



# Nova Scotia Department of Health

**Annual Statistical Report** 

Fiscal, 2007/08

### **COMPILED BY:**

Information Management Services (IMS)
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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# **Table of Contents**

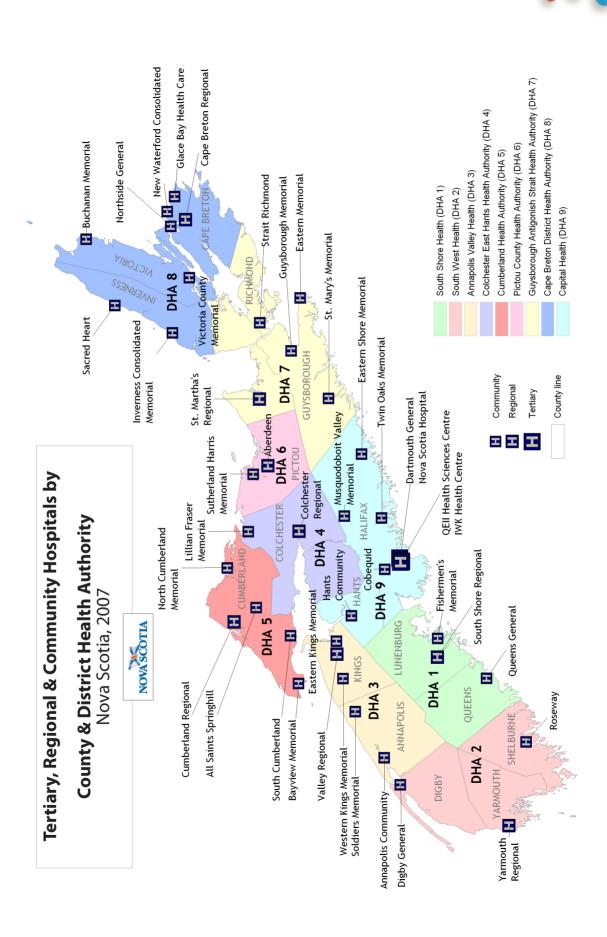
Introduction	6
Tertiary, Regional & Community Hospitals by County & District Health Authority	, 7
Acknowledgements	8
Population Distribution	9
Population Pyramids, by DHA and Nova Scotia	9
Health Promotion & Population Health	15
Breast Feeding	17
Physical Activity	
Prevalence of Smoking	
Mammography Screening	
Influenza Immunization	
Disease Prevalence / Incidence	28
Cancer Care	30
Incidence Rates	30
Mortality Rates	33
Incidence of Verotoxigenic Escherichia Coli Infection	40
Incidence of Chlamydia Trachomatis Infection	43
Diabetes Care Program	49
Surgical Interventions	54
Hip Replacements	55
Knee Replacements	57
Hysterectomies	59
Cardiac Catheterizations	61
Percutaneous Coronary Intervention	63
Coronary Artery Bypass Graft (CABG)	65
Provincial Services	67
Mental Health Programs	68
Addiction Services	71
Adult Protection Services	73
Continuing Care Intakes	75
Emergency Health Services Nova Scotia (EHS)	76

Department of Health Promotion & Protection Tobacco Enforcement	. 80
Health Care System Performance	81
Patient Days per 1,000 Population	. 83
Beds per 1,000 Population	. 85
Average Length of Stay	. 86
Alternate Level of Care	. 87
Elective Surgery Performed on the Day of Hospital Admission	. 89
Readmission to the Same Hospital	. 91
Ambulatory Care Sensitive Conditions	. 92
Inflow/Outflow Ratio	. 94
Caesarean Section	. 95
Cardiovascular Surgery Wait Times	. 97
Insured Programs Indicators	99
Physicians per 10,000 Population	100
Registered Nurses per 10,000 Population	101
Insured Services	102
Physicians' Services	103
Seniors' Pharmacare	108
Management Information Systems Indicators	110
List of Figures	111

## Introduction

The 2007/08 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 2007/08 fiscal year.



Nova Scotia Department of Health, August 2007



### **Acknowledgements**

The Nova Scotia Department of Health wishes to acknowledge and thank the many individuals and divisions that contributed to the development of this report.

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# Population Distribution

Population Pyramids, Nova Scotia and DHAs 2007 and 2022: 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:** 

2007 Male 2007 Female

— 2022 Population Projection

Source: 2006 Census, Statistics Canada



Figure 1.1: Population Pyramid, SSDHA (DHA 1) - 2007 and 2022

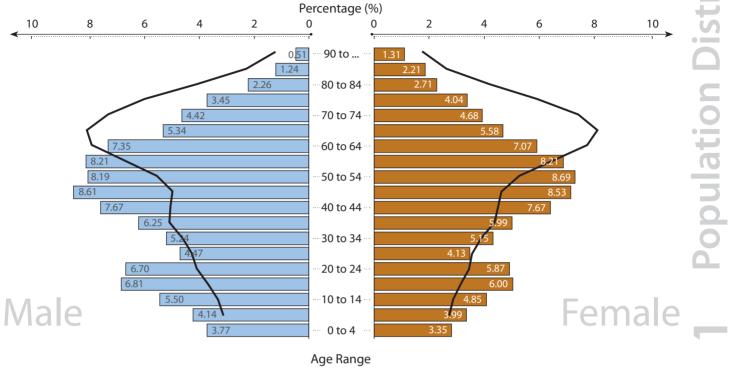


Figure 1.2: Population Pyramid, SWNHA (DHA 2) - 2007 and 2022

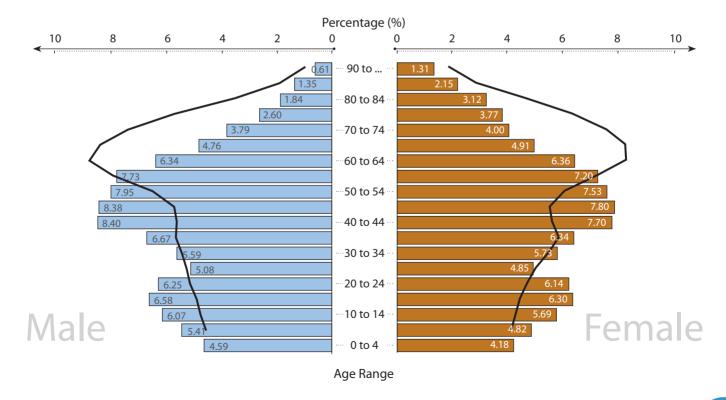




Figure 1.3: Population Pyramid, AVDHA (DHA 3) - 2007 and 2022

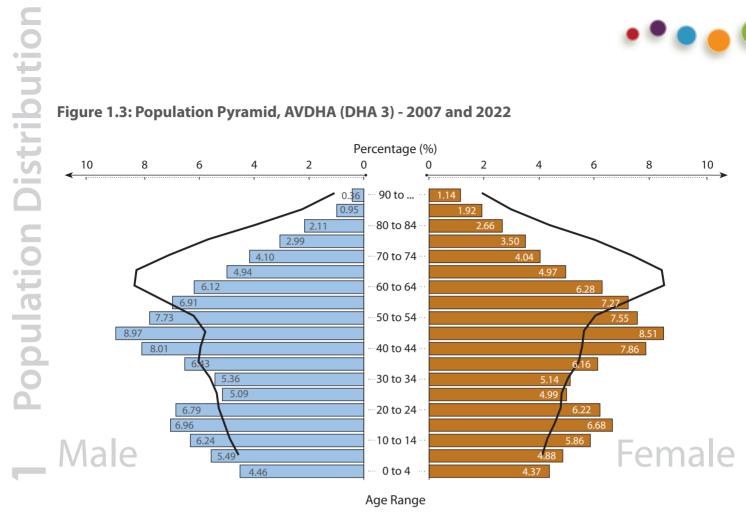


Figure 1.4: Population Pyramid, CEHHA (DHA 4) - 2007 and 2022

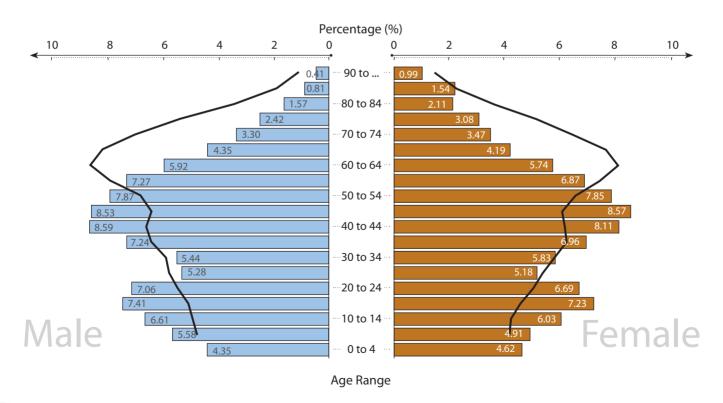




Figure 1.5 Population Pyramid, CHA (DHA 5) - 2007 and 2022

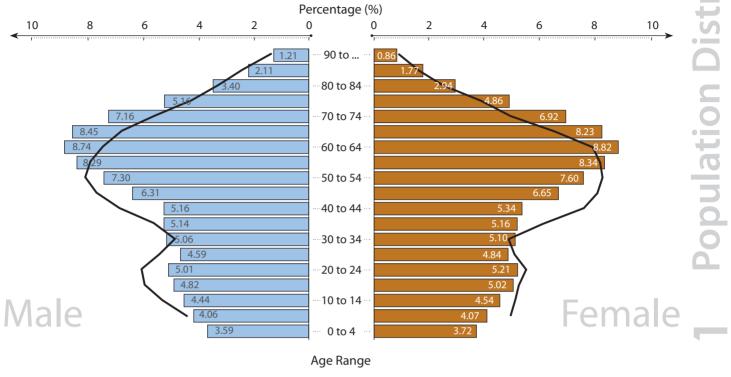


Figure 1.6: Population Pyramid, PCHA (DHA 6) - 2007 and 2022

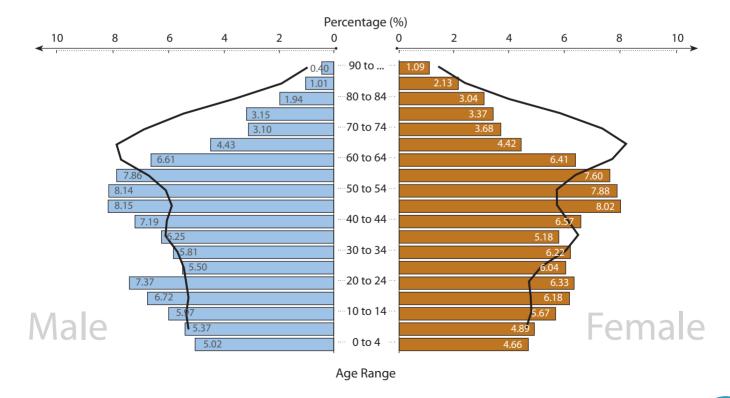




Figure 1.7: Population Pyramid, GASHA (DHA 7) - 2007 and 2022

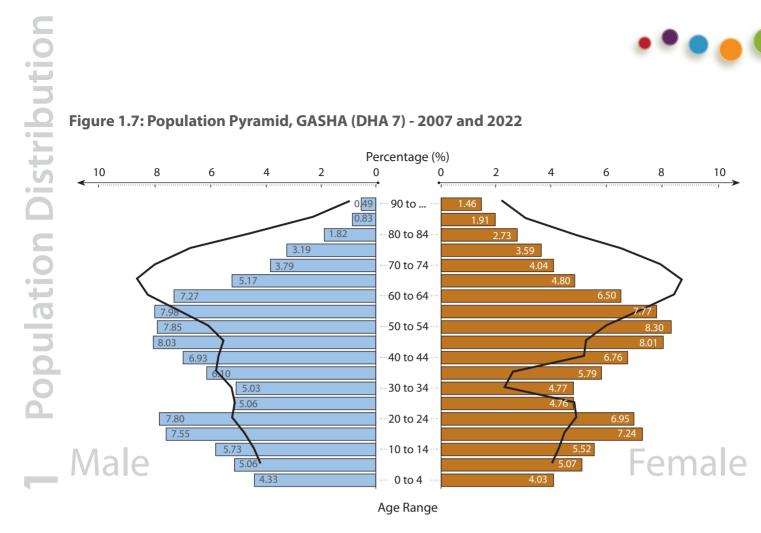


Figure 1.8: Population Pyramid, CEDHA (DHA 8) - 2007 and 2022

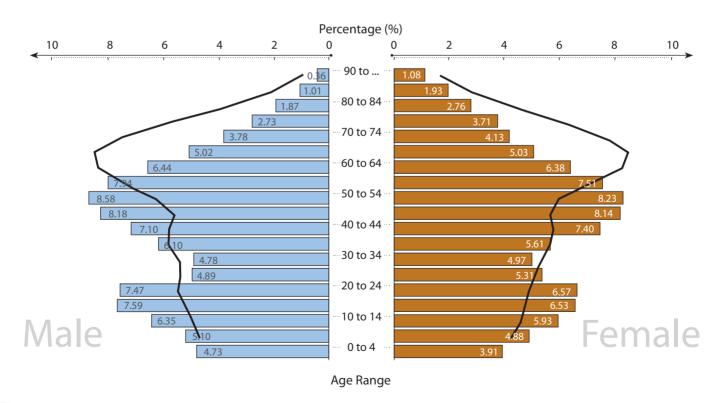




Figure 1.9: Population Pyramid, CDHA (DHA 9) - 2007 and 2022

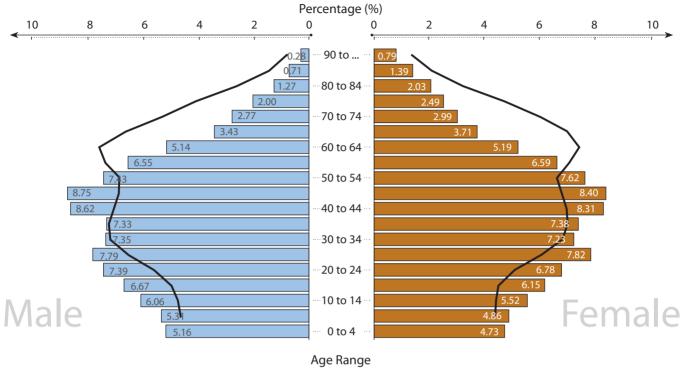
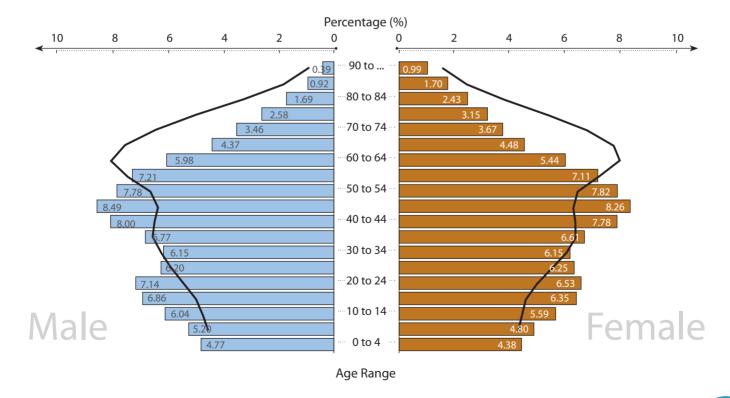


Figure 1.10: Population Pyramid, Nova Scotia - 2007 and 2022



# Health Promotion & Population Health

Health is defined as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." 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.

Indicators that reflect the determinants of health are included to give us an idea of how healthy our population really is

### 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

Forinstance, 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

<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.

For more
information on
the Canadian
Community
Health Survey,
visit the Nova
Scotia Department
of Health's
comprehensive
publication on
the Canadian
Community Health

Survey at www.

reports/

gov.ns.ca/health/

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. <sup>1</sup>

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 (CCHS) Annual Component 2007-2008. 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 George Doyle-Bedwell (902-424-3648) at the Department of Health.

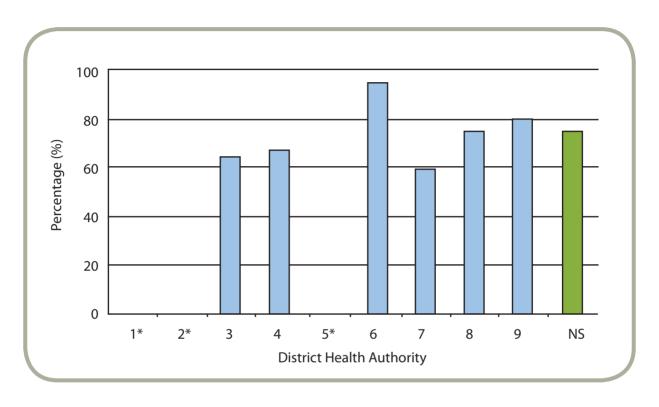
For more information on the Canadian Community Health Survey, visit Statistics Canada Website at <a href="www.statscan.ca">www.statscan.ca</a>, or visit the Nova Scotia Department of Health's comprehensive publication on the Canadian Community Health Survey at <a href="www.gov.ns.ca/health/reports/">www.gov.ns.ca/health/reports/</a>

The sources for the CCHS data used in this report are from the Canadian Community Health Annual Component 2007-2008, Statistics Canada, 2009, Ottawa, Ontario.



### **Breast Feeding**

Figure 2.1: Breastfed / Tried to Breast Feed Last Child - by DHA, 2007 & 2008



### **Definition**

- 1. 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.
- 2. 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 & 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.

### **Technical Specifications**

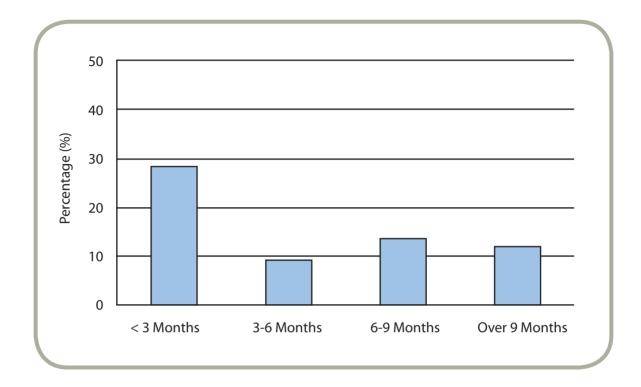
### **Calculation:**

- 1. ((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) / (The total number of women aged 15 to 55 who have given birth in the last 5 years)  $\times$  100) for each of Nova Scotia's 9 District Health Authorities, Nova Scotia.
- 2. ((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)  $\times$  100) for all of Nova Scotia.

