



Health and
Wellness

Prince Edward Island Health Trends 2010



ONE ISLAND FUTURE

ONE ISLAND HEALTH SYSTEM

Prince Edward Island Health Trends 2010

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Executive Summary

Prince Edward Island Health Trends is a document that summarizes key health data from a variety of sources, both federal and provincial, and presents results under one large umbrella document.

The current report is presented in four sections: demographics, health status and determinants, common & chronic disease, and communicable diseases.

Below is a summary of the key findings within each section.

Demographics

- Male Islanders born in 2006 are expected to live for 77 years and female Islanders for 82 years, both are similar to Canadian expectancies. Life expectancies have been slowly increasing over time.
- Cancer, heart disease and stroke are the leading causes of death for both PEI and Canada.
- Fewer low birth weight babies are born in PEI compared to Canada and this rate has remained stable over time.
- PEI's education levels remain stable, while Canada's are improving.
- PEI's average annual income per person has risen over the past ten years but still remains lower than Canada's.
- The unemployment rate in PEI has decreased since the early 1990's but remains consistently higher than the Canadian rate.
- A higher proportion of Islanders report working 60+ hours per week compared with other Canadians.

Health Status & Determinants

- Over half of Islanders and Canadians report their health as very good or excellent.
- The majority of Islanders and Canadians report their mental health as very good or excellent.
- Islanders are less likely than Canadians to consume 5 or more fruits and vegetables per day.
- Breastfeeding initiation rates have steadily increased over the past 15 years.
- Island mothers are less likely to initiate breastfeeding than Canadian mothers. Also, a lower proportion of Island mothers continue to breastfeed for greater than 4 months when compared to the national average.
- More Islanders are likely to be obese than Canadian counterparts.
- PEI and Canada have similar rates of children and young adults who report being either overweight or obese.

- Islanders are more likely to be physically inactive than Canadians.
- Similar proportions of Islanders and Canadians spend 30 or more hours per week watching television or using computers (not including work); however, more Islanders spend less than 15 hours per week at these activities which is lower than the Canadian average.
- More Islanders report heavy drinking than Canadians and this has not changed over time.
- The same proportion of Islanders report daily smoking as Canadians. This rate has been declining over time.
- Fewer Islanders are exposed to second hand tobacco smoke in public places compared to Canadians.
- The same proportion of Islanders and Canadians intend to do something to improve their health in the next year.
- More Islanders report a strong sense of belonging to their community compared with other Canadians.

Common & Chronic Disease

- Islanders are more likely to suffer from “any chronic condition” (arthritis, asthma, heart and stroke, diabetes or cancer) than Canadians overall but when specific disease comparisons are performed only arthritis is more prevalent.
- Prostate (males), breast (females), lung and colorectal cancer are the most likely cancers diagnosed in both PEI and Canada.
- PEI males (aged 35 and over) are just as likely as their Canadian counterparts to be screened for prostate cancer by PSA and/or digital exam.
- Islanders (aged 50 to 74) are less likely than their Canadian counterparts to be screened for colorectal cancer by either FOBT or colonoscopy/sigmoidoscopy.
- A similar proportion of Islanders and Canadians are living with Type II diabetes which is more likely to occur in males and rises considerably after age 45.

Communicable Disease

- PEI seniors aged 65 and older were less likely than their Canadian cohorts to receive a seasonal influenza vaccine within the past year.
- Few cases of vaccine preventable diseases have been reported in PEI over the past several years.
- Chlamydia is the most commonly occurring STI in PEI however our rates are lower than the Canadian rates.
- Hepatitis C rates are similar across PEI and Canada.
- Campylobacter infections are the most common cause of food-borne illness in PEI based on lab-confirmed cases. PEI rates are lower than Canadian rates.

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Introduction

Prince Edward Island Health Trends is a document that summarizes key health information from a variety of sources, both federal and provincial, and presents results under one large umbrella document. PEI Health Trends is a current version of PEI Health Indicators 2006, 2004 and 2003.

Health surveillance is the continual collection and analysis of health information performed in a systematic manner. This information can then be used to describe the health status of a population, identify health trends and inform health policies.

Population health, as defined by Last (2007) is:

*the health of the population, measured by health status indicators. Population health is influenced by physical, biological, behavioral, social, cultural, economic, and other factors. Population health describes the status of health, and **public health** is the range of practices, procedures, methods, institutions, and disciplines required to achieve it.¹*

Health indicators are characteristics of a population that reflect its health status and must be: relevant to established health goals, based on standard (comparable) definitions and methods, and broadly available at the national and provincial level.

Health indicators can be used to monitor progress in improving and maintaining the health of the population and the functioning of the health system, by providing comparisons over time, and between regions.

The current document is formatted with four main sections: demographics, health status and determinants, common and chronic conditions, and communicable diseases. Indicators within each section are presented with a brief introduction, explanation of indicator by either a definition or question, and interpretation of results. Results are presented in both tables and graphs with by sex and age comparisons when possible.

The methodology section is found in Appendix A.

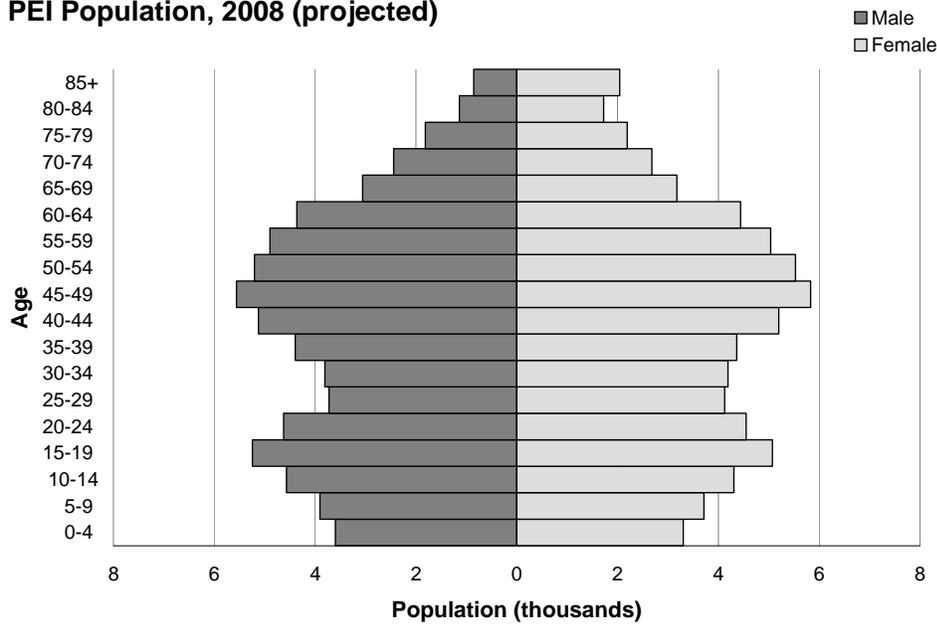
DEMOGRAPHICS

1.1 Population and Projections

Population size, including age groupings, provides information on the changing characteristics, structure and shifting service demands of our population. Population projections allow us to plan for future requirements based on what could happen. Statistics Canada estimates population size using data derived from the Canadian Census, as well as information on births, deaths and migration.

PEI has an aging population which can be seen by the projected increase in the proportion of people aged 65 and over. By 2015, it is projected that 18% of the population will be over the age of 65.

PEI Population, 2008 (projected)



PEI Population Projections by Age and Sex

Age	2007	2008	2009	2010	2011	2012	2013	2014	2015
Male									
<20	17,197	17,314	16,285	15,925	15,635	15,299	15,038	14,813	14,583
20-34	12,319	12,156	13,345	13,416	13,455	13,535	13,496	13,396	13,334
35-49	15,085	15,078	14,109	13,902	13,589	13,330	13,077	12,923	12,675
50-64	13,956	14,463	14,477	14,769	15,018	15,051	15,150	15,176	15,295
65+	9,023	9,303	9,209	9,433	9,758	10,241	10,685	11,121	11,512
Female									
<20	16,390	16,402	15,908	15,572	15,240	14,952	14,726	14,523	14,343
20-34	12,702	12,869	13,895	14,001	14,084	14,120	14,119	13,996	13,904
35-49	15,450	15,395	15,037	14,774	14,540	14,336	14,050	13,827	13,674
50-64	14,474	15,011	15,128	15,571	15,933	16,074	16,199	16,339	16,347
65+	11,522	11,827	11,770	11,994	12,265	12,716	13,226	13,743	14,249
Total	138,118	139,818	139,163	139,357	139,517	139,654	139,766	139,857	139,916

Source: *Statistics Canada. Provided by: Provincial Treasury, Economics, Statistics and Federal Fiscal Relations Division, September 2006*

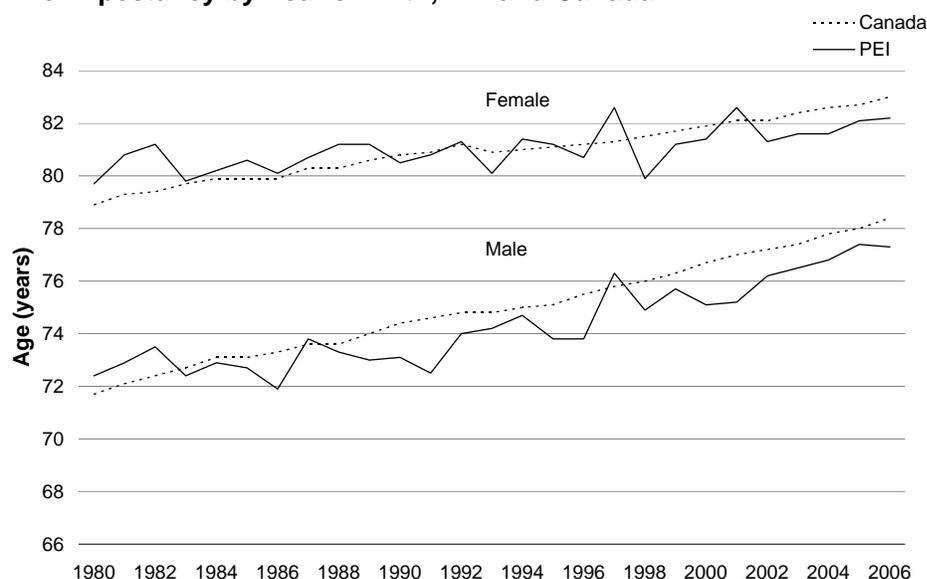
1.2 Life Expectancy

Life expectancy at birth is the average number of years a person would be expected to live starting from birth if current trends remain the same. Infant mortalities affect overall life expectancy at birth figures. Increases in life expectancies are partly dependent on fewer deaths of young children, particularly in the first year of life. Life expectancy does not take into account quality of life.

PEI and Canada have similar life expectancies at birth and have increased from the past. PEI males born in 2006 are expected to live to age 77, and females to age 82.

Infant Mortality is the number of infants who die in the first year of life per 1,000 live births. The three year average are as follows: for the period 2000 to 2002 for PEI: 4.1; for Canada: 5.3; 2003 to 2005 for PEI: 3.8; for Canada: 5.3; 2005 to 2007 for PEI: 3.1; for Canada: 5.2.

Life Expectancy by Year of Birth, PEI and Canada



Life Expectancy in Years, by Year of Birth, Past 10 Years

Year of Birth	Male		Female	
	PEI	Canada	PEI	Canada
1996	73.8	75.5	80.7	81.2
1997	76.3	75.8	82.6	81.3
1998	74.9	76.0	79.9	81.5
1999	75.7	76.3	81.2	81.7
2000	75.1	76.7	81.4	81.9
2001	75.2	77.0	82.6	82.1
2002	76.2	77.2	81.3	82.1
2003	76.5	77.4	81.6	82.4
2004	76.8	77.8	81.6	82.6
2005	77.4	78.0	82.1	82.7
2006	77.3	78.4	82.2	83.0

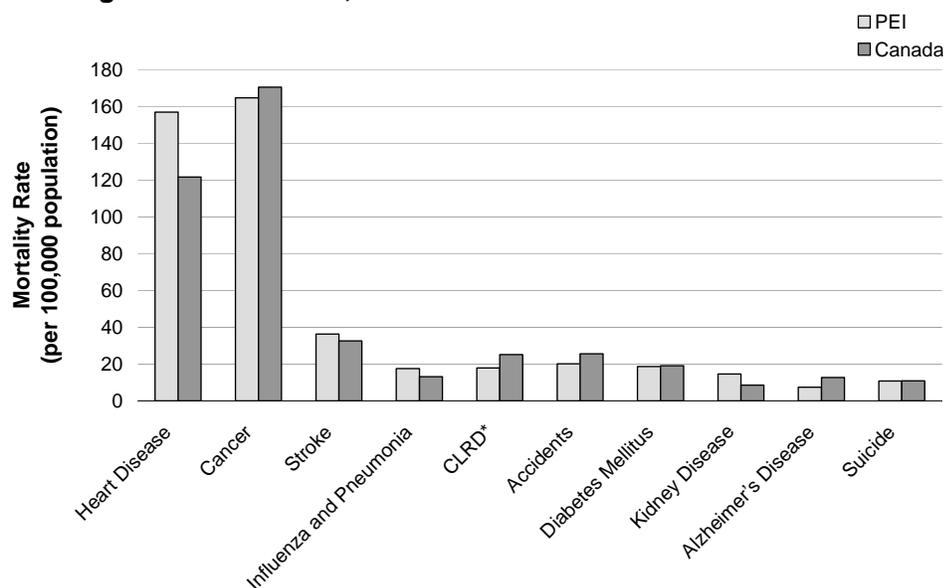
Sources: Statistics Canada², Vital Statistics, Birth and Death Databases

1.3 Leading Cause of Death

Ranking the leading causes of death is an informative way to provide information on current mortality patterns in Canada and Prince Edward Island. The ten leading causes of death in Canada are found in the table below; PEI rates for these causes of death are also listed.

Cancer, heart disease and stroke are the leading causes of death for both Prince Edward Island and Canada. In 2005, 28% of deaths in Prince Edward Island were due to heart diseases, 27% were due to cancer and 8% were due to stroke. In Canada, 22% of all deaths were due to heart disease, 28% were due to cancer and 7% were due to stroke.³

Leading Causes of Death, PEI and Canada 2005



*CLRD: Chronic Lower Respiratory Disease
Age Standardized

Leading Causes of Death, 2005

Cause of Death	Mortality Rate (per 100,000 population)	
	PEI	Canada
Diseases of heart (heart disease)	156.8	121.5
Malignant neoplasms (cancer)	164.6	170.3
Cerebrovascular diseases (stroke)	36.3	32.5
Influenza and pneumonia	17.5	13.2
Chronic lower respiratory diseases	17.9	25.1
Unintentional injuries (accidents)	20.1	25.6
Diabetes mellitus (diabetes)	18.6	19.1
Kidney disease	14.6	8.5
Alzheimer's disease	7.4	12.7
Intentional self-harm (suicide)	10.8	10.9

Age Standardized

Source: Statistics Canada – Catalogue no. 84-215-X⁴

1.4 Low Birth Weight

Low birth weight is a key determinant of infant survival, health, and development.⁵ Low birth weight babies are more likely to have health and developmental problems such as hearing and visual problems, learning disabilities, respiratory problems and chronic diseases later in life.^{6, 7}

There has been a shift in focus away from low birth weight to other measures of infant health such as pre-term births and small for gestational age (SGA) rates. These measures are useful in current times given the increase in maternal age, assisted reproduction, multiple babies and assisted deliveries such as Cesarean sections.⁸

Factors which may lead to low birth weight include premature birth, a multiple pregnancy, congenital abnormalities, acute or chronic disease in the mother, maternal age, poor nutrition during pregnancy, smoking while pregnant, the consumption of drugs and alcohol while pregnant, experiencing abuse while pregnant and low socioeconomic status.^{9, 10} Other maternal risk factors may include stress, physically demanding work and sexually transmitted infections.⁵

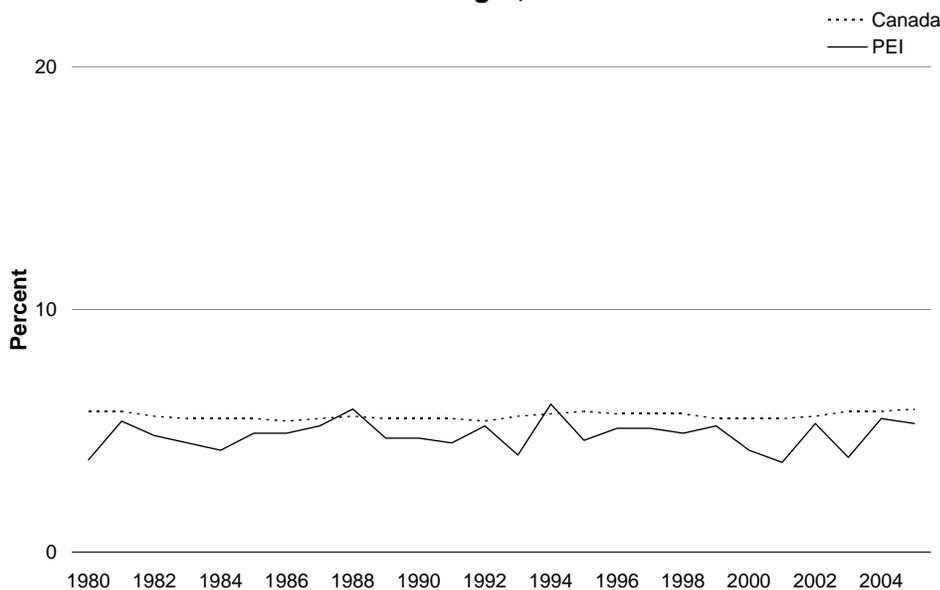
Maternal smoking is one of the most changeable behaviors to prevent low birth weight babies. This demonstrates the importance of programs which prevent women from becoming smokers and help those who already smoke to quit.^{11, 12, 13}

Definition: Live births greater than 500 grams and less than 2,500 grams, expressed as a percentage of all live births with a known birth weight greater than 499 grams.

Low birth weights are adjusted for borderline viable births, since over time there has been increased registration of live births with birth weight less than 500 grams. The adjustment improves comparability of this indicator over an extended time period.

In 2005, 5% of all live births in Prince Edward Island were considered to be low birth weight. This percentage is lower than the Canadian average of 6%. Over time, PEI's low birth weight rate has remained stable at around 5%, and has been consistently one of the lowest rates in Canada.

Infants Classified as Low Birth Weight, PEI and Canada



**Percent of Total Infant Births Classified
as Low Birth Weight, Past 10 Years**

Year	PEI	Canada
1995	4.6	5.8
1996	5.1	5.7
1997	5.1	5.7
1998	4.9	5.7
1999	5.2	5.5
2000	4.2	5.5
2001	3.7	5.5
2002	5.3	5.6
2003	3.9	5.8
2004	5.5	5.8
2005	5.3	5.9

Source: *Statistics Canada*¹⁴

1.5 Education

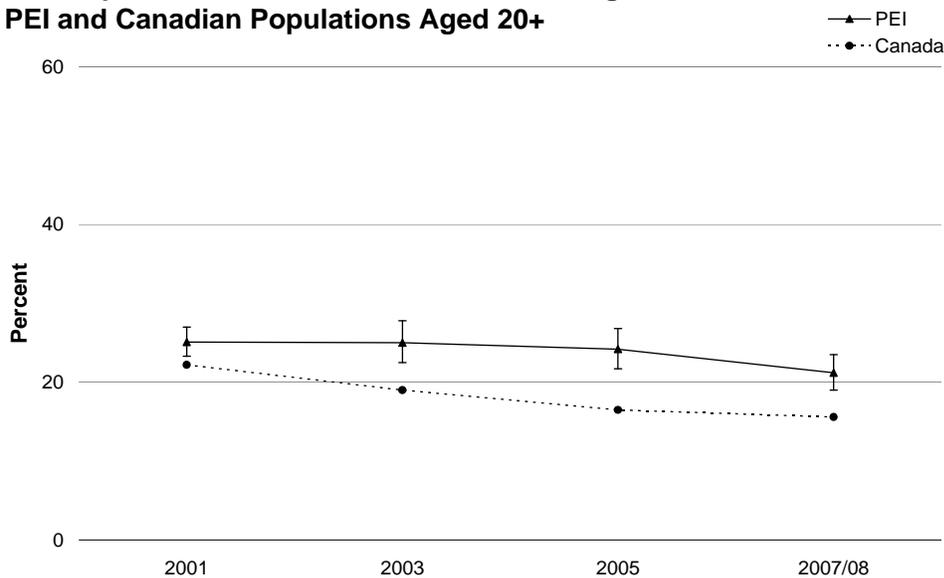
A person's level of education has been shown to relate to their overall health. Those with higher education levels may be able to access information and resources easier and allow them to make more informed decisions about their health. Also, people with higher levels of education are more likely to have sufficient income, job security and job satisfaction. Knowledge and skills needed to solve problems and cope with change may also be provided through education. This gives people a sense of control over their circumstances, which in turn contributes to better health.¹⁵

Definition: Individuals aged 20 and older, reporting highest level of education obtained. Mutually exclusive categories used are:

- *Less than high school: no schooling, elementary, or some secondary school*
- *High school graduates: high school graduation certificate, or some college or university*
- *Post-secondary graduates: diploma, certificate, or degree*

PEI's education levels remain stable, while they are improving in Canada. In 2007/08, 21% of PEI residents had less than high school education compared to 16% of Canadians. As age increases so does the likelihood that you have less than a high school education. For example, in 2007/08, 46% of those aged 65 and older had less than a high school education versus 7% of those in the 20-34 age group. In addition, males are more likely to have less than a high school education than females as 26% of males and 17% of females had a less than a high school education. When looking at the highest level of education by any member in a household, in PEI, 12% of households had less than a high school education compared to 8% nationally and fewer households had a post-secondary graduate (71%).

