pattern is reflected in the Total Mortality column as well. Rates have not been adjusted.

**Figure 31:** Male Mortality counts and rates<sup>1</sup>, by gender and District Health Authority (DHA), common cancer sites, Nova Scotia 2006

MALES	PROSTATE*	COLORECTAL*	LUNG	OTHER	TOTAL MORTALITY*	Age-Standardized Incidence Rate <sup>2</sup> per 100,000	
						ALL CANCERS	95% CI <sup>3</sup>
DISTRICT HEALTH AUTHORITY							
South Shore Health	7	10	14	44	75	160.2	[123.7-196.6]
South West Health	13	9	31	41	94	220.3	[175.4-265.2]
Annapolis Valley Health	9	13	38	50	110	208.4	[168.5-248.3]
Colchester East Hants Health Authority	7	13	30	35	85	203.8	[160.2-247.4]
Cumberland Health Authority	<5*	<5*	15	14	29*	142.1	[92.9-191.2]
Pictou County Health Authority	7	10	14	36	67	220.9	[166.7-275.0]
Guysborough Antigonish Strait Health Authority	11	9	21	24	65	204.0	[153.9-254.1]
Cape Breton District Health Authority	16	22	66	91	195	231.8	[199.0-264.6]
Capital Health	36	41	110	177	364	186.2	[166.7-205.6]
All Nova Scotia 2006	106*	127*	339	512	1084*	197.7	[185.9-209.6]

<sup>1</sup> Rates and counts are provisional as mortality data may not be complete.

<sup>2</sup> Rates are standardized to the age distribution of the 1991 Canadian population.

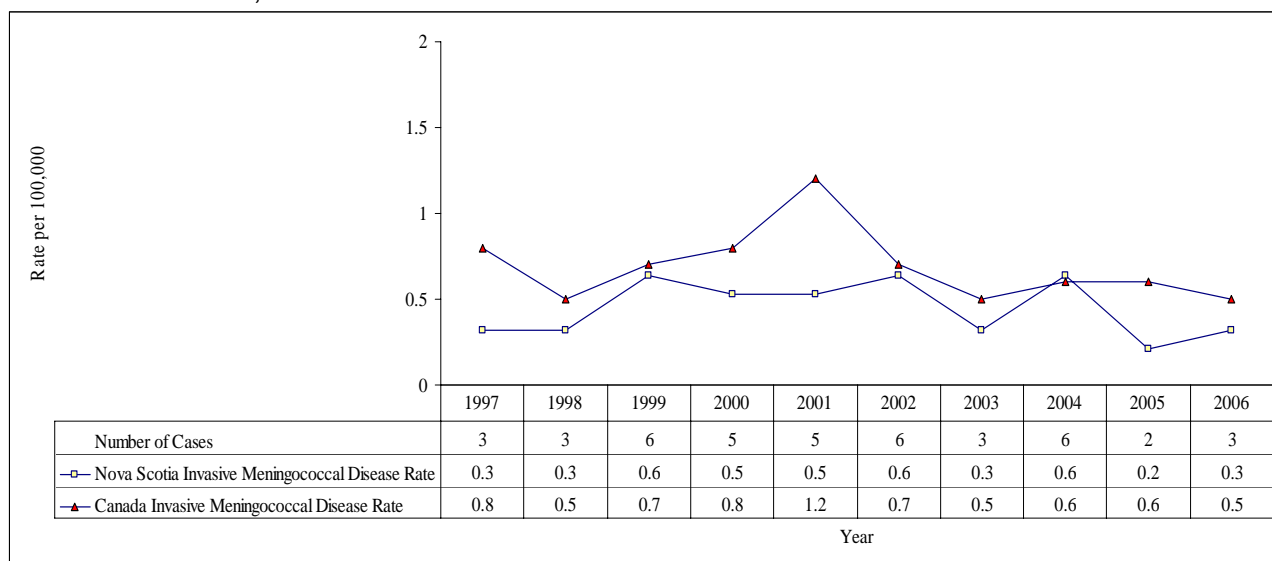
<sup>3</sup> The 95% confidence interval (range within which a value is expected to fall with a given probability).

\* Cells sizes less than 5 were suppressed to protect patient privacy. Subsequently the total in the columns for Prostate and Colorectal Cancer only reflects the non-suppressed values. This same pattern is reflected in the Total Mortality column as well. Rates have not been adjusted.

Source: Cancer Care Nova Scotia

## Incidence of Invasive Meningococcal Disease

**Figure 32:** Incidence of laboratory confirmed Invasive Meningococcal Disease, Nova Scotia and Canada, 1997-2006



### Definition

The rate per 100,000 population of reported new cases of invasive meningococcal disease reported annually in Nova Scotia. A confirmed case is defined as invasive disease (e.g. meningitis and /or Septicaemia with possible progression to purpura fulminans, shock, and death) with laboratory confirmation of infection through isolation of *Neisseria meningitidis* from a normally sterile site (blood, cerebrospinal fluid, joint, pleural or pericardial fluid) or demonstration of *N. meningitidis* antigen in cerebrospinal fluid.<sup>1</sup>

### Significance – Rationale and Notes for Interpretation

Invasive meningococcal disease (IMD) is an acute bacterial disease caused by the meningococcus, *Neisseria meningitidis*. The disease is spread by direct contact and droplet infection from the nose and throat of infected individuals. The prevalence of those who carry the bacteria in the absence of meningitis or invasive disease may be 25% or more but the invasion of bacteria sufficient to cause systemic disease is uncommon. Serogroups A, B, C, Y and W-135 are responsible for most cases of disease.

Following an outbreak in 1992, overall incidence of IMD in Nova Scotia has remained consistently low (Figure 32). A total of 48 cases of IMD were reported between 1997 and 2006 in Nova Scotia (laboratory-confirmed (41) and clinical (7) cases) including 5 deaths (Figure 33). An incidence has been shown to be highest among children 0-4 years of age group and to decline with increasing age. In Nova Scotia, meningococcal

<sup>1</sup> Advisory Committee on Epidemiology and Division of Disease Surveillance, Bureau of Infectious Diseases, Laboratory Centre for Disease Control, Health Protection Branch, Health Canada. Case Definitions for Diseases Under National Surveillance. Minister of Public Works and Government Services Canada, 2000.

group C vaccine is publicly funded for 12-month old infants. Figures 33 and 34 summarize the reported cases of laboratory-confirmed IMD from 1997 to 2006 with confirmed serogroups (B,C,Y,W-135, unknown) by age group.

**Figure 33:** Number of reported cases of Invasive Meningococcal Disease (Laboratory confirmed and clinical) by serogroup and outcome, Nova Scotia, 1997-2006

YEAR	TOTAL NUMBER CASES	CASE							OUTCOME	
		Confirmed with Serogroup					Clinical	Rate 100,000/Year		
		B	C	Y	W- 135	Unknown			Recovered	Died
1997	3	1	-	-	-	2	-	0.3	1	2
1998	4	3	-	-	-	-	1	0.3	4	-
1999	6	5	-	1	-	-	-	0.6	5	1
2000	5	2	-	1	-	2	-	0.5	4	1
2001	7	1	-	2	-	2	2	0.5	7	-
2002	8	3	1	2	-	-	2	0.6	7	1
2003	3	1	1	1	-	-	-	0.3	3	-
2004	6	4	1	-	1	0	-	0.6	6	-
2005	3	1	1	-	-	-	1	0.3	3	-
2006	3	-	-	1	-	1	1	0.3	3	-
Total	48	21	4	8	1	7	7		43	5

**Figure 34:** Number of reported cases of laboratory confirmed Invasive Meningococcal Disease by age group and serogroup, Nova Scotia, 1997-2006

Year	Age-Group	CASE						
		Confirmed with Serogroup						Rate/100,000
		B	C	Y	W135	Unknown	Total	
1997	0-4	1	-	-	-	1	2	4.1
	15-19	-	-	-	-	1	1	1.6
1998	0-4	2	-	-	-	-	2	4.1
	10-14	1	-	-	-	-	1	1.6
1999	0-4	1	-	-	-	-	1	2.1
	5-9	1	-	-	-	-	1	1.8
	10-14	1	-	-	-	-	1	1.6
	15-19	1	-	-	-	-	1	1.5
	40-59	1	-	1	-	-	2	0.7
2000	0-4	1	-	-	-	-	1	2.1
	5-9	-	-	-	-	1	1	1.8
	15-19	1	-	1	-	-	2	3.1
	20-24	-	-	-	-	1	1	1.6
2001	5-9	-	-	1	-	-	1	1.8
	10-14	-	-	1	-	1	2	3.2
	15-19	1	-	-	-	1	2	3.1
2002	0-4	2	-	-	-	-	2	4.1
	10-14	-	-	1	-	-	1	1.6
	15-19	1	1	-	-	-	2	3.1
2003	0-4	1	-	-	-	-	1	2.1
	15-19	-	1	-	-	-	1	1.5
	60+	-	-	1	-	-	1	0.6
2004	0-4	1	-	-	1	-	2	4.1
	15-19	2	1	-	-	-	3	4.7
	60+	1	-	-	-	-	1	0.6
2005	10-14	-	1	-	-	-	1	1.6
	30-39	1	-	-	-	-	1	0.7
2006	0-4	-	-	1	-	1	2	4.1

Source: Nova Scotia Health Promotion and Protection Notifiable Diseases in Nova Scotia Surveillance Report 2006. Prepared January 2008

## Incidence of Verotoxigenic *Escherichia coli* Infection

### Definition

The rate per 100,000 of reported new cases of verotoxigenic *Escherichia coli* infection reported annually in Nova Scotia. A confirmed case is defined as laboratory confirmation of *E. coli* infection with or without symptoms including isolation of verotoxin producing *Escherichia coli* or other toxigenic strains from an appropriate clinical specimen.<sup>2</sup>

### Significance – Rationale and Notes for Interpretation

Infection with Verotoxigenic/Shigatoxigenic *E.coli* (VTEC/STEC) may lead to hemorrhagic colitis and potentially the more severe Hemolytic Uremic Syndrome (HUS), a serious complication of the infection. A common serotype in North America is *E. Coli* 0157:H7. Transmission may be through water but commonly the infection is transmitted through contaminated food. Inadequately cooked beef (particularly ground beef); raw milk and fruits or vegetables that have been contaminated with feces from ruminants are commonly responsible. The bacteria may also be passed person-to-person through direct contact in families, childcare centres, and institutions.

There were 21 cases of verotoxigenic *E. coli* reported in Nova Scotia in 2006. The incidence of verotoxigenic *E. coli* infection in Nova Scotia was 2.2 cases per 100,000 population (Figure 35). The national rate for 2006 was 2.8 cases per 100,000 population.<sup>2</sup>

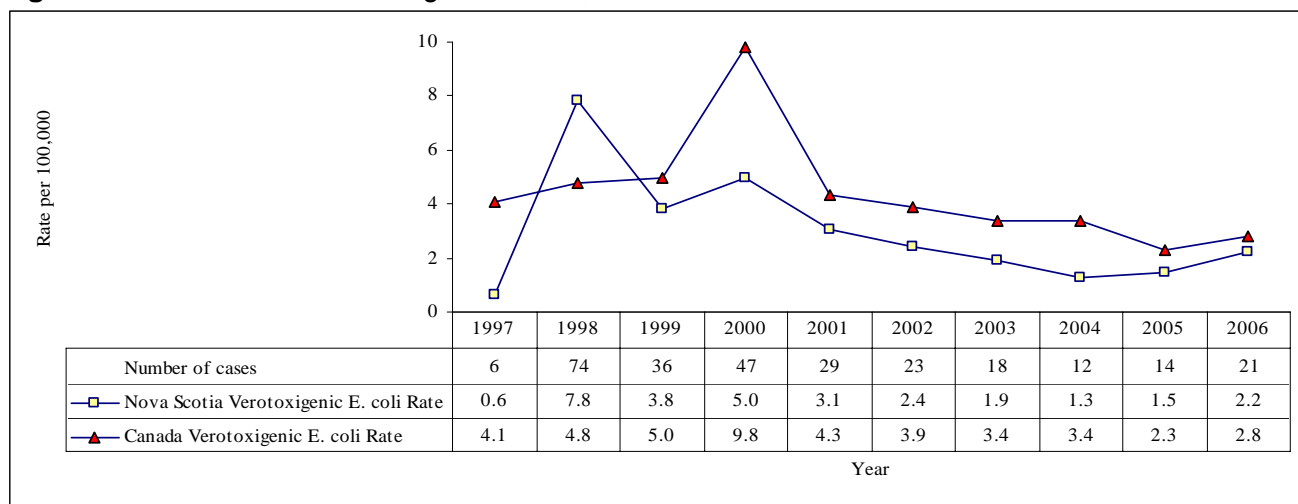
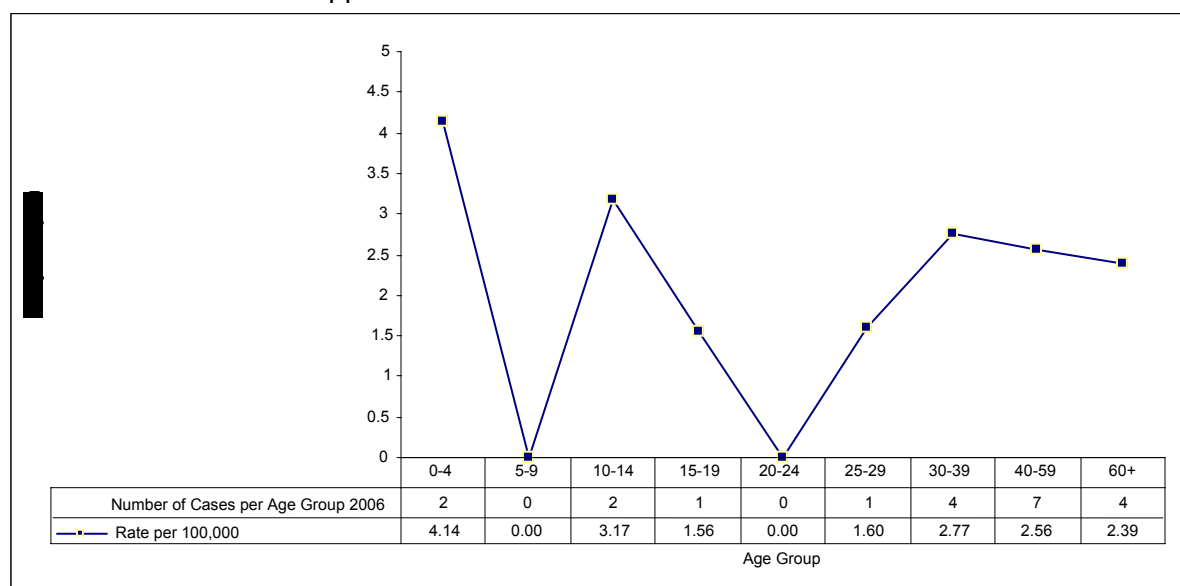
In 2006, 42.8% of the cases were males. The mean age was 40 years (range: 2-89 years). The highest age-specific incidence occurred in those 0-4 years of age at 4.14 cases per 100,000 population (Figure 36). Seventy six percent of the cases were reported between August and November.

*Source:* Nova Scotia Health Promotion and Protection Notifiable Diseases in Nova Scotia Surveillance Report 2006. Prepared January 2008

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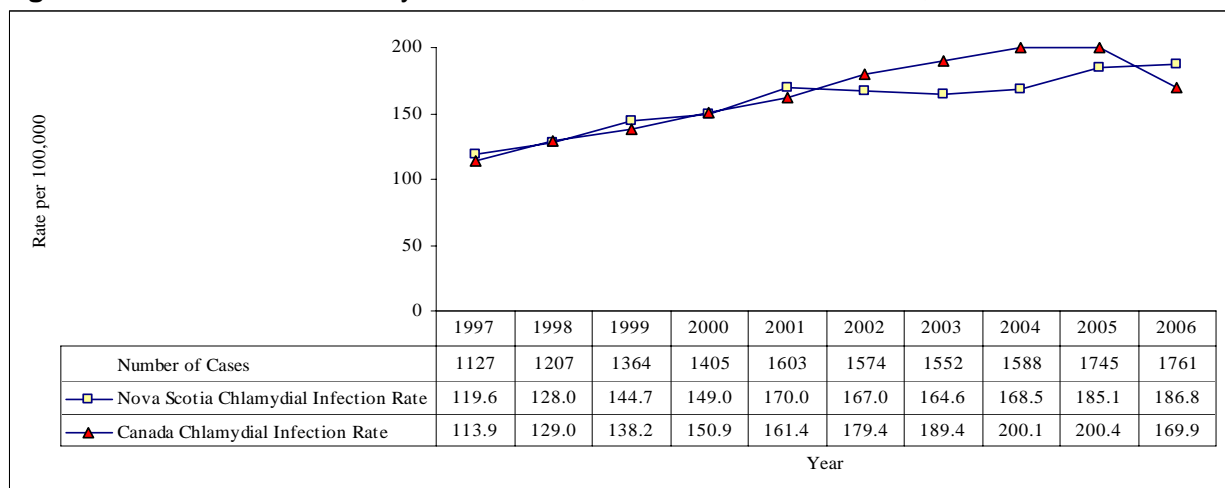
<sup>2</sup> Advisory Committee on Epidemiology and Division of Disease Surveillance, Bureau of Infectious Diseases, Laboratory Centre for Disease Control, Health Protection Branch, Health Canada. Case Definitions for Diseases Under National Surveillance. Minister of Public Works and Government Services Canada, 2000

<sup>2</sup> BC Centre for Disease Control (BCCDC) [homepage on the Internet]. 2006 British Columbia Annual Summary of Reportable Diseases. Available from: <http://www.bccdc.org/content.php?item=33#0>

**Figure 35:** Incidence of Verotoxigenic *E. coli*, Nova Scotia and Canada, 1997-2006**Figure 36:** Age specific incidence of Verotoxigenic *E. coli*, Nova Scotia, 2006 – Cells sizes less than 5 were suppressed

## Incidence of *Chlamydia trachomatis* Infection

**Figure 37:** Incidence of Chlamydial Infection, Nova Scotia and Canada, 1997-2006



### Definition

The rate per 100,000 of new cases of Chlamydial infection (genital) reported annually in Nova Scotia. A confirmed case is defined as laboratory confirmation of *Chlamydia trachomatis* infection as detected using appropriate laboratory techniques in genitourinary specimens.<sup>4</sup>

### Significance – Rationale and Notes for Interpretation

Chlamydiae cause a number of sexually transmitted infections and eye and lung infections of infants consequent to maternal genital infection. Genital chlamydial infection is a sexually transmitted disease caused by the bacterium *Chlamydia trachomatis*, manifested in males mainly as an urethritis and in females primarily as a mucopurulent cervicitis.

Recent increasing incidence rates of chlamydial infection probably reflect to a large degree, changes in testing methodology. The number of *Chlamydia trachomatis* infections in Capital Health Region showed a marked increase in 2001 coincidental with the replacement of an enzyme immunoassay (EIA) method of testing with a more sensitive polymerase chain reaction (PCR) method at the Microbiology Laboratory of the Queen Elizabeth II Health Sciences Centre. Therefore, while rates may have increased (Figure 37), much of this increase can be attributed to more sensitive testing.

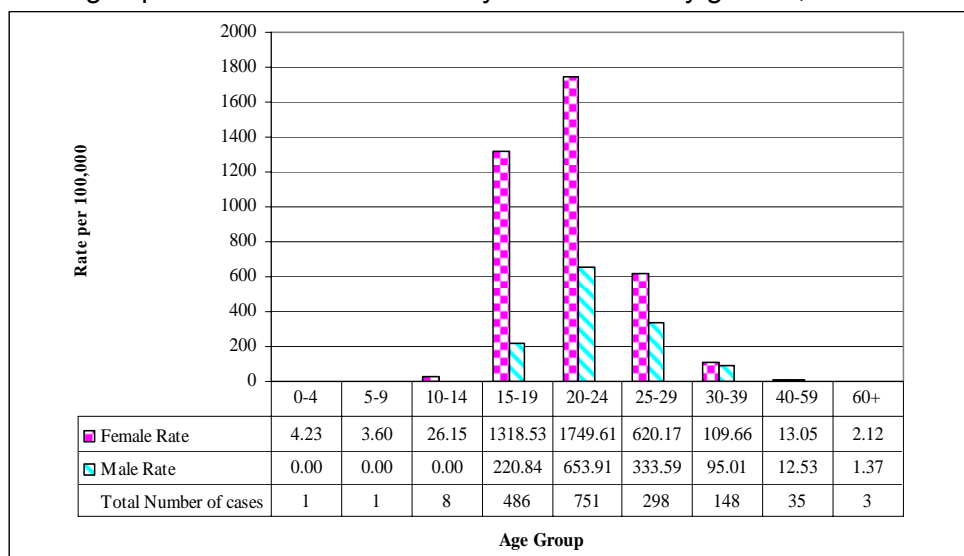
<sup>4</sup> Advisory Committee on Epidemiology and Division of Disease Surveillance, Bureau of Infectious Diseases, Laboratory Centre for Disease Control, Health Protection Branch, Health Canada. Case Definitions for Diseases Under National Surveillance. Minister of Public Works and Government Services Canada, 2000



In 2006, 1761 cases of Chlamydia were reported in Nova Scotia. The national rate for 2006 was 169.9 cases per 100,000 population<sup>3</sup>. The majority of cases (73%) in Nova Scotia were reported in those aged 15 to 24 years (Figure 38). The incidence in females exceeded that of males for all age groups. This may reflect more females than males undergoing testing.

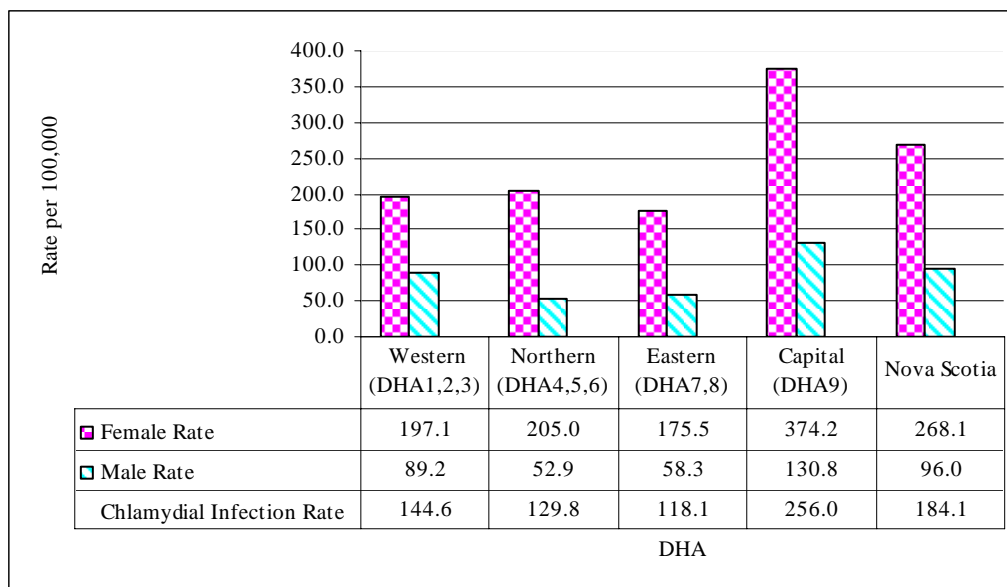
In 2006, the rate in Capital was higher than the provincial rate ( $P=0.0024$ ) while the rates in Western ( $P=0.0027$ ), Northern ( $P=0.0029$ ) and Eastern ( $P=0.0028$ ) were lower than the provincial rate. (Figure 39)

**Figure 38:** Age specific incidence of Chlamydial infection by gender, Nova Scotia, 2006



\*3 cases age were not specified

**Figure 39:** Age standardized incidence of Chlamydial infection by gender and Shared Service Area, Nova Scotia, 2006



**Figure 40:** Chlamydia trachomatis (Genital Chlamydia) - Reported number of new cases of *Chlamydia trachomatis* by age, gender, Shared Service Area, Nova Scotia, 2006

SSA*	Sex	0 - 19	20- 24	25- 29	30 to 60+	N.SP.	Total
<b>1,2,3 (Western)</b>	Female	86	74	31	10	0	201
	Male	21	44	14	9	0	88
	Unkn	1	0	0	0	0	1
	Total	108	118	45	19	0	<b>290</b>
<b>4,5,6 (Northern)</b>	Female	66	54	27	13	0	160
	Male	8	16	9	8	1	42
	Unkn	0	1	1	0	0	2
	Total	74	71	37	21	1	<b>204</b>
<b>7,8 (Eastern)</b>	Female	65	69	24	12	2	172
	Male	14	28	8	<5*	0	50*
	Total	79	97	32	16	2	<b>226</b>
<b>9 (Capital)</b>	Female	256	342	100	73	0	771
	Male	30	121	70	47	0	268
	Unkn	0	1	1	0	0	2
	Total	286	464	171	120	0	<b>1041</b>
<b>Nova Scotia</b>	Female	473	539	182	108	2	1304
	Male	73	209	101	68	1	452
	Unkn	1	2	2	0	0	5
	Total	567	750	285	176	3	<b>1761</b>

N.SP. = not specified; Unkn=unknown). SSA= Shared Service Area

\* Cell volume suppressed and total modified (0 to 29 only) to protect patient privacy

# DISEASE PREVALENCE / INCIDENCE

**Figure 41:** Table 4: Age and gender specific, crude and age standardized rates per 100,000 of *Chlamydia trachomatis* by Shared Service Area, Nova Scotia, 2006

SSA**	Sex	0-4	5-9	10-14	15-19	20-24	25-29	30-39	40-59	60+	Crude Rate	Age-Standardized Rate
1,2,3 (Western)	Female	0	0	0	1239.2	1132.4	541.5	58.5	3.2	0	187.9	197.1
	Male	19.5	15.8	0	264.5	659.9	241.5	19.0	19.6	0	84.5	89.2
	Total	10.0	8.1	0	750.5	893.7	390.5	38.5	11.4	0	137.4	<b>144.6</b>
4,5,6 (Northern)	Female	0	0	59.5	1176.5	1130.0	551.7	97.7	8.9	0	201.7	205.0
	Male	0	0	0	135.9	303.2	193.8	36.1	13.1	7.7	54.5	52.9
	Total	0	0	28.9	631.6	706.1	388.0	67.2	11.0	3.3	130.4	<b>129.8</b>
7,8 (Eastern)	Female	0	0	31.8	920.6	1066.1	479.7	98.9	0	0	182.4	175.5
	Male	0	0	0	193.6	440.5	155.8	26.3	3.7	0	60.4	58.3
	Total	0	0	15.5	547.1	756.1	315.7	63.7	1.8	0	123.0	<b>118.1</b>
9 (Capital)	Female	0	0	47.6	2077.6	2548.2	632.1	181.4	19.2	0	384.6	374.2
	Male	0	0	7.5	227.4	927.3	457.5	96.0	23.5	8.1	140.3	130.8
	Total	0	0	26.9	1125.5	1753.0	549.4	139.2	21.3	3.5	265.9	<b>256.0</b>
Nova Scotia	Female	0	0	36.0	1481.1	1727.2	578.8	128.8	10.1	0	271.1	268.3
	Male	4.0	3.4	3.1	211.8	666.7	327.1	58.7	17.0	4.1	97.9	95.8
	Total	2.1	1.8	19.0	829.9	1198.9	457.3	94.1	13.5	1.8	<b>186.8</b>	<b>184.1</b>

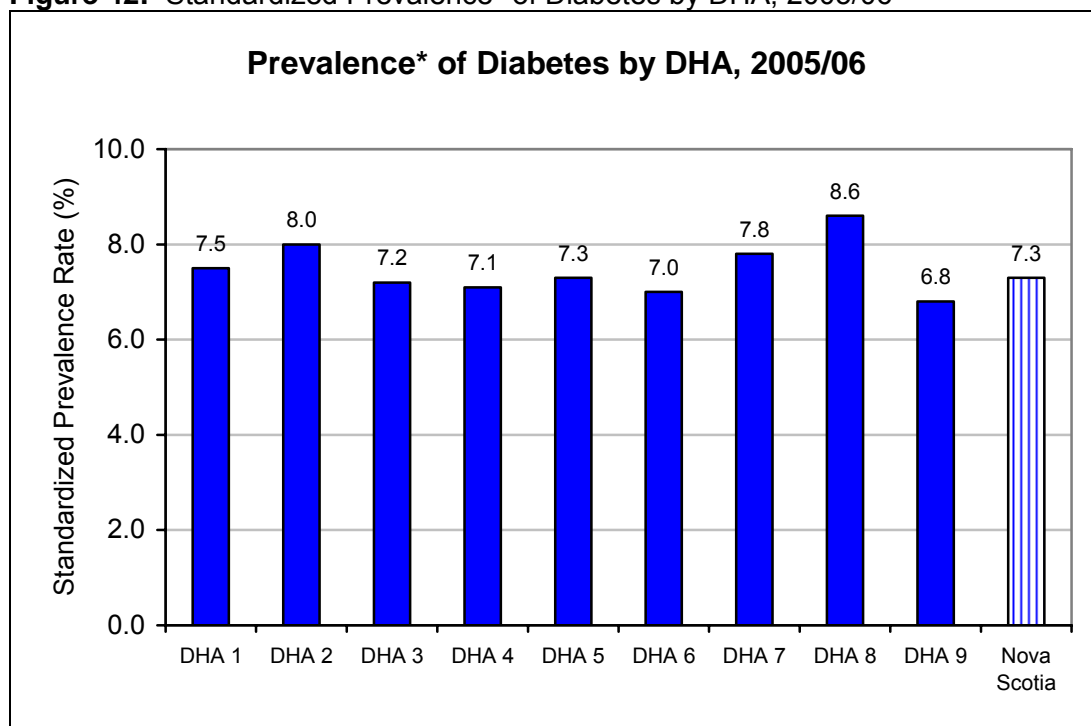
\*Rates adjusted to the age distribution of the 2001 census population of Canada. SSA\*\*= Shared Service Area

Source: Nova Scotia Health Promotion and Protection Notifiable Diseases in Nova Scotia Surveillance Report 2006. Prepared January 2008

## Prevalence of Diabetes

### Percentage of Population with the disease (Aged 20 + Years)

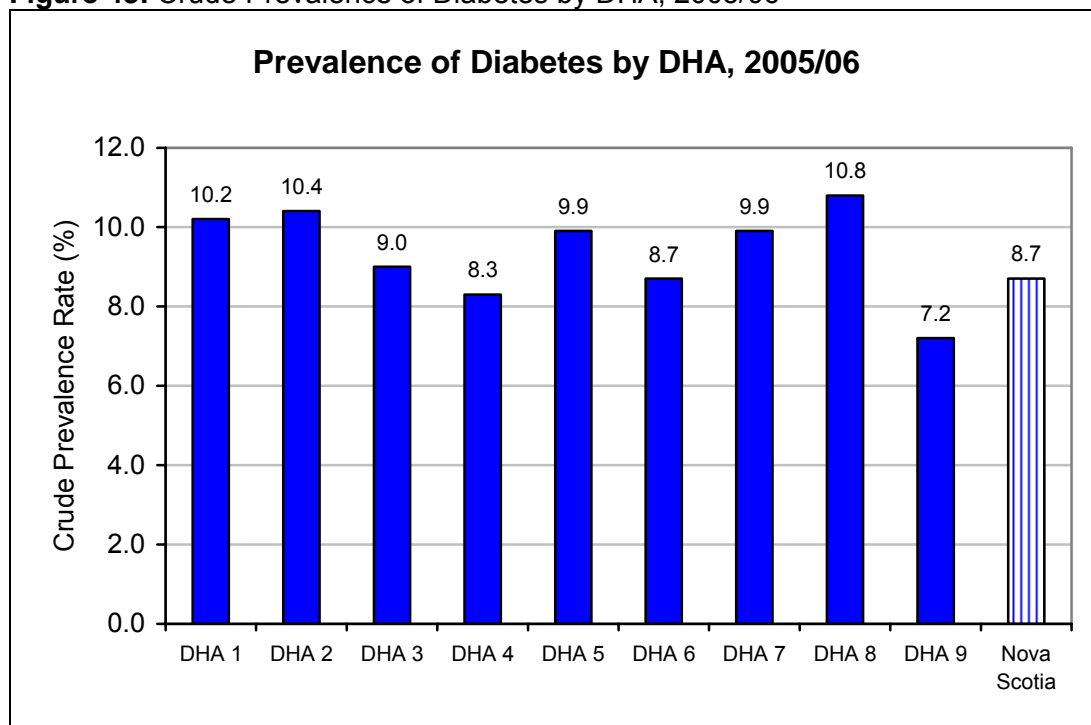
**Figure 42:** Standardized Prevalence\* of Diabetes by DHA, 2005/06



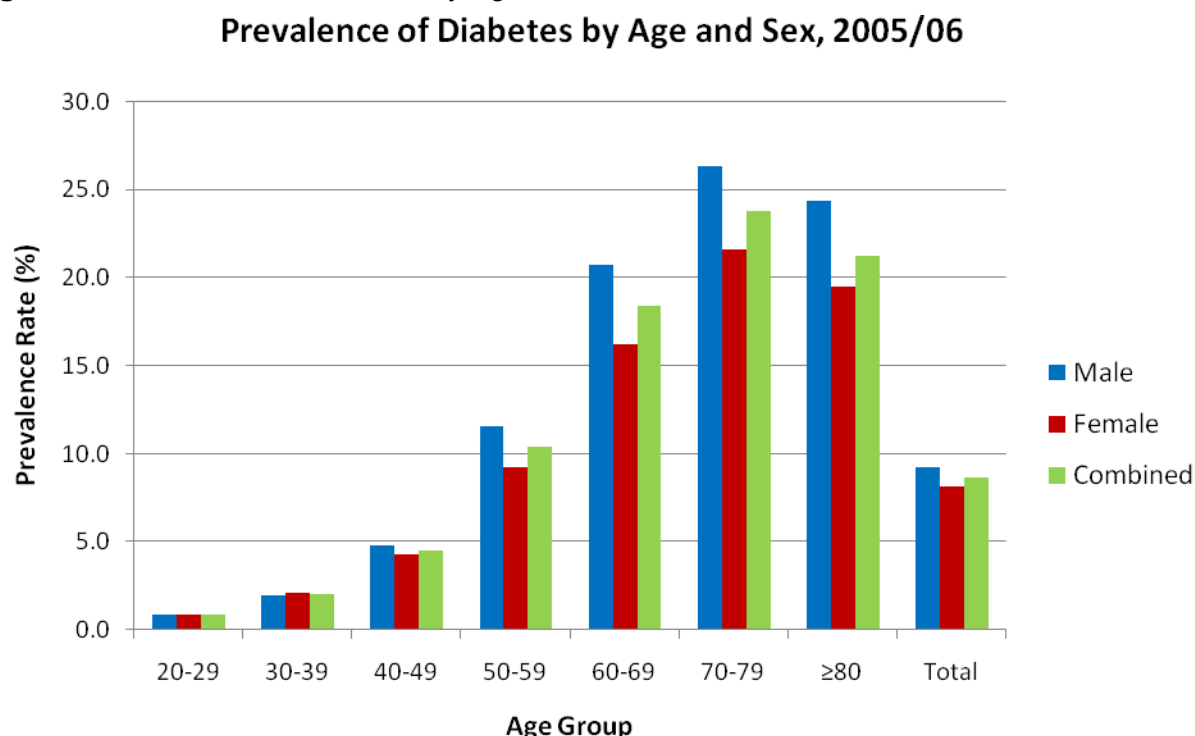
\* age-standardized to 1991 Canadian Populations

### Definition

This indicator measures the age standardized prevalence rate of diabetes mellitus for Nova Scotians age 20 and over. Prevalence rates are calculated as the proportion of new and existing diabetes cases for a given jurisdiction. Diabetes cases are determined from the National Diabetes Surveillance System (NDSS) annual person-level summary file as any individual with a date of diagnosis on or before March 31, 2006.

**Figure 43:** Crude Prevalence of Diabetes by DHA, 2005/06**Definition**

This indicator measures the **crude prevalence rate** of diabetes mellitus for Nova Scotians age 20 and over. Prevalence rates are calculated as the proportion of new and existing diabetes cases for a given jurisdiction. Diabetes cases are determined from the National Diabetes Surveillance System (NDSS) annual person-level summary file as any individual with a date of diagnosis on or before March 31, 2006. **In 2008, through the release of “Nova Scotia Diabetes Statistics Report, 2008,” the DCPNS will profile crude prevalence numbers for Nova Scotia and the District Health Authorities as these numbers are a more accurate reflection of the true burden of diabetes in Nova Scotia.**

**Figure 44:** Prevalence of Diabetes by Age and Sex, 2005/06**Significance - Rationale and Notes for Interpretation**

The Diabetes Care Program of Nova Scotia (DCPNS) is one of eight provincial programs funded by the Nova Scotia Department of Health (DoH). Working closely with all Diabetes Centres in the Province, this Program advises the Department on service delivery models; establishes, promotes, and monitors adherence to diabetes care guidelines; provides support, services, and resources to diabetes healthcare providers; and collects, analyzes, and distributes diabetes-related data for Nova Scotia.

According to the most recent figures, diabetes has been diagnosed in approximately 8.7% of the adult population (crude rate) in Nova Scotia. This percentage varies across the District Health Authorities (DHAs) with the highest rates reported in Cape Breton DHA (DHA 8) followed closely by South West Health (DHA 2) and South Shore Health (DHA 1), respectively. This new figure (8.7%) represents a 16% increase in the prevalence rate over the last five years (from 7.3% to 8.7%). The increase in prevalence is attributed to the aging of our population and the chronic nature of this condition (people living longer with a diagnosis of diabetes).

Prevalence is noted to increase with age for both sexes, peaking in the 70-79 age group with one in four people in this age group having a diagnosis of diabetes and decreases slightly in the oldest age group 80+. The slight decrease in diabetes prevalence may be due to the mortality or increased co-morbidity at older ages.

Strong support should be given to risk factor reduction through both targeted and population health initiatives aimed at the broader determinants of health.

### **Technical Specifications**

Standardized rates are used when comparing populations as they account for differences in the age and sex distribution in each jurisdiction.

*NDSS algorithm:* a person is identified as having diabetes with one hospital or two physician visits within two years coded with a diagnosis of diabetes mellitus.

*Calculation:* (The total number of people ages 20 and above who have been diagnosed with diabetes during a fiscal year/ the yearly Nova Scotia population estimate ages 20 and above)X the age-standardizing process ) X 100 per fiscal year.

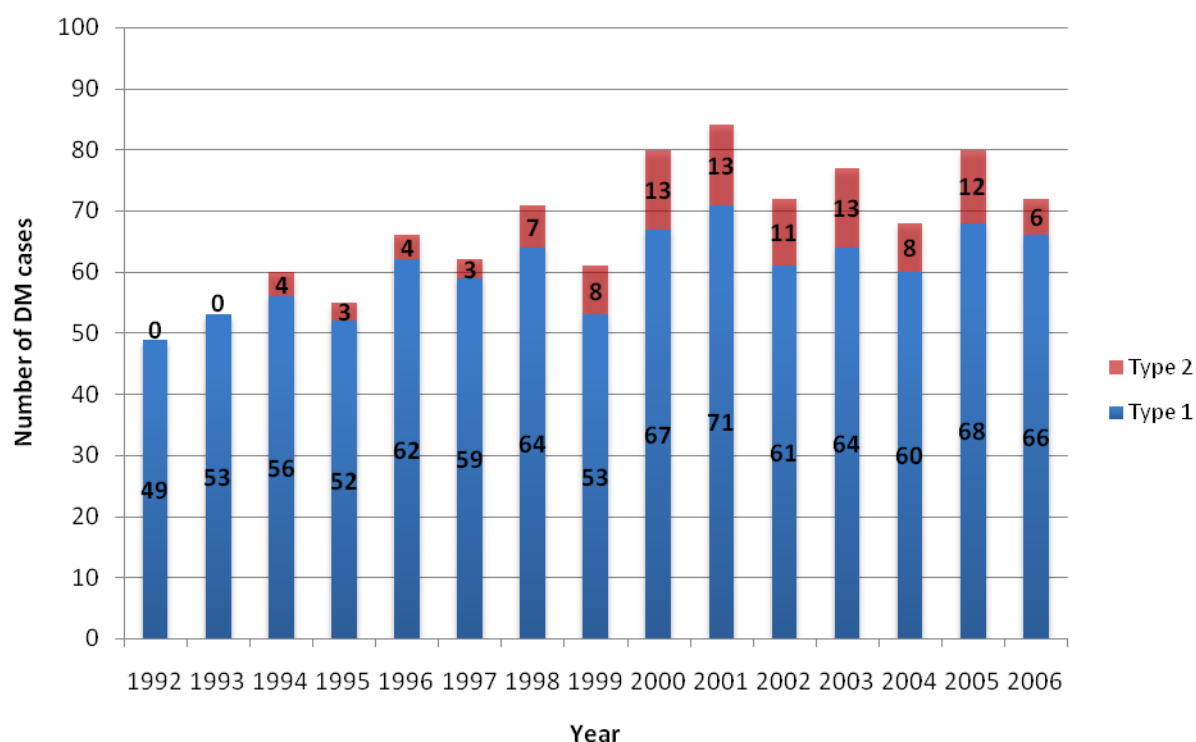
*Source:* Diabetes Care Program of Nova Scotia, Halifax, NS; National Diabetes Surveillance System, Health Canada.



### Nova Scotia Incidence of Diabetes in the Under 19 Years Population

Information for the under 19 population is derived from the DCPNS Registry inclusive of all new referrals to Nova Scotia's Diabetes Centres (DCs) since Jan 1, 1992. This data highlights, with concern, the growth in type 2 diabetes in this age population.

**Figure 45:** Nova Scotia Incident Cases of Diabetes Mellitus (Type 1 & 2) for Ages <19 Years



#### Type 1 Diabetes:

Absolute deficiency of insulin secretion as a result of pancreatic b-cell destruction; prone to ketoacidosis. Usual onset is under age 35 years. Management includes insulin and nutrition therapy.

#### Type 2 Diabetes:

Resistance to insulin and/or inadequate compensatory insulin secretory response. Usual onset is over age 35 years. Management includes nutrition therapy only; and/or oral antihyperglycemic agents/insulin.

#### Definition

The incidence of disease is defined as the number of new cases of disease occurring in a population during a defined time interval for a given jurisdiction. Incident diabetes

cases are determined from the DCPNS Registry as any individual with a date of diagnosis on or before December 31, 2006.

### **Significance - Rationale and Notes for Interpretation**

The incident cases for Type 1 DM showed a slow but steady increase from 1992 (mean of the first 8 years, 56 cases) through to 2006 (mean of the last 7 years, 65 cases).

Type 2 DM, as usually diagnosed in adults, now accounts for approximately 14% (average of the last five years) of new cases in this < age 19 age group. Type 2 DM was virtually unreported in Nova Scotia in the early 1990s. This data highlights, with concern, the growth in type 2 DM in this age population.