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

<sup>\*</sup> Estimates cannot be reported for DHA 1, 2 and 5 due to insufficient sample size

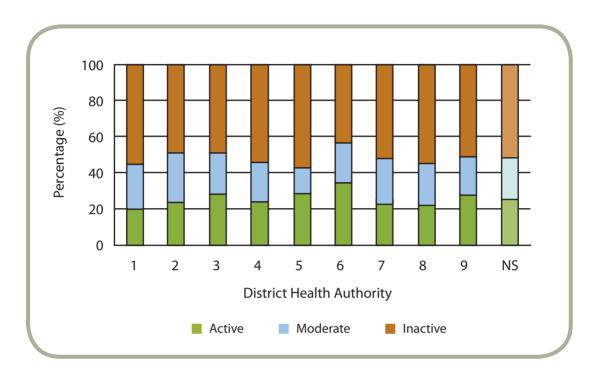
Figure 2.2: Length of Time Breastfed Last Child (of those who breastfed) - Nova Scotia, 2007 & 2008





### **Physical Activity**

Figure 2.3: Percentage of People Physically Active in a Given Population - by DHA, 2007 & 2008



### **Definition**

- 1. The percentage of people whose physical activity level was either: active, moderate, or inactive.
- 2. The percentage of male and female youth (aged 12 to 19) whose physical activity level was active, moderate, or inactive.

### Significance - Rationale & 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.

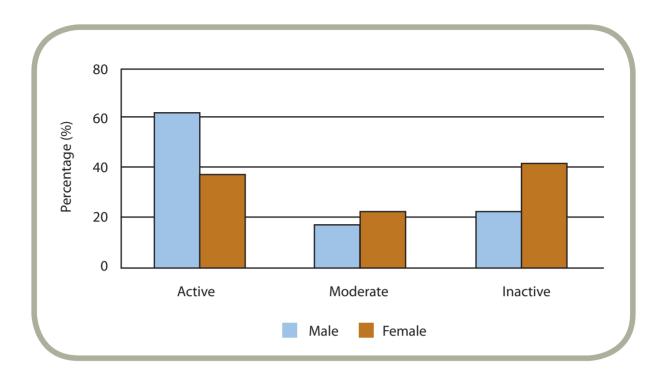
### **Technical Specifications**

### **Calculation:**

- 1. ((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)] / (The total number of people aged 12 years or older) × 100) for each of Nova Scotia's nine District Health Authorities and Nova Scotia.
- 2. ((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)] / (The total number of males and females aged 12 to 19)  $\times$  100) for all of Nova Scotia.



Figure 2.4: Youth (12 to 19) Physical Activity Index by Gender - Nova Scotia, 2007 & 2008

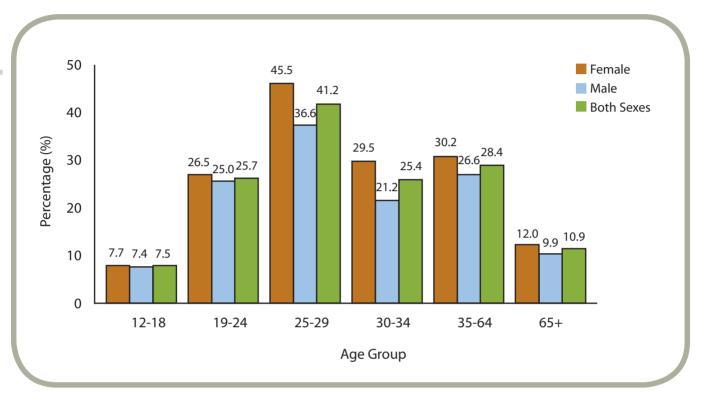


 $Source: \ Canadian \ Community \ Health \ Survey \ (CCHS) \ 2007\&2008., \ Statistics \ Canada, \ Ottawa, \ Ontario$ 



### **Prevalence of Smoking**

Figure 2.5: Prevalence of Smoking, by Age Group and Sex - Nova Scotia, 2007 & 2008



### **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 & 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 towards.

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.

### **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:** (Numerator/Denominator) x 100

 $Source: \ \ Canadian \ Community \ Health \ Survey \ (CCHS) \ 2007 \& 2008., Statistics \ Canada, \ Ottawa, Ontario$ 



### **Mammography Screening**

## Mission Statement of the Nova Scotia Breast Screening Program (NSBSP)

The goal of the Nova Scotia Breast Screening Program is to reduce the mortality from breast cancer in Nova Scotia women aged 50-69 by 30% within ten years following development of a province wide screening program. As of 2008 there is now a province-wide program; all mammography in the province, screening and diagnostic, is being done under the umbrella of the NSBSP.

### Vision of the 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.

### History of the NSBSP

Since the establishment of the NSBSP in 1991 until the

end of 2008, 159,042 women have been registered in the provincial breast screening database and 570,214 screening mammograms have been done.

### **Participation Rate**

Participation rate is the percentage of women aged 50-69 who have had a screening mammogram within a two-year period, as a proportion of the eligible population; the national target is 70%.

- The volume of women aged 50-69 that have participated in the NSBSP has increased yearly since the program began in 1991 Figure 2.6.
- Participation rates have always exceeded the national average, although not meeting the national target of 70%. With a 55% participation rate Nova Scotia is getting closer to meeting this target and compares favorably with other provincial screening programs, Figure 2.7.

Figure 2.6: NSBSP Participation for Women Aged 50-69 Years - Nova Scotia, 1999/2000 to 2006/07

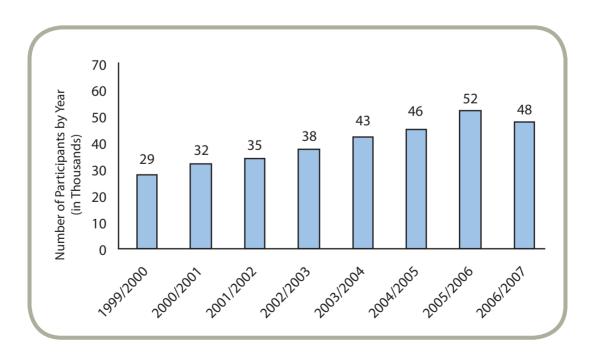
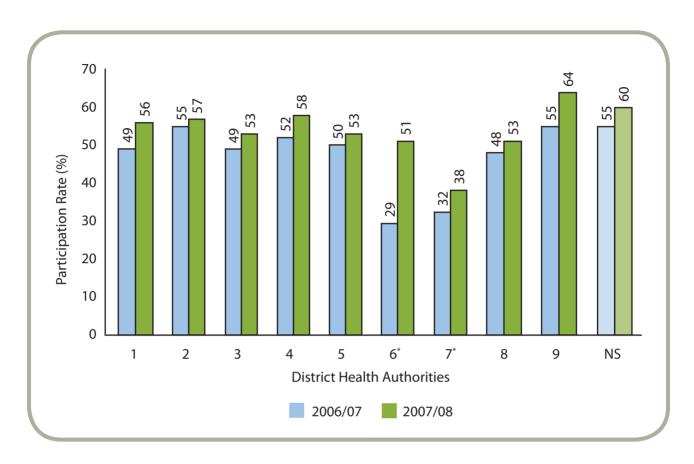




Figure 2.7: NSBSP Participation Rates - by DHA, 2006/07 & 2007/08

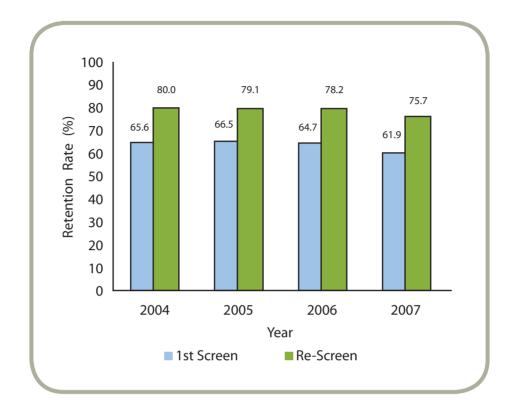


New census data released in 2008 places the total target population of women 50-69 at 118765 up from the previous value of 100306, which accounts for the apparent decrease in total participation rates for 2006-2007 although the actual number of screen have increased in every district

<sup>\* (2006/07</sup> data) DHA not with program long enough to capture a true reflection of participation rate



Figure 2.8: NSBSP Retention Rate for Women Aged 50-69 Years - Nova Scotia, 2004 to 2007



### **Retention Rate**

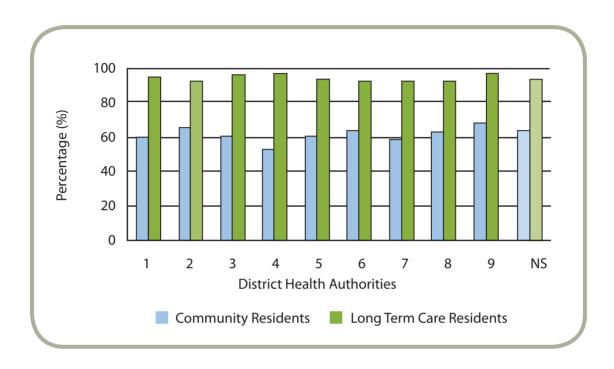
Retention rate is the percentage of women aged 50-69 who are re-screened within 30 months of their previous screen. The national target is 75% following a 1st screen, and 90% for subsequent screens.

- The Nova Scotia breast screening retention rate for both groups has had a very slight downward trend, a result of
- lack of capacity; the re-screened group has consistently been higher. It is anticipated that completion of the digital rollout will impact positively on the retention rate.
- Regular screening within appropriate screening intervals is imperative for the early detection of breast cancer, which leads to earlier intervention and improved outcomes.



### Influenza Immunization

Figure 2.9: Influenza Immunization Rates for Residents Aged 65+ Years - by DHA, 2007/08



### **Definition**

- The proportion of adults 65 years of age and older who received an influenza vaccination in the last year by DHA.
- 2. The proportion of adults 65 years of age and older who received an influenza vaccination 2007-2008.

### Significance – Rationale & 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.

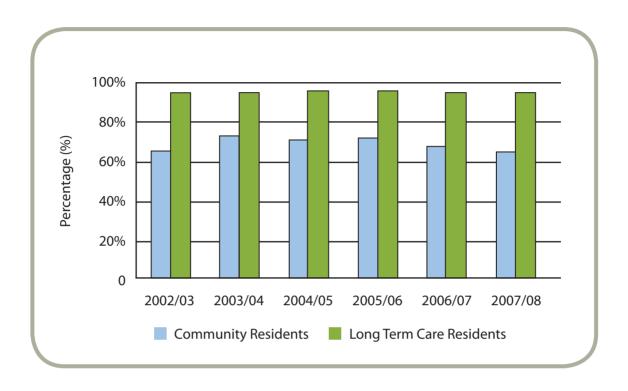
### **Technical Specifications**

**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.

Source: Nova Scotia Health Promotion and Protection Influenza Surveillance and Immunization – Annual Report 2007 - 2008



Figure 2.10: Influenza Immunization Rates for Residents Aged 65+ Years - Nova Scotia, 2002/03 to 2007/08



### **Definition**

The proportion of adults 65 years of age and older who received an influenza vaccination in Nova Scotia.

### Significance – Rationale & 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.

# Disease Prevalence / Incidence

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.

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

For more information, visit:

www.cancercare.ns.ca

www.cancer.ca

www.gov.ns.ca/health

www.hc-sc.gc.ca

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: <a href="https://www.cancercare.ns.ca">www.cancercare.ns.ca</a> or at the national Cancer Care Society website: <a href="https://www.cancer.ca">www.cancer.ca</a>.

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: <a href="www.gov.ns.ca/health">www.gov.ns.ca/health</a> or through Health Canada's website: <a href="www.hc-sc.gc.ca">www.hc-sc.gc.ca</a>.



### **Cancer Care**

Table 3.1: Incidence<sup>3.1</sup> Counts and Rates, by Gender and DHA, Common Cancer Sites - Nova Scotia, 2007

FEMALES							lized Incidence er 100,000
DISTRICT HEALTH AUTHORITY	BREAST	COLORECTAL	LUNG	OTHER	TOTAL INCIDENCE	ALL CANCERS	95% CI <sup>3.3</sup>
South Shore Health	48	19	27	100	194	416.4	[350.4-482.5]
South West Health	46	30	25	86	187	384.4	[325.9-443.0]
Annapolis Valley Health	56	44	27	87	214	332.4	[285.6-379.2]
Colchester East Hants Health Authority	50	36	30	89	205	419.7	[360.0-479.4]
Cumberland Health Authority	24	14	21	35	94	331.1	[259.1-403.1]
Pictou County Health Authority	40	17	33	65	155	424.1	[353.1-495.0]
Guysborough Antigonish Strait Health Authority	41	16	28	62	147	424.2	[352.4-496.1]
Cape Breton District Health Authority	93	64	68	203	428	432.2	[388.3-476.1]
Capital Health	278	138	141	476	1033	404.2	[378.8-429.5]
All Nova Scotia 2007	678	379	401	1210	2668	401.4	[385.6-417.3

MALES						_	lized Incidence er 100,000
DISTRICT HEALTH AUTHORITY	PROSTATE	COLORECTAL	LUNG	OTHER	TOTAL INCIDENCE	ALL CANCERS	95% Cl <sup>3.3</sup>
South Shore Health	60	25	50	78	213	469.9	[404.8-534.9]
South West Health	43	35	29	91	195	478.6	[408.8-548.4]
Annapolis Valley Health	80	41	41	100	262	465.2	[408.0-522.4]
Colchester East Hants Health Authority	51	37	44	85	217	502.1	[434.1-570.1]
Cumberland Health Authority	30	12	26	48	116	488.2	[369.9-579.5]
Pictou County Health Authority	69	30	26	57	182	596.1	[507.3-684.9]
Guysborough Antigonish Strait Health Authority	54	28	25	51	158	503.5	[422.9-584.0]
Cape Breton District Health Authority	113	67	77	163	420	507.8	[457.5-558.1]
Capital Health	369	159	140	503	1171	559.2	[526.5-591.9]
All Nova Scotia 2007	871	433	460	1178	2942	520.4	[501.3-539.5]

<sup>3.1</sup> New rules for determining multiple primary tumours were introduced in 2007, which may account for some of the differences in incidence counts between 2007 and previous years.

<sup>3.2</sup> Rates are standardized to the age distribution of the 1991 Canadian population.

<sup>3.3</sup> The 95% confidence interval (range within which a value is expected to fall with a given probability).

# 3 Disease Prevalence / Incidence

Table 3.2: Incidence<sup>3.4</sup> Rates of Invasive Cancers, by Gender and DHA, Common Cancer Sites - Nova Scotia, 2007

FEMALES			Age-Sta	Age-Standardized Incidence Rate <sup>3.5</sup> Per 100,000	ence Rate <sup>3.5</sup>	Per 100,000		
DISTRICT HEALTH AUTHORITY	BREAST	95% CI	COLORECTAL	12 %56	FUNG	95% CI	ALL SITES	95% Cl <sup>3.6</sup>
South Shore Health	112.5	[77.6-147.4]	37.2	[20.4-54.0]	50.8	[31.5-70.1]	415.4	[350.4-482.5]
South West Health	95.1	[66.7-123.6]	61.5	[38.6-84.5]	47.9	[28.7-67.2]	384.4	[325.9-443.0]
Annapolis Valley Health	86.7	[63.7-109.8]	59.8	[41.4-78.1]	43.1	[25.7-60.6]	332.4	[285.6-379.2]
Colchester East Hants Health Authority	104.1	[74.3-134.0]	8.99	[44.4-89.3]	61.8	[39.4-84.2]	419.7	[360.0-479.4]
Cumberland Health Authority	75.5	[44.3-106.7]	58.2	[25391.1]	76.8	[43.5-110.0]	331.1	[259.1-403.1]
Pictou County Health Authority	115.0	[76.9-153.0]	41.2	[20.5-62.0]	89.2	[57.6-120.8]	424.1	[353.1-495.0]
Guysborough Antigonish Strait Health Authority	125.8	[84.7-166.8]	46.5	[23.4-69.6]	72.8	[45.2-100.4]	424.2	[352.4-496.1]
Cape Breton District Health Authority	90.4	[70.8-109.9]	58.1	[43.4-72.8]	0.89	[51.6-84.4]	432.2	[388.3-476.1]
Capital Health	107.7	[94.7-120.7]	52.2	[43.2-61.1]	55.7	[46.3-65.1]	404.2	[378.8-429.5]
All Nova Scotia 2007	102.2	[94.2-110.1]	53.9	[48.3-59.5]	59.3	[53.3-65.2]	401.4	[385.6-417.3]
Canada <sup>3.7</sup> 2007	101.3	1	41.6	-	46.5	1	360.6	-

MALES			Age-Stan	Age-Standardized Incidence Rate <sup>35</sup> Per 100,000	ice Rate <sup>3.5</sup> F	er 100,000		
DISTRICT HEALTH AUTHORITY	PROSTATE	95% CI	COLORECTAL	95% CI	FUNG	95% CI	ALL SITES	95% Cl <sup>3.6</sup>
South Shore Health	125.9	[93.3-158.0]	54.3	[31.7-76.9]	109.8	[78.8-140.8]	469.9	[404.8-534.9]
South West Health	102.8	[71.7-133.8]	80.1	[51.2-109.1]	0.89	[42.9-93.0]	479.6	[408.8-548.4]
Annapolis Valley Health	137.2	[107.0-167.3]	72.7	[50.0-109.1]	72.4	[50.2-94.6]	465.2	[408.0-522.4]
Colchester East Hants Health Authority	117.2	[84.8-149.7]	86.1	[57.6-114.6]	101.3	[71.2-131.4]	502.1	[434.1-570.1]
Cumberland Health Authority	123.0	[78.9-167.1]	51.1	[21.7-80.4]	103.9	[63.8-144.0]	488.2	[396.9-579.5]
Pictou County Health Authority	220.9	[167.8-273.9]	101.2	[64.0-138.3]	80.3	[49.1-111.6]	596.1	[507.3-684.9]
Guysborough Antigonish Strait Health Authority	164.5	[120.2-208.7]	91.8	[56.3-127.2]	77.0	[46.5-107.6]	503.5	[422.9-584.0]
Cape Breton District Health Authority	128.0	[104.2-151.8]	78.1	[59.2-96.9]	94.6	[73.0-116.1]	507.8	[457.5-558.1]
Capital Health	171.6	[153.7-189.5]	76.3	[64.2-88.4]	71.0	[59.1-82.9]	559.2	[526.5-591.5]
All Nova Scotia 2007	148.7	[138.8-158.7]	76.9	[69.5-84.2]	8.4	[74.8-90.0]	520.4	[501.3-539.5]
Canada <sup>3,7</sup> 2007	126.5	-	62.2	-	9.89	-	462.2	1

New rules for determining multiple primary tumours were introduced in 2007, which may account for some of the differences in incidence counts between 2007 and previous years.