Self-Reported Education Level, Less Than High School, PEI and Canadian Populations Aged 20+



Self-Reported Personal Education Level in PEI and Canadian Populations Aged 20+

Year	PEI		Canada	
	%	CI	%	CI
Less than High School				
2001	25.1	23.3-27.0	22.2	21.9-22.6
2003	25.0	22.5-27.8	19.0	18.6-19.3
2005	24.2	21.7-26.8	16.5	16.2-16.8
2007/08	21.2	19.0-23.5	15.6	15.2-15.9
High School				
2001	25.8	23.9-27.9	28.1	27.7-28.5
2003	23.5	20.8-26.4	26.8	26.3-27.2
2005	21.2	18.6-24.0	24.3	23.9-34.7
2007/08	24.0	21.5-26.7	24.2	23.8-24.7
Post-secondary				
2001	49.1	46.8-51.3	49.6	49.2-50.1
2003	51.5	48.2-54.7	54.2	53.7-54.7
2005	54.6	51.4-57.8	59.2	58.8-59.7
2007/08	54.8	51.9-57.7	60.2	59.7-60.7

Self-reported Personal Education Level by Age and Sex, PEI 2007/08

Sex	20-34 yr.		35-49 yr.		50-64 yr.		65+ yr.		Total	
	%	CI	%	CI	%	CI	%	CI	%	CI
Less than High School										
Male	8.6	4.6-15.6	19.3	13.2-27.2	30.8	23.6-39.0	53.4	45.6-60.9	25.8	22.2-29.7
Female	5.4	2.8-10.0	9.1	5.6-14.5	20.5	15.7-26.4	39.5	33.1-46.3	16.9	14.5-19.6
Total	6.9	4.4-10.6	14.1	10.4-18.7	25.8	21.3-30.8	45.7	40.7-50.9		
High School										
Male	34.8	25.9-44.9	23.2	16.9-31.0	19.6	14.0-26.9	10.4	6.52-16.1	22.8	19.2-26.9
Female	32.4	25.2-40.6	25.7	19.5-33.0	21.2	15.9-27.7	19.2	13.8-26.1	25.1	21.8-28.7
Total	33.5	27.7-39.8	24.5	19.9-29.7	20.4	16.4-25.2	15.3	11.6-19.8		
Post-secondary										
Male	56.6	46.5-66.2	57.5	49.0-65.7	49.6	43.4-57.8	36.3	29.2-44.0	51.4	46.9-55.8
Female	62.2	54.1-69.7	65.2	57.5-72.3	58.2	51.0-65.1	41.3	34.6-48.2	58.0	54.2-61.7
Total	29.7	53.3-65.7	61.5	55.7-66.9	53.8	48.3-59.3	39.0	34.1-44.2		

Self-Reported Household Education in PEI and Canadian Populations Aged 20+, 2007/08

Education Level	PEI		Canada	
	%	CI	%	CI
Less than High School	11.9	10.4-13.7	8.1	7.8-8.3
High School Grad	17.3	15.2-19.7	16.1	15.7-16.5
Post-secondary Grad	70.7	68.0-73.2	75.8	75.3-76.2

Sources: Statistics Canada: CCHS 2007/08, CCHS 2005, CCHS 2003, CCHS 2000/01¹⁶

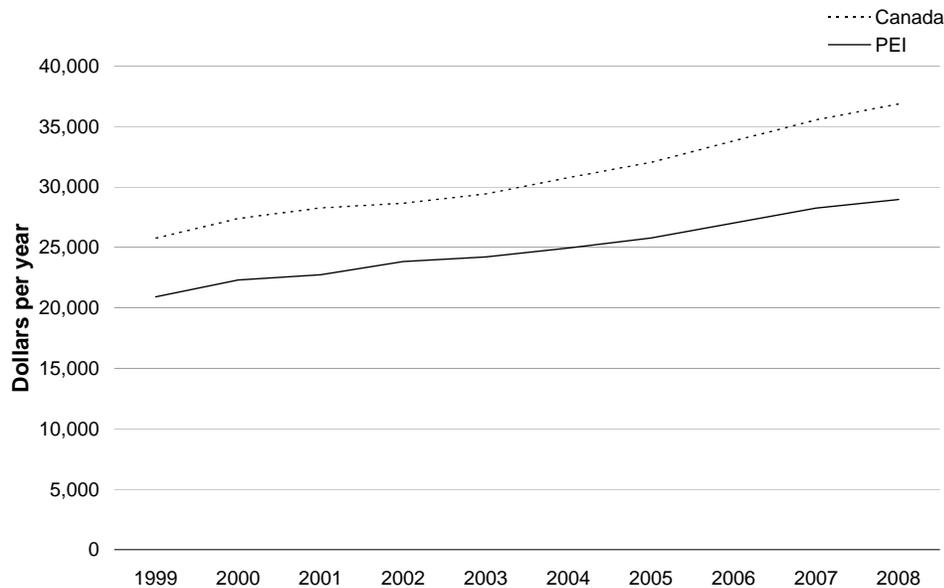
1.6 Income

Higher income is associated with better health. Canadians with a lower income are more likely to die earlier and to suffer more illness than those with higher incomes, regardless of age, sex, race and place of residence.⁶ Income is needed for shelter, food, warmth and the ability to participate in society, all of which are required for overall health. Not having enough income to buy basic necessities can cause stress and anxiety, therefore decreasing health. Also low income limits people's choices for behavior changes towards health.¹⁷

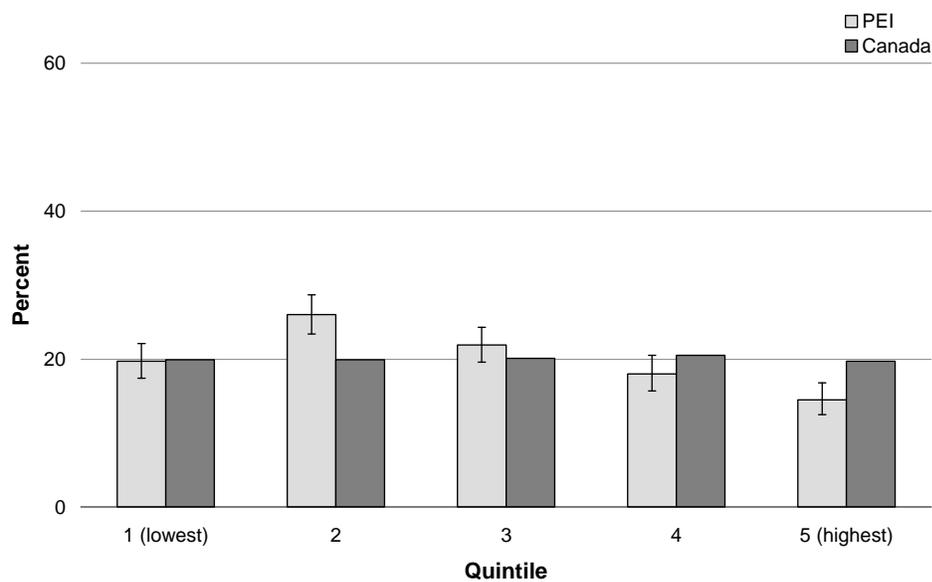
Definition: A measure which relates each respondent's household income to the household income of all other respondents in Canada. An income quintile divides the Canadian population up into 5 income groups (from lowest income to highest income) such that (approximately) 20% of the population is in each group. This also takes into account the size and location of the household.

When comparing PEI to the Canadian income groupings (lowest to highest), PEI has more households in the lower income levels (26% in Q2) and less households in the upper income levels (15% in Q5). PEI's average income per person is consistently lower than Canada. In 2008, the average per person income was \$28,959, compared to \$36,862 for Canada.

Per Capita Income, PEI and Canada



Income Quintiles, PEI and Canada 2008



Income Quintiles in PEI and Canada 2007/08

Income Quintile	PEI		Canada	
	%	CI	%	CI
1 (lowest)	19.7	17.4-22.1	19.9	19.5-20.3
2	26.0	23.4-28.7	19.9	19.5-20.3
3	21.9	19.6-24.3	20.1	19.7-20.5
4	18.0	15.7-20.5	20.5	20.1-20.9
5 (highest)	14.5	12.5-16.8	19.7	19.3-20.0

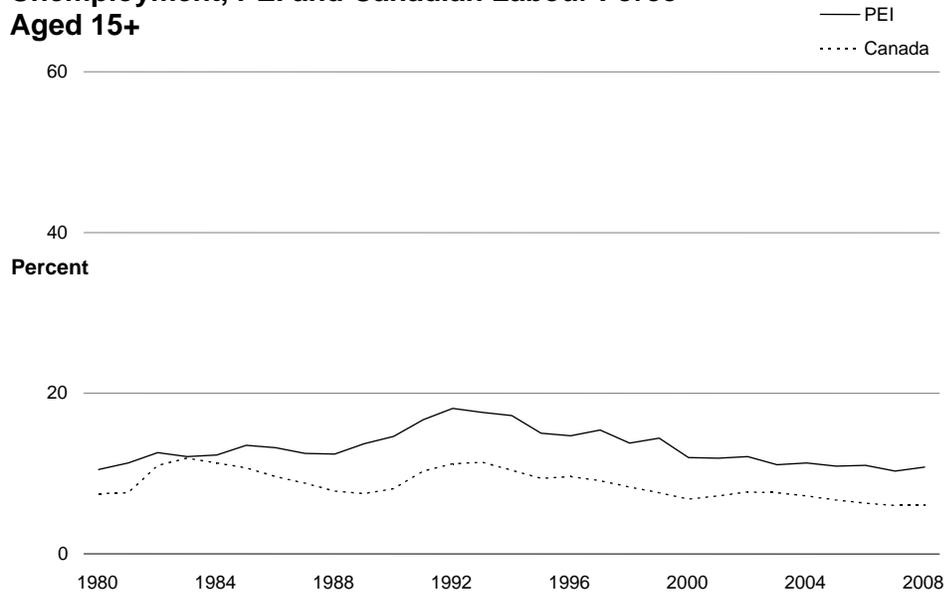
Sources: *Statistics Canada Table 27 from PEI 35th Annual Statistical Review 2009¹⁸, Statistics Canada: CCHS 2007/08¹⁶*

1.7 Unemployment

Unemployed people tend to experience more health problems than those who are employed.⁶ Between 1992 and 2008, PEI's unemployment rate decreased from 18% to 11%; however it is consistently higher than the Canadian rate. The 2008 Canadian rate was 6%.

Definition: Labour force aged 15 and over who did not have a job. The labour force consists of people who are currently employed and people who are unemployed but were available to work and had looked for work.

Unemployment, PEI and Canadian Labour Force Aged 15+



Percent of Labour Force Aged 15+ who are Unemployed, past 10 Years

Year	PEI	Canada
1995	15.0	9.4
1996	14.7	9.6
1997	15.4	9.1
1998	13.8	8.3
1999	14.4	7.6
2000	12.0	6.8
2001	11.9	7.2
2002	12.1	7.7
2003	11.1	7.6
2004	11.3	7.2
2005	10.9	6.7
2006	11.0	6.3
2007	10.3	6.0
2008	10.8	6.1

Age Standardized

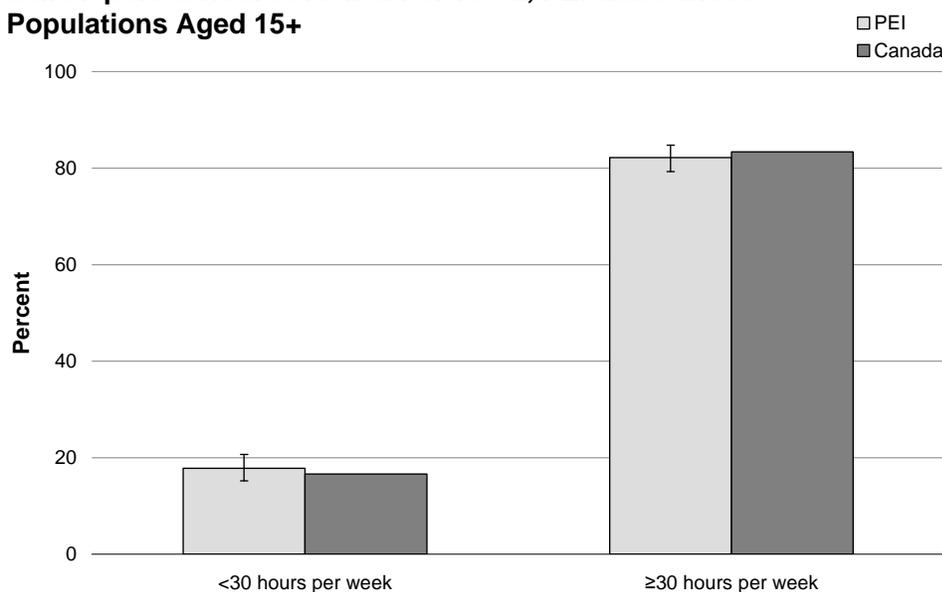
Source: Statistics Canada: Labour Force Survey¹⁹

1.8 Self-Reported Hours Worked

Over 80% of Islanders work at least 30 or more hours per week which is similar to the Canadian average. In addition, about 13% of Islanders worked at least 60 hours a week which is higher than the Canada rate of 10%.

Question: About how many hours a week do you usually work at your job or business? If you usually work extra hours, paid or unpaid, please include these hours. (Total hours for all work of population ≥15 to 75). Those who did not work in the week prior to the interview have been excluded).

Self-Reported Hours Worked Per Week, PEI and Canada Populations Aged 15+



Self-Reported Usual Hours Worked per Week in PEI and Canadian Populations Aged 15+, 2007/08

Hours worked per Week	PEI		Canada	
	%	CI	%	CI
<30 hours per week	17.8	15.2-20.7	16.6	16.2-17.1
≥30 hours per week	82.2	79.3-84.8	83.4	82.9-83.8
60+ hours per week	13.2	10.7-16.0	10.0	9.6-10.3

Source: Statistics Canada: CCHS 2007/08¹⁶

HEALTH STATUS AND DETERMINANTS

2.1 Self-reported Health

Self-reported health, or how healthy a person feels, summarizes physical, emotional and social well-being experienced by the individual. It provides valuable information about the health status of the general population and also represents an individual’s psychological attitude and coping skills.

Question: “By health, we mean not only the absence of disease or injury but also physical, mental and social well-being....in general, would you say your health is: excellent, very good, good, fair, poor?”

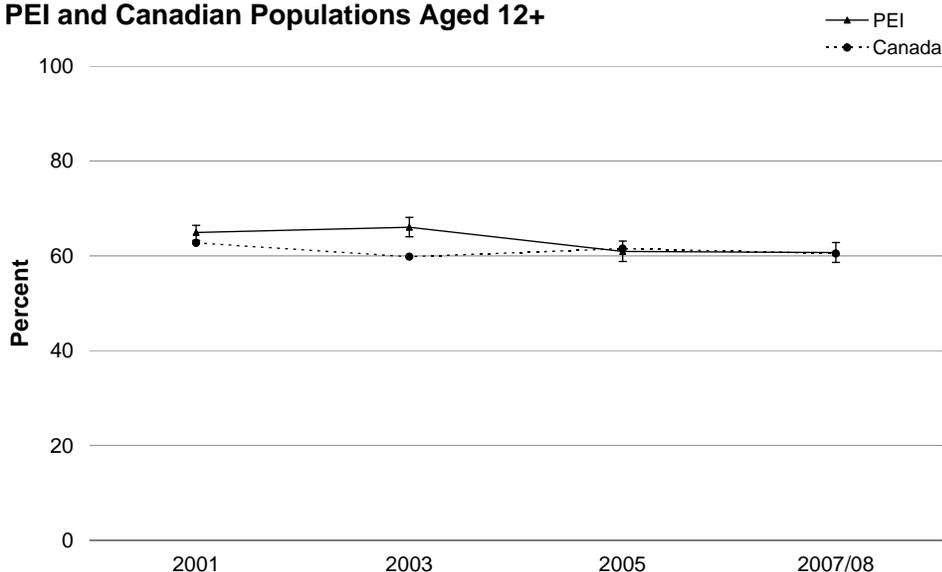
PEI and Canada have similar rates of individuals reporting excellent or very good health and good health. Approximately 61% of Island residents in 2007/08 described their health as “excellent” or “very good”, 27% as “good” and 12% as “fair” or “poor”. Island rates declined slightly between 2003 and 2005 but have remained steady since then. Self reported health rates are similar between males and females. There is a lower proportion of people describing their health as “excellent” or “very good” (48%) in the 65 and older age group.

Self-reported Health in PEI and Canadian Populations Aged 12+, 2007/08

Self-Reported Health	PEI		Canada	
	%	CI	%	CI
Excellent/Very Good	60.7	58.6-62.8	60.5	60.2-60.7
Good	27.1	25.1-28.9	28.9	28.6-29.1
Fair/Poor	12.3	10.9-13.6	10.7	10.5-10.8

Age Standardized

Self-Reported Excellent or Very Good Health, PEI and Canadian Populations Aged 12+



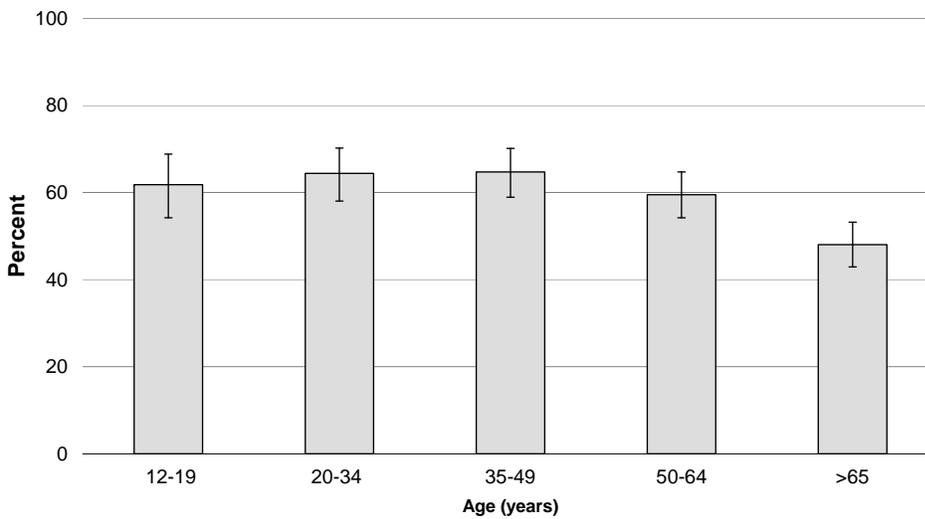
Age Standardized

Percent of Population Aged 12+ with Excellent or Very Good Self-reported Health

Year	PEI		Canada	
	%	CI	%	CI
2001	64.9	63.3-66.4	62.7	62.4-62.9
2003	66.0	64.0-68.1	59.8	59.6-60.1
2005	60.9	58.8-63.1	61.5	61.3-61.8
2007/08	60.7	58.6-62.8	60.5	60.2-60.7

Age Standardized

Self-Reported Excellent or Very Good Health by Age, PEI 2007/08



Percent of Population with Excellent or Very Good Self-reported Health, by Age and Sex, PEI 2007/08

Sex	12-19 yr.		20-34 yr.		35-49 yr.		50-64 yr.		65+ yr.		Total	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Male	60.0	49.9-69.4	60.9	50.7-70.2	68.2	60.0-75.4	59.2	51.1-66.8	47.6	39.9-55.2	60.2	56.2-64.1
Female	63.5	52.1-73.6	67.3	59.3-74.4	61.3	53.1-68.9	59.9	52.8-66.7	48.4	41.5-55.3	60.5	56.9-64.0
Total	61.8	54.2-68.8	64.4	58.0-70.2	64.7	58.9-70.1	59.5	54.2-64.7	48.0	42.9-53.2		

Sources: Statistics Canada: CCHS 2007/08, CCHS 2005, CCHS 2003, CCHS 2001¹⁶

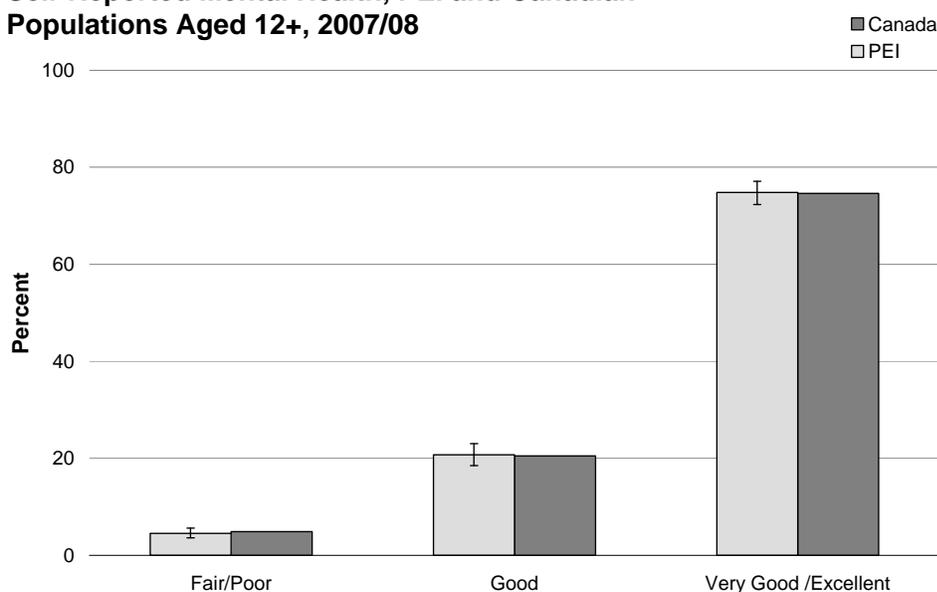
2.2 Self-reported Mental Health

Physical health, well being and quality of life are affected by mental health. Mental health is the ability for each of us to feel, think and act in ways that improve our ability to enjoy life and deal with the challenges we face. Work/life balance, stress, emotional wellness, aging, self esteem, coping skills, social support of individuals and communities are just a few components of mental health. Without good mental health, people can be unable to fulfill their full potential or play an active part in everyday life.²⁰

Question: "In general, would you say your mental health is: excellent, very good, good, fair, or poor?"