# Surgical Interventions

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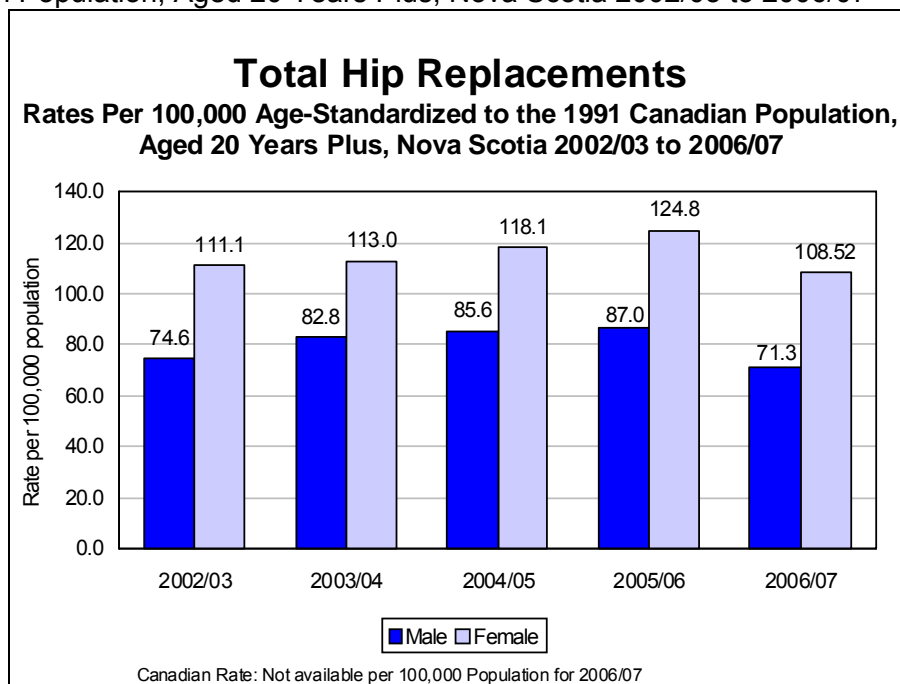
Often, as a result of disease, surgical interventions are required as part of a treatment care plan. Measuring the number of surgical interventions performed provides an indication of accessibility, health care system responsiveness, service provision, and disease incidence.

The rates of surgical interventions are analyzed using age-standardized data. By using this method, we can make valid comparisons of surgery rates across different parts of the province/country. These data must be standardized to the same population census data. Data are not comparable if, for instance, some data are standardized to 1996 population data and some is standardized to 1991 population data.

Please note that all results only reflect surgeries performed in Nova Scotia hospitals.

## Total Hip Replacements

**Figure 46:** Total Hip Replacements Rates Per 100,000 Age-Standardized to the 1991 Canadian Population, Aged 20 Years Plus, Nova Scotia 2002/03 to 2006/07



### Definition

The surgical removal of the hip joint and replacement with a synthetic hip joint.

### Significance – Rationale and Notes for Interpretation

The intended outcome of most elective surgery is improved health-related quality of life. Increases in hip replacements may reflect increased access to orthopedic care and result in improved population health status or could reflect bone degeneration in the population. Over 94% of those receiving a hip replacement reported significant improvement in pain, stiffness and overall functioning.<sup>6</sup>

### Technical Specifications

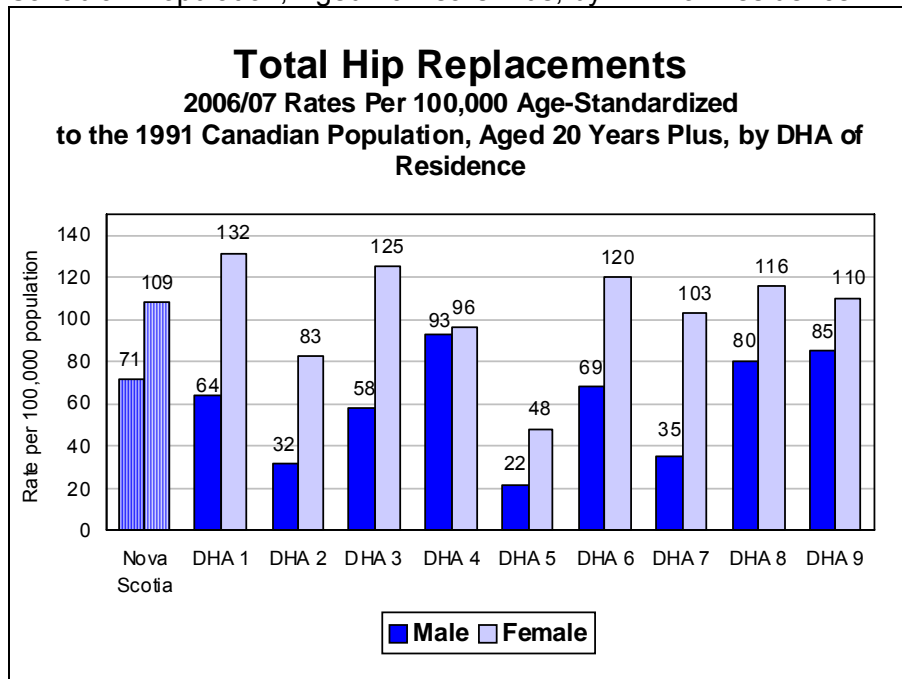
**Calculation:** Using the CCI (Canadian Classification of Health Interventions) codes 1.VA.53-LA-PN^ and 1.VA53-PN-PN^:  $((\text{The number of total hip replacements performed on Individuals over 20 years old as principal intervention per district of residence}) / (\text{the population for the district}) \times \text{Standardizing Process}) \times 100,000$ .

### Source:

Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database  
Canadian Institute for Health Information, Health Indicators 2008

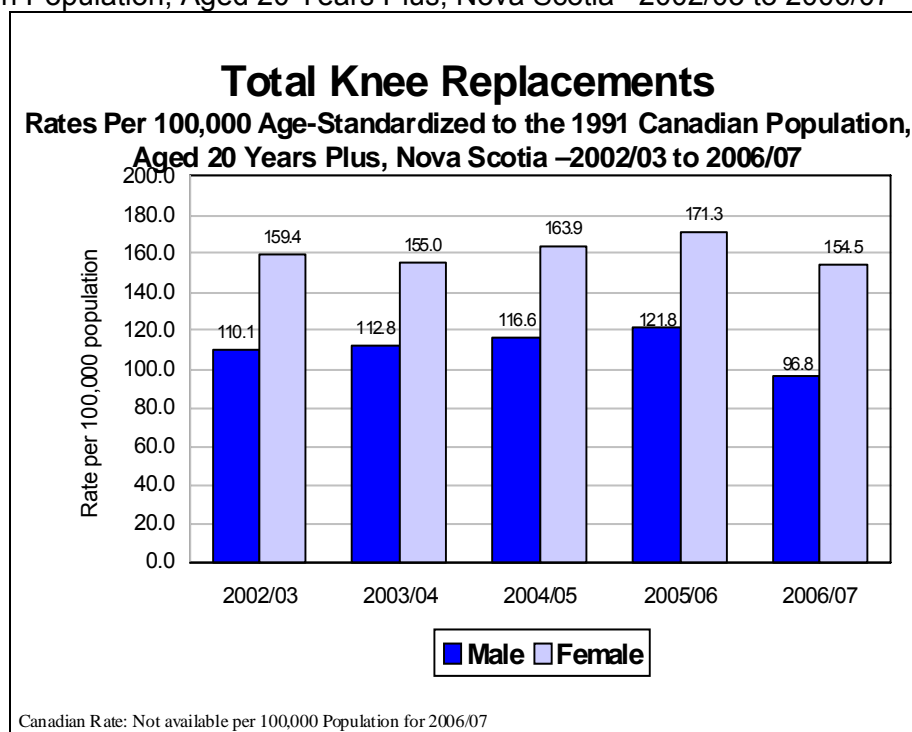
<sup>6</sup> as reflected in SF-36 and WOMAC results, Reporting to Nova Scotians on Comparable Health and Health Systems Indicators, 2001

**Figure 47:** Total Hip Replacements 2006/07 Rates Per 100,000 Age-Standardized to the 1991 Canadian Population, Aged 20 Years Plus, by DHA of Residence



## Total Knee Replacements

**Figure 48:** Total Knee Replacements Rates Per 100,000 Age-Standardized to the 1991 Canadian Population, Aged 20 Years Plus, Nova Scotia –2002/03 to 2006/07



### Definition

Surgical removal of the entire knee joint and replacement with a synthetic knee joint.

### Significance – Rationale and Notes for Interpretation

The intended outcome of most elective surgery is improved health-related quality of life. Increases in knee replacements may reflect increased access to orthopedic care and result in improved population health status or may reflect bone degeneration in the population.

### Technical Specifications

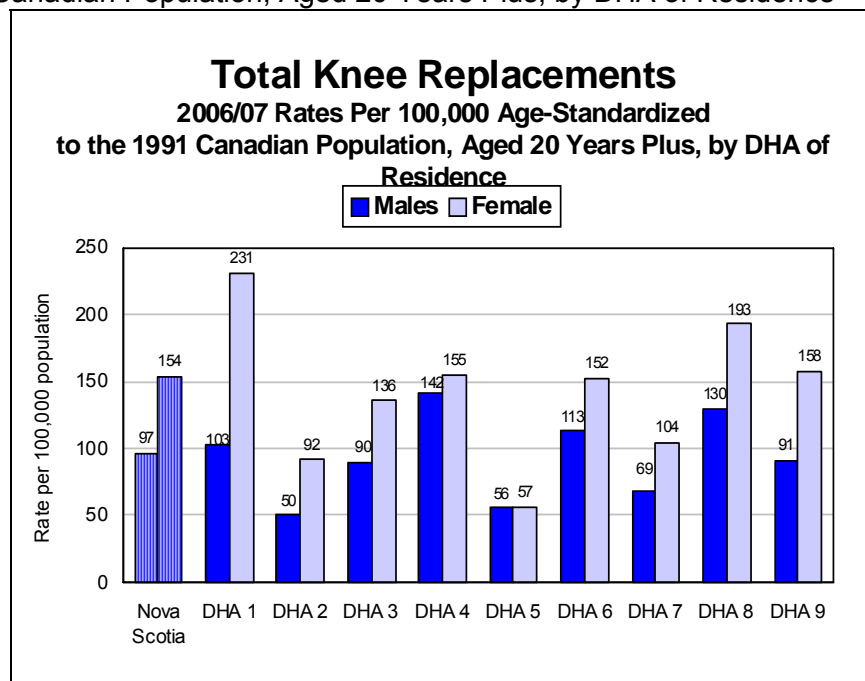
**Calculation:** Using CCI (Canadian Classification of Health Interventions) code 1.VG.53^^. ((The number of total knee replacements on Individuals Aged 20 years plus as principal interventions per District of residence)/ (the population for the District) X Standardizing Process) X 100,000.

### Source:

Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database

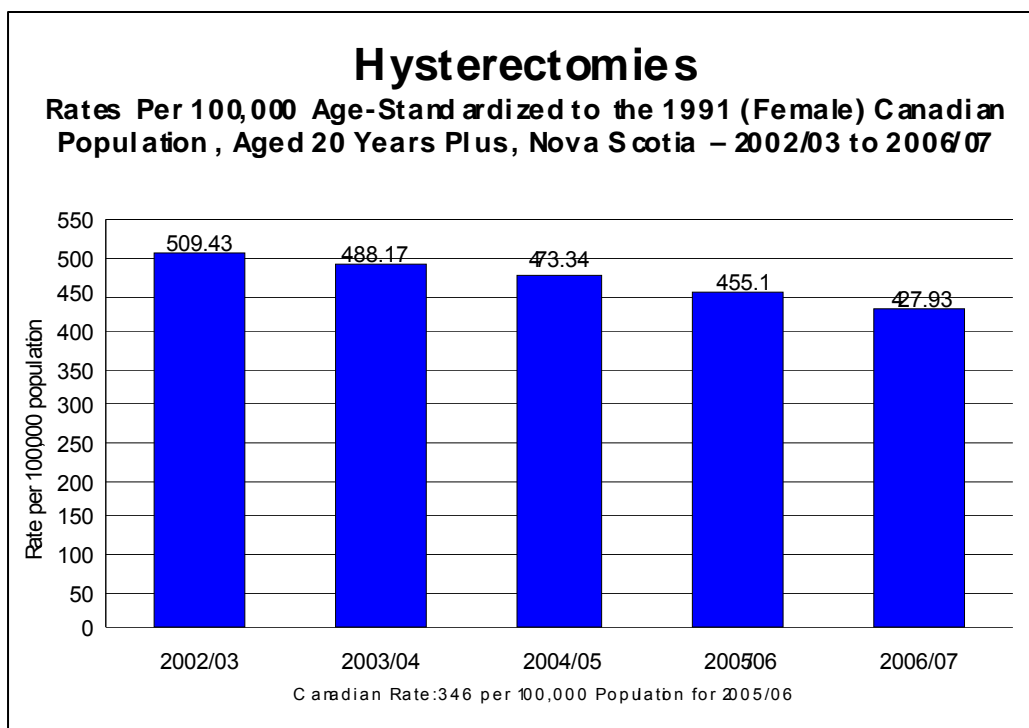
Canadian Institute for Health Information, Health Indicators 2008

**Figure 49:** Total Knee Replacements 2006/07 Rates Per 100,000 Age-Standardized to the 1991 Canadian Population, Aged 20 Years Plus, by DHA of Residence



## Hysterectomies

**Figure 50:** Hysterectomies Rates Per 100,000 Age-Standardized to the 1991 (Female) Canadian Population, Aged 20 Years Plus, Nova Scotia – 2002/03 to 2006/07



### Definition

Surgical removal of the uterus.

### Significance – Rationale and Notes for Interpretation

Medical debate surrounds the need for hysterectomy for reasons other than cancer. Traditionally, hysterectomy procedures have also been used for the treatment of diseases such as fibroids and menorrhagia. With new treatment alternatives, the need for hysterectomies for non-cancer diagnoses should decrease. Canada has one of the highest rates of hysterectomy procedures in the world, second only to the United States. Differences in rates often reflect the debate over appropriate use of this procedure and the variation in physician practice.

### Technical Specifications

**Calculation:** Using CCI (Canadian Classification of Health Interventions) codes 1.RM.89.^ and 1.RM.91.^ for total and radical hysterectomies. ((The number of hysterectomies performed as any intervention per District of residence for women over 20 years of age)/(the population estimate per District) X Standardizing Process) X 100,000.



Source:

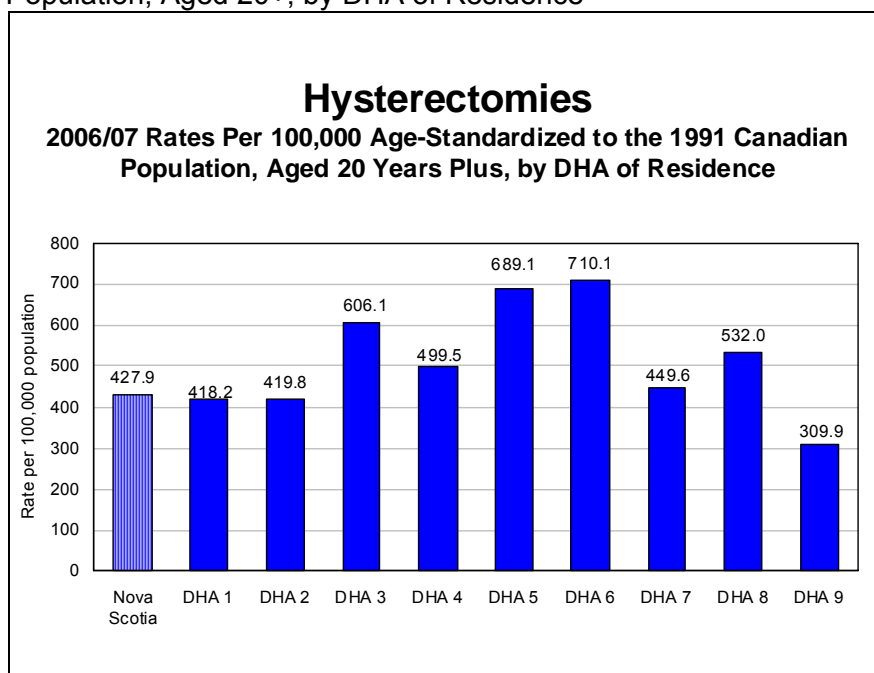
Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database

Canadian Institute for Health Information, Health Indicators 2008

### Disclosures

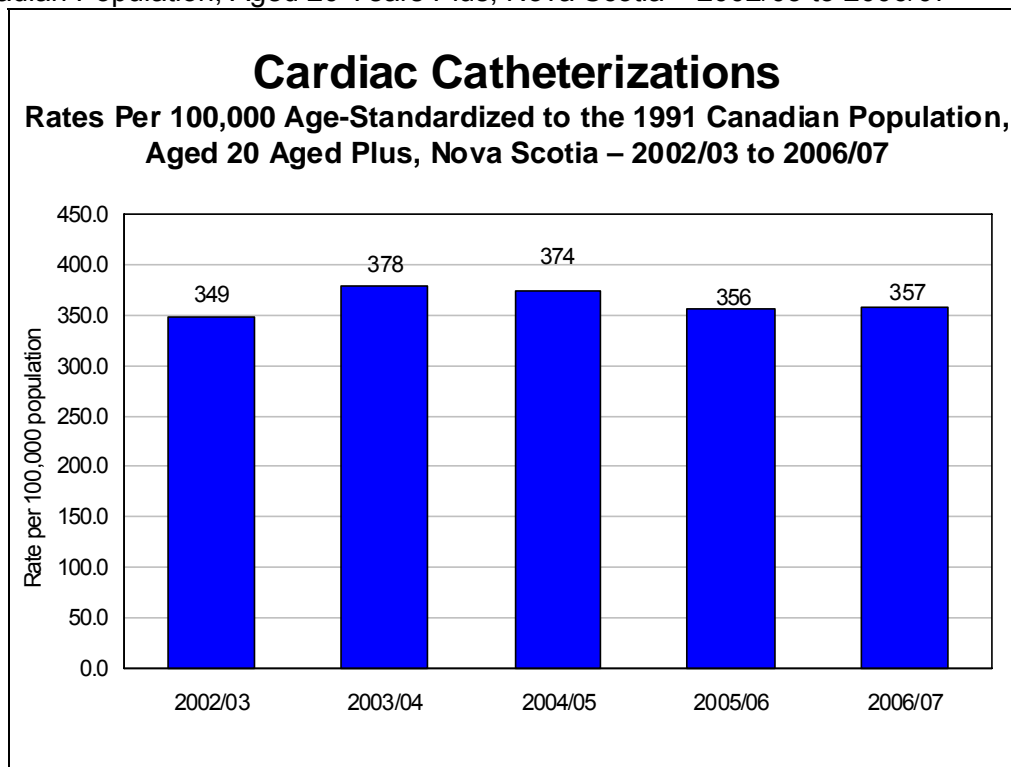
*Excludes:* Subtotal and partial hysterectomies

**Figure 51:** Hysterectomies 2006/07 Rates Per 100,000 Age-Standardized to the 1991 Canadian Population, Aged 20+, by DHA of Residence



## Cardiac Catheterizations

**Figure 52:** Cardiac Catheterizations Rates Per 100,000 Age-Standardized to the 1991 Canadian Population, Aged 20 Years Plus, Nova Scotia – 2002/03 to 2006/07



### Definition

A diagnostic procedure in which a tube is inserted into a blood vessel under local anesthetic and threaded through to the chambers of the heart to monitor blood flow, blood pressure and blood chemistry, and possibly to take a sample of heart tissue. The technique is often used to diagnose congenital heart disease and coronary artery disease.

### Significance – Rationale and Notes for Interpretation

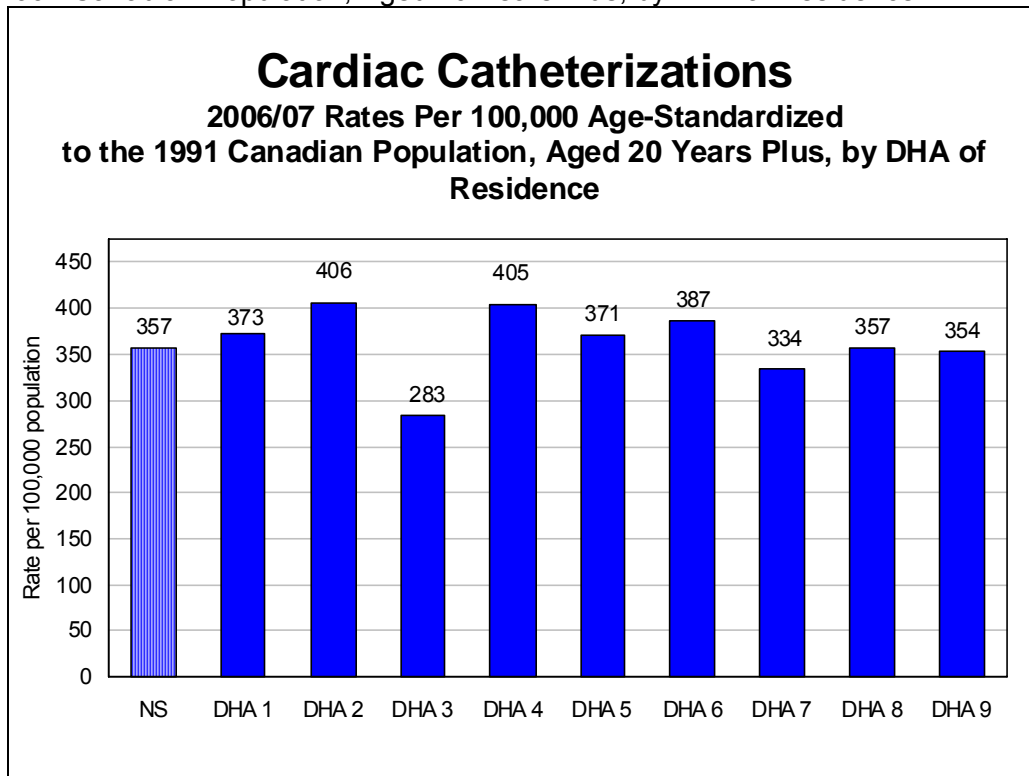
Cardiac catheterizations are a diagnostic procedure used for determining heart disease. Measuring the number of cardiac catheterizations performed provides an indication of how many people in the population are experiencing symptoms of heart disease.

### Technical Specifications

For Acute care and Day surgery and for the population aged 20 years and over  
Calculation: CCI principal intervention code 3.IP.10^^ ((The number of cardiac catheterizations done as principal intervention per DHA of Residence) / (the population for the province (each DHA) ) X Standardizing Process)) X 100,000

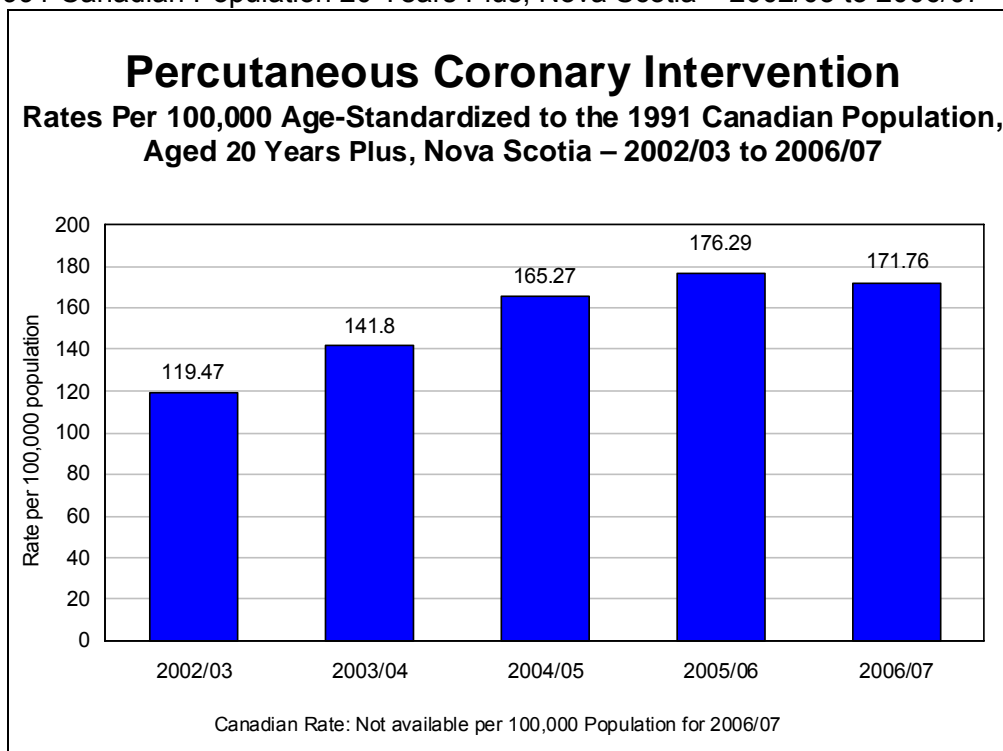
Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database

**Figure 53:** Cardiac Catheterizations 2006/07 Rates Per 100,000 Age-Standardized to the 1991 Canadian Population, Aged 20 Years Plus, by DHA of Residence



## Percutaneous Coronary Intervention

**Figure 54:** Percutaneous Coronary Intervention Rates Per 100,000 Age-Standardized to the 1991 Canadian Population 20 Years Plus, Nova Scotia – 2002/03 to 2006/07



### Definition

PCI encompasses several techniques, angioplasty is the procedure most frequently provided. Dilation of an obstructed coronary artery or the procedural removal of a thickened coronary arterial intima (using a balloon-tipped catheter) inserted through the femoral or other artery, with or without infusion of a thrombus-destroying substance.

### Significance – Rationale and Notes for Interpretation

In many cases, PCI serves as a non-surgical alternative to coronary artery bypass graft (CABG) surgery and is undertaken for the purpose of opening obstructed coronary arteries. The choice of revascularization mode (that is, PCI or CABG) depends on numerous factors, including physician preferences, availability of services, referral patterns and differences in population health and socio-economic status.

### Technical Specifications

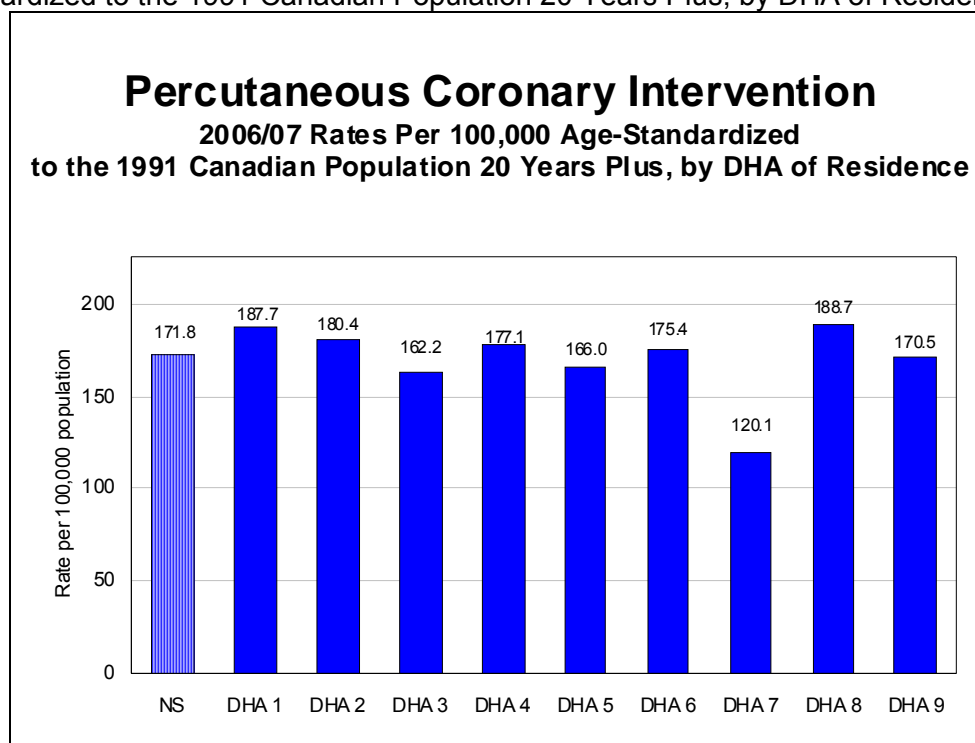
*For Acute care and Day surgery and for the population aged 20 years and over*  
*Calculation:* Intervention CCI code 1.IJ.50 and 1.IJ.57<sup>^^</sup> . ((The number of coronary angioplasties done per DHA of Residence / the population aged 20 years and over for the province (DHA's)) X Standardizing Process)) X 100,000

Source:

Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database.

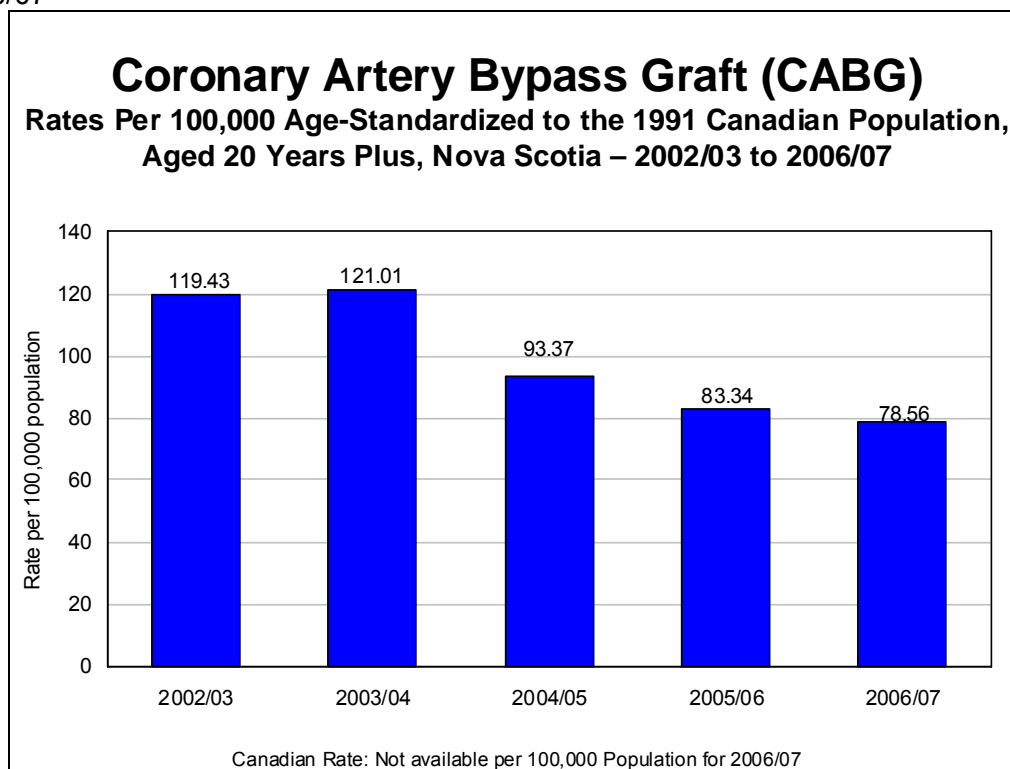
Canadian Institute for Health Information, Health Indicators 2008

**Figure 55:** Percutaneous Coronary Intervention 2006/07 Rates Per 100,000 Age-Standardized to the 1991 Canadian Population 20 Years Plus, by DHA of Residence



## Coronary Artery Bypass Graft (CABG)

**Figure 56:** Coronary Artery Bypass Graft (CABG) Rates Per 100,000 Age-Standardized to the 1991 Canadian Population, Aged 20 Years Plus, Nova Scotia – 2002/03 to 2006/07



### Definition

Restoration of coronary blood flow by a tubular surgical bypass (grafted mammary artery or saphenous vein) of an occluded coronary artery.

### Significance – Rationale and Notes for Interpretation

Coronary artery bypass grafts are performed to restore blood flow to the heart. CABG's are performed to prevent future heart complications (for example heart attack), as well as a therapeutic intervention to restore function post heart attack and may be representative of a patients' access to care.

### Technical Specifications

For the population aged 20 years and over

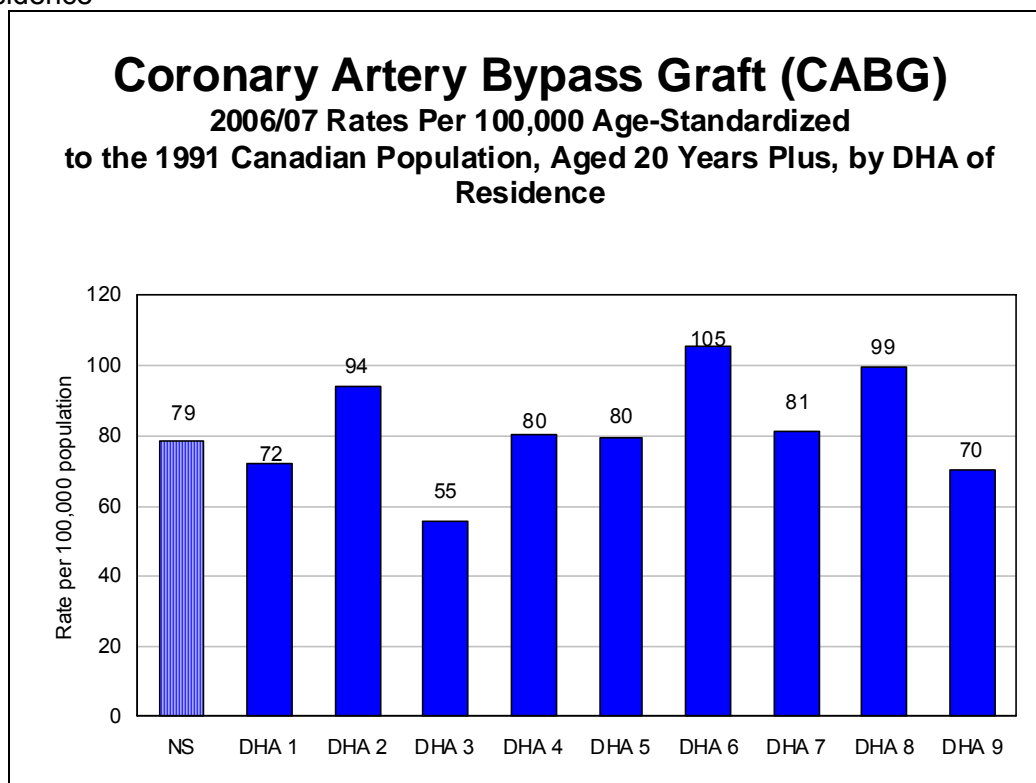
*Calculation:* Intervention CCI code 1.IJ.76.^ used. ((The number of coronary artery bypass grafts performed per District of Residence) / (the population for the province (DHA's)) X Standardizing Process) X 100,000

Source:

Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database

Canadian Institute for Health Information, Health Indicators 2008

**Figure 57:** Coronary Artery Bypass Graft (CABG) 2006/07 Rates Per 100,000 Age-Standardized to the 1991 Canadian Population, Aged 20 Years Plus, by DHA of Residence



## Provincial Services

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In Nova Scotia, a number of programs work together to provide the health care services our communities require. Many of these programs provide specialized services offered outside of the hospital environment. These programs help to facilitate and provide appropriate care and develop disease prevention and promotion programs.

The data these programs collect provides information on the health care needs of specific communities and age groups and allows effective planning and funding of services in these areas.



## Mental Health Programs

Fig 58. Inpatient Separations – Adults ( $\geq 19$  years) Nova Scotia, 2006/07

Fig 59. Patient Days – Adults ( $\geq 19$  years) Nova Scotia, 2006/07

Fig 60. Inpatient Separations - Children (<19 years) Nova Scotia, 2006/07

Fig 61. Patient Days – Children (<19 years) Nova Scotia, 2006/07

### Definition

Fig 58 & Fig 60 Inpatient Separations - Adults ( $\geq 19$  Years) and Children (<19 Years) Separations from designated psychiatric units in Nova Scotia hospitals.

Fig 59 & Fig 61. Patient Days - Adults ( $\geq 19$  Years) and Children (<19 Years)

The number of days accumulated by separations from designated psychiatric units in Nova Scotia hospitals.

### Significance - Rationale and Notes for Interpretation

The Mental Health Program provides a range of services across the life span to residents of Nova Scotia. These services include inpatient services, outpatient and outreach services, community support services as well as specialty services. Information on utilization of these services is necessary in establishing priorities, allocating resources, designing prevention and rehabilitation programs and improving health outcomes.

### Technical Specifications

#### *Calculation:*

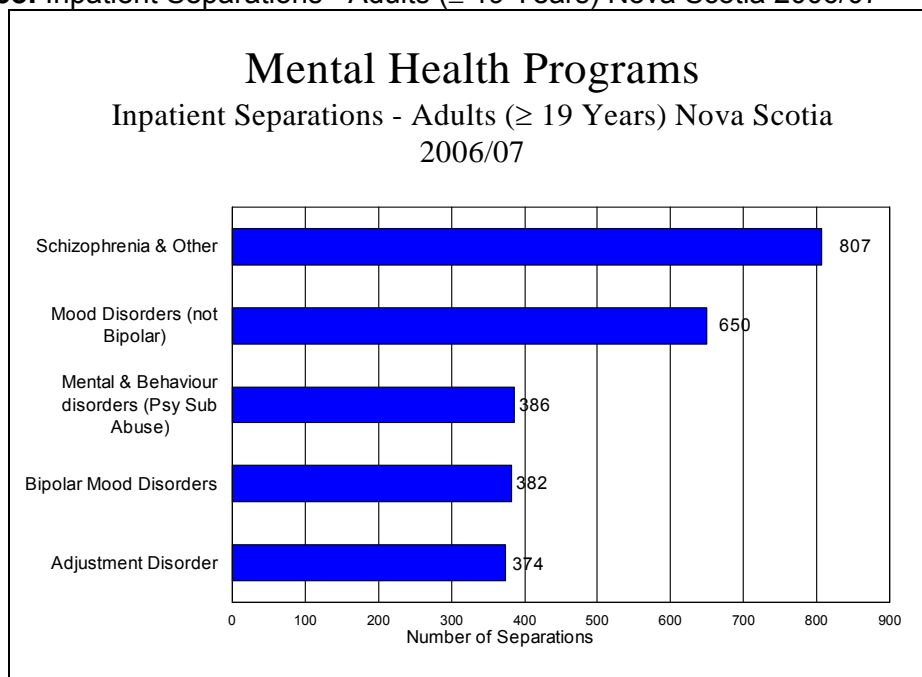
Fig 58 & 60: The sum of in-patient separations from each patient service (64 - psychiatry and 65 - pediatric psychiatry) for each diagnostic group for all hospitals with a designated psychiatric unit.

Fig 59 & 61: The sum of in-patient days from each patient service (64 - psychiatry and 65 - pediatric psychiatry) for each diagnostic group for all hospitals with a designated psychiatric unit.

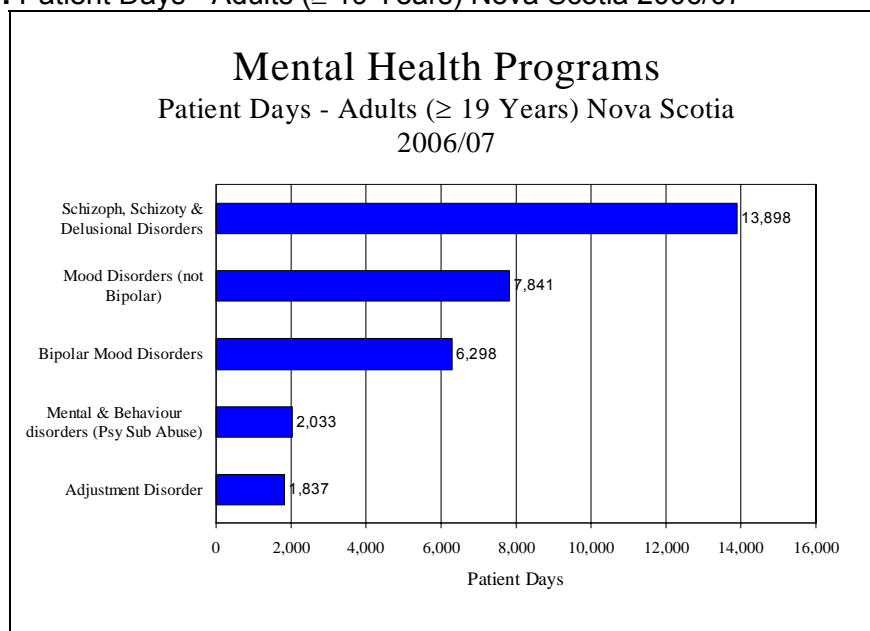
#### *Source:*

Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database

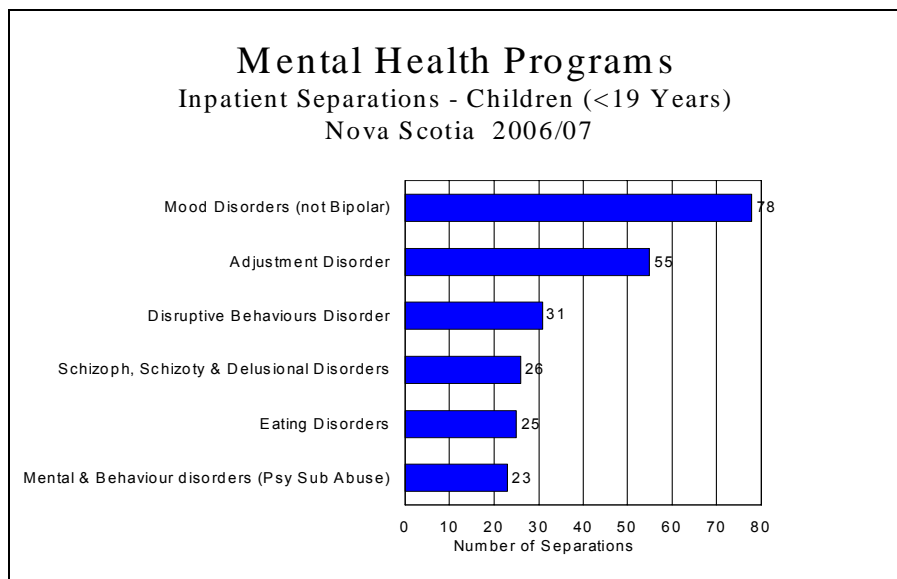
**Figure 58: Inpatient Separations - Adults ( $\geq 19$  Years) Nova Scotia 2006/07**



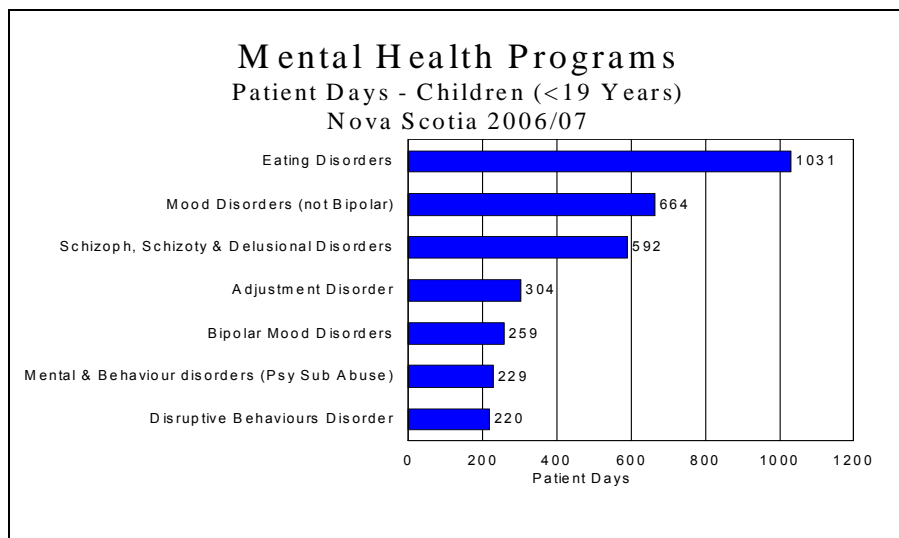
**Figure 59: Patient Days - Adults ( $\geq 19$  Years) Nova Scotia 2006/07**



**Figure 60:** Inpatient Separations - Children (<19 Years) Nova Scotia 2006/07



**Figure 61:** Patient Days - Children (<19 Years) Nova Scotia 2006/07



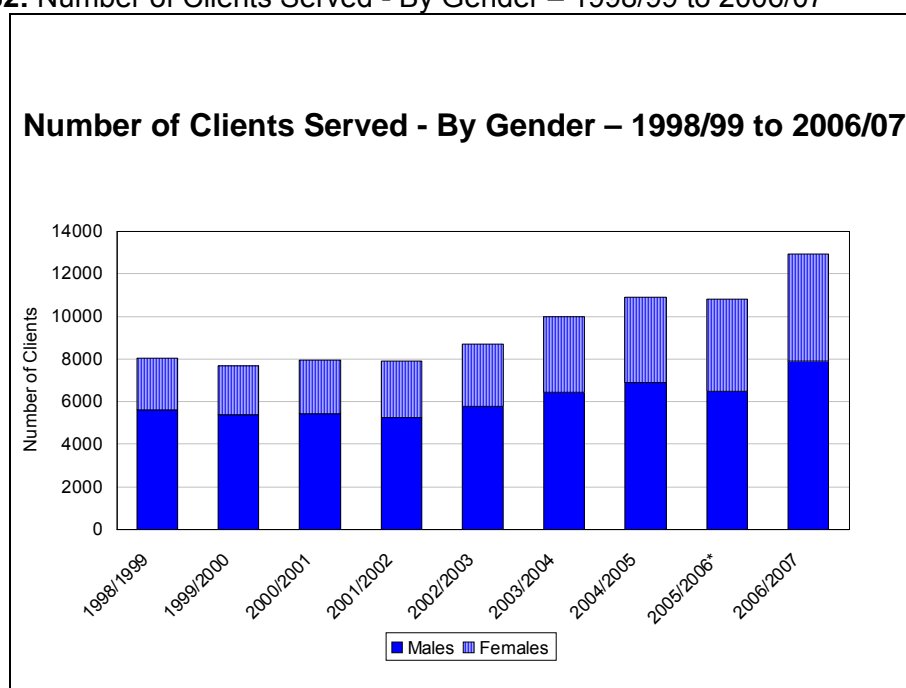
## Addiction Services

### Introduction

Addiction Services includes various program areas including Withdrawal Management (Detox), Addiction Education Program, Methadone Maintenance Treatment, Community Based Services, Community Oriented Recovery Environment (CORE), and Structured Treatment Services (which includes 21 -day program). The programs offered vary by District Health Authority.