Rates are standardized to the age distribution of the 1991 Canadian population. 3.5

The 95% confidence interval (range within which a value is expected to fall with a given probability). 3.6

Estimated age-standardized incidence rates for Canada. Estimates obtained from Canadian Cancer Statistics 2009



Table 3.3: Mortality Counts and Rates, by Gender and DHA, Common Cancer Sites - Nova Scotia, 2007

FEMALES						_	dized Mortality er 100,000
DISTRICT HEALTH AUTHORITY	BREAST	COLORECTAL	LUNG	OTHER	TOTAL MORTALITY	ALL CANCERS	95% Cl <sup>3.9</sup>
South Shore Health	10	13	19	52	94	166.9	[130.4-203.4]
South West Health	6	10	27	39	82	152.6	[117.9-187.4]
Annapolis Valley Health	10	20	22	42	94	130.9	[103.2-158.6]
Colchester East Hants Health Authority	15	17	22	28	82	152.4	[118.1-186.7]
Cumberland Health Authority	5	8	13	18	44	144.0	[95.6-192.4]
Pictou County Health Authority	8	6	24	37	75	182.8	[139.1-226.5]
Guysborough Antigonish Strait Health Authority	10	7	19	20	56	131.0	[95.1-166.9]
Cape Breton District Health Authority	35	22	37	105	199	177.2	[151.4-202.9]
Capital Health	66	51	106	201	424	156.9	[141.5-172.3]
All Nova Scotia 2007	166	154	290	545	1155	157.3	[147.8-166.7]

MALES							dized Mortality er 100,000
DISTRICT HEALTH AUTHORITY	PROSTATE	COLORECTAL	LUNG	OTHER	TOTAL MORTALITY	ALL CANCERS	95% Cl <sup>3.9</sup>
South Shore Health	7	8	30	37	82	173.9	[135.8-211.9]
South West Health	11	17	27	54	109	253.3	[205.0-301.5]
Annapolis Valley Health	4	14	37	53	108	193.2	[156.2-230.3]
Colchester East Hants Health Authority	10	17	29	39	95	223.4	[177.9-268.9]
Cumberland Health Authority	2	11	20	28	61	258.2	[192.0-324.3]
Pictou County Health Authority	15	10	24	34	83	272.6	[213.0-332.1]
Guysborough Antigonish Strait Health Authority	9	8	23	35	75	251.7	[193.5-310.0]
Cape Breton District Health Authority	21	39	68	98	226	276.8	[239.6-314.0]
Capital Health	40	53	106	228	427	210.6	[190.3-230.8]
All Nova Scotia 2007	119	178	364	609	1270	226.6	[214.0-239.2]

<sup>3.8</sup> Rates are standardized to the age distribution of the 1991 Canadian population.

<sup>3.9</sup> The 95% confidence interval (range within which a value is expected to fall with a given probability).



Table 3.4: Mortality rates of Invasive Cancers, by gender and District Health Authority (DHA), common cancer sites, Nova Scotia 2007

FEMALES			Age-Stal	Age-Standardized Mortality Rate <sup>3.10</sup> Per 100,000	ality Rate <sup>3.10</sup>	Per 100,000		
DISTRICT HEALTH AUTHORITY	BREAST	95% Cl <sup>3.11</sup>	COLORECTAL	95% CI	LUNG	95% CI	ALL SITES	95% Cl <sup>3.11</sup>
South Shore Health	19.9	6.9-32.9	21.5	9.5-33.6	35.7	19.3-52.2	166.9	130.4-203.4
South West Health	12.6	2.2-23.0	15.5	5.2-25.9	50.3	30.6-70.0	152.6	117.9-187.4
Annapolis Valley Health	13.3	4.8-21.8	23.9	12.7-35.1	32.4	18.5-46-4	130.7	103.2-158.6
Colchester East Hants Health Authority	26.9	12.5-41.3	29.2	14.5-44.0	42.9	24.5-61.2	152.4	118.1-186.7
Cumberland Health Authority	10.5	0.5-20.4	24.0	7.0-41.0	45.9	20.4-71.3	144.0	95.6-192.4
Pictou County Health Authority	19.7	4.6-34.8	14.9	2.3-27.5	64.7	38.0-91.4	182.8	139.1-226.5
Guysborough Antigonish Strait Health Authority	24.1	8.5-39.6	18.3	4.0-32.5	45.8	24.6-67.0	131.0	95.1-166.9
Cape Breton District Health Authority	32.1	20.9-43.2	18.2	10.2-26.2	33.9	22.6-44.7	177.2	151.4-202.9
Capital Health	23.7	17.8-29.6	18.7	13.4-24.0	40.1	32.2-48.0	156.9	141.5-172.3
All Nova Scotia 2007	22.5	18.9-26.1	20.0	16.7-23.3	40.7	35.9-45.5	157.3	147.8-166
Canada <sup>3.12</sup> 2007	22.7		16.6		38.9		147.6	1

# 3 Disease Prevalence / Incidence

MALES			Age-Sta	Age-Standardized Mortality Rate <sup>3.10</sup> Per 100,000	ality Rate³.10	Per 100,000		
DISTRICT HEALTH AUTHORITY	PROSTATE	95% CI	COLORECTAL	95% CI	FNNG	95% CI	ALL SITES	95% CI
South Shore Health	15.3	[ 3.9-26.7]	16.0	[ 4.9- 27.1]	63.6	[ 40.7-86.5]	173.9	[135.8-211.9]
South West Health	26.1	[10.5-41.7]	37.0	[19.1-54.8]	67.3	[41.7-92.8]	253.3	[205.0-301.5]
Annapolis Valley Health	6.7	[ 0.1-13.2]	25.1	[11.9-38.3]	64.2	[43.5-85.0]	193.2	[156.2-230.3]
Colchester East Hants Health Authority	23.5	[ 8.9-38.2]	40.5	[21.2-59.7]	65.2	[41.3-89.0]	223.4	[177.9-268.9]
Cumberland Health Authority	7.2	[-2.9-17.3]	46.3	[18.5-74.1]	83.9	[46.4-121.3]	258.2	[192.0-324.3]
Pictou County Health Authority	49.0	[23.9-74.2]	36.0	[13.4-58.6]	74.7	[ 44.4-105.1]	272.6	[213.0-332.1]
Guysborough Antigonish Strait Health Authority	30.9	[10.6-51.1]	31.8	[ 8.2- 55.4]	72.7	[ 42.8-102.7]	251.7	[193.5-310.0]
Cape Breton District Health Authority	26.0	[14.8-37.1]	47.4	[31.9-63.0]	83.2	[63.0-103.4]	276.8	[239.6-314.0]
Capital Health	21.1	[14.5-27.7]	26.0	[18.9-33.1]	53.4	[43.1-63.7]	210.6	[190.3-230.8]
All Nova Scotia 2007	21.7	[17.8-25.6]	31.9	[27.1-36.6]	65.1	[58.3-71.8]	226.6	[214.0-239.2]
Canada <sup>3.12</sup> 2007	23.9		26.2		60.1		210.8	

Rates are standardized to the age distribution of the 1991 Canadian population. 3.10

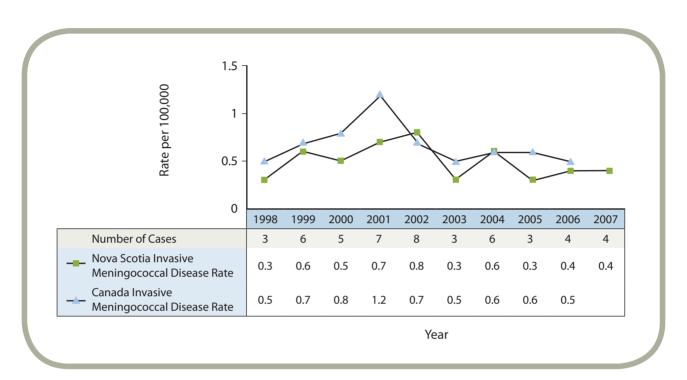
The 95% confidence interval (range within which a value is expected to fall with a given probability).

Estimated age-standardized incidence rates for Canada. Estimates obtained from Canadian Cancer Statistics 2009



### **Incidence of Invasive Meningococcal Disease**

Figure 3.1: Incidence of Laboratory Confirmed Invasive Meningococcal Disease - Nova Scotia and Canada, 1998-2007



### **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>3,13</sup>

### Significance – Rationale & 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 3.1). A total of 50 cases of IMD were reported

<sup>3.13</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.





between 1998 and 2007 in Nova Scotia (laboratory-confirmed (43) and clinical (7) cases) including 3 deaths (Table 3.6). Incidence has been shown to be highest among children 0-4 years of age. In Nova Scotia, meningococcal group C vaccine is publicly funded for 12-month old infants. Tables 3.5 and 3.6 summarize the reported cases of laboratory-confirmed IMD from 1998 to 2007 with confirmed serogroups (B,C,Y,W-135, unknown) by age group.



Table 3.5: Number of Reported Cases of Laboratory Confirmed Invasive Meningococcal Disease by Age Group and Serogroup - Nova Scotia, 1998 to 2007

				CASE - C	Confirmed wi	th Serogroup		
Year	Age-Group	В	С	Υ	W-135	Unknown	Total	Rate/100,000
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
	60+	-	-	1	-	-	1	0.6
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
	40-59	1	-	-	-	-	1	0.4
2007	0-4	1	-	1	-	1	2	4.1
	5-9	1	-	-	-	-	1	1.8
	40-59	1	-	-	-	-	1	0.4



Table 3.6: Reported Cases of Invasive Meningococcal Disease (Laboratory Confirmed and Clinical) by Serogroup and Outcome - Nova Scotia, 1998 to 2007

Year	Total					CASE			Outo	ome
	Number of		Confi	rmed	with Serc	group	Clinical	Rate		
	Cases	В	С	Υ	W-135	Unknown		100,000/ Year	Recovered	Died
1998	3	3	ı	1	-	1	-	0.3	3	-
1999	6	5	-	1	-	-	-	0.6	5	1
2000	5	2	-	1	-	2	-	0.5	4	1
2001	7	1	ı	2	-	2	2	0.7	7	-
2002	8	3	1	2	-	-	2	0.8	7	1
2003	3	1	1	1	-	-	-	0.3	3	-
2004	6	4	-	-	1	1	-	0.6	6	-
2005	3	1	1	-	-	-	1	0.3	3	-
2006	4	1	-	1	-	1	1	0.3	4	-
2007	4	3	-	-	-	1	-	0.4	4	-
TOTAL	50	24	3	8	1	7	7	-	47	3

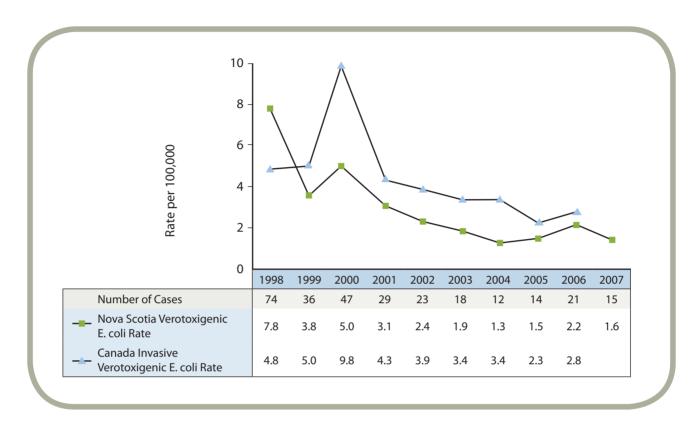


 $Source:\ Nova\ Scotia\ Health\ Promotion\ and\ Protection\ Surveillance\ Data$ 



### **Incidence of Verotoxigenic Escherichia Coli Infection**

Figure 3.2: Incidence of Verotoxigenic E. coli - Nova Scotia and Canada, 1998 to 2007



### **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>3.14</sup>

### Significance – Rationale & 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

<sup>3.14</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.



through direct contact in families, childcare centres, and institutions.

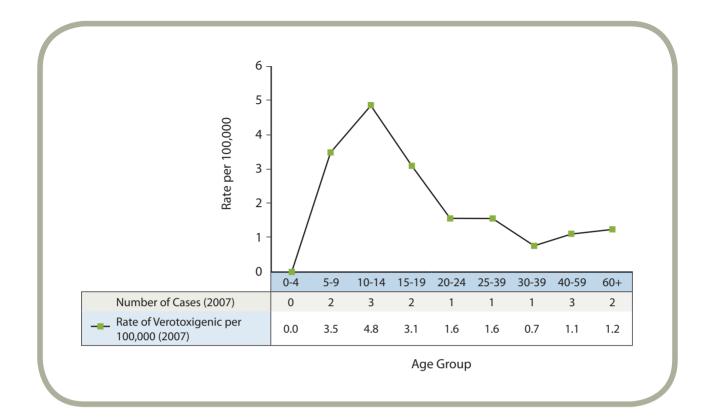
There were 15 cases of verotoxigenic E. coli reported in Nova Scotia in 2007. The incidence of verotoxigenic E. coli infection in Nova Scotia was 1.6 cases per 100,000 population (Figure 3.2). The Canadian rate for 2006 was 2.8 cases per 100,000 population.<sup>3.15</sup>

In 2007, 60% of the cases were females. The mean age was 31 years (range: 5-88 years). The highest age-specific incidence occurred in those 10-14 years of age at 4.8 cases per 100,000 population (Figure 3.3). 13 cases (86.7%) were reported between July and November.

<sup>3.15</sup> Notifiable Disease On-line: Notifiable Disease by Province for December 2006 (Preliminary) – update. Notifiable Disease Section/ Surveillance Risk Assessment Division/Centre for Infectious Disease Prevention and Control/Public Health Agency of Canada.



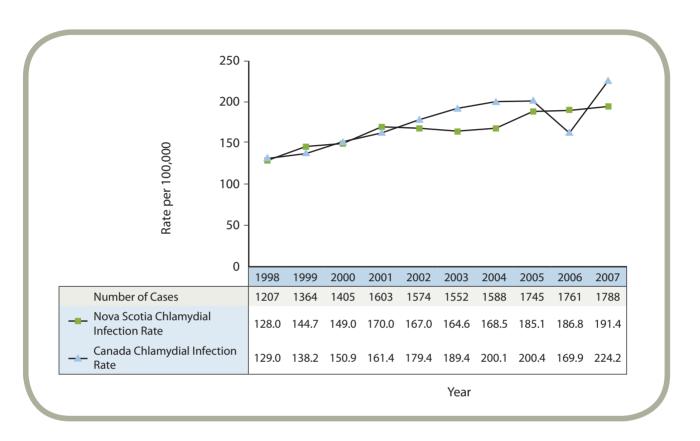
Figure 3.3: Age Specific Incidence of Verotoxigenic E. coli - Nova Scotia, 2007





### **Incidence of Chlamydia Trachomatis Infection**

Figure 3.4: Incidence of Chlamydial Infection - Nova Scotia and Canada, 1998 to 2007



### **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>3,16</sup>

### Significance – Rationale & Notes for Interpretation

Chlamydiae cause a number of sexually transmitted infections and eye and lung infections of infant 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.

It is unclear to what extent increased rates may be attributable to more testing, and to introduction of more sensitive diagnostic testing methods (Nucleic

<sup>3.16</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



acid amplification testing) across Canada in the late 1990's.

In 2007, 1788 cases of genital Chlamydia were reported in Nova Scotia (rate of 191.4 per 100,000 population). The national rate for 2007 was 224.4 cases per 100,000 population<sup>3.17</sup>. The mean age of the NS cases was 22 years (range: 12-98 years): 75% were reported in those aged 15 to 24 years (Figure 3.5). The incidence in females up to 39 years of age exceeded that of males.

The age standardized rate in Capital was higher than the provincial age-standardized rate (P=0.0056) while the rates in Western, Northern and Eastern were lower than the provincial rate (P=0.016, P=0.034 and P=0.0004 respectively) (Figure 3.6).