In 2007/08, approximately 75% of Islanders and Canadians reported their mental health as excellent or very good. There were no differences across gender or ages.

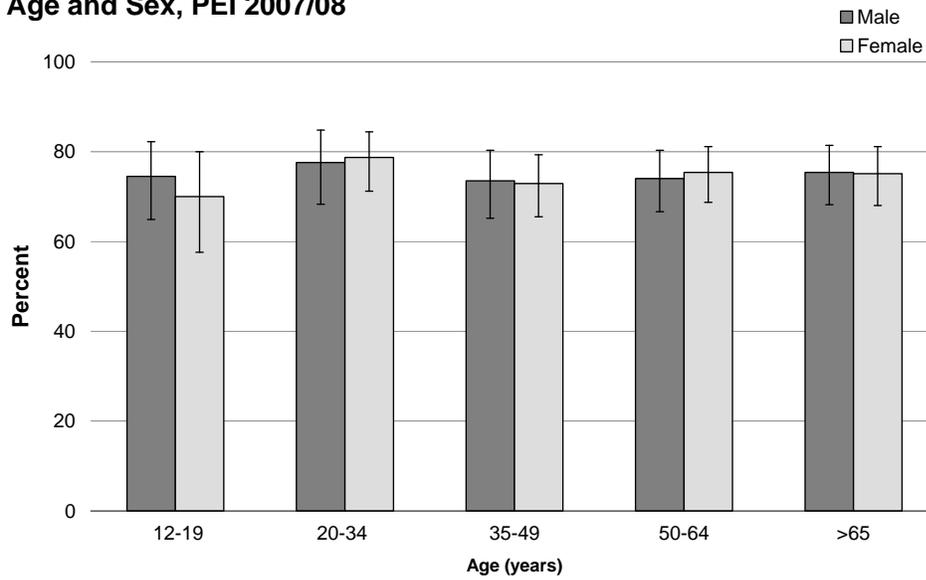
Self-Reported Mental Health, PEI and Canadian Populations Aged 12+, 2007/08



Self-reported Mental Health in PEI and Canadian Populations Aged 12+, 2007/08

Self-Reported Mental Health	PEI		Canada	
	%	CI	%	CI
Very Good /Excellent	74.8	72.3-77.1	74.6	74.1-75.0
Good	20.7	18.5-23.0	20.5	20.1-20.9
Fair/Poor	4.5	3.6-5.6	4.9	4.7-5.1

Self-Reported Excellent or Very Good Mental Health by Age and Sex, PEI 2007/08



Percent of Population with Excellent or Very Good Self-reported Mental Health, by Age and Sex, PEI and Canada 2007/08

Sex	12-19 yr.		20-34 yr.		35-49 yr.		50-64 yr.		65+ yr.	
	%	CI	%	CI	%	CI	%	CI	%	CI
PEI										
Male	74.5	64.9-82.2	77.6	68.3-84.8	73.5	65.2-80.3	74.0	66.6-80.3	75.4	68.2-81.4
Female	70.0	57.6-80.0	78.7	71.2-84.4	72.9	65.5-79.3	75.4	68.7-81.1	73.9	66.8-79.9
Total	72.2	64.5-78.8	78.2	72.7-82.9	73.2	69.8-79.1	74.5	69.5-78.9		
Canada										
Total	78.4	77.3-79.4	77.4	76.5-78.2	74.3	73.4-75.2	73.1	72.2-74.0	69.5	68.6-70.4

Sources: *Statistics Canada: CCHS 2007/08*¹⁶

2.3 Fruit and Vegetable Consumption

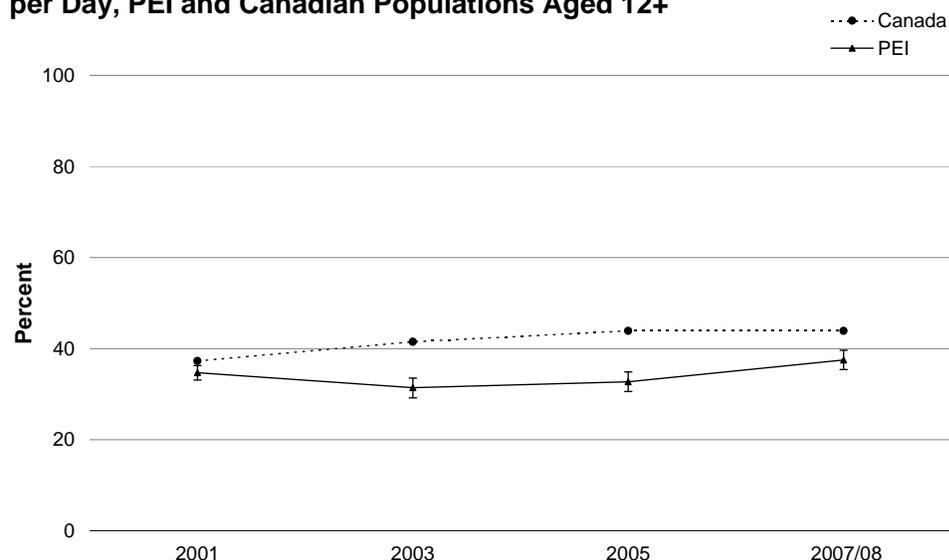
Fruits and vegetables contain essential vitamins, minerals, and fiber that help protect you from chronic diseases such as cardiovascular disease, type 2 diabetes and certain types of cancer.^{21,22,23}

Consumption of fruits and vegetables is influenced by a number of factors including food affordability, access to healthy foods within the community, knowledge of healthy choices and food skills such as preparation, storage and budgeting.

Definition: *The average number of times per day that individuals consume fruit and vegetables.*

In 2007/08, 38% of PEI individuals aged 12 years and older reported consuming fruits or vegetables five or more times a day. This is lower than the Canadian rate which was 44%. PEI rates of fruit and vegetable consumption have increased since 2005. There is a significant difference in consumption of fruits and vegetables between males and females with a larger proportion of females consuming 5 or more fruit and vegetables per day than males.

Self-Reported Consumption of 5+ Fruits and Vegetables per Day, PEI and Canadian Populations Aged 12+



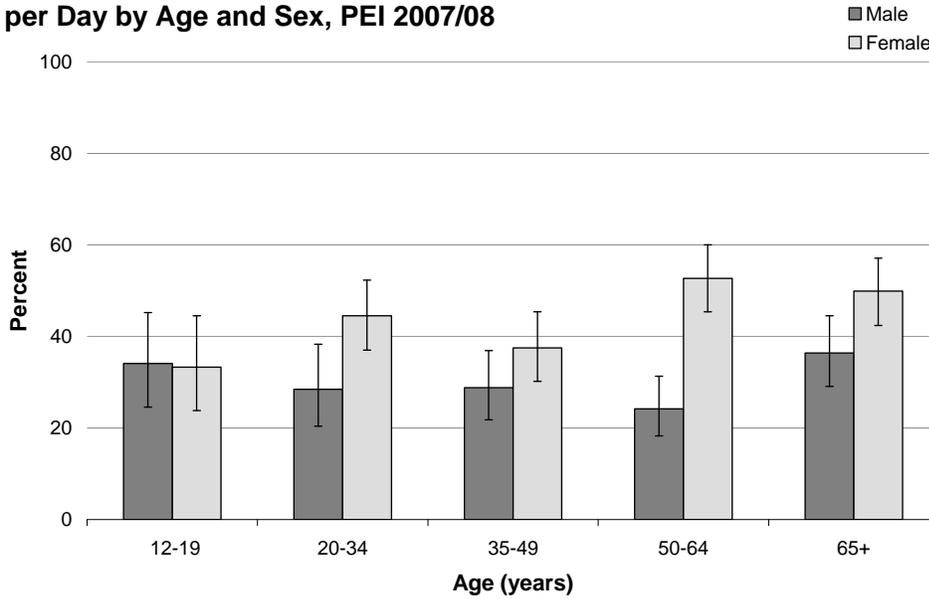
Age Standardized

Percent of Population Aged 12+ Consuming 5 or More Fruits and Vegetables per Day

Year	PEI		Canada	
	%	CI	%	CI
2001	34.7	33.1-36.3	37.3	37.0-37.6
2003	31.4	29.2-33.5	41.5	41.2-41.8
2005	32.7	30.6-34.9	43.9	43.3-44.4
2007/08	37.5	35.4-39.6	43.9	43.6-44.2

Age Standardized

Self-Reported Consumption of 5+ Fruits and Vegetables per Day by Age and Sex, PEI 2007/08



Percent of Population Consuming 5 or More Fruits and Vegetables per Day by Age and Sex, PEI 2007/08

Sex	12-19 yr.		20-34 yr.		35-49 yr.		50-64 yr.		65+ yr.		Total	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Male	34.1	24.6-45.2	28.5	20.4-38.3	28.8	21.8-36.9	24.2	18.3-31.3	36.4	29.1-44.5	29.2	25.7-33.1
Female	33.3	23.8-44.5	44.5	37.0-52.3	37.5	30.2-45.4	52.7	45.4-60.0	49.9	42.4-57.1	44.2	40.6-47.9
Total	33.7	26.8-41.5	37.3	31.5-43.3	33.2	28.1-38.8	38.3	33.0-43.8	44.1	38.9-49.6		

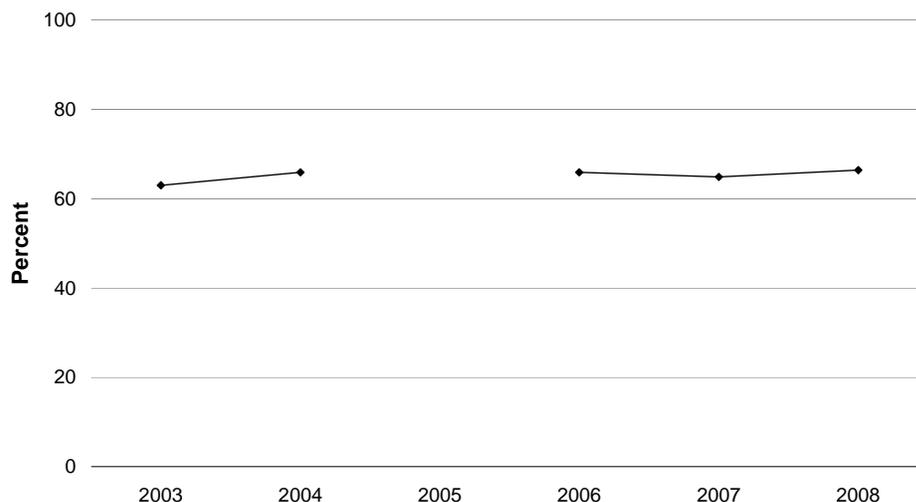
Sources: Statistics Canada: CCHS 2007/08, CCHS 2005, CCHS 2003, CCHS 2000/01¹⁶

2.4 Breastfeeding

Breast milk is optimal food for infants and contains ideal nutrients to allow proper digestion, brain development and growth. A baby may be protected from illnesses and infections by the antibodies transmitted in a mother's breast milk. Breastfeeding may also protect babies against allergies and respiratory infections²⁴ and may lower rates of Type II diabetes²⁵ and childhood obesity. The bond formed between a mother and child through breastfeeding may also contribute to the healthy psychological development of the child.²⁶ In addition to the health benefits of breastfeeding for the child, those mothers who breastfeed may have lower rates of osteoporosis and certain types of ovarian and breast cancer.²⁷

In 2008, 66% of newborns in PEI were breastfed either exclusively or in combination with formula at the time of hospital discharge. This is a considerable increase from 1990 when 48% of newborns were breastfed upon hospital discharge.²⁸

Newborns Breastfed at Hospital Discharge, PEI



Percent of PEI Newborns Breastfed at Discharge from Hospital

Year	% newborns breastfeeding ¹ at discharge
2003	63.0
2004 ^p	65.9
2005	incomplete data
2006	65.9
2007	64.9
2008	66.4

¹ includes both "exclusive breastfeeding" or "breastfeeding and formula"; percentages may be higher than actual as out of province births are not reported in the denominators

^p preliminary data

Sources: PEI Reproductive Care Program (2003/2004); ISM Public Health Nursing database and Vital Statistics Birth Registrations (2006-2008)

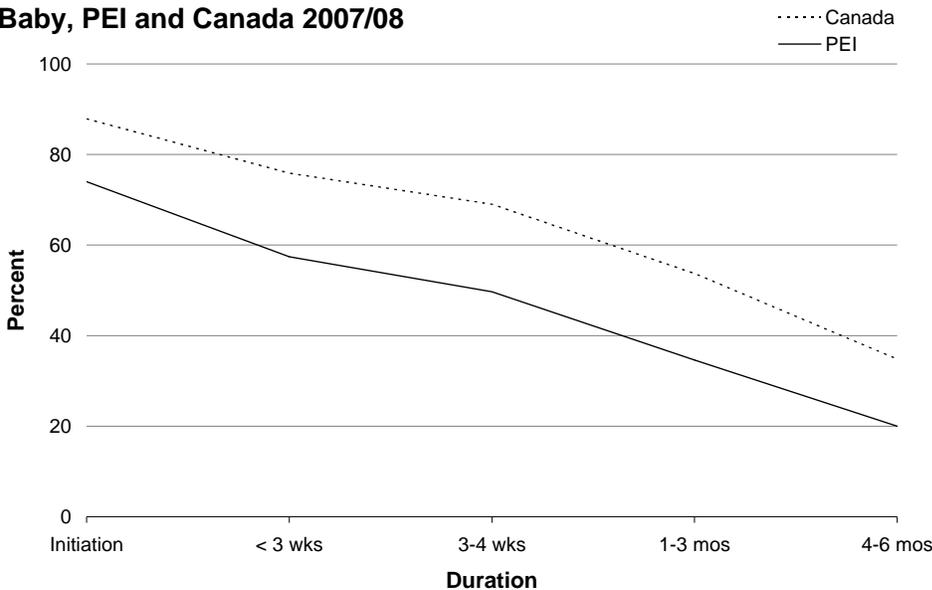
2.4.1 Breastfeeding Duration

Breastfeeding duration describes the length of time that a baby was breastfed and is an important indicator to demonstrate the overall rate of breastfeeding success. The Canadian Pediatric Society recommends exclusive breastfeeding for the first six months of life for healthy, term infants.²⁹

Question: The CCHS 2007/08 survey asked females between the ages of 15 and 55 if they have given birth in the past 5 years. If yes was answered then they were asked “did you breastfeed or try to breastfeed your baby, even if only for a short time?” “How long did you breastfeed (your last baby)?”

In 2007/08, 74% of Islander mothers compared to 88% of Canadian mothers who gave birth to a baby within the previous 5 years prior to the survey attempted to breastfeed their infants, if only for a short period of time. Of those in PEI who initiated breastfeeding, over half (53%) discontinued between 1-3 months. Only 27% of Island mothers that initiated breastfeeding, continued to nurse beyond 4-6 months.

Self-Reported Duration of Breastfeeding Most Recent Baby, PEI and Canada 2007/08



Self-Reported Duration of Breastfeeding Most recent Baby, 2007/08

Duration	PEI	Canada
< 3 wks	77.5	86.4
3-4 wks	67.2	78.5
1-3 mos	46.8	61.1
4-6 mos	27.1	39.6

Source: Statistics Canada: CCHS 2007/08¹⁶

2.5 Self-reported Obesity

Body weight depends on a combination of factors, including genetics, mental health, diet, socio-economic status and active living. Obesity is linked to many chronic diseases such as cardiovascular disease, diabetes, and some cancers.⁶ Despite many health initiatives promoting the importance of healthy eating, healthy weight and physical activity, PEI continues to have a high proportion of overweight and obese individuals.

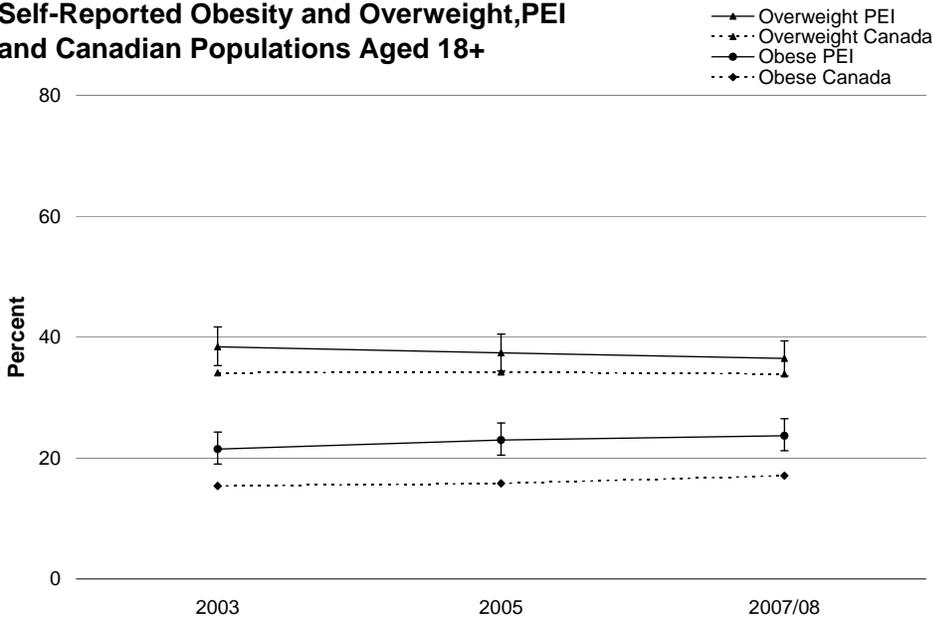
Definition: Body Mass Index (BMI) is calculated from the respondent's self-reported weight and height as follows: weight in kilograms divided by height in meters squared. BMI is a common method of determining if an individual's weight is in a healthy range based on their height. Pregnant women are excluded. International standards for interpreting the index are:

- *underweight* *BMI < 18.5*
- *acceptable weight* *BMI = 18.5 to 24.9*
- *overweight* *BMI = 25 to 29.9*
- *obese* *BMI ≥ 30*

PEI's obesity rate is higher than Canadian rates. In 2007/08, 37% of Island residents were overweight and 24% were obese (based on self-reported height and weight).

More males reported being overweight or obese than females. There is a significant increase in the proportion of overweight or obese people at 35-49 years compared to 18-34 years.

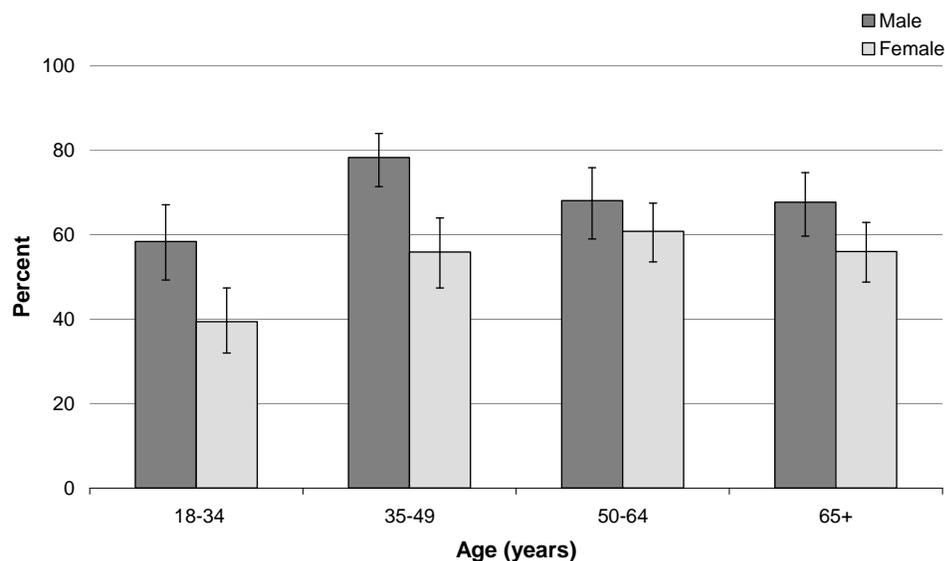
Self-Reported Obesity and Overweight, PEI and Canadian Populations Aged 18+



Self-Reported BMI Category in PEI and Canadian Populations Aged 18+

Year	PEI		Canada	
	%	CI	%	CI
Acceptable				
2003	38.3	35.2-41.4	47.8	47.3-48.3
2005	38.5	35.5-41.7	47.2	46.7-47.6
2007/08	38.5	35.7-41.4	46.3	45.8-46.8
Overweight				
2003	38.4	35.3-41.7	34.1	33.7-34.6
2005	37.4	34.4-40.5	34.2	33.8-34.7
2007/08	36.5	33.6-39.4	33.9	33.5-34.4
Obese				
2003	21.5	19.0-24.3	15.4	15.0-15.7
2005	23.0	20.5-25.8	15.8	15.5-16.2
2007/08	23.7	21.2-26.5	17.1	16.7-17.5

Self-Reported Obesity and Overweight by Age and Sex, PEI 2007/08



Percent of Population Self-Reporting Overweight or Obese by Age and Sex, PEI 2007/08

Sex	18-34 yr.		35-49 yr.		50-64 yr.		65 + yr.		Total	
	%	CI	%	CI	%	CI	%	CI	%	CI
Male	58.4	49.3-67.1	78.3	71.4-84.0	68.1	59.0-75.9	67.7	59.7-74.7	68.3	64.1-72.3
Female	39.4	32.0-47.4	55.9	47.4-64.0	60.8	53.6-67.5	56.0	48.8-62.9	52.5	48.5-56.4
Total	48.5	42.3-54.6	67.3	61.6-72.5	64.5	58.9-69.8	61.0	55.7-66.1		

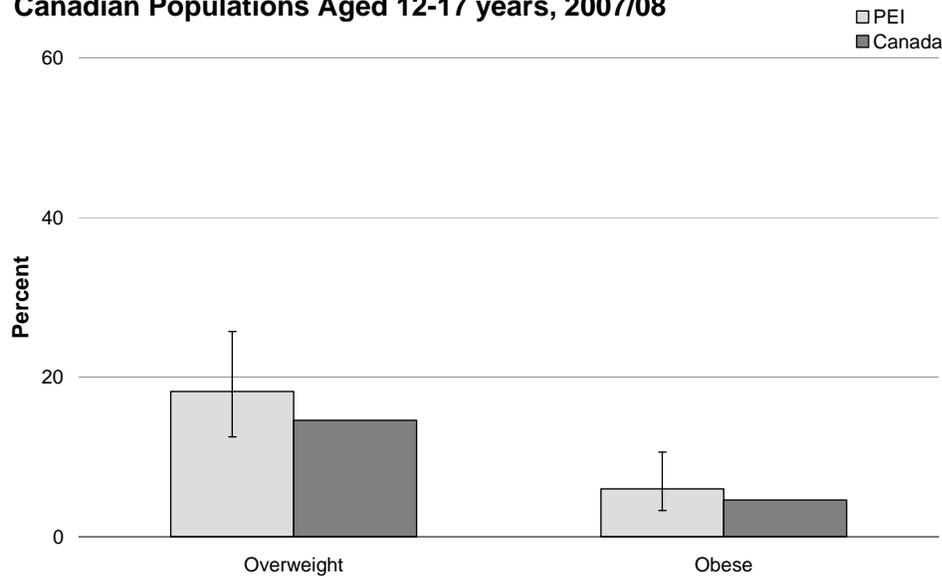
Sources: Statistics Canada: CCHS 2007/08, CCHS 2005, CCHS 2003¹⁶

2.5.1 Childhood Obesity

Canada, as well as many other countries, has growing concerns regarding childhood obesity. Obesity rates in both children and youth have almost tripled in the last 25 years. It has been shown that children are eating high energy/high fat food in excess and have become more sedentary than children in the past. As with adult obesity, childhood obesity presents similar health complications such as type 2 diabetes, high blood pressure, liver disease and psychological difficulties. Children who are obese do not normally “outgrow” their weight concerns but continue to gain more weight as they become older.³⁰

PEI and Canada have similar rates of children/young adults who report being either obese or overweight. In 2007/08, based on those Island children included in the survey, 18% were overweight and 6% were obese.

Self-Reported Obesity and Overweight, PEI and Canadian Populations Aged 12-17 years, 2007/08



**Self-Reported BMI Category in PEI and Canadian Populations
Ages 12-17 years**

Year	PEI		Canada	
	%	CI	%	CI
Neither Overweight nor Obese				
2005	77.8	70.7-83.6	80.5	79.4-81.5
2007/08	75.8	67.9-82.3	80.8	79.5-81.9
Overweight				
2005	16.9	11.8-23.7	14.6	13.7-15.6
2007/08	18.2	12.5-25.7	14.6	13.6-15.7
Obese				
2005	5.3	2.9-9.2	4.9	4.3-5.5
2007/08	6.0	3.3-10.6	4.6	4.0-5.4

Sources: *Statistics Canada: CCHS 2007/08, CCHS 2005, CCHS 2004, CCHS 2003, CCHS 2001*¹⁶

2.6. Physical Activity

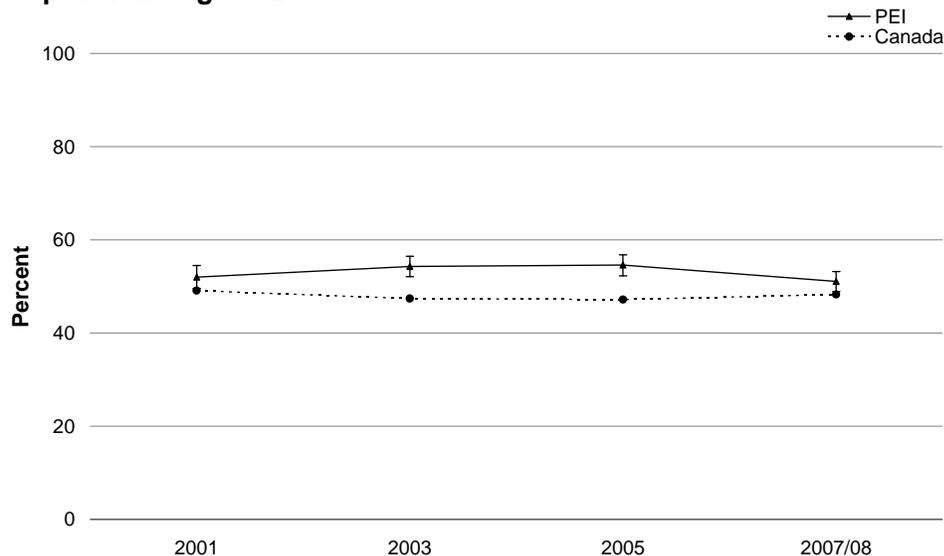
Being physically inactive is a risk factor for serious health conditions such as obesity, type 2 diabetes, osteoporosis, certain types of cancer, heart disease and stroke. These diseases and their complications can be reduced and/or eliminated with healthy lifestyle choices such as being physically active. Those who exercise regularly are less likely to have a number of chronic health conditions. Physical activity has also been shown to not only improve physical health but also improve mental health.^{31,32} Changing peoples' attitudes and behaviors towards physical activity can make a substantial difference in the health of communities.³³

Definition: Population aged 12 and over reporting level of physical activity, based on their responses to questions about the type of activity, frequency and duration of their participation in leisure-time physical activity. Intensity of each activity was assigned a value for the metabolic energy demand. Categories of physical activity used are:

- *Active: average 3.0 or more kcal/kg/day of energy expenditure. This amount of exercise is required for cardiovascular health benefit*
- *Moderate: average 1.5 - 2.9 kcal/kg/day of energy expenditure. This amount of exercise may produce some health benefits, but little cardiovascular benefit*
- *Inactive: average below 1.5 kcal/kg/day of energy expenditure*

In 2007/08, over 50% of PEI residents and 48% of Canadians were inactive. PEI rates of inactivity have been similar since 2001 and are consistently higher than Canadian rates. There were no differences between activity level in males and females. The percent of inactive residents tends to increase with age.

Self-Reported Physical Inactivity, PEI and Canadian Populations Aged 12+



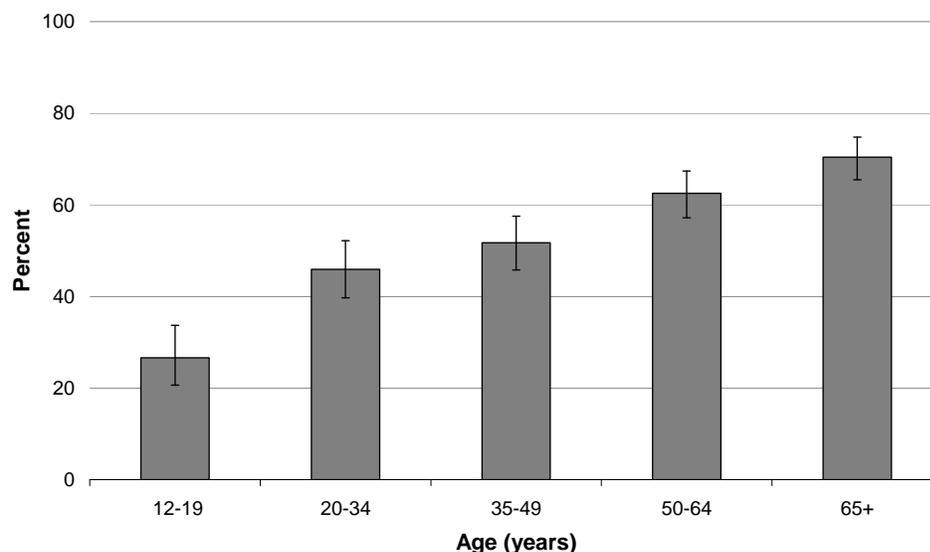
Age Standardized

Self-Reported Physical Activity Levels in PEI and Canadian Populations Aged 12+

Year	PEI		Canada	
	%	CI	%	CI
Inactive				
2001	52.0	49.6-54.5	49.1	48.6-49.5
2003	54.3	52.1-56.5	47.4	47.2-47.7
2005	54.6	52.3-56.8	47.2	46.9-47.5
2007/08	51.1	48.9-53.2	48.3	48.0-48.6
Moderate				
2001	20.7	18.9-22.4	21.6	21.3-21.9
2003	21.9	20.0-23.8	25.0	24.8-25.3
2005	23.0	21.1-25.0	25.2	24.9-25.4
2007/08	23.2	21.4-25.1	24.7	24.5-25.0
Active				
2001	19.6	18.2-21.1	21.0	20.7-21.4
2003	23.8	21.9-25.7	27.5	27.3-27.8
2005	22.3	20.5-24.2	27.6	27.4-27.9
2007/08	25.7	23.8-27.5	26.9	26.7-27.2

Age Standardized

Self-Reported Physical Inactivity by Age, PEI 2007/08



Percent of Population Reporting Physical Inactivity by Age and Sex, PEI 2007/08

Sex	12-19 yr.		20-34 yr.		35-49 yr.		50-64 yr.		65+ yr.		Total	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Male	20.4	13.4-29.7	43.5	33.9-53.7	47.2	38.8-55.7	67.6	60.1-74.3	68.1	60.3-75.0	50.9	46.8-55.1
Female	32.8	23.5-43.6	47.8	40.0-55.7	56.0	47.9-63.8	57.1	49.9-64.0	72.1	65.7-77.7	54.2	50.5-57.8
Total	26.6	20.6-33.7	45.9	39.7-52.2	51.7	45.8-57.5	62.5	57.2-67.4	70.4	65.5-74.8		

Sources: Statistics Canada: CCHS 2007/08, CCHS 2005, CCHS 2003, CCHS 2000/01¹⁶

2.7 Screen Time

The amount of time spent in sedentary activities during an individual’s leisure time (e.g. excluding time at work or school) may increase the risk of being overweight or obese. A healthy balance between physical activity and sedentary behaviors during leisure time is important to achieve.^{34,35}

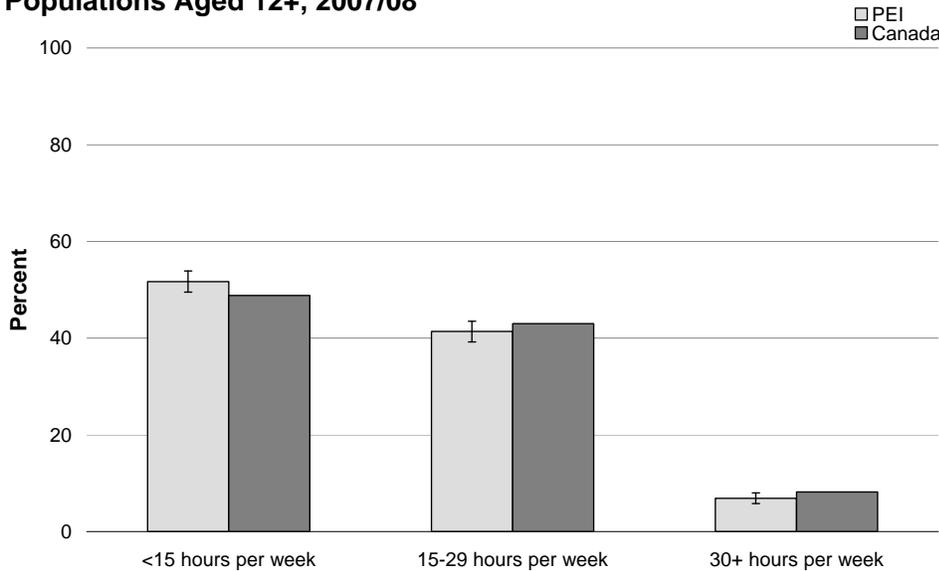
Screen time (time spent viewing television and using computers) has been linked to obesity, other inactive leisure time activities and poor diet.³⁶

Question: “In a typical week in the past 3 months, how much time did you usually spend: on a computer, including playing computer games and using the internet; playing video games, such as Xbox, Nintendo and Playstation; and watching television or videos?” Respondents were given time ranges to choose between none to 20 hours per each category.

In 2007/08, 41% of Island residents had 15-29 hours of screen time per week and 7% reported greater than 30 hours per week. These are similar to Canadian rates. A larger proportion of Islanders (52%) spend less than 15 hours of screen time compared to Canadians.

More males (9%) report 30+ hours of screen time per week than females (4%). A larger proportion of those in the 12-19 year category report 30+ hours of screen time per week (17%) compared to older age groups.

Self-Reported Hours of Screen Time, PEI and Canadian Populations Aged 12+, 2007/08



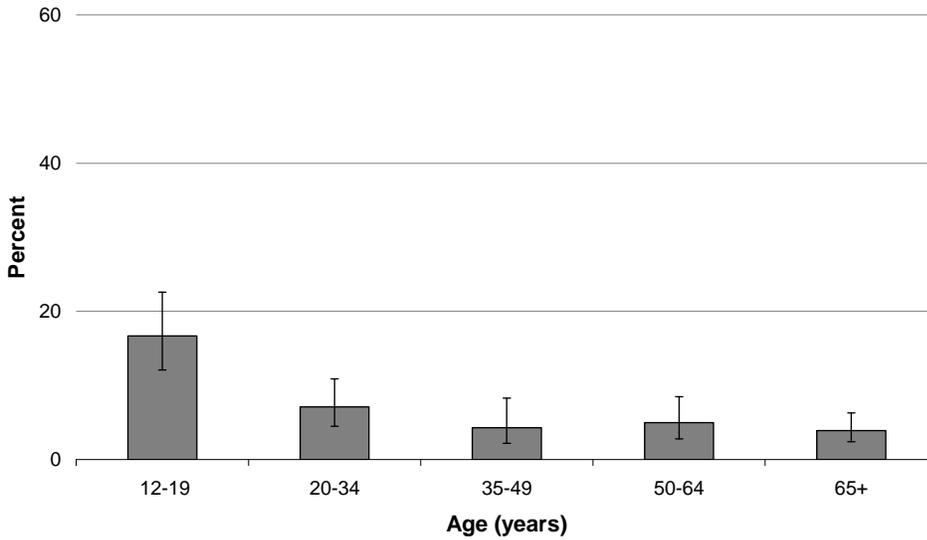
Age Standardized

Self-Reported Hours of Screen Time per Week in PEI and Canadian Populations Aged 12+, 2007/08

Screen Time	PEI		Canada	
	%	CI	%	CI
<15 hours per week	51.7	49.5-53.9	48.8	48.5-49.1
15-29 hours per week	41.4	39.2-43.5	43.0	42.7-43.3
30+ hours per week	6.9	5.8-8.0	8.2	8.0-8.4

Age Standardized

Percent of Population Self-Reporting 30+ Hours of Screen Time per Week by Age, PEI 2007/08



Percent of Population, by Age, Reporting 30+ Hours of Screen Time per Week, 2007/08

	12-19 yr.		20-34 yr.		35-49 yr.		50-64 yr.		65+ yr.	
	%	CI	%	CI	%	CI	%	CI	%	CI
Total	16.7	12.1-22.6	7.1	4.5-10.9	4.3	2.2-8.3	5.0	2.8-8.5	3.9	2.4-6.3

Percent of Population, by Sex, Reporting 30+ Hours of Screen Time per Week, 2007/08

Sex	Total	
	%	CI
Male	9.3	7.0-12.2
Female	4.2	3.0-5.7

Sources: Statistics Canada: CCHS 2007/08¹⁶

2.8 Alcohol Use

Excessive use of alcohol can lead to health and social problems. Men are more likely than women to report heavy drinking on a regular basis. Heavy drinking is most common among youth (under 25), and decreases with education level.⁶ Heavy drinking may be associated with several health concerns including:

- Chronic diseases such as liver cirrhosis (damage to liver cells); pancreatitis (inflammation of the pancreas); various cancers, including liver, mouth, throat, larynx (the voice box), and esophagus; high blood pressure; and psychological disorders
- Unintentional injuries, such as motor-vehicle traffic crashes, falls, drowning, burns, firearm injuries
- Violence, such as child maltreatment, homicide and suicide
- Harm to a developing fetus if a woman drinks while pregnant (Fetal Alcohol Spectrum Disorder (FASD))
- Sudden infant death syndrome (SIDS)
- Alcohol abuse or dependence³⁷

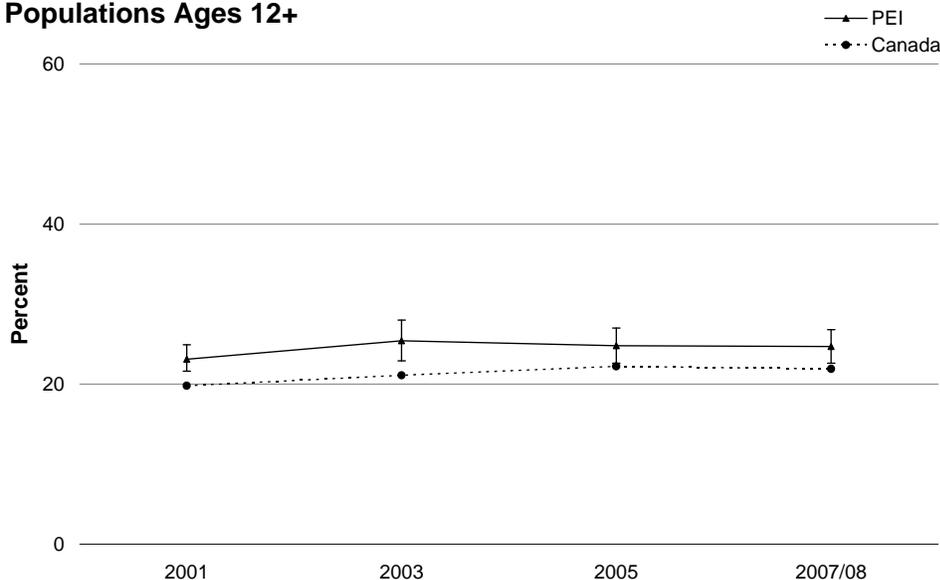
Definition: A drink was defined to respondents as: one bottle or can of beer or glass of draft; one glass of wine or a wine cooler; one cocktail with 1 ½ ounces of liquor.

Heavy drinking: Population aged 12 and over who are current drinkers and who reported drinking 5 or more drinks per occasion, at least 12 times in the past 12 months.

PEI's heavy drinking rate is consistently higher than the Canadian rate. In 2007/08, 25% of PEI residents who consumed alcohol in the last twelve months reported heavy drinking. The Canadian rate was 22%. Rates have remained similar since 2001.

Heavy drinking rates are significantly higher for males (37%) than females (13%). For example, in the 20-35 age grouping, 51% of males reported heavy drinking compared to 23% of females. Heavy drinking appears to decline once people reach the age of 50.

Self-Reported Heavy Drinking, PEI and Canadian Populations Ages 12+



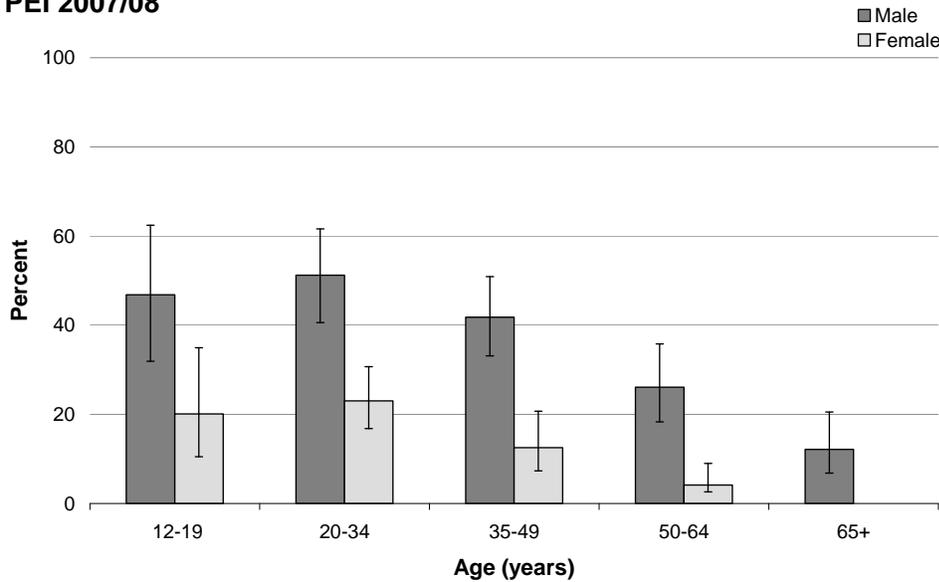
Age Standardized

Frequency of Drinking 5+ Drinks per Occasion in Past 12 Months among PEI and Canadian Populations Aged 12+

Year	PEI		Canada	
	%	CI	%	CI
Never				
2001	53.8	51.8-55.8	56.7	56.4-57.0
2003	48.6	45.6-51.5	53.6	53.3-53.9
2005	47.2	44.0-50.3	51.3	51.0-51.6
2007/08	47.0	44.8-49.2	52.4	52.1-52.7
< 12 Times				
2001	23.1	21.5-24.7	23.4	23.2-23.8
2003	26.0	23.4-28.6	25.3	25.0-25.8
2005	28.0	24.9-31.1	26.4	26.1-26.7
2007/08	28.2	26.0-30.4	25.7	25.4-26.0
≥ 12 Times				
2001	23.1	21.6-24.9	19.8	19.6-20.1
2003	25.4	22.9-28.0	21.1	20.9-21.4
2005	24.8	22.6-27.0	22.2	22.0-22.5
2007/08	24.7	22.6-26.8	21.9	21.7-22.2

Age Standardized

Self-Reported Heavy Drinking by Age and Sex, PEI 2007/08



Percent of Current Drinkers Reporting Heavy Drinking by Age and Sex, PEI 2007/08

Sex	12-19 yr.		20-34 yr.		35-49 yr.		50-64 yr.		65+ yr.		Total	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Male	46.8	31.9-62.4	51.2	40.6-61.6	41.8	33.1-50.9	26.1	18.3-35.8	12.1	6.8-20.5	37.4	32.7-42.4
Female	20.1	10.5-34.9	23.0	16.8-30.7	12.5	7.3-20.7	4.1	2.6-9.0	--	--	13.3	10.5-16.6
Total	32.2	22.6-43.5	36.5	30.2-43.3	27.6	22.2-33.8	16.0	11.5-21.8	7.5	4.7-11.8		

-- data not shown due to small cell size

Sources: Statistics Canada: CCHS 2007/08, CCHS 2005, CCHS 2003, CCHS 2000/01¹⁶

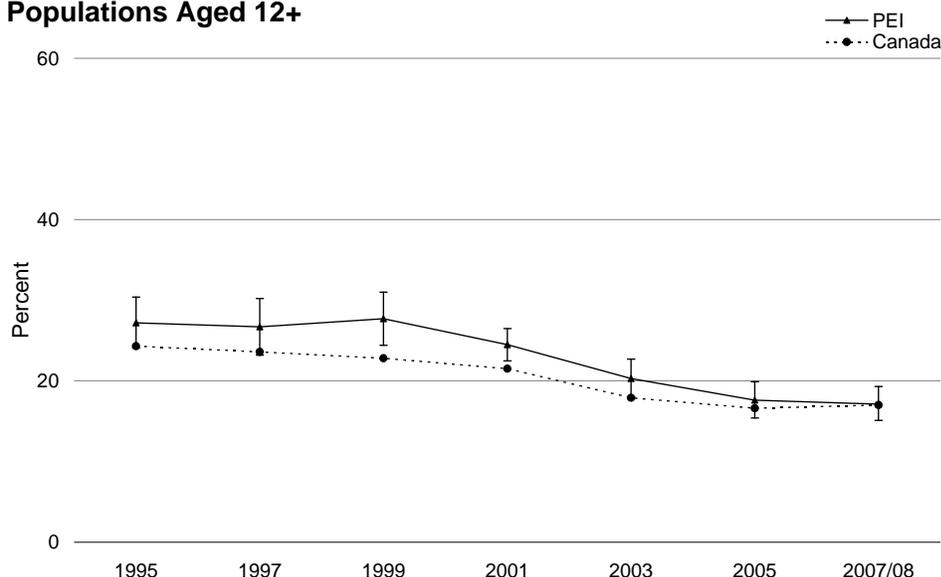
2.9 Smoking

Smoking is a major preventable cause of premature death and illness. Some of the health effects of smoking include asthma, bronchitis, emphysema, stroke, heart disease, lung cancer and other types of cancer.

Definition: Population aged 12 and over who reported being either a smoker (daily or occasional) or a non-smoker (former or never smoked). A series of questions on frequency and amount smoked is used to create the following smoking status categories: daily smoker, occasional smoker, former smoker, never smoked.

Smoking rates have decreased in both PEI and Canada since 1995. In 2007/08, 20% of PEI males and 15% of PEI females aged 12 and over reported that they smoked daily. This is a decrease since 1995 when 36% of males and 19% of females reported daily smoking. Rates are similar for males and females. Daily smoking rates are highest during adulthood through mid-life (20-64 yrs).

Self-Reported Daily Smoking, PEI and Canadian Populations Aged 12+

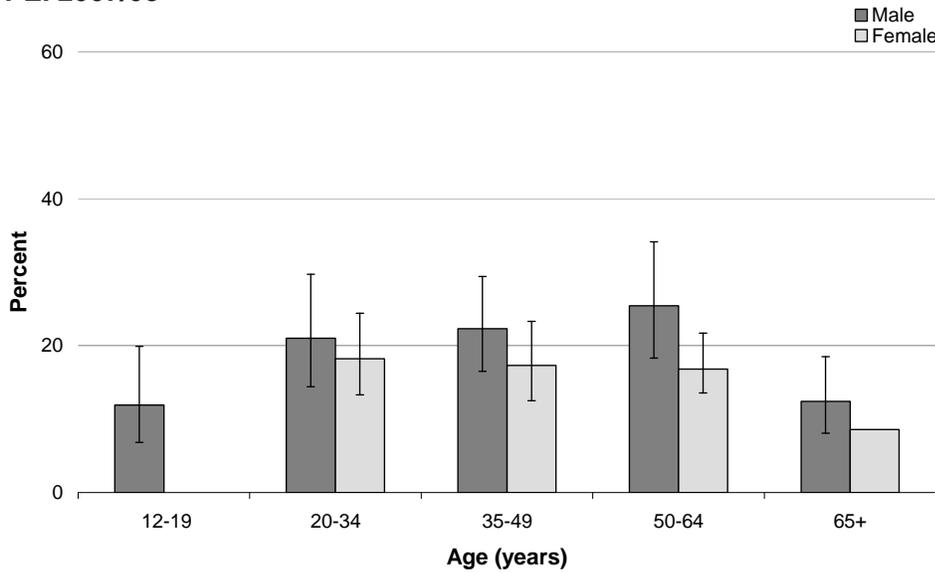


Self-Reported Daily Smoking in PEI and Canadian Populations Aged 12+

Year	Source	PEI		Canada	
		%	CI	%	CI
1995	NPHS ³⁸	27.2	24.1-30.4	24.3	23.2-25.1
1997	NPHS ³⁸	26.7	23.2-30.2	23.6	22.9-24.2
1999	NPHS ³⁸	27.7	24.4-31.0	22.8	22.0-23.7
2001	CCHS ¹⁶	24.5	22.5-26.5	21.5	21.1-21.8
2003	CCHS ¹⁶	20.3	18.0-22.7	17.9	17.6-18.2
2005	CCHS ¹⁶	17.6	15.4-19.9	16.6	16.3-16.9
2007/08	CCHS ¹⁶	17.1	15.1-19.3	17.0	16.7-17.4

2003, 2005 and 2007/08 rates are calculated excluding non-response categories

Self reported Daily Smoking by Age and Sex, PEI 2007/08



Percent of Population who Report Daily Smoking by Age and Sex, PEI 2007/08

Sex	12-19 yr.		20-34 yr.		35-49 yr.		50-64 yr.		65+ yr.		Total	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Male	11.9	6.8-19.9	21.0	14.4-29.7	22.3	16.5-29.4	25.4	18.3-34.1	12.4	8.1-18.5	19.9	16.8-23.4
Female	--	--	18.2	12.5-25.8	17.3	12.4-23.5	16.8	12.0-22.8	8.6	5.4-13.5	14.5	12.1-17.4
Total	9.2	5.6-14.6	19.5	15.0-25.0	19.7	15.8-24.3	21.1	16.6-26.4	10.3	7.5-13.9	17.1	15.1-19.3

-- data not shown due to small cell size

Sources: Statistics Canada: CCHS 2007/08, CCHS 2005, CCHS 2003, CCHS 2000/01¹⁶, NPHS 1998/99, NPHS 1996/97, NPHS 1994/95³⁸

2.10 Exposure to Environmental Tobacco Smoke

Environmental tobacco smoke (ETS) refers to exposure to tobacco smoke - not from your smoking, but from being exposed to someone else's cigarette, cigar, or pipe smoke. ETS can also be described as the material in indoor air that originates from tobacco smoke. Breathing in ETS is known as passive smoking, second-hand smoking, or involuntary smoking.

Exposure to ETS may cause lung cancer, heart disease, and respiratory problems. Young children are particularly susceptible. One of the most effective ways to limit exposure to ETS is with restrictions on smoking in public places, and limiting smoking in homes and cars.⁶ PEI has demonstrated improvement in reducing exposure rates.

Question: "Including both household members and regular visitors, does anyone smoke inside your home, every day or almost every day? In the past month, were you exposed to second-hand smoke, every day or almost every day, in a car or other private vehicle? In the past month were you exposed to second hand smoke every day or almost every day, in public places (such as bars, restaurants, shopping malls, arenas, bingo halls, bowling alleys)?"

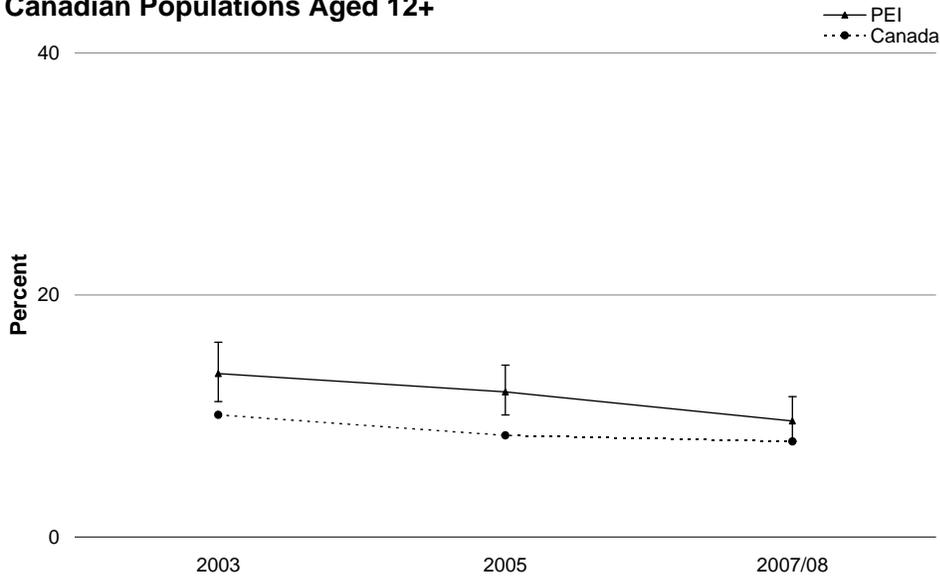
In 2007/08, 6% of PEI residents reported that they had been exposed to environmental tobacco smoke in a public place, this is lower than the Canadian rate of 11%; 15% of PEI residents reported they had encountered ETS in the home and 10% in a car. Rates of exposure to ETS in a public place have decreased since 2003, when 13% of PEI residents and 20% of Canadians reported being exposed to ETS.

On June 2, 2003, the Smoke Free Places Act came into effect which prohibited smoking in public places with several exceptions such as designated smoking rooms or patios/decks of eating establishments.

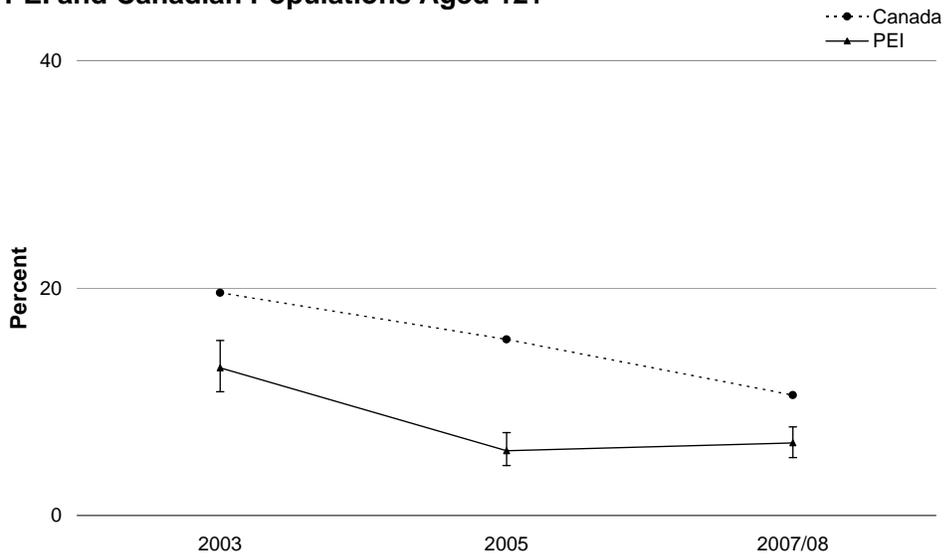
On May 20, 2006 amendments to the Act came into effect which prohibits smoking in any building/enclosed structure or on the grounds of a hospital. Similar prohibitions on school grounds came into effect on July 1, 2006.

On September 15, 2009 amendments to the Act came into effect which eliminated designated smoking rooms in public and work places (exceptions included: nursing home, community care facilities, and shelters for victims of domestic violence), and designated smoking areas on hospital grounds. The amendments also prohibit smoking on hospital grounds and in vehicles with persons under the age of 19. The practice of smoking on patios/decks of eating establishments and licensed premises was also amended to specify between 10pm and 3am.

Self-Reported Exposure to ETS in a Car, PEI and Canadian Populations Aged 12+



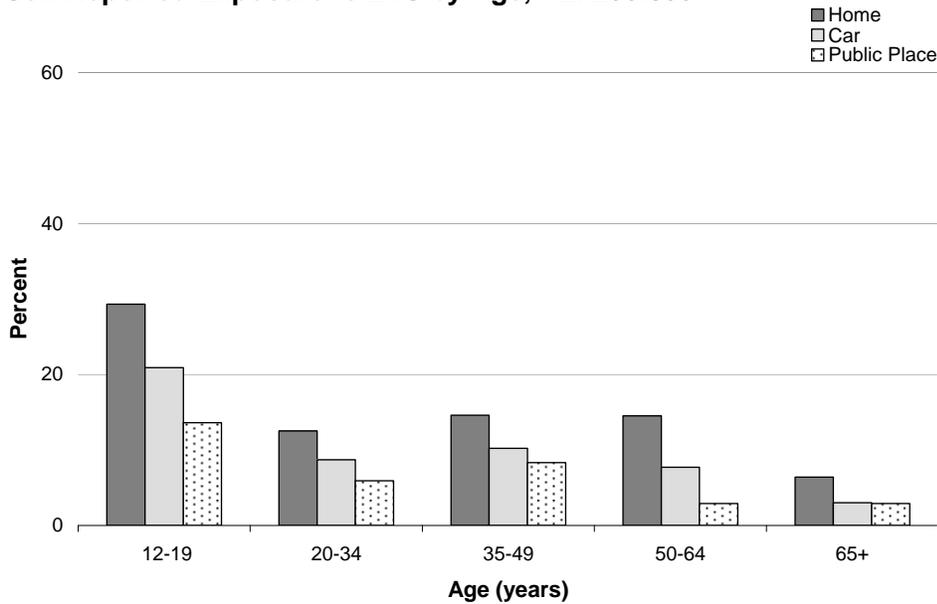
Self-Reported Exposure to ETS in a Public Place, PEI and Canadian Populations Aged 12+



Self-Reported Exposure to Environmental Tobacco Smoke Among Non-Smokers Aged 12+ in PEI and Canada

Year	PEI		Canada	
	%	CI	%	CI
Home				
2007/08	14.8	12.8-17.1	13.1	12.8-13.4
Car				
2003	13.5	11.2-16.1	10.1	9.8-10.4
2005	12.0	10.1-14.2	8.4	8.2-8.6
2007/08	9.6	7.9-11.6	7.9	7.6-8.2
Public Place				
2003	13.0	10.9-15.4	19.6	19.2-20.1
2005	5.7	4.4-7.3	15.5	15.3-15.8
2007/08	6.4	5.1-7.8	10.6	10.2-10.9

Self-Reported Exposure to ETS by Age, PEI 2007/08



Self-Reported Exposure to Environmental Tobacco Smoke among Non-Smokers, by Age and Sex, PEI 2007/08

Sex	12-19 yr.		20-34 yr.		35-49 yr.		50-64 yr.		65+ yr.		Total	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Home												
Male	29.0	20.5-39.3	17.6	11.1-26.6	13.7	8.3-21.1	16.9	11.2-24.7	6.5	3.5-11.8	16.4	13.5-19.9
Female	29.6	20.1-41.2	8.1	4.6-13.9	15.4	10.1-22.9	12.1	7.7-18.4	6.3	3.2-12.2	13.3	10.8-16.4
Total	29.3	22.7-36.9	12.5	8.8-17.8	14.6	10.7-19.6	14.5	10.7-19.3	6.4	4.1-10.1		
Car												
Male	20.3	12.5-31.3	13.5	7.4-23.5	10.7	6.2-17.9	9.6	5.1-17.6	--	--	11.4	8.7-14.7
Female	21.6	13.4-32.8	5.1	2.8-8.9	9.8	5.2-17.7	5.8	3.2-10.6	--	--	8.1	6.1-10.7
Total	20.9	15.0-28.5	8.7	5.6-13.4	10.2	6.7-15.2	7.7	4.9-12.0	3.0	1.5-5.8		
Public Place												
Male	16.2	9.8-25.6	--	--	10.7	6.0-18.3	--	--	--	--	7.6	5.6-10.2
Female	11.1	6.0-19.6	4.4	2.3-8.2	6.2	3.5-10.9	3.4	1.7-6.8	3.2	1.7-6.1	5.3	4.0-7.1
Total	13.6	9.2-19.5	5.9	3.6-9.6	8.3	5.5-12.3	2.9	1.6-5.0	2.9	1.8-4.7		

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Sources: Statistics Canada: CCHS 2007/08, CCHS 2005, CCHS 2003¹⁶

2.11 Changes to Improve Health

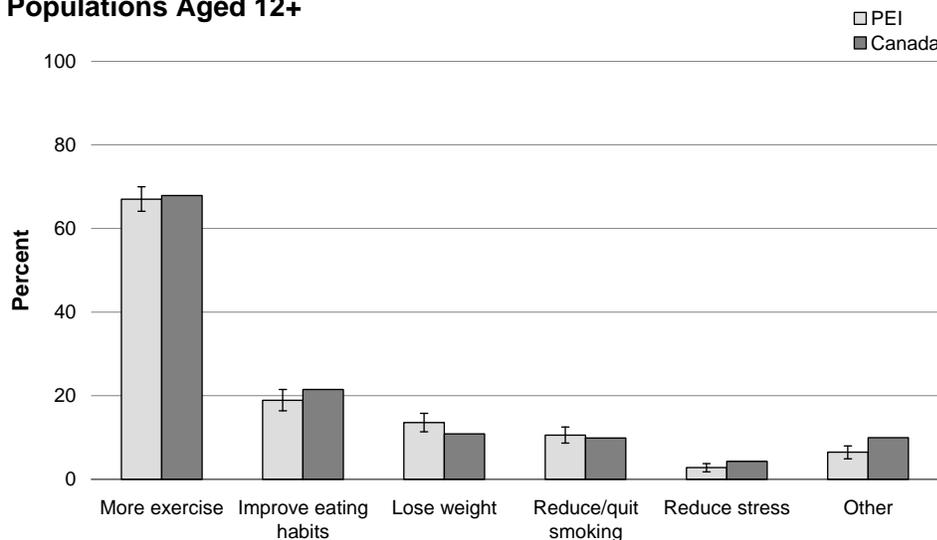
On an individual level, several behaviors such as physical activity, proper nutrition and not smoking, are important to maintain for optimal health. With consistent messaging and encouragement regarding healthy lifestyles, it is not surprising that people routinely contemplate and make behavioral changes to improve health.

Question: "Is there anything you intend to do to improve your physical health in the next year? If yes, what is that?.....Start/increase exercise, sports, physical activity; lose weight; change diet/improve eating habits; quit smoking/reduce amount smoked; drink less alcohol; reduce stress level; receive medical treatment; take vitamins; other"

In 2007/08, over half of Island residents (53%), reported the intention to improve their health in the next year, similar to other Canadians (52%). Of these 53%, the intent to exercise more was cited most often (67%), followed by improving eating habits, losing weight and quitting or reducing smoking.

A significantly higher proportion of females (57%) intend to make a change to improve health over the coming year compared to males (46%). The percentage of people with the intention to improve health decreases in the 65 and older age group.

Self-Reported Intent to Engage in Activities to Improve Health Within the Next Year, PEI and Canadian Populations Aged 12+



Age Standardized

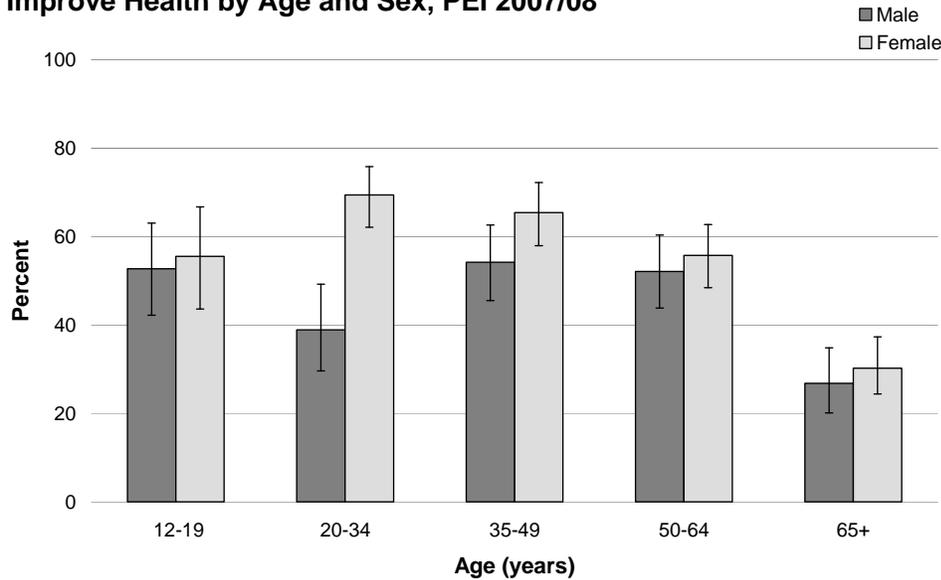
Self-Reported Intent to Improve Health in the Next Year in PEI and Canadian Populations Aged 12+, 2007/08

Intended Change	PEI		Canada	
	%	CI	%	CI
Intend to do Something	53.0	50.8-55.1	51.5	51.2-51.8
More exercise	67.0	64.1-70.0	67.9	67.5-68.3
Improve eating habits	18.9	16.4-21.5	21.5	21.2-21.9
Lose weight	13.6	11.4-15.8	10.9	10.7-11.2
Reduce/quit smoking	10.6	8.7-12.5	9.9	9.6-10.1
Reduce stress	2.8	1.8-3.8	4.3	4.1-4.4
Other*	6.5	4.9-8.0	10.0	9.7-10.2

Age Standardized

*Other includes: take vitamins, drink less alcohol, receive medical treatment, other

Self-Reported Intent to Engage in Any Activity to Improve Health by Age and Sex, PEI 2007/08



Percentage of Population Reporting and Intent to Improve Their Health in the Next Year, by age and sex, PEI 2007/08

Sex	12-19 yr.		20-34 yr.		35-49 yr.		50-64 yr.		65+ yr.		Total	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Male	52.7	42.2-63.0	38.9	29.6-49.2	54.2	45.5-62.6	52.1	43.8-60.3	26.8	20.1-34.8	46.4	42.6-50.7
Female	55.5	43.6-66.7	69.4	62.1-75.8	65.4	57.9-72.2	55.7	48.4-62.7	30.2	24.0-37.3	57.1	53.5-60.7
Total	54.1	46.2-61.9	55.7	49.4-61.9	60.0	54.2-65.6	53.9	48.3-59.3	28.8	24.1-34.0		

Source: Statistics Canada: CCHS 2007/08¹⁶

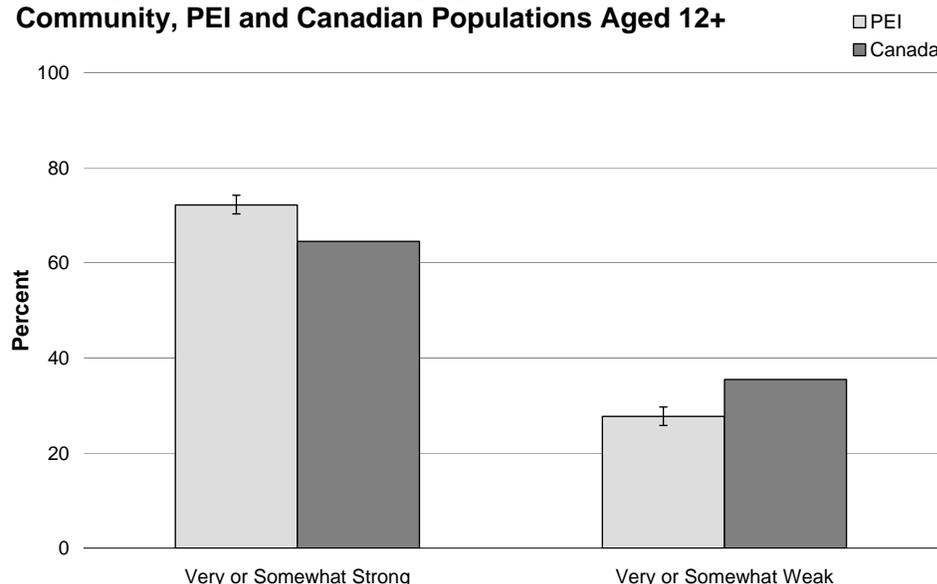
2.12 Sense of Belonging

A feeling of belonging to a country, region, and local community can influence a person’s sense of identity and the extent to which they participate in society. Social relationships can affect overall health.^{39,40} A sense of belonging is an important aspect of both mental health and social well being.⁴¹ People who report a strong sense of belonging are more likely to report better physical and mental health.⁴² An increased sense of belonging has also been associated with increased health promoting behaviors.^{43,44} Social supports may have a protective affect against life’s stressors and may reduce health effects and death associated with some illnesses.⁴⁵

Question: “How would you describe your sense of belonging to your local community? Very strong, somewhat strong, somewhat weak, very weak.

In 2007/08, 72% of PEI residents reported a somewhat or very strong sense of belonging to a local community. This rate is higher than Canada’s which was 65%. Rates are similar between males and females and between different age groupings.

Self-Reported Sense of Belonging to a Local Community, PEI and Canadian Populations Aged 12+



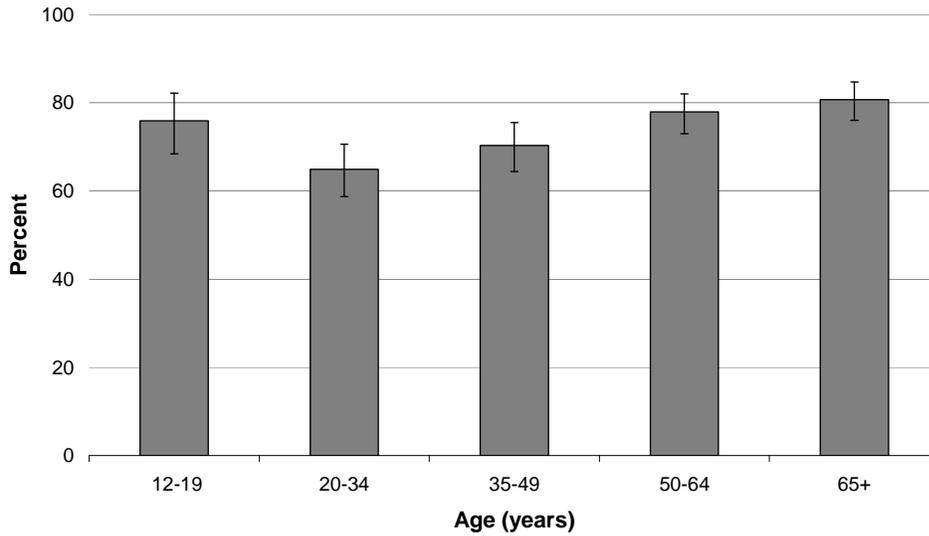
Age Standardized

Self-Reported Sense of Belonging to a Local Community in PEI and Canadian Populations Aged 12+, 2007/08

Self-Reported Sense of Belonging	PEI		Canada	
	%	CI	%	CI
Very or Somewhat Strong	72.2	70.3-74.2	64.5	64.2-64.8
Very or Somewhat Weak	27.7	25.8-29.7	35.5	35.2-35.8

Age Standardized

Self-Reported Sense of Belonging to a Local Community by Age, PEI 2007/08



Percent of Population who Report a Very or Somewhat Strong Sense of Belonging to a Local Community, by Age and Sex, PEI 2007/08

Sex	12-19 yr.		20-34 yr.		35-49 yr.		50-64 yr.		65+ yr.		Total	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Male	79.5	69.5-86.9	67.5	57.7-75.9	74.8	66.6-81.5	80.1	72.7-85.9	84.0	77.4-89.0	76.4	72.7-79.8
Female	72.5	60.7-81.8	62.7	54.7-70.1	65.9	57.4-73.4	75.5	68.8-81.2	78.2	71.5-83.8	70.2	66.6-73.6
Total	75.9	68.4-82.2	64.9	58.7-70.6	70.3	64.4-75.5	77.9	73.0-82.0	80.7	76.0-84.7		

Source: *Statistics Canada, CCHS 2007/08*¹⁶

COMMON AND CHRONIC DISEASES

3.1 Chronic Conditions

Chronic health conditions typically develop over a long period of time, have a long duration and, in most cases, have no cure. Examples of chronic conditions include asthma, arthritis, high blood pressure, chronic respiratory diseases, diabetes, heart disease, cancer, and mood disorders. Chronic conditions are major causes of death, potential years of life lost, hospitalization, and decreased quality of life. Overall, chronic conditions can affect an individual's sense of well-being and their ability to continue their everyday activities.⁴⁶

Social, cultural, economic and physical environments (e.g. education levels, income and employment status) are major contributors to our choices and behaviors (e.g. tobacco use, poor diet, and physical inactivity) which ultimately affect the development and progression of certain chronic conditions.

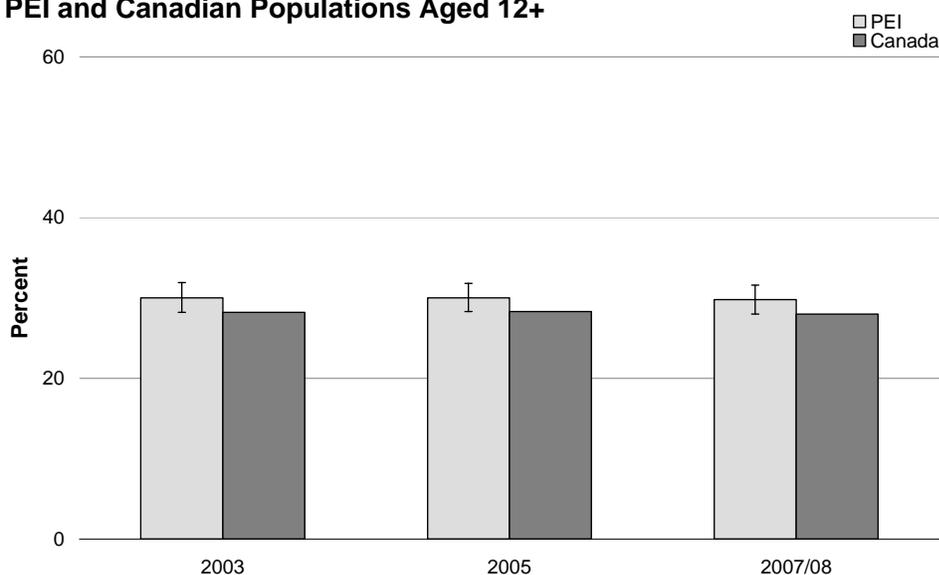
Definition: Population aged 12 and over who report that they have been diagnosed by a health professional as having a chronic condition.

- *Arthritis: excludes fibromyalgia*
- *Asthma*
- *Heart and Stroke: includes heart disease and stroke, excludes high blood pressure*
- *Diabetes: includes all types of diabetes*
- *Cancer: includes all types of cancer*

As the population ages, the prevalence of chronic conditions increases. In 2007/08, arthritis was one of the most commonly reported chronic conditions in PEI, with 16% of individuals aged 12 years and older reporting a diagnosis from a health professional. This is higher than the national average of 14%.

PEI rates are similar to Canadian rates for other chronic conditions and have remained stable over the past few years. In 2007/08, 32% of the island population reported having a chronic condition (at least one of: arthritis, asthma, heart & stroke, diabetes, or cancer), higher than that reported by all Canadians (28%).

Percent of Population Reporting Chronic Conditions, PEI and Canadian Populations Aged 12+



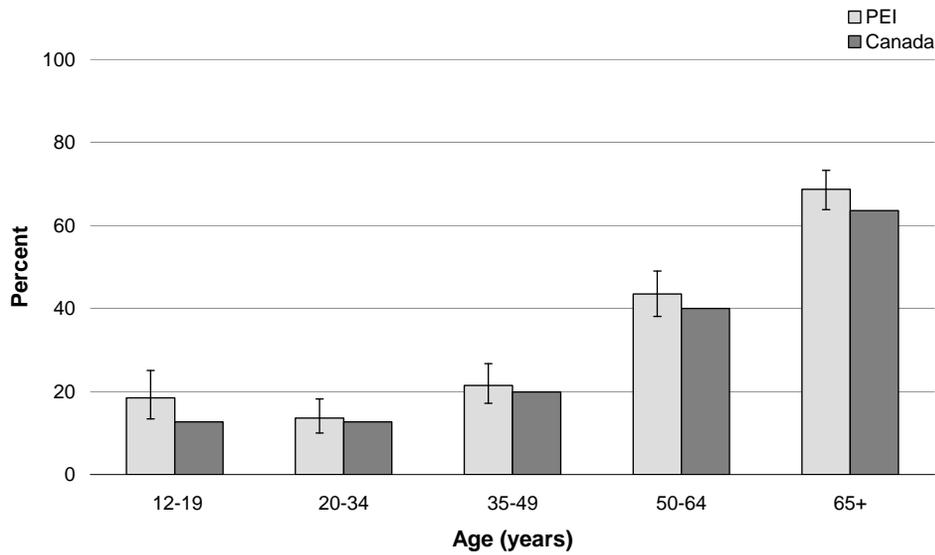
Age Standardized

Percent of Population Aged 12+ Reporting a Chronic Condition

Year	PEI		Canada	
	%	CI	%	CI
Arthritis				
2001	16.5	15.4-17.6	14.3	14.1-14.4
2003	18.3	16.8-19.8	15.2	15.0-15.3
2005	17.5	16.2-18.9	14.6	14.4-14.8
2007/08	15.8	14.5-17.2	14.1	13.9-14.3
Asthma				
2001	8.8	7.8-9.7	8.6	8.5-8.8
2003	9.3	8.0-10.6	8.6	8.4-8.8
2005	8.9	7.6-10.1	8.5	8.3-8.6
2007/08	8.3	7.1-9.5	8.4	8.2-8.5
Heart and Stroke				
2001	5.0	4.3-5.6	5.3	5.2-5.4
2003	4.9	4.1-5.8	5.2	5.1-5.3
2005	6.3	5.4-7.2	4.9	4.8-5.0
2007/08	5.4	4.6-6.2	5.1	5.0-5.3
Cancer				
2001	1.6	1.2-2.0	1.6	1.6-1.7
2003	1.2	0.8-1.6	1.5	1.4-1.6
2005	1.4	0.9-1.9	1.2	1.2-1.3
2007/08	2.4	1.8-3.1	1.7	1.6-1.8
Any of Arthritis, Asthma, Heart/Stroke, Diabetes or Cancer				
2003	30.0	28.2-31.9	27.2	27.0-27.4
2005	30.0	28.3-31.8	26.5	26.3-26.7
2007/08	29.8	28.0-31.6	26.8	26.6-27.0

Age Standardized

Percent of Population Reporting Chronic Conditions by Age, PEI and Canadian Populations Aged 12+, 2007/08



Percent of Population Aged 12+ Reporting a Chronic Condition, by Age, PEI and Canada 2007/08

Region	12-19 yr.		20-34 yr.		35-49 yr.		50-64 yr.		65 + yr.	
	%	CI	%	CI	%	CI	%	CI	%	CI
PEI	18.5	13.4-25.1	13.6	10.0-18.2	21.5	17.2-26.7	43.5	38.1-49.0	68.7	63.8-73.3
Canada	12.7	11.8-13.5	12.7	12.0-13.3	19.9	19.1-20.6	40.0	39.0-41.0	63.6	62.7-64.6

Sources: Statistics Canada: CCHS 2007/08, CCHS 2005, CCHS 2003, CCHS 2001¹⁶

3.2 Cancer Incidence

Cancer incidence, or the number of new cases of cancer diagnosed in a given year, is a useful way to gauge the impact of different types of cancer in a population.

Canadian age-standardized incidence rates for cancer have been stable over time; however the number of new cases and prevalence of cancer continues to rise due to our population growth and increasing age.⁴⁷

Cancer is more common among males compared to females in specific age groups (e.g. <20 years and >60 years) however higher rates of cancer are seen in women between 20 and 59. This is thought to be explained by some of the sex-specific cancers (e.g. breast and cervical).⁴⁷

The four most common cancers in PEI in 2006 were prostate, breast, lung and colorectal. Incidence rates, expressed as number of new cases per 100,000 people in the population, are, presented below.

Based on the most recent data, prostate cancer is the most commonly diagnosed cancer in Prince Edward Island men.

Based on the most recent data, breast cancer is the most commonly diagnosed cancer in Prince Edward Island women, as it is for women in most industrialized countries. The incidence of breast cancer has stabilized after peaking in 1999, with similar rates in PEI and Canada.⁴⁸

Overall Cancer Incidence by Sex, PEI and Canada



Age Standardized

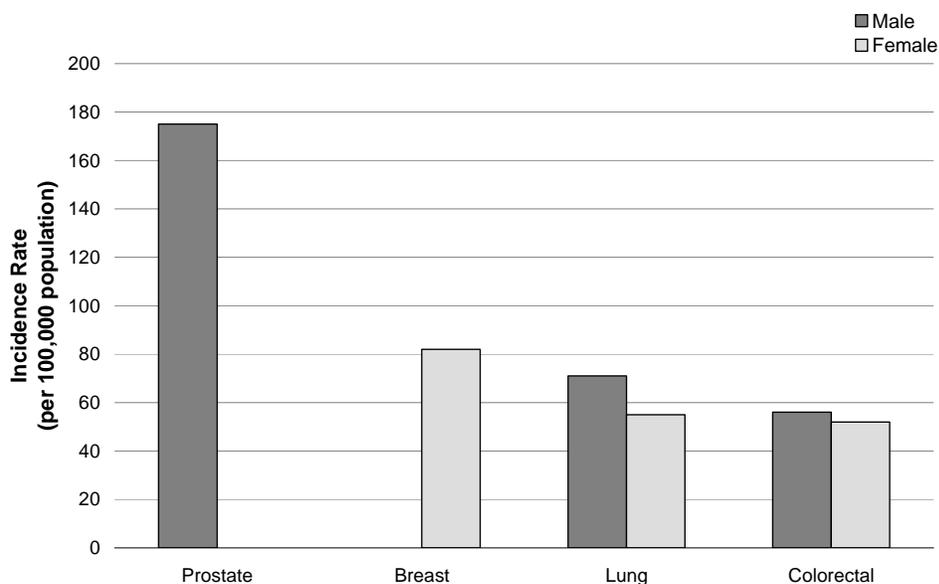
Note: Graph uses 3 year moving average rates for PEI, to smooth out annual fluctuations.

Overall Cancer Incidence Rate per 100,000 Population, by Sex, Past 10 Years

Year	Male		Female	
	PEI	Canada	PEI	Canada
1999	525.1	468.6	345.1	350.7
2000	476.2	469.4	340.5	350.3
2001	507.9	474.9	369.3	347.3
2002	524.6	457.2	357.8	354.8
2003	555.3	450.2	406.6	347.4
2004	529.0	464.1	371.5	353.0
2005	525.0	458.8	386.0	356.5
2006	554.7	459.6	333.0	357.6
2007 f	523.0	462.2	403.0	356.7
2008 f	536.0	462.1	369.0	362.1
2009 f	581.0	462.2	390.0	363.6

Age Standardized
f Forecasted

Incidence of Selected Cancers by Sex, PEI 2006



Age Standardized

Incidence Rates of Prostate, Breast, Lung and Colorectal Cancer per 100,000 Population, PEI and Canada 2006

Sex	Prostate		Breast		Lung		Colorectal	
	PEI	Canada	PEI	Canada	PEI	Canada	PEI	Canada
Male	175	121	-	-	71	70	56	62
Female	-	-	82	97	55	47	52	43

Age Standardized

Sources: Statistics Canada, Vital Statistics, Canadian Cancer Registry, and Demography Division (population estimates), Health Canada (2006 - 2009 forecast estimates)⁴⁷

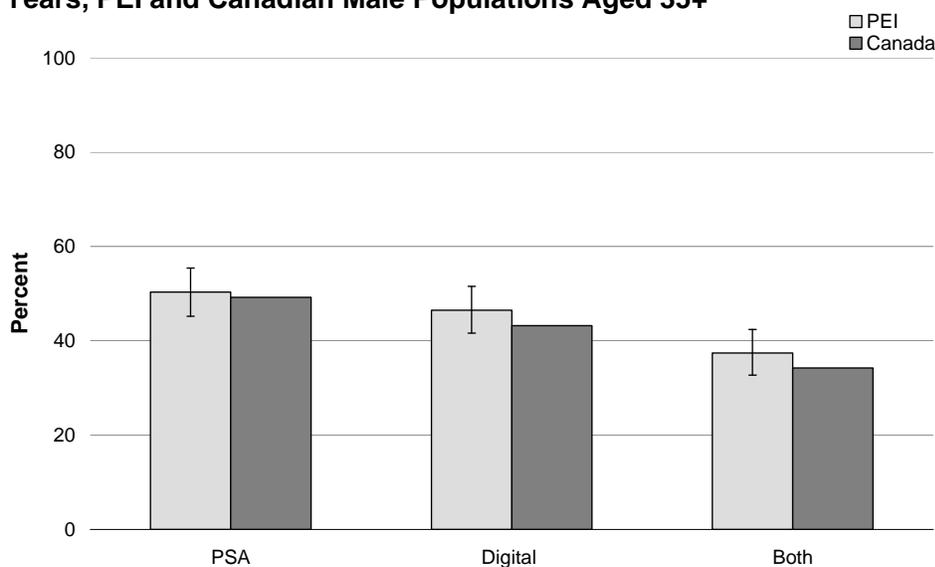
3.3 Prostate Cancer Screening

Based on the most recent data, prostate cancer is the most commonly diagnosed cancer in Prince Edward Island men. Prostate cancer is rare before age 40. Digital rectal examinations and/or prostate specific antigen (PSA) testing can be used to screen for prostate cancer, however neither test can ensure detection of cancer at an early and possibly curable stage.⁴⁹ PSA testing became available in PEI in 1991.

Questions: Have you ever had a prostate specific antigen test for prostate cancer, that is, a PSA blood test? A digital rectal exam is an exam in which a gloved finger is inserted into the rectum in order to feel the prostate gland. Have you ever had this exam?

Approximately half the PEI male population, aged 35 and over, has had a PSA test within the past 5 years, 47% have had a digital rectal exam, and 37% have had both. These screening rates are similar to the Canadian rates. Those over 50 years of age are more likely to have had at least one or both prostate screening exams than those between 35-49 years of age.

Self-Reported Prostate Cancer Screening within Past 5 Years, PEI and Canadian Male Populations Aged 35+



Percent of Male Population Aged 35+ Reporting Prostate Screening in Past 5 Years, PEI and Canada 2007/08

Screening Test	PEI		Canada	
	%	CI	%	CI
PSA	50.3	45.2-55.4	49.2	46.1-52.4
Digital Rectal Exam	46.5	41.6-51.5	43.2	40.1-46.3
Both	37.4	32.7-42.4	34.2	31.4-37.3

Percent of Male Population Reporting Prostate Screening in Past 5 Years, by Age, PEI 2007/08

Screening Test	35-49 yr.		50-69 yr.		70+ yr.	
	%	CI	%	CI	%	CI
PSA	19.2	13.0-27.5	69.6	62.1-76.1	75.3	65.6-83.0
Digital Rectal Exam	24.3	17.6-32.4	60.1	52.3-67.5	65.6	54.9-74.9
Both	13.8	8.2-22.3	51.7	44.1-59.2	58.5	47.8-68.5

Source: CCHS 2007/08¹⁶

3.4 Colorectal Cancer Screening

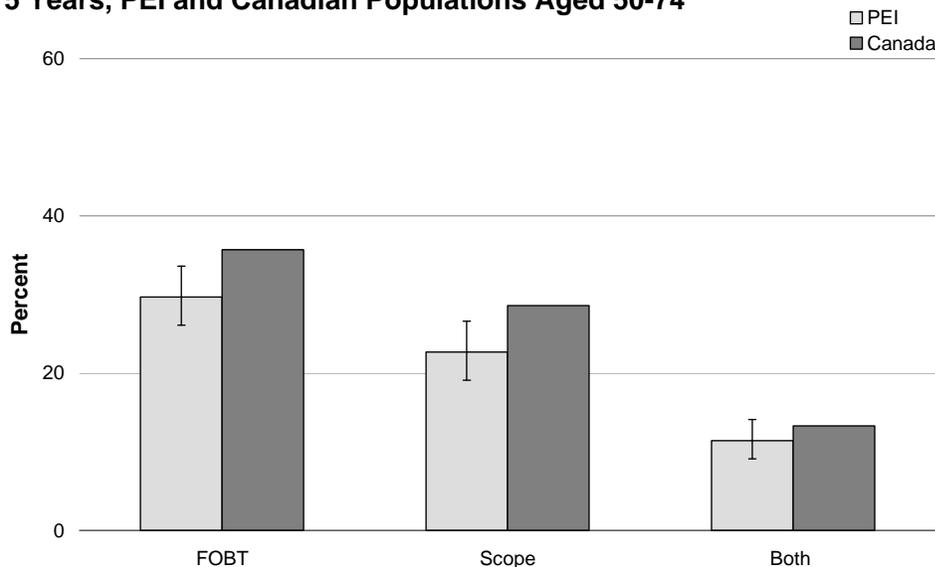
Cancers of the colon and rectum account for the third most common cancer in Canadian adults, with over 90% of colorectal cancers diagnosed in people 50 years and older.⁵⁰ The Canadian Partnership Against Cancer (CPAC) established a colorectal cancer screening network in order to help provinces establish organized colorectal screening programs using the best available research and evidence on tests and timing. The network is working quickly and closely to share information and identify the unique needs of each jurisdiction throughout the implementation of organized colorectal cancer screening programs across Canada. Over the long term, the expected impact is that colorectal cancer will be diagnosed at an earlier stage, reducing both the incidence and mortality of this cancer.⁵¹

Funding for a colorectal screening program in PEI was announced in 2008 and an initial pilot program occurred in 2009. A second pilot program will be occurring in early 2010 and it is hoped that the screening program will commence in late 2010.

Question 1: A Fecal Occult Blood Test (FOBT) is a test to check for blood in your stool, where you have a bowel movement and use a stick to smear a small sample on a special card. Have you ever had this test? A colonoscopy or sigmoidoscopy is when a tube is inserted into the rectum to view the bowel for early signs of cancer and other health problems. Have you ever had either of these exams?

The occurrence of either the FOBT or colonoscopy/sigmoidoscopy in 50-74 year olds was lower in PEI (30% and 23% respectively) than in Canada (36% and 29%, respectively).

Self-Reported Colorectal Cancer Screening within Past 5 Years, PEI and Canadian Populations Aged 50-74



Percent of Population Aged 50-74 Reporting Colorectal Cancer Screening in Past 5 Years, PEI and Canada 2007/09

Screening Test	PEI		Canada	
	%	CI	%	CI
FOBT	29.7	26.1-33.6	35.7	34.5-36.9
Colonoscopy/Sigmoidoscopy	22.7	19.1-26.6	28.5	27.4-29.7
Both	11.4	9.1-14.1	13.3	12.5-14.1

Percent of Population Age 50-74 Reporting Colorectal Cancer Screening by Age and Sex, PEI 2007/08

Sex	50-64 yr.		65-74 yr.		Total	
	%	CI	%	CI	%	CI
FOBT						
Male	24.3	18.6-31.0	36.7	27.3-47.1	27.3	22.2-33.0
Female	28.6	22.8-35.2	40.5	31.8-50.0	32.0	27.1-37.5
Total	26.4	22.3-31.1	38.8	32.3-45.8		
Colonoscopy/Sigmoidoscopy						
Male	18.5	12.7-26.2	28.6	19.7-39.4	20.9	15.8-27.1
Female	22.4	17.0-28.9	29.1	21.2-38.4	24.3	19.7-29.6
Total	20.4	16.3-25.3	28.8	22.8-35.8		
Both						
Male	9.1	6.0-13.4	15.1	9.2-23.9	10.5	7.6-14.3
Female	11.0	7.2-16.4	15.1	9.6-22.9	12.2	8.9-16.4
Total	10.0	7.5-13.3	15.1	10.8-20.7		

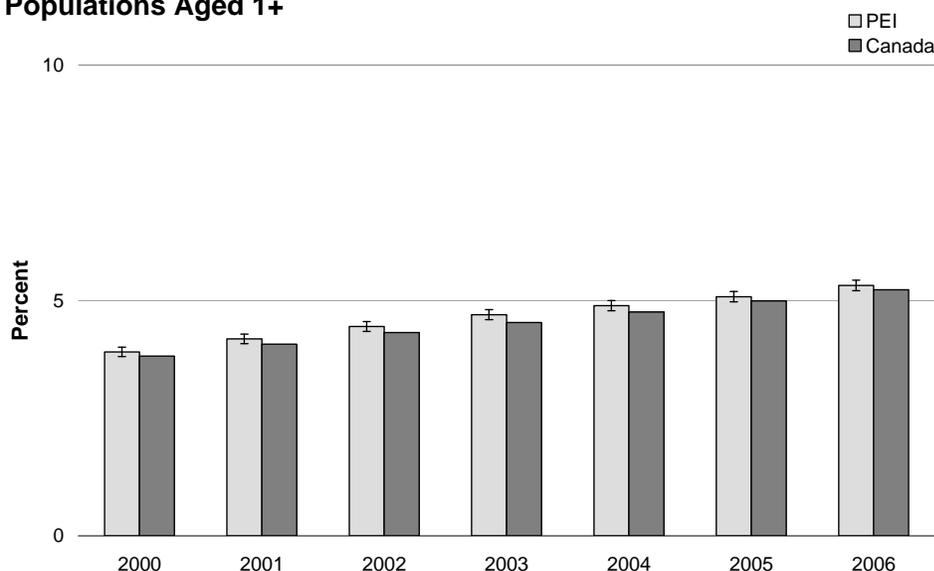
Source: CCHS 2007/08¹⁶

3.5 Diabetes

Diabetes mellitus is a chronic condition that stems from the body's inability to produce and/or properly use insulin. The body needs insulin to use sugar as an energy source. Diabetes can lead to serious complications and premature death, however proper management of this disease can lower the risk of complications. There are two types of diabetes called type 1 and type 2. Type 1 occurs when the beta cells in the pancreas no longer produce insulin. There is no way to prevent type 1 diabetes. Type 2, on the other hand, may be prevented, delayed or reversed in some cases. It occurs when the body does not make enough insulin or does not respond well to insulin. The risk of developing type 2 diabetes can be reduced by making healthy lifestyle choices such as having a healthy diet, exercising regularly and especially losing excess weight. It is estimated that the majority of diabetes cases (90-95%) are type 2.⁵²

In 2006, 5% of Island residents had diabetes. The percent of people living with diabetes has been increasing over time, as the rate was 4% in 2000. The number of new cases of diabetes (incidence) between 2000 and 2006 has remained relatively constant over time with an average of 842 new cases per year (6 new cases per 1,000 Islanders). In 2006, the prevalence of diabetes in males aged 20 and over (8%), was significantly higher than females (6%). Diabetes is more prevalent in our older population. Diabetes prevalence rates increase with age in both genders, rising considerably after age 45.

Percent of Population with Diabetes, PEI and Canadian Populations Aged 1+



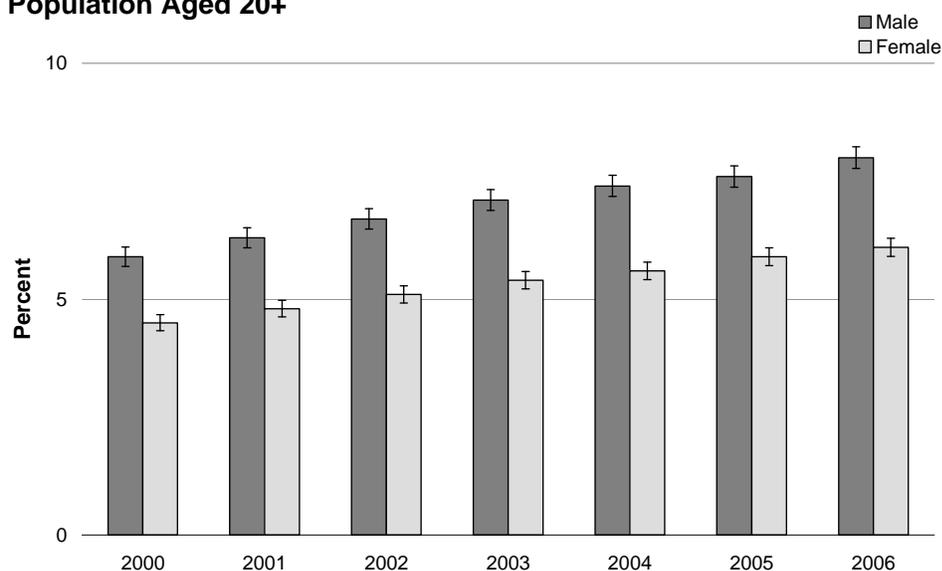
Age Standardized

Percent of Population Aged 1+ with Diabetes, PEI and Canada

Year	PEI		Canada	
	Prevalence Rate	CI	Prevalence Rate	CI
2000	3.9	3.9-4.0	3.8	3.8-3.8
2001	4.2	4.1-4.3	4.1	4.1-4.1
2002	4.4	4.3-4.5	4.3	4.3-4.3
2003	4.7	4.6-4.8	4.5	4.5-4.5
2004	4.9	4.8-5.0	4.8	4.7-4.8
2005	5.1	5.0-5.2	5.0	5.0-5.0
2006	5.3	5.2-5.4	5.2	5.2-5.2

Age Standardized

Percent of Population with Diabetes by Sex, PEI Population Aged 20+



Age Standardized

Percent of Population Aged 20+ with Diabetes by Sex, PEI

Year	Male		Female	
	Prevalence Rate	CI	Prevalence Rate	CI
2000	5.9	5.7-6.1	4.5	4.3-4.6
2001	6.3	6.1-6.6	4.8	4.6-5.0
2002	6.7	6.5-6.9	5.1	5.0-5.3
2003	7.1	6.9-7.3	5.4	5.2-5.6
2004	7.4	7.2-7.6	5.6	5.4-5.8
2005	7.6	7.4-7.9	5.9	5.7-6.1
2006	8.0	7.8-8.2	6.1	5.9-6.3

Age Standardized

Source: Canadian Chronic Disease Surveillance System, PEI Department of Health and Wellness, Chief Health Office⁵²

COMMUNICABLE DISEASES

4.1 Seasonal Influenza Vaccination

Influenza vaccination is recommended annually for the general population. The vaccine is recommended to prevent or lessen the severity of influenza, in particular for: all persons 65 years of age and older; residents of chronic care facilities; those with diabetes mellitus, metabolic diseases, cancer, immunodeficiency or suppression, renal disease, anemia, hemoglobinopathy or HIV; those with chronic cardiac or pulmonary disorders; adults or children on long periods of treatment with acetylsalicylic acid; health care personnel; household contact of high-risk persons who cannot receive the vaccine; healthy children 6 to 23 months of age; and all pregnant women. Influenza affects millions of Canadians a year. It is highly contagious and it may cause serious illness including death.

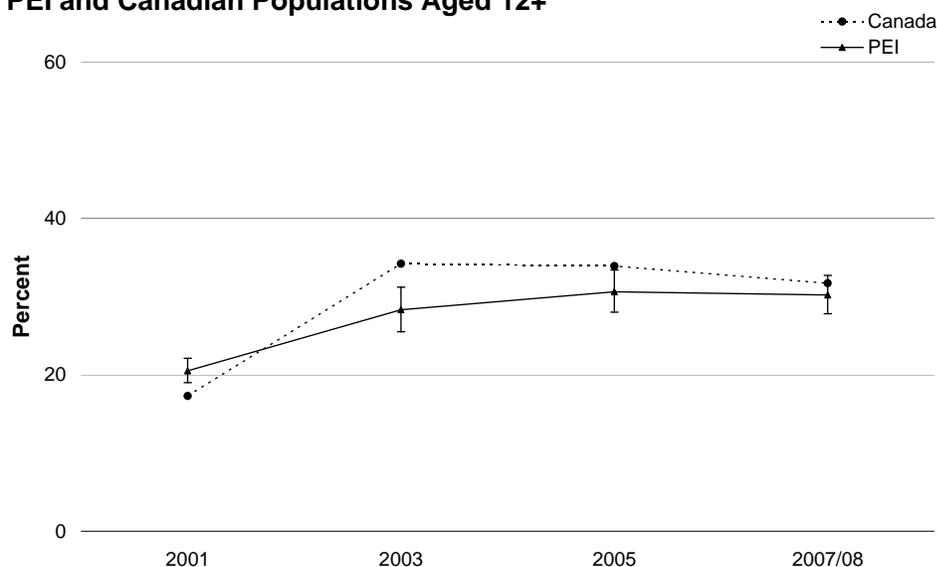
PEI is the only province in Canada that requires residents to pay a fee to receive an influenza vaccine. It is hoped that in 2010 a universal influenza vaccination program will be available in PEI that will help to target those at highest risk.

In total, 30% of Islanders aged 12 and older received a seasonal flu vaccine. This is similar to the Canadian rate of 32%.

For people aged 65 and over, PEI had significantly lower rates of seasonal influenza vaccination than the overall Canadian rates. Specifically, in 2007/08, 59% of Island residents and 68% of Canadians aged 65 and older reported having a seasonal flu shot within the last year. These survey results may underestimate the actual number of seniors receiving vaccinations as the survey based numbers do not include those who live in institutions such as long-term care facilities.

In adulthood, the vaccination rate increases with age as a significantly higher proportion of seniors (65+) had a current seasonal influenza vaccine compared to those in younger age categories. No differences exist between males and females.

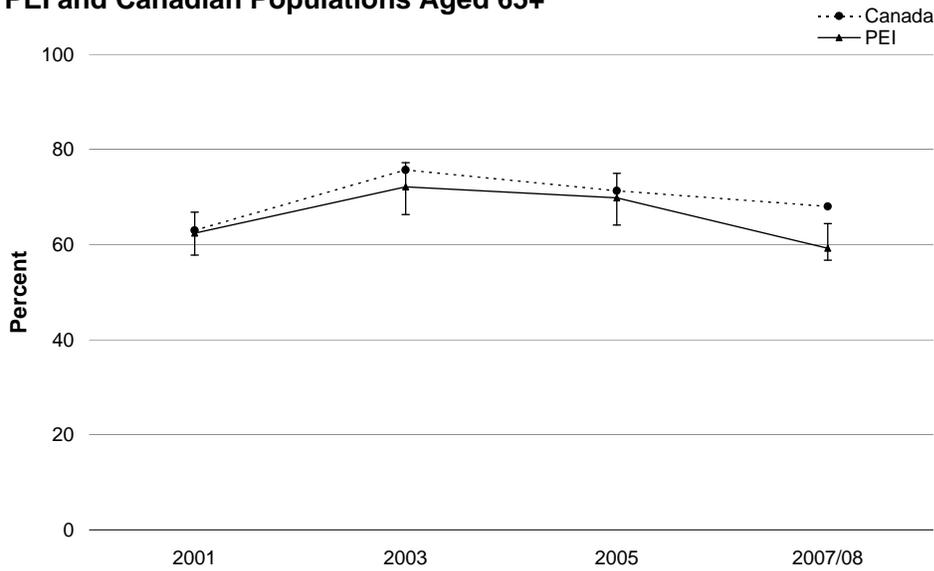
Self-Reported Influenza Vaccination in Past Year, PEI and Canadian Populations Aged 12+



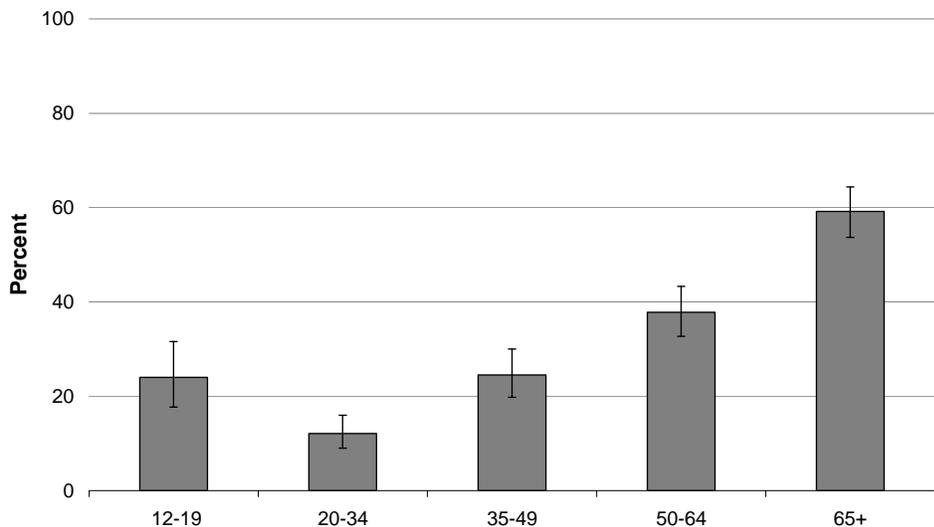
Percent of Population Reporting Influenza Vaccination in Past Year, PEI and Canada

Year	Age 12+				Age 65+			
	PEI		Canada		PEI		Canada	
	%	CI	%	CI	%	CI	%	CI
2001	20.5	19.0-22.1	17.3	17.0-17.6	62.4	57.8-66.8	63.0	61.6-64.3
2003	28.3	25.5-31.2	34.2	33.7-34.7	72.1	66.3-77.2	75.7	74.8-76.5
2005	30.6	28.0-33.4	33.9	33.5-34.3	69.8	64.1-75.0	71.3	70.4-72.1
2007/08	30.2	27.8-32.7	31.7	31.3-32.2	59.2	56.7-64.4	68.0	67.1-68.9

Self-Reported Influenza Vaccination in Past Year, PEI and Canadian Populations Aged 65+



Self-Reported Influenza Vaccination in Past Year by Age, PEI 2007/08



Communicable Diseases

Percent of Population Reporting Influenza Vaccination in Past Year by Age and Sex, PEI 2007/08

Sex	12-19 yr.		20-34 yr.		35-49 yr.		50-64 yr.		65+ yr.		Total	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Male	23.4	15.6-33.7	8.1	4.6-13.8	23.3	16.4-31.8	33.1	25.7-41.5	58.2	50.0-66.1	27.3	23.8-31.1
Female	24.5	15.5-36.6	15.5	11.0-21.4	25.7	19.5-33.0	42.6	35.7-49.8	59.8	52.5-66.8	32.9	29.7-36.3
Total	24.0	17.7-31.6	12.1	9.0-16.0	24.5	19.8-30.0	37.8	32.7-43.3	59.2	53.7-64.4		

Sources: *Statistics Canada: CCHS 2007/08, CCHS 2005, CCHS 2003, CCHS 2000/01*¹⁶

4.2 Vaccine Preventable Diseases

Many childhood and adult diseases are prevented by vaccination. These include pertussis (whooping cough), hepatitis B, rubella (German measles), mumps, measles (red measles), diphtheria, tetanus, *Haemophilus influenzae* type b, and polio, among others. Immunization is considered to be among the most cost-effective public health intervention available.⁵³ In PEI the childhood immunization program recommends vaccinations against specific diseases at specific ages based on the latest scientific information.

Since 2005, PEI has had few cases of vaccine preventable diseases. In 2007, a mumps outbreak was reported in Canada with the vast majority of cases occurring in Nova Scotia, New Brunswick and Alberta.⁵⁴ Some cases were also reported in PEI and were likely a part of this larger Canadian outbreak.

Vaccination Schedule

Two months	Diphtheria, Pertussis, Tetanus, Polio and <i>Haemophilus Influenzae</i> (DaPTP-Act Hib); Hepatitis B (Hep B); Pneumococcal Conjugate
Four months	DaPTP-Act Hib; Hep B; Pneumococcal Conjugate
Six months	DaPTP-Act Hib; Pneumococcal Conjugate
Twelve months	Varicella (Chickenpox); Meningococcal C Conjugate
Fifteen months	Measles, Mumps, and Rubella (MMR); Hep B
Eighteen months	MMR; DaPTP-Act Hib; Pneumococcal Conjugate
Four to six years	DaPTP
Grade six	Human Papillomavirus (HPV) for girls
Grade nine	Diphtheria, Tetanus, Pertussis (dTap); Meningococcal A, C, Y and W-135 Conjugate

Vaccine Preventable Disease Incidence Rates per 100,000 Population, PEI

Vaccine	2005	2006	2007	2008
Invasive <i>Haemophilus influenzae</i> type b disease	0	0	0	0
Invasive meningococcal disease	0	0.7	0.7	0
Mumps	n/d	0	9.4	0
Pertussis	0.7	0	0	0

No validated Canadian rates available after 2004

n/d no data available, incompletely captured

Source: PEI Department of Health & Wellness, Chief Health Office

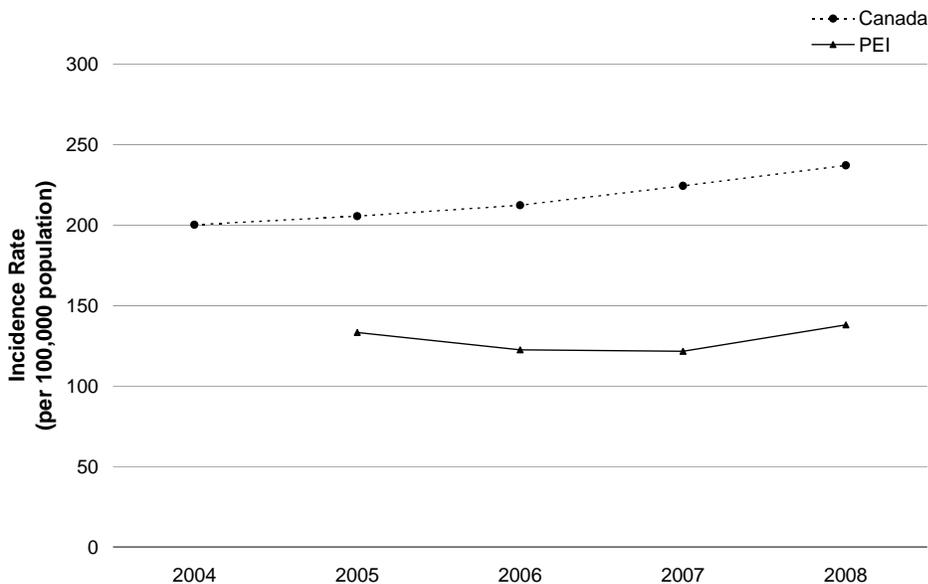
4.3 Sexually Transmitted and Blood-Borne Infections

Sexually transmitted infections (STIs) include diseases such as gonorrhoea, chlamydia, syphilis and human immunodeficiency virus (HIV). Unprotected sexual activity can spread these diseases. STIs and their complications can cause infertility, pelvic inflammatory disease, chronic pelvic pain and other serious illnesses.⁵⁵ Individuals infected with one STI are at a higher risk of contracting another STI, including HIV.⁵⁶

Chlamydia infection of the genitourinary tract is the most commonly reported STI in PEI and in Canada. Young adults, aged 15-24, generally have the highest incidence rate of chlamydia. Nationally, the chlamydia rate has been increasing however this may be due to an increase in partner notification and screening.⁵⁶

In 2008, the incidence of reported chlamydia cases in PEI was 138 cases per 100,000 population. The PEI rate is consistently lower than the national rate which may be in part due to levels of diagnosis and reporting.

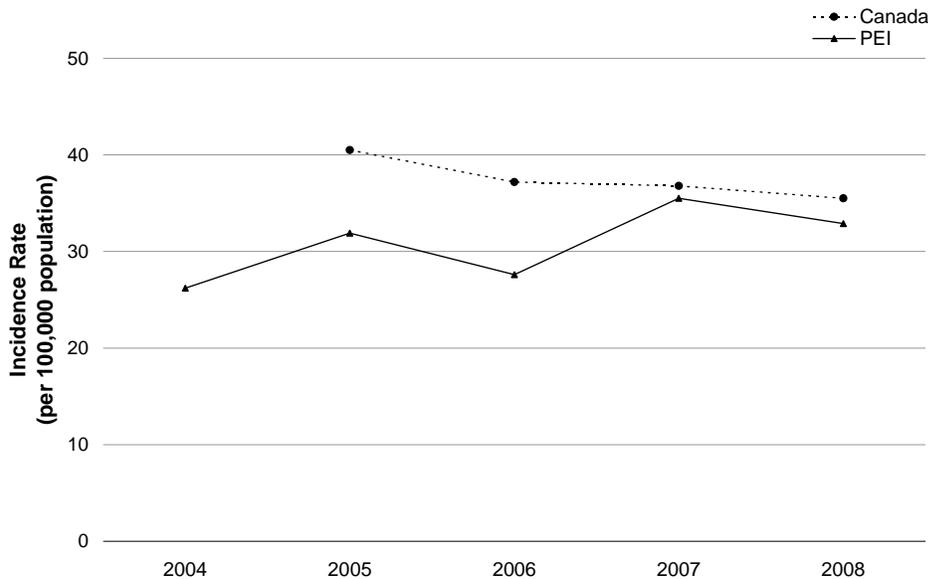
Chlamydia Infections, PEI and Canada



The hepatitis C virus is primarily transmitted through blood contact with an infected person. It is one of the major causes of liver failure and transplants in the developed world.⁵⁷ Recreational injection drug use continues to be the predominant risk factor for developing this disease.

The 2008 incidence of reported Hepatitis C cases in PEI was 33 cases per 100,000 population. PEI rates are similar to Canadian rates.

Hepatitis C Infections, PEI and Canada



Incidence Rates per 100,000 Population of Sexually Transmitted and Blood- Borne Infections, PEI and Canada

Infection	2004		2005		2006		2007		2008	
	PEI	Canada								
Chlamydia	n/d	200.2	133.3	205.6	122.5	212.4	121.6	224.4	138.0	237.2
Gonorrhoea	n/d	29.1	<3.6*	34.7	<3.6*	36.1	<3.6*	36.1	5.7	37.8
Syphilis	n/d	3.5	0.0	3.3	0.0	4.0	<3.6*	3.7	<3.6*	4.0
Hepatitis C	26.2	n/d	31.9	40.5	27.6	37.2	35.5	36.8	32.9	35.5
HIV	<3.6*	7.9	<3.6*	7.7	3.6	7.8	0.0	7.4	<3.6*	7.9

n/d No data available

* Rates which are equivalent to less than 5 cases per year are reported as <3.6/100,000

Sources: PEI Dept of Health & Wellness CHO; Public Health Agency of Canada^{58, 59}; Statistics Canada⁶⁰

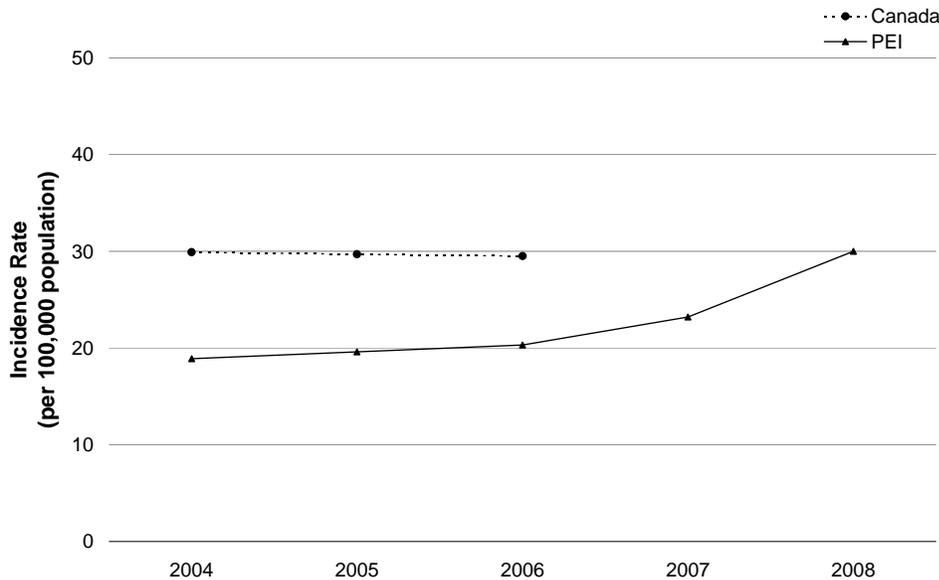
4.4 Food and Waterborne Diseases

Ingestion of contaminated food or water, exposure to infected vomit or feces, contact with infected persons or animals, or contaminated surfaces may cause enteric illnesses. Enteric illnesses are typically caused by bacteria such as *Campylobacter*, *Salmonella*, and *E. coli* and can cause diarrhea, vomiting, stomach cramps, kidney failure, or death. People with weakened immune systems, such as young children and the elderly, are at greater risk for complications from these illnesses.

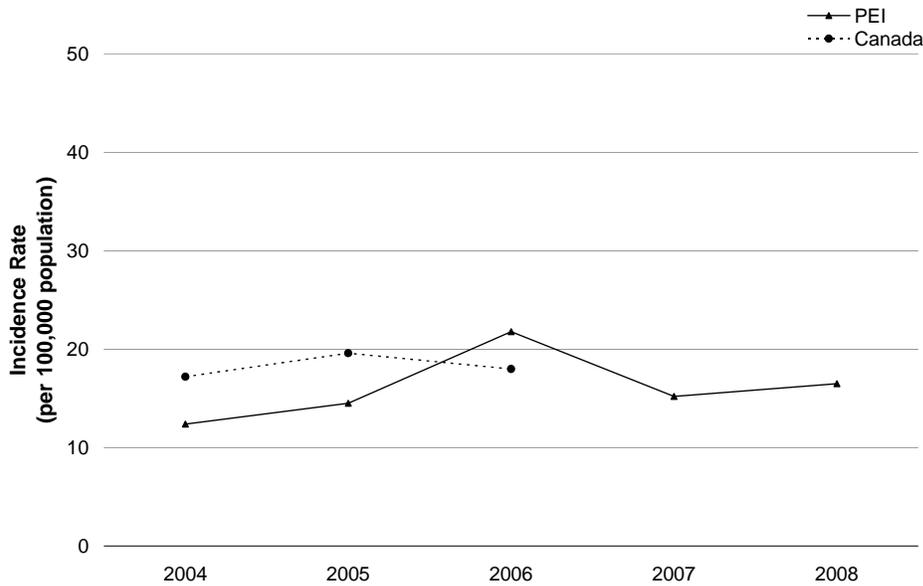
Enteric diseases are generally under-reported. Many individuals who acquire an enteric disease do not seek medical attention, or do not submit a laboratory specimen to confirm the existence of the disease. It is estimated that for each reported case of enteric illness, there are at least several hundred undiagnosed or unreported cases in the community.^{61,62,63}

In PEI, Campylobacteriosis was the most commonly reported enteric illness in 2008. There were 30 cases per 100,000 population reported, followed by salmonellosis which had a rate of 17 cases per 100,000 population.

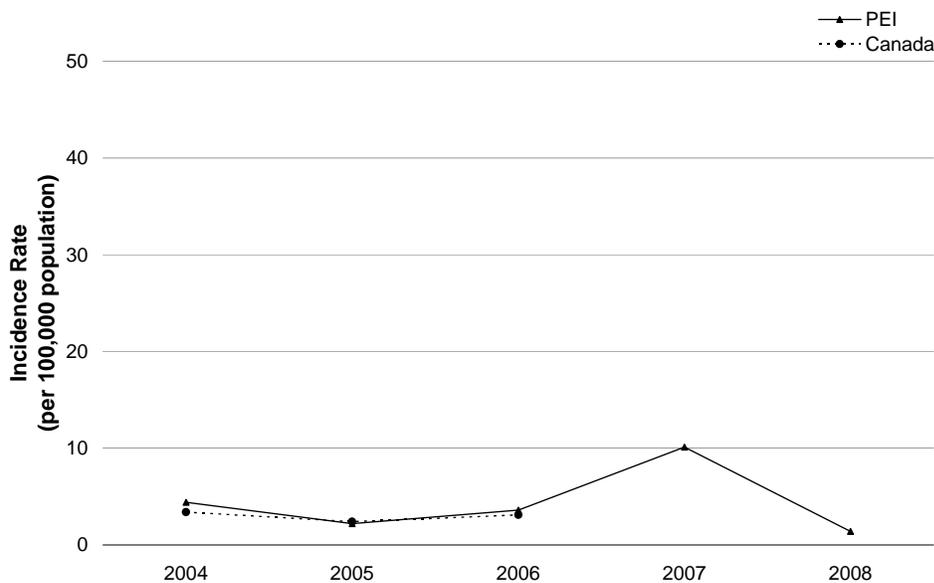
Campylobacter Infections, PEI and Canada



Salmonella Infections, PEI and Canada



E. coli Infections, PEI and Canada



Incidence Rates per 100,000 Population of Enteric Illnesses, PEI and Canada

Enteric Illness	2004		2005		2006		2007	2008
	PEI	Canada	PEI	Canada	PEI	Canada	PEI	PEI
<i>Campylobacteriosis</i>	18.9	29.9	19.6	29.7	20.3	29.5	23.2	30.0
<i>Listeriosis (all types)</i>	0	0.3	0.7	0.3	0	0.4	0	0.7
<i>Salmonellosis*</i>	12.4	17.2	14.5	19.6	21.8	18.0	15.2	16.5
<i>Verotoxigenic E. coli</i>	4.4	3.4	2.2	2.4	3.6	3.1	10.1	1.4

No data National data available after 2006⁶⁴

* not including paratyphoid salmonella

Sources: PEI Department of Health & Wellness, Chief Health Office; Public Health Agency of Canada, National Enteric Surveillance Program⁶⁵; Government of Canada⁶⁶

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APPENDIX

This report updates Prince Edward Island Health Indicators that was released in January 2003, December 2004 and October 2006. This report provides comparisons with Canada and comparisons over time on a broad range of indicators. Previous Health Indicator Reports featured a section of health system performance. As health system performance indicators are described in other current documents (Health Indicators 2009, CIHI) and are the focus of other divisions (Health Information, Corporate Services), these indicators were not addressed within the context of the current document.

The current report is presented in four sections: demographics; health status and determinants; common and chronic diseases; and communicable diseases. Within the separate sections, each indicator is described and defined. Results are presented where possible using PEI and Canadian data for comparison purposes. Furthermore, results are then described at an age and gender level. Trends over time are presented where possible.

Multiple sources of health surveillance data from both federal and provincial government departments were used in the formation of this document which include: Canadian Community Health Survey, Canadian Chronic Disease Surveillance System, National Diabetes Surveillance System, National Population Health Survey, Vital Statistics, Birth and Death databases, Canadian Cancer Registry, Notifiable Diseases On-line, HIV/AIDS Surveillance Reports, National Enteric Surveillance Program, Hepatitis C & STI Surveillance, PEI Reproductive Care Program database, Cancer Trends in PEI: 1980 to 2006, PEI Public Health Nursing database, Provincial Treasury 35th Annual Statistical Review, and Department of Health and Wellness Chief Health Office database.

One of the primary sources for this report is the Canadian Community Health Survey (CCHS). This survey is conducted by Statistics Canada every two years to provide regular and timely cross-sectional estimates of various health indicators. There are limitations to the interpretation of survey data, since self-report often provides socially desirable responses. Few of the self-report measures have been validated for their ability to measure the "truth".

The most recent data collection was in 2007/08. CCHS sampled about 65,000 Canadians in each of these two years in 126 regions, using both computer-assisted personal and telephone interviews. The target population of the CCHS includes household residents, age 12 and over, in all provinces and territories; with the principal exclusion of populations on Native Reserves, those in the Military, some remote areas, and persons living in institutions. In PEI, the sample size was 2,294 Islanders, including 699 in Prince County, 1,387 in Queens County, and 208 in Kings County.

The content of the survey includes common content to be asked all across Canada, and optional content that may be selected from a predefined list of modules. The full content is available on the Statistics Canada website³. The survey that preceded the CCHS was the National Population Health Survey. It began in 1994/95 as a cross-sectional sample of 30,000 Canadians, including 1,000 Islanders. It has continued as a longitudinal survey that follows the same participants over time.

Age standardization is a procedure for adjusting rates, designed to minimize the effects of differences in age composition when comparing rates for different populations. The direct method was used to average age-specific rates, using as weights the distribution of a standard population. The adjusted rate then represents what the observed rate would have been if that population had the same distribution as the standard population. The standard population used was the 1991 Canadian population.

Case counts are converted to rates per 100,000 to allow for comparable health indicators. In instances when there are less than 10 (CCHS) or less than 5 (sexually transmitted infections data) responses or cases, then the data may be suppressed because of the small sample size.

Comparisons with other data sources may result in different numbers for similar concepts, usually as a result of differences in methodology. To minimize problems, comparisons should use the same data source, and look for trends over time. Sometimes several documents using the same data sources will report different numbers. This may be the result of reporting on more current data, the use of different age groups, or the use of sub-samples of the dataset.