### Number of Clients Served by Gender

**Figure 62:** Number of Clients Served - By Gender – 1998/99 to 2006/07



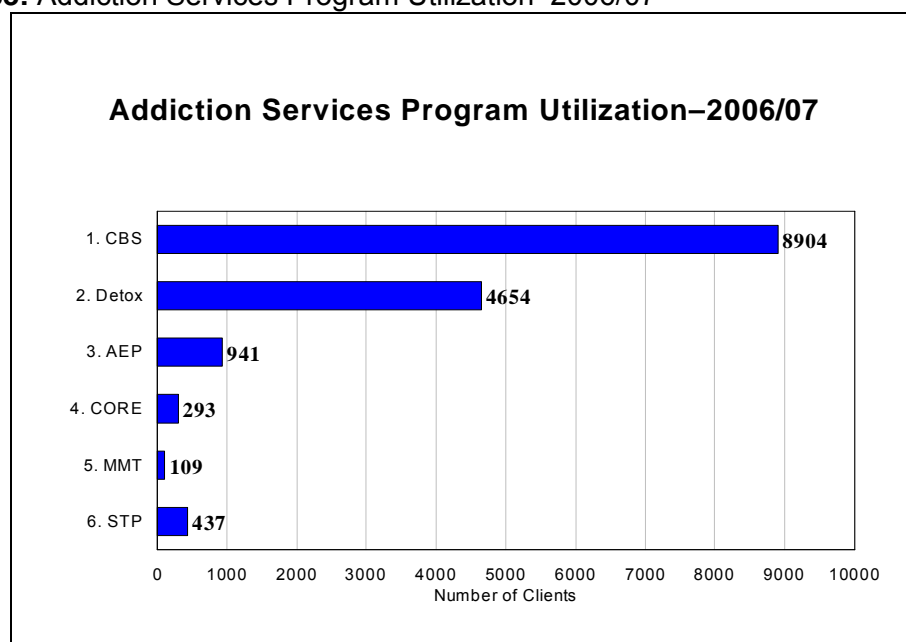
### Definition

The total number of male and female clients who utilized Addiction Services programs in a given fiscal year.

\*Due to the implementation of a new information system in 2005, statistics for quarter four of 2005-2006 fiscal report period were not available for some districts causing the provincial totals for the number of clients served to be underreported.

## Program Utilization 2006/2007

**Figure 63:** Addiction Services Program Utilization–2006/07



### Definition

The number of clients in Community Based Services. The total number of client discharges from other programs including: Withdrawal Management (Detox), Addiction Education Program (AEP), Structured Treatment Program (STP), Methadone Maintenance Treatment (MMT), and Community Oriented Recovery Environment (CORE).

### Limitations

Data for the 2006-2007 fiscal report period was acquired using two different data bases and reporting systems. Information for Colchester East Hants Health Authority, Cumberland Health Authority, Pictou District Health Authority, Guysborough Antigonish Strait Health Authority, Cape Breton District Health Authority and IWK Health Centre (CHOICES) was prepared using a new provincial information system-ASsist. South Shore Health, South West Health, Annapolis Valley Health and Capital District Health Authority submitted information from StatIS. There are slight discrepancies in the methods of data collection and reporting requirements between the different systems. Caution should be used when comparing the 2006-2007 information with prior years.

\*Due to the implementation of a new information system in 2005, statistics for quarter four of 2005-2006 fiscal report period were not available for some districts causing the provincial totals for the number of clients served to be underreported.

**Significance – Rationale and Notes for Interpretation**

Addiction Services Program data assist service planners and providers in developing and maintaining effective, efficient and appropriate services by examining the number of, and characteristics of, clients using services (e.g. type of services used by gender, age category, place of residence). Addiction services program data monitors the use of services. These services are intended to minimize the harms associated with substance use and/or gambling, thereby improving the health of Nova Scotians.

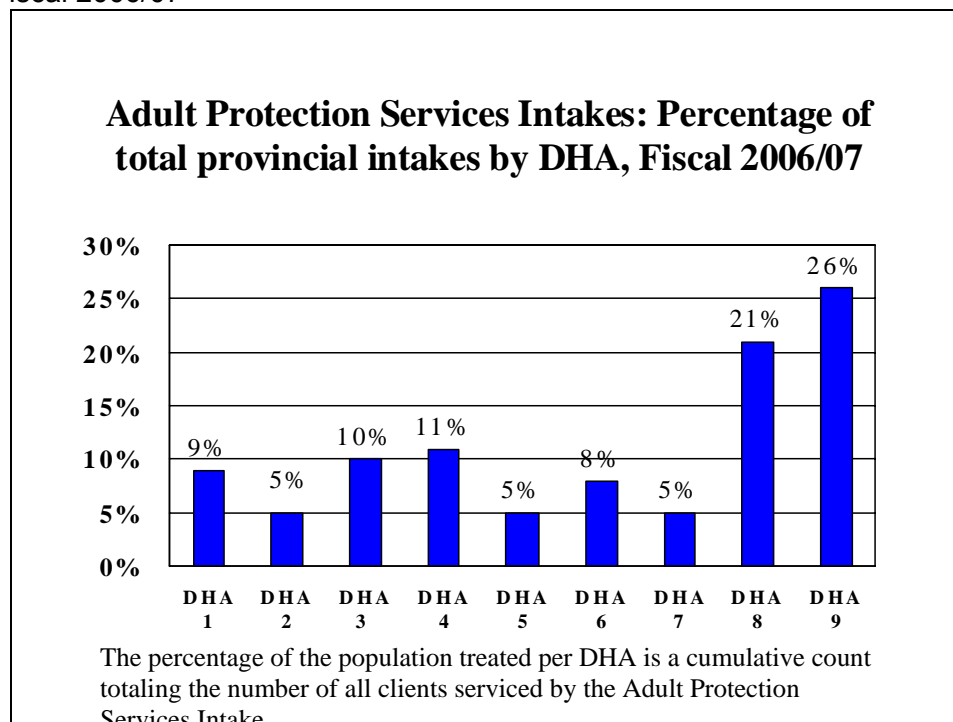
**Sources**

Fig 62. Addiction Services Statistical Information System Technology (ASsist), Nova Scotia Department of Health Promotion and Protection

Fig 63. Addiction Services Statistical Information System (StatIS), Nova Scotia Department of Health

## Adult Protection Services

**Figure 64:** Adult Protection Services Intakes: Percentage of total provincial intakes by DHA, Fiscal 2006/07



### Definition

Adult Protection Services provides protection from abuse (mental, physical, or sexual) and neglect (self-neglect or caregiver neglect) of vulnerable adults, of the ages 16 and over, as mandated by the Adult Protection Act, 1985. In Nova Scotia, it is mandatory for all people who believe a person may be in need or protection to report to Adult Protection Services.

### Significance – Rationale and Notes for Interpretation

Adult Protection data is gathered to enable effective service planning and provision. This data also enables service providers to recognize increases and decreases in the number of cases reported, and trends in the age of victims, which can indicate a need for health promotion and education strategies targeted at certain areas and/or age groups.

### Technical Specifications

The total number of Adult Protection Intakes for 2006/07 is 1,219. An Intake is defined as a referral that has been received and for which there is a reasonable and probable ground to believe the person may be in need of protection.

Calculation:

Fig 64: District adult protection intakes as a percentage of the provincial intake total

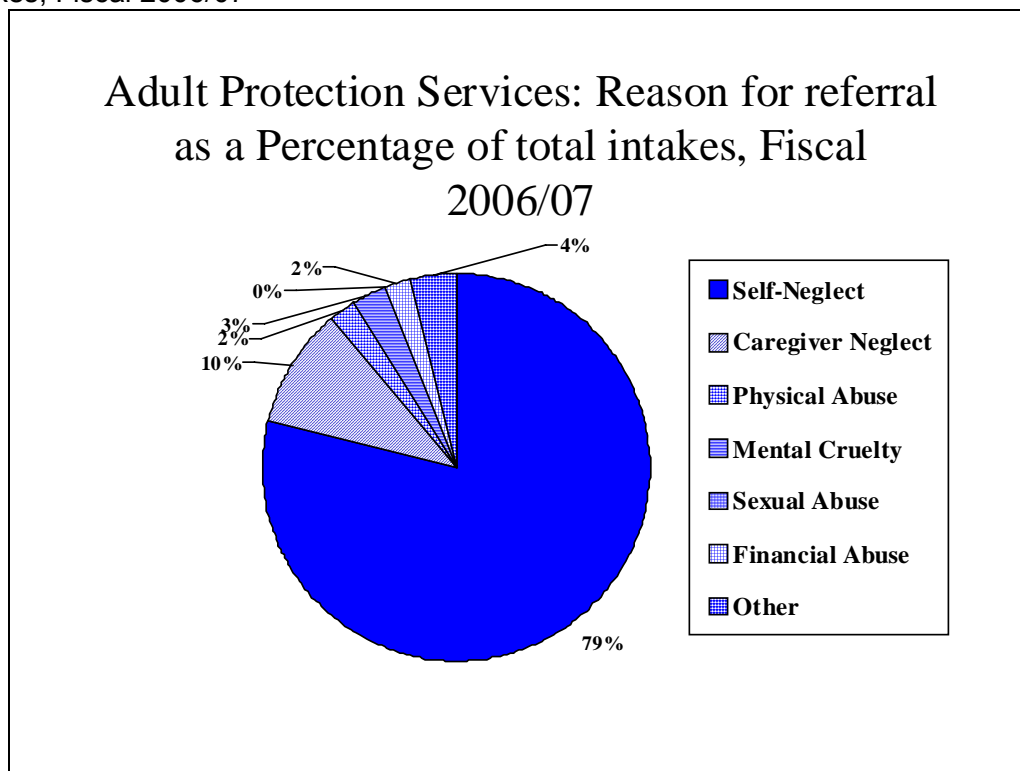
Fig 65: Reason for Referral as a percentage of the provincial intake total

Fig 66: Type of infirmity as a percentage of the provincial intake.

Fig 67: Percent of provincial intake total, in one of 6 age categories and as male or female.

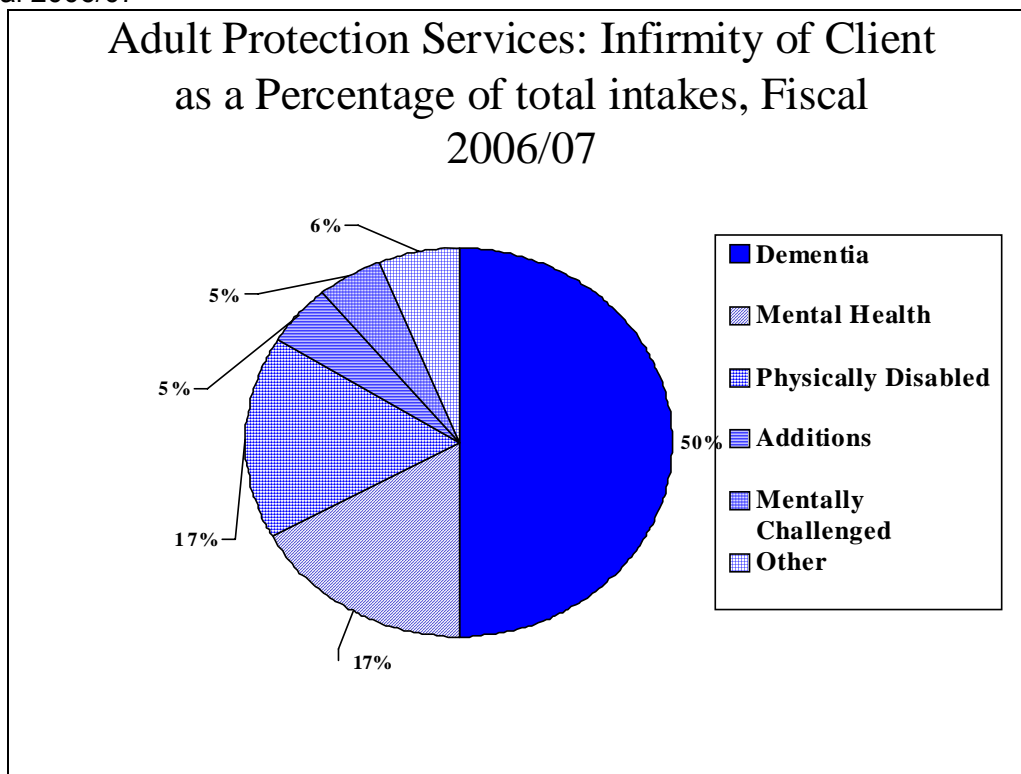
Source: Adult Protection Services Program, Continuing Care Branch, Nova Scotia Department of Health

**Figure 65:** Adult Protection Services: Reason for referral as a Percentage of total intakes, Fiscal 2006/07

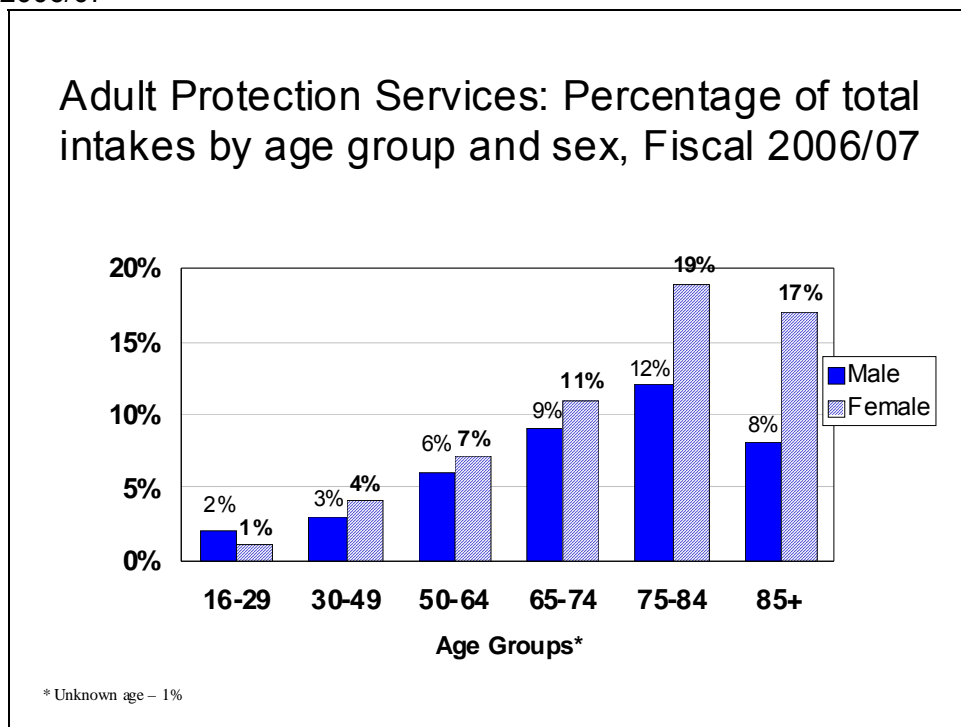




**Figure 66:** Adult Protection Services: Infirmity of Client as a Percentage of total intakes, Fiscal 2006/07

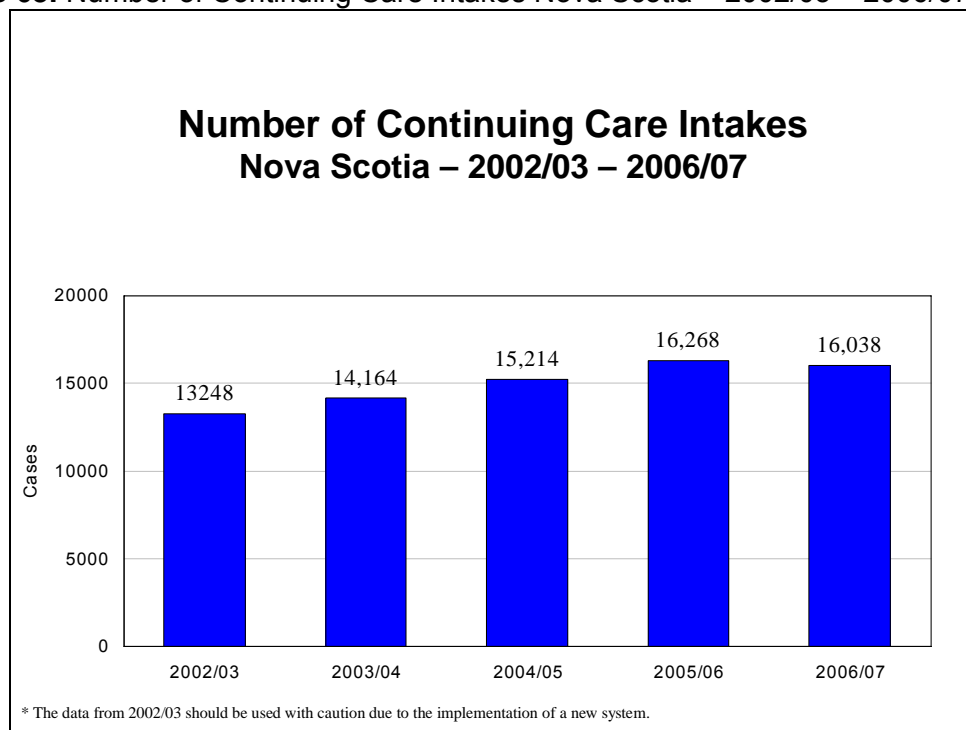


**Figure 67:** Adult Protection Services: Percentage of total intakes by age group and sex, Fiscal 2006/07



## Continuing Care Intakes

**Figure 68:** Number of Continuing Care Intakes Nova Scotia – 2002/03 – 2006/07



### Definition

Referrals may be made by a potential client, physician, family member, or member of the public. People are referred so they can be assessed for Continuing Care services, which include homes care services, long term care services, and Adult Protection services. For any given client there will be one intake document for each admission. However, there could be two or more referrals for that same admission. Hence, the total number of referrals will be substantially higher than the number of actual intakes.

### Significance – Rationale and Notes for Interpretation

Data on Continuing Care services are collected in order to: measure utilization levels, assist with budgeting efforts, and to provide identification of service trends for program planning purposes.

### Technical Specifications

**Calculation:** The total number of intake assessments conducted during the fiscal years of 2002/03 – 2006/07.

**Source:** Nova Scotia Department of Health, Continuing Care, SEAscape Database.

## **Emergency Health Services Nova Scotia (EHS)**

Emergency Health Services (EHS) is a division of the Nova Scotia Department of Health. As a regulator, EHS is responsible for the continuing development, implementation, monitoring and evaluation of pre-hospital emergency health services in the province.

EHS integrates various pre-hospital services and programs required to meet the needs of Nova Scotians across the province. The main components are:

- 1) The EHS Medical Communications Centre
- 2) The EHS Ground Ambulance System
- 3) EHS LifeFlight
- 4) The EHS Nova Scotia Trauma Program
- 5) The EHS Atlantic Health Training and Simulation Centre
- 6) The EHS Medical First Response program

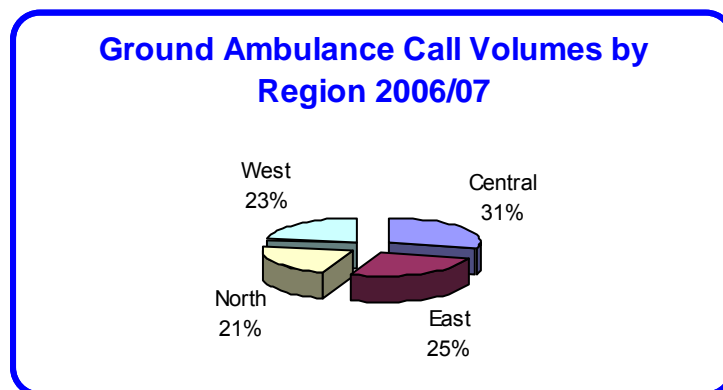
In addition, all system components are monitored by Medical Oversight of physicians specially trained in emergency and critical care.

For more detailed information on EHS, please visit [www.gov.ns.ca/health/ehs](http://www.gov.ns.ca/health/ehs)

Approximately 140 ground ambulances, one dedicated rotary wing aircraft and one non-dedicated fixed wing aircraft, meeting the direct patient care needs of Nova Scotia's citizens. For 2006/07, this resulted in approximately 108,000 requests for ground service with over 91,000 transports, and over 450 completed air ambulance missions.

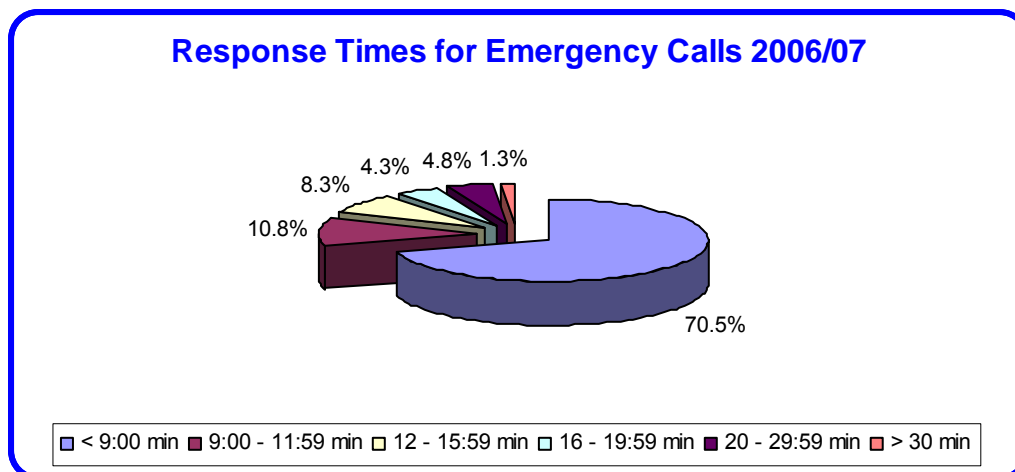
## EHS Ground Ambulance

**Figure 69:** Ground Ambulance Call Volumes



EHS has defined minimum standards for response time reliability. Response time is the “actual elapsed time between when a call is received at the EHS Medical Communications Centre and the actual arrival of the ambulance at the location”. By setting these standards and evaluating compliance with them, EHS offers an effective emergency service to Nova Scotians. Figure 70 shows the response times for emergency calls for the entire province (urban and rural areas) during the year 2006/07.

**Figure 70:** Ground Ambulance Response Times

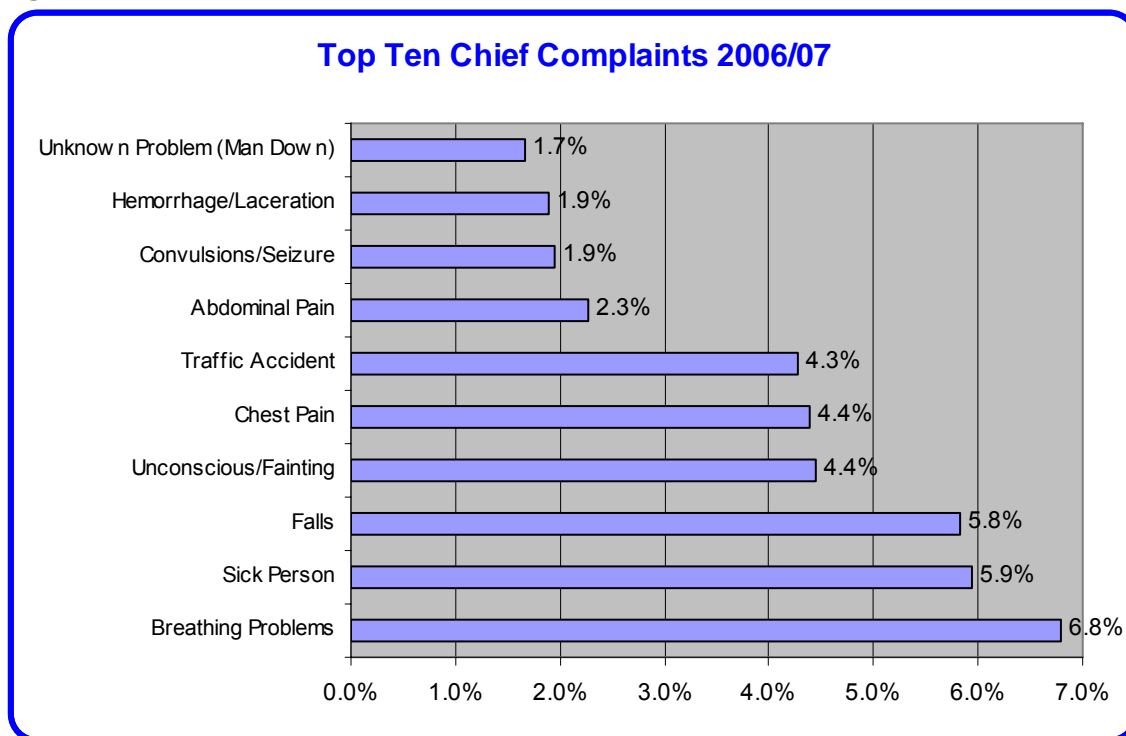


Source: *EHS CAD*

**Response time:** The actual elapsed time (in minutes and seconds) between when the call is received at the EHS communications center and the actual arrival of an ambulance at that location

One way to determine the skills and equipment that paramedics require to do their job efficiently is to identify the most frequently requested types of emergency services. Figure 71 illustrates the “Top Ten” chief complaints received for the year 2006/07, as a percentage of total calls received.

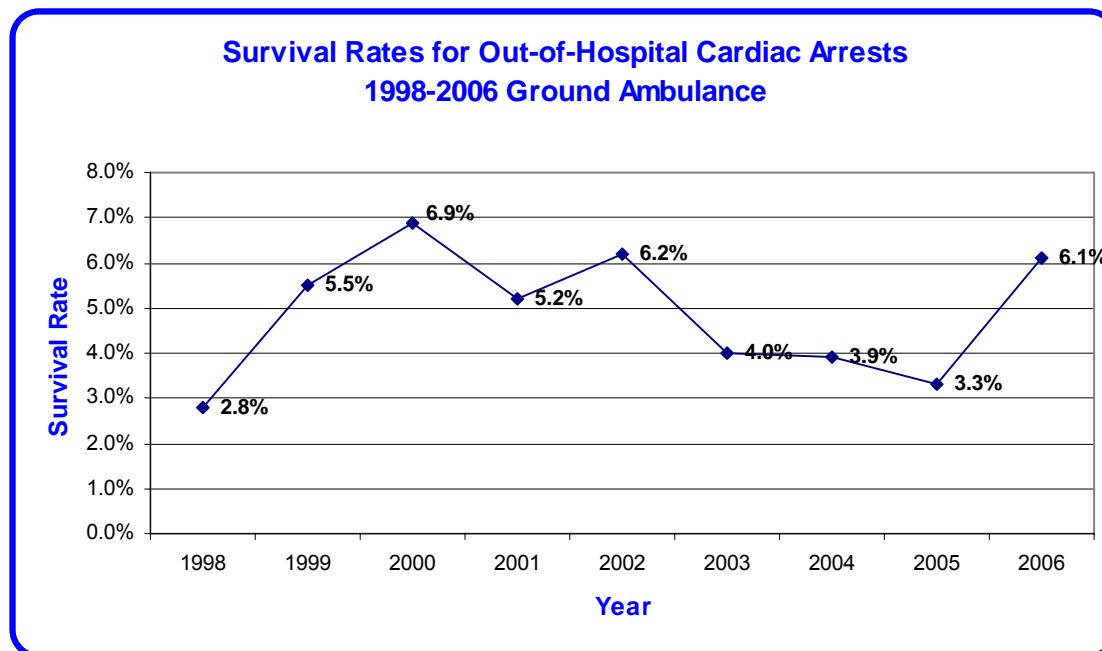
**Figure 71:** Chief Complaints for Ground Ambulance Calls



One of the main clinical outcome measures for most EHS systems is cardiac arrest survival. During 2006, 454 cardiac arrest patients had resuscitations initiated in the field. Figure 72 presents the out-of-hospital cardiac arrest survival rates for Nova Scotia for the years 1998-2006. (Survival is defined as a patient being discharged from hospital neurologically intact after having an out-of-hospital cardiac arrest)

\* Note information for 2006 is based on data collected from January 1<sup>st</sup>, 2006 to October 15<sup>th</sup>, 2006

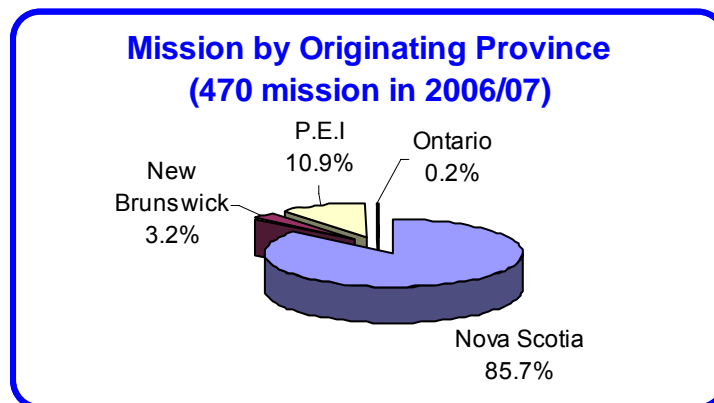
**Figure 72:** Cardiac Arrest Statistics



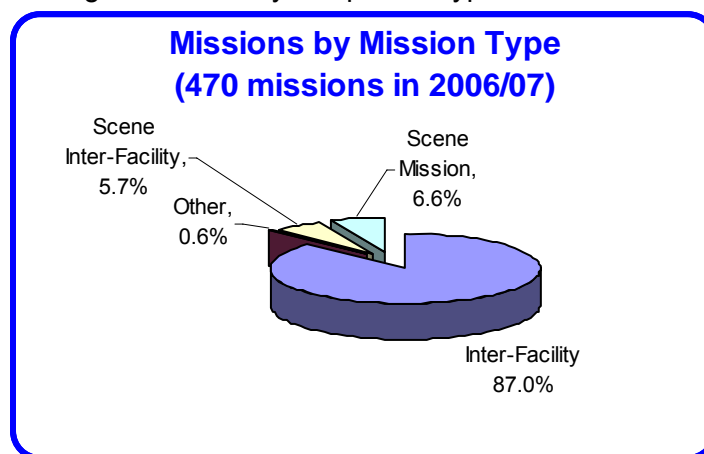
## EHS LifeFlight

During the year 2006/07, EHS LifeFlight completed 470 missions. Of those, 403 (85.7%) originated in Nova Scotia and 67 (14.3%) missions originated in other provinces. Figure 73 shows the distribution of missions by location.

**Figure 73:** EHS LifeFlight Missions



**Figure 74:** EHS LifeFlight Missions by Response Type



Source: EHS LifeFlight

Inter-Facility: The patient is transported between two approved health care facilities.

Scene: Request for a transport originates from a scene of injury or illness and the patient is picked up directly from the scene.

Scene Inter-Facility: Request for a transport originates from the scene of injury or illness and patient is picked up from a health care facility.

Other: Repatriation



## Department of Health Promotion & Protection Tobacco Enforcement Compliance Rates 2006/2007

**Figure 75:** Department of Health Promotion & Protection Tobacco Enforcement  
Compliance Rates 2006/2007

YEAR TO DATE										
	DHA 1	DHA 2	DHA 3	DHA 4	DHA 5	DHA 6	DHA 7	DHA 8	DHA 9	TOTAL
Retail Inspections	208	97	272	206	141	100	203	325	576	2128
Overall Warnings	22	12	21	22	08	05	02	12	86	190
Overall Compliance Rates (%)	89.4	87.6	92.3	89.3	94.3	95.0	99.0	96.3	85.1	91.1 %
Admin. compliance check	90	81	92	143	80	53	84	146	477	1246
Prosec. compliance check	02	01	01	02	0	03	0	07	06	22
Sales to Minors Warnings	15	15	16	46	26	4	11	20	144	297
Compliance Rates for sales to minors (%)	83.7	81.7	82.8	68.3	67.5	92.9	86.9	86.9	70.2	80.1

**Compliance rates for sales to minors, province wide is 80.1%**  
**Compliance rates for all other sections, province wide is 91.1%**

### Definition

The percentage of retailers complying with the requirements outlined in the Provincial *Tobacco Access Act* and the Federal *Tobacco Act*.

### Significance – Rationale and Notes for Interpretation

Overall compliance is a measure of retailer compliance with the requirements outlined in the Provincial *Tobacco Access Act* and the Federal *Tobacco Act*, as opposed to Retailer Compliance: Sales to Minors being a measure strictly of retailers selling to minors. Tobacco sales are controlled by legislation making it illegal to sell to people less than 19 years of age.

**Technical Specifications**

*Calculation:*

$$\frac{(((\text{The total number of inspections} + \text{Compliance checks}) - (\text{the number of retailers cited}))}{(\text{the total number of inspections} + \text{Compliance checks})} \times 100.$$

*Source:* Dept of Health Promotion and Protection, Chronic Disease and Injury Prevention - Tobacco Control

# Health Care System Performance

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Comparative health system performance indicators help health districts monitor their efficiency, effectiveness and improvements over time. This section provides typical health system performance indicators including a number of those discussed below.

Population by physician and registered nurse are useful indicators of the number of physicians and nurses relative to the population but cannot be used in isolation to assess the adequacy of provider resources. The population's access to hospitals, other health care facilities, technology; specific types of physician (primary care physicians vs. specialists), physician age and sex can influence whether the supply of provider resources is appropriate.

Hospital beds per 1000 population, patient days per 1000 population, and average length of stay are basic indicators of hospital access, utilization and efficiency.

It has been shown that preadmission testing and surgery on the day of admission helps to decrease the length of stay for a patient. This translates into reduced health care costs for hospitals.

Readmission rates are often used to suggest the effect of bed closures and the shortening of hospital stays.

Ambulatory care sensitive conditions or ACSC is a CIHI indicator. The conditions this indicator focuses on are chronic diseases where it is felt that appropriate ambulatory care could either prevent or shorten hospitalization. Districts and/or hospitals can monitor the volume of cases and total days to see if better or more ambulatory care could be provided.

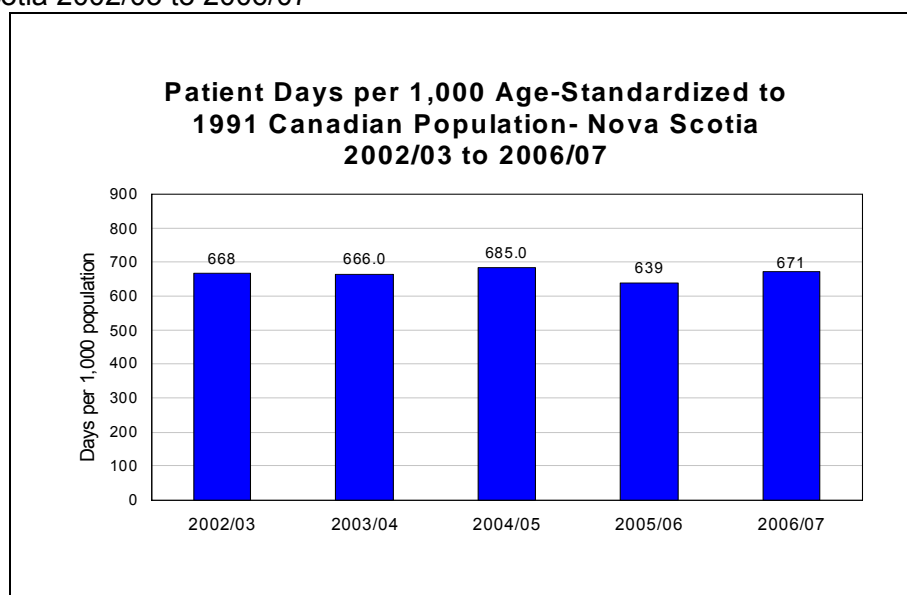
Inflow/outflow ratios compare hospital services given in a specific district to hospital services received by residents of that same district.

Caesarean sections (C-Sections) have long been monitored as an indicator of health system performance. Unnecessary Caesarean sections increase the risk for maternal morbidity and mortality and are associated with higher costs. Lower rates indicate more efficient care and are more appropriate. WHO has set a benchmark of 15% for C-Sections.

The Department of Health reports on a variety of wait times on its Wait Time Website. Monthly wait times for cardiovascular procedures and cardiac intervention have been collected and monitored by the Cardiovascular Division of the Queen Elizabeth II Health Sciences Centre and the Department of Health for several years. This is also an indicator of health system performance.

## Patient Days per 1000 Population

**Figure 76:** Patient Days per 1,000 Age-Standardized to 1991 Canadian Population- Nova Scotia 2002/03 to 2006/07



### Definition

Patient care days for acute care inpatient separations (by DHA of residence) expressed as a rate per 1000 population for a specified time period.

### Significance – Rationale and Notes for Interpretation

Patient days per 1000 population is an indicator of resource use and service planning. Throughout the country, as well as Nova Scotia, patient days per thousand population have been decreasing since the mid 1990's. Standardizing removes the effects of age (and/or sex) in the population. The resulting standardized rate provides a more appropriate comparison between geographic areas and time periods than does the crude rate. Age standardized patient days per 1000 population range from a high of 822 in DHA 8 to a low of 510 in DHA 3.

### Technical Specifications

*Calculation:*

(The total days stay for hospital inpatient separations per DHA of residence) X  
Standardizing Process /100

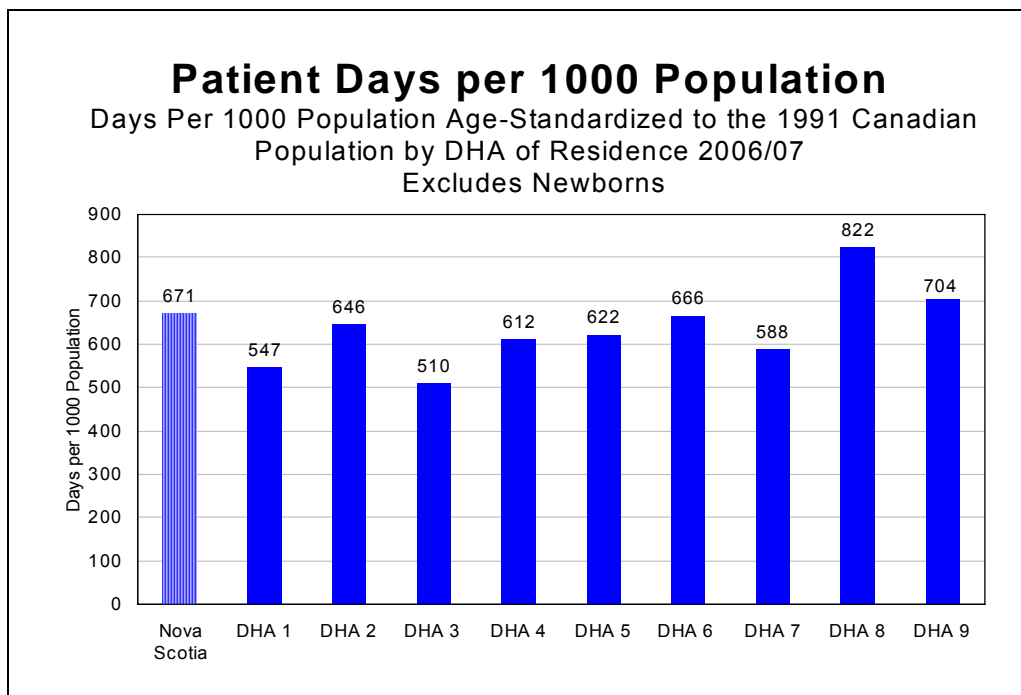
*Source:* Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database; Statistics Canada population estimates

### Disclosures

*Exclusions:* Veteran Affairs of Canada (VAC), newborns, out of province patients

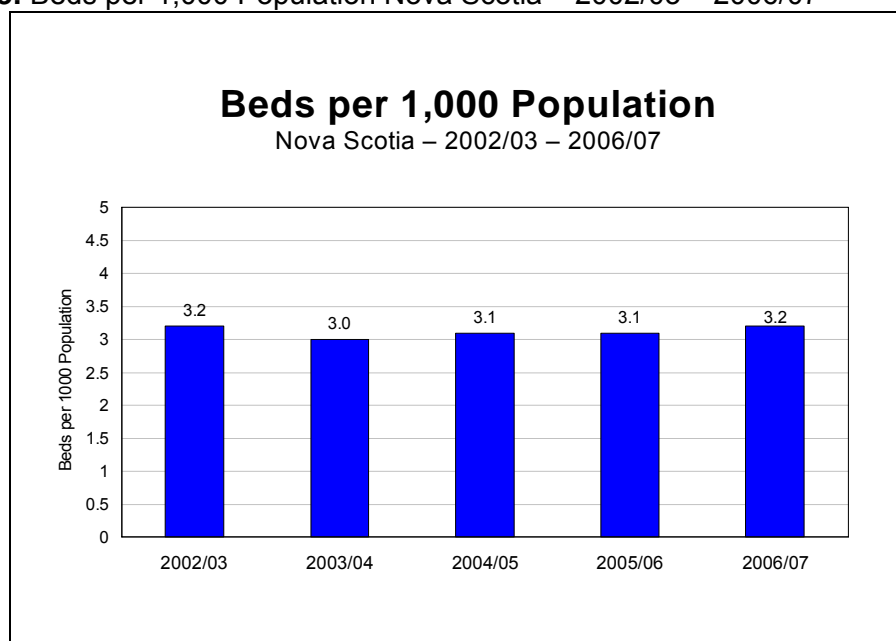
*Inclusions:* Acute medical, surgical and psychiatric inpatient days

**Figure 77:** Patient Days per 1000 Population Days per 1000 Population Age-Standardized to the 1991 Canadian Population by DHA of Residence 2006/07 Excludes Newborns



## Beds per 1000 Population

**Figure 78:** Beds per 1,000 Population Nova Scotia – 2002/03 – 2006/07



### Definition

The number of acute care (including Med/surg, ICU, OBS, Paeds, Mental health, Rehabilitation inpatient beds and other acute) beds per 1000 population.

### Significance – Rationale and Notes for Interpretation

We report the number of beds per 1000 population as a measure of hospital capacity and available resources.