<sup>3.17</sup> National Report Online: <a href="http://www.phac-apc.gc.ca/std-mts/stdcases-casmts/cases-cas-08-eng.php">http://www.phac-apc.gc.ca/std-mts/stdcases-casmts/cases-cas-08-eng.php</a>



Figure 3.5: Age Specific Incidence of Chlamydial Infection by Gender - Nova Scotia, 2007

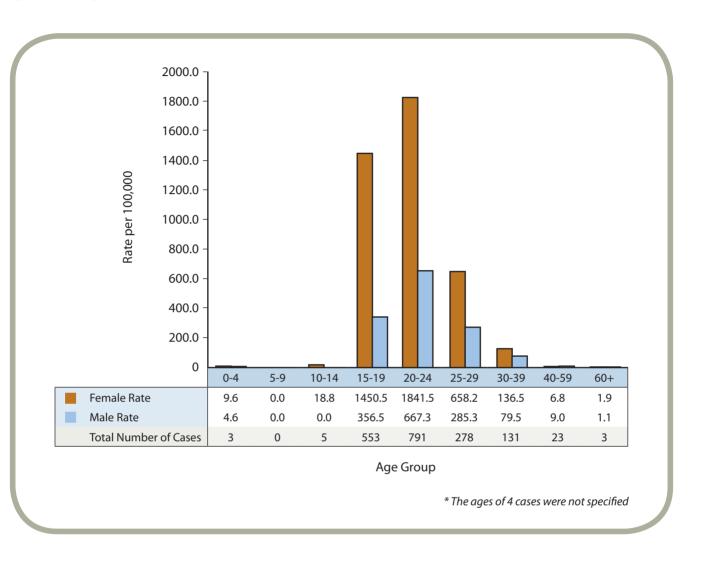
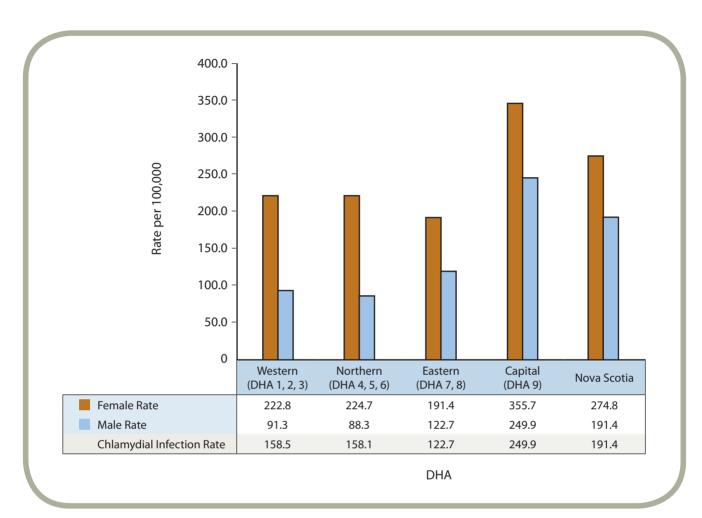




Figure 3.6: Age Standardized Incidence of Chlamydial Infection by Gender and Shared Service Area - Nova Scotia, 2007



# 3 Disease Prevalence / Incidence

Table 3.7: Reported Number of New Cases of Chlamydia Trachomatis by Age, Gender and Shared Service Area - Nova Scotia, 2007

Shared Service Area	Sex	0-4	2-9	10-14	15-19	20-24	25-29	30-39	40-59	+09	Not Specified	Total
	Female	-	0		87	95	33	13	-	0	0	231
Western	Male	0	0	0	20	51	14	9	_	0	0	92
(DHA 1, 2, 3)	Unknown	0	0	0	_	0	0	0	0	0	0	
,	Total	1	0	1	108	146	47	19	2	0	0	324
	Female	0	0	0	78	49	26	4	-	0	0	173
Northern	Male	0	0	0	21	27	7	8	2	0	-	99
(DHA 4, 5, 6)	Unknown	0	0	0	0	0	-	0	0	0	0	_
	Total	0	0	0	66	91	34	12	cc	0	_	240
	Female	0	0	0	58	62	40	10	1	0	0	171
Eastern	Male	0	0	0	13	13	∞	5	_	_	0	41
(DHA 7,8)	Unknown	0	0	0	_	0	0	0	0	0	0	
	Total	0	0	0	72	75	48	15	2	_	0	213
	Female	1	0	4	216	352	97	56	7	2	0	735
Capital	Male	_	0	0	28	127	52	28	6	0	0	275
(DHA 9)	Unknown	0	0	0	0	0	0	_	0	0	0	_
	Total	2	0	4	274	479	149	85	16	2	0	1011
	Female	2	0	2	439	573	196	83	10	2	0	1310
0,000	Male	_	0	0	112	218	81	47	13	_	-	474
NOVA SCOULA	Unknown	0	0	0	2	0	_	_	0	0	0	4
	Total	n	0	2	553	791	278	131	23	e	_	1788

Table 3.8: Age and Gender Specific, Crude and Age-Standardized Rates<sup>3.18</sup> per 100,000 of Chlamydia Trachomatis by Shared Service Area - Nova Scotia, 2007

0-4         5-9         10-14         15-19           24.0         0.0         17.5         1318.4           0.0         0.0         292.1           11.8         0.0         8.5         803.2           0.0         0.0         1571.9           0.0         0.0         1571.9           0.0         0.0         996.4           0.0         0.0         967.8           0.0         0.0         203.5           0.0         0.0         581.5           10.2         0.0         35.0         1699.2           9.8         0.0         0.0         439.3           10.0         0.0         17.1         1057.3           9.6         0.0         18.8         1450.5           4.6         0.0         356.5												
Female         24.0         0.0         17.5         1318.4           Male         0.0         0.0         292.1           Total         11.8         0.0         8.5         803.2           Female         0.0         0.0         1571.9           Male         0.0         0.0         422.2           Total         0.0         0.0         967.8           Female         0.0         0.0         203.5           Female         10.2         0.0         203.5           Male         9.8         0.0         439.3           Female         9.6         0.0         17.1         1057.3           Female         9.6         0.0         350.5         1450.5           Male         9.6         0.0         356.5         1450.5	Sex	0-4	2-9	10-14	15-19	20-24	25-29	30-39	40-59	+09	Crude Rate	Age Standardized Rate
Male         0.0         0.0         292.1           Total         11.8         0.0         8.5         803.2           Female         0.0         0.0         1571.9           Male         0.0         0.0         422.2           Female         0.0         0.0         96.4           Female         0.0         0.0         967.8           Male         0.0         0.0         581.5           Female         10.2         0.0         581.5           Male         9.8         0.0         0.0         439.3           Total         10.0         0.0         439.3           Female         9.6         0.0         17.1         1057.3           Female         9.6         0.0         35.0         450.5           Male         4.6         0.0         35.6         35.6	Female	24.0	0.0	17.5	1318.4	1503.2	677.8	1.601	3.1	0.0	222.8	244.59
Total         11.8         0.0         8.5         803.2           Female         0.0         0.0         1571.9           Male         0.0         0.0         422.2           Total         0.0         0.0         996.4           Female         0.0         0.0         967.8           Male         0.0         0.0         203.5           Female         10.2         0.0         581.5           Male         9.8         0.0         35.0         1699.2           Male         9.8         0.0         17.1         1057.3           Female         9.6         0.0         17.1         1057.3           Male         4.6         0.0         356.5	Male	0.0	0.0	0.0	292.1	767.3	283.5	50.3	3.1	0.0	91.3	98.85
Female         0.0         0.0         1571.9           Male         0.0         0.0         422.2           Total         0.0         0.0         996.4           Female         0.0         0.0         967.8           Male         0.0         0.0         967.8           Female         0.0         0.0         203.5           Female         10.2         0.0         581.5           Male         9.8         0.0         439.3           Female         9.6         0.0         17.1         1057.3           Female         9.6         0.0         35.6         1450.5	Total	11.8	0.0	8.5	803.2	1125.9	479.2	79.7	3.1	0.0	158.5	173.06
Male         0.0         0.0         422.2           Total         0.0         0.0         996.4           Female         0.0         0.0         96.8           Male         0.0         0.0         967.8           Female         0.0         0.0         203.5           Female         10.2         0.0         581.5           Male         9.8         0.0         35.0         1699.2           Female         9.8         0.0         17.1         1057.3           Female         9.6         0.0         18.8         1450.5           Male         4.6         0.0         356.5	Female	0.0	0.0	0.0	1571.9	1325.6	628.3	43.2	4.3	0.0	224.7	234.57
Total         0.0         0.0         996.4           Female         0.0         0.0         967.8           Male         0.0         0.0         967.8           Total         0.0         0.0         203.5           Female         10.2         0.0         581.5           Male         9.8         0.0         35.0         1699.2           Total         10.0         0.0         439.3           Female         9.6         0.0         17.1         1057.3           Male         4.6         0.0         356.5	Male	0.0	0.0	0.0	422.2	537.2	180.0	89.4	8.7	0.0	88.3	93.88
Female         0.0         0.0         967.8           Male         0.0         0.0         203.5           Total         0.0         0.0         581.5           Female         10.2         0.0         35.0         1699.2           Male         9.8         0.0         0.0         439.3           Total         10.0         0.0         17.1         1057.3           Female         9.6         0.0         18.8         1450.5           Male         4.6         0.0         0.0         356.5	Total	0.0	0.0	0.0	996.4	923.5	423.6	62.9	6.5	0.0	158.1	167.16
Male         0.0         0.0         203.5           Total         0.0         0.0         581.5           Female         10.2         0.0         35.0         1699.2           Male         9.8         0.0         0.0         439.3           Total         10.0         0.0         17.1         1057.3           Female         9.6         0.0         18.8         1450.5           Male         4.6         0.0         0.0         356.5	Female	0.0	0.0	0.0	8.796	1041.3	866.4	105.9	3.6	0.0	191.4	201.33
Total         0.0         0.0         581.5           Female         10.2         0.0         35.0         1699.2           Male         9.8         0.0         0.0         439.3           Total         10.0         0.0         17.1         1057.3           Female         9.6         0.0         18.8         1450.5           Male         4.6         0.0         0.0         356.5	Male	0.0	0.0	0.0	203.5	204.1	192.4	54.2	3.8	5.5	48.6	50.76
Female         10.2         0.0         35.0         1699.2           Male         9.8         0.0         0.0         439.3           Total         10.0         0.0         17.1         1057.3           Female         9.6         0.0         18.8         1450.5           Male         4.6         0.0         0.0         356.5	Total	0.0	0.0	0.0	581.5	608.7	547.0	80.3	3.7	2.5	122.7	127.94
Male         9.8         0.0         0.0         439.3           Total         10.0         0.0         17.1         1057.3           Female         9.6         0.0         18.8         1450.5           Male         4.6         0.0         0.0         356.5	Female	10.2	0.0	35.0	1699.2	2511.8	600.4	185.4	11.0	5.2	355.7	344.13
Total         10.0         0.0         17.1         1057.3           Female         9.6         0.0         18.8         1450.5           Male         4.6         0.0         0.0         356.5	Male	8.6	0.0	0.0	439.3	868.2	337.5	96.4	14.5	0.0	139.0	13.057
Female         9.6         0.0         18.8         1450.5           Male         4.6         0.0         0.0         356.5	Total	10.0	0.0	17.1	1057.3	1672.4	472.1	143.5	12.7	2.9	249.9	239.17
Male 4.6 0.0 0.0 356.5	Female	9.6	0.0	18.8	1450.5	1841.5	658.2	136.5	8.9	1.9	274.8	278.42
	Male	4.6	0.0	0.0	356.5	667.3	285.3	79.5	0.6	1.1	103.6	103.58
Total 7.0 0.0 9.2 896.6 12	Total	7.0	0.0	9.2	9.968	1240.1	477.9	109.2	7.9	1.5	191.4	192.77

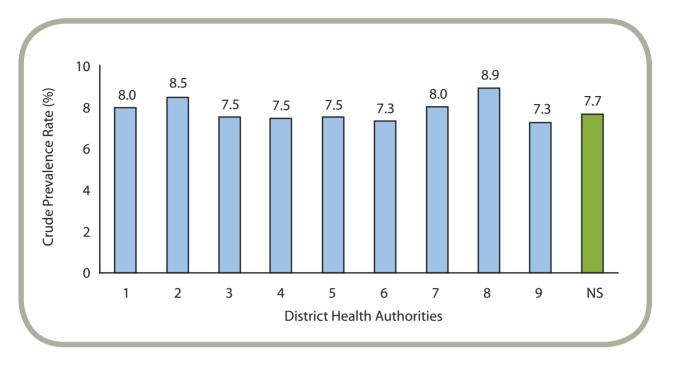
Source: Nova Scotia Health Promotion and Protection Surveillance Data

3.18 Age-Standardized Rate adjusted to the age distribution of the 2001 census population of Canada.



### **Diabetes Care Program**

Figure 3.7: Prevalence of Diabetes, for Population Aged 20+ Years\* - by DHA, 2006/07



### **Definition**

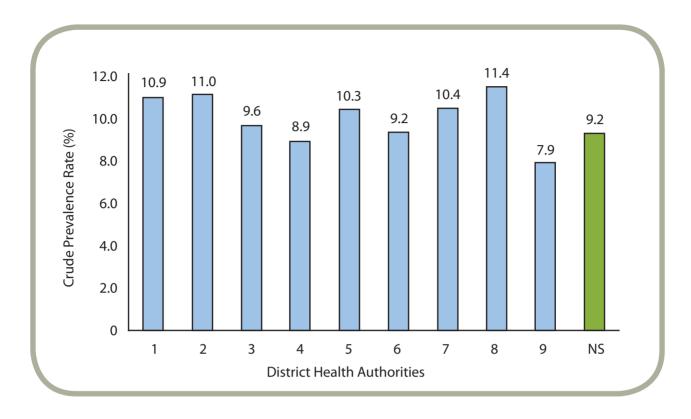


This indicator measures the age-standardized prevalence rate of diabetes mellitus for Nova Scotians age 20 and over. Prevalence rates are calculated as the proportion of new and existing diabetes cases for a given jurisdiction. Diabetes cases are determined from the National Diabetes Surveillance System (NDSS), v209, annual person-level summary file as any individual with a date of diagnosis on or before March 31, 2007.

<sup>\*</sup> Age-standardized to 1991 Canadian population.



Figure 3.8: Crude Prevalence Rate of Diabetes - by DHA, 2006/07



### **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, 2007. In 2008, through the release of "Nova Scotia Diabetes Statistics Report, 2008," the Diabetes Care Program of Nova Scotia (DCPNS) profiled 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.

### Significance - Rationale & Notes for Interpretation

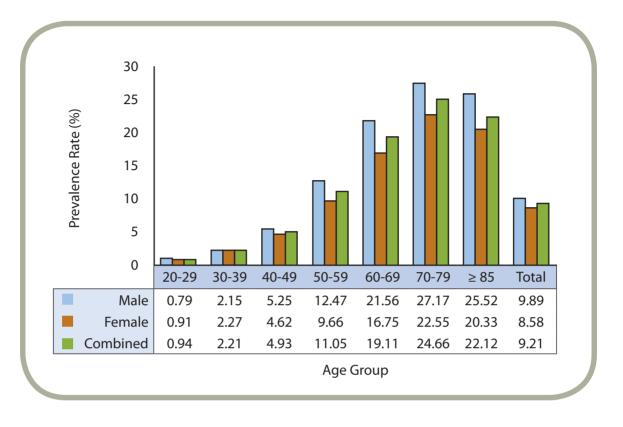
The Diabetes Care Program of Nova Scotia (DCPNS) is one of nine provincial programs funded by the Nova Scotia Department of Health (DoH). Working closely with all Diabetes Centres in the Province, this Program advises the Ministry on service delivery models; establishes, promotes, and monitors adherence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

According to the most recent figures, diabetes has been diagnosed in approximately 9.2% 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 (9.2%) represents a 5.5% increase in the prevalence rate over the last reported year, 2006/07 (from 8.7% to 9.2%). The increase in prevalence is





Figure 3.9: Prevalence of Diabetes, for Population Aged 20+ Years, by Age Group\* & Sex - Nova Scotia, 2006/07





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.

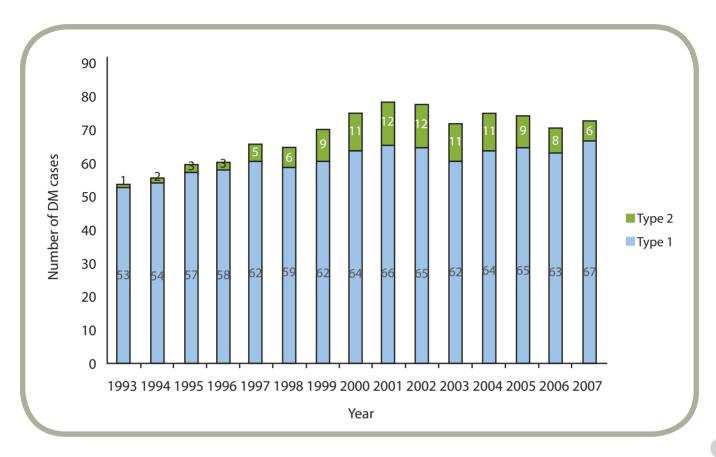
**NDSS algorithm:** a person is identified as having diabetes with one hospital or two physician visits within two years coded with a diagnosis of diabetes mellitus.

**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)  $\times$  the age-standardizing process)  $\times$  100 per fiscal year.

<sup>\*</sup> Age-standardized to 1991 Canadian population.



Figure 3.10: Trend in Incident Cases (3-year moving average<sup>3.19</sup>) for the Population Aged <19 Years, by Diabetes Type - Nova Scotia, 1993 to 2007



## 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 1 and 2 diabetes in this age population.

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.

<sup>3.19 3-</sup>year moving average: Each calendar year represents the mid-point for 3 years of averaged data (e.g. 2006 represents the average for 2005 to 2007; 2007 represents the average for 2006 to 2008, etc.)



### **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, 2008.

### Significance - Rationale & Notes for Interpretation

The incident cases for Type 1 DM showed a slow but steady increase from 1992 (mean of the first 5 years, 56 cases) through to 2008 (mean of the last 5 years, 66 cases).

Type 2 DM, as usually diagnosed in adults, now accounts for approximately 10% (average of the last five years) of new cases in this <19 age group. Type 2 DM was virtually unreported in Nova Scotia in the early 1990's. This data highlights, with concern, the growth in type 2 DM in this age population.

# Surgical Interventions

**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.

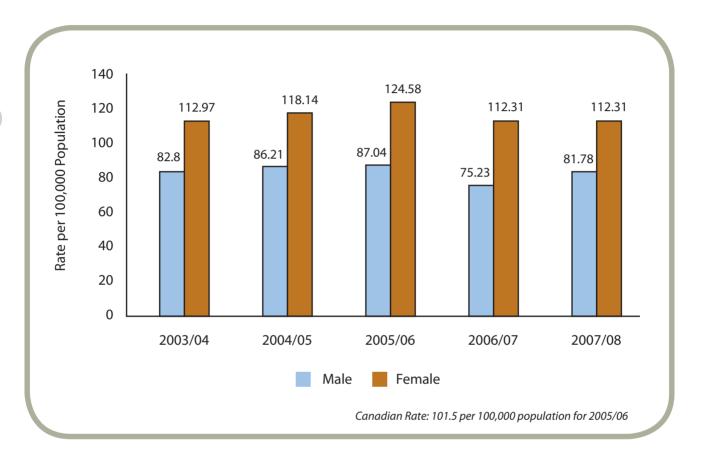
Please note that all results only reflect surgeries performed in Nova Scotia hospitals.



### **Hip Replacements**

Figure 4.1: Hip Replacements, Aged 20+ Years - Nova Scotia, 2003/04 to 2007/08

Rates per 100,000 Age-Standardized to the 1991 Canadian Population



### **Definition**

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

### Significance – Rationale & 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>4.1</sup>

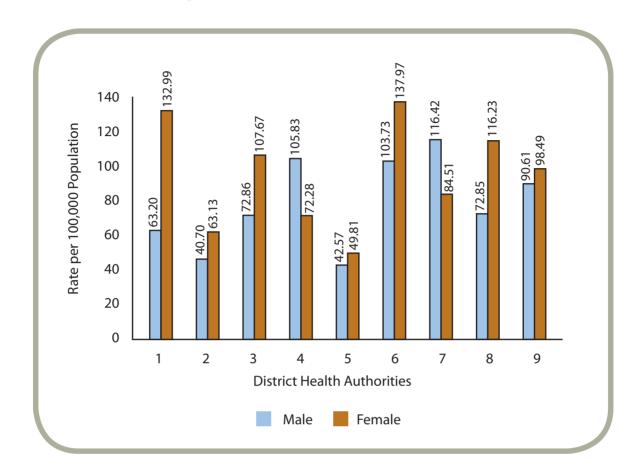
### **Technical Specifications**

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

<sup>4.1</sup> As reflected in SF-36 and WOMAC results, Reporting to Nova Scotians on Comparable Health and Health Systems Indicators, 2001.



Figure 4.2: Hip Replacements, Aged 20+ Years - by DHA of Residence, 2007/08
Rates per 100,000 Age-Standardized to the 1991 Canadian Population



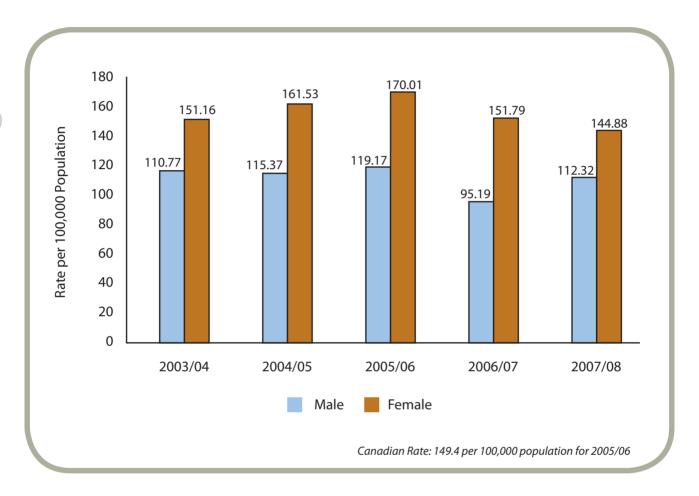
Source: Nova Scotia Department of Health, Canadian Institute for Health, Information Discharge Abstract Database Canadian Institute for Health Information, Health Indicators 2008



### **Knee Replacements**

Figure 4.3: Knee Replacements, Aged 20+ Years - Nova Scotia, 2007/08

Rates per 100,000 Age-Standardized to the 1991 Canadian Population



### **Definition**

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

### Significance – Rationale & Notes for Interpretation

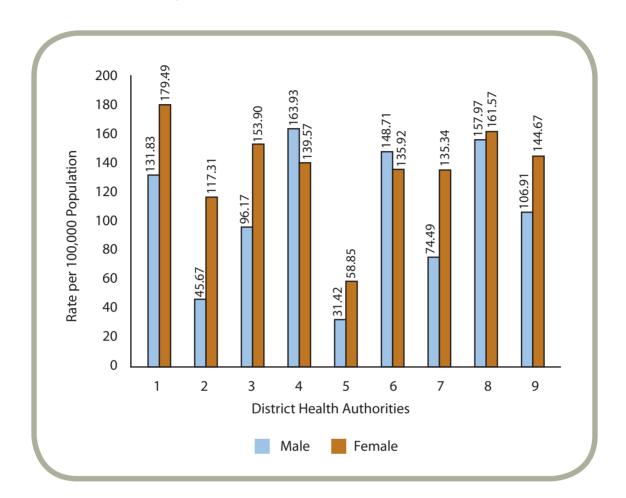
The intended outcome of most elective surgery is improved health-related quality of life. Increases in knee replacements may reflect increased access to orthopedic care and result in improved population health status or may reflect bone degeneration in the population.

### **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) × Standardizing Process) × 100,000.



Figure 4.4: Knee Replacements, Aged 20+ Years - by DHA of Residence, 2006/07
Rates per 100,000 Age-Standardized to the 1991 Canadian Population



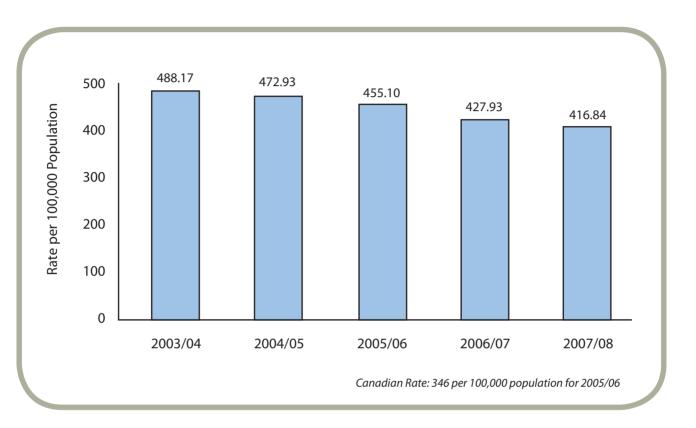
Source: Nova Scotia Department of Health, Canadian Institute for Health, Information Discharge Abstract Database Canadian Institute for Health Information, Health Indicators 2008



### **Hysterectomies**

Figure 4.5: Hysterectomies, Aged 20+ Years - Nova Scotia, 2003/04 to 2007/08

Rates per 100,000 Age-Standardized to the 1991 (Female) Canadian Population



### **Definition**

Surgical removal of the uterus.

### Significance – Rationale & 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) × Standardizing Process) ×100,000.

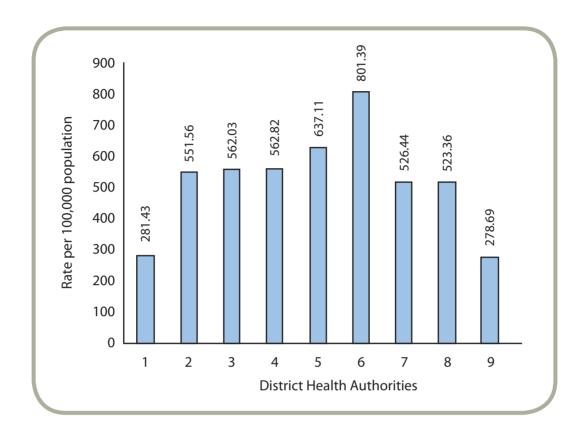
### Disclosures

**Excludes:** Subtotal and partial hysterectomies



Figure 4.6: Hysterectomies, Aged 20+ Years - by DHA of Residence, 2007/08

Rates per 100,000 Age-Standardized to the 1991 (Female) Canadian Population



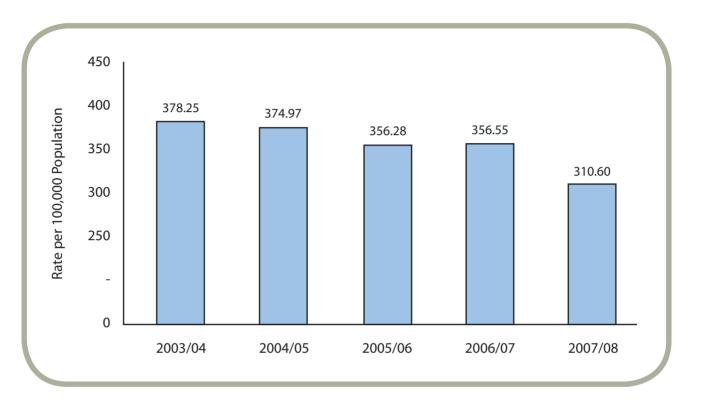
Source: Nova Scotia Department of Health, Canadian Institute for Health, Information Discharge Abstract Database Canadian Institute for Health Information, Health Indicators 2008



### **Cardiac Catheterizations**

Figure 4.7: Cardiac Catheterizations, Aged 20+ Years - Nova Scotia, 2003/04 to 2007/08

Rates per 100,000 Age-Standardized to the 1991 Canadian Population



### **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 & Notes for Interpretation

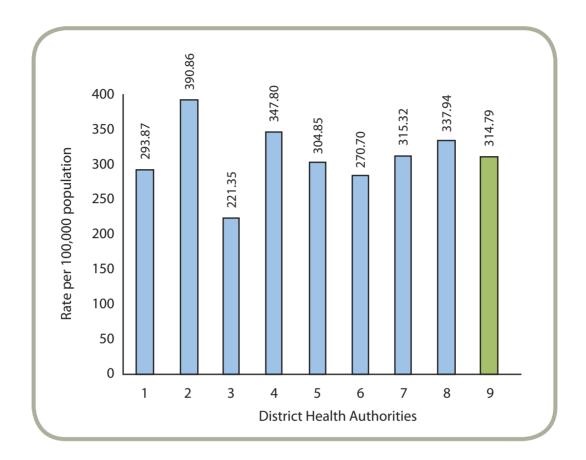
Cardiac catheterizations are a diagnostic procedure used for determining heart disease. Measuring the number of cardiac catheterizations performed provides an indication of how many people in the population are experiencing symptoms of heart disease.

### **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 $^{^{^{^{^{\prime}}}}}$  ((The number of cardiac catheterizations done as principal intervention per DHA of Residence) / (the population for the province (each DHA))  $\times$  Standardizing Process))  $\times$  100,000.



Figure 4.8: Cardiac Catheterizations, Aged 20+ Years - by DHA of Residence, 2007/08
Rates per 100,000 Age-Standardized to the 1991 Canadian Population

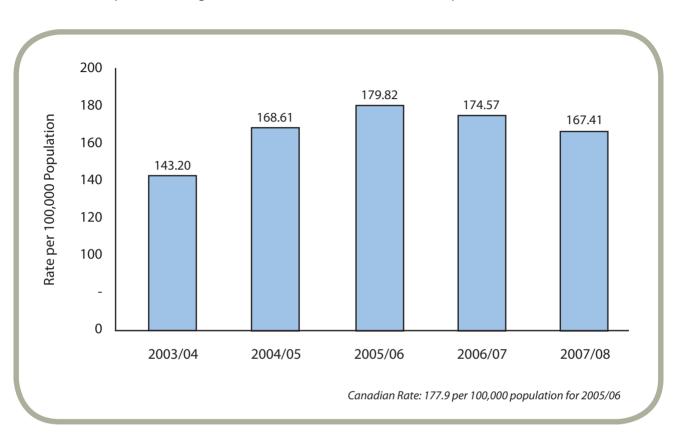




### **Percutaneous Coronary Intervention**

Figure 4.9: Percutaneous Coronary Intervention, Aged 20+ Years - Nova Scotia, 2003/04 to 2007/08

Rates per 100,000 Age-Standardized to the 1991 Canadian Population



### **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 & Notes for Interpretation

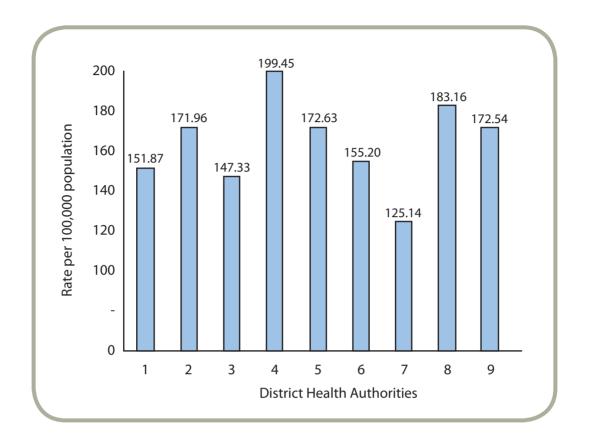
In many cases, PCI serves as a non-surgical alternative to coronary artery bypass graft (CABG) surgery and is undertaken for the purpose of opening obstructed coronary arteries. The choice of revascularization mode (that is, PCI or CABG) depends on numerous factors, including physician preferences, availability 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^^. ((The number of coronary angioplasties done per DHA of Residence / the population aged 20 years and over for the province (DHA's)) × Standardizing Process)) × 100,000.



Figure 4.10: Percutaneous Coronary Intervention, Aged 20+ Years - by DHA of Residence, 2007/08
Rates per 100,000 Age-Standardized to the 1991 Canadian Population



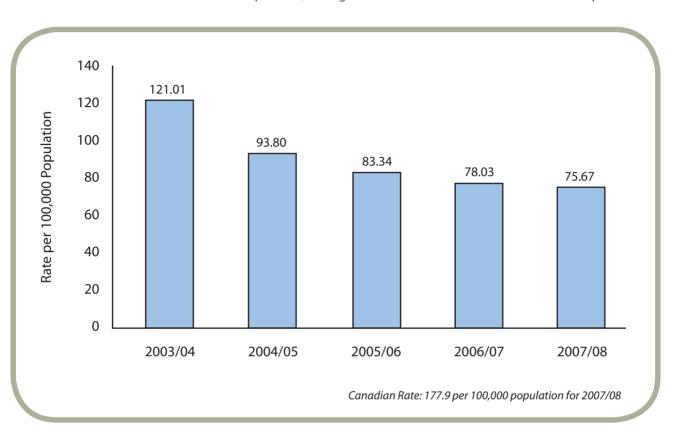
Source: Nova Scotia Department of Health, Canadian Institute for Health, Information Discharge Abstract Database Canadian Institute for Health Information, Health Indicators 2008



### **Coronary Artery Bypass Graft (CABG)**

Figure 4.11: Coronary Artery bypass Graft (CABG), Aged 20+ Years - Nova Scotia, 2003/04 to 2007/08

Rates per 100,000 Age-Standardized to the 1991 Canadian Population



### **Definition**

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

### Significance – Rationale & Notes for Interpretation

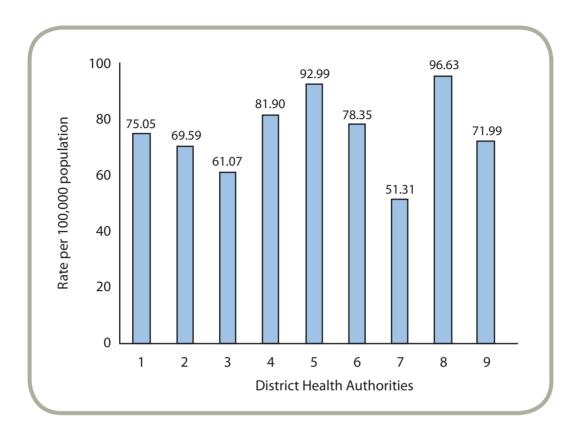
Coronary artery bypass grafts are performed to restore blood flow to the heart. CABG's are preformed to prevent future heart complications (for example heart attack), as well as a therapeutic intervention to restore function post heart attack and may be representative of a patients' access to care.

### **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)) × Standardizing Process) × 100,000



Figure 4.12: Coronary Artery Bypass Graft (CABG), Aged 20+ Years - by DHA of Residence, 2007/08
Rates per 100,000 Age-Standardized to the 1991 Canadian Population



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

# **Provincial Services**

In Nova Scotia, a number of programs work together to provide the health care services our communities require. Many of 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 cares needs of specific communities and age groups and allows effective planning and funding of services in these areas.



### **Mental Health Programs**

Figure 5.1: Inpatient Separations - Adults (≥19 years) Nova Scotia, 2006/07

Figure 5.2: Patient Days - Adults (≥19 years) Nova Scotia, 2006/07

Figure 5.3: Inpatient Separations - Children (<19 years) Nova Scotia, 2006/07

Figure 5.4: Patient Days - Children (<19 years) Nova Scotia, 2006/07

### Definition

1 & 3 Inpatient Separations - Adults (19 years) and Children (<19 years) Separations from designated psychiatric units in Nova Scotia hospitals.

2 & 4 Patient Days - Adults (≥19 Years) and Children (<19 years). The number of days accumulated by separations form designated psychiatric units in Nova Scotia hospitals.

### Significance - Rationale & 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 preventions and rehabilitation programs and improving health outcomes.

### **Technical Specifications**

### **Calculation:**

1 & 3: 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.

2 & 4: 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 5.1: Inpatient Separations, Adults (≥19 Years) - Nova Scotia, 2007/08

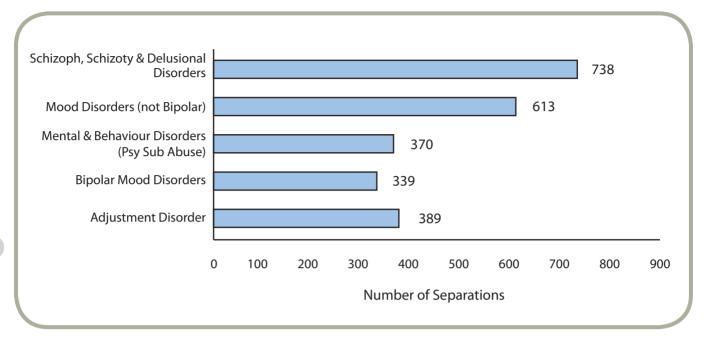


Figure 5.2: Patient Days, Adults (≥19 Years) - Nova Scotia, 2007/08

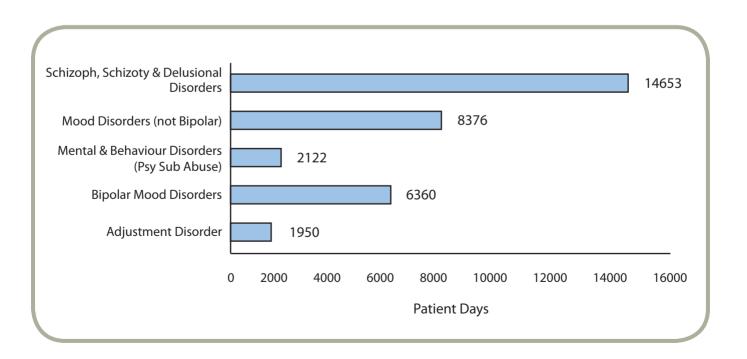




Figure 5.3: Inpatient Separations, Children (<19 Years) - Nova Scotia, 2007/08

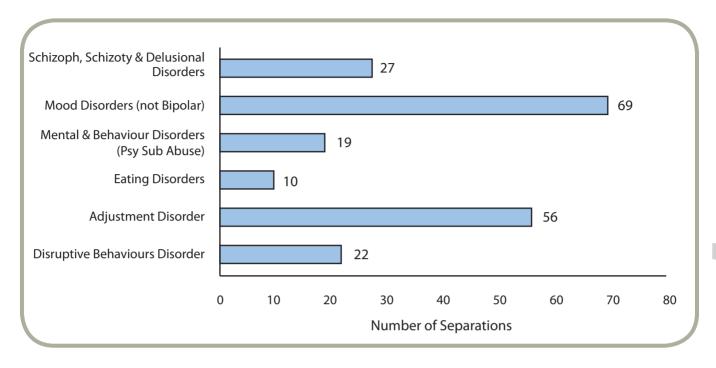
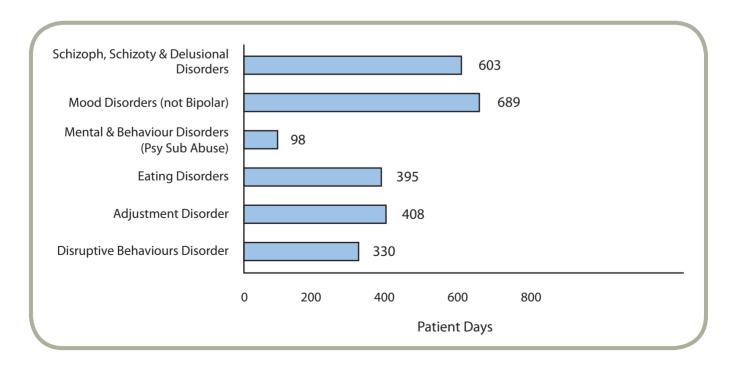


Figure 5.4: Patient Days, Children (<19 Years) - Nova Scotia, 2007/08





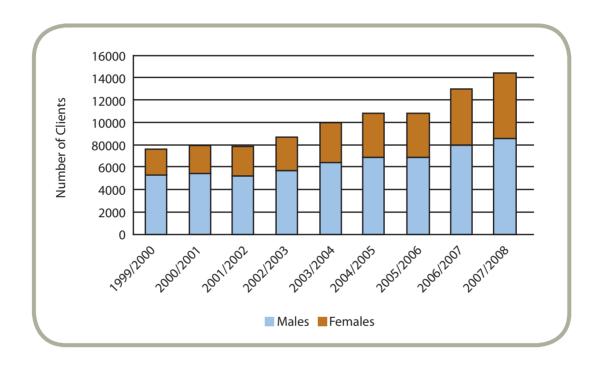
### **Addiction Services**

### 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.

Figure 5.5: Number of Clients by Gender - Nova Scotia, 1999/2000 to 2007/2008



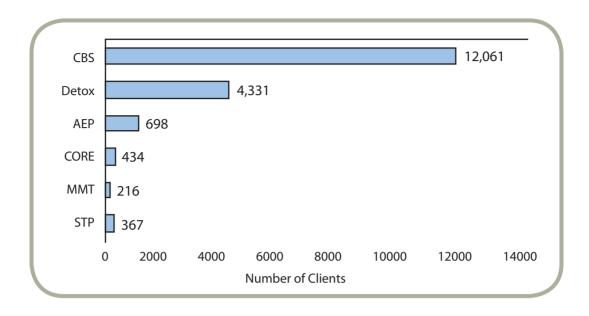
### **Definition**

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

Source: Addiction Services Statistical Information System Technology (ASsist), Nova Scotia Department of Health Promotion and Protection Addiction Services Statistical Information System (StatIS), Nova Scotia Department of Health



Figure 5.6: Program Utilization - Nova Scotia, 2007/08



The number of clients in Community Based Services (CBS). The total number of client discharges from other programs including:

Withdrawal Management (Detox), Addiction Education Program (AEP), Community Oriented Recovery Environment (CORE), Methadone Maintenance Treatment (MMT), and Structured Treatment Program (STP).

#### Limitations

Data for the 2006-2007 fiscal report period was acquired using two different data bases and reporting systems. There are slight discrepancies in the methods of data collection and reporting requirements between the different systems. Caution should be used when comparing this report period with prior years in the Number of Clients Served measure.\*

#### Significance – Rationale & Notes for Interpretation

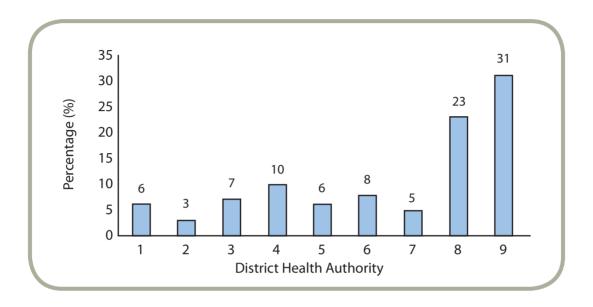
Addiction Services Program data assist service planners and providers in developing and maintaining effective, efficient and appropriate services by examining the number of, and characteristics of, clients using services (e.g. type of services used by gender, age category, place of residence). Addiction 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.

<sup>\*</sup> Due to the implementation of ASsist in 2005, statistics for the third and fourth quarters of the 2005-2006 fiscal report period were not available for some districts causing the provincial totals for the Number of Clients Served to be under-reported.



## **Adult Protection Services**

Figure 5.7: Percentage of Total Provincial Intakes - by DHA, Fiscal 2007/08



#### **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 & 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 2007/08 is 1,249. 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:**

- District adult protection intakes as a percentage of the provincial intake total.
- 2 Reason for Referral as a percentage of the provincial intake total.
- 3 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 5.8: Reason for Referral as a Percentage of Total Intakes - Nova Scotia, Fiscal 2007/08

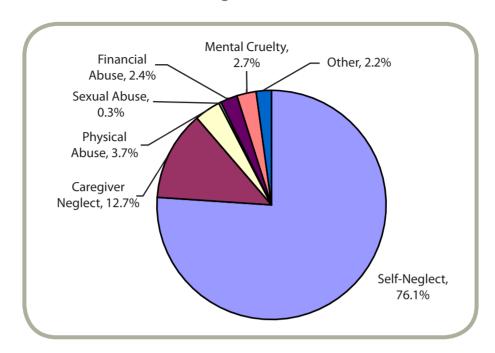
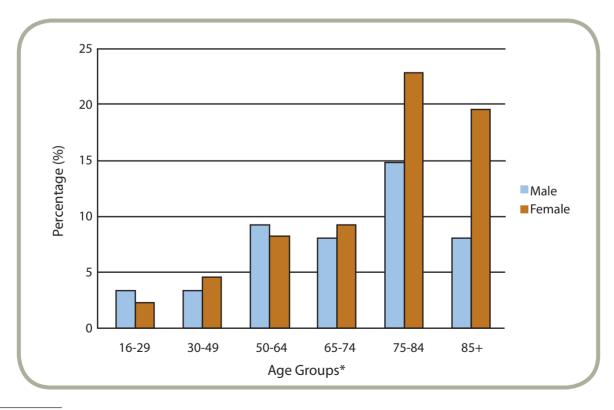


Figure 5.9: Percentage of Total Intakes by Age Group and Sex - Nova Scotia, Fiscal 2007/08

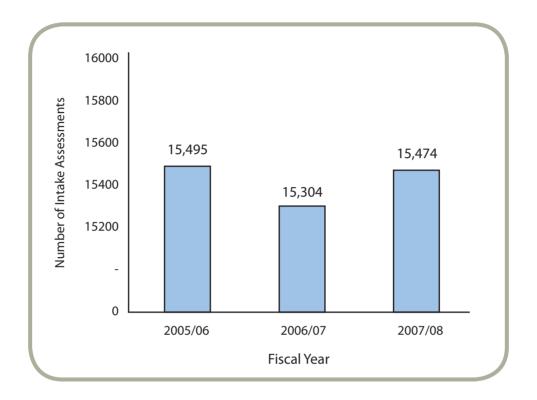


<sup>\*</sup> Age Unknown 1%



# **Continuing Care Intakes**

Figure 5.10: Number of Continuing Care Intakes - Nova Scotia, 2005/06 to 2007/08



#### **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 & 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 2005/06 – 2007/08.

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



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

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

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

- 1 The EHS Medical Communications Centre
- 2 The EHS Ground Ambulance System
- 3 EHS Provincial Programs. This includes:
  - EHS LifeFlight
  - The EHS Medical First Response Program
  - The EHS Nova Scotia Trauma Program
  - The EHS Atlantic Health Training and Simulation Centre

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

For more detailed information on EHS, please visit <a href="https://www.gov.ns.ca/health/ehs">www.gov.ns.ca/health/ehs</a>

Over 1000 health care professionals along with approximately 150 ground ambulances, one dedicated rotary wing aircraft and one non-dedicated fixed wing aircraft, meet the direct patient care needs of Nova Scotia's citizens.

#### **EHS Ground Ambulance**

Figure 5.11: Ground Ambulance Call Volumes - by Region, 2007/08

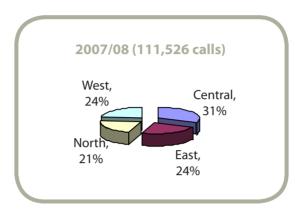
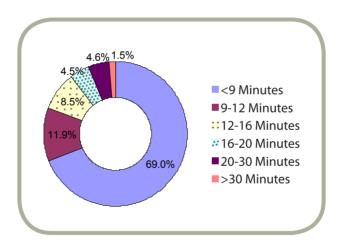


Figure 5.12: Ground Ambulance Response Times for Emergency Calls - Nova Scotia, 2007/08



EHS has defined minimum standards for response time reliability. These standards vary based on the type of call received as well as the location of the call. Response time is the "actual elapsed time (in minutes and seconds) 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 5.12 shows the response times for emergency calls for the entire province (urban and rural areas) during the year 2007/08.

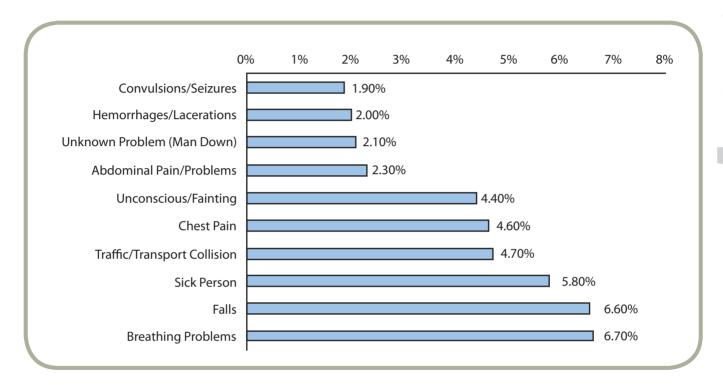
Source: EHS CAD



#### **Chief Complaints for Ground Ambulance Calls**

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 5.13 illustrates the "Top Ten" chief complaints received for the year 2007/08, as a percentage of total calls received.

Figure 5.13: Top Ten Chief Complaints - Nova Scotia, 2007/08





#### EHS LifeFlight

Figure 5.14: EHS LifeFlight Medical Transports by Patient Category - Nova Scotia, 2007/08

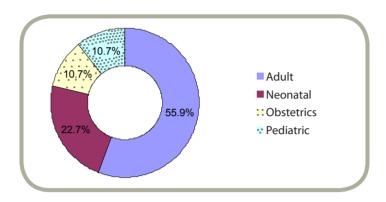
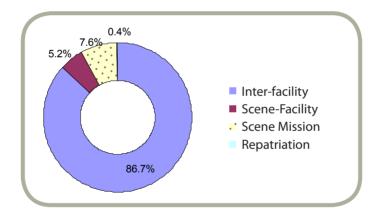


Figure 5.15: EHS LifeFlight Air Medical Transports by Mission Type - Nova Scotia, 2007/08



During the year 2007/08, EHS LifeFlight completed 497 missions. Figure 5.14 shows the distribution of air medical transports by patient category.

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

**Scene Mission:** 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.

**Repatriation:** The patient is returned to their place of origin e.g. home province.

Source: EHS LifeFlight



# **Department of Health Promotion & Protection Tobacco Enforcement**

Table 5.1: Compliance Rates - Nova Scotia, 2007/08<sup>5.1</sup>

YEAR TO DATE										
	DHA 1	DHA 2	DHA 3	DHA 4	DHA 5	DHA 6	DHA 7	DHA 8	DHA 9	TOTAL
Retail Inspections	150	79	210	267	116	147	175	397	709	2250
Overall Warnings	4	-	5	23	6	9	10	26	75	158
Overall Compliance Rates (%)	97.3	100	97.6	91.4	94.8	93.9	94.3	93.5	89.4	93.0%
Admin. Compliance Check	47	17	51	62	-	32	41	99	247	596
Prosec. Compliance Check	1	1	-	-	-	3	-	2	-	7
Sales to Minors Warnings	10	3	6	21	-	5	1	14	70	130
Compliance Rates <sup>1</sup> for Sales to Minors (%)	79.2	83.3	88.2	66.1	-	85.7	97.6	86.1	71.7	78.4%

#### **Definition**

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

#### Significance – Rationale & 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. This is the year that amendments to the TAA came into effect, and a great deal of time was spent on retailer education, rather that on compliance checks.

#### **Technical Specifications**

**Calculation:** (((The total number of inspections + Compliance checks) – (the number of retailers cited)) / (the total number of inspections + Compliance checks))  $\times$  100.

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

<sup>5.1</sup> Compliance rates for sales to minors, province wide is 93.0%. Compliance rates for all other sections, province wide is 78.4%

# Health Care System Performance

**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 hospital, 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.

Hospitals 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 reduces 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

Population by physician and registered nurse are useful indicators of the number of physicians and nurses relative to the population

rates indicate more efficient care and are more appropriate. The World Health Organization (WHO) has set a benchmark of 15%.

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 1,000 Population**

Figure 6.1: Patient Days per 1,000 Age-Standardized to 1991 Canadian Population - Nova Scotia, 2003/04 to 2007/08

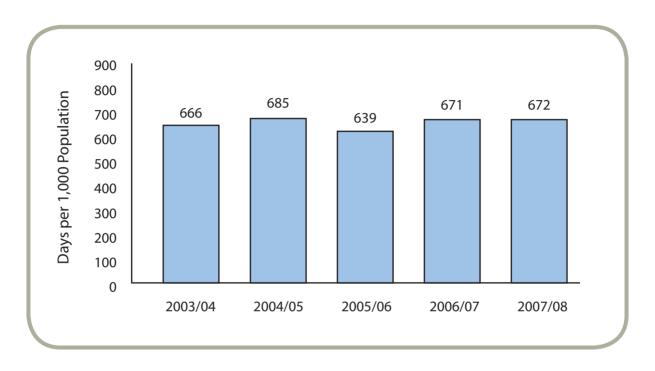
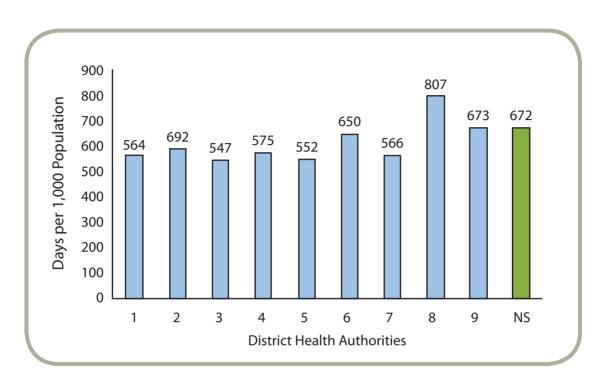




Figure 6.2: Patient Days per 1,000 Population Age-Standardized to the 1991 Canadian Population - by DHA of Residence (excludes newborns), 2007/08



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 & 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 807 in DHA 8 to a low of 547 in DHA 3.

## **Technical Specifications**

**Calculation:** (The total days stay for hospital inpatient separations per DHA of residence)  $\times$  Standardizing Process / 100.

#### **Disclosures**

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

Inclusions: Acute medical, surgical and psychiatric

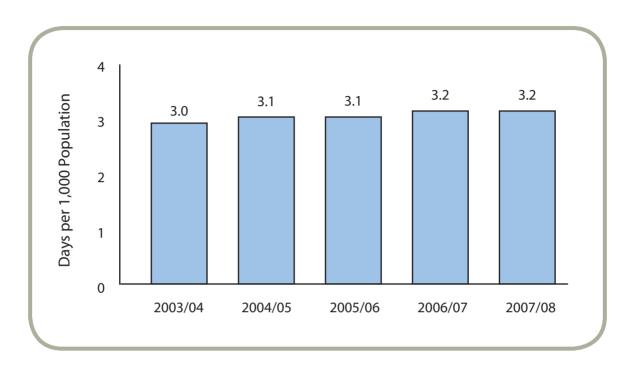
inpatient days.

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



# **Beds per 1,000 Population**

Figure 6.3: Beds per 1,000 Population - Nova Scotia, 2003/04 to 2007/08



#### **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 & Notes for Interpretation We report the number of beds per 1000 population as a measure of hospital capacity and available resources.

#### **Technical Specifications**

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

#### Disclosures

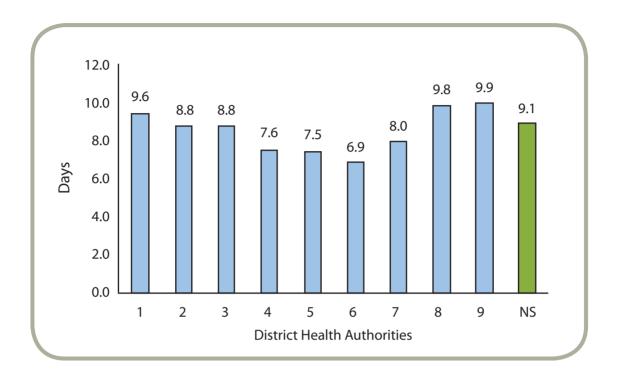
**Exclusions:** Veterans Affairs of Canada (VAC), Detoxification beds and Level 2 beds.

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



# **Average Length of Stay**

Figure 6.4: Average Length of Stay in Days - by DHA of Residence, Fiscal 2007/08



#### **Definition**

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

#### Significance - Rationale & 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 interdistrict level.

#### **Technical Specifications**

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

#### **Disclosures**

**Exclusions:** Newborns, forensic and out-of-province patients.

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

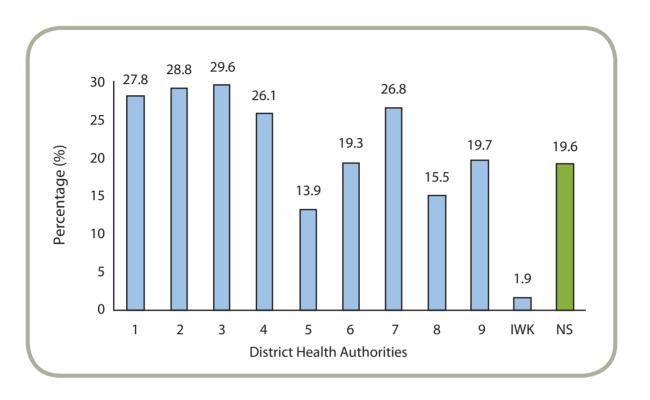
Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database.





#### **Alternate Level of Care**

Figure 6.5: Percentage Alternate Level of Care (ALC) Days - by DHA, Fiscal 2007/08



#### **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 are admitted for non-acute medical care. ALC status is indicated by the physician or designated other.

#### Significance - Rationale & 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 process 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 29.6% in DHA 3 to 1.9% at the IWK.

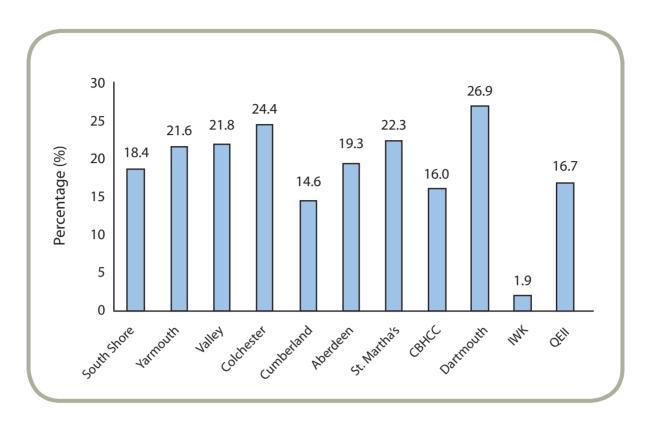
# Technical Specifications Calculation:

1: ((The total ALC days per DHA of residence) / (total inpatient days))  $\times$  100.

2: ((The total ALC day per hospital) / (the total days stay per hospital)) × 100.



Figure 6.6: Percentage Alternate Level of Care (ALC) Days - by Institution, Fiscal 2007/08

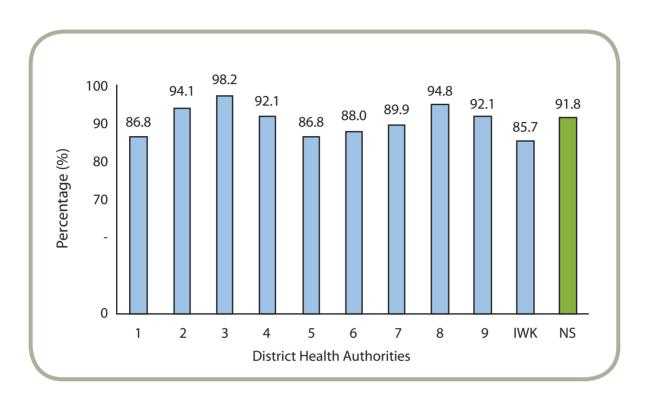


 $Source:\ Nova\ Scotia\ Department\ of\ Health, Canadian\ Institute\ for\ Health\ Information\ Discharge\ Abstract\ Database.$ 



# **Elective Surgery Performed on the Day of Hospital Admission**

Figure 6.7: Percentage of Elective Surgery Performed on the Day of Hospital Admission - by DHA, Fiscal 2007/08



# 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 & 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 reduces health care costs. The percentage of elective surgeries done on the day of admission has increased steadily from 7% in 1990/91.

#### **Technical Specifications**

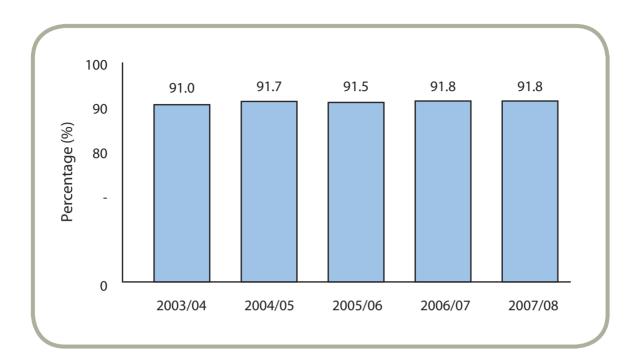
**Calculation:** ((The number of elective separations with surgery performed on the day of hospital admission by institution DHA) / (the total number of elective separations having surgery))  $\times$  100.

#### Disclosures

Inclusions: Out-of-province patients and newborns.



Figure 6.8: Percentage of Elective Surgery Performed on the Day of Hospital Admission - Nova Scotia, 2003/04 to 2007/08



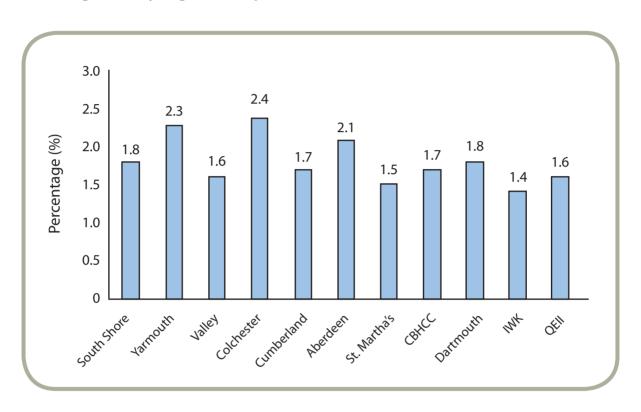
 $Source:\ Nova\ Scotia\ Department\ of\ Health, Canadian\ Institute\ for\ Health\ Information\ Discharge\ Abstract\ Database.$ 



# **Readmission to the Same Hospital**

Unplanned from previous Acute Admission with one week of Discharge with the Same or Related Diagnosis

Figure 6.9: Unplanned Readmissions to Same Hospital within One Week of Discharge with Same or Related Diagnosis - by Regional Hospital, Fiscal 2007/08



#### **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 & 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 2.4% for Colchester Regional Hospital.

#### **Technical Specifications**

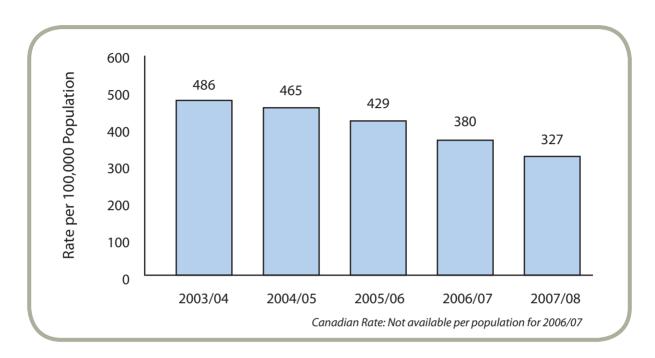
**Calculation:** ((The number of readmissions  $\leq$  7 days; unplanned from previous acute admission) / (the total number of separations))  $\times$  100.

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



# **Ambulatory Care Sensitive Conditions**

Figure 6.10: Rates Per 100,000 Age-Standardized to the 1991 Canadian Population Under 75 Years - Nova Scotia, 2003/04 to 2007/08



#### **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 - excludes 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, E14.9, 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.HZ85, 1.IJ.76, 1.HB.53, 1.HD.53, 1.HZ.53, 1.HB.55, 1.HZ.55, 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\*, 5\*)

**Excluding:** Death before discharge.

# Significance - Rationale & Notes for Interpretation

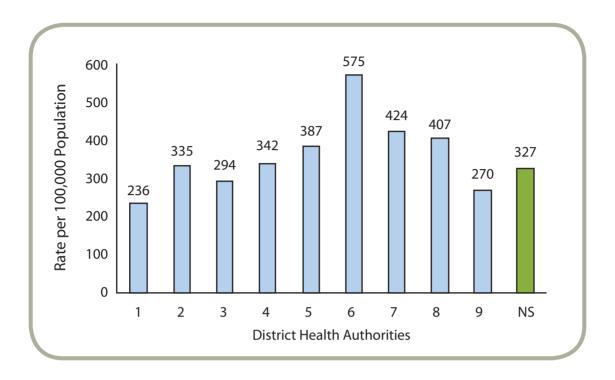
Hospitalizations for ambulatory care sensitive conditions are considered to be an indirect measure of access to appropriate medical care. While not all admissions for these conditions are avoidable, appropriate ambulatory care could potentially prevent the onset of this type of illness or condition, 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)  $\times$  100,000.



Figure 6.11: Rates Per 100,000 Age-Standardized to the 1991 Canadian Population Under 75 Years - by DHA of Residence, 2007/08

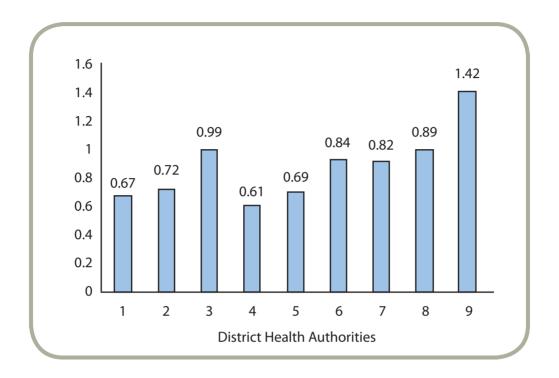


Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database.



#### Inflow/Outflow Ratio

Figure 6.12: Inflow/Outflow Ratio - by DHA of Hospitalization, Fiscal 2007/08



#### **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.

#### Significance - Rationale & 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, is it exists

at all, is balanced. Inflow/outflow ratio ranges from a high of 1.4 in DHA 9, which indicates an inflow (which would be expected as the tertiary care facilities are located in DHA 9), to 0.61 for DHA 4.

#### **Technical Specifications**

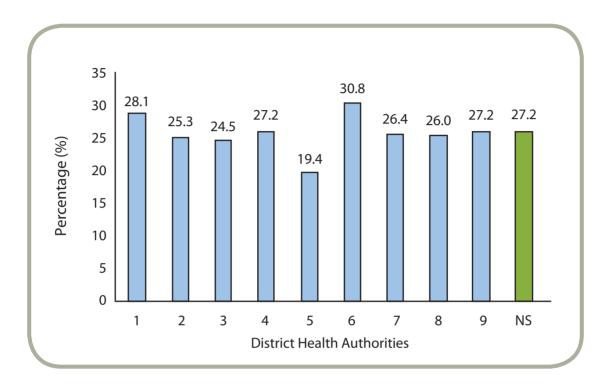
Calculation: (The numbers of separations (discharges and deaths) from acute care hospitals within a given region) / (the number of hospital separations generated by residents of a given district (region is specified in the numerator)).

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



#### **Caesarean Section**

Figure 6.13: Caesarean Section as a Percentage of All Deliveries - by DHA of Residence, Fiscal 2007/08



#### **Definition**

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

#### Significance - Rationale & 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 2007/08, the rate for the province is 27%. Small volumes of deliveries and C-sections in a given DHA result in significant 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>6.1.</sup>

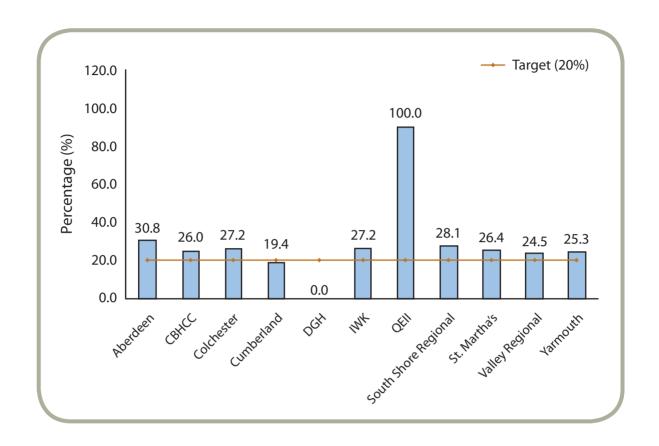
#### **Technical Specifications**

**Calculation:** C-sections were counted using any procedure starting with  $5MD60^{\land}$ . (The total number of Caesarean sections per DHA of residence / the total number of deliveries)  $\times$  100.

<sup>6.1</sup> CIHI Health Indicators 2006 Definitions, Data Sources and Rationale February 2006



Figure 6.14: Caesarean Sections as a Percentage of All Deliveries - by Hospital, Fiscal 2007/08

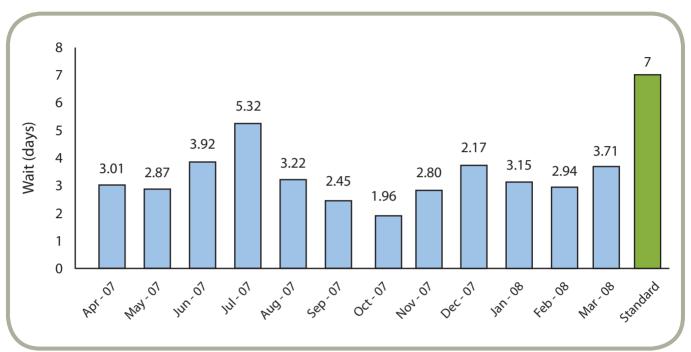


 $Source:\ Nova\ Scotia\ Department\ of\ Health,\ Canadian\ Institute\ for\ Health\ Information\ Discharge\ Abstract\ Database$ 



# **Cardiovascular Surgery Wait Times**

Figure 6.15: Cardiovascular Surgery Average Wait Times (Urgent) - Nova Scotia, April 2007 to March 2008



#### **Definition**

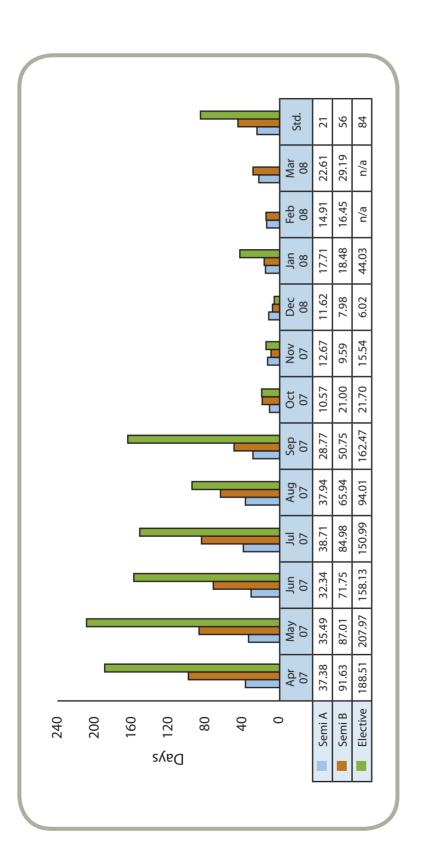
- 1. Maximum wait time in days for cardiovascular surgery for urgent patients by month. **Urgent** patients are critically ill and cannot be discharged form hospital prior to receiving surgery. They have failed maximal medical therapy and remain unstable. The current wait time standard is 7 days.
- 2. 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 standardizes 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 & 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

Figure 6.16: Cardiovascular Wait Times (Semi - A & B and Elective) - Nova Scotia, April 2007 to March 2008



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

# Insured Programs Indicators

**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-ofprovince, 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 estimate as of July 1st each year.



# **Physicians per 10,000 Population**

Figure 7.1: Physicians per 10,000 Population by DHA - 2007/08

15 - 19.9
20 - 24.9
>= 25

#### **Definition**

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

#### Significance – Rationale & 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 heath professionals in a given area.

#### **Technical Specifications**

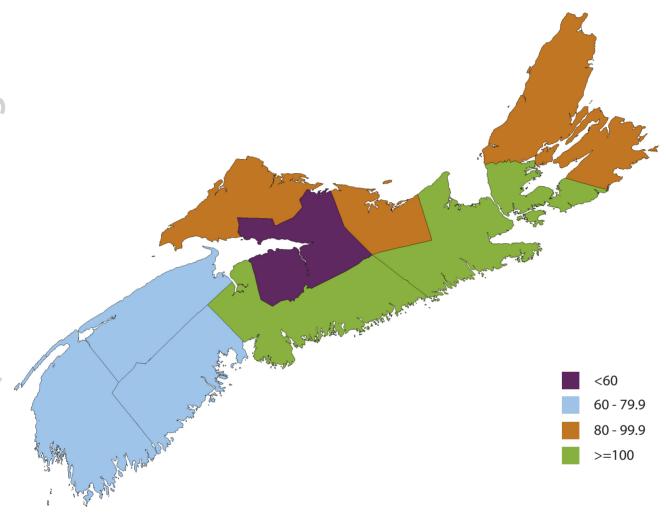
**Calculation:** (Number of Physicians per DHA / Population DHA) × 10,000

Source: Statistics Canada, Nova Scotia Department of Health

# • • • •

# **Registered Nurses per 10,000 Population**

Figure 7.2: Registered Nurses per 10,000 Population by DHA - 2007/08



#### **Definition**

Map of population per registered nurse by District Health Authority.

#### Significance – Rationale & 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,

Source: Statistics Canada, Nova Scotia Department of Health

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 heath professionals in a given area.

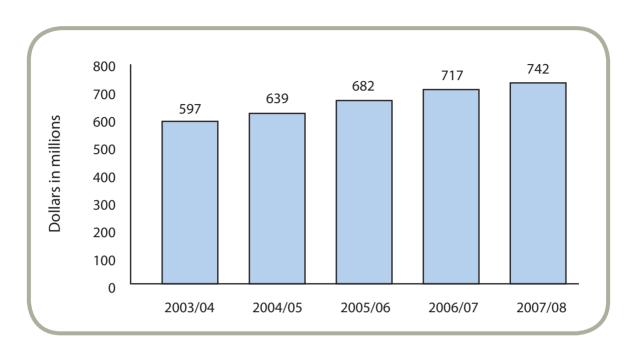
#### **Technical Specifications**

**Calculation:** (Number of Registered Nurses per DHA / DHA Population)  $\times$  10,000.



#### **Insured Services**

Figure 7.3: Total Insured Program Expenditures for Residents - Nova Scotia, 2003/04 to 2007/08



#### **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 & Notes for Interpretation

This data shows annual program expenditures for insured services in Nova Scotia. Government health care expenditures have increased by over 145 million dollars since 2003/04. Medicare data includes Feefor-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.

#### **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.

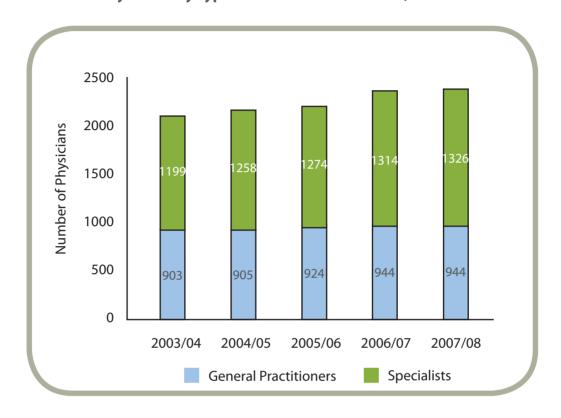
Source: Medavie Blue Cross, Department of Health Annual Statistical Tables.





# **Physicians' Services**

Figure 7.4: Number of Physicians by Type of Practice - Nova Scotia, 2003/04 to 2007/08



#### **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 & 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)

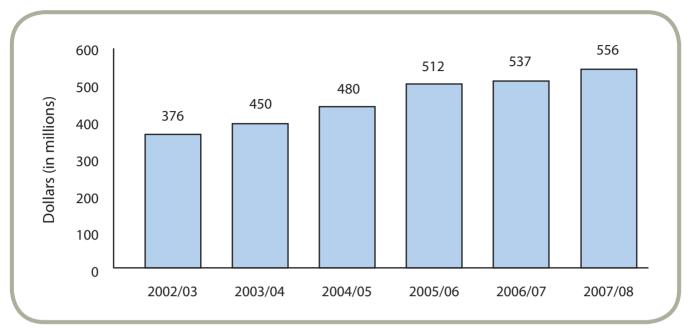
#### **Disclosures**

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



Figure 7.5: Physicians' Services (Insured) Total Expenditure - Nova Scotia, 2002/03 to 2007/08



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 & 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.

#### **Disclosures**

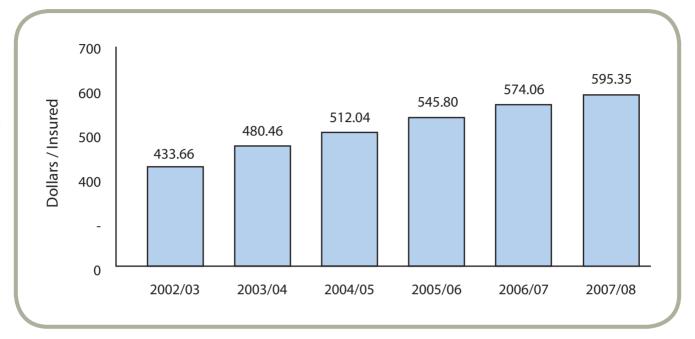
**Inclusions:** Physicians' payments for Fee-for-Service and Alternate Funded physician groups, Canadian Medical Protective Assoc. and Benefit Funds, Rural Stabilization, Emergency Room, and miscellaneous accounting adjustments.

**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.

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



Figure 7.6: Physicians' Services (Insured) Expenditure per Insured Resident - Nova Scotia, 2001/02 to 2007/08



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

# Significance – Rationale & 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.

#### **Disclosures**

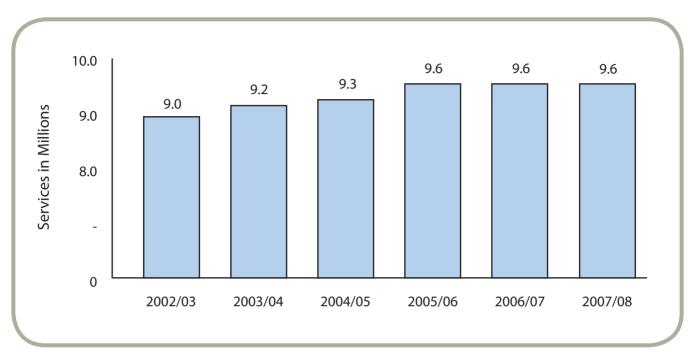
**Inclusions:** Physicians' payments for Fee-for-Service and Alternate Funded physician groups, Canadian Medical Protective Assoc. and Benefit Funds, Rural Stabilization, Emergency Room, and miscellaneous accounting adjustments.

**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.

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



Figure 7.7: Physicians' Services (Insured) Total Number of Physicians' Services - Nova Scotia, 2002/03 to 2007/08



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 & 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.

#### **Disclosures**

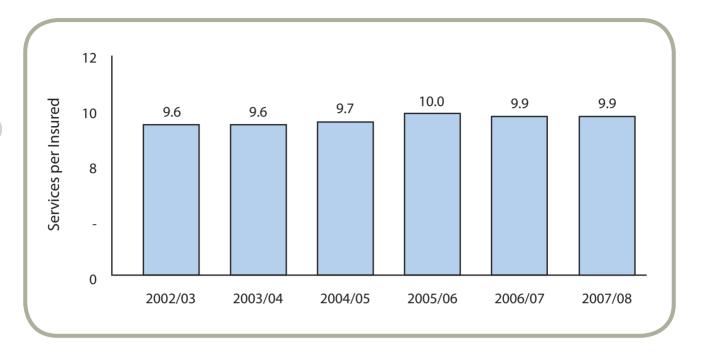
**Inclusions:** Services from Fee-for-Service, Alternate Funded physician groups, NonPatient Specific inpatient and out-patient services, and physician services where a Nova Scotia resident was refunded the cost of a service provided in the Province of Quebec or out-of-country.

**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.

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



Figure 7.8: Physicians' Services (Insured) Average Services per Insured Resident - Nova Scotia, 2002/03 to 2007/08



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

#### Significance – Rationale & 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.

#### 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.

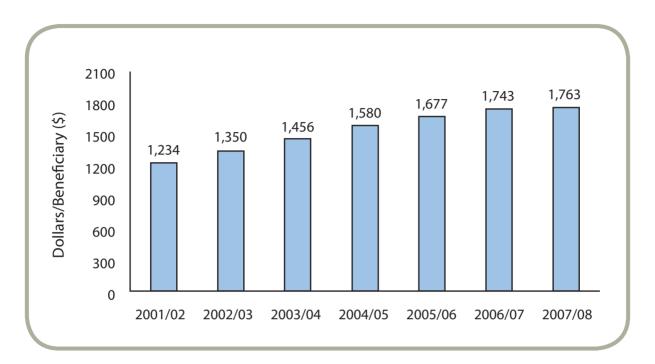
**Exclusions:** Physician services where the payment is not the responsibility of the Department of Health. These exclusions include services for Workers Compensation Board, Community Services, RCMP and Canadian Armed Forces personnel as their services are federally funded, services to residents of other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

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



### Seniors' Pharmacare

Figure 7.9: Program Cost Per Beneficiary - Nova Scotia, 2001/02 to 2007/08



#### **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 average expenditure per beneficiary for participants in the Program.

### Significance – Rationale & Notes for Interpretation

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

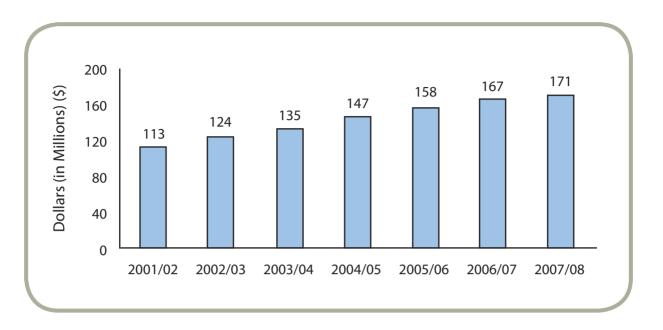
### **Technical Specifications**

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

 $Source:\ Medavie\ Atlantic\ Blue\ Cross,\ Department\ of\ Health\ Annual\ Statistical\ Tables.$ 



Figure 7.10: Total Nova Scotia Seniors' Pharmacare Program Cost - 2001/02 to 2007/08



### **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 expenditure for the Program.

### Significance – Rationale & Notes for Interpretation

This data is representative of the total expenditure for the Seniors' Pharmacare Program. As the graph notes, Program cost continues to increase. Statistical data represents 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 Atlantic Blue Cross, Department of Health's Annual Statistical Tables, Statistics Canada Census population.

# Management Information Systems Indicators

**Data for Management** Information Systems Indicators was not submitted for Nova Scotia, 2007/08.

# **List of Figures**

Population Distribution	
<b>Figure 1.1:</b> Population Pyramid, SSDHA (DHA 1) - 2007 and 2022	10
Figure 1.2: Population Pyramid, SWNHA (DHA 2) - 2007 and 2022	10
<b>Figure 1.3:</b> Population Pyramid, AVDHA (DHA 3) - 2007 and 2022	11
Figure 1.4: Population Pyramid, CEHHA (DHA 4) - 2007 and 2022	11
Figure 1.5 Population Pyramid, CHA (DHA 5) - 2007 and 2022	12
Figure 1.6: Population Pyramid, PCHA (DHA 6) - 2007 and 2022	12
Figure 1.7: Population Pyramid, GASHA (DHA 7) - 2007 and 2022	13
Figure 1.8: Population Pyramid, CEDHA (DHA 8) - 2007 and 2022	13
Figure 1.9: Population Pyramid, CDHA (DHA 9) - 2007 and 2022	14
Figure 1.10: Population Pyramid, Nova Scotia - 2007 and 2022	14
Health Promotion & Population Health	
Figure 2.1: Breastfed / Tried to Breast Feed Last Child - by DHA, 2007 & 2008	17
Figure 2.2: Length of Time Breastfed Last Child (of those who breastfed) - Nova Scotia, 2007 & 2008	18
Figure 2.3: Percentage of People Physically Active in a Given Population - by DHA, 2007 & 2008	19
Figure 2.4: Youth (12 to 19) Physical Activity Index by Gender - Nova Scotia, 2007 & 2008	
Figure 2.5: Prevalence of Smoking, by Age Group and Sex - Nova Scotia, 2007 & 2008	21
Figure 2.6: NSBSP Participation for Women Aged 50-69 Years - Nova Scotia, 1999/2000 to 2006/07	23
Figure 2.7: NSBSP Participation Rates - by DHA, 2006/07 & 2007/08	24
Figure 2.8: NSBSP Retention Rate for Women Aged 50-69 Years - Nova Scotia, 2004 to 2007	25
Figure 2.9: Influenza Immunization Rates for Residents Aged 65+ Years - by DHA, 2007/08.	26
Figure 2.10: Influenza Immunization Rates for Residents Aged 65+ Years - Nova Scotia, 2002/03 to 2007/08	27
Disease Prevalence / Incidence	
Table 3.1: Incidence3.1 Counts and Rates, by Gender and DHA, Common Cancer Sites - Nova Scotia, 2007	30
Table 3.2: Incidence <sup>3.4</sup> Rates of Invasive Cancers, by Gender and DHA, Common Cancer Sites - Nova Scotia, 2007.	
Table 3.3: Mortality Counts and Rates, by Gender and DHA, Common Cancer Sites - Nova Scotia, 2007	33
Table 3.4:         Mortality rates of Invasive Cancers, by gender and District Health Authority (DHA), common cancer sites, Nova Scotia 2007.	34
Figure 3.1: Incidence of Laboratory Confirmed Invasive Meningococcal Disease - Nova Scotia and Canada, 1998-2007	36
Table 3.5:         Number of Reported Cases of Laboratory Confirmed Invasive Meningococcal Disease by Age Group and Serogroup - Nova Scotia, 1998 to 2007.	38
<b>Table 3.6:</b> Reported Cases of Invasive Meningococcal Disease (Laboratory Confirmed and Clinical) by Serogroup and Outcome - Nova Scotia, 1998 to 2007.	39





	<b>Figure 5.5:</b> Number of Clients by Gender - Nova Scotia, 1999/2000 to 2007/2008
	Figure 5.6: Program Utilization - Nova Scotia, 2007/08
	Figure 5.7: Percentage of Total Provincial Intakes - by DHA, Fiscal 2007/08
	Figure 5.8: Reason for Referral as a Percentage of Total Intakes - Nova Scotia, Fiscal 2007/08
	Figure 5.9: Percentage of Total Intakes by Age Group and Sex - Nova Scotia, Fiscal 2007/08
	Figure 5.10: Number of Continuing Care Intakes - Nova Scotia, 2005/06 to 2007/08
	Figure 5.11: Ground Ambulance Call Volumes - by Region, 2007/08
	Figure 5.12: Ground Ambulance Response Times for Emergency Calls - Nova Scotia, 2007/08
	Figure 5.13: Top Ten Chief Complaints - Nova Scotia, 2007/08
	Figure 5.14: EHS LifeFlight Medical Transports by Patient Category - Nova Scotia, 2007/08
	Figure 5.15: EHS LifeFlight Air Medical Transports by Mission Type - Nova Scotia, 2007/08
	Table 5.1: Compliance Rates - Nova Scotia, 2007/08.
Не	ealth Care System Performance
	Figure 6.1: Patient Days per 1,000 Age-Standardized to 1991 Canadian Population - Nova Scotia, 2003/04 to 2007/08
	Figure 6.2: Patient Days per 1,000 Population Age-Standardized to the 1991 Canadian Population - by DHA of Residence (excludes newborns), 2007/08 84
	<b>Figure 6.3:</b> Beds per 1,000 Population - Nova Scotia, 2003/04 to 2007/08
	Figure 6.4: Average Length of Stay in Days - by DHA of Residence, Fiscal 2007/08
	Figure 6.5: Percentage Alternate Level of Care (ALC) Days - by DHA, Fiscal 2007/08
	Figure 6.6: Percentage Alternate Level of Care (ALC) Days - by Institution, Fiscal 2007/08
	Figure 6.7: Percentage of Elective Surgery Performed on the Day of Hospital Admission - by DHA, Fiscal 2007/08
	Figure 6.8: Percentage of Elective Surgery Performed on the Day of Hospital Admission - Nova Scotia, 2003/04 to 2007/08
	Figure 6.9: Unplanned Readmissions to Same Hospital within One Week of Discharge with Same or Related Diagnosis - by Regional Hospital, Fiscal 2007/08 91
	Figure 6.10: Rates Per 100,000 Age-Standardized to the 1991 Canadian Population Under 75 Years - Nova Scotia, 2003/04 to 2007/08
	Figure 6.11: Rates Per 100,000 Age-Standardized to the 1991 Canadian Population Under 75 Years - by DHA of Residence, 2007/08
	Figure 6.12: Inflow/Outflow Ratio - by DHA of Hospitalization, Fiscal 2007/08
	Figure 6.13: Caesarean Section as a Percentage of All Deliveries - by DHA of Residence, Fiscal 2007/08
	Figure 6.14: Caesarean Sections as a Percentage of All Deliveries - by Hospital, Fiscal 2007/08
	Figure 6.15: Cardiovascular Surgery Average Wait Times (Urgent) - Nova Scotia, April 2007 to March 2008
	Figure 6.16: Cardiovascular Wait Times (Semi - A & B and Elective) - Nova Scotia, April 2007 to March 2008
ln	sured Programs Indicators
	<b>Figure 7.1:</b> Physicians per 10,000 Population by DHA - 2007/08



Figure 7.2: Registered Nurses per 10,000 Population by DHA - 2007/08	101
Figure 7.3: Total Insured Program Expenditures for Residents - Nova Scotia, 2003/04 to 2007/08	102
Figure 7.4: Number of Physicians by Type of Practice - Nova Scotia, 2003/04 to 2007/08	103
Figure 7.5: Physicians' Services (Insured) Total Expenditure - Nova Scotia, 2002/03 to 2007/08	104
Figure 7.6: Physicians' Services (Insured) Expenditure per Insured Resident - Nova Scotia, 2001/02 to 2007/08	105
Figure 7.7: Physicians' Services (Insured) Total Number of Physicians' Services - Nova Scotia, 2002/03 to 2007/08	106
Figure 7.8: Physicians' Services (Insured) Average Services per Insured Resident - Nova Scotia, 2002/03 to 2007/08	107
<b>Figure 7.9:</b> Program Cost Per Beneficiary - Nova Scotia, 2001/02 to 2007/08	108
Figure 7.10: Total Nova Scotia Seniors' Pharmacare Program Cost - 2001/02 to 2007/08	109



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### How Did We Do?

Your comments and feedback about the 2007/08 Annual Statistical Report are valuable to us. Please complete the following questionnaire and return it to:

### 2007/08 Annual Statistical Report Feedback

Nova Scotia Department of Health Information Management Services IS4 Branch 5th Floor Royal Centre 5161 George Street Halifax, NS B3J 1M7

Alternatively, via:

Fax: (902) 424 0506

Email: julie.reid@gov.ns.ca

Individual responses and personal information will be kept confidential.

# **Reader Information** Where do you live? Nova Scotia Nunavut Prince Edward Island Newfoundland Quebec Ontario Manitoba Saskatchewan **British Columbia** Alberta **Northwest Territories** Yukon Other (please specify) \_ What is your main position or role? **General Public** Health Care Provider Health Services Manager/Administrator Policy/Planning/Decision Support Analyst **Board Member** Educator **Elected Official** Researcher **Government Employee** Policy Maker Student Other (please specify) \_ **Overall Satisfaction with the Report** How did you find out about the 2007/08 Annual Statistical Report? **News Media Government Alert** Internet Search Colleague/Peer

Other (please specify)

To what extent have you read the report?					
I have read through the entire report					
I have read certain chapters, and b	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 repo	ort in detail				
How satisfied are you with the following as	pects of the re	port?			
Excellent Good	Fair I	Poor			
a. Clarity					
b. Format					
c. Use of Figures					
d. Graphs					
e. Level of detail					
f. Length of Report					
Usefulness of the Report					
Please indicate how useful you found the fo	ollowing section	ons if this report:			
	Very useful	Somewhat useful	Not useful	Did not read	
Health Promotion and Population Health					
Disease Prevalence/Incidence					
Surgical Interventions					
Provincial Services					
Health Care System Performance					
Insured Programs Indicators					

## **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 the 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?		

Thank you for completing and returning this questionnaire