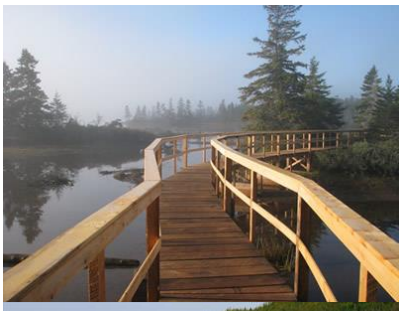
Central Health

Green Bay Health Services Area



Prepared by:

Karen Lilly, BN, RN, MN
Community Development Public Health Nurse

Patricia Pobihushchy-Lawlor, RD
Primary Health Care Facilitator

Community Profile 2014

TABLE OF CONTENTS

Acknowledgements

We would like to thank the people of Green Bay and the Central Health staff for their participation in the community profile process. In particular, the Community Advisory Committee along with the Primary Health Care Lead Team provided valuable support and information to ensure that this profile is a complete document of rich data including both quantitative and qualitative sources. We look forward to partnerships within our communities and Central Health to follow through with our proposed action plan and to make a difference toward improved health in our communities.

1. Introduction

1.1 What is a Community Health Assessment?

One of the responsibilities of a health authority within the provincial *Regional Health Authorities Act* is to assess health and community services needs in its region on an ongoing basis.

A Community Health Assessment (CHA) is a dynamic, ongoing process undertaken to identify the strengths and needs of the population, to enable community-wide establishment of health priorities, and facilitate collaborative action planning directed at improving community health status and quality of life. It provides baseline information about the health status of community residents, encourages collaboration with community members, stakeholders, and a wide variety of partners involved in decision-making processes within the healthcare system, tracks health outcomes over time, and helps to identify opportunities for disease prevention, health promotion and health protection (Community Health Assessment Working Group, 2009).

Understanding the communities it serves will ultimately provide Central Health with evidence based knowledge to help it work towards its vision of *Healthy People, Healthy Communities.*

1.2 Where did the information come from?

Information for this profile was gathered from a variety of sources and included data from primary and secondary qualitative and quantitative sources. For this profile, consultations were carried out with the Community Advisory Committee (CAC), the Primary Health Care Lead Team (PHCLT) as well as with specific groups of individuals that could provide information to fill in identified gaps in information.

The statistical data reported in this document was obtained from Community Accounts unless otherwise stated.

1.3. Data Presentation and Interpretation

The Green Bay Primary Health Care (PHC) Facilitator and Community Development Public Health Nurse took a lead role in collecting, presenting and interpreting the data. Assistance from others was obtained as necessary. Data is presented in this document in what is hoped to be a clear and usable fashion.

1.4. About Central Health

In terms of population size and geography, Central Health is the second largest regional integrated health authority in Newfoundland and Labrador, serving approximately 18% of the provinces population and offering a continuum of healthcare services. Central Health's service extends to 24 districts in 190 communities from Charlottetown in the east, Fogo Island in the north, Harbour Breton in the south to the Baie Verte Peninsula in the west. This geographical area encompasses more than half of the total land mass of the island.

As of March 31, 2012 there were 842 beds throughout the region – 264 acute care, 518 long-term care, 32 residential units and 28 bassinets. The total workforce for Central Health is approximately 3,200 including salaried physicians. There were also approximately 76 fee-for-service physicians practicing within the region.

Within Central Health, there is a diverse array of primary, secondary, long term care, community health and enhanced secondary services which are provided through 35 community health offices, 13 health facilities including two regional referral centers, six community health centers and five long term care (LTC) facilities. These services include: health promotion, protection and prevention services; individual family and community supportive services; residential, hospital-based, and community-based services. Central Health also partners with the 'Miawpukek First Nation' to support healthcare service delivery at the Conne River Reserve.

The vision of Central Health is for "healthy people and healthy communities." The organizations' mission states that by March 31, 2017, Central Health will have provided quality health and community services and programs, based on the identified needs of the people of Central Newfoundland and Labrador, and within available resources (See the Strategic Plan 2011-2014 for more detailed information). Central Health's core values offer principles and a guiding framework for all employees as they work in their various capacities to support the health and well-being of the people serviced by Central Health. These core values are accountability, collaboration, excellence, fairness, privacy and respect.

2. The Green Bay Health Service Area

2.1. History

Springdale Hospital was built in 1952 to serve as a cottage hospital for the people of Green Bay. It operated under the direct governance of the Department of Health with an administrative clerk to manage the day-to-day operations.

In 1977 the Valley Vista Senior Citizens Complex opened in Springdale.

In 1980 the Valley Vista Senior Citizens Complex and the Springdale Hospital amalgamated under one administration and both facilities became known as the Green Bay Health Care Centre. A local board was established and an administrator hired.

In 1994 the Government of Newfoundland and Labrador decreased the number of healthcare boards in the province. As a result both facilities, encompassed as the Green Bay Health Care Centre, became a part of a larger board known as the Central West Health Corporation.

As a part of a review of health services governance models in 1994, the province introduced new legislation bringing into being the concept of Community Health Boards. This resulted in the amalgamation of the Gander and District Continuing Care Program, Regional Public Health Units, and the Alcohol and Addictions Commission. Licensing and administration of the personal care home sector became the responsibility of newly established Community Health Boards. At that time, planning for comprehensive community based mental health services was also initiated.

In 1997 a comprehensive strategic planning process was undertaken by the province. To facilitate an integrated approach, social programs of the former department of Human Resources and Employment amalgamated with services provided by Community Health Boards. These social programs included Family and Rehabilitative Services, Child Welfare and Community Corrections. The amalgamated services were delivered by a community-based board known as the Central Regional Health and Community Services Board.

On April 1, 2005 health and community services and institutional and long term care services were combined to create a single Regional Integrated Health Authority. Health and Community Services - Central, Central West Health Cooperation, and Central East Health Care Institutions Board combined and the new Central Regional Integrated Health Authority was created. This name was further condensed in 2006 to Central Health.

2.2 Geographic Profile

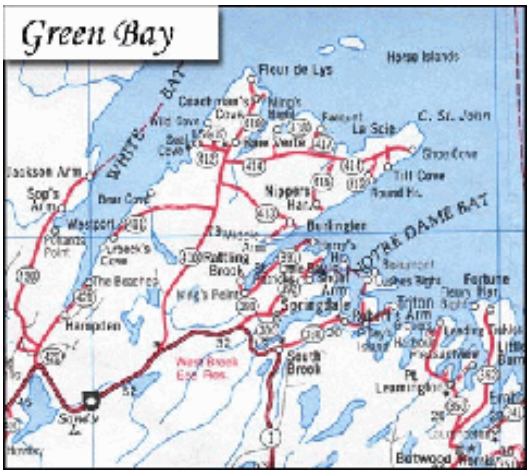
Green Bay is located in the Central Northeastern portion of Newfoundland within Economic Zone 11. Zone 11 includes two major areas: the Green Bay region and the Baie Verte Peninsula.

According to 2011 census data of Statistics Canada, Green Bay has a total population of 7,719 people, who are dispersed throughout 23 communities spread over a large geographic area. Only 4 of these communities have more than 500 people living in them. The Government of Newfoundland and Labrador's Community Accounts list the 23 communities indicated below as belonging to this region. Communities appearing in bold type are those profiled in the Community Accounts. The communities included with each profile are listed with it.

Springdale including Beachside, Sheppardville, St. Patricks and Birchy Lake. **King's Point, Rattling Brook, Jackson's Cove-Langdon's Cove-Silverdale, Harry's Harbour** including Nickey's Nose Cove. **Little Bay, Little Bay Islands, South Brook, Robert's Arm, Port Anson, Miles Cove, Pilley's Island, Lushes Bight-Beaumont-Beaumont North**[1]**, Triton,** and **Brighton**. For specific data regarding Green Bay collectively, the community account local areas of Halls Bay, Pilley's Island and King's Point will be used as appropriate.

Green Bay is divided into Green Bay North and Green Bay South. Green Bay South includes the communities of Robert's Arm, Port Anson, Miles Cove, Pilley's Island, Long Island, Triton and Brighton. Green Bay South makes up 37% of the population of Green Bay. All other communities, with the exception of Sheppardville, are located in Green Bay North. Sheppardville is located 35km west of Springdale on the Trans Canada Highway.

Figure 1: Map of Green Bay



All communities in Green Bay, with the exception of Little Bay Islands and Long Island are connected by road.

[1]Known in the area as Long Island. Will be referred to as Long Island in this profile.

To access health services, residents of Long Island have a five-minute ferry ride to Pilley's Island, followed by a 10km automobile ride to Robert's Arm or 51km to Springdale. Residents of Little Bay Islands have a 30-minute ferry ride to Pilley's Island. Both islands were serviced separately up until spring of 2013 but now have a 3 point ferry service (Pilley's-Long Island-Little Bay Islands).

Rough ice can pose problems for residents; it is not uncommon for Little Bay Islands to experience 6-8 weeks per year without ferry service due to ice. Alternate transportation (air) will only be provided after three consecutive days with no ferry run or in case of an emergency. Air Ambulance is provincially organized and available for emergency transfer to Green Bay Health Centre.

2.3 Population

Population in the Central Regional Health Authority for 2011 was 93, 906. This represents approximately 18% of the total provincial population for 2011. The Central Health region was second only to the Eastern Health Authority with a 2011 population of 303, 253, or 59% of the total population.

Table 1: Total population by Health Authority for 2011

Health Authority	**Population***
Central	93, 906
Eastern	303, 253
Western	77, 983
Labrador – Grenfell	36, 394
Province	514, 535

* Numbers may not add to total due to rounding

In addition to an overall decline in population, the population of the Central Health region is aging which is consistent with the province and the country as a whole. Green Bay has an older population than the province. The median age for Green Bay in 2011 was 51.6 years compared to 45 years for the province. There is a higher proportion of citizens 50-64 years of age and 65 years and older living in all communities in Green Bay.

Table 2: Green Bay Population Age Range, 2011

Area	Community	0-4 yrs	5-9 yrs	10-14 yrs	15-19 yrs	20-29 yrs	30-39 yrs	40-49 yrs	50-64 yrs	65+ yrs	Median Age
GBN	Springdale	140	125	145	140	210	285	410	745	710	49.9
GBN	King's Point	25	30	40	50	60	70	125	180	105	44.6
GBN	Little Bay	0	5	10	5	5	20	5	35	30	54.6
GBN	Little Bay Islands	5	0	5	5	0	0	15	30	35	62.1
GBN	South Brook	20	20	20	30	35	50	75	155	90	49.9
GBN	Beachside	0	0	10	5	10	20	20	60	40	58.3
GBS	Miles Cove	0	0	5	5	15	10	30	55	25	53.0
GBS	Robert's Arm	25	30	60	50	45	80	130	185	190	47.6
GBS	Pilley's Island	5	5	20	15	20	40	50	90	55	48.9
GBS	Long Island	0	0	5	15	15	5	35	80	60	54.4
GBS	Triton	55	50	55	85	80	145	175	270	125	43.6
GBS	Brighton	5	10	10	5	10	20	30	70	25	51.4
GBS	Port Anson	0	5	10	15	5	10	25	55	40	52.7

There is a larger percentage of the 65+ population living in Green Bay North (GBN) than Green Bay South (GBS). A possible explanation for this is that Springdale is home to a long-term care facility with 78 long-term care beds and 3 residential beds; a Senior's Retirement Centre (personal care home) that has 100 beds available to seniors, and there are also 126 independent senior's cottages in the community. Many former residents of Green Bay are also known to return to the area upon retirement, while other residents of Green Bay relocate to Springdale to be closer to healthcare services due to aging issues. Other reasons may include youth going off to post secondary school, lower birth rates and families moving to larger centres for employment.

Table 3: Green Bay Population by Gender, 2011

Community	Male	Female	Total
Springdale	1,355	1,555	2,910
King's Point	325	350	675
Little Bay	45	65	110
Little Bay Islands	45	50	100
South Brook	245	245	490
Beachside	80	65	150
Port Anson	85	80	165
Miles Cove	75	60	135
Robert's Arm	395	410	805
Pilley's Island	150	155	300
Long Island	110	110	220
Triton	520	475	1,000
Brighton	90	85	170

** Numbers may not add to total due to rounding

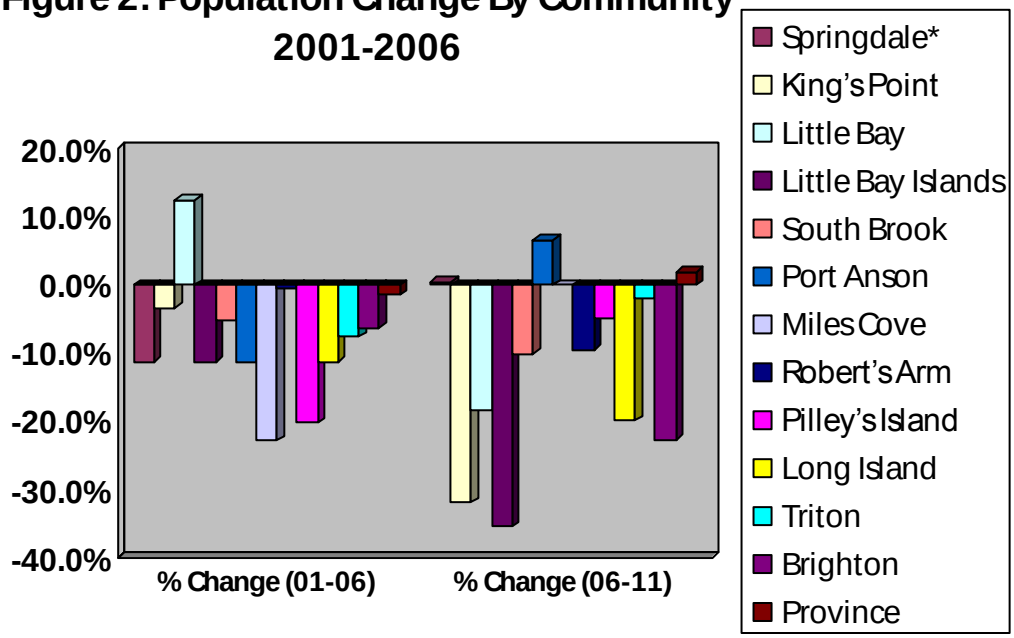
The population has a relatively even distribution between genders as is evident in the Population by Gender Table 3.

Table 4: Population Change by Community, 2001-2011

Community	2001	2006	% Change (01-06)	2011	% Change (06-11)
Springdale*	3,555	3,155	-11.3%	3165	0.32%
King's Point	1,180	1,140	-3.4%	775	-32.0%
Little Bay	120	135	12.5%	110	-18.5%
Little Bay Islands	175	155	-11.4%	100	-35.5%
South Brook	575	545	-5.2%	490	-10.1%
Port Anson	175	155	-11.4%	165	6.5%
Miles Cove	175	135	-22.9%	135	0%
Robert's Arm	895	890	-0.6%	805	-9.6%
Pilley's Island	395	315	-20.3%	300	-4.8%
Long Island	310	275	-11.3%	220	-20.0%
Triton	1,105	1,020	-7.7%	1000	-2.0%
Brighton	235	220	-6.4%	170	-22.7%
Province	512,930	505,470	-1.5%	514, 535	1.8%

* This includes Sheppardville and Beachside

Figure 2: Population Change By Community 2001-2006



From Table 4 and Figure 2, it can be seen that the population of all communities in Green Bay have declined since 2006 with the exception of Port Anson with a 6.5% increase. Springdale and Miles Cove has remained stable. The biggest impact occurred in Little Bay Islands with a 35.5% decline. Families move away to other provinces for jobs and others go off to post secondary institutions. Little Bay Islands has the highest median age thus many citizens are older and leaving the island to live in seniors

cottages and personal care homes closer to medical facilities. The province as a whole experienced a 1.8% increase.

2.4 Migration

The population under age 50 has been declining and may be attributed to out migration. However, the population over this age has been increasing possibly due to retirees settling "back home" and also due to the baby boomers who have reached this age. A baby boomer is described as a person who was born between 1946 and 1964.

When planning for the health of an aging population these factors must be considered:

- less young people/family members available for support
- declining workforce
- increase in chronic illnesses/conditions
- shift in the services required/location of services/ access to services
- impact on school environment

2.5 Live Birth Trends

The total number of births in the Central Regional Health Authority for 2011 was 670; 350 (52%) of these were male and 320 (48%) were females. This is a 13% decrease since 2010 when there were 770 births. In the province in 2011, there were 4,465 live births compared to 4, 860 in the previous year.

Table 5: Birth Trends by Health Authority for 2011

Health Authority	Males	Females	Total*
Central	350	320	670
Eastern	1405	1370	2775
Western	310	305	615
Labrador – Grenfell	210	200	405
Province	2270	2190	4465

* Numbers may not add to total due to rounding

2.6. Section Highlights

As with many small, rural sites in Newfoundland and Labrador, the population of Green Bay is declining. The population is aging and fewer babies are being born. In addition, young families are moving away to larger centres for employment opportunities.

3. The Determinants of Health

A community health assessment is best understood and conducted within the population health perspective. A population health approach reflects the evidence based belief that factors outside the healthcare system or sector significantly affect health. It considers the entire range of individual and collective factors and conditions, and their interactions, that have been shown to be correlated with health status. Factors such as social, economic, cultural and physical environment play a role, for better or worse, in the health of a community. This means that making improvements in the health and well-being of the population must go beyond delivery of healthcare services and include action on the broad determinants of health.

These determinants include:

Education
Employment and Working Conditions
Income and Personal Status
Healthy Child Development
Social Support Networks
Physical and Social Environments
Personal Health Practices and Coping Skills
Health Services
Culture
Gender and Genetics

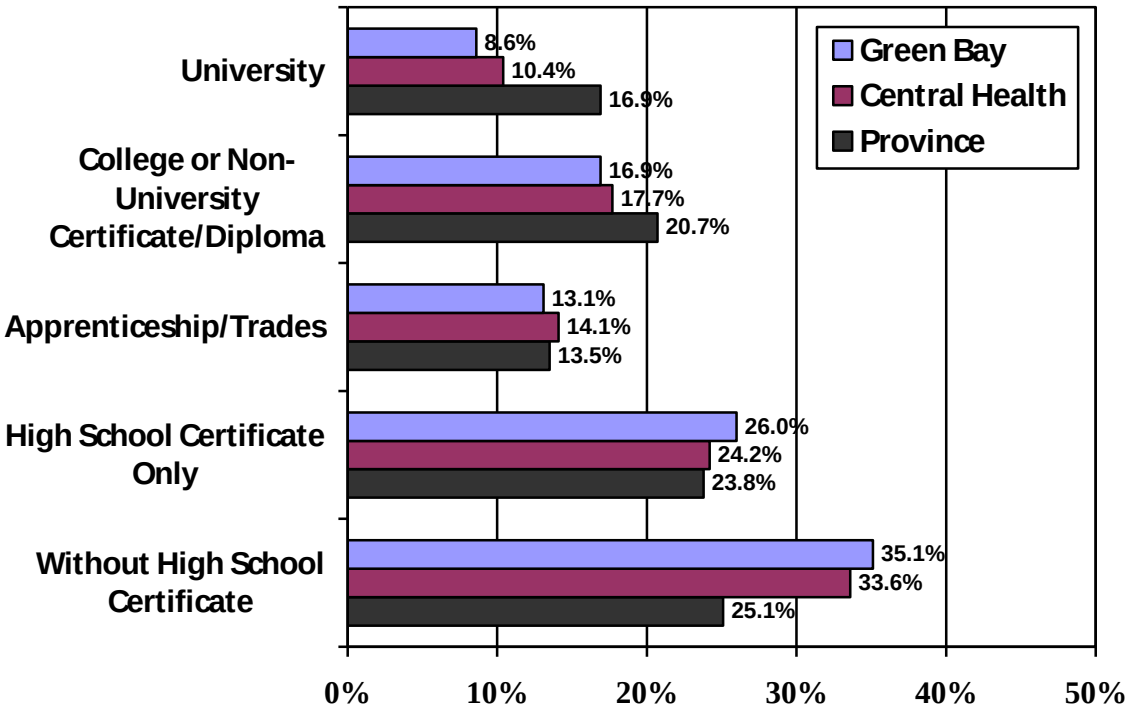
3.1 Education

According to the Health Canada Statistics Report on the Health of Canadians, educational attainment is positively associated with economic status and health outcomes, including healthy lifestyles and behaviors. Education increases the opportunity for employment and income, job satisfaction, and contributes to self worth and control. It also improves people's ability to access and understand information to help keep them healthy.

3.1.1 Level of Education

Overall, the percentage of undereducated people in the Green Bay area is greater than the provincial average. For the population of Green Bay, 31.5% do not have a high school education as compared to 25.1% for the province but is comparable to the Central Health region of the province (Figure 3). The number of university trained persons is noteworthy with only 8.6% of the population of Green Bay as opposed to 16.9% for the province.

Figure 3: Levels of Education in the Region, Age 18 - 64. 2006



3.1.2 School Enrollment

In the Central Regional Health Authority, 11,915 students were enrolled in the school system for the 2012-2013 school year. This is the second highest enrollment rate when considering health authorities which follows Eastern Health Authority with 41,275 students.

Furthermore, the Central Regional Health Authority experienced a kindergarten enrollment of 840 students and a grade 12 enrollment of 955 for 2012-2013. This represents fewer students entering the school system as opposed to those leaving.

As would be anticipated in communities with declining birth rates and out-migration the school enrollment for the Green Bay area is declining. Enrollment in schools in the area has declined by 12.0% since 2007-08, dropping from 1,094 to 963 for the 2012-2013 school year.

Table 6: Green Bay School Enrollment, 2009-2010 and 2012-13

	Total 2007-08	Total 2012-13
Brian Peckford Elementary	50	58
Dorset Collegiate	175	184
Green Bay South Academy	159	97
H.L. Strong Academy	9	2
Indian River High School	290	252
Indian River Academy	259	251
Long Island Academy	12	4
Valmont Academy	140	115
TOTAL	**1,094**	**963**

The graduation rate for the Nova Central School District in 2012 was 95.5%. This corresponded to 928 graduates out of 972 potential graduates. In 2003-2004, the percentage of high school graduates was 87.3% and 92.3% in 2007-08. This rate is 92.7% for the province as a whole.

The number of schools in the Green Bay area had been reduced from 15 in 1996 to 10 in 2004 and presently (2014), there are 8 schools. Since the number of schools has been reduced, there are a greater number of children being bussed longer distances to school. This poses a problem for students to take part in after school programming. In 2011 a bus subsidy was granted to the CYN of Springdale to partner with the local schools to help offset this problem.

H.L. Strong Academy (Little Bay Islands) and Long Island Academy (Long Island) cannot be reached directly by a road connection, so the schools have remained open despite low enrollment.

In the spring of 2013, Provincial Government released its 2013 budget plan. In this budget, major changes in the education sector resulted in a proposed reduction of provincial school boards to a total of two boards – one English-language board and one French-language board. This resulted in an amalgamation of the four English-language school boards in the province. Provincial Government reports that since school board administration was last consolidated in 2004, school enrollment has declined by almost 14,000 students or 17%.

3.1.3 School Environment

The schools in the Green Bay area are considered healthy active schools. This means they are following the school food guidelines and they offer daily physical activity (QDPA) to their students on non physical education days. This is a program designed for grades kindergarten to six to incorporate 20 minutes of non competitive, physical activity into daily curriculums. All schools also have a smoke free grounds policy.

The School Food Guidelines outlines a selection of food and beverages that should be served in school cafeterias, canteens, and vending machines. These guidelines will ensure students are provided with healthy food choices and are given quality information to promote health and wellness.

The *Healthy Students Healthy Schools Initiative* started in 2006-2007 as a component of the Government of Newfoundland and Labrador's *Provincial Wellness Plan.* Intended to take place over five consecutive years, there were a number of key initiatives implemented to provide direction for schools to create healthy environments. In collaboration with health professionals, school food guidelines were introduced and updated, and additional cafeteria equipment for schools and professional development for caterers was provided (Government of Newfoundland and Labrador (NL), 2011a).

The Safe and Caring Schools Policy was launched in September 2006. The policy defines the roles of school districts, school communities, teachers, and administrators to ensure a respectful learning environment. Since implementation, awareness has been raised as to the serious effects of bullying and harassment. It is also worthy to note that all schools in the school district have a locked door policy during regular school hours which protects the safety of students and staff (Government of NL, 2013a).

3.1.4 Section Highlights

School enrollment has been declining; therefore the number of schools throughout the province is declining, including the Green Bay area. Though enrollment has been declining, there are a greater number of individuals who are achieving higher education, especially for high school graduation.

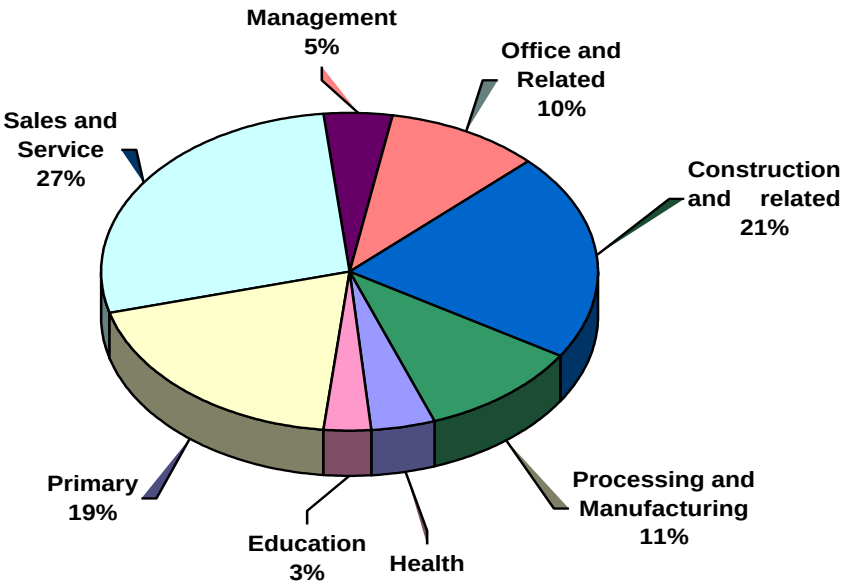
3.2 Employment and Working Conditions

Unemployment, underemployment and stressful or unsafe work conditions are associated with poorer health. People who have more control over their work circumstances and have less stress related demands of the job are generally healthier.

3.2.1 Local Industry

The leading industry for the Central Health region is sales and service (29%), followed by the construction sector (20.9%) and the primary sector (e.g. fishing, mining, or logging) (14.2%) respectively. This data compares to that of the Green Bay area as the majority of the working population in Green Bay is also most commonly employed in sales and service (27%) followed by the construction sector (21%) and the primary sector (19.2%). The breakdown of sectors as reported by community accounts (2006) is as seen in Figure 4.

Figure 4: Main Industry in Green Bay, 2006 (age 15 and Older)



3.2.2 Employment Rates

The labour force consists of people who are currently employed and people who are unemployed but were available to work in the reference period, and had looked for work in the past 4 weeks. The unemployment rate is a traditional measure of the economy. The unemployment rate for Central Health was 16.9% compared to 11.4% in Newfoundland and Labrador (Statistics Canada, 2013).

In the Green Bay area in 2006, the employment rate was 36.2% which was lower than the provincial rate of 47.9%. The unemployment rate for Green Bay was 30.8% which was higher than the provincial rate of 18.6%. This is the most current data available for Green Bay.

3.2.3 Youth Employment Rates

A Youth Employment Rate is the ratio of those aged 15-24 who are employed compared to the total population of this same age group who are eligible to work. Employment is generally measured through household labour force surveys which report those that have worked in gainful employment for at least one hour in the previous week.

Statistics Canada reports unemployment rates rather than employment rates. According to Statistics Canada, 2013, 20.9% of the youth aged 15 - 24 are unemployed within the Central Region. This is higher than the provincial rate of 16.7%.

3.2.4 Employment Insurance Incidence

The employment insurance incidence reflects the number of people receiving employment insurance benefits in the year divided by the total number of people in the labor force. The labor force is defined as the number of people who received employment income or employment insurance within the year.

The employment insurance incidence for Central Health in 2011 was 44.1%, which is higher than the provincial rate (31.3%) and the highest among the four regional health authorities. Since 1992, the employment insurance incidence in the Central Health region had dropped by 17%. However, Central Health has consistently had a higher rate of employment insurance incidence compared to the province and the regional health authorities.

In 2012, all of the communities in Green Bay, with the exception of Little Bay, had a higher employment insurance incidence than the provincial rate of 29.9%. Jackson's Cove and area had the highest rate at 75.0% and Little Bay had 30.0%.

Figure 5: Central Region Employment Insurance Incidence (1992-2011)

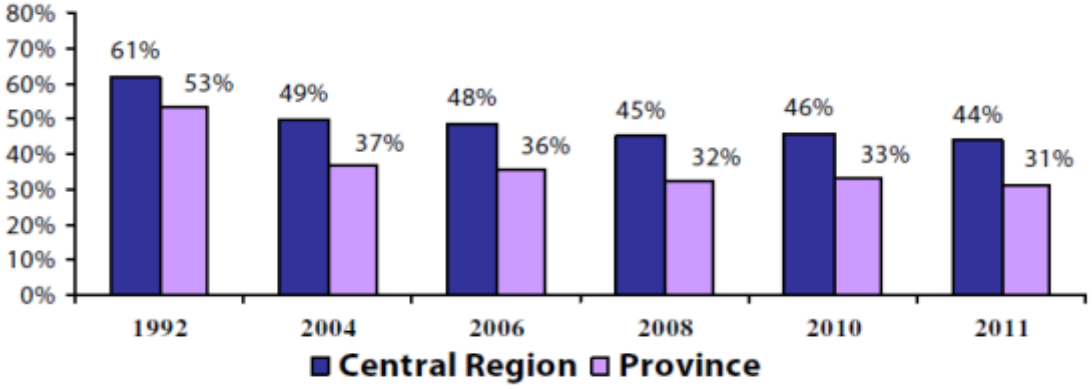
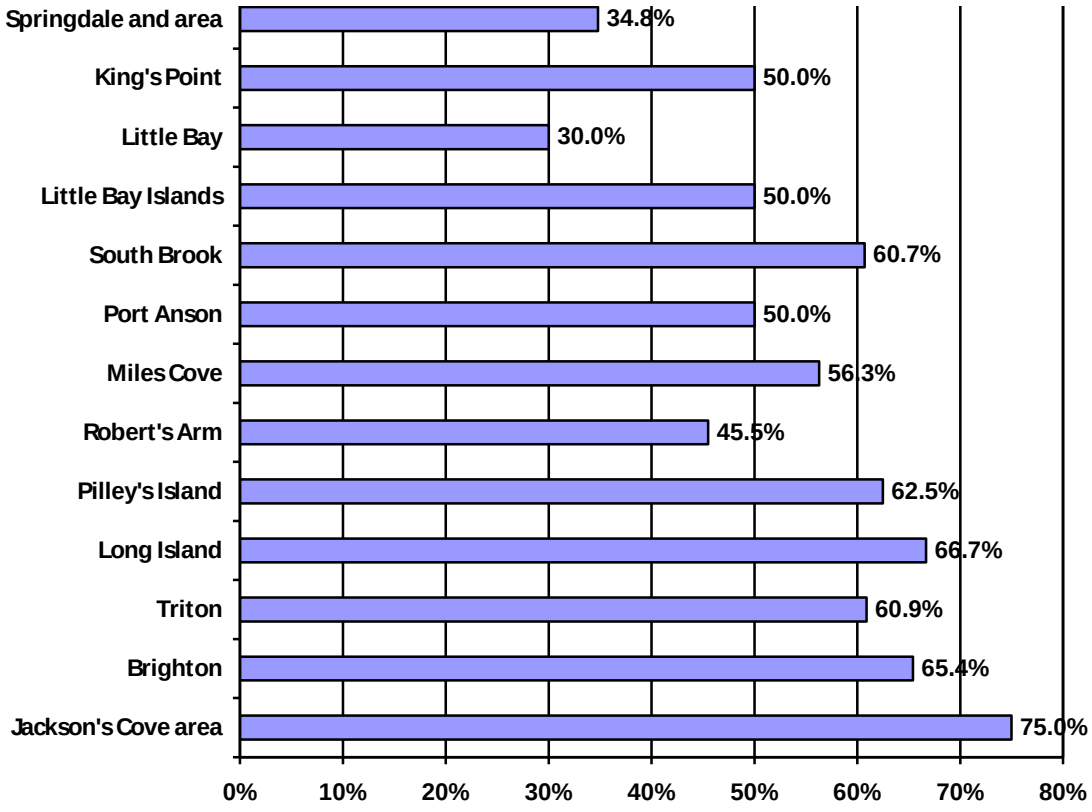


Figure 6: Employment Insurance Incidence, Green Bay 2012



3.2.5 Section Highlights

Recent data for the Green Bay area regarding employment and working conditions is not available at the present time.

3.3 Income and Personal Status

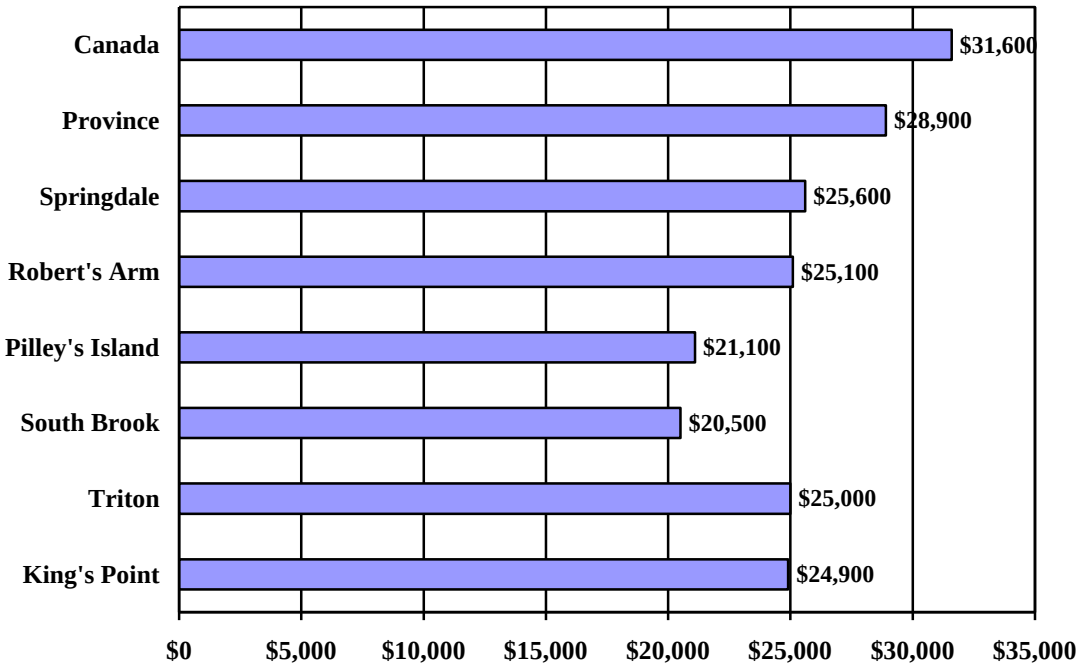
Research indicates that income and personal status is the single most important determinant of health. Studies show that health status improves at each step up the income and social hierarchy (Public Health Agency of Canada, 2003).

3.3.1 Personal Income Per Capita

Personal income per capita is defined as income from all sources received by an individual and includes employment as well as government transfers, such as Canada Pension, Old Age Security, EI and Social Assistance. Within Central Health, the gross personal income for 2010 was $24,700, which was the lowest among the four regional health authorities, lower than the province ($28,900) and even lower than the country ($31,600).

From the available data for the Green Bay area, the personal income per capita ranges from $20,500 (South Brook) to $ 25,600 (Springdale and area). All personal income per capita rates for communities of Green Bay have increased since 2005 but continue to remain below the provincial rate of $ 28,900.

Figure 7: Personal Income Per Capita, Green Bay, 2010

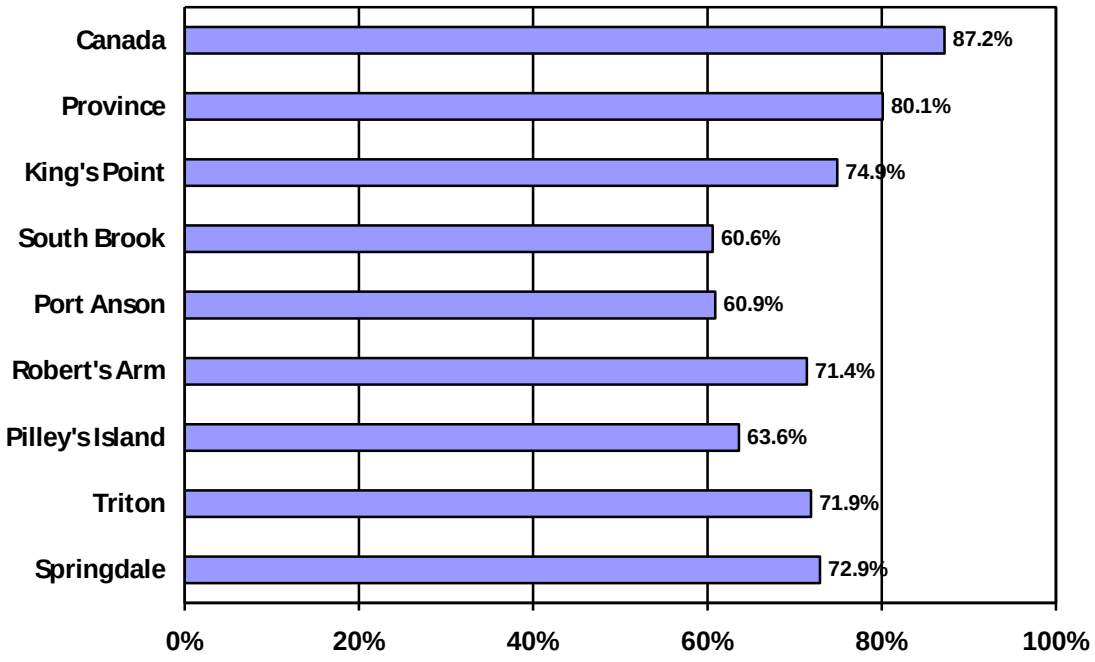


3.3.2 Self Reliance

A community's level of self-reliance is an indicator of the ability to earn income independent of government transfers, such as Canada Pension, Old Age Security, Employment Insurance (EI) and Social Assistance. The higher the level of self-reliance, the lower the dependence on government transfers. In 2010, the self reliance ratio for the Central Health region was 72.5%, which is the lowest among the four regional health authorities, the province (80.1%) and the country (87.2%).

In the Green Bay area, the self reliance rates range from a low of 60.6 % in South Brook to a high of 74.9 % in King's Point. It is worthy to note that all rates for communities of Green Bay are lower than those of the province and the country as a whole which means Green Bay is more dependent on government transfers.

Figure 8: Self – Reliance Ratio for Green Bay, 2010*



* All communities in Green Bay not listed due to unavailability of data

3.3.3 Income Support Assistance

Income Support Assistance, formerly known as social assistance, is the number of people receiving income support assistance during the year (including dependents). In 2011, the number of individuals within the Central Health region who received Income Support Assistance at some point was 9,270.

The average benefits for those people collecting Income Support Assistance in the Central Health Authority in 2011 was $7,000, provincially the average benefit was $7,100. The total number of children ages 0 to 17 in Central Health Authority who were in families receiving Income Support Assistance in 2011 was 2,315.

The average duration or the average number of months people were collecting Income Support Assistance in the Central Health Authority was 9.1 months, provincially the average was 9.3 months.

In 2012, 9.2% of the Central Health population received income support, which is the second highest among the four health authorities and is relatively the same as the provincial average of 9.1%.

In the Green Bay area, the rate of social assistance ranges from a low of 2.1% in the town of Brighton up to a high of 14.0% in Jackson's Cove-Langdon's Cove-Silverdale. In comparison to the provincial rate (9.1%), there were three communities in Green Bay

that had higher income support assistance rates.

Figure 9: Number of Individuals Who Received Income Support Assistance Over Time

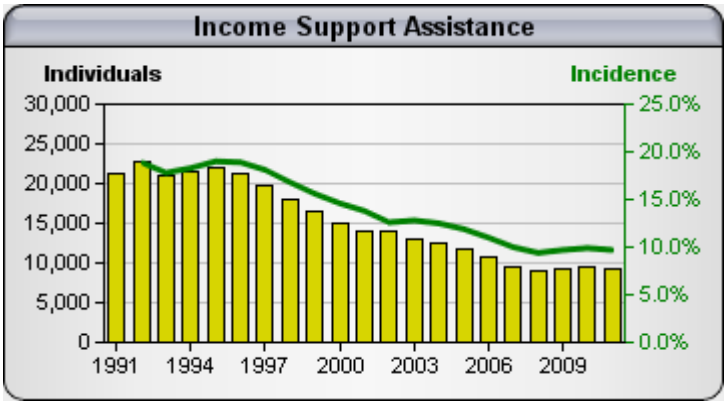
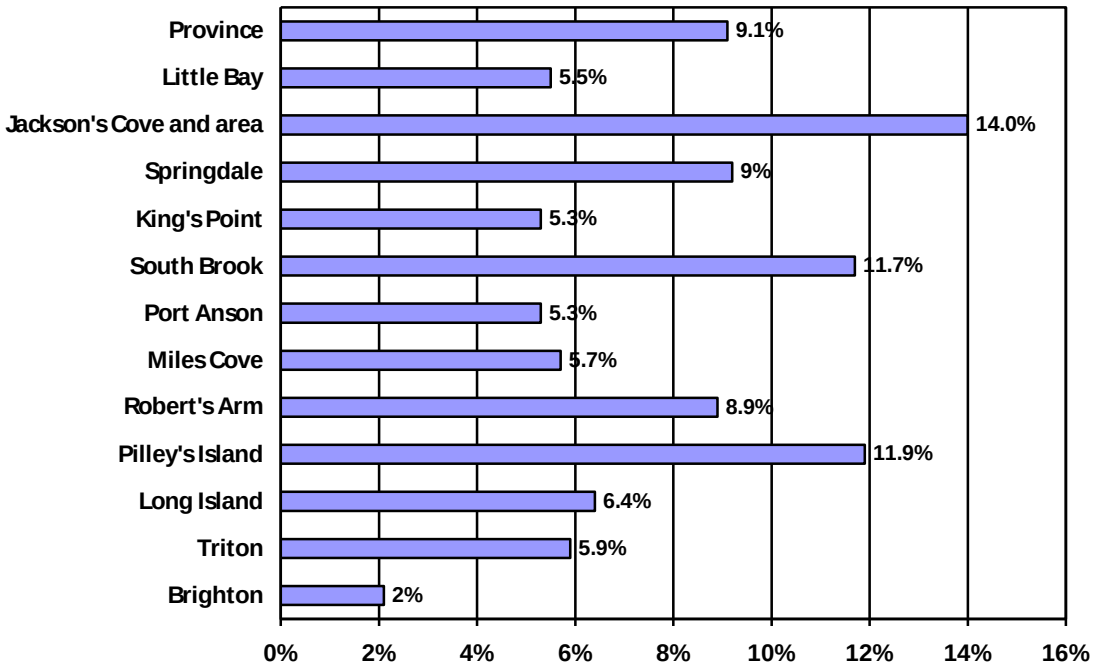


Figure 10: Income Support Assistance Incidence, Green Bay, 2012



3.3.4 Section Highlights

While personal income per capita in Green Bay is lower than the province, rates have increased for all communities for the area. Green Bay relies more on government transfers including Old Age, Social assistance and EI benefits.

3.4 Healthy Child Development

There is strong evidence that prenatal and early childhood experience influence coping skills, resistance to health problems and overall well being for the rest of one's life. Children born to low-income families are more likely than those born to high-income families to have low birth weights, to eat less nutritious food, and to have more difficulty in school.

3.4.1 Number of Children and Age Range

In 2006, the Central Health region had 20,150 children in the 0-19 year old age group. More recent statistics are not available at this time for this health authority. For age ranges of children in Green Bay refer to Section 2.3 (Population).

3.4.2 Lone-Parent Families and Income

In Newfoundland and Labrador in 2008, 35.2% of families were lone-parent families. In Green Bay, 44.1% of the Halls Bay area, 28.3% of the Pilley's Island area and 32.3% of the King's Point area are comprised of lone parent families (Table 7).

Half of the lone parent families in the Central Health region had incomes of more than $28,400 in 2010. In comparison, Green Bay had a value of $28,000 or more, whereas the provincial rate was more than $31,100 and the national value was $37,100.

Figure 11: Incidence of Low Income: All lone-parent families (Multiple year comparison)

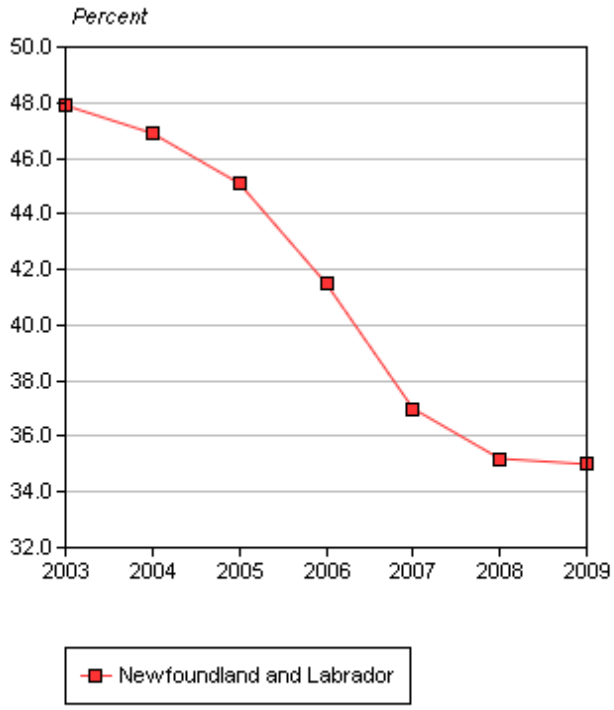


Table 7: Percentage of Low Income: All lone-parent families in Green Bay (2008)

Area 59: Halls Bay area	44.1%
Area 60: Pilley's Island area	28.3%
Area 68: King's Point area	32.3%

3.4.3 Prenatal Care

Limited information is available in Canada on prenatal care. Prenatal care can impact infant morbidity and mortality. Nova Scotia Department of Health (2002) recommends that women have visits for prenatal care every four to six weeks up to the 7th month of pregnancy, every two to three weeks in the 7th and 8th month, and every one to two weeks thereafter. This is the guideline followed by the province of Newfoundland and Labrador for prenatal care policy and best practice as well (Public Health New Life Series). Prenatal care can reduce risks, detect early complications and promote healthier pregnancies.

3.4.4 Early Childhood Learning and Child Care Services

Prenatal and early childhood experiences have a powerful effect on subsequent health, well-being, coping skills and competence. Increasing evidence shows there are critical stages where intervention has the greatest potential to positively influence health. These stages include the period before birth, early infancy, the beginning of school and the transition from adolescence to adulthood.

There are many early learning programs that serve children from birth to age six and their families. These include regulated full-time or part-time child care centres, family childcare homes, family resource centre programs, school-based pre-Kindergarten programs, and early literacy programs such as those offered by public libraries and community centres. There are 96 public libraries located throughout Newfoundland and Labrador and most offer preschool programs (Government of NL, 2013b).

The Child, Youth and Family Services (CYFS) Department describes a child care centre as a place where care is provided for up to 60 children on either a part-time or full-time basis. Child care centres must be licensed before they can open (Province of Newfoundland and Labrador, 2012). According to CYFS, there are 27 licensed daycare centres in the Central Health region. In the province as a whole, this number totals 191 centres.

Family resource centres provide a variety of community-based activities and resources for children from birth to 6 years of age and their families. These resource centres emphasize early childhood development and parenting support. They provide a place for families to gather in a friendly and informal setting.

A variety of programs are offered that reflect the needs of the families who are participating and the communities in which they are located. Types of programs might include everything from drop-in playgroups, Baby and Me groups, parenting workshops, clothing exchanges and toy-lending libraries to community kitchens and healthy lifestyle sessions (Government of NL, 2013c).

According to CYFS, there are 8 Family Resource Centre hub sites in the Central Health region and 29 within the province. It is important to note that many of these hub sites have several satellite sites as well. The Green Bay Family Resource Centre has two hub sites (Springdale and Robert's Arm) and three satellite sites (King's Point, Triton and South Brook).

KinderStart is a school transition program offered in the year prior to Kindergarten entry. The program consists of five to ten one-hour orientation sessions organized and promoted at the school level for children and their parents/caregivers. The sessions support children's adjustment to the school environment, and provide parents/caregivers with information on how to support their children's learning at home (Government of NL, 2013b).

Community Youth Networks

Research indicates that one of the prime characteristics of a healthy community for youth is a rich array of structured opportunities for children and adolescents. A community youth network (CYN) aims to enhance opportunities for youth by providing learning, employment, community-building and recreational activities.

The CYN focuses on the assets and needs of youth to assist in the development of healthy families and communities. Through this network, all youth have equal opportunity for success. In the province of Newfoundland and Labrador there are 23 hub sites and 13 satellite sites. Of these, 8 are within the Central Health region.

3.4.5 Live Births and Birth Weight

Births

In 2011 there were 670 births in Central Health region. This is a 13.0% decrease since 2010 when there were 770 births.

Births for Green Bay are as per Table 8; these rates are consistent with the declining birth rates of the province and the Central Health region. The number of births for Green Bay in 2009 was 59 and in 2011 it was 46 (M. Hollett, M. Melindy and K. Oldford-Pynn, personal communication, June 2013).

Table 8: Live Birth Trends for Green Bay, 2010-12

District	2010	2011	2012
Robert's Arm (GBS)	17	17	16
Springdale (GBN)	41	29	33

Starting in January of 2008, residents of the province who gave birth to a baby were given a $1,000 lump sum payment under the Progressive Family Growth Benefit. At this time parents also received $100 per month for the first 12 months after a child was born under the Parental Support Benefit.

Births by Age of Mother

In 2011, there were 377,636 births in Canada. Of these, 4,465 were born in Newfoundland and Labrador, including 670 births within the Central Health region. Younger mothers and older mothers are at a higher risk of poorer pregnancy outcomes (e.g. preterm delivery for younger mothers, caesarean section for older mothers). While younger mothers are more likely to be underweight and smoke during pregnancy, older mothers are at an increased risk of being obese or having chronic medical conditions, such as hypertension or diabetes (Vaughan, Cleary & Murphy, 2013).

Table 9: Live Births By Age of Mother, 2011a

Age Group	Canada	Newfoundland and Labrador	Central Health region
TOTAL	377,636	4,465*	670*
Under 15 yrs	99	5	0
15 – 19 yrs	13,436	250	55
20 – 24 yrs	53,478	810	160
25 - 29 yrs	113,628	1,335	190
30 - 39 yrs	184,005	2,070	255
40+ yrs	12,915	85	15
Age not stated	75		

* Numbers may not add to total due to rounding

Source: Statistics Canada 2011a

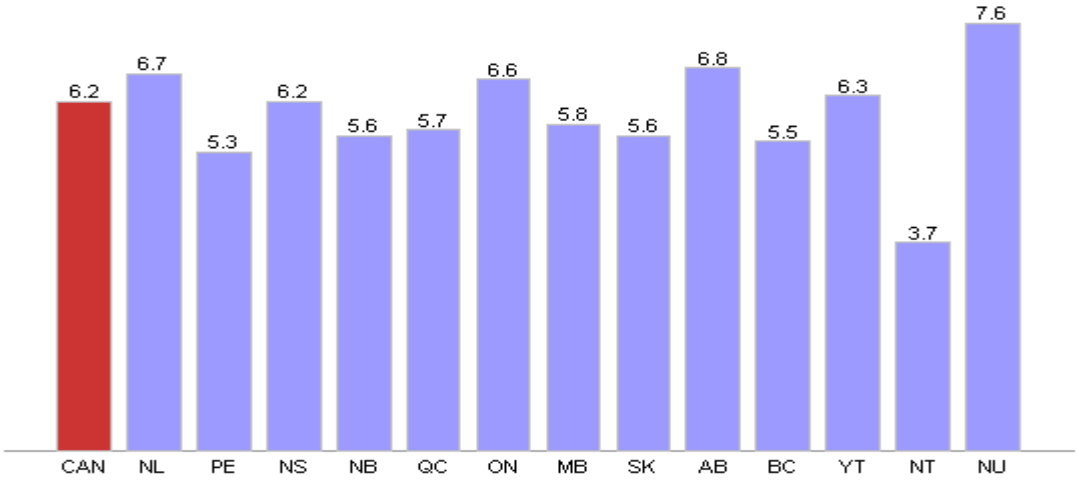
Low Birth Rates

Low birth weight is an indicator of the general health of newborns, and a key determinant of infant survival, health and development. Low birth weight infants are at a greater risk of dying during the first year of life, and of developing chronic health problems.

Low birth weight is defined as weight at birth less than 2,500 grams. Risk factors for low birth weight include low BMI (<18.5) of the mother, multiple births, maternal age over 35 years, alcohol consumption, physical abuse, and/or smoking during pregnancy, as well as low income (Eastern Health, 2012).

Newfoundland and Labrador had low birth weight rates above the national average at 6.7% in 2010. The national rate was 6.2%. In Canada overall, there were 23,317 low birth weight babies born in 2010.

Figure 12: Low birth weight by region, 2010



Source: Statistics Canada. *Live birth, by birth weight (less than 2,500 grams) and sex, Canada, provinces and territories, annual* (CANSIM Table 102-4005). Ottawa: Statistics Canada (2010a).

High Birth Rates

High birth weight babies are defined as birth weight above 4,500 grams. High birth weight is associated with a higher risk for complications for the mother and baby at the time of birth. High birth weight may also be associated with increased risk for childhood obesity (Reilly, 2005). Data for the province was unable to be obtained for this topic but in Canada, there were 6,182 high birth weight babies born (Statistics Canada, 2011).

3.4.6 Child, Youth and Family Services (CYFS)

When there is concern of child abuse by a parent, social workers assess the risk to the child. The assessment of risk involves some of the most critical decisions that are made in the protective intervention program. The social worker, together with the family, develops a plan to reduce the identified risk. All decisions to intervene with the family are made in the best interest of the child. The Clinical Program Supervisor from the Department of Child, Youth, and Family Services identified that as of August 31st, 2013 there were 16 Protective Intervention cases open in the Green Bay area (M. Parsons, personal communication, August 31, 2013).

Foster parents play a significant role in the life of a child in their care. They are entrusted with the responsibility of nurturing and protecting a child, addressing and meeting the child's developmental needs, helping a child stay connected to their birth family and working as part of a professional planning team to support the child. Currently, there are 12 children identified to be in foster care. Please note that some of these children are not originally from Green Bay, however, they have been placed in foster homes in the area due to lack of resources in their own communities. There are 11 foster homes available in the Green Bay area.

The Youth Corrections Program is mandated to provide services to youth who come into conflict with the law between their 12th and 18th birthdays. The responsibility for the delivery of young offender services rests with local CYFS offices, with the exception of Secure Custody and Remand Services, which are operated by the provincial Department of Justice. There are currently 3 youth on the Youth Corrections caseload in Green Bay (Government of NL, 2013e).

It is important to note that this is just a snap shot in time and that these numbers change on a regular basis.

3.4.7 Section Highlights

It is interesting to note that lone parent families are increasing. Child care centres are available in the hub of Green Bay (Springdale) but not for the other communities. This can have a major impact on the opportunities for employment especially for lone parent families.

Early learning programs are an essential part of childhood development and Green Bay has many opportunities for the early years (0-6 years) including Family Resource Centre programs, preschool and Kinderstart. Recreational facilities such as playgrounds are also available.

3.5 Physical and Social Environments

Physical environment has been identified as one of the health determinants and it includes human built factors such as housing, roads, transportation, and natural factors such as air and water quality. At certain levels of exposure, contaminants in our air, water, food and soil can cause a variety of adverse health effects, including cancer, birth defects, respiratory illness and gastrointestinal ailments. In the built environment, factors related to housing, indoor air quality, and the design of communities and transportation systems can significantly influence our physical and psychological well-being.

The importance of social support also extends to the broader community. A society's values and norms contribute to the health of its members. Risks to good health are lessened in communities where social stability, recognition of diversity, safety and cohesion exists.

3.5.1 Housing

According to Shapcott (2009), "housing is an absolute necessity for living a healthy life and living in unsafe, unaffordable or insecure housing increases the risk of many health problems…living in poor housing creates stress and unhealthy means of coping such as substance abuse…children who live in low quality housing conditions have greater likelihood of poor health outcomes in both childhood and as adults" (p.221).

In Green Bay, there are a total of 3,270 dwellings with an average of 7-8 rooms per dwelling. Of these dwellings, 2,865 are detached homes, 110 are apartment homes and 290 are listed as other types of homes. With the exception of 10 households (multiple family), all other households are one family households. The majority of homes were built in 1971 or later (62.5%) with 1,225 having been built prior to 1971 (37.5%). There have been no new updates on this topic since 2006.

3.5.2 Water Quality

Boil Water Advisories

In Newfoundland and Labrador, regular sampling and testing of public water supplies is carried out by Environmental Health Officers. Boil water advisories (BWAs) are preventative measures for protecting public health from waterborne microbiological contamination that may, or are known to be, present in drinking water. A BWA is issued when water quality is questionable due to operational deficiencies (such as inadequate chlorine residual), no disinfection system or the water in a community's water system is contaminated with fecal pollution indicator organisms (such as total coliforms). There were 52 boil water advisories between 1989 and Sept 6, 2012 in the Central Health region. Below is a table that lists the boil water advisories for Green Bay for the same time frame.

Table 10: Green Bay Boil Water Advisories

Community	Boil Advisory	Source type	Boil advisory issue date	Boil advisory reason
St. Patrick's	Yes	Well	Feb 20, 1991	Water Supply has no disinfection system.
Port Anson	Yes	Pond	Aug 21, 2006	Water entering distribution system or facility, after a minimum 20 minute contact time does not have a free chlorine residual of at least 0.3 mg/l or equivalent CT value.
Beachside	Yes	Pond	Apr 29, 2011	Disinfection system is off, due to lack of chlorine or other disinfectant.
Lushes Bight-Beaumont-Beaumont North	Yes	Pond	Jun 20, 2013	Water distribution system is undergoing maintenance or repairs.
Little Bay Islands	Yes	Pond	Nov 2013	Total coliforms detected and confirmed in repeat sample.
Little Bay	Yes	Pond	March 5, 2014	Disinfection system is off due to maintenance or mechanical failure.
Jackson's Cove-Langdon's Cove-Silverdale	Yes	Pond	May 30, 2014	Total coliforms detected and confirmed in repeat sample.
Miles Cove	Yes	Pond	July 3, 2014	Escherichia coli detected and repeat samples cannot be taken as required.
Brighton	Yes	Pond	July 09, 2014	No free chlorine detected in the water distribution system.
Pilley's Island	Yes	Pond	July 10, 2014	Total coliforms detected and confirmed in repeat sample.

Source: http://www.env.gov.nl.ca/wrmd/BWA_Reports/BWA_Summary_Community.pdf. Government of Newfoundland and Labrador, August 12, 2013d

3.5.3 Roads and Transportation

All communities of Green Bay are accessible by road with the exception of Long Island and Little Bay Islands which have to be accessed by ferry service. The ferry to Long Island is just a 5 minute ferry trip (one-way) while the ferry trip to Little Bay Islands (LBI) takes 30 minutes (one way). At the present time, the ferry runs from Pilley's Island to Long Island 5 times per day with the exception of Thursday, which is reduced to 4 trips per day due to maintenance. The ferry to Little Bay Islands runs 4 times per day from Pilley's Island, again with the exception of Thursday (3 trips). The cost for a one way trip is $2.20 for vehicle and driver to Long Island but is $7.15 for vehicle and driver, one-way to LBI. For safety reasons the vessel remains at Little Bay Islands overnight.

All communities have paved roads. There is limited public transportation in the area, with no public buses and very limited taxi service. Seniors in Green Bay find transportation to be a major issue for sustaining good quality of life. The Town of Springdale has recently been awarded funding to implement a 3 year pilot project that will address this issue.

In the event of an emergency there is a helicopter landing pad within Springdale for urgent transportation. There is also an emergency runway on the Trans Canada Highway near Springdale that is used by private owners and government departments.

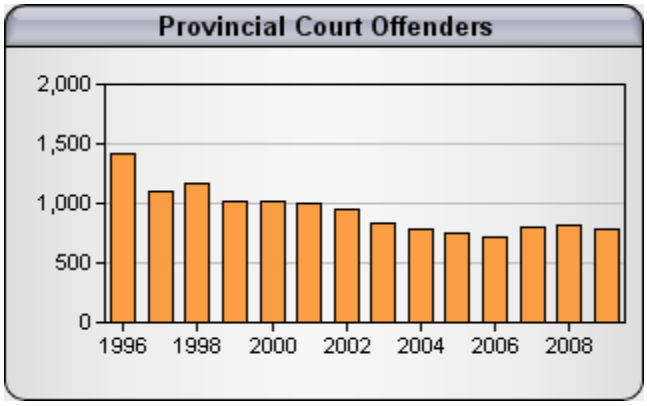
3.5.4 Safety

Safety of citizens is an important factor for any community. In Green Bay, there is an RCMP detachment housed in Springdale as well as an active Crime Prevention Committee.

In 2009 in Area 59: Halls Bay there were 50 provincial court offenders. Of those 18 years of age and older, the 35 to 44 and 18 to 24 age groups had the highest number of offenders. In Area 60: Pilley's Island Area there was 15 provincial court offenders. Of those 18 years of age and older, the 45 to 54 and 35 to 44 age groups had the highest number of offenders. In Area 68: King's Point Area there was 5 provincial court offenders. Of those 18 years of age and older, the 25 to 34 age group had the highest number of offenders; when compared to the province, the 18 to 24 age group had the highest number of offenders as well.

Within the Central Health region there were 780 provincial court offenders. Of those offenders who were 18 years of age and older, the 18 to 24 age group showed to have the highest number of offenders. This is comparative to the province for the same age group. These offences in the Central Health region account for 13.1% of the provincial offence rate.

Figure 13: Provincial Court Offences in the Central Health Region Over Time

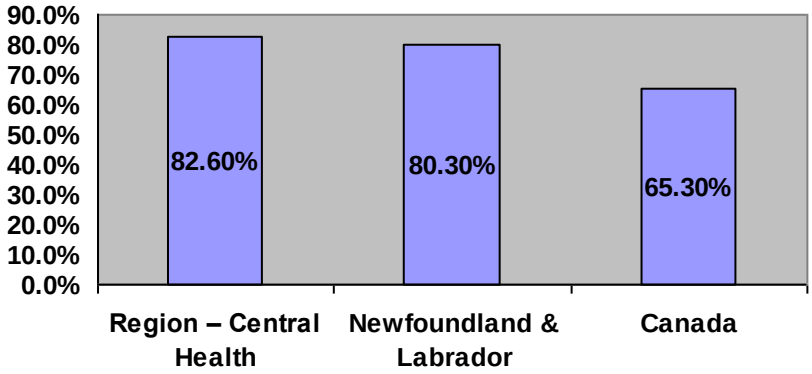


3.5.5 Sense of Belonging to the Local Community

To measure sense of community belonging, respondents to the Canadian Community Health Survey (CCHS, 2009-10) were asked: How would you describe your sense of belonging to your local community? Would you say it is: Very strong? Somewhat strong? Somewhat weak? Very weak? Sense of community belonging embodies the social attachment of individuals and reflects social engagement and participation within communities.

The percentage of the Central Health population with a very strong or somewhat strong sense of belonging to a community was 82.6% in 2009-10. This value is slightly lower than the 2007-08 CCHS (83.8%). Among the four health authorities, Central Health ranked below Labrador-Grenfell Health but above Western and Eastern Health. This rate is comparable to the provincial value of 80.3%. In the Green Bay area, the rates of sense of community belonging range from 72.3% in the Halls Bay area, 82.5% in the Pilley's Island area and 93.5% in the King's Point area.

Figure 14: Sense of Community Belonging – 2009/2010 Health Profile – Statistic Canada



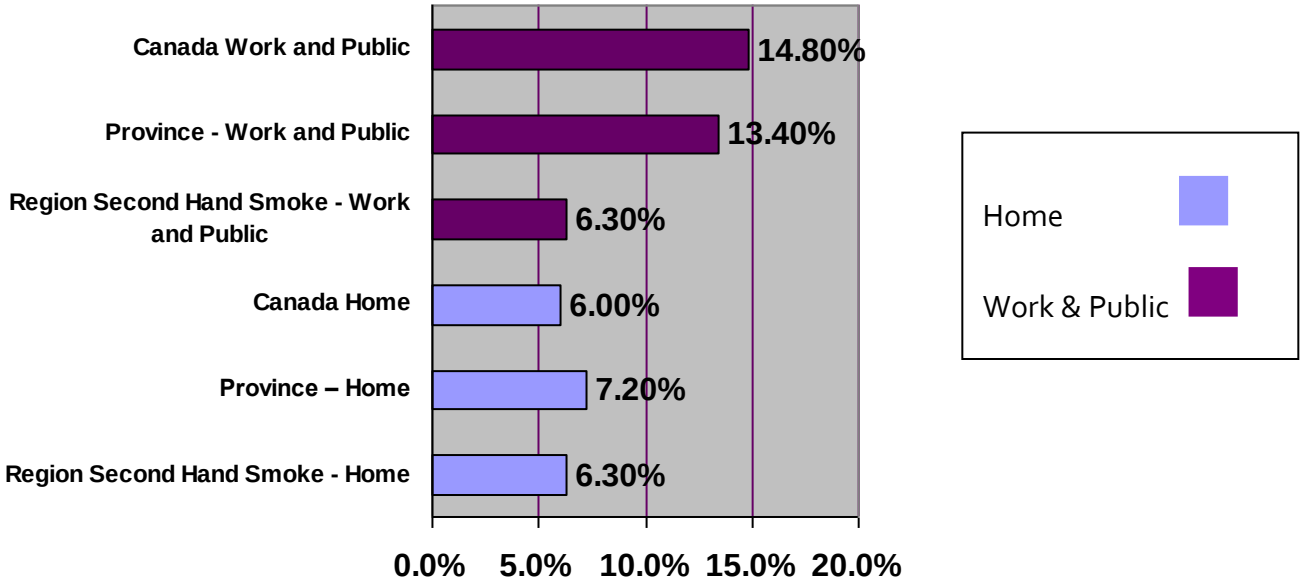
3.5.6 Exposure to Second-Hand Smoke

In the Central Health region, 6.3% of those 12 years of age and older reported being exposed to second hand smoke in their own home, on a daily basis. The provincial rate was 7.2%. In addition, 15.3% reported being exposed to second hand smoke in vehicles and/or public places. The provincial rate was 13.4%. As of July 1, 2011, the Government of Newfoundland and Labrador amended a new law that prohibited smoking in a vehicle when a person under the age of 16 is present. Since a vehicle is a confined space, second hand smoke can reach very high levels.

As of Jan 21, 2009, Central Health became smoke free across all facilities and offices. Second-hand smoke is also known as passive smoke. Second-hand smoke is made up of: side stream smoke that goes directly into the air from a burning cigarette, cigar or pipe, and mainstream smoke that is inhaled by the smoker first, and then exhaled into the air.

Second-hand smoke contains the same 4000 chemicals that a smoker inhales through a cigarette and according to the US Surgeon General there is no safe level of exposure to second-hand smoke (NL Alliance for Control of Tobacco, 2013)

Figure 15: Comparison of Exposure to Second Hand Smoke



3.5.7 Section Highlights

Water issue is a concern for many communities in Newfoundland and Labrador including Green Bay. Throughout the year, 5-6 communities may be on a boil order at the same time despite the fact that they do not share the same water supply. Roads are maintained through joint partnerships between government and the municipalities. The ferry system remains an issue for the islands of Little Bay Islands and Long Island as a two ferry system has been reduced to a shared one ferry system.
Citizens of communities in Green Bay generally feel safe and also have a great sense of belonging to their communities.

3.6 Personal Health Practices and Coping Skills

Personal health beliefs, practices and coping skills, as well as social environments that enable and support healthy choices and lifestyles, are key influences on health. These influences can assist in: preventing diseases, promoting self-care, fostering the ability to cope with challenges, developing self-reliance, solving problems and making choices that enhance health.

Research indicates that lifestyle factors such as smoking, alcohol misuse, sedentary lifestyle, and obesity are all major contributors to the development of diseases and that, by modifying these lifestyle factors, we can reduce the risk of developing and dying of such diseases (WHO, 2003a).

3.6.1 Smoking

According to the World Health Organization (2003b), smoking is an important and preventable cause of death. Tobacco use is responsible for the majority of cases of lung cancer and contributes to other types of cancer, heart disease and stroke. It is also the number one risk factor for developing Chronic Obstructive Pulmonary Disease (COPD), a chronic respiratory condition.

The CCHS 2011-12 revealed that the rate of smoking among current daily smokers 12 years of age and older in Central Health was approximately 18.8%. The provincial rate was higher at 19.1%. In 2009-10, 76.7% of those 12 years and older reported they did not smoke, which is similar to the provincial rate of 76.7% and lower than Canada at 79.6%. Central Health reported the second lowest percentage of daily smokers and the second highest percentage of non-smokers in comparison to the other regional health authorities. In comparison to the 2005 CCHS, Central Health had a 1.2% decrease in smoking rates among current daily smokers and a 2.2 % increase in non-smokers.

Table 11: Smoking Comparison Among Region, Province and Country, 2011/12

2011/2012	Central Health			Province			Canada		
Health Profile	Total	Male	Female	T	M	F	T	M	F
Current Occasional Smoker	2.5	2.7	2.5	4.1	5.2	3.1	4.8	5.3	4.2
Current Daily Smoker	18.8	21.1	16.5	19.1	21.8	16.5	15.3	17.3	13.3

Source: Canadian Community Health Survey, Statistics Canada, 2011/2012.
CANSIM table no.: 105-0502

The prevalence of smoking among the Canadian population 15 years and older was 25% in 2001 (about 6.1 million smokers) when the Federal Tobacco Control Strategy (FTCS) was launched. In 2011, the smoking prevalence rate had decreased to 17% (about 4.9 million smokers). While, 14% reported smoking daily, 4% reported smoking occasionally. More males (20%) reported smoking than females (15%). Daily smokers smoked an average of 14.4 cigarettes per day.

Youth Smoking (Aged 15-19 Years)

In 2011, current smoking among youth aged 15 to 19 years was 12% (approximately 256,000 teens). While it is unchanged from the 12% reported in 2010, it is the lowest rate of current smoking recorded for this age group since Health Canada (2011a) first reported smoking prevalence and it is significantly different than the rate reported in 2001 (22%). Six percent (6%) of youth reported smoking daily, and consumed an average of 11.7 cigarettes per day. There was no significant difference in the percentage of male (13%) and female (11%) youth who were current smokers.

According the Youth Smoking Survey 2010/2011 – Newfoundland Profile: 11% of students in Newfoundland schools are current smokers (14% - males and 8% - females) and 23% of youth surveyed had little or no restrictions in place for smoking at home (University of Waterloo, 2011).

Young Adult Smoking (Aged 20-24 Years)

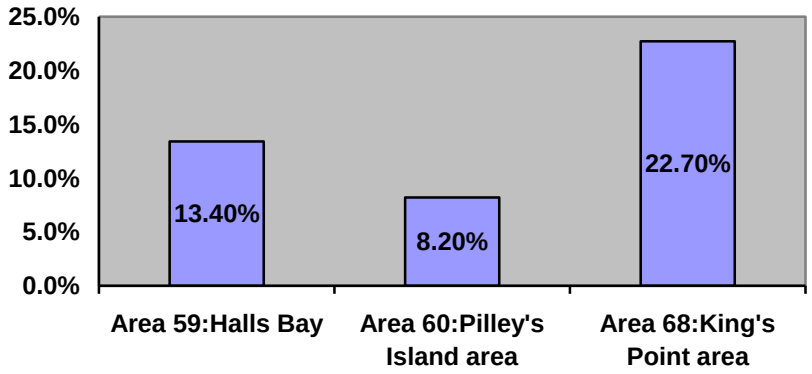
The prevalence of smoking among young adults aged 20 to 24 years was 21% (about 509,000 young adults) in 2011which is statistically unchanged from the 22% reported in 2010 but statistically lower when compared to 2001 (32%). In 2011, the current smoking rate for young adult males was 26%, which is significantly different from the rate for females at 17%.

Adult Smoking (Aged 25 Years and Older)

Seventeen percent (17%) of Canadians aged 25 years and older were current smokers

(about 4.1 million) in 2011, which is significantly lower statistically than the rate in 2001 (21%). In this age group, a higher percentage of males than females were current smokers (20% of males compared with 15% of females). Of those who smoke daily, males consumed an average of 15.5 cigarettes per day, a significantly higher number than for females (13.6) (Health Canada, 2011a).

Figure 16: Percentage of Smokers in Green Bay, 12 years and Older, 2009/10



Source: Compiled by the Community Accounts Unit based on information from the Canadian Community Health Survey (CCHS), 2009-2010, Statistics Canada

Smoking Cessation Support

The Smokers' Helpline is a free, confidential, telephone-based service in Newfoundland and Labrador. The main goal of the service is to assist people in our province to quit smoking and stay smoke free. Individuals who call the Helpline can access over-the-phone support, free self-help materials, group meetings, online support and links to regional support.

Thirty six clients in the Green Bay area utilized the Smokers Helpline between 2010 and August 2013. For the Central Health region, the total for the same time frame is 683 callers (Canadian Cancer Society, 2013).

As stated previously, as of Jan 21, 2009, Central Health became smoke free across all facilities and offices. Central Health supports a smoking cessation program within the region (CTAC-Central Tobacco Awareness Coalition). This coalition works to raise the awareness around smoking issues and actively takes part in smoking prevention and cessation initiatives in the Central Newfoundland region. The Health Promotion Consultant within Central Health is a member of CTAC. The Consultant develops, reviews and implements smoking prevention and cessation initiatives for the region.

Since July 1, 2005, smoking was banned in all workplaces and public places, including bars, bingo halls, bowling alleys and casinos in Newfoundland. Smoking is prohibited on bar and restaurant patios. Designated smoking rooms are permitted only in workplaces that are not open to the public. Since 2011, smoke-free car legislation was passed to protect children from second hand smoke while riding in vehicles.

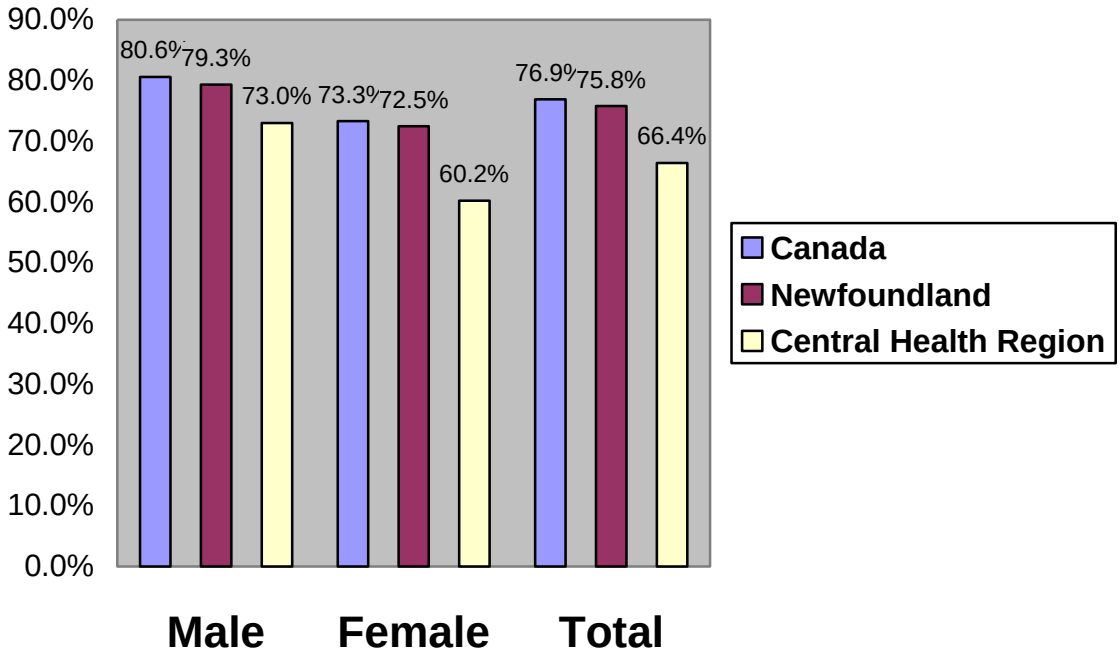
3.6.2 Alcohol Use

Alcohol consumption impacts health; drinking it in excess can contribute to acute conditions and chronic physical, psychological and behavioral problems. According to the Springdale Detachment RCMP in 2009, 15 people were reported as having operated a motor vehicle while impaired by alcohol (all ages).

According to the Canadian Alcohol and Drug Use Monitoring Survey (CADUMS), in 2010, 76.7% of respondents in Newfoundland and Labrador reported consuming alcohol within the last 12 months. Approximately thirty six percent (36.4%) reported to be light infrequent drinkers while 23.0% reported being light frequent drinkers. 8.7% reported being heavy infrequent drinkers and 8.4% reported being heavy frequent drinkers.

For the Central Health region the 2009-10 CCHS revealed that 9.7% aged 12 and over reported heavy drinking (drinking five or more drinks two to three times a month). This rate has decreased by 2% from the 2005 survey and is the lowest among the regional health authorities. Central Health is lower than the provincial rate (10.1%), although is higher than the national rate (6.6%). Overall, men in the Central Health region reported a higher use of alcohol than women in the last 12 months at rates of 73.0% and 60.2% respectively. Provincially, 79.3% of men and 72.5% of women reported drinking in the last 12 months. Approximately thirty nine percent (39.5%) of the population in the Central Health region reported never drinking alcohol in the last 12 months, which is up 5% from the 2005 survey. This rate is highest among the regional health authorities and is higher than the provincial rate of 37.6% but lower than the national rate of 50.8%.

Figure 17: Drank Alcohol in the past 12 months (2009/2010)



Source: Canadian Community Health Survey, Statistics Canada (2010b).
CANSIM table no.: 105-0592

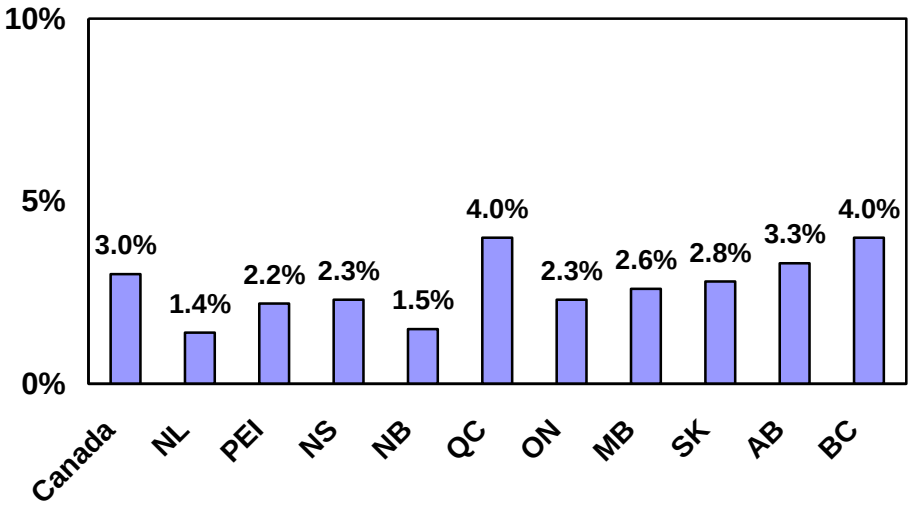
In 2007, a Student Drug Use Survey was conducted in the province of NL that targeted students from grades 7-12. According to this survey, more than half (52%) of the students surveyed reported that they have used alcohol at least once in the past 12 months, a decrease from 58% in 2003. Approximately twenty nine percent (29.7%) of students reported consuming 5 or more drinks on one occasion in the 30 days prior to completing the survey. However, 30% of students reported that they had never used alcohol.

The highest rated problems associated with drinking by NL students included injuring oneself (10.4%), damaging things (9.0%) and tensions with family and friends (8.4%).

3.6.3 Illegal Drug Use

The misuse and abuse of street drugs can impact almost every aspect of the human body. Some of the most common problems associated with drug use include: weakened immune system, cardiovascular conditions ranging from abnormal heart rate to heart attacks, nausea, vomiting and abdominal pain, liver problems, seizures, stroke and widespread brain damage, birth defects, and also behavioral problems such as paranoia, hallucinations, etc. Problems associated with substance abuse not only affect the individual abusing but also families and society as a whole.

Figure 18: Illegal Drug Use by Province (2004) (E.g. Cocaine, Speed, Ecstasy, Hallucinogens or Heroin)

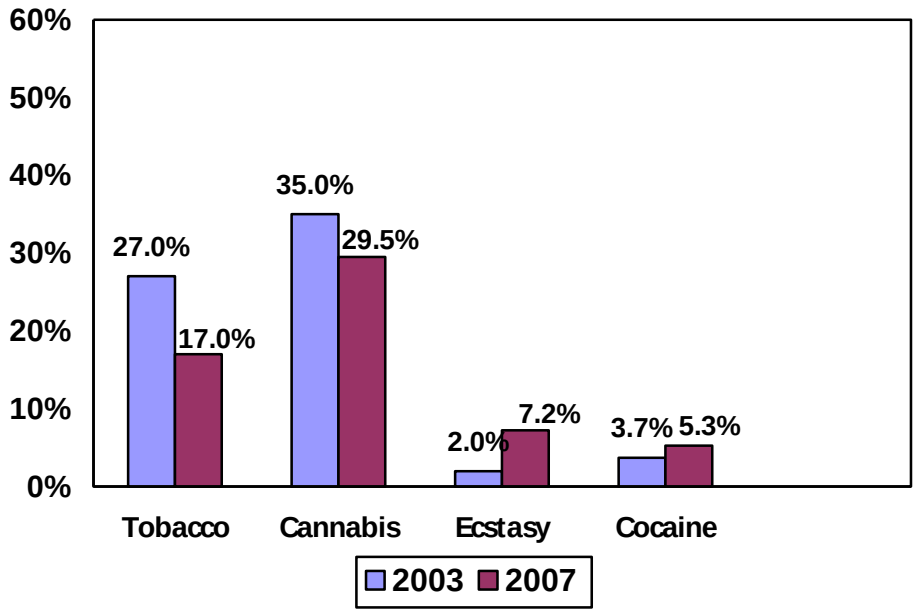


The use of illegal drugs is generally limited to cannabis only. Health Canada (2012) states that prevalence of past-year cannabis use among Canadians aged 15 years and older was 10.2% in 2012, unchanged from 9.1% in 2011, but lower than in 2004 (14.1%). There was an increase in past-year cannabis use among adults aged 25 years and older to 8.4% in 2012 from 6.7% in 2011, and no change from 2011 among youth aged 15 to 24 years.

In 2012, past-year use of the most commonly reported illicit drugs after cannabis was estimated to be about 1% for each (ecstasy (0.6%), hallucinogens including salvia (1.1%) and cocaine or crack (1.1%)). Past-year use of speed, methamphetamine or heroin is not reportable. There were no changes in prevalence of any of these drugs individually, between 2012 and 2011 or between 2012 and 2004.

The overall social cost of substance abuse in Canada in 2002 was estimated to be $39.8 billion which is measured by reviewing healthcare and law enforcement services, and the loss of work or home productivity due to premature death and disability. For various methodological reasons or simply because data were not available, some costs associated with substance abuse were not included. This may include private costs such as the cost to purchase alcohol, tobacco and illegal drugs. Also not included is the cost of pain and suffering associated with substance abuse, or those associated with the abuse and misuse of pharmaceuticals (i.e. prescribed) (Rehm et. al, 2002).

Figure 21: Student Drug Use Newfoundland and Labrador (2003-2007)



The NL Student Drug Use Survey (2007) stated that alcohol, cannabis and tobacco are the three most commonly used substances by Newfoundland and Labrador students. Approximately twenty nine percent (29.5%) of students reported using cannabis at least once in the past year which is down from 35% in 2003. The average age at first use of cannabis was 13.5 years. The prevalence of cocaine use increased from 3.7% in 2003 to 5.3% in 2007, although this increase was not significant. The use of Ecstasy had increased significantly however, from 2% in 2003 to 7.2% in 2007. Approximately five percent (5.1%) of students used methylphenidate (Ritalin) without a prescription at least once in the 12 months before the survey.

3.6.4 Gambling

In 2009, an estimated $495.00 was spent by each Canadian household on at least one gambling activity. Sixty seven percent of the total population surveyed identified that they participated in gambling activities. For the province of NL, $425.00 was spent by each household on at least one gambling activity and 68% of respondents stated that they participate in gambling activities (Statistics Canada, 2009a).

Gambling can lead to many problems for individuals, families and society. These problems include bankruptcy, domestic abuse, family breakup, suicide, assault, fraud and theft. Gambling activities include activities such as lotteries, pull tabs, scratch tickets, betting, slot machines/video lottery terminals (VLTs), raffles, bingo, and casinos. Sixty eight percent of gamblers in Newfoundland and Labrador are regular gamblers (at least once per month) and 44% of gamblers are aged 35 – 54. (Government of NL, 2009).

According to the NL Gambling Prevalence Study (2009), 61% of respondents choose lottery gambling, which is the highest gambling activity; VLTs are among the highest form of gambling as well. The prevalence study states that 72% of problem gamblers have played VLTs over the past 12 months. Problem gambling is defined as "gambling behavior that creates negative consequences for the gambler, others in his or her social network, or for the community" (Ferris & Wynne, 2001). In NL, there are currently 2274 VLT machines, 1 VLT for every 175 adults, and 505 sites (e.g. bars, lounges, nightclubs, etc) which translates into 1 site for every 1008 people living in NL. Despite the popularity of VLTs there has been a reduction of 263 VLTs since 2005. Around the time of the 2005 study, the Government of Newfoundland and Labrador implemented several initiatives to promote responsible gambling, including a five-year VLT reduction strategy and a social marketing campaign focused on problem gambling. It is possible that these initiatives are linked to the decrease in gambling and problem gambling rates found in the 2009 study, though a causal relationship cannot be established

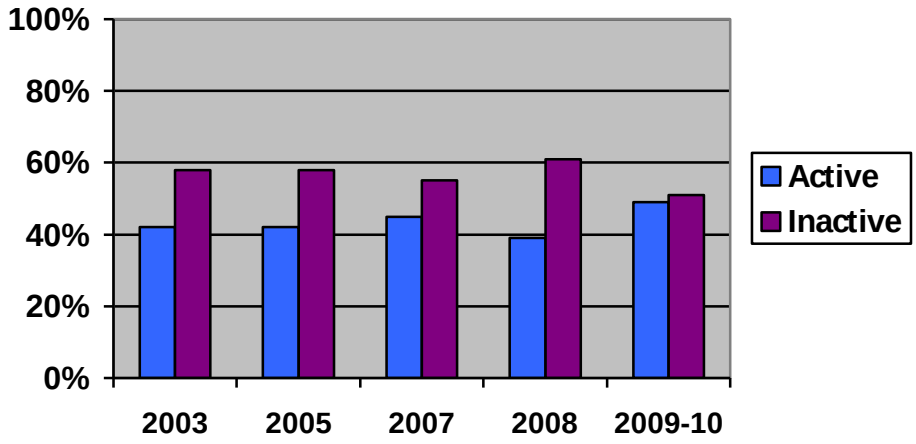
Help is available throughout the province (NL) for gambling addictions. There are services available at each of the Health Authorities (i.e. Mental Health Services) as well as 24 hour hotlines and support groups. Gamblers Anonymous is a fellowship of men and women who share their experience, strength and hope with each other that they may solve their common problem and help others to recover from a gambling problem. For more information contact: http://www.gamblersanonymous.org.

3.6.5 Physical Activity

According to the 2009-10 CCHS, rates of physical inactivity in those aged 12 and over in the Central Health region have been consistently high over the past several years. Physical inactivity has been linked to high rates of chronic disease and obesity.

CCHS survey respondents are categorized as being active, moderately active or inactive based on the total daily energy expenditure. In 2009-10, rates of physical activity in the Central Health region (49%) was higher than the provincial rate (47%). More males (55%) than females (44%) reported moderately active to active physical activity.

Figure 22: Physical Activity Levels for Central Health Region



3.6.6 Mammography

Breast cancer will affect 1 in 9 Canadian women during their lifetime. In 2007, the breast cancer incidence rate per 100,000 population for Central Health was 80.9 (Statistics Canada, 2009b). Early detection provides more treatment options and increases the chance of survival. Early detection methods of breast cancer include a physical examination, mammography and biopsy.

Screening mammography can find breast cancer 2-3 years before it can be felt. According to the Well Women's Clinic at Central Health, all healthy women 30 years of age and older should have a breast examination every year by a health professional. Healthy women 50 years of age and over should be referred for a mammogram every 2 years. It is recommended that women 50 years of age and over with a family history of cancer, or a personal history of ovarian cancer have an annual mammogram. The 2009-10 CCHS revealed that 68% of women in the Central Health region reported they had a mammogram at some point in their lives. This is the lowest rate among the regional health authorities and is lower than the provincial and national rates (70% and 72%, respectively). In Economic Zone 11 these rates are the lowest at 66.3%.

In April 2012 Newfoundland and Labrador broadened their screening program to include women 40-49 years of age into the mammogram screening program.

3.6.7 Cervical Screening

Women in Newfoundland and Labrador have one of the highest cervical cancer rates in the country. A Pap test is recommended as it can detect changes in the cervix that can take many years to develop into cancer. If detected early, cervical cancer is curable. Women who are, or have ever been sexually active are encouraged to see their healthcare provider for screening. In Newfoundland and Labrador (2008) approximately 85,000 women are screened annually and 8,000 of these women will have an abnormal Pap test. Unfortunately, that leaves about 14,000 women who are not being screened (Central Health, 2012a).

The Cervical Screening Initiatives (CSI) Program was implemented in 2003 to decrease mortality and morbidity rates of cervical cancer by promoting Pap screening participation on a regular basis to all eligible women in the Central Health region. Cervical screening recommendations have changed as of 2011. Routine screening initiation begins at age 20 and ceases at age 70. The new recommendations are to have a Pap test once a year for 3 years in a row. If all results are normal then begin having Pap tests every 3 years. These recommendations do not apply to women with abnormal Pap tests.

According to Central Health Cervical Screening Initiative, 72 % of the female population aged 20-69 years of age in the Green Bay area had a pap smear between 2010 and 2012. This is comparable to the Central Health Region of 71% and the province at 72% (Central Health, 2012b).

Figure 23: Cervical Screening Rates: Central Health Region versus Province, 2010

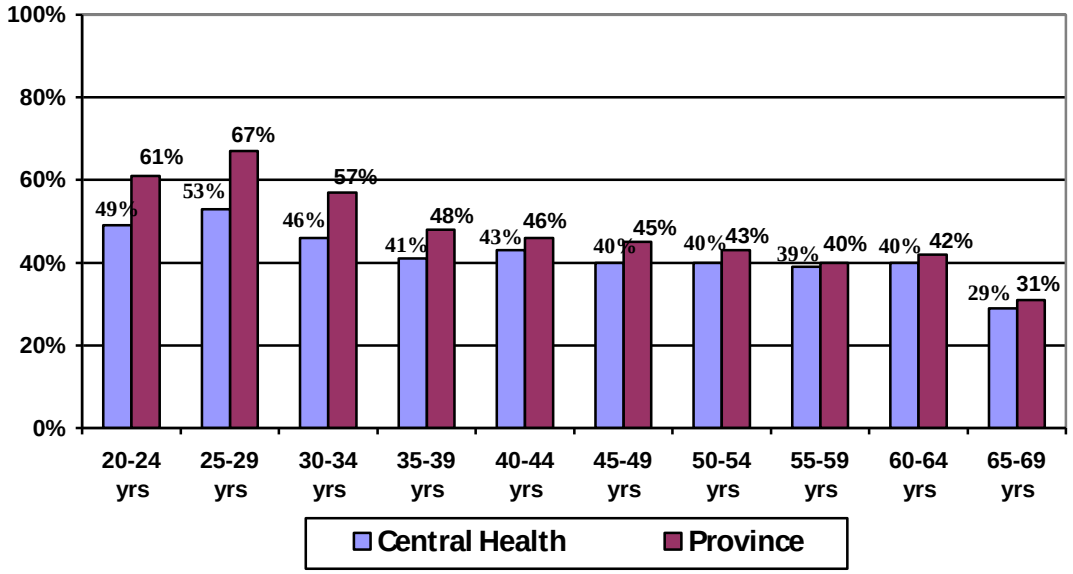