### Technical Specifications

*Calculation:*  $(\text{The total number of acute care beds} / \text{the Nova Scotia population}) \times 1000$

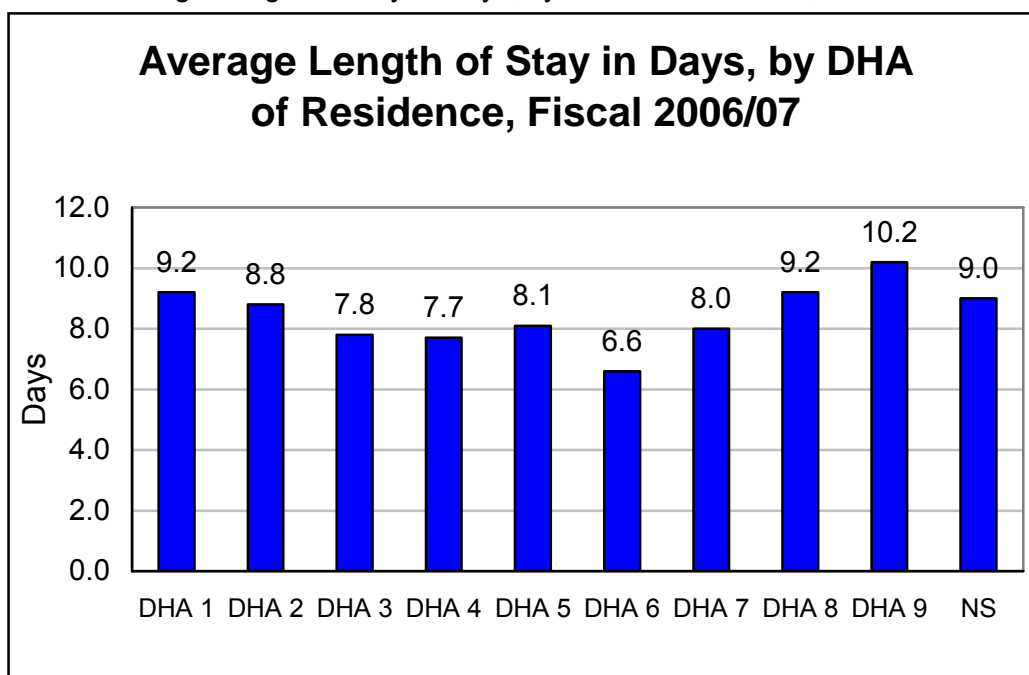
*Source:* Information Management Services, Nova Scotia Department of Health

### Disclosures

*Exclusions:* Veterans Affairs of Canada (VAC), Detoxification beds and Level 2 beds.

## Average Length of Stay

**Figure 79:** Average Length of Stay in Days, by DHA of Residence, Fiscal 2006/07



### Definition

The average length of a hospital stay for acute care inpatients by DHA of residence.

### Significance – Rationale and Notes for Interpretation

There is debate about the usefulness of overall average length of stay (ALOS) as an indicator. Lengths of stay for particular patient groups, especially when compared with other facilities, are more commonly used for utilization management at the facility or inter-district level.

### Technical Specifications

**Calculation:** (The total length of stay (in days) for acute inpatient separations by DHA of residence) / (the total acute inpatient separations DHA of residence)

**Source:** Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database.

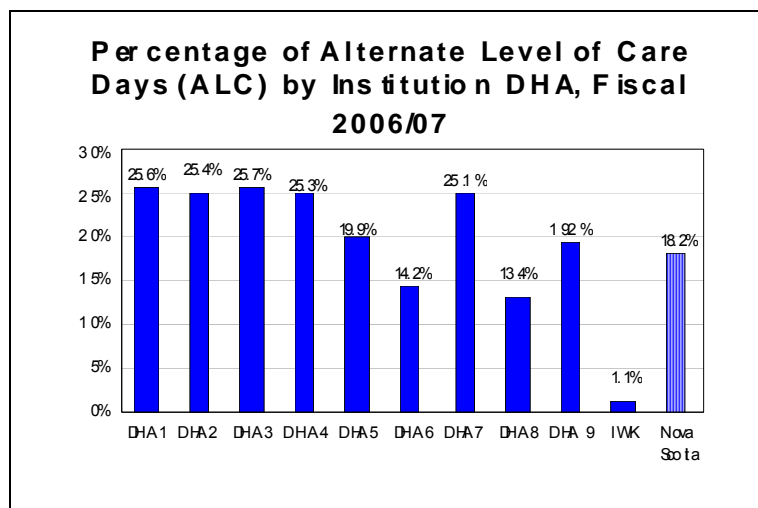
### Disclosures

**Exclusions:** newborns, forensic, and out-of-province patients

**Inclusions:** All days and separations for medical, surgical, and acute inpatient cases.

## Alternate Level of Care

**Figure 80:** Percentage of Alternate Level of Care Days (ALC) by Institution DHA, Fiscal 2006/07



### Definition

Alternate Level of Care (ALC) Days are days of care provided to inpatients who have finished the acute care phase of their treatment or who were admitted for non-acute medical care. ALC status is indicated by the physician or designated other.

### Significance – Rationale and Notes for Interpretation

CIHI (Canadian Institute for Health Information) has provided the ALC designation in order to capture those hospital inpatients no longer receiving acute care. This indicator is designed to assess the processes that ensure the placement of patients in the most appropriate care setting. Differences in rates between facilities, districts and provinces may reflect differences in reporting practices rather than differences in hospital utilization or patient mix. ALC rates range from 25.7% in DHA 2 to 1.1% at the IWK.

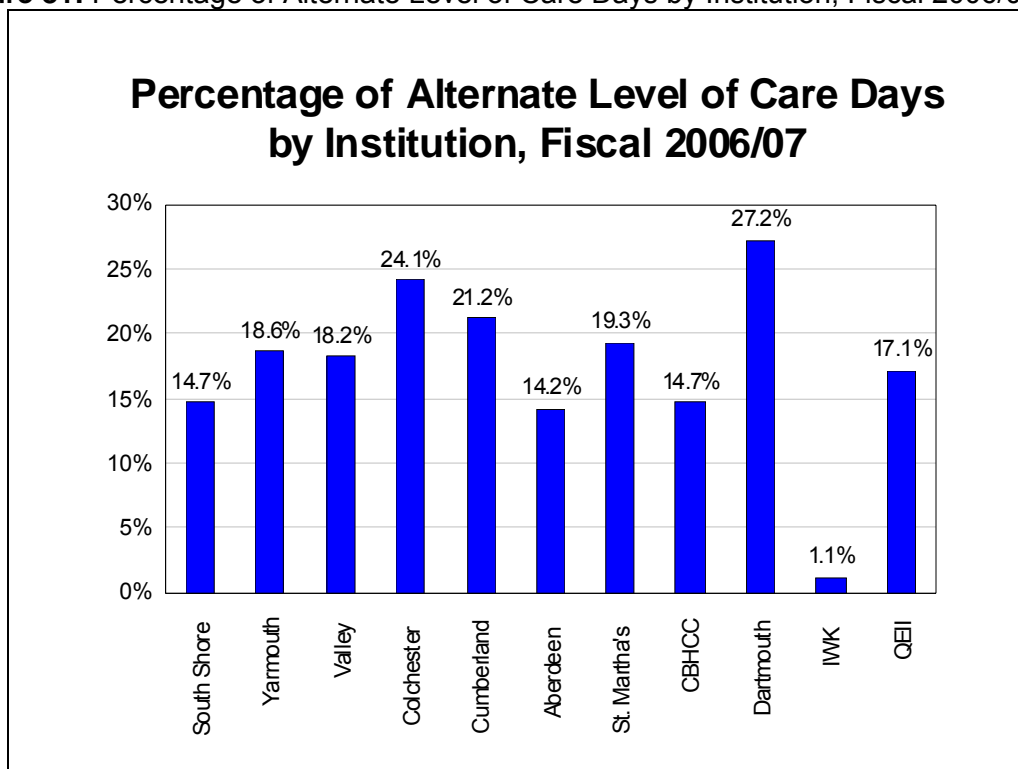
### Technical Specifications

**Calculation:**

- 1:  $\left( \frac{\text{The total ALC days per DHA of residence}}{\text{total inpatient days}} \right) \times 100$
- 2:  $\left( \frac{\text{The total ALC day per hospital}}{\text{the total days stay per hospital}} \right) \times 100$

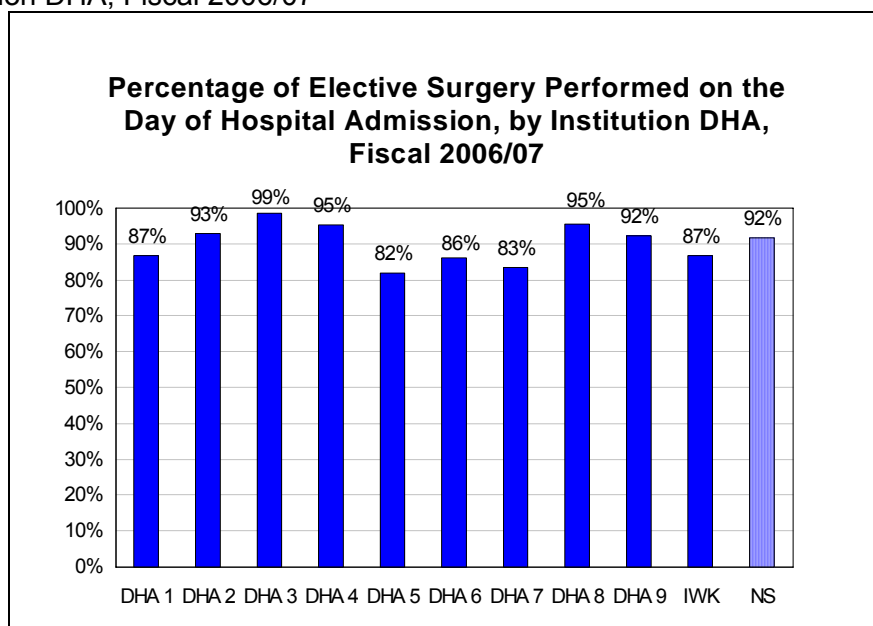
**Source:** Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database.



**Figure 81:** Percentage of Alternate Level of Care Days by Institution, Fiscal 2006/07

## Percentage Elective Surgery Performed On the Day of Hospital Admission

**Figure 82:** Percentage of Elective Surgery Performed on the Day of Hospital Admission, by Institution DHA, Fiscal 2006/07



### Definition

Same Day Admission surgery occurs when a patient's elective surgery is performed on the same day he/she was admitted. In other words, the admission date is the same as the intervention date. All preparatory investigation is completed prior to admission. Only surgeries performed in an operating room or an endoscopy room are included. (Obstetrical procedures are excluded.)

### Significance – Rationale and Notes for Interpretation

Preadmission testing followed by surgery on the day of admission help to decrease the length of stay for a patient. This translates into reduced health care costs. The percentage of elective surgeries done on the day of admission has increased steadily from 7% in 1990/91.

### Technical Specifications

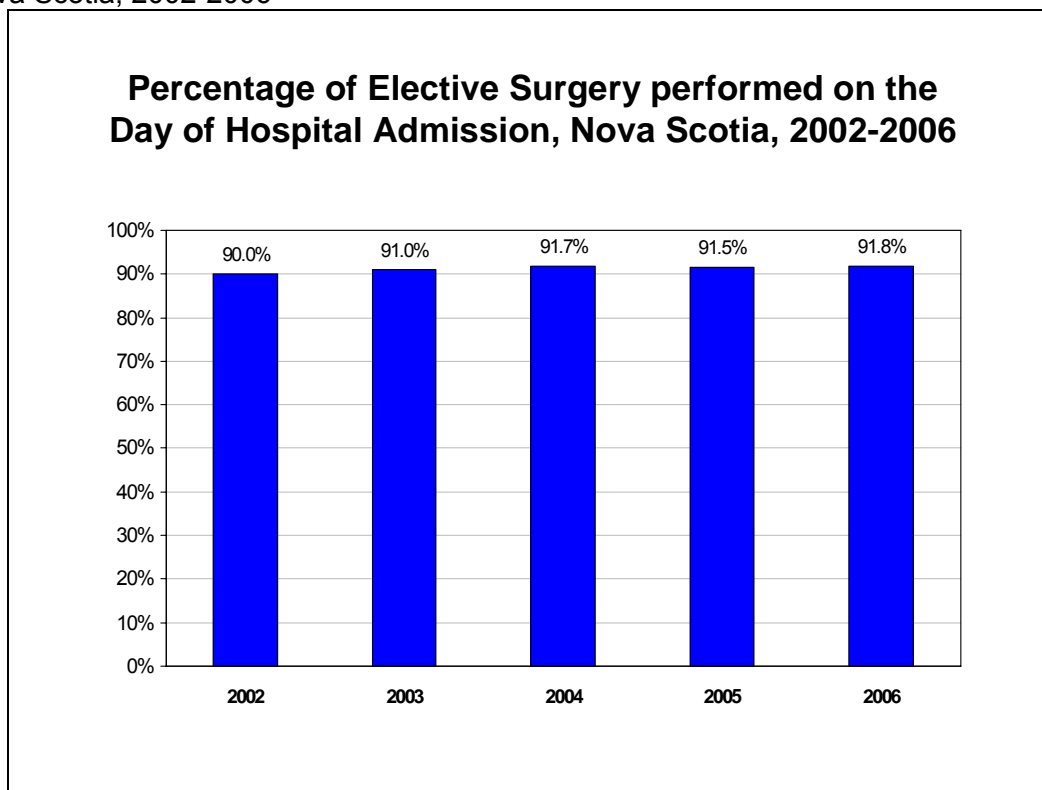
**Calculation:**  $\left( \frac{\text{The number of elective separations with surgery performed on the day of hospital admission by institutional DHA}}{\text{the total number of elective separations having surgery}} \right) \times 100$

**Source:** Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database

**Disclosures**

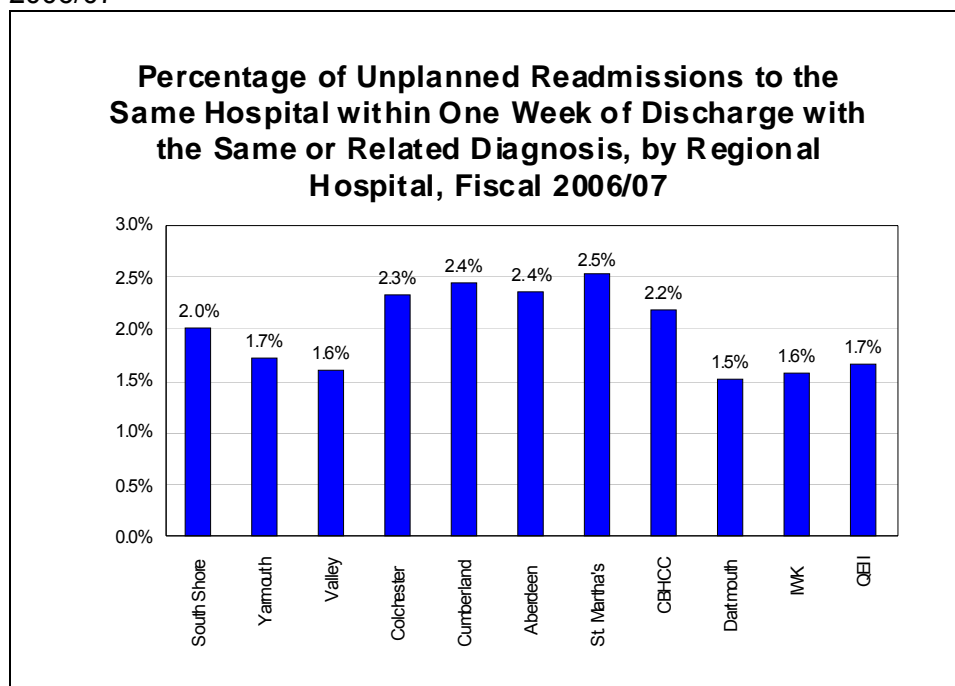
Inclusions: *Out-of-province patients and newborns*

**Figure 83:** Percentage of Elective Surgery performed on the Day of Hospital Admission, Nova Scotia, 2002-2006



## Readmission to the same Hospital - Unplanned from previous Acute Admission within one week of discharge with the same or related diagnosis

**Figure 84:** Percentage of Unplanned Readmissions to the Same Hospital within One Week of Discharge with the Same or Related Diagnosis, by Regional Hospital, Fiscal 2006/07



### Definition

Admission to acute care  $\leq 7$  days; unplanned from previous acute admission at the same facility with the same or related diagnosis inpatients only.

### Significance – Rationale and Notes for Interpretation

Hospital readmission rates have been used to measure the effects of decreasing bed numbers and lengths of stay. Percentages of unplanned readmission are low for the province with the highest being 2.5% for St. Martha's Regional Hospital.

### Technical Specifications

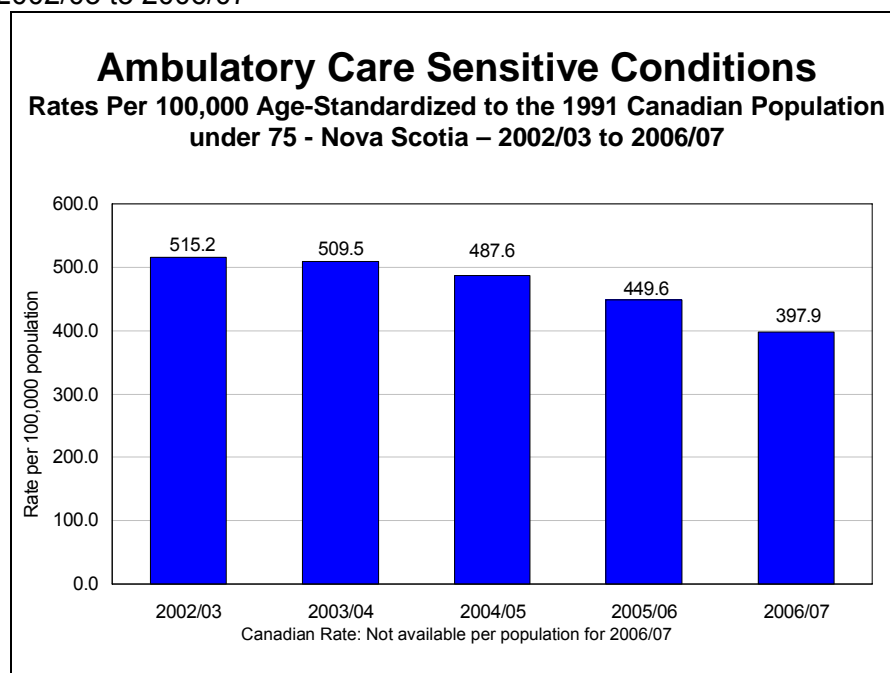
**Calculation:**  $\left( \frac{\text{The number of readmissions } \leq 7 \text{ days; unplanned from previous acute admission}}{\text{total number of separations}} \right) \times 100$ .

**Source:** Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database.

## Ambulatory Care Sensitive Conditions

**Figure 85: Ambulatory Care Sensitive Conditions**

Rates per 100,000 Age-Standardized to the 1991 Canadian Population under 75 - Nova Scotia – 2002/03 to 2006/07



### Definition

Age-standardized inpatient acute care hospitalization rate for conditions where appropriate ambulatory care prevents or reduces the need for hospitalization, per 100,000 population under age 75 years. – exclude Nova Scotia Hospital.

Most Responsible diagnosis ICD-10-CA code of: G40, G41, J41, J42, J43, J44, J47, J45, E10.1, E10.6, E10.7, E10.9, E11.0, E11.1, E11.6, E11.7, E11.9, E13.0, E13.1, E13.6, E13.7, E13.9, E14.0, E14.1, E14.6, E14.7, E14.9, J20 (only when secondary diagnosis of J41, J42, J43, J44, or J47 is also present), J12, J13, J14, J15, J16, J18 (only when secondary diagnosis of J41, J42, J43, J44 or J47 is also present), I50, J81 (excluding cases with CCI code of 1.IJ.50, 1.HZ.85, 1.IJ.76, 1.HB.53, 1.HD.53, 1.HZ.53, 1.HB.55, 1.HD.55, 1.HZ.55, 1.HB.54, or 1.HD.54), I10.0, I10.1, I11 (excluding cases with CCI code of 1.IJ.50, 1.HZ.85, 1.IJ.76, 1.HB.53, 1.HD.53, 1.HZ.53, 1.HB.55, 1.HD.55, 1.HZ.55, 1.HB.54, or 1.HD.54), and I20, I23.82, I24.0, I24.8, I24.9 (excluding cases with any one CCI code of 1\*, 2\*, or 5\*)

Excluding: death before discharge

### Significance – Rationale and Notes for Interpretation

Hospitalizations for ambulatory care sensitive conditions are considered to be an indirect measure of access to appropriate medical care. While not all admissions for these conditions are avoidable, appropriate ambulatory care could potentially prevent the onset of this type of illness or condition, control an acute episodic illness or condition or

manage a chronic disease or condition. A disproportionately high rate is presumed to reflect problems in obtaining access to primary care.

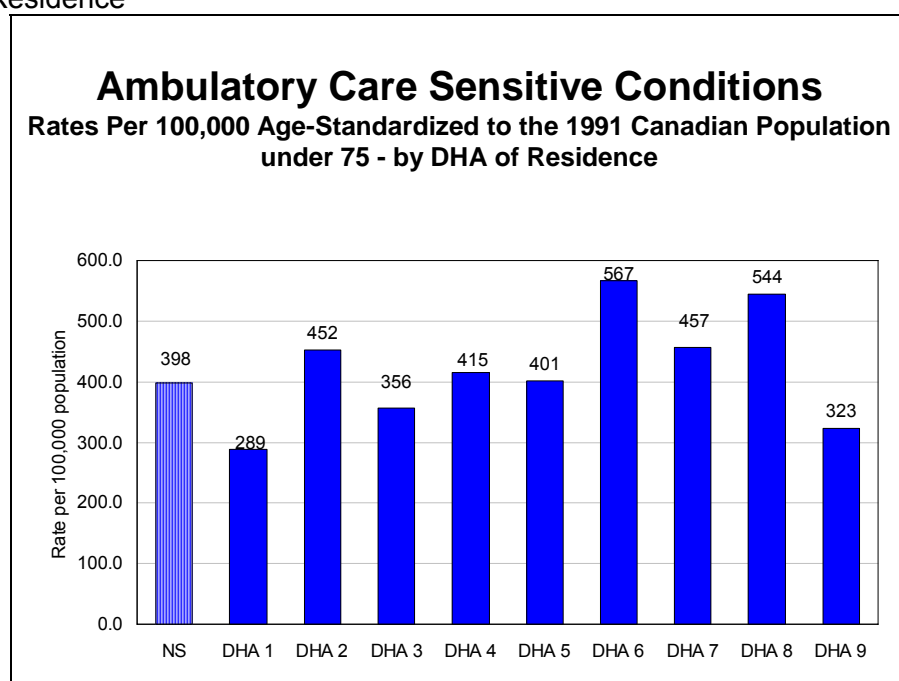
### Technical Specifications

**Calculation:** ((The number of separations with an ACSC most responsible diagnosis done per DHA of Residence / the population for the province (DHA's)) X Standardizing Process)) X 100,000

**Source:** Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database.

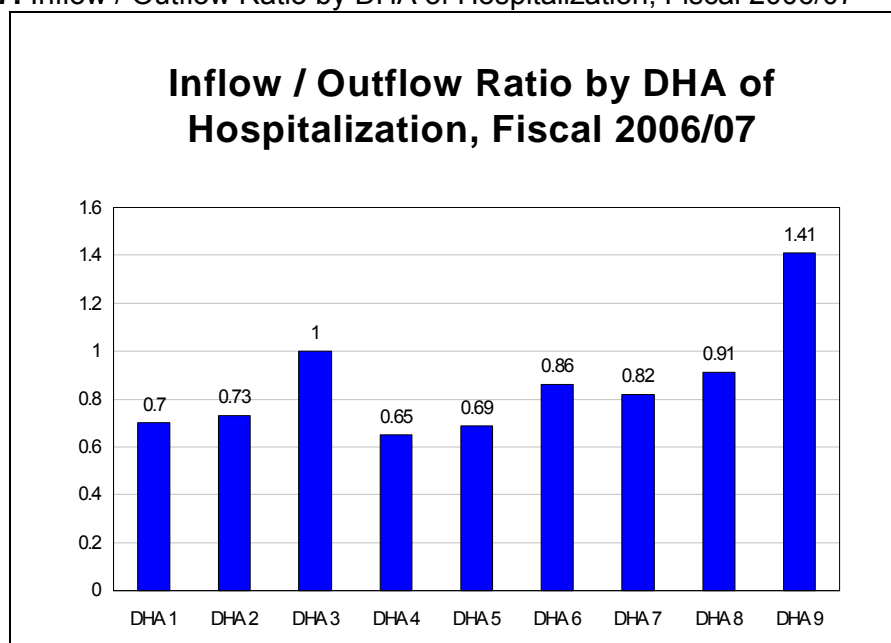
Canadian Institute for Health Information, Health Indicators 2008

**Figure 86:** Ambulatory Care Sensitive Conditions  
Rates Per 100,000 Age-Standardized to the 1991 Canadian Population under 75 - by DHA of Residence



## Inflow/Outflow Ratio

**Figure 87:** Inflow / Outflow Ratio by DHA of Hospitalization, Fiscal 2006/07



### Definition

This indicator is used for acute care inpatients separations only. It compares the number of separations from acute care hospitals within a DHA to the number of hospital separations of residents from the same DHA (all DHAs of hospitalization). The IWK is included in DHA 9 for this indicator. This indicator includes Nova Scotia residents treated outside Nova Scotia and residents of other jurisdictions treated in Nova Scotia.

### Significance – Rationale and Notes for Interpretation

A ratio of less than one indicates that more residents left their own DHA to receive care than the number of residents that came into the DHA to receive care. A ratio greater than one indicates: that more people came into the DHA to receive care than the number of people that left the DHA to receive care. A ratio of one indicates that the volume of hospital discharges in the DHA is equivalent to that generated by its residents, suggesting that inflow and outflow activity, if it exists at all, is balanced. Inflow/outflow ratio ranges from a high of 1.41 in DHA 9, which indicates an inflow, which would be expected as the tertiary care facilities are located in DHA 9, to 0.65 for DHA 4.

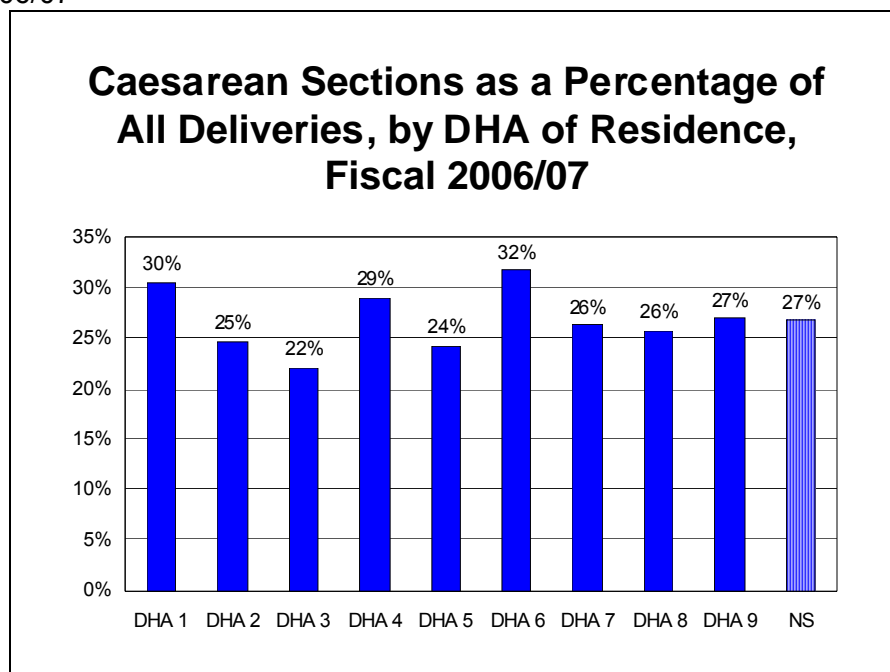
### Technical Specifications

**Calculation:** (The numbers of separations (discharges and deaths) from acute care hospitals within a given region) / (the number of hospital separations generated by residents of a given district (region is specified in the numerator))

**Source:** Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database and NS Out Database

## Caesarean Section

**Figure 88:** Caesarean Sections as a Percentage of All Deliveries, by DHA of Residence, Fiscal 2006/07



### Definition

Removal of the fetus through surgical incision of the uterus. The number of Caesarean sections (c-sections) performed, as a percent of all deliveries, in each DHA.

### Significance – Rationale and Notes for Interpretation

An elevated number of Caesarean sections may increase the maternal risk of morbidity and mortality. The overall Caesarean section rate has been climbing for the province since a low of 19.6% in fiscal 1995/96. For 2006/07, the rate for the province is 26.7%. Small volumes of deliveries and C-sections in a given DHA result in marked variation in C-Section rates. Caution should be used when making comparisons of rates across DHAs. WHO has set a benchmark for Caesarean sections as 15% of all deliveries.<sup>1</sup>

### Technical Specifications

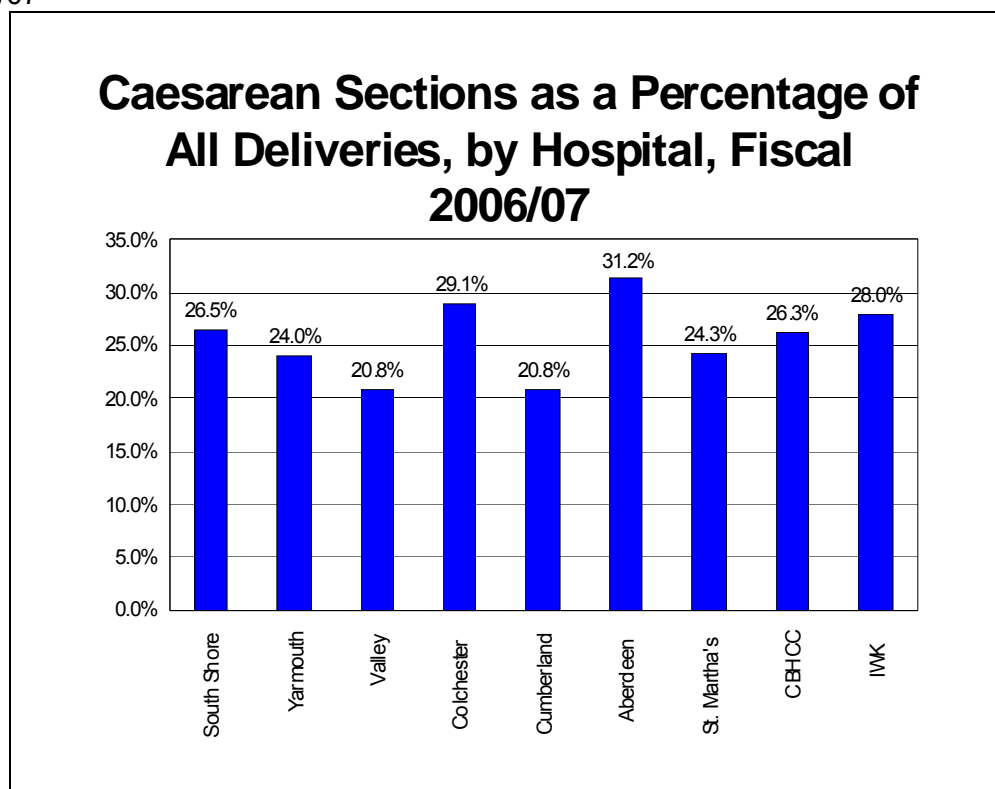
**Calculation:** C-sections were counted using any procedure starting with 5MD60^^.  
(The total number of caesarean sections per DHA of residence / the total number of deliveries) X 100

**Source:** Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database

<sup>1</sup> CIHI Health Indicators 2006 Definitions, Data Sources and Rationale February 2006

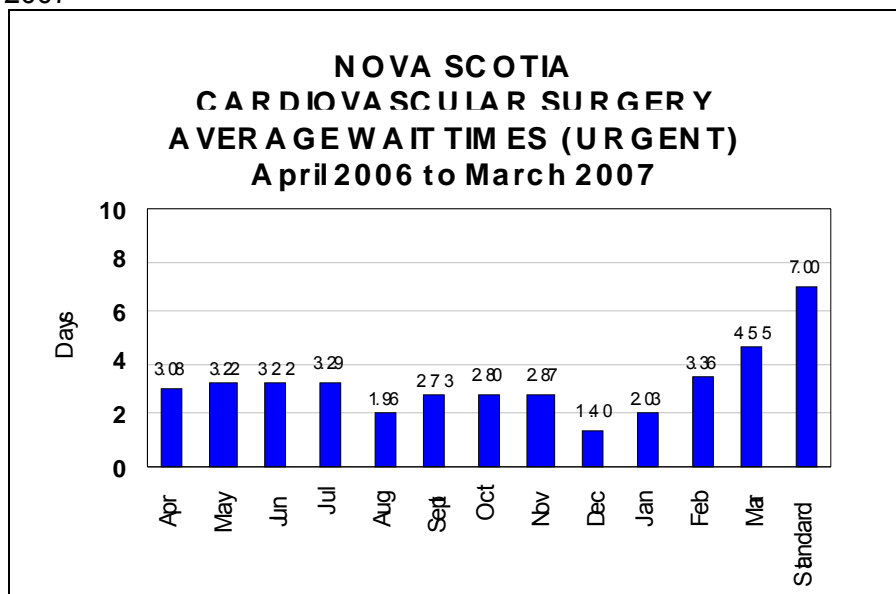


**Figure 89:** Caesarean Sections as a Percentage of All Deliveries, by Hospital, Fiscal 2006/07



## Cardiovascular Surgery Wait Times

**Figure 90:** Nova Scotia Cardiovascular Surgery Average Wait Times (Urgent) April 2006 to March 2007



### Definition

1. Maximum wait time in days for cardiovascular surgery for urgent patients by month.

**Urgent** patients are critically ill and cannot be discharged from hospital prior to receiving surgery. They have failed maximal medical therapy and remain unstable. The current wait time standard is 7 days.

2. Maximum wait time in days for cardiovascular surgery for elective patients by month.

**Semi-Urgent "A"** patients are unstable, have failed medical therapy and are at significant risk of heart attack or heart failure and mortality. In many instances, patients are transferred back to their District hospital while arrangements are being made to have surgery. The current wait time standard is 2-3 weeks. **Semi-Urgent "B"** patients have coronary artery disease and are doing poorly on medical therapy. They would have chest pain walking 1-2 blocks and are incapable of employment. If these patients can exercise greater than 2 mets (a met is a standardized score on a cardiac stress test) but less than 5 mets during a stress ECG test they fall into this category. The current wait time standard is 6-8 weeks. **Elective** patients are stable on medical therapy; unable to work due to cardiac limitations; and felt to further improve with bypass surgery. The current waiting time standard is 3 months.

### Significance – Rationale and Notes for Interpretation

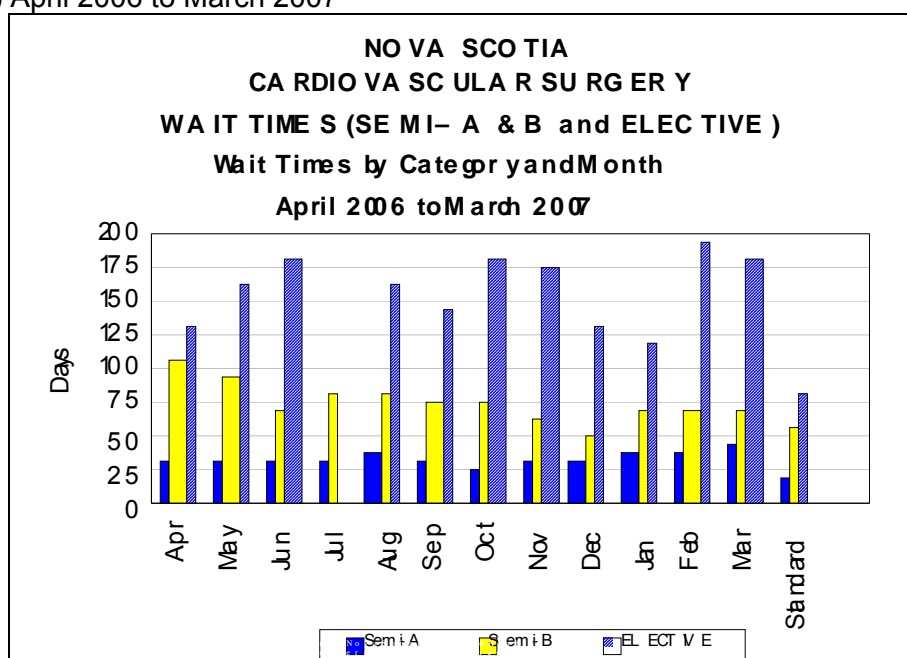
Systematic collection and comparison of wait time data are complex. Historically, different groups have defined and monitored wait times in different ways. For example, some calculate wait times from when a person first visits a family doctor. Others start the clock when the patient is assessed by a specialist or when test results confirm the need for further treatment or from some other point. There are advantages and disadvantages to each approach. Nonetheless, such differences have to be reconciled if meaningful comparisons between jurisdictions are to be made.

### Technical Specifications

**Calculation:** The total number of days waiting between the procedure booking date (by the referring physician) and the date of the procedure.

**Source:** Divisions of Cardiology and Cardiovascular Surgery, QEII Health Sciences Centre Monthly Wait Times

**Figure 91:** Nova Scotia Cardiovascular Surgery Average Wait Times (Semi A&B and Elective) April 2006 to March 2007



## Insured Programs Indicators

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Insured Programs expenditures are measured by examining the cost and the number of insured services provided to Nova Scotia residents.

Expenditures for Insured Programs data are based on the date the service occurred.

Physician services expenditure data include:

- the amount paid by the Province of Nova Scotia to physicians for insured services to Nova Scotia residents in-province, out-of-province, or out-of-country, unless otherwise stated.
- expenditures for Fee-for-Service, Alternate Funded physician groups, Canadian Medical Protective Assoc. and Benefit Funds, Rural Stabilization, Emergency Room services, and miscellaneous accounting adjustments.
- In Nova Scotia, physician services for First Nations People are paid for by the province. This is not the same in all provinces and territories.

Physician services expenditure data exclude:

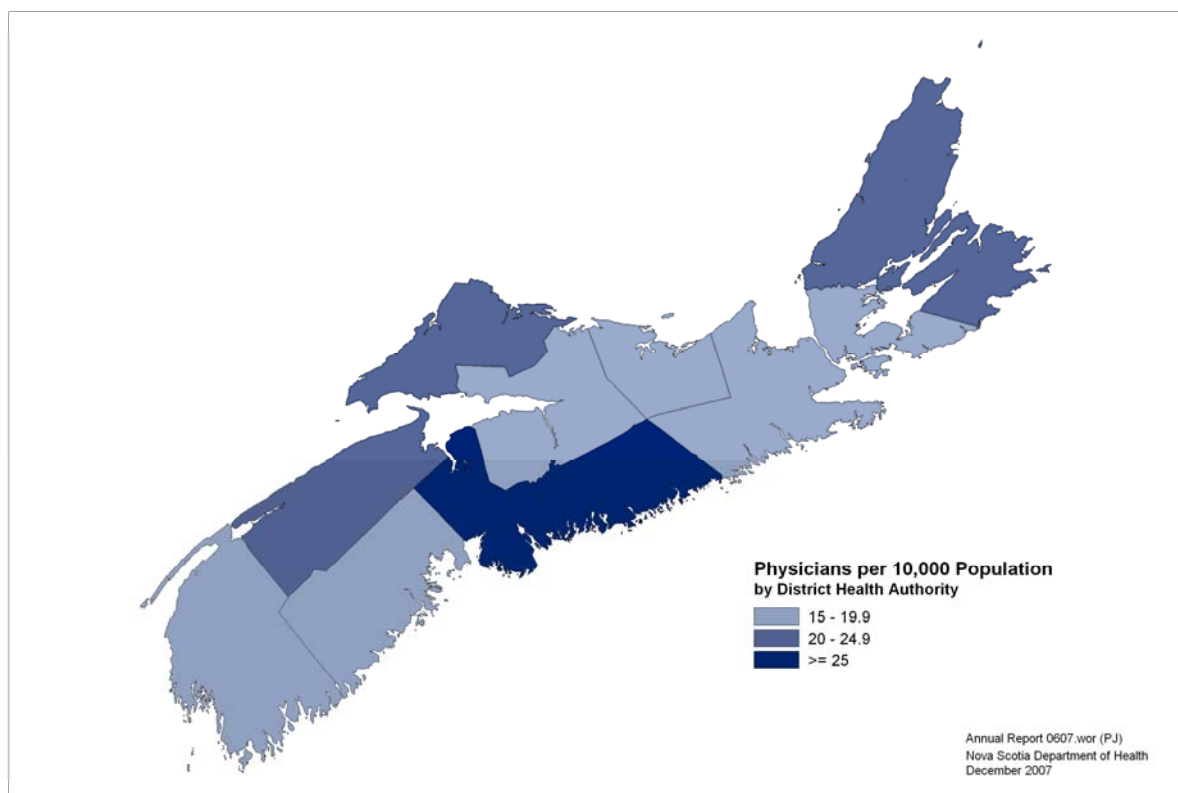
- all federal payment categories as services provided to members of the Royal Canadian Mounted Police (RCMP) and Armed Forces personnel, as their services are funded federally.
- physician payments not the responsibility of the Department of Health. These exclusions include services for Workers Compensation Board, Community Services and services provided to residents of other provinces and territories.

Seniors' Pharmacare program includes both the Department of Health expenditures and Seniors' contributions.

Population data are from Statistics Canada's estimates as of July 1<sup>st</sup> each year.

## Physicians per 10,000 Population

**Figure 92:** Physicians per 10,000 Population by DHA



### Definition

Map of population per physician, including specialists, by District Health Authority.

### Significance – Rationale and Notes for Interpretation

Health care professions per population is used as an indicator of relative access to health care. Reflecting the location of the province's tertiary facilities and the vast majority of medical specialists, the number of physicians per 10,000 population is highest within the Capital district, indicating greater access. Note: On its own, number of professionals per population does not indicate whether or not there are sufficient numbers of health professionals in a given area.

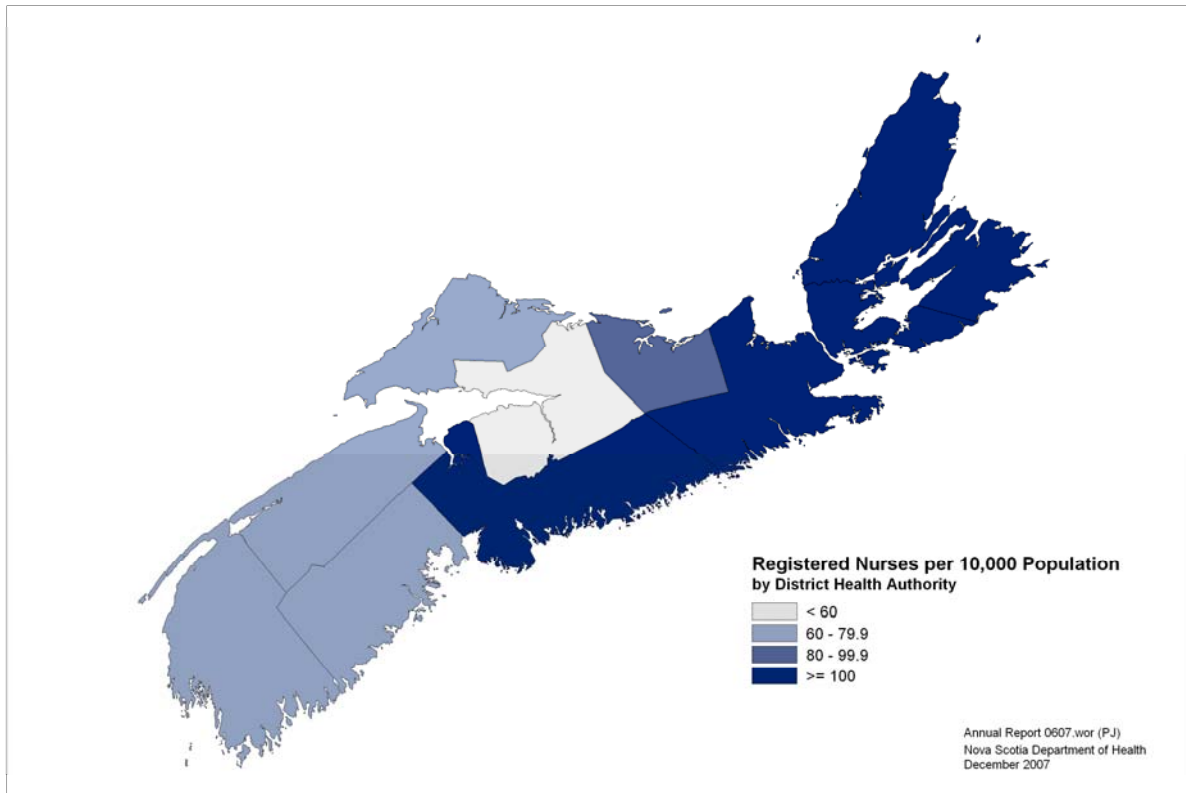
### Technical Specifications

*Calculation:*  $(\text{Number of Physicians per DHA} / \text{Population DHA}) \times 10,000$

*Source:* Statistics Canada, Nova Scotia Department of Health

## Registered Nurses per 10,000 population

**Figure 93:** Registered Nurses per 10,000 Population by DHA



### Definition

Map of population per registered nurse by District Health Authority.

### Significance – Rationale and Notes for Interpretation

Health care professional per population is used as an indicator of relative access to the health care system. Reflecting the location of the province's tertiary facilities, the highest number of registered nurses per 10,000 population is within the Capital district, indicating greater access. The lowest number of registered nurses per 10,000 population (least access) occurs in Colchester East Hants (DHA 4). Note: On its own, professionals per population does not indicate whether or not there are sufficient numbers of health professionals in a given area.

### Technical Specifications

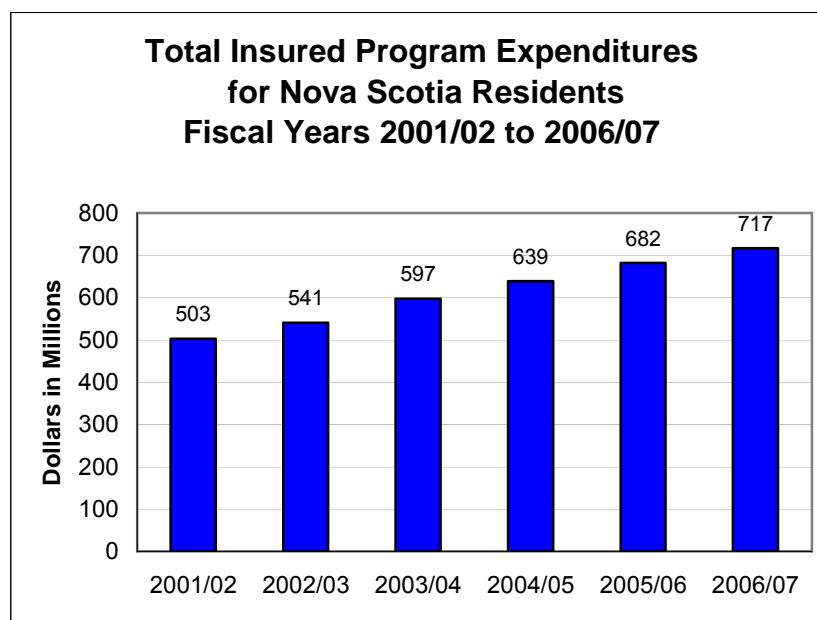
*Calculation:* (Number of Registered Nurses per DHA / DHA Population) X 10,000

*Source:* Statistics Canada, Nova Scotia Department of Health

## Insured Services:

### Total Expenditures for Insured Services

**Figure 94:** Total Insured Program Expenditures for Nova Scotia Residents Fiscal Years 2001/02 to 2006/07



#### Definition

This measure refers to the total annual expenditures for the following Insured programs: Physician Services, Dental (Children's Oral Health, Dental Surgery, and Special Dental Programs), Optometry, Pharmacare (Seniors and Special Assistance Programs), and Prosthetics.

#### Significance – Rationale and Notes for Interpretation

This data shows annual program expenditures for insured services in Nova Scotia. Government health care expenditures have increased by over 175 million dollars since 2001/02. Medicare data includes Fee-for-Service, Alternative Funded physician groups, Canadian Medical Protective Assoc. and Benefit Funds, Rural Stabilization, Emergency Room, and miscellaneous accounting adjustments. Pharmacare data includes Drug Cost, Dispensing Fees and Special Funding Assistance Programs. This represents both the Department of Health expenditure and Seniors' contributions for the Pharmacare programs. Dental, Optometric, and Prosthetics services include miscellaneous accounting adjustments.

#### Technical Specifications

*Calculation:* Total program expenditures for insured services per fiscal year, expressed in millions of dollars.

*Source:* Medavie Blue Cross, Department of Health Annual Statistical Tables.

**Disclosures**

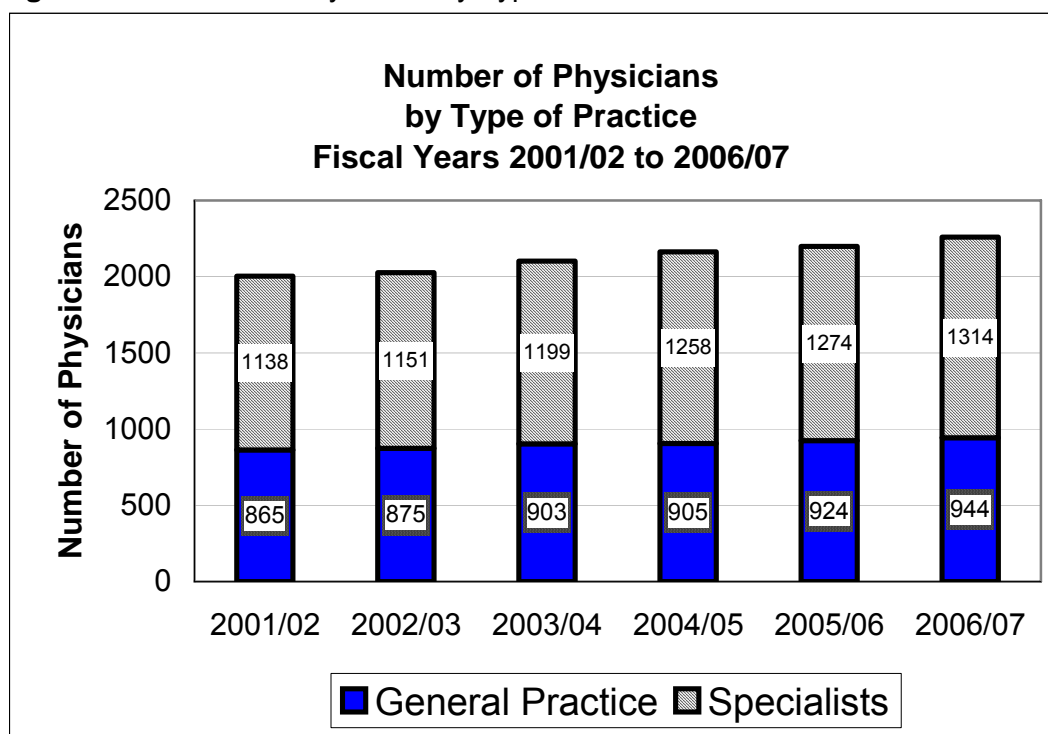
*Exclusions:* This measure excludes health services that are not the responsibility of the Department of Health. These exclusions include services for Workers Compensation Board, Community Services, members of the Royal Canadian Mounted Police (RCMP) and Canadian Armed Forces Personnel as their services are federally funded, and services to residents of other provinces and territories.



## Physicians' Services:

### Number of Physicians by type of Practice

**Figure 95:** Number of Physicians by Type of Practice Fiscal Years 2001/02 to 2006/07



#### Definition

The annual number (head count) of physicians paid by the Province of Nova Scotia for insured services delivered to Nova Scotia residents in-province.

#### Significance – Rationale and Notes for Interpretation

Total number includes any physician (full time, part time, and locum) who was paid by the province during the fiscal year.

Type of Practice is based on Functional Specialty. Functional Specialty is intended to reflect the specialty that the physician practices for the greatest percentage of his/her time. It may not be consistent with the physician's licensed specialty. General Practitioners functioning primarily as Emergency Room physicians are included in the specialists count not in the General Practice count.

#### Technical Specifications

*Calculation:* Head count of physicians by functional specialty. (Physicians not paid by Department of Health are excluded)

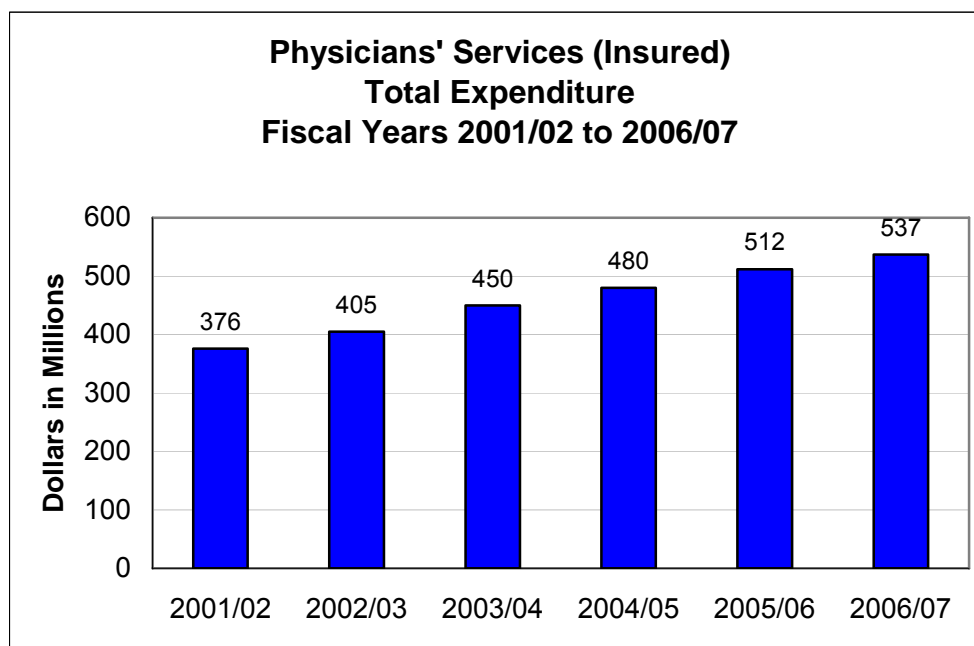
#### Disclosures

Excludes 21 physicians in 2004/05, 22 physicians in 2005/06 and 24 physicians in 2006/07 whose specialty is 'Other'. This category includes Administration, Occupational Medicine (GP), and Other.

Source: Medavie Blue Cross, Department of Health Annual Statistical Tables

### Total Expenditure for Insured Physicians' Services

**Figure 96:** Physicians' Services (Insured) Total Expenditure Fiscal Years 2001/02 to 2006/07



#### Definition

This data represents the total annual payments to physicians for insured physician services provided by physicians to Nova Scotia residents in-province, out-of-province and out-of-country.

#### Significance – Rationale and Notes for Interpretation

Total expenditures for physician services provide a means of tracking expenditure trends. As noted by the above graph, physician total expenditures have increased each year.

#### Technical Specifications

*Calculation:* Total amount paid to physicians expressed in millions of dollars.

*Source:* Medavie Blue Cross, Department of Health Annual Statistical Tables.

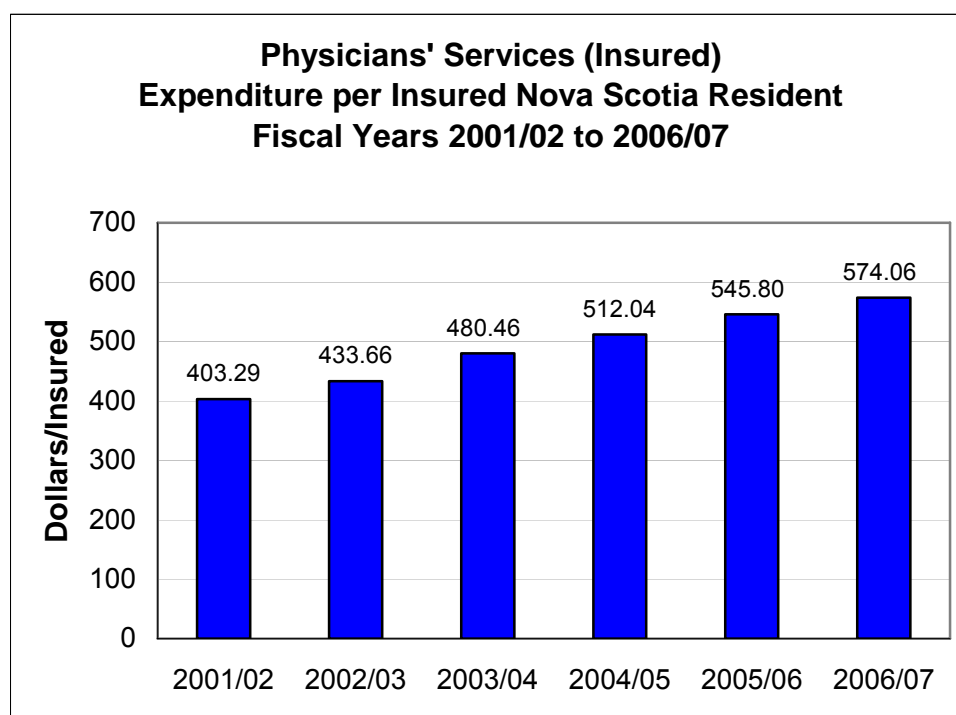
#### Disclosures

*Inclusions:* Physicians' payments for Fee-for-Service and Alternate Funded physician groups, Canadian Medical Protective Assoc. and Benefit Funds, Rural Stabilization, Emergency Room, and miscellaneous accounting adjustments.

*Exclusions:* This measure excludes physician payments not the responsibility of the Department of Health. These exclusions include services for Workers Compensation Board, Community Services, RCMP and Canadian Armed Forces personnel as their services are federally funded, and services provided to residents of other provinces and territories.

### Expenditure per Insured Nova Scotia Resident

**Figure 97:** Physicians' Services (Insured) Expenditure per Insured Nova Scotia Resident Fiscal Years 2001/02 to 2006/07



**Definition:**

This data represents the annual expenditure per person for insured physician services provided by physicians to Nova Scotia residents in-province, out-of-province, and out-of-country.

**Significance – Rationale and Notes for Interpretation**

Expenditures per insured Nova Scotia resident provide an indication of the dollars spent. As noted by the above graph, physician expenditures per insured NS resident have increased each year.

**Technical Specifications**

*Calculation:* (Total physician expenditure / number insured persons in Nova Scotia) expressed in dollars and cents.

*Source:* Medavie Blue Cross, Department of Health Annual Statistical Tables, Statistics Canada Census Population.

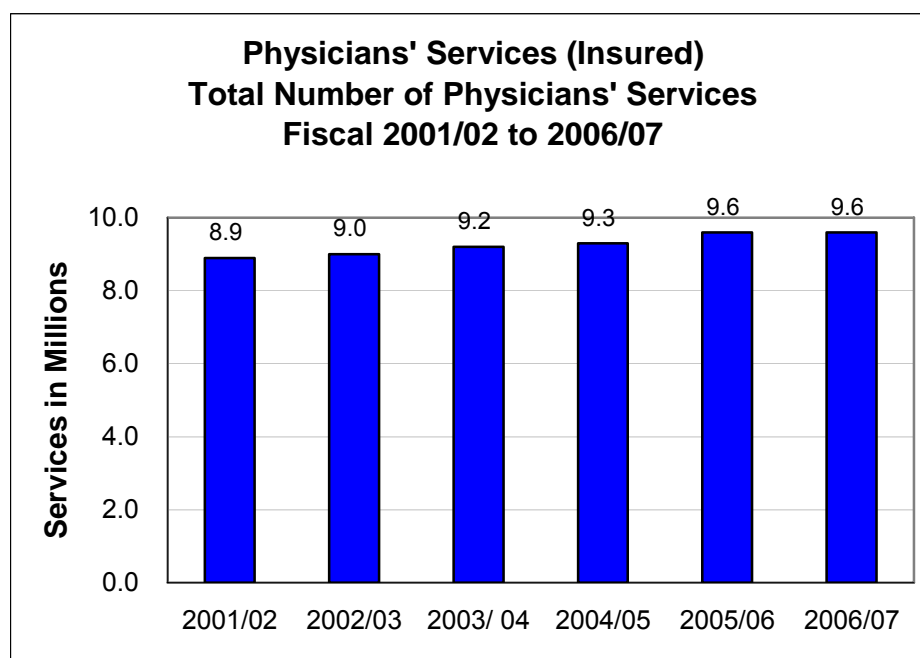
**Disclosures**

*Inclusions:* Physicians' payments for Fee-for-Service and Alternate Funded physician groups, Canadian Medical Protective Assoc. and Benefit Funds, Rural Stabilization, Emergency Room, and miscellaneous accounting adjustments.

*Exclusions:* This measure excludes physician payments not the responsibility of the Department of Health. These exclusions include services for Workers Compensation Board, Community Services, RCMP and Canadian Armed Forces personnel as their services are federally funded, and services provided to residents of other provinces and territories.

### Total Number of Insured Services

**Figure 98:** Physicians' Services (Insured) Total Number of Physicians' Services Fiscal 2001/02 to 2006/07

**Definition**

The total annual number of insured individual services from billings submitted by Nova Scotia physicians for Nova Scotia residents in-province and for physician services refunded to residents provided while in the Province of Quebec or out-of-country.

**Significance – Rationale and Notes for Interpretation**

The total number of insured physician services provided to Nova Scotia residents is representative of the utilization of physician service resources. Some services may not be included as they are not available for some Alternate Funded arrangements.

**Technical Specifications**

*Calculation:* Total number of services.

*Source:* Medavie Blue Cross, Department of Health Annual Statistical Tables.

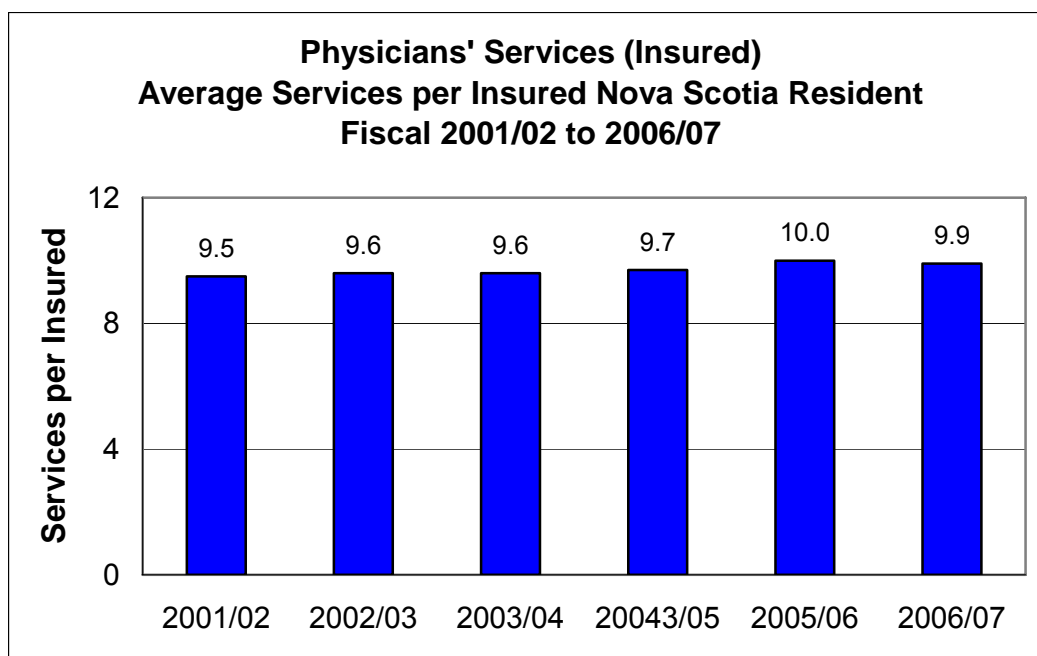
**Disclosures**

*Inclusions:* Services from Fee-for-Service, Alternate Funded physician groups, NonPatient Specific in-patient and out-patient services, and physician services where a Nova Scotia resident was refunded the cost of a service provided in the Province of Quebec or out-of-country.

*Exclusions:* Physician services where the payment is not the responsibility of the Department of Health. These exclusions include services for Workers Compensation Board, Community Services, RCMP and Canadian Armed Forces personnel as their services are federally funded, services to residents of other provinces and territories, and services provided to Nova Scotia residents in the 8 provinces and 3 territories under the Reciprocal Billing agreement.

### Average Number of Insured Services per Nova Scotia Resident

**Figure 99:** Physicians' Services (Insured) Average Services per Insured Nova Scotia Resident Fiscal 2001/02 to 2006/07

**Definition**

The annual number of insured services per insured Nova Scotia resident.

**Significance – Rationale and Notes for Interpretation**

Insured physician services per Nova Scotia resident are representative of the average utilization of physician services per person. Some services may not be included as they are not available for some Alternate Funded arrangements.

### **Technical Specifications**

*Calculation:* Total number of services divided by the insured population.

*Source:* Medavie Blue Cross, Department of Health Annual Statistical Tables.

### **Disclosures**

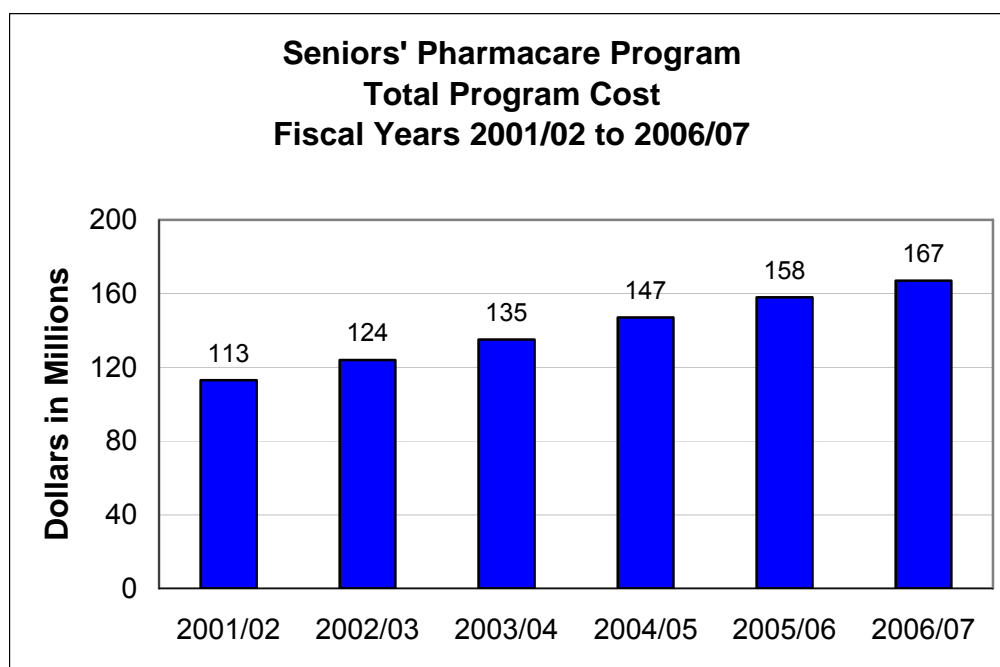
*Inclusions:* Services from physician payments for Fee-for-Service, Alternate Funded physician groups, NonPatient Specific in-patient and out-patient services, and physician services where the resident was refunded the cost of a service provided in the Province of Quebec or out-of-country.

*Exclusions:* Physician services where the payment is not the responsibility of the Department of Health. These exclusions include services for Workers Compensation Board, Community Services, RCMP and Canadian Armed Forces personnel as their services are federally funded, services to residents of other provinces and territories, and to Nova Scotia residents in the 8 provinces and 3 territories under the Reciprocal Billing agreement.

## Seniors' Pharmacare

### Program: Total Program Cost

**Figure 100:** Seniors' Pharmacare Program Total Program Cost Fiscal Years 2001/02 to 2006/07



#### Definition

The Nova Scotia Seniors' Pharmacare Program is a provincial drug insurance plan that helps seniors with the cost of their prescription drugs. The Program covers drugs listed as benefits in the Nova Scotia Formulary. This measure indicates the total annual expenditure for the Program.

#### Significance – Rationale and Notes for Interpretation

This data are representative of the total expenditure for the Seniors' Pharmacare Program. As the graph notes, the Program cost continues to increase. The statistical data represent the total program cost including amount paid by seniors and the Department of Health's contribution. Financial adjustments for the Audited Financial Statements are not reflected in the statistical system.

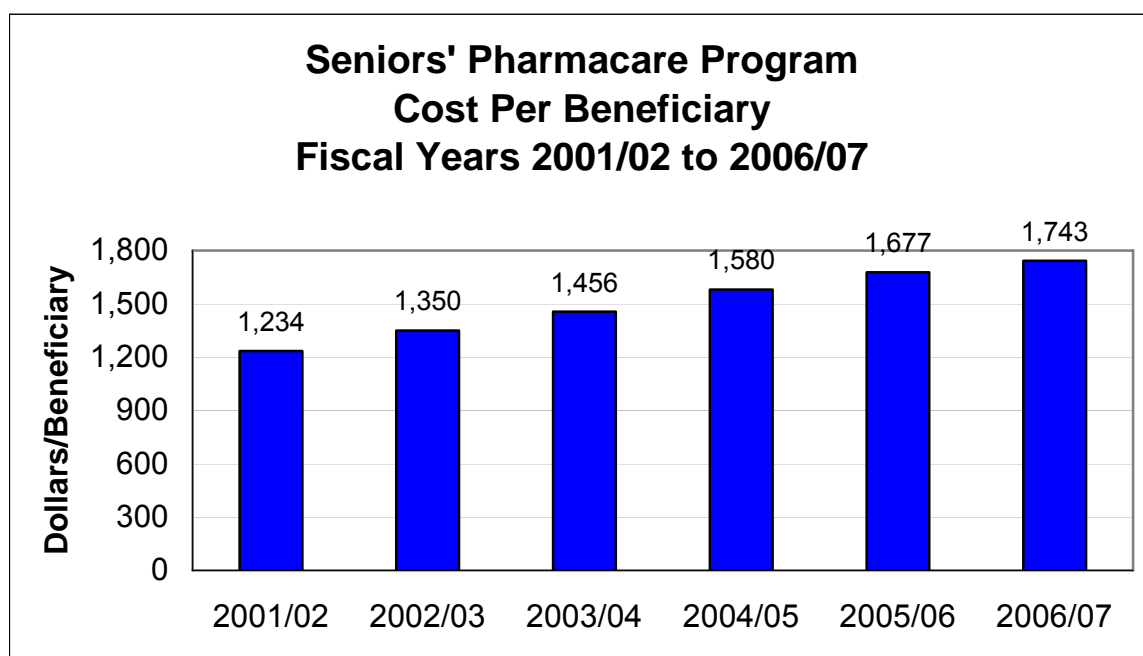
#### Technical Specifications

*Calculation:* Total Program cost per fiscal year as expressed in millions of dollars. Total Program cost is comprised of Drug Cost, Dispensing Fees, mark ups and Compounding Fees as reflected in the Decision Support System.

Source: Medavie Blue Cross, Department of Health Annual Statistical Tables, Statistics Canada Census population.

### Program Cost per Beneficiary

**Figure 101:** Seniors' Pharmacare Program Cost Per Beneficiary Fiscal Years 2001/02 to 2006/07



#### Definition

The Nova Scotia Seniors' Pharmacare Program is a provincial drug insurance plan that helps seniors with the cost of their prescription drugs. The Program covers drugs listed as benefits in the Nova Scotia Formulary. This measure indicates the annual average cost per beneficiary for participants in the Program.

#### Significance – Rationale and Notes for Interpretation

This data are representative of the annual average cost per beneficiary for the Seniors' Pharmacare Program. As the graph notes, the Average Cost per Beneficiary continues to increase. The statistical data represent the total cost per beneficiary for the Program revenues paid by seniors plus the Department of Health's contribution. Financial adjustments for the Audited Financial Statements are not reflected in the statistical system.

#### Technical Specifications

*Calculation:* Total Program cost divided by the number of unique beneficiaries expressed in dollars.

Source: Medavie Blue Cross, Department of Health Annual Statistical Tables



# Management Information Systems Indicators

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The MIS Standards are national standards that provide an integrated approach to managing financial and statistical data related to the operations of Canadian health service organizations. They were developed in recognition of the need to improve the effectiveness and efficiency of health service organizations in Canada through better information and measures of productivity.

These guidelines address information at the functional centre and service recipient-specific level, but do not encompass information related to the care, treatment or clinical status of the service recipient, or attempt to quantify or assess the quality of such services.

The indicators found in this section detail how financial and statistical data may be integrated to yield information that is useful for planning, control and evaluation. All functional centre statistics and indicators are designed to provide managers with useful information that can assist them with planning, staffing, budgeting and efficiency management. Indicators link two data elements together to measure performance and to provide information that can be used to facilitate decisions or compare performance.

Here are some definitions that may help your understanding of the information presented in this section:

**Functional Centre:** a subdivision of an organization used in a functional accounting system to record the budget and actual direct expenses; statistics; and/or revenues, if any, which pertain to the function or activity being carried out.

**Inpatient Days:** the days during which services are provided to an inpatient between the census-taking hours on successive days. The day of admission is counted as an inpatient day but the day of separation is not an inpatient day. When the service recipient is admitted and separated (discharged or died) on the same day, one inpatient day is counted. Inpatient days apply to nursing inpatient functional centres (primary accounts 712\*).

**Compensation Expense:** is the sum of gross salaries expense, benefit contribution expense, purchased compensation expense, and fees for service expense arising from the remuneration of management and operational support personnel, unit-producing personnel, and medical personnel employed by, or under contract to the health service organization.

**Compensation - Medical Personnel (Medical Fees):** this account is used to record the compensation expense for medical practitioners who provide medical services and who are remunerated by the health service organization on a salary or contractual basis. Excludes medical personnel who fulfill a management role.

## MANAGEMENT INFORMATION SYSTEMS INDICATORS

**Direct Costs:** include all the expenditures for salaries, supplies, equipment, amortization, and other outlays seen in the accounts of the functional centre, including direct expense transfers. Direct costs exclude costs of absorbing cost centres that initially resided in the accounts of transient cost centres but have subsequently been allocated as indirect expense.

**Full-Time Equivalent (FTE):** the total earned hours charged to a functional centre, expressed in terms of equivalent full-time positions, according to the health service organization's normal earned hours per full-time position.

The above definition can be expressed by the following formula:

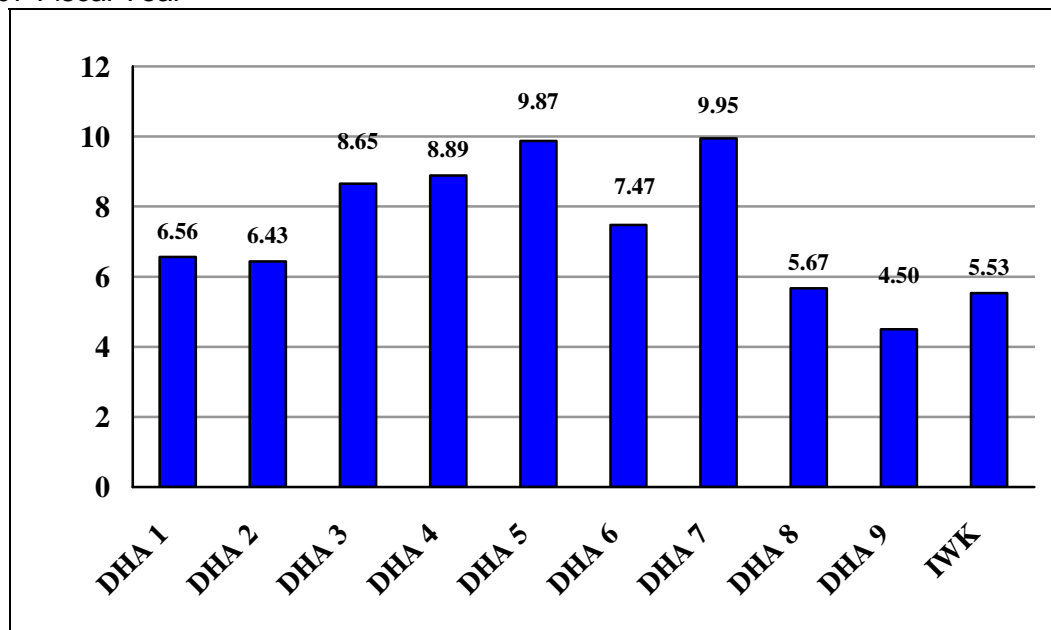
$$FTE = \frac{\text{Total Earned Hours in Period}}{\text{Normal Earned Hours for Period}}$$

**Workload Unit:** one minute of unit-producing personnel time spent performing service recipient and non-service recipient activities of the functional centre.

All data presented in this section is for Fiscal 2006-2007.

## Administrative Services Expense as a Percentage of Total Expense

**Figure 102:** Administrative Services Expense as a Percentage of Total Expense 2006 – 2007 Fiscal Year



**Note:** Districts; 4, 5 and 6 did not report their Depreciation Expense in their operational accounts which would have the effect of slightly over stating their Ratio. After adjustments were made District 4 is 8.36% and District 5 is 9.29%.

### Interpretation

An indicator of a hospital's efficiency.

### Technical Specifications

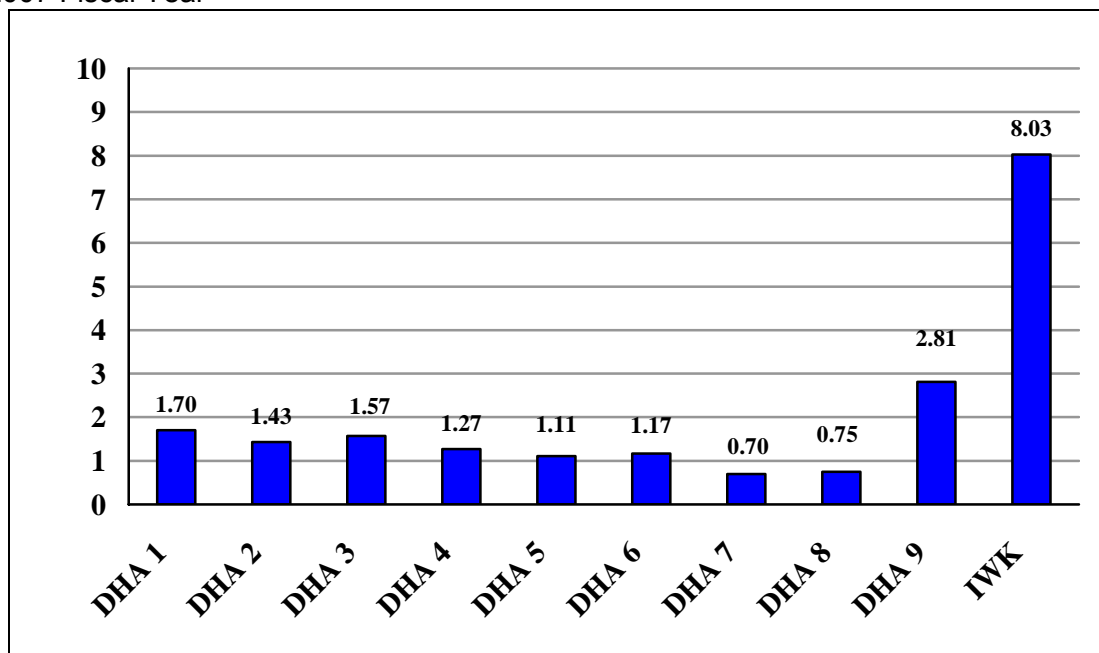
*Calculation:* Total expenditures, net of recoveries, (secondary financial accounts 3\* - 9\* and 12\*) assigned to administrative cost centers (primary accounts 7\*110\*, 7\*115\*, 7\*120\*, 7\*130\*), divided by total gross expenditures, net of recoveries, for the District (secondary financial accounts 3\* - 9\*, and 12\*) assigned to all cost centers.

$$\frac{\text{Administrative Expenses}}{\text{Total Expenses}}$$

Source: NS DoH, MIS Database

## Information Services Expense as a Percentage of Total Expense

**Figure 103:** Information Services Expense as a Percentage of Total Expense 2006 – 2007 Fiscal Year



**Note:** The result for IWK is high because of the HITS-NS program. It is 2.41 for IWK excluding HIT-NS program.

**Definition:** The proportion of total expenses attributable to information systems.

### Significance – Rationale and Notes for Interpretation

Administrative Expense as a proportion of total expense is a measure of efficiency. This is an indicator that examines the expenditures on information services.

### Technical Specifications

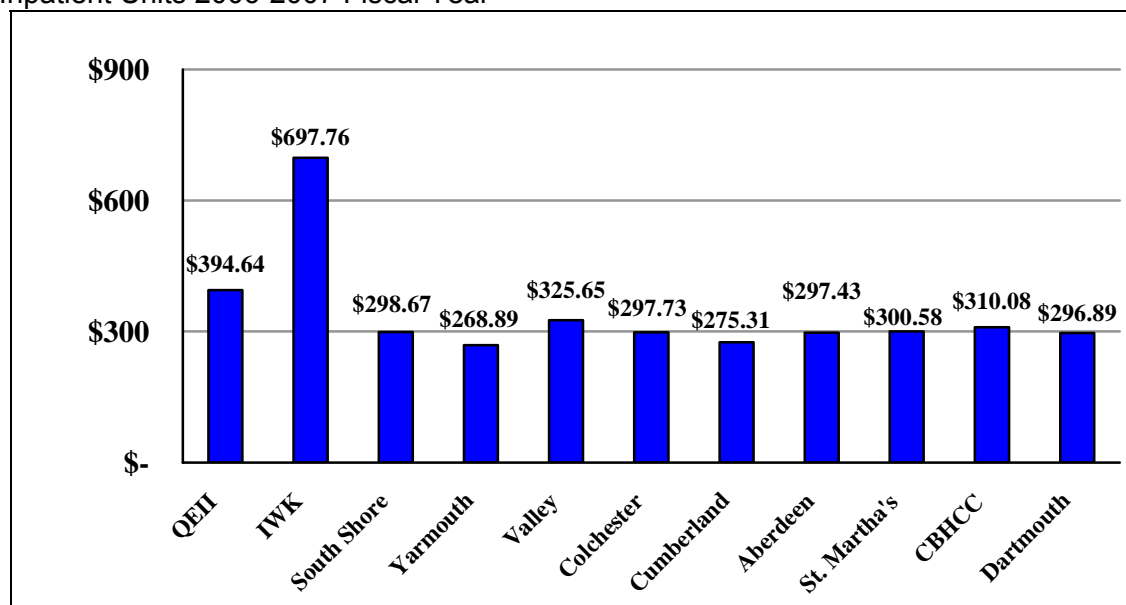
*Calculation:* Gross expenditures, net of recoveries, for System Support divided by total gross expenditures, net of recoveries, for the District. MIS account codes used in the numerator include primary accounts 7\* 1 25\* and secondary financial accounts 3\* - 9\* and 12\*. The denominator includes secondary financial accounts 3\* - 9\* and 12\*.

$$\frac{\text{Systems Support, gross expenditures, net of recoveries}}{\text{Total expenditures, net of recoveries}}$$

Source: NS DoH, MIS Database

## Direct Cost (Exc. Med Fees) per Patient Day Medical / Surgical Nursing Inpatient Units

**Figure 104:** Direct Cost (Exc. Med Fees) per Patient Day Medical / Surgical Nursing Inpatient Units 2006-2007 Fiscal Year



**Definition:** The average direct cost of providing services to one inpatient/resident during one inpatient/resident day. It is calculated by dividing the functional centre's direct operating expenses by the number of inpatient/resident days in a given period.

### Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

### Technical Specifications

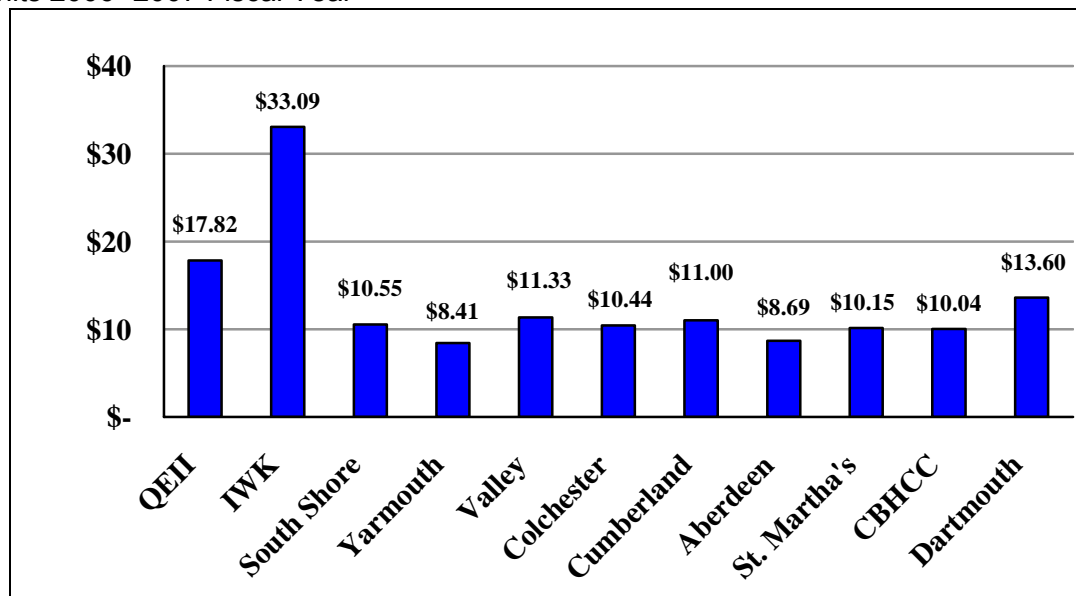
**Calculation:** Total gross expenditures, net of recoveries, excluding medical fees (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 39\*) attributable to either Medical, Surgical, Combined Med/Surg, Pediatric and Palliative Care Inpatient Nursing Units (primary accounts 7\*210\*, 7\*220\*, 7\*230\*, 7\*270, or 7\*290\*) divided by the number of inpatient days (secondary statistical account 403\*).

$$\frac{\text{Gross expenditures, net of recoveries (excluding medical fees)}}{\text{Inpatient Days}}$$

Source: NS DoH, MIS Database

## Med/Surg Expense per Patient Day Medical / Surgical Nursing Inpatient Units

**Figure 105:** Med/Surg Expense per Patient Day Medical / Surgical Nursing Inpatient Units 2006- 2007 Fiscal Year



**Definition:** The average med/surg expense for an inpatient day is calculated by dividing the med/surg expense consumed by an inpatient functional centre for a given period by the number of inpatient days of that consuming functional centre for the same period.

### Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

### Technical Specifications

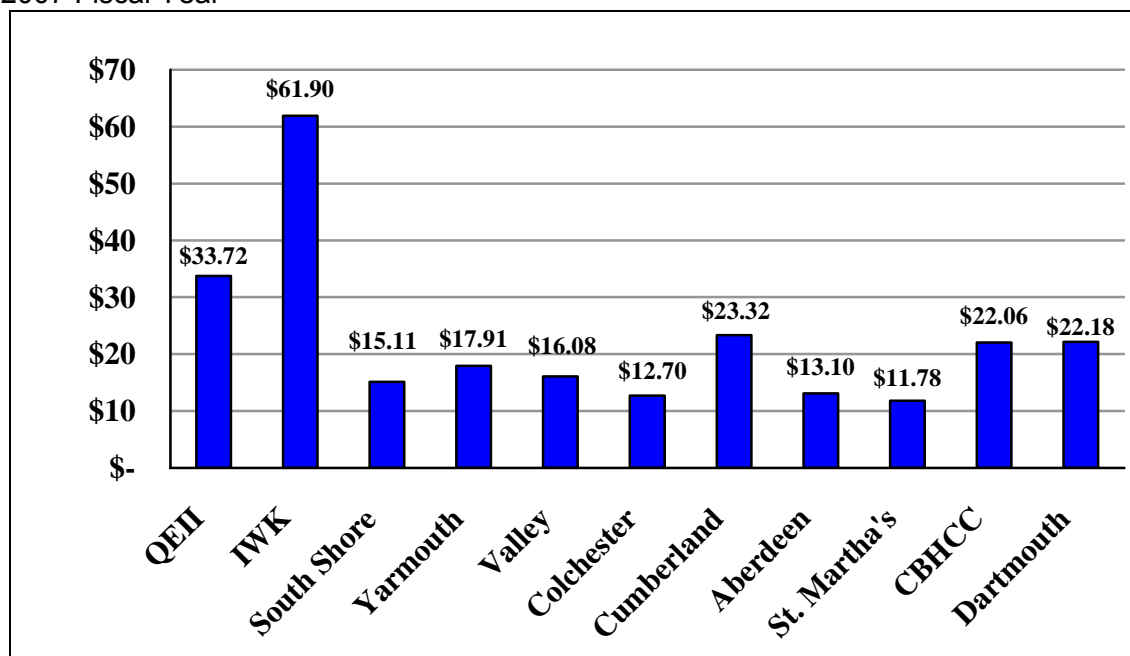
**Calculation:** Total medical and surgical supply expense (secondary financial accounts 460\* and 560\*) attributable to any Medical, Surgical, Combined Med/Surg, Pediatric or Palliative Care Nursing Inpatient Units (primary accounts 7\*210\*, 7\*220\*, 7\*230\*, 7\*270, or 7\*290\*) divided by the number of inpatient days consumed by those functional centres (secondary statistical account 403\*).

$$\frac{\text{Medical / Surgical Expenses}}{\text{Inpatient Days}}$$

Source: NS DoH, MIS Database

## Drug Expense per Patient Day Medical / Surgical Inpatient Units

**Figure 106:** Drug Expense per Patient Day Medical / Surgical Inpatient Units 2006 – 2007 Fiscal Year



**Definition:** The average drug cost for an inpatient day is calculated by dividing the drug costs consumed by an inpatient functional centre for a given period by the number of inpatient days of that consuming functional centre for the same period.

### Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

### Technical Specifications

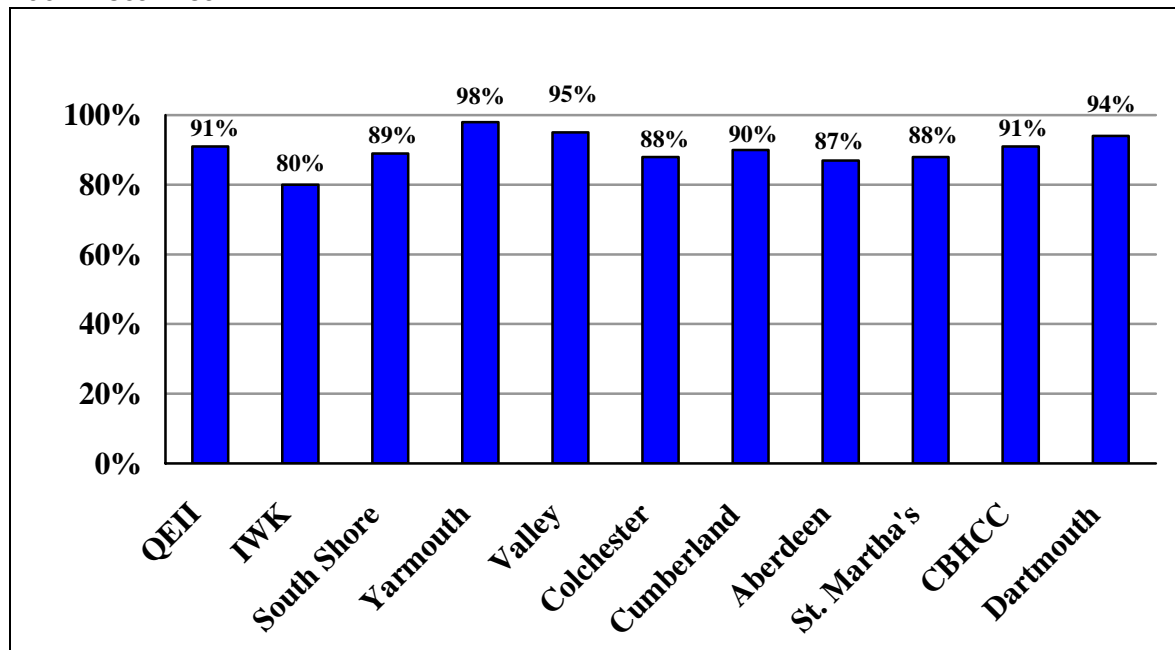
**Calculation:** Total Drug expense (secondary financial accounts 465\* and 565\*), attributable to any Medical, Surgical, Combined Med/Surg, or Pediatric Inpatient Nursing Units (primary accounts 7\*210\*, 7\*220\*, 7\*230\*, 7\*270 or 7\*290\*) divided by the number of inpatient days consumed by those functional centres (secondary statistical account 403\*).

$$\frac{\text{Drug Costs}}{\text{Inpatient Days}}$$

Source: NS DoH, MIS Database

## Percentage Occupancy Medical / Surgical Nursing Inpatient Units

**Figure 107:** Percentage Occupancy Medical / Surgical Nursing Inpatient Units 2006 – 2007 Fiscal Year



**Definition:** The percentage of beds which are available and staffed for inpatient accommodation and which are occupied by a service recipient.

### Significance – Rationale and Notes for Interpretation

An indicator of resource use, used for budgeting, planning, and evaluation.

### Technical Specifications

**Calculation:** The total number of inpatient days (secondary statistical account 403\*), divided by the total number of bed days, staffed and in operation, (secondary statistical account 827\*) attributable to Medical, Surgical, Combined Med/Surg, Pediatric and Palliative Care Inpatient Nursing Units (primary accounts 7\*210\*, 7\*220\*, 7\*230\*, 7\* 270, or 7\*290\*) multiplied by 100 to yield a percentage.

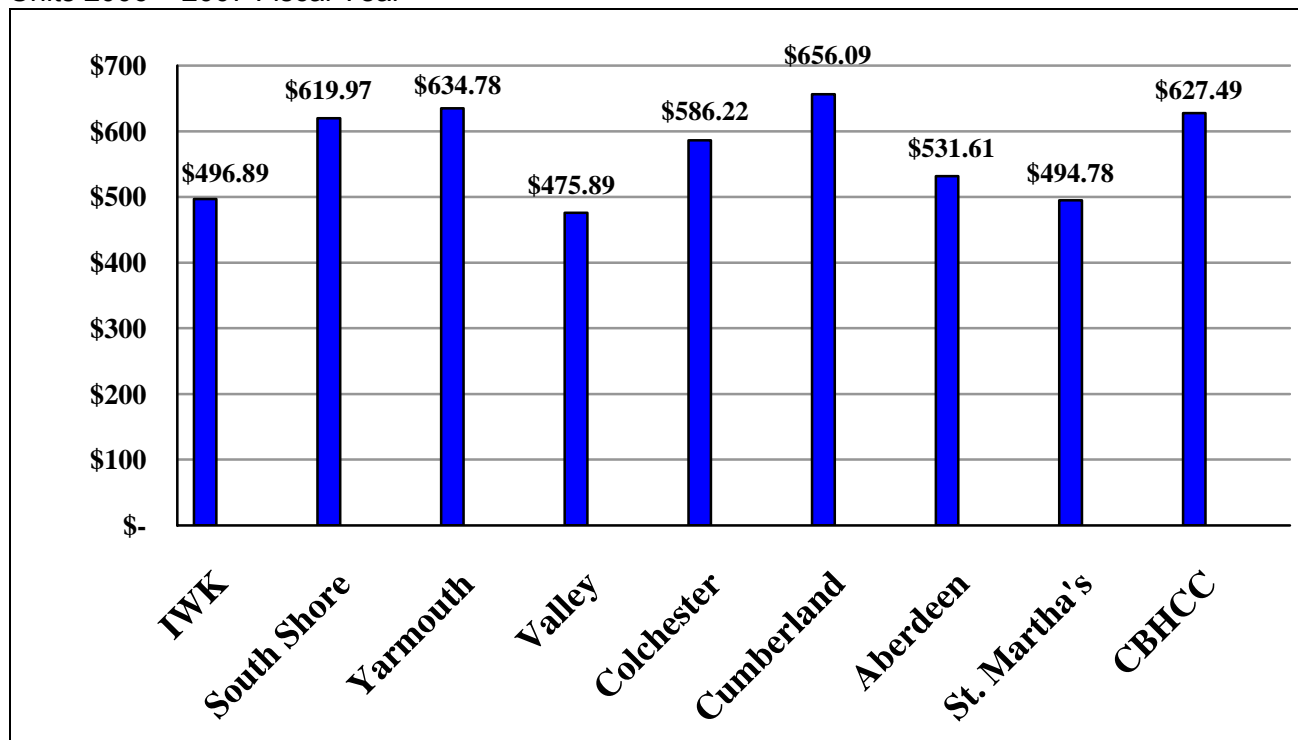
$$\frac{\text{Inpatient Days}}{\text{Bed Days Staffed and in Operation}} \times 100$$

Source: NS DoH, MIS Database



## Direct Cost (Exc. Med Fees) Per Patient Day Obstetrical Nursing Inpatient Units

**Figure 108:** Direct Cost (Exc. Med Fees) Per Patient Day Obstetrical Nursing Inpatient Units 2006 – 2007 Fiscal Year



**Definition:** The average direct cost of providing services to one inpatient/resident during one inpatient/resident day. It is calculated by dividing the functional centre's direct operating expenses by the number of inpatient/resident days in a given period.

### Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

### Technical Specifications

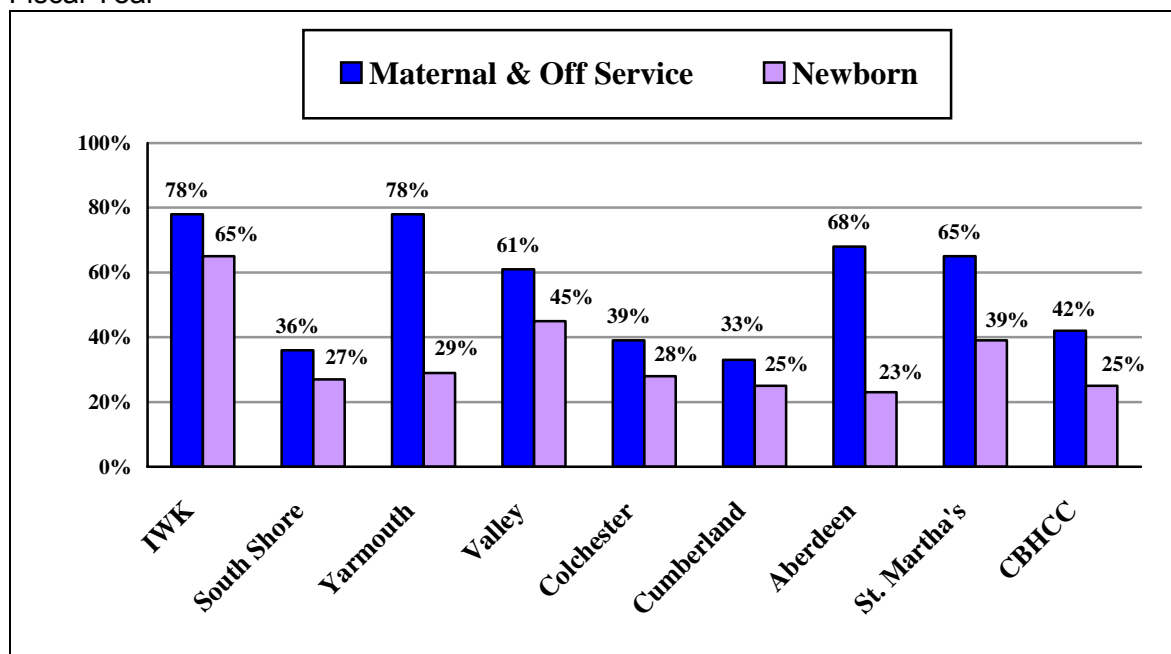
**Calculation:** Total gross expenditures, net of recoveries, excluding medical fees (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 39\*) attributable to Obstetrical inpatient nursing units (primary accounts 7\*250\*) divided by the number of inpatient days (secondary statistical account 403\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding medical fees)}}{\text{Inpatient Days}}$$

Source: NS DoH, MIS Database

## Percentage Occupancy Obstetrical Nursing Inpatient Units

**Figure 109:** Percentage Occupancy Obstetrical Nursing Inpatient Units 2006 – 2007  
Fiscal Year



**Definition:** The percentage of beds which are available and staffed for inpatient accommodation and which are occupied by a service recipient.

### Significance – Rationale and Notes for Interpretation

An indicator of resource use, used for budgeting, planning, and evaluation.

### Technical Specifications

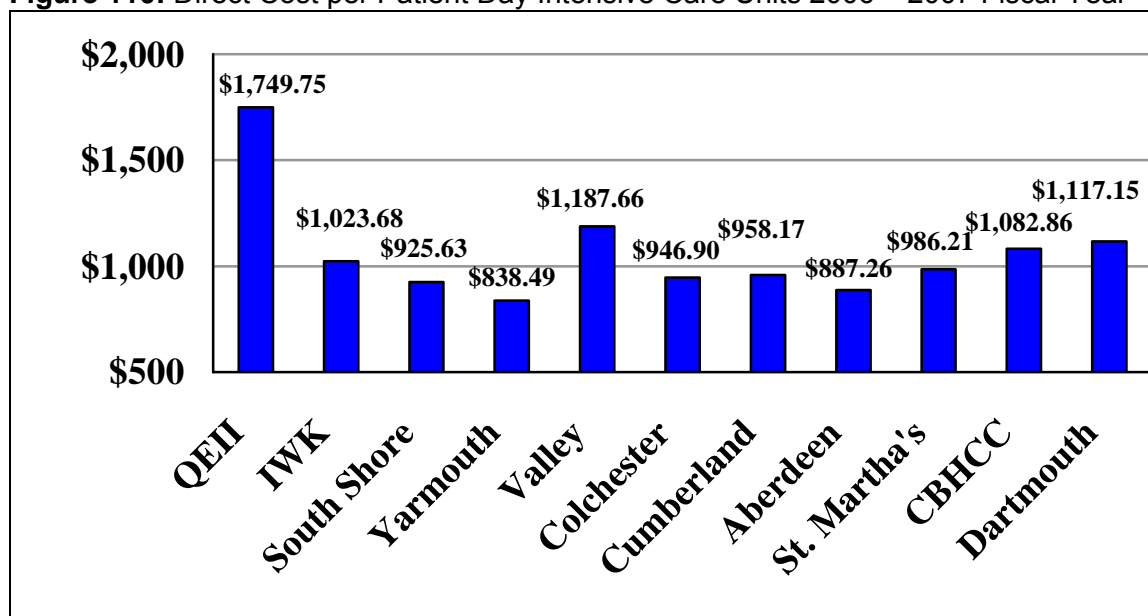
**Calculation:** The total number of inpatient days in the maternal / newborn functional centre (secondary statistical account 40310\* and 40340\* respectively) divided by the total number of bed days, staffed and in operation, (secondary statistical account 827\* and 828\* respectively) attributable to the Obstetrical Inpatient Nursing Unit (primary accounts 7\*250\*), multiplied by 100 to yield a percentage.

$$\frac{\text{Inpatient Days, either Maternal \& Off Service or Newborn}}{\text{Bed Days Staffed and in Operation, either Maternal \& Off Service or Newborn}} \times 100$$

Source: NS DoH, MIS Database

## Direct Cost per Patient Day Intensive Care Units

**Figure 110:** Direct Cost per Patient Day Intensive Care Units 2006 – 2007 Fiscal Year



**Definition:** The average direct cost of providing services to one ICU patient during one inpatient day. It is calculated by dividing the functional centre's direct operating expenses by the number of inpatient days in a given period.

### Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

### Technical Specifications

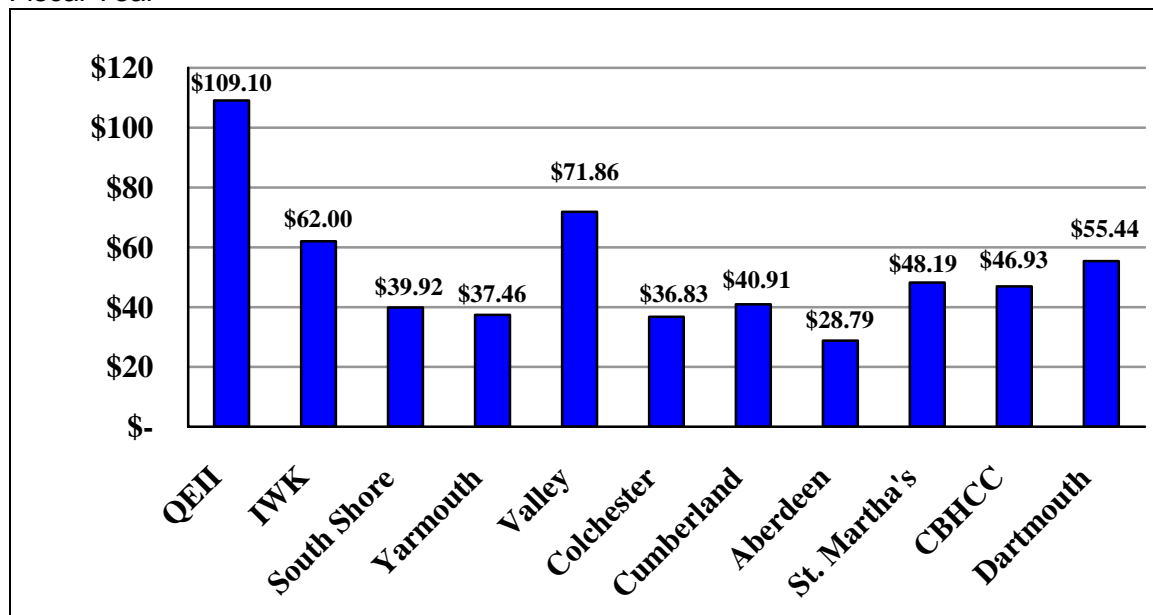
**Calculation:** Total gross expenditures, net of recoveries, excluding medical fees (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 39\*) attributable to Intensive Care Inpatient Nursing Units (primary accounts 7\*240\*) divided by the number of inpatient days (secondary statistical account 403\*).

$$\frac{\text{Direct Costs, Net Recoveries (excluding medical fees)}}{\text{Inpatient Days}}$$

Source: NS DoH, MIS Database

## Med/Surg Expense per Patient Day Intensive Care Units

**Figure 111:** Med/Surg Expense per Patient Day Intensive Care Units 2006 – 2007  
Fiscal Year



**Definition:** The average med/surg expense for an inpatient day. It is calculated by dividing the med/surg expense consumed by an inpatient functional centre for a given period by the number of inpatient days of that consuming functional centre for the same period.

### Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

### Technical Specifications

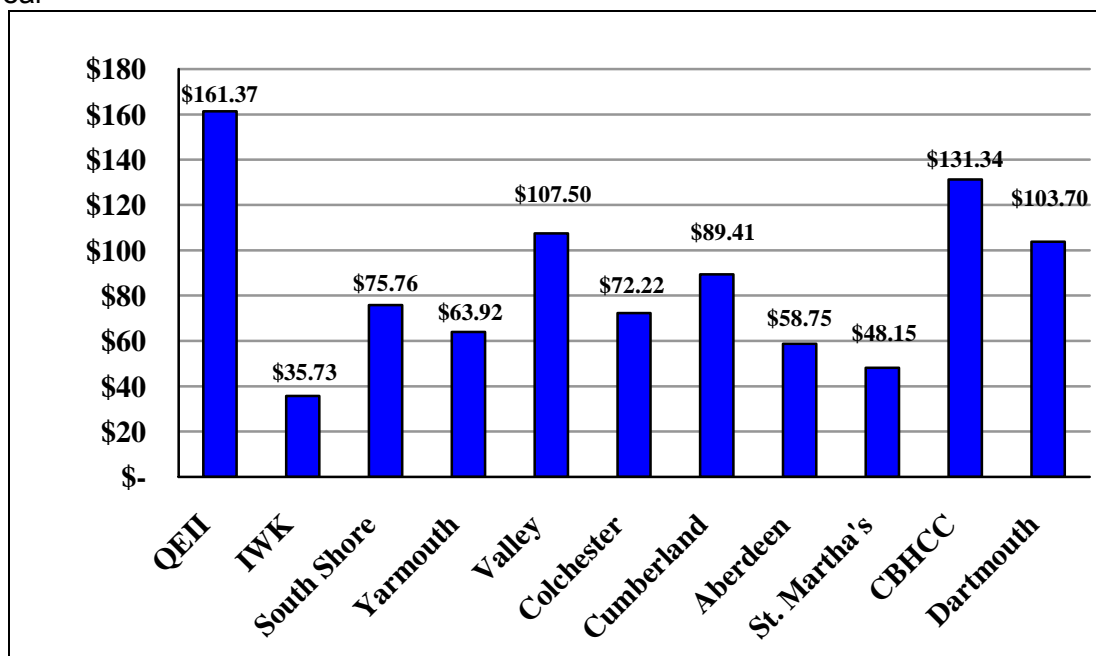
**Calculation:** Total Medical and Surgical supply expenses (secondary financial accounts 460\* and 560\*) attributable to Intensive Care Nursing Inpatient Units (primary accounts 7\*240\*) divided by the number of inpatient days (secondary statistical account 403\*).

$$\frac{\text{Medical / Surgical Expenses}}{\text{Inpatient Days}}$$

Source: NS DoH, MIS Database

## Drug Expense per Patient Day Intensive Care Units

**Figure 112:** Drug Expense per Patient Day Intensive Care Units 2006 – 2007 Fiscal Year



**Definition:** The average drug cost for an inpatient day. It is calculated by dividing the drug costs consumed by an inpatient functional centre for a given period by the number of inpatient days of that consuming functional centre for the same period.

### Significance – Rationale and Notes for Interpretation

An indicator of complexity used for budgeting, planning, and evaluation.

### Technical Specifications

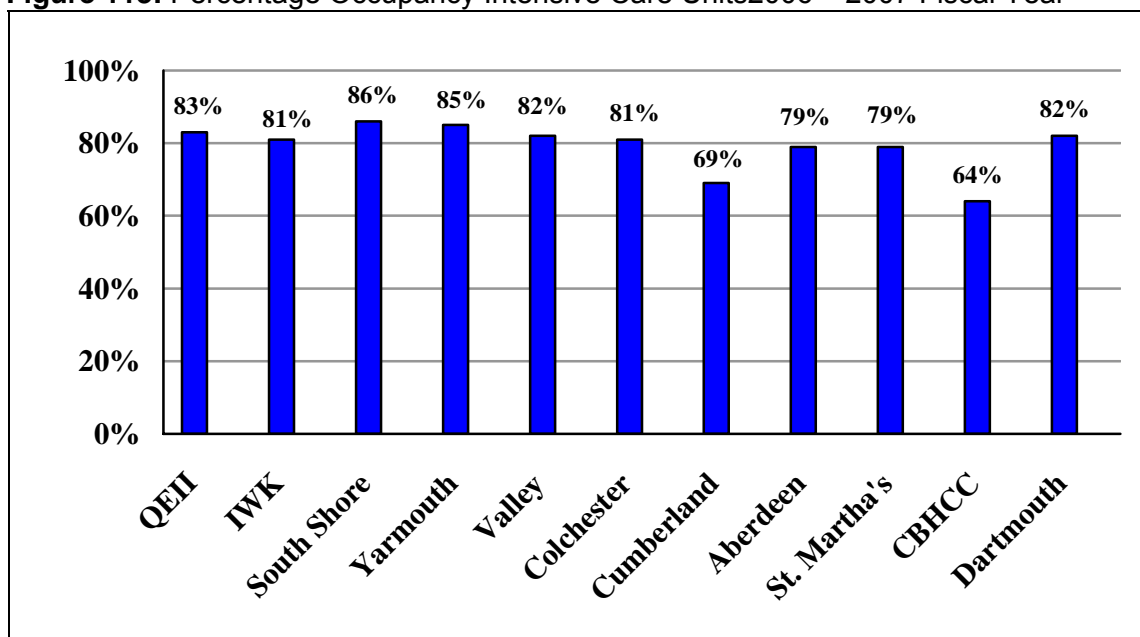
**Calculation:** Total drug expenses (secondary financial accounts 465\* and 565\*), attributable to Intensive Care Inpatient Nursing Units (primary accounts 7\*240\*) divided by the number of inpatient days (secondary statistical account 403\*).

$$\frac{\text{Drug Costs}}{\text{Inpatient Days}}$$

Source: NS DoH, MIS Database

## Percentage Occupancy Intensive Care

**Figure 113: Percentage Occupancy Intensive Care Units 2006 – 2007 Fiscal Year**



**Definition:** The percentage of beds which are available and staffed for inpatient accommodation and which are occupied by a service recipient.

### Significance – Rationale and Notes for Interpretation

An indicator of resource use, used for budgeting, planning, and evaluation.

### Technical Specifications

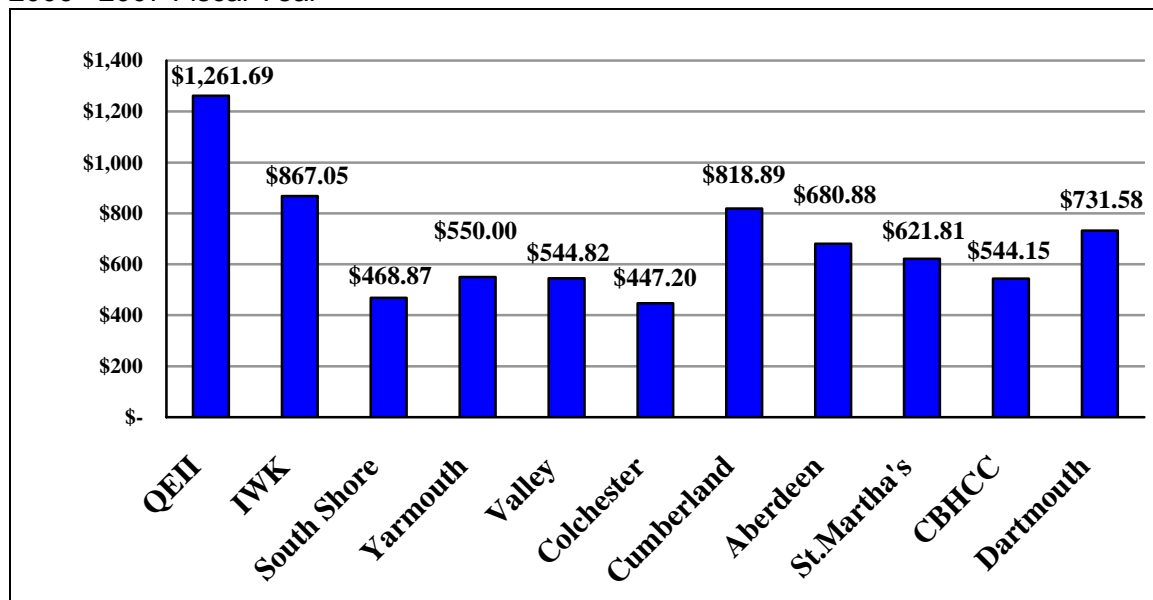
**Calculation:** The total number of inpatient days (secondary statistical account 403\*), divided by the total number of bed days, staffed and in operation (secondary statistical account 827\*) attributable to the Intensive Care Inpatient Nursing Units (primary accounts 7\*240\*), multiplied by 100 to yield a percentage.

$$\frac{\text{Inpatient Days}}{\text{Bed Days Staffed and in Operation}} \times 100$$

Source: NS DoH, MIS Database

## Direct Cost (Exc. Med Fees) per OR Case (Excludes Prosthesis Expense)

**Figure 114:** Direct Cost (Exc. Med Fees) per OR Case (Excludes Prosthesis Expense) 2006 –2007 Fiscal Year



**Definition:** The average direct cost for a surgical visit. It is calculated by dividing their functional centre's direct operating expense by the total number of surgical visits to the Operating Room in a given period.

### Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

### Technical Specifications

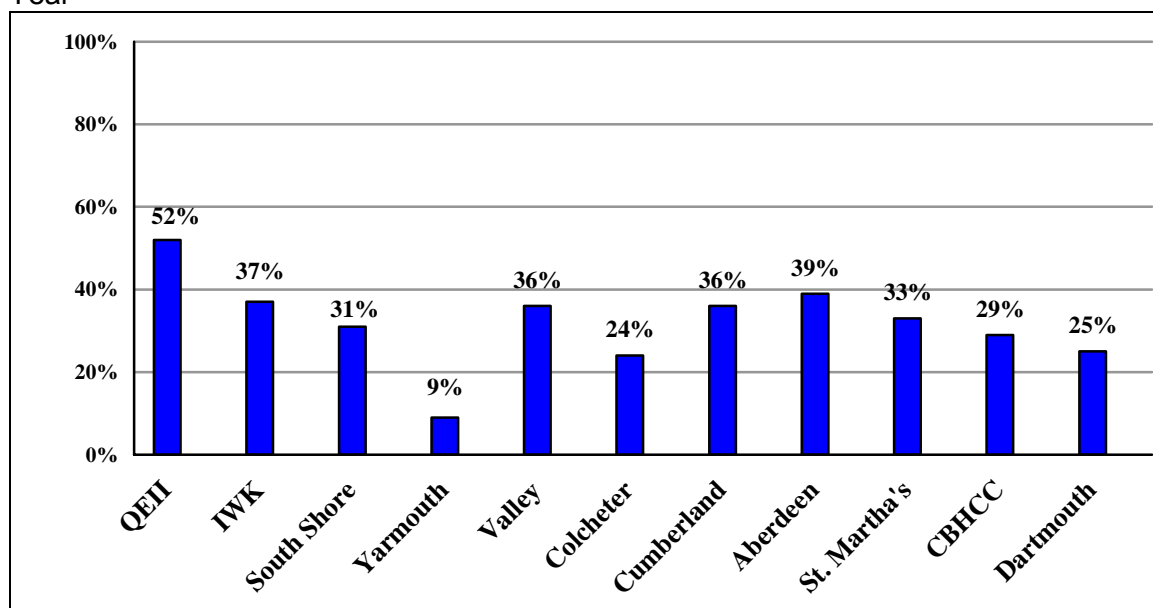
**Calculation:** Total direct costs, net of recoveries, excluding medical fees (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 390) attributable to the Operating Room (primary accounts 7\*260\*) divided by the number of surgical visits (secondary statistical account 437\*).

$$\frac{\text{Direct Costs, net of recoveries (excluding medical fees)}}{\text{Surgical Visits}}$$

Source: NS DoH, MIS Database

## Percentage of Inpatient OR Cases to Total OR Cases

**Figure 115:** Percentage of Inpatient OR Cases to Total OR Cases 2006 – 2007 Fiscal Year



**Definition:** The percentage of inpatient Operating Room surgical cases to total Operating Room surgical cases.

### Significance – Rationale and Notes for Interpretation

An indicator of resource and utilization use, used for budgeting, planning, and evaluation.

### Technical Specifications

**Calculation:** The total number of inpatient surgical visits (secondary statistical account 437 1\*), divided by the total number of operating room surgical visits (secondary statistical account 437\*) attributable to the Operating Rooms (primary accounts 7\*260\*), multiplied by 100 to yield a percentage.

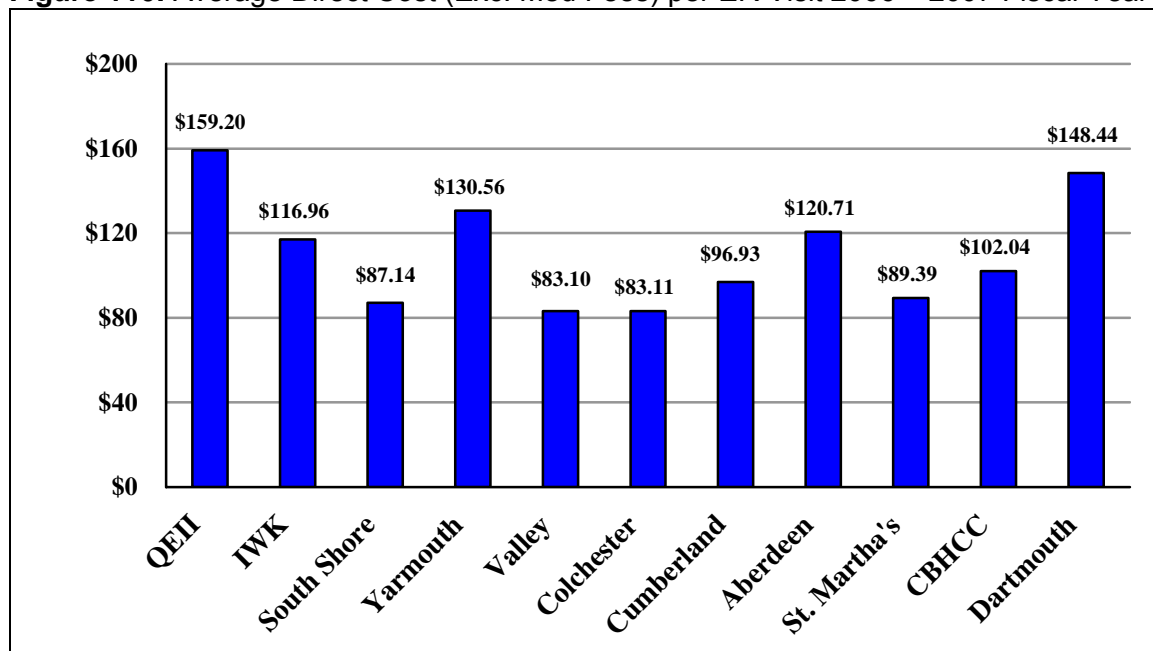
$$\frac{\text{Inpatient Surgical Visits}}{\text{Total Surgical Visits}} \times 100$$

Source: NS DoH, MIS Database



## Average Direct Cost (Exc. Med Fees) per ER Visit

**Figure 116:** Average Direct Cost (Exc. Med Fees) per ER Visit 2006 – 2007 Fiscal Year



**Definition:** The average direct cost for a visit to the Emergency Department. It is calculated by dividing their functional centre's direct operating expense by the total number of ER visits (face-to-face and telephone) to that functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

### Technical Specifications

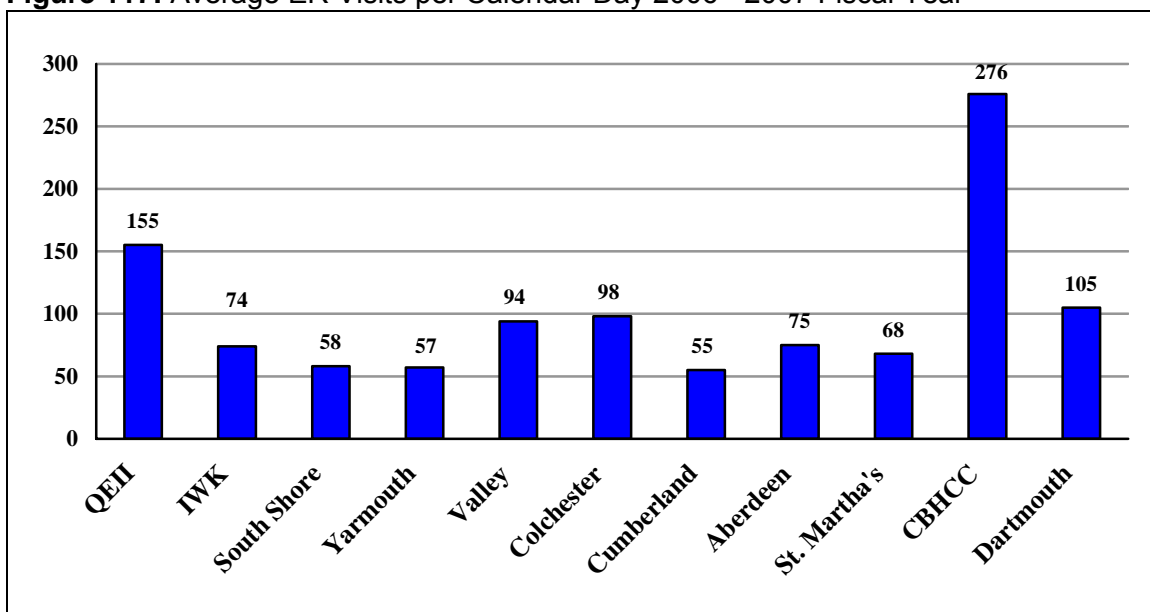
*Calculation:* Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 390\*) attributable to Emergency Services (primary accounts 71310\*), divided by the total number of emergency visits (secondary statistical accounts 450\* and 451\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total Emergency Visits}}$$

Source: NS DoH, MIS Database

## Average ER Visits per Calendar Day

**Figure 117:** Average ER Visits per Calendar Day 2006 - 2007 Fiscal Year



**Definition:** The average number of visits per day to the Emergency Department. It is calculated by dividing the total number of visits by the number of calendar days in a given period.

### Significance – Rationale and Notes for Interpretation

An indicator of resource uses; used in budgeting, planning, and evaluation.

### Technical Specifications

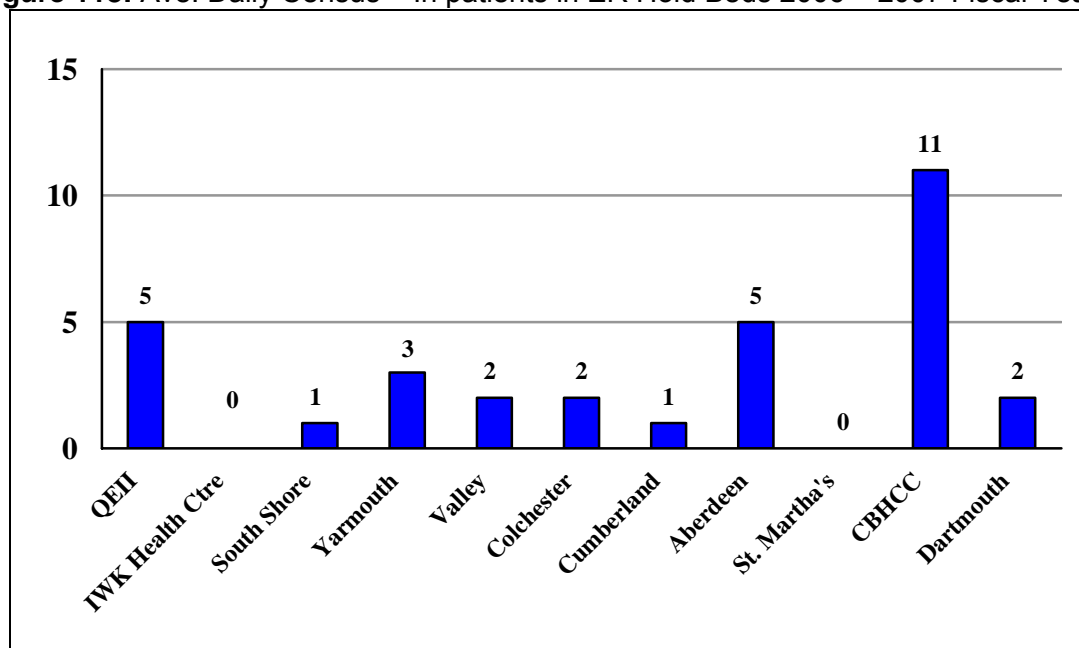
**Calculation:** The total number of emergency room visits (secondary statistical accounts 450\* and 451\* attributable to primary accounts 71310\*) divided by the number of days in a year (365).

$$\frac{\text{Total Emergency Visits}}{\text{Calendar Days}}$$

Source: NS DoH, MIS Database

## Ave. Daily Census – In patients in ER Hold Beds

**Figure 118:** Ave. Daily Census – In patients in ER Hold Beds 2006 – 2007 Fiscal Year



**Definition:** The average number of patients, per calendar day, who are admitted to the health care organization but because there is no inpatient bed available must stay in an inpatient bed in the facility's Emergency Department.

### Significance – Rationale and Notes for Interpretation

An indicator of resource uses; used in budgeting, planning, and evaluation.

### Technical Specifications

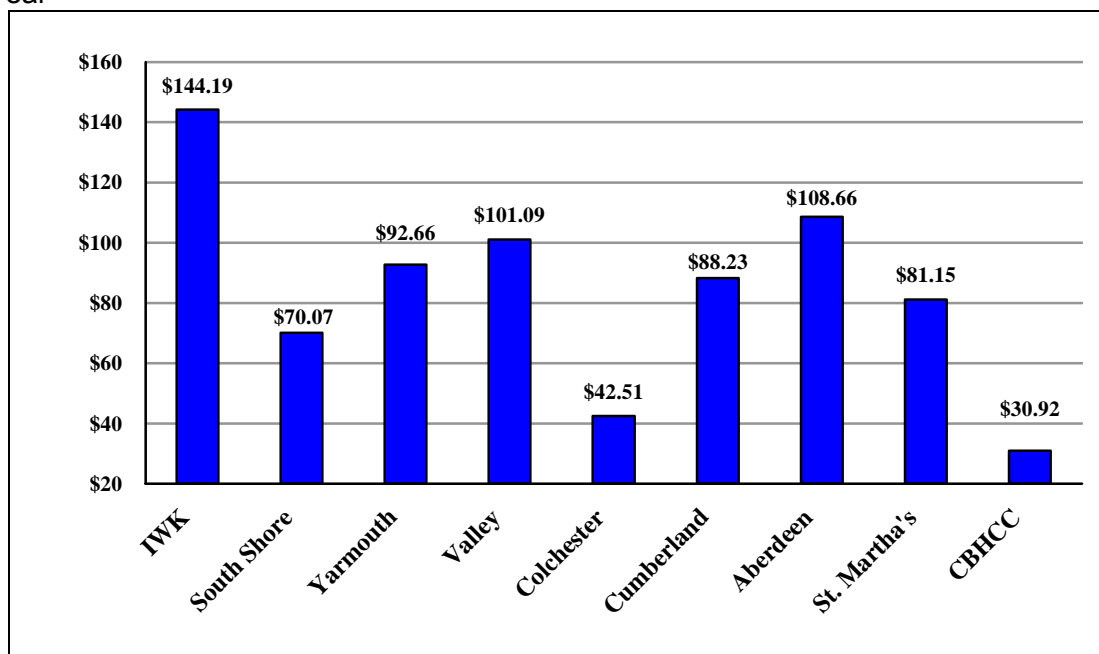
**Calculation:** The total number of inpatient days in the Emergency Room (secondary statistical accounts 403\* attributable to primary accounts 71310\*) divided by the number of days in a year (365).

$$\frac{\text{Total inpatient days in the Emergency Department}}{\text{Calendar Days}}$$

Source: NS DoH, MIS Database

## Direct Cost per Visit Pre & Post Operative Services

**Figure 119:** Direct Cost per Visit Pre & Post Operative Services 2006 – 2007 Fiscal Year



**Definition:** The average direct cost for a visit to Pre & Post Operative Services. It is calculated by dividing their functional centre's direct operating expense by the total number of visits to that functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

### Technical Specifications

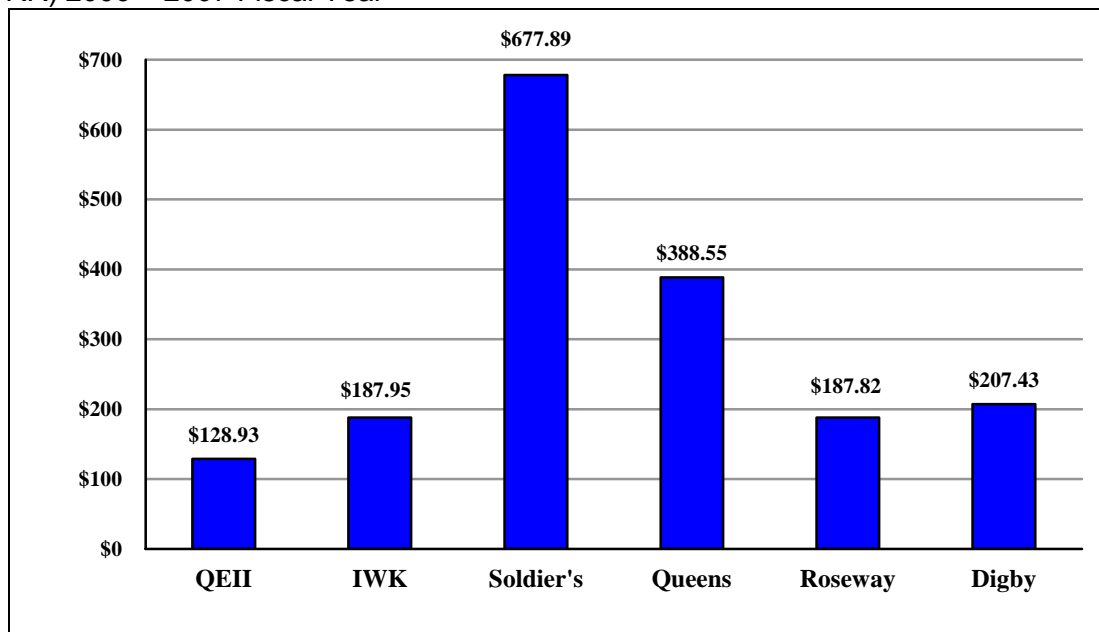
**Calculation:** Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 390\*) attributable to Day Surgery (primary account 7\*34020), divided by the total number of visits (secondary statistical accounts 450\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total Visits}}$$

Source: NS DoH, MIS Database

## Direct Cost per Day Surgery Services Surgical Procedure Room (Incl. OR & PRR)

**Figure 120:** Direct Cost per Day Surgery Services Surgical Procedure Room (Incl. OR & PRR) 2006 – 2007 Fiscal Year



**Definition:** The average direct cost for a visit to Day Surgery Services (Procedure Room including OR & PR). It is calculated by dividing their functional centre's direct operating expense by the total number of visits to that functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

### Technical Specifications

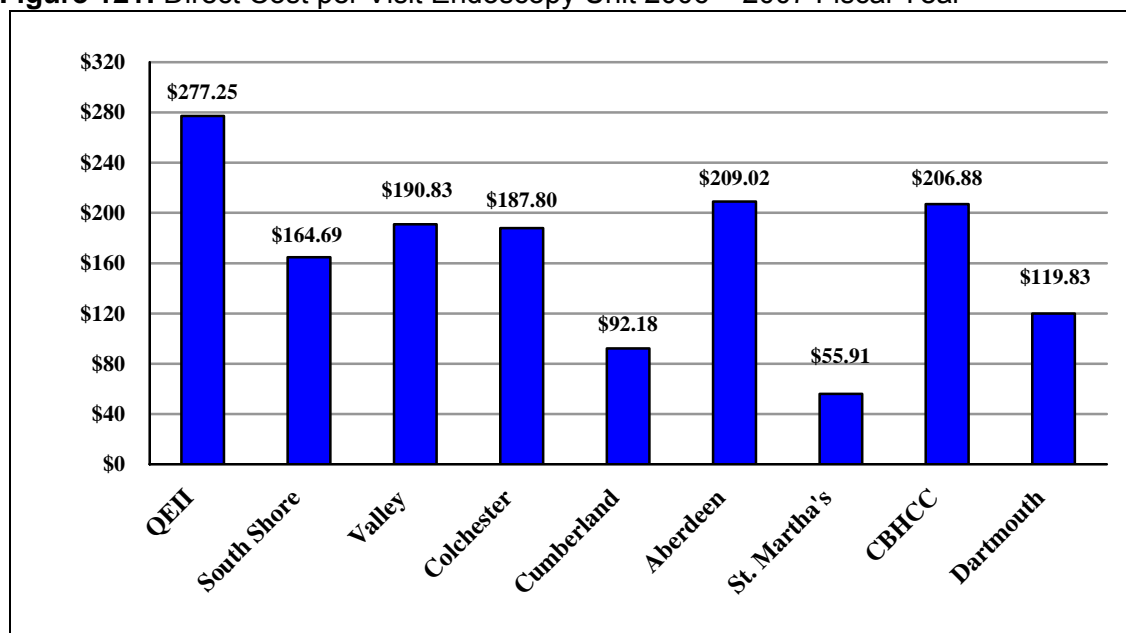
**Calculation:** Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 390\*) attributable to Day Surgery Services (primary account 7\*34025), divided by the total number of Day Surgery visits (secondary statistical accounts 437\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total Day Surgery Visits}}$$

Source: NS DoH, MIS Database

## Direct Cost per Visit Endoscopy Unit

**Figure 121:** Direct Cost per Visit Endoscopy Unit 2006 – 2007 Fiscal Year



**Definition:** The average direct cost for a visit to an Endoscopy Unit. It is calculated by dividing their functional centre's direct operating expense by the total number of visits to that functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

### Technical Specifications

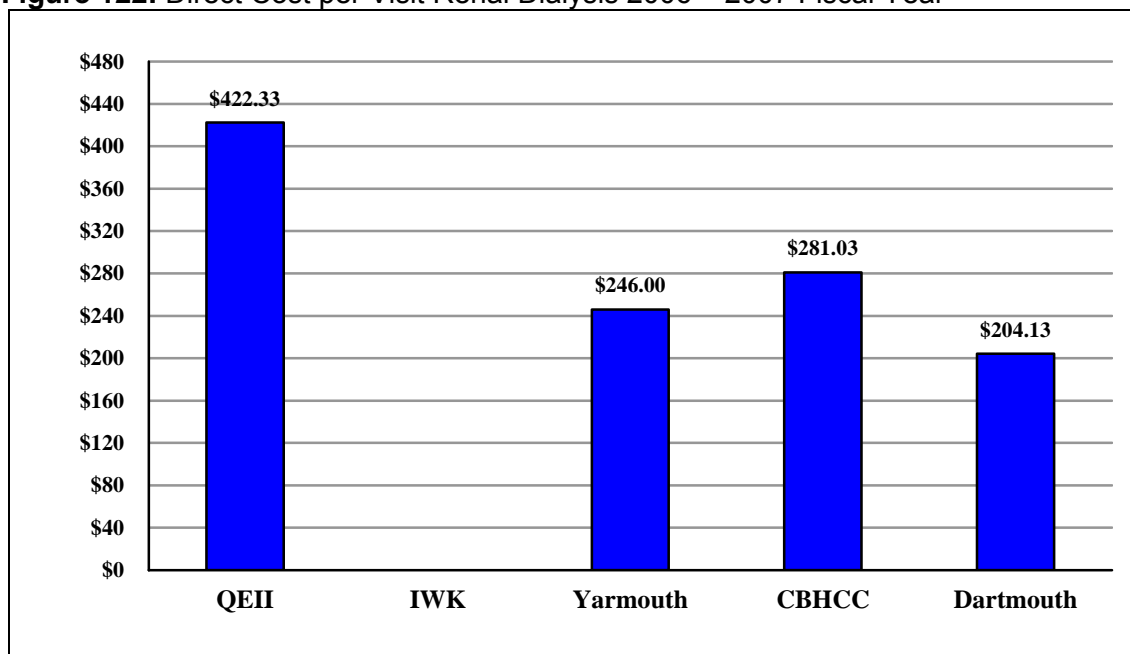
*Calculation:* Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 390\*) attributable to Endoscopy (primary account 7\*34055), divided by the total number of Endoscopy visits (secondary statistical accounts 450\* and 451\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total Endoscopy Visits}}$$

Source: NS DoH, MIS Database

## Direct Cost per Visit Renal Dialysis

**Figure 122:** Direct Cost per Visit Renal Dialysis 2006 – 2007 Fiscal Year



**Note:** The IWK has only reported 8 visits for the fiscal year resulting in a Direct Cost per Renal Dialysis Visit of over \$45,000.00.

**Definition:** The average direct cost for a visit to Renal Dialysis. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

### Technical Specifications

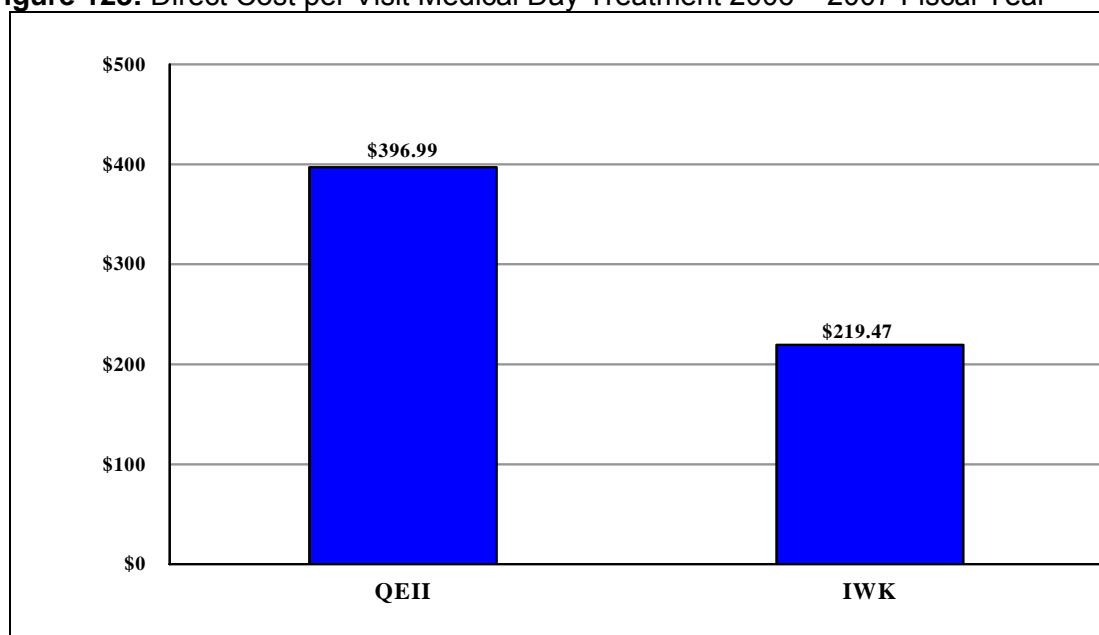
**Calculation:** Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 390\*) attributable to Renal Dialysis (primary account 7\*34085), divided by the total number of renal dialysis visits (secondary statistical accounts 450\* and 451\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total Renal Dialysis Visits}}$$

Source: NS DoH, MIS Database

## Direct Cost per Visit Medical Day Treatment

**Figure 123:** Direct Cost per Visit Medical Day Treatment 2006 – 2007 Fiscal Year



**Note:** This is a medical day treatment service for a variety of clients that stay longer than 3 hours such as cancer and bone marrow clients.

**Definition:** The average direct cost for a visit to a Medical Day Treatment Service. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

### Technical Specifications

**Calculation:** Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 390\*) attributable to Medical Day Services (primary account 7\*34010\*), divided by the total number of visits (secondary statistical accounts 450\* and 451\*).

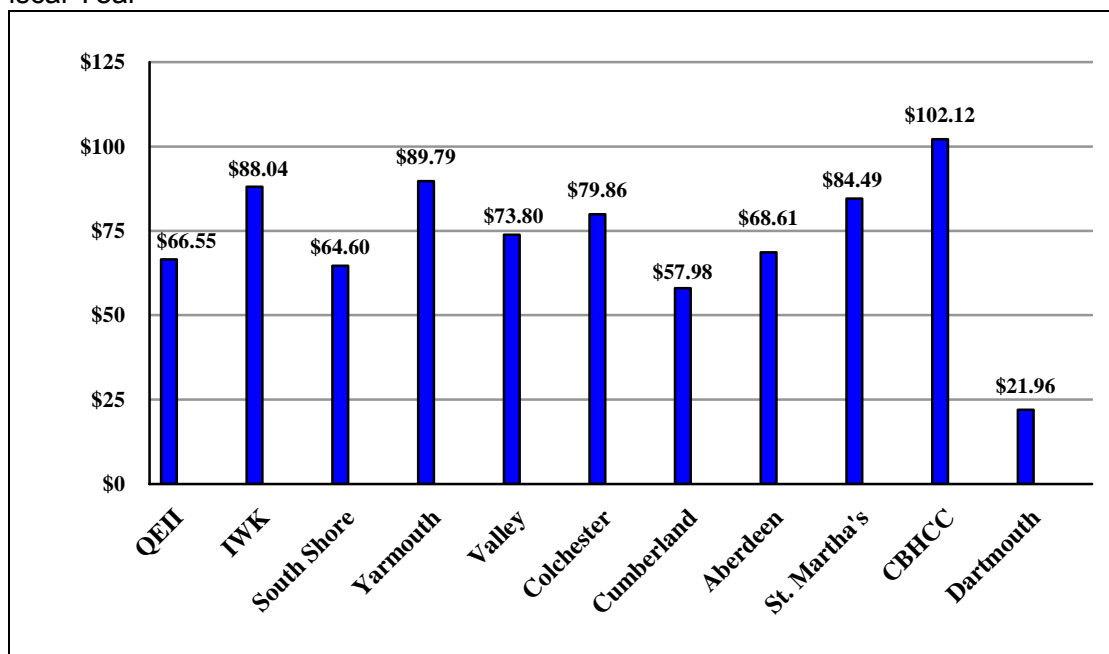
$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total Visits}}$$

Source: NS DoH, MIS Database



## Direct Cost per Visit Acute Ambulatory Care Specialty Clinics

**Figure 124:** Direct Cost per Visit Acute Ambulatory Care Specialty Clinics 2006 – 2007 Fiscal Year



**Definition:** The average direct cost for a visit to an acute care ambulatory care specialty clinic. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

### Technical Specifications

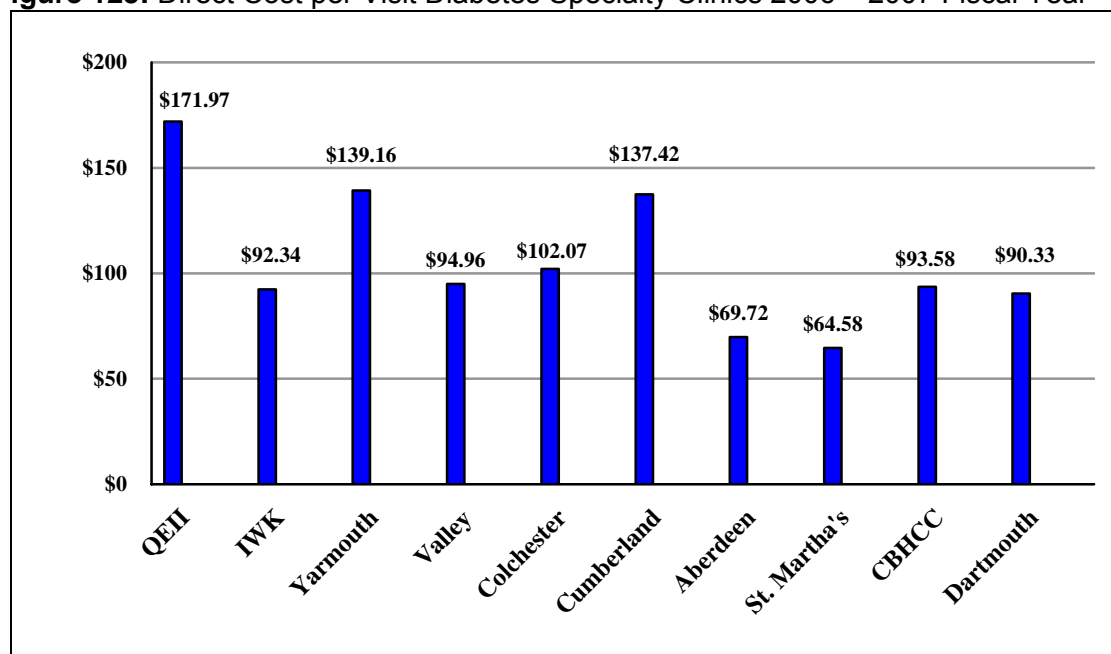
**Calculation:** Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 390\*) attributable to ambulatory care specialty clinics (primary accounts 7\*350\*), divided by the total number of visits (secondary statistical accounts 450\* and 451\*). Note: Excluded from this indicator is Diabetes Specialty Clinics (7\*3 50 40\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total Visits}}$$

Source: NS DoH, MIS Database

## Direct Cost per Visit Diabetes Specialty Clinics

**Figure 125:** Direct Cost per Visit Diabetes Specialty Clinics 2006 – 2007 Fiscal Year



**Definition:** The average direct cost for a visit to an acute care ambulatory care specialty clinic. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

### Technical Specifications

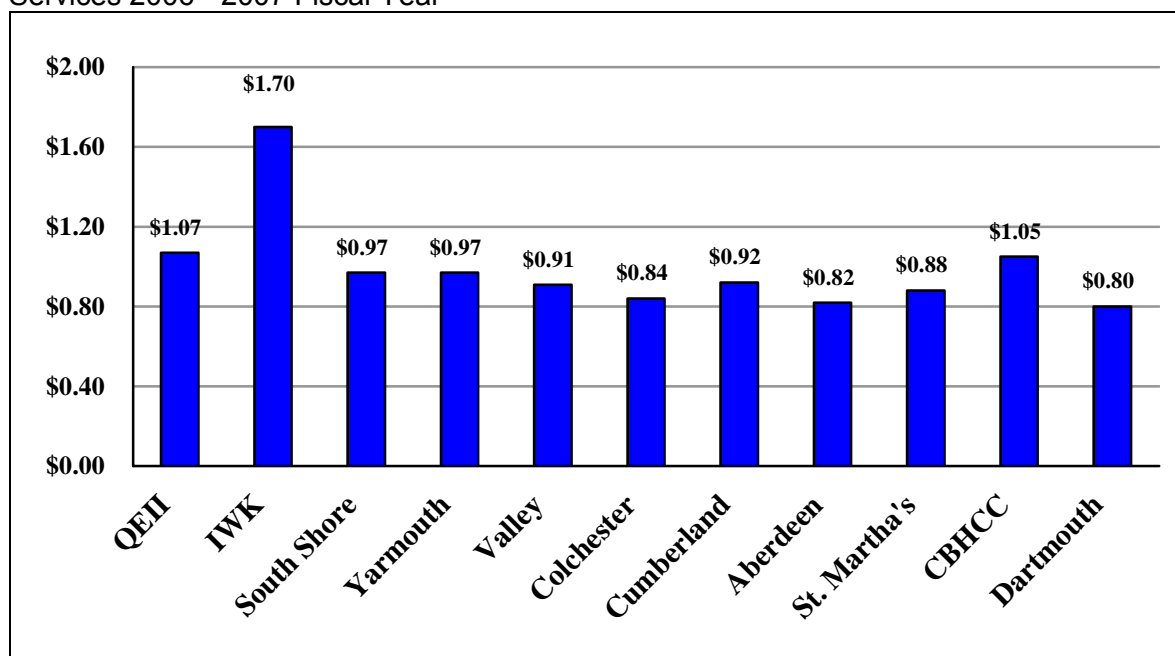
*Calculation:* Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 390\*) attributable to ambulatory care specialty clinics (primary accounts 7\*350 40\*), divided by the total number of visits (secondary statistical accounts 450\* and 451\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total Visits}}$$

Source: NS DoH, MIS Database

## Average Direct Cost (Exc. Med Fees) per Workload Unit Laboratory Services

**Figure 126:** Average Direct Cost (Exc. Med Fees) per Workload Unit Laboratory Services 2006 - 2007 Fiscal Year



**Definition:** The average direct cost per in-house service recipient workload unit for Laboratory Services. It is calculated by dividing the functional centre's direct operating expenses (exc. Referred-out expense) by the total in-house service recipient workload units generated by the functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

### Technical Specifications

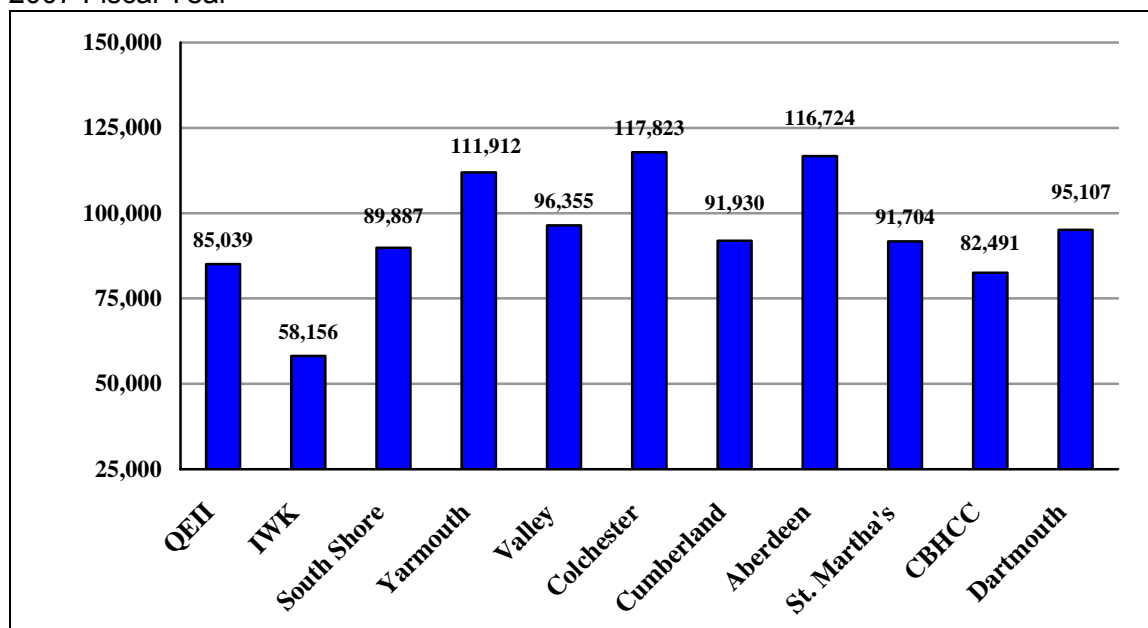
**Calculation:** The total gross expenditures, net recoveries, and excluding referred-out expense and medical fees (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 390\* and 8\*) for Laboratory Services (primary accounts 71410\*), divided by total Laboratory in-house workload units (secondary statistical accounts 115\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees \& RO Expense)}}{\text{In - House Workload Units}}$$

Source: NS DoH, MIS Database

## Ave. Workload Units per Unit-Producing Staff Laboratory Services

**Figure 127:** Ave. Workload Units per Unit-Producing Staff Laboratory Services 2006 - 2007 Fiscal Year



**Definition:** The average number of service recipient workload units generated by each unit-producing personnel full-time equivalent. It is calculated by dividing the service recipient workload units by the number of unit-producing personnel full-time FTEs.

### Significance – Rationale and Notes for Interpretation

Indicates the average number of patient care units that can be provided by one FTE in a specific location. It is useful for budgeting and program planning.

### Technical Specifications

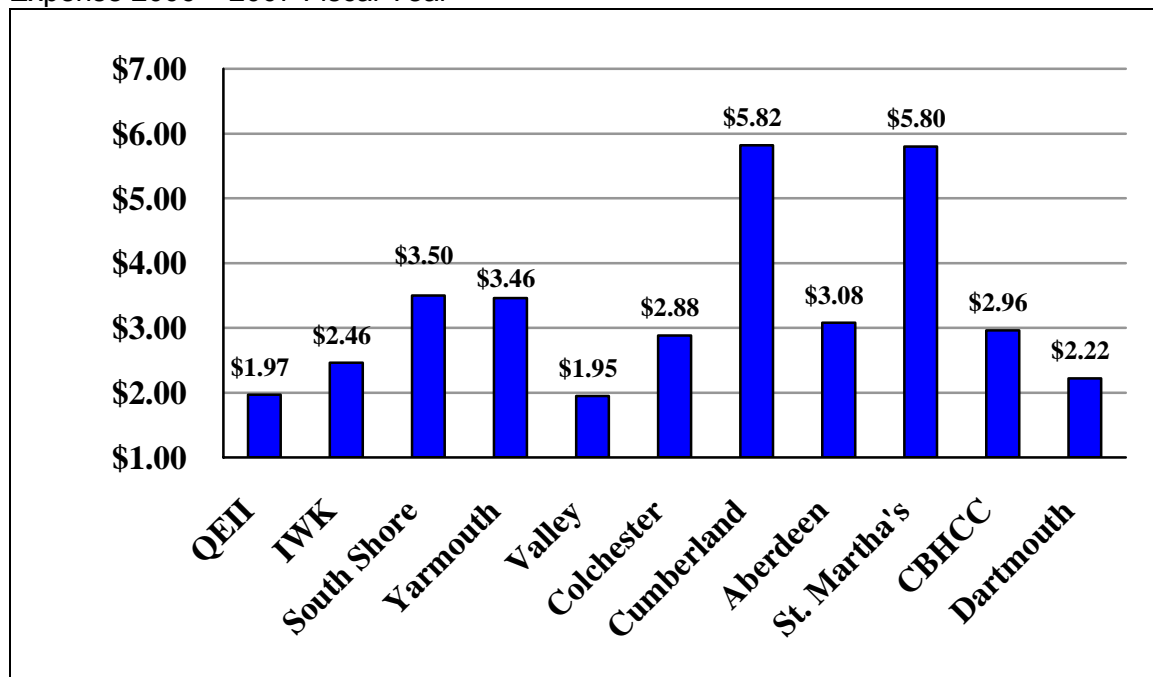
**Calculation:** Total Lab in-house workload units (secondary statistical accounts 115\*), divided by the number of estimated UPP FTEs in laboratory services. The total number of estimated UPP FTEs can be calculated by dividing the total number of UPP earned hours (secondary financial accounts 35\*) in laboratory services by the “normal” number of UPP earned hours for lab services (the “normal” number of UPP earned hours for 2006/2007 was considered to be 1,950 hours, based on the assumption that a normal UPP workday is 7.5 hours)

$$\frac{\text{In – House Workload Units}}{\text{UPP Earned Hours / Normal UPP Earned Hours}}$$

Source: NS DoH, MIS Database

## Direct Cost per Workload Unit Radiography Services Excludes Amortization

**Figure 128:** Direct Cost per Workload Unit Radiography Services Excludes Amortization Expense 2006 – 2007 Fiscal Year



**Definition:** The average direct cost per service recipient workload unit for Radiography Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

### Technical Specifications

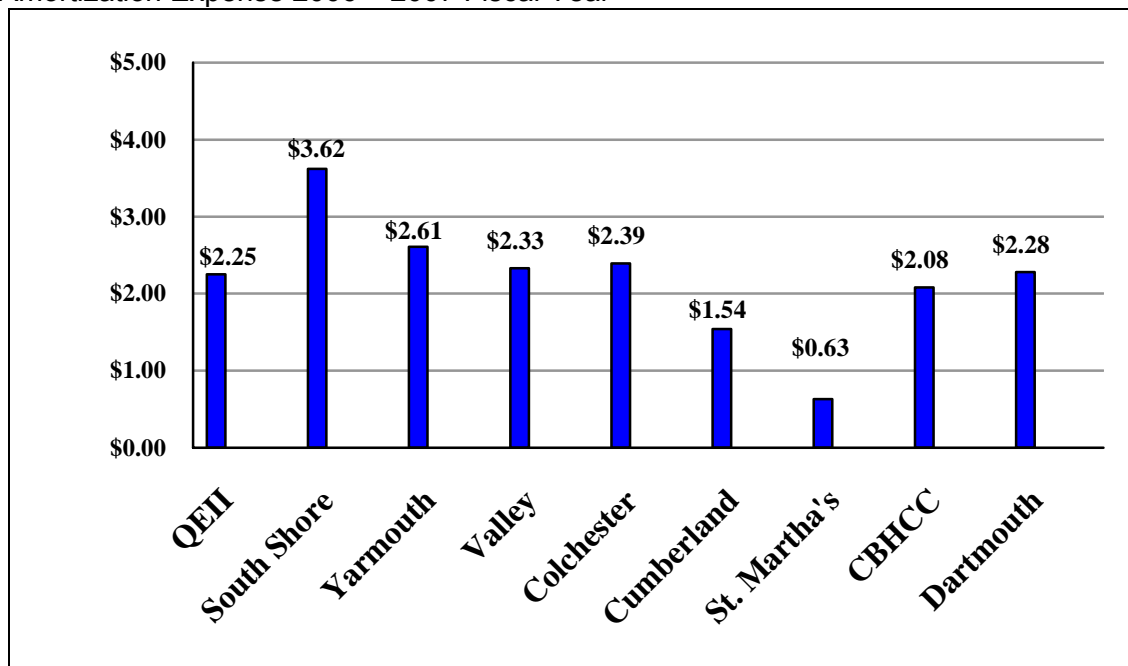
**Calculation:** Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3\* - 9\*; 12\*; excluding secondary financial accounts 390\*) for Radiography Services (primary accounts 7\*415 18) divided by the total number of Radiography workload units (secondary statistical accounts 107\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total Radiography Workload Units}}$$

Source: NS DoH, MIS Database

## Direct Cost per Workload Unit Mammography Services Excludes Amortization Expense

**Figure 129:** Direct Cost per Workload Unit Mammography Services Excludes Amortization Expense 2006 – 2007 Fiscal Year



*This includes Screening, Mobile and Diagnostic Mammography Services.*

**Definition:** The average direct cost per service recipient workload unit for Mammography Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

### Technical Specifications

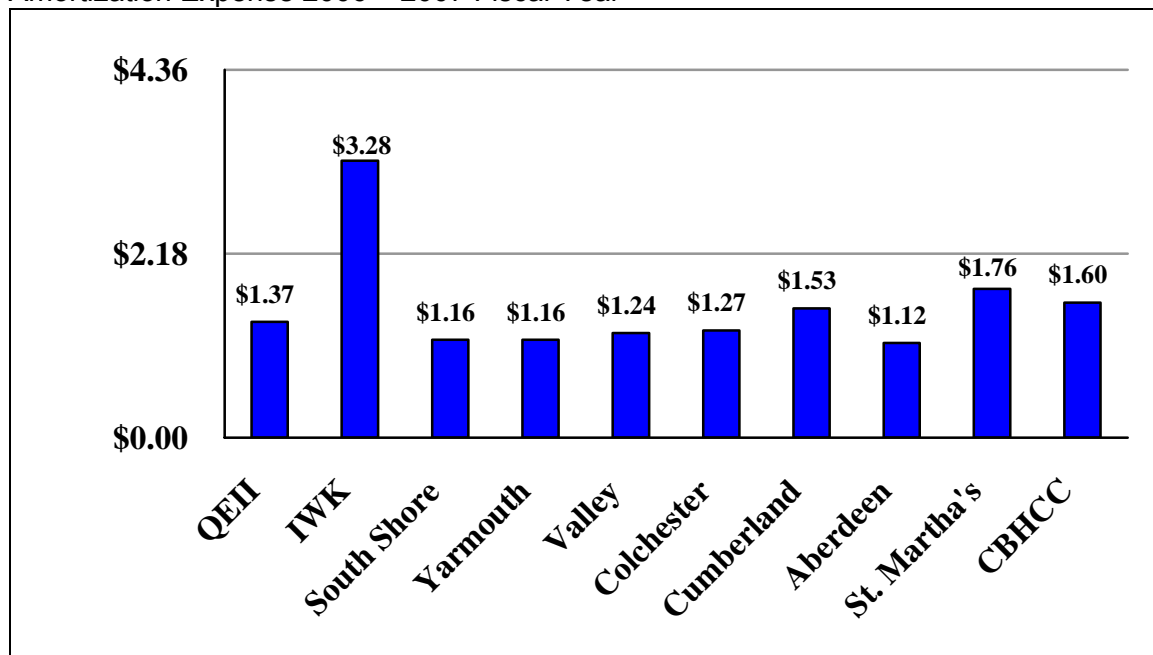
**Calculation:** Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3\* - 9\*; 12\*; excluding secondary financial accounts 390\*) for Mammography Services (primary accounts 7\*41520\*) divided by the total number of Mammography workload units (secondary statistical accounts 107\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total Mammography Service Workload Units}}$$

Source: NS DoH, MIS Database

## Direct Cost per Workload Unit Computed Tomography Services Excludes Amortization

**Figure 130:** Direct Cost per Workload Unit Computed Tomography Services Excludes Amortization Expense 2006 – 2007 Fiscal Year



**Note:** Facilities, which have multi-slicers quite often, report a UPP Worked Productivity Index in excess of 100%.

**Definition:** The average direct cost per service recipient workload unit for Computed Tomography Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

### Technical Specifications

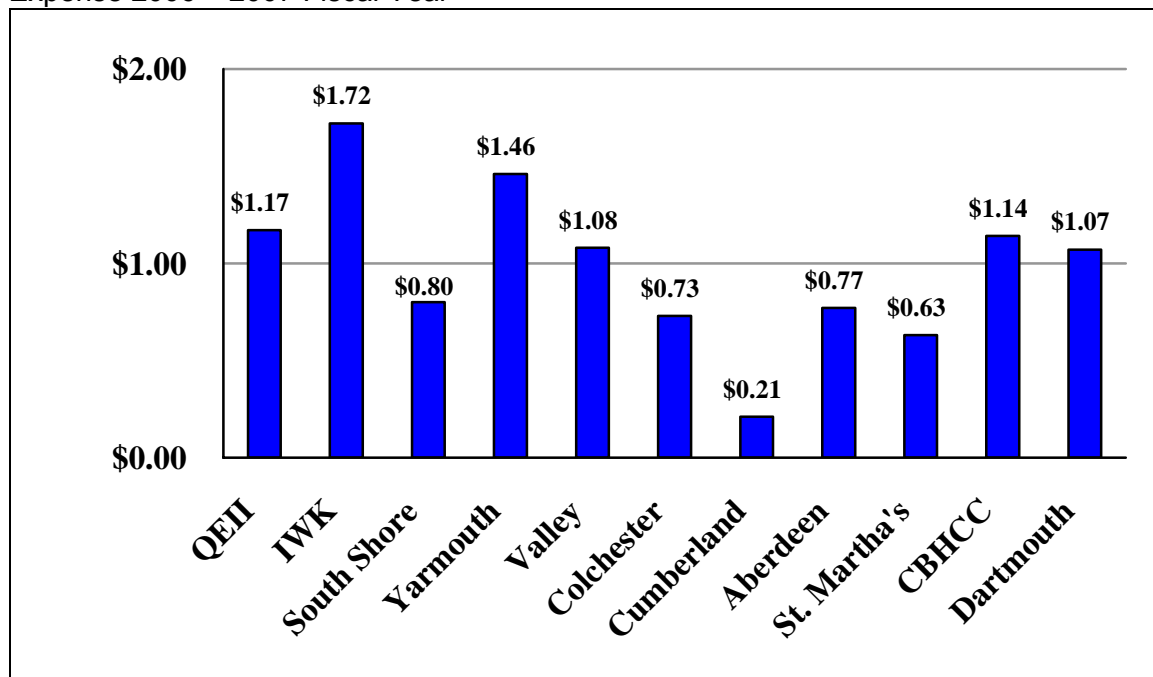
**Calculation:** Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3\* - 9\*; 12\*; excluding secondary financial accounts 390\*) for Computed Tomography (primary accounts 7\*41525\*) divided by the total number of CT workload units (secondary statistical accounts 107\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total CT Workload Units}}$$

Source: NS DoH, MIS Database

## Direct Cost per Workload Unit Ultrasound Services Excludes Amortization Expense

**Figure 131:** Direct Cost per Workload Unit Ultrasound Services Excludes Amortization Expense 2006 – 2007 Fiscal Year



**Definition:** The average direct cost per service recipient workload unit for Ultrasound Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

### Technical Specifications

**Calculation:** Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3\* - 9\*; 12\*; excluding secondary financial accounts 390\*) for Ultrasound (primary accounts 7\*41530\*) divided by the total number of Ultrasound workload units (secondary statistical accounts 107\*).

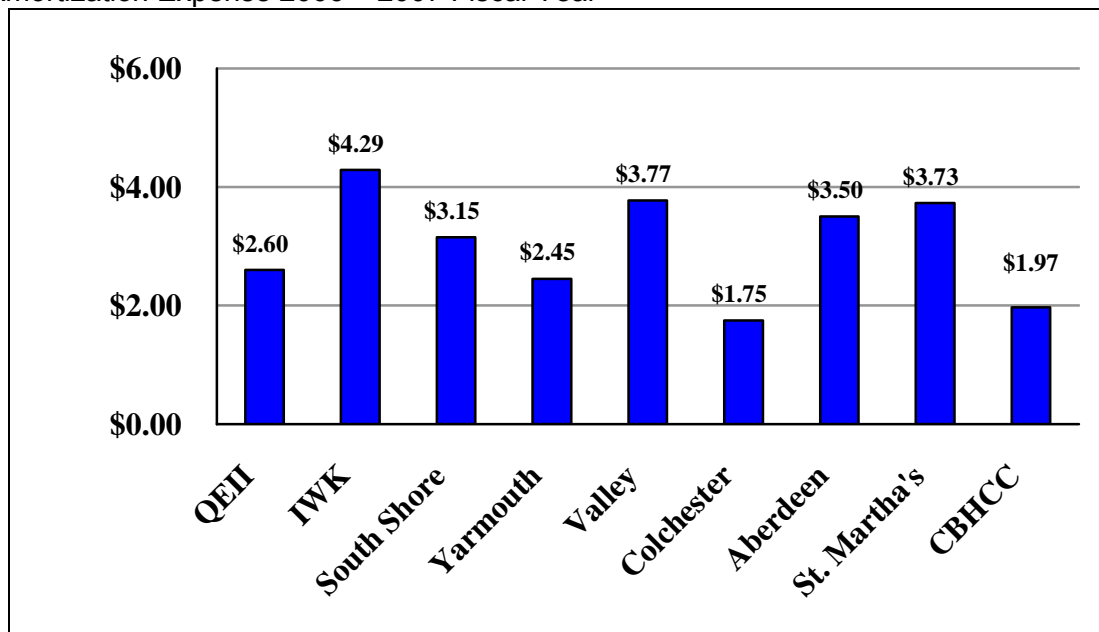
$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total Ultrasound Workload Units}}$$

Source: NS DoH, MIS Database



## Direct Cost per Workload Unit Nuclear Medicine Services Excludes Amortization Expense

**Figure 132:** Direct Cost per Workload Unit Nuclear Medicine Services Excludes Amortization Expense 2006 – 2007 Fiscal Year



**Definition:** The average direct cost per service recipient workload unit for Nuclear Medicine Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

### Technical Specifications

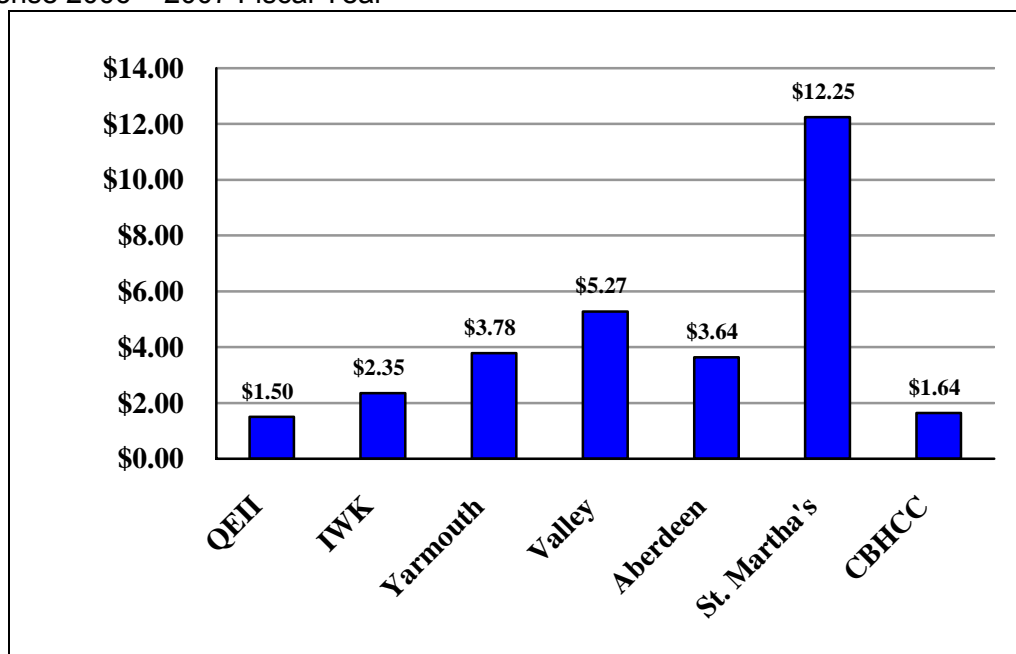
**Calculation:** Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3\* - 9\*; 12\*; excluding secondary financial accounts 390\*) for Nuclear Medicine (primary accounts 7\*41540\*) divided by the total number of Nuclear Medicine workload units (secondary statistical accounts 107\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total Nuclear Medicine Workload Units}}$$

Source: NS DoH, MIS Database

## Direct Cost per Workload Unit MRI Services Excludes Amortization Expense

**Figure 133:** Direct Cost per Workload Unit MRI Services Excludes Amortization Expense 2006 – 2007 Fiscal Year



**Definition:** The average direct cost per service recipient workload unit for MRI Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

### Technical Specifications

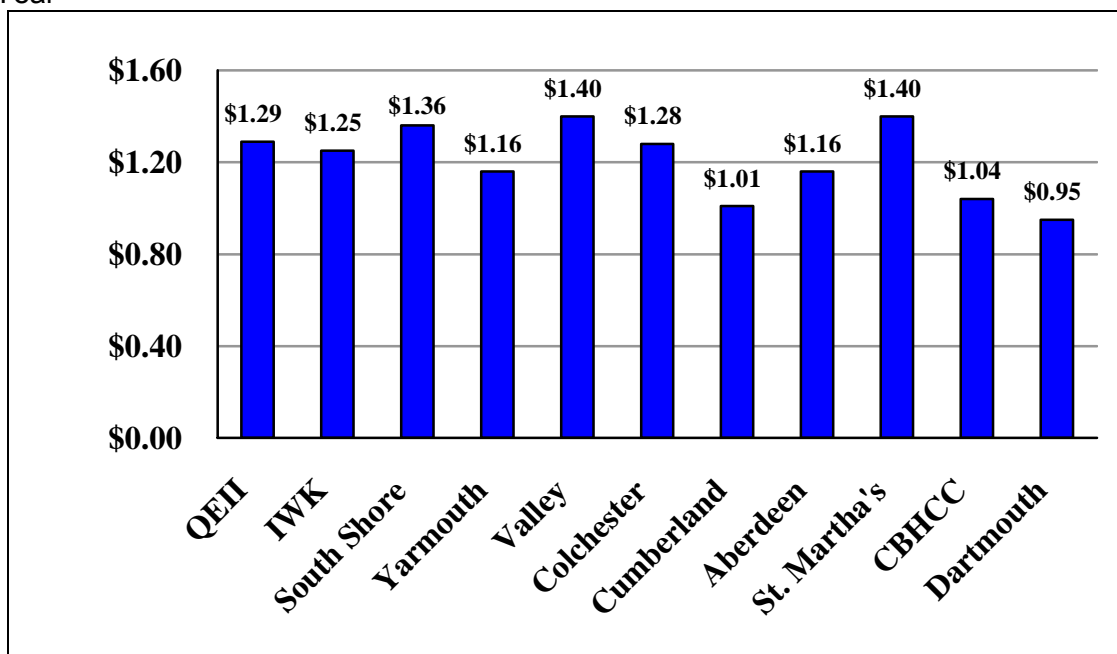
**Calculation:** Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3\* - 9\*; 12\*; excluding secondary financial accounts 390\*) for MRI Services (primary accounts 7\*41570\*) divided by the total number of MRI workload units (secondary statistical accounts 107\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total MRI Workload Units}}$$

Source: NS DoH, MIS Database

## Direct Cost per Workload Unit Physiotherapy Services

**Figure 134:** Direct Cost per Workload Unit Physiotherapy Services 2006 – 2007 Fiscal Year



**Definition:** The average direct cost per service recipient workload unit for Physiotherapy Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

### Technical Specifications

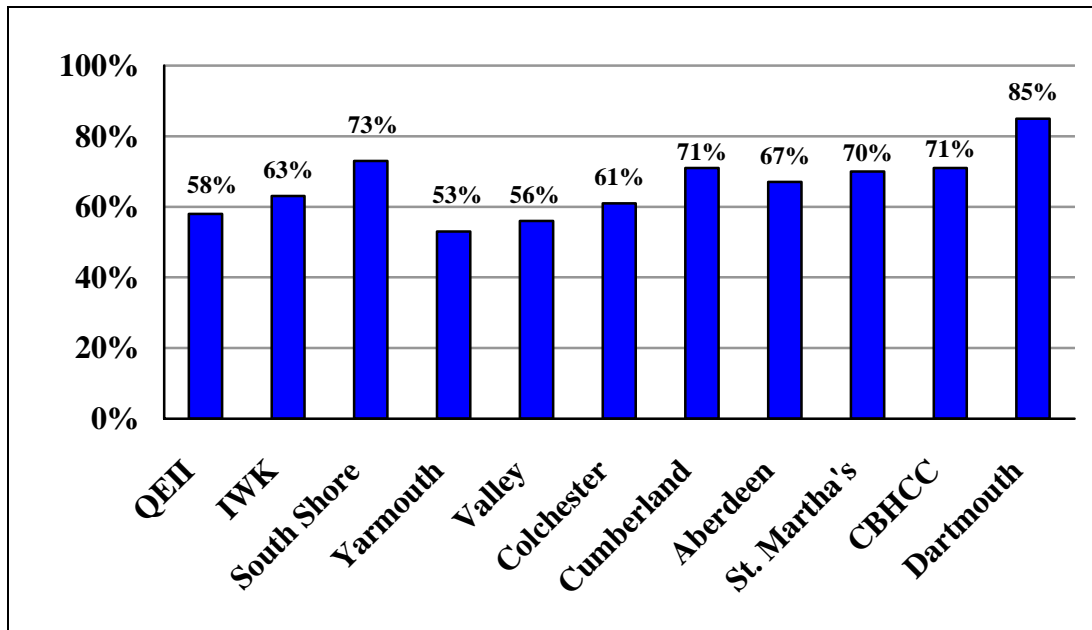
**Calculation:** Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3\* - 9\*; 12\*; excluding secondary financial accounts 390\*) for Physiotherapy Services (primary accounts 7\*450\*) divided by the total number of Physiotherapy workload units (secondary statistical accounts 102\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total Physio Workload Units}}$$

Source: NS DoH, MIS Database

## Unit-Producing Staff Worked Productivity Physiotherapy Services

**Figure 135:** Unit-Producing Staff Worked Productivity Physiotherapy Services 2006 – 2007 Fiscal Year



**Definition:** The average number of service recipient workload units produced per unit-producing personnel worked hour or purchased hour. It is calculated by dividing the service recipient workload units by the worked and purchased hours of the unit-producing personnel in a given period.

### Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

### Technical Specifications

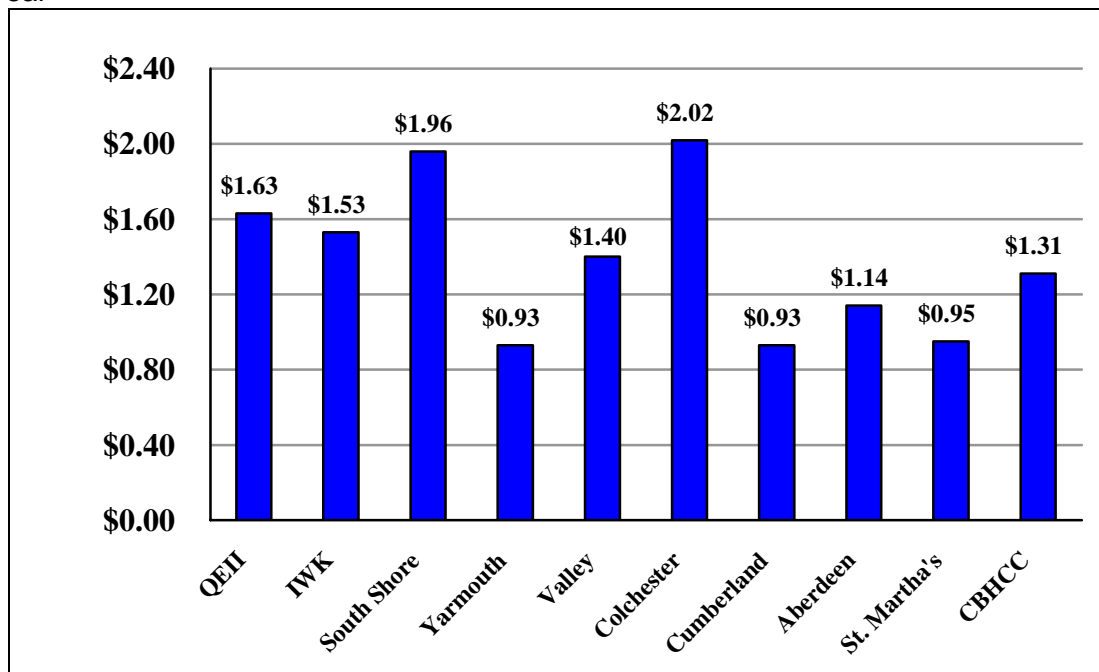
**Calculation:** The total Physiotherapy service recipient workload units (secondary statistical accounts 102\*) divided by 60 (to convert minutes to hours) divided by UPP worked & purchased hours (secondary statistical accounts 35\*10 and 35\*90)

$$\frac{\text{Total Service Recipient Workload Units} / 60}{\text{Total Worked and Purchased Service Hours}}$$

Source: NS DoH, MIS Database

## Direct Cost per Workload Unit Occupational Therapy

**Figure 136:** Direct Cost per Workload Unit Occupational Therapy 2006 –2007 Fiscal Year



**Definition:** The average direct cost per in-house service recipient workload unit for Occupational Therapy. It is calculated by dividing the functional centre's direct operating expense (less the contracted-out service expense, if applicable) by the in-house service recipient workload units generated by that functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

### Technical Specifications

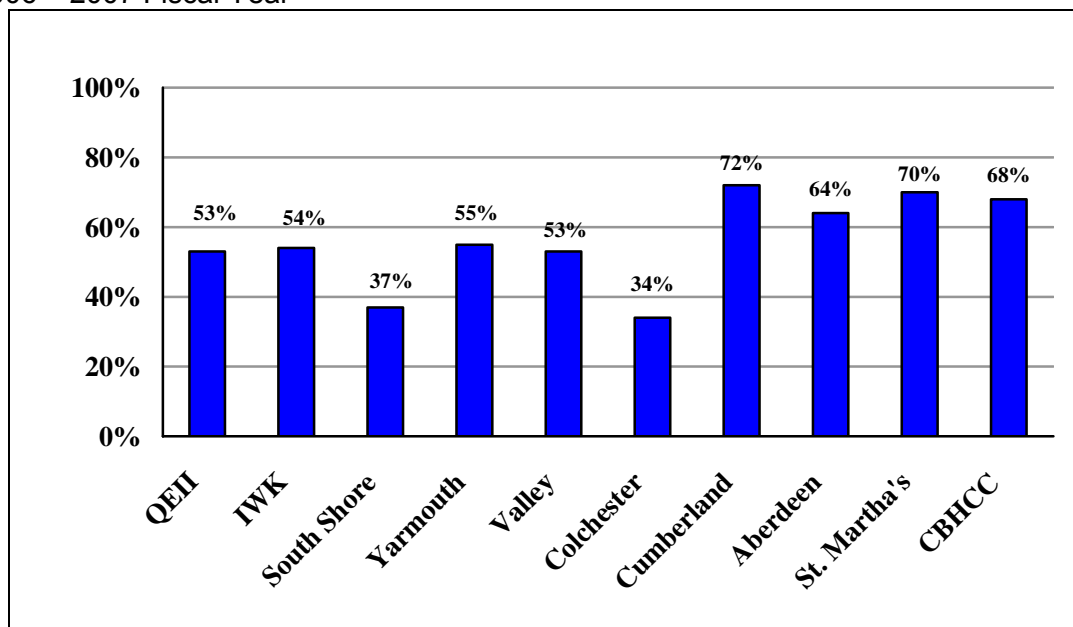
**Calculation:** Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3\* - 9\*; 12\*; excluding secondary financial accounts 390\*) for Physiotherapy Services (primary accounts 7\*455\*) divided by the total number of OT workload units (secondary statistical accounts 102\*).

$$\frac{\text{Gross expenditures, net of recoveries, (excluding Medical Fees)}}{\text{Total OT Workload Units}}$$

Source: NS DoH, MIS Database

## Unit-Producing Staff Worked Productivity Occupational Therapy Services

**Figure 137:** Unit-Producing Staff Worked Productivity Occupational Therapy Services 2006 – 2007 Fiscal Year



**Definition:** The average number of service recipient workload units produced per unit-producing personnel worked hour or purchased hour. It is calculated by dividing the service recipient workload units by the worked and purchased hours of the unit-producing personnel in a given period.

### Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

### Technical Specifications

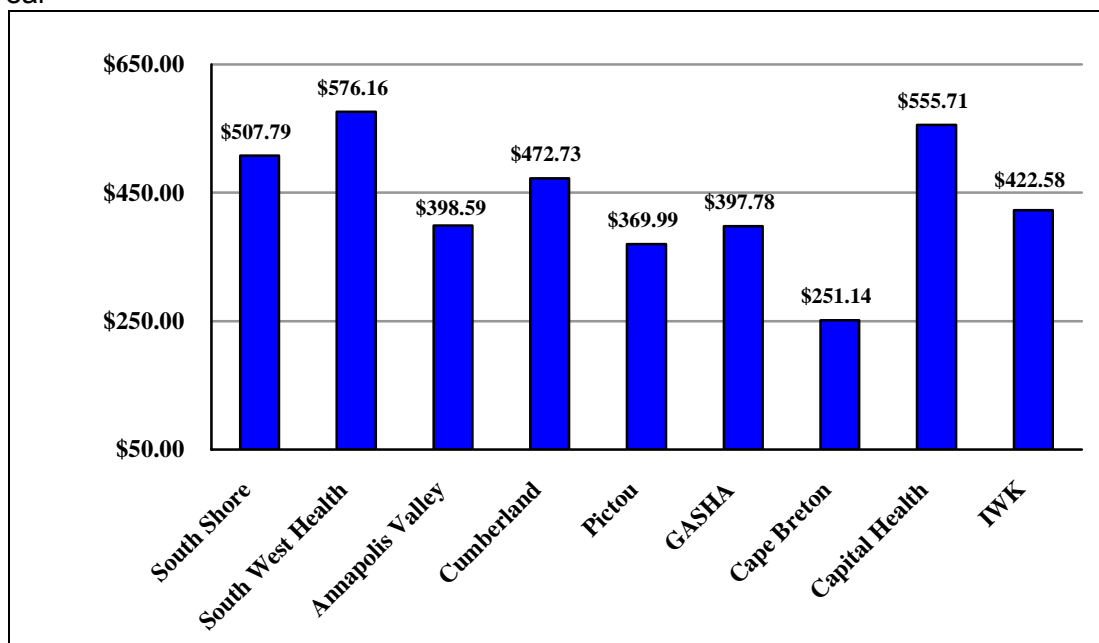
**Calculation:** The total OT service recipient workload units (secondary statistical accounts 102\*) divided by 60 (to convert minutes to hours) divided by UPP worked & purchased hours (secondary statistical accounts 35\*10 and 35\*90)

$$\frac{\text{Total Service Recipient Workload Units} / 60}{\text{Total Worked and Purchased Service Hours}}$$

Source: NS DoH, MIS Database

## Direct Cost per Patient Day Addiction Inpatient Services

**Figure 138:** Direct Cost per Patient Day Addiction Inpatient Services 2006 – 2007 Fiscal Year



**Definition:** The average direct cost of providing services to one inpatient/resident during one inpatient/resident day. It is calculated by dividing the functional centre's direct operating expenses by the number of inpatient/resident days in a given period.

### Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

### Technical Specifications

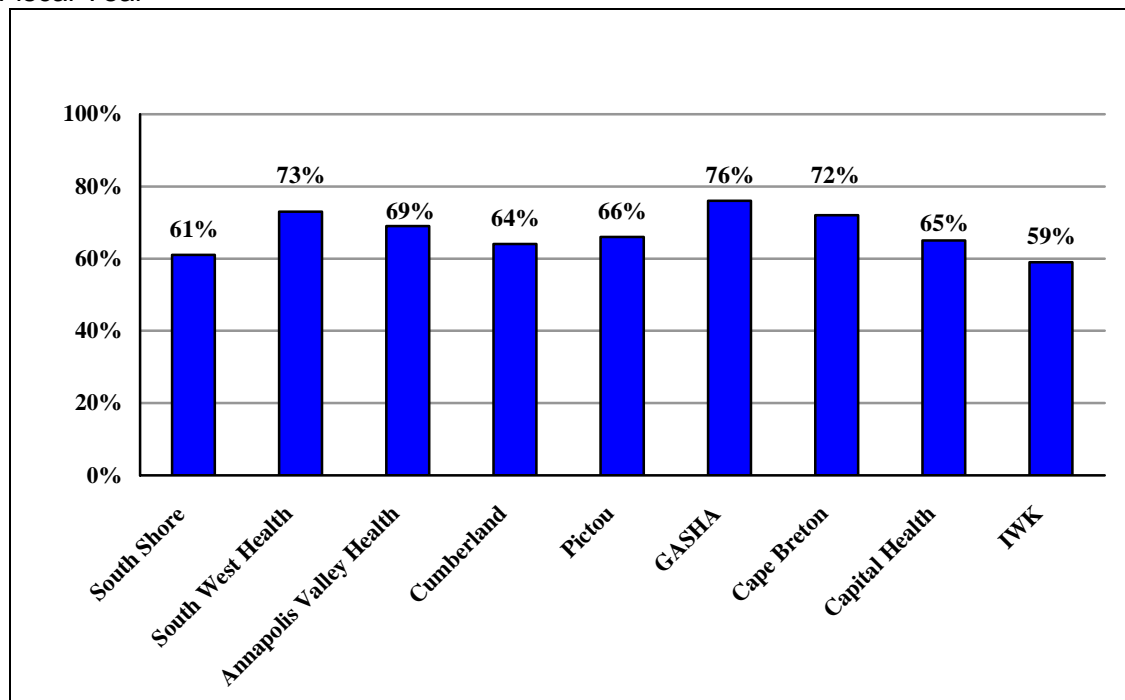
*Calculation:* Total gross expenditures, net of recoveries (excluding medical fees) (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 390\*) attributable to Addiction Services Inpatient Nursing Units (primary accounts 7\*275 40) divided by the number of inpatient days (secondary statistical account 403\*).

$$\frac{\text{Gross Expenditures, Net of Recoveries (excluding Medical Fees)}}{\text{Inpatient Days}}$$

Source: NS DoH, MIS Database

## Percentage Occupancy Addition Services Inpatient Units

**Figure 139:** Percentage Occupancy Addition Services Inpatient Units 2006 – 2007  
Fiscal Year



**Definition:** The percentage of beds which are available and staffed for inpatient accommodation and which are occupied by a service recipient.

### Significance – Rationale and Notes for Interpretation

An indicator of resource use, used for budgeting, planning, and evaluation.

### Technical Specifications

**Calculation:** The total number of inpatient days (secondary statistical account 403\*), divided by the total number of bed days, staffed and in operation (secondary statistical account 827\*) attributable to Addictions Services Inpatient Nursing units (primary accounts 7\*27540\*), multiplied by 100 to yield a percentage.

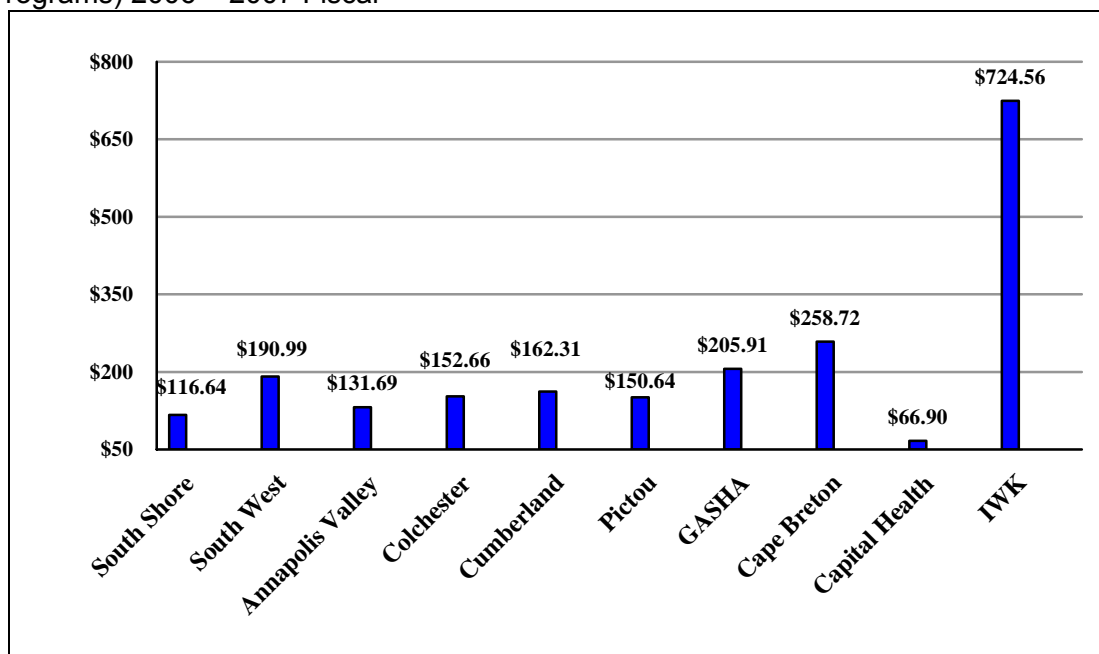
$$\frac{\text{Inpatient Days}}{\text{Bed Days Staffed and in Operation}} \times 100$$

Source: NS DoH, MIS Database



## Direct Cost per Visit Addiction Community Based Services (Incl. Enhanced Programs)

**Figure 140:** Direct Cost per Visit Addiction Community Based Services (Incl. Enhanced Programs) 2006 – 2007 Fiscal



**Definition:** The average direct cost for a visit to a functional centre. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

### Technical Specifications

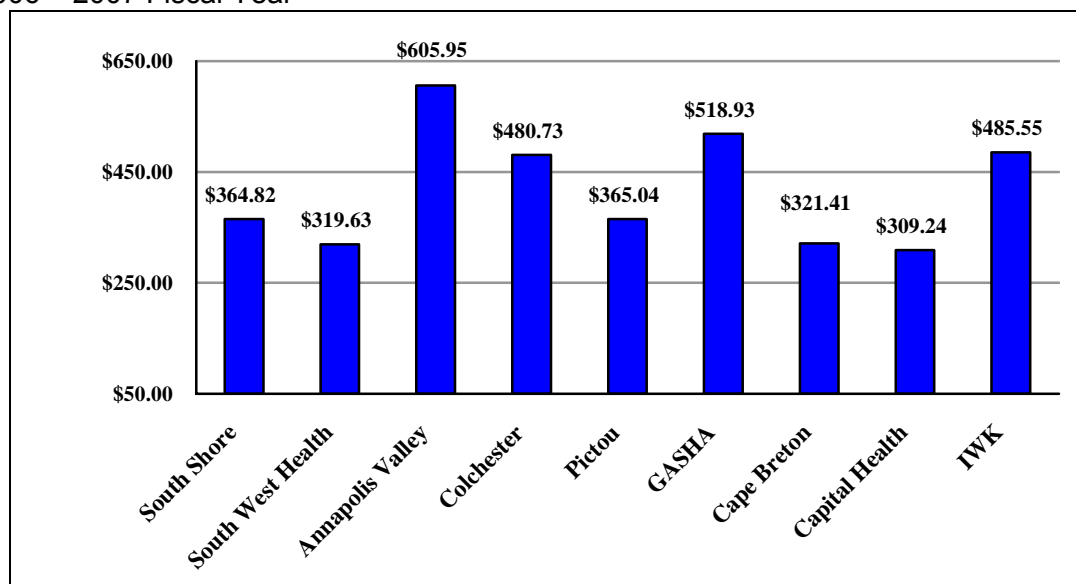
**Calculation:** Total gross expenditures, net of recoveries (excluding medical fees) (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 390\*) attributable to Addiction Community Based Outpatient Services (primary account 7\*550 80), divided by the total number of visits (secondary statistical accounts 450\* and 451\*).

$$\frac{\text{Direct Cost, Net of Recoveries (excluding Medical Fees)}}{\text{Total Visits}}$$

Source: NS DoH, MIS Database

## Direct Cost per Patient Day Mental Health Psychiatric Acute Inpatient Units

**Figure 141:** Direct Cost per Patient Day Mental Health Psychiatric Acute Inpatient Units 2006 – 2007 Fiscal Year



**Definition:** The average direct cost of providing services to one inpatient/resident during one inpatient/resident day. It is calculated by dividing the functional centre's direct operating expenses by the number of inpatient/resident days in a given period.

### Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

### Technical Specifications

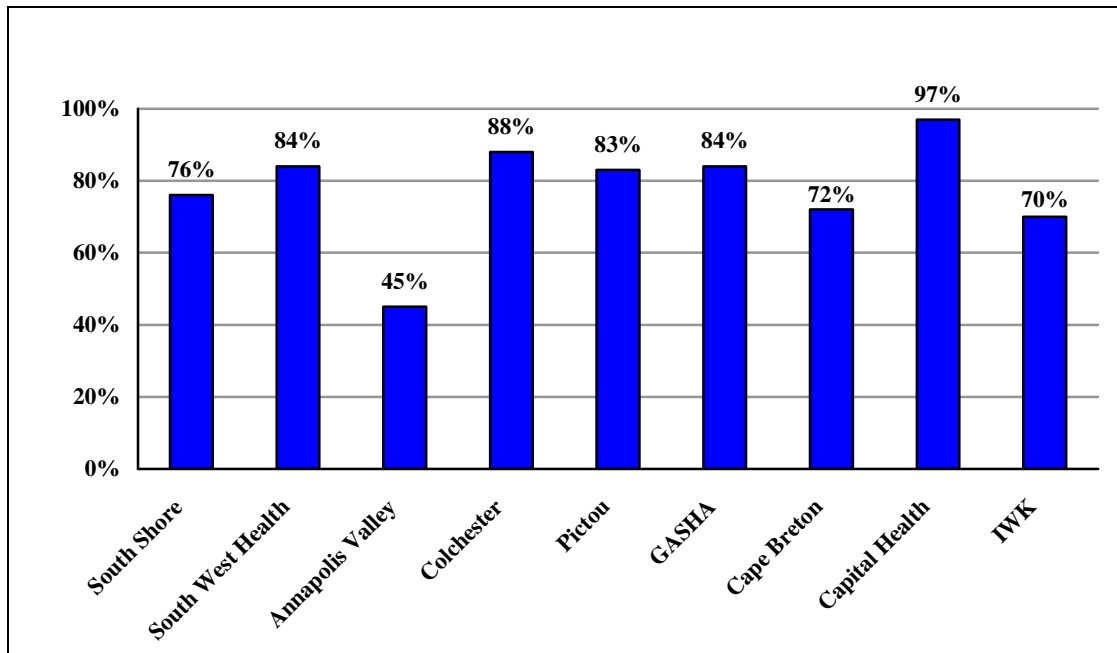
**Calculation:** Total gross expenditures, net of recoveries (excluding medical fees) (secondary financial accounts 3\* - 9\*; and 12\*; excluding secondary financial accounts 390\*) attributable to Psychiatric Inpatient Nursing Units (primary accounts 7\*275 20\* and 7\*275 80\*) divided by the number of inpatient days (secondary statistical account 403\*).

$$\frac{\text{Gross Expenditures, Net of Recoveries (excluding Medical Fees)}}{\text{Inpatient Days}}$$

Source: NS DoH, MIS Database

## Percentage Occupancy Mental Health Psychiatric Acute Inpatients Units

**Figure 142:** Percentage Occupancy Mental Health Psychiatric Acute Inpatients Units 2006 – 2007 Fiscal Year



**Definition:** The percentage of beds which are available and staffed for inpatient accommodation and which are occupied by a service recipient.

### Significance – Rationale and Notes for Interpretation

An indicator of resource use, used for budgeting, planning, and evaluation.

### Technical Specifications

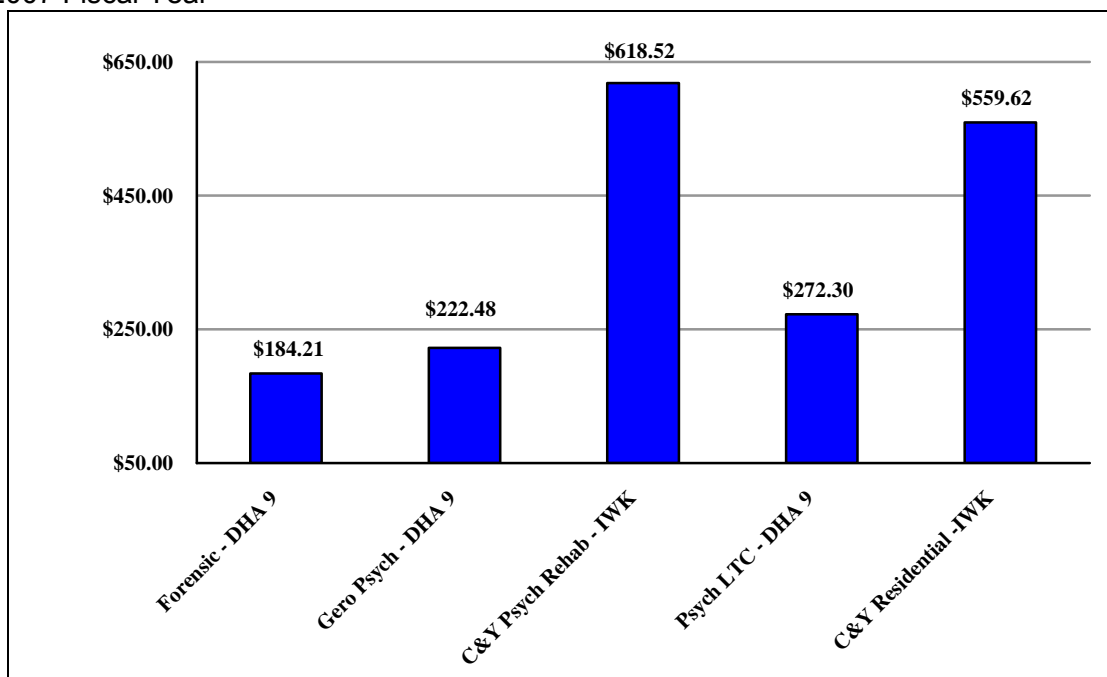
**Calculation:** The total number of inpatient days (secondary statistical account 403\*), divided by the total number of bed days, staffed and in operation (secondary statistical account 827\*) attributable to the Psychiatric Inpatient Nursing Units (primary accounts 7\*275 20\* and 7\*275 80\*), multiplied by 100 to yield a percentage.

$$\frac{\text{Inpatient Days}}{\text{Bed Days Staffed and in Operation}} \times 100$$

Source: NS DoH, MIS Database

## Direct Cost per Patient Day Other Mental Health Inpatient Units

**Figure 143:** Direct Cost per Patient Day Other Mental Health Inpatient Units 2006 – 2007 Fiscal Year



**Definition:** The average direct cost of providing services to one inpatient/resident during one inpatient/resident day. It is calculated by dividing the functional centre's direct operating expenses by the number of inpatient/resident days in a given period.

### Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

### Technical Specifications

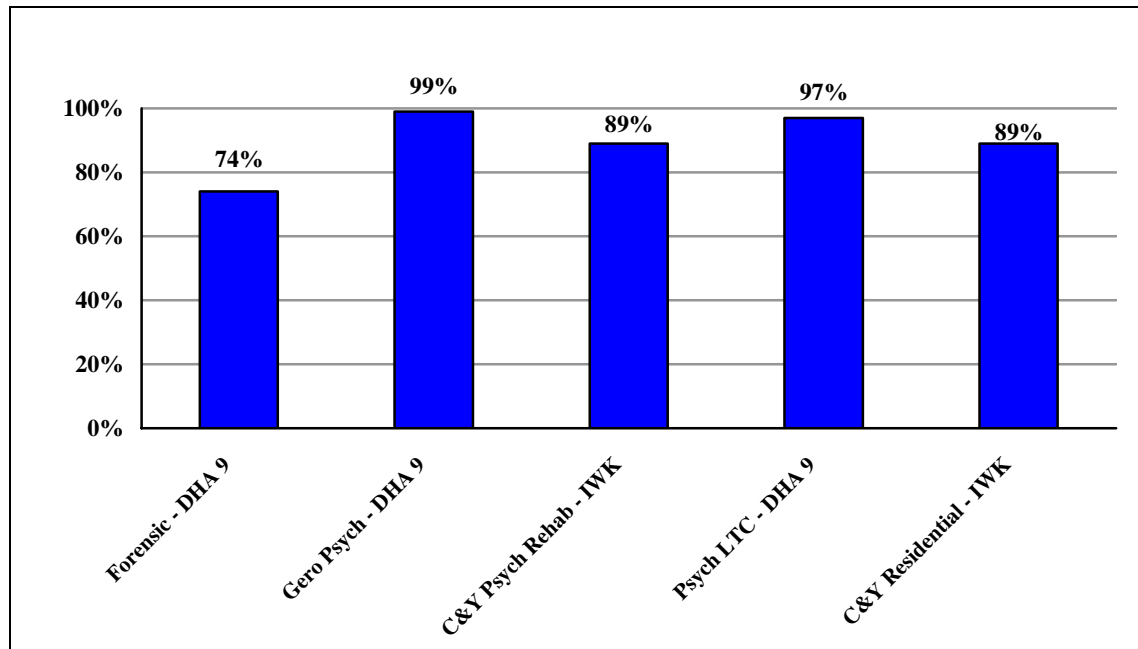
**Calculation:** Total gross expenditures, net of recoveries, (excluding medical fees) (secondary accounts 3\* - 9\*; 12\*; and excluding secondary financial accounts 390\*) attributable to Psychiatry cost centre (primary accounts 7\*275 60, 7\*275 70, 7\*275 90\*) divided by the number of inpatient days (secondary statistical account 403\*).

$$\frac{\text{Gross Expenditures, Net of Recoveries (excluding Medical Fees)}}{\text{Inpatient Days}}$$

Source: NS DoH, MIS Database

## Percentage Occupancy Other Mental Health Inpatient Units

**Figure 144:** Percentage Occupancy Other Mental Health Inpatient Units 2006 – 2007 Fiscal Year



**Definition:** The percentage of beds which are available and staffed for inpatient accommodation and which are occupied by a service recipient.

### Significance – Rationale and Notes for Interpretation

An indicator of resource use, used for budgeting, planning, and evaluation.

### Technical Specifications

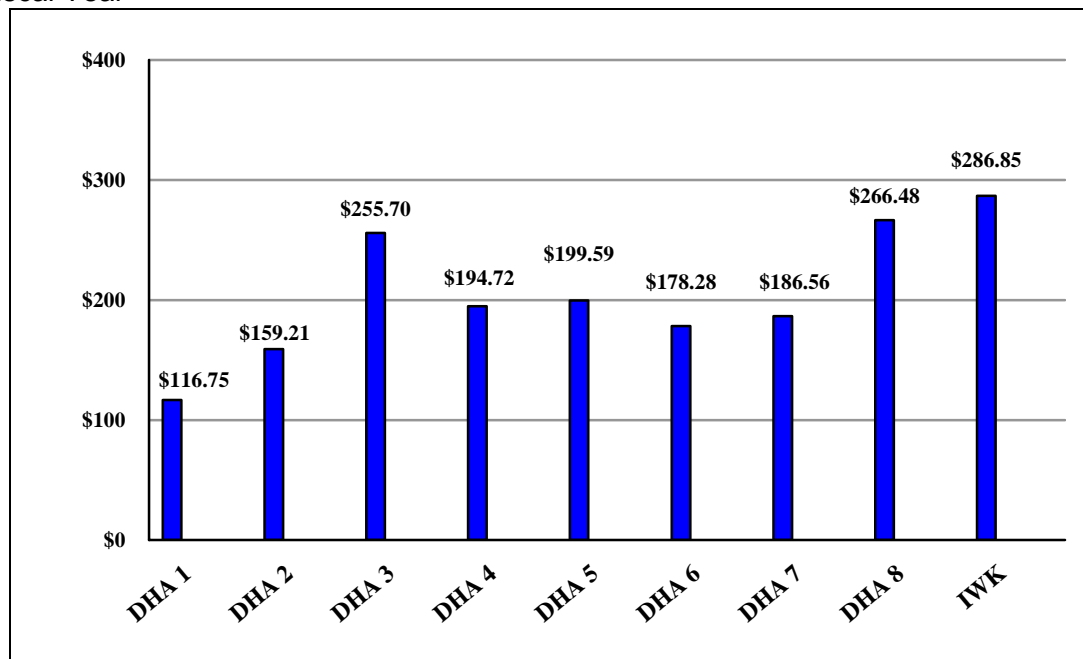
**Calculation:** The total number of inpatient days (secondary statistical account 403\*), divided by the total number of bed days, staffed and in operation (secondary statistical account 827\*) attributable to the Psychiatry Inpatient Nursing Units (primary accounts 7\*275 60\*, 7\*275 70\* and 7\*275 90\*), multiplied by 100 to yield a percentage.

$$\frac{\text{Inpatient Days}}{\text{Bed Days Staffed and in Operation}} \times 100$$

Source: NS DoH, MIS Database

## Direct Cost per Visit MHS Child & Youth Outpatient Services

**Figure 145:** Direct Cost per Visit MHS Child & Youth Outpatient Services 2006 – 2007 Fiscal Year



**Definition:** The average direct cost for a visit to a functional centre. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

### Technical Specifications

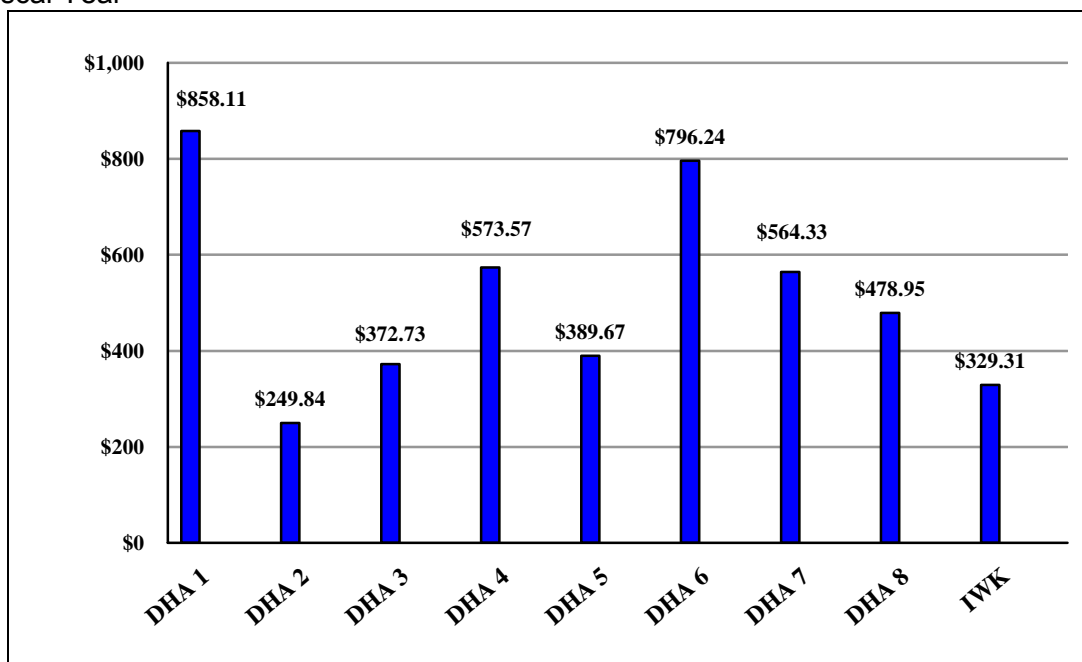
**Calculation:** Total gross expenditures, net of recoveries (excluding medical fees) (secondary financial accounts 3\* - 9\*; 12\*; and excluding secondary financial accounts 390\*) attributable to the MHS Child & Youth Outpatient Services (primary account 7\*3 50 70 25), divided by the total number of visits, both face-to-face and telephone (secondary statistical accounts 450\* and 451\*).

$$\frac{\text{Direct Cost, Net of Recoveries (excluding Medical Fees)}}{\text{Total Visits}}$$

Source: NS DoH, MIS Database

## Direct Cost per Visit MHS Child & Youth Autism Programs

**Figure 146:** Direct Cost per Visit MHS Child & Youth Autism Programs 2006 – 2007  
Fiscal Year



**Definition:** The average direct cost for a visit to a functional centre. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

### Technical Specifications

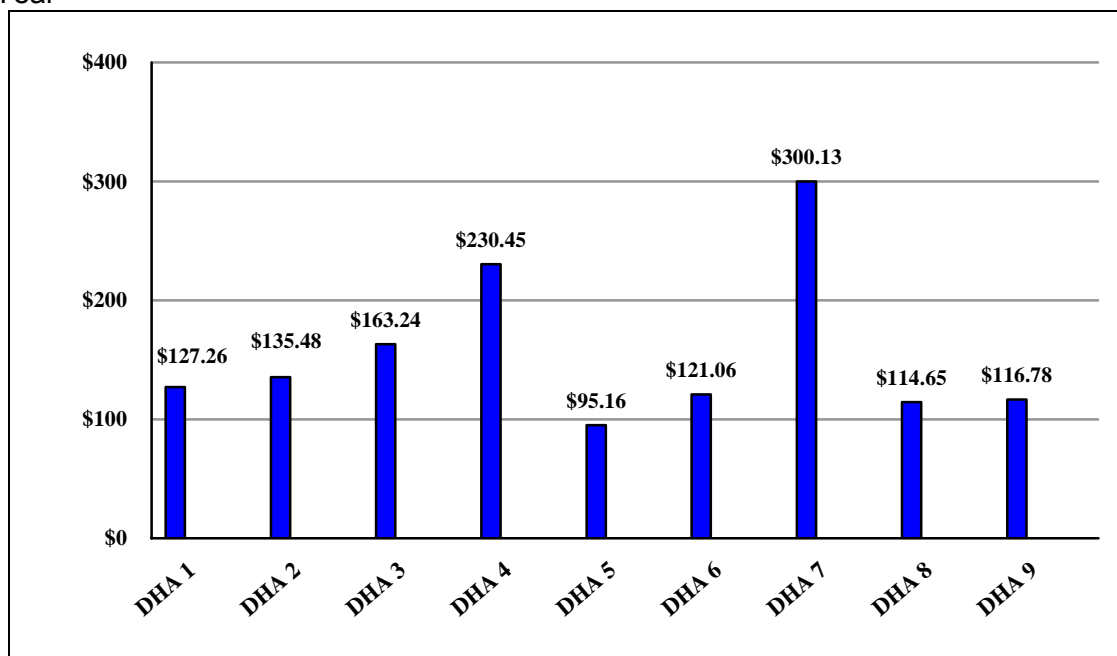
**Calculation:** Total gross expenditures, net of recoveries (excluding medical fees) (secondary financial accounts 3\* - 9\*; 12\*; and excluding secondary financial accounts 390\*) attributable to the MHS Child & Youth Outpatient Services (primary account 7\*3 50 70 26), divided by the total number of visits, both face-to-face and telephone (secondary statistical accounts 450\* and 451\*).

$$\frac{\text{Direct Cost, Net of Recoveries (excluding Medical Fees)}}{\text{Total Visits}}$$

Source: NS DoH, MIS Database

## Direct Cost per Visit MHS Adult Outpatient Services

**Figure 147:** Direct Cost per Visit MHS Adult Outpatient Services 2006 – 2007 Fiscal Year



**Definition:** The average direct cost for a visit to a functional centre. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

### Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

### Technical Specifications

**Calculation:** Total gross expenditures, net of recoveries (excluding medical fees) (secondary financial accounts 3\*- 9\*; 12\*; and excluding secondary financial accounts 390\*) attributable to the MHS Adult Outpatient Services (primary account 7\*3 50 80\*), divided by the total number of visits, both face-to-face and telephone (secondary statistical accounts 450\* and 451\*).

$$\frac{\text{Gross Expenditures, Net of Recoveries (excluding Medical Fees)}}{\text{Total Visits}}$$

Source: NS DoH, MIS Database



# Report Evaluation

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## How Did We Do?

Your comments and feedback about the “2006-2007 Annual Statistical Report” are valuable to us. Please complete this questionnaire and send it to:

### 2006-2007 Annual Statistical Report Feedback

Nova Scotia Department of Health  
Information Management Services  
IS4 Branch  
5<sup>th</sup> Floor Royal Centre  
5161 George Street, Suite 500  
Halifax, Nova Scotia  
B3J 1M7

OR Fax: (902) 424 0506 OR Email: [julie.reid@gov.ns.ca](mailto:julie.reid@gov.ns.ca)

## Instructions

For each question, please put an X beside the most appropriate response. There are no right or wrong answers; we are only interested in your opinions. Individual responses will be kept confidential.

## Overall Satisfaction with the Report

How did you find out about “The 2006-2007 Annual Statistical Report?”



News Media



Government Alert



Internet search



Colleague / Peer



Other, please specify \_\_\_\_\_

To what extent have you read through the report?



I have read through the entire report



I have read certain chapters and browsed through the entire report



I have browsed through the entire report



I have not read any part of the report in any detail

How satisfied are you with the following aspects of the report?

a. Clarity



Excellent



Good



Fair



Poor

b. Format



Excellent



Good



Fair



Poor

c. Use of Figures



Excellent



Good



Fair



Poor

d. Graphs



Excellent



Good



Fair



Poor

e. Level of Detail



Excellent



Good



Fair



Poor

f. Length of Report



Excellent



Good































Fair



Poor

**Usefulness of the Report**

Please indicate how useful you found the following sections of the report.

Section 1	 Very Useful	 Somewhat	 Not useful	 Did not read
Section 2	 Very Useful	 Somewhat	 Not useful	 Did not read
Section 3	 Very Useful	 Somewhat	 Not useful	 Did not read
Section 4	 Very Useful	 Somewhat	 Not useful	 Did not read
Section 5	 Very Useful	 Somewhat	 Not useful	 Did not read
Section 6	 Very Useful	 Somewhat	 Not useful	 Did not read
Section 7	 Very Useful	 Somewhat	 Not useful	 Did not read

**Other Comments**

How do you plan to use the information in this report?

What did you find most useful about this report?

What did you find least useful about this report?








Is there anything you would like to see included in future reports?








How could we improve this report for future releases?

Have you read other provinces reports? If so, how did we compare?






**Reader Information**







Where do you live?

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-  Northwest Territories
-  Nunavut

-  Newfoundland
-  New Brunswick
-  Ontario
-  Saskatchewan
-  British Columbia
-  Yukon
-  Outside Canada (please specify below)

What is your main position or role?

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-  Health Services / Manager Administrator
-  Board Member
-  Elected Official
-  Government employee
-  Student

-  Health Care Provider
-  Policy / Planning / Decision Support Analyst
-  Educator
-  Researcher
-  Policy Maker
-  Other (please specify below)

***Thank you for completing and returning this questionnaire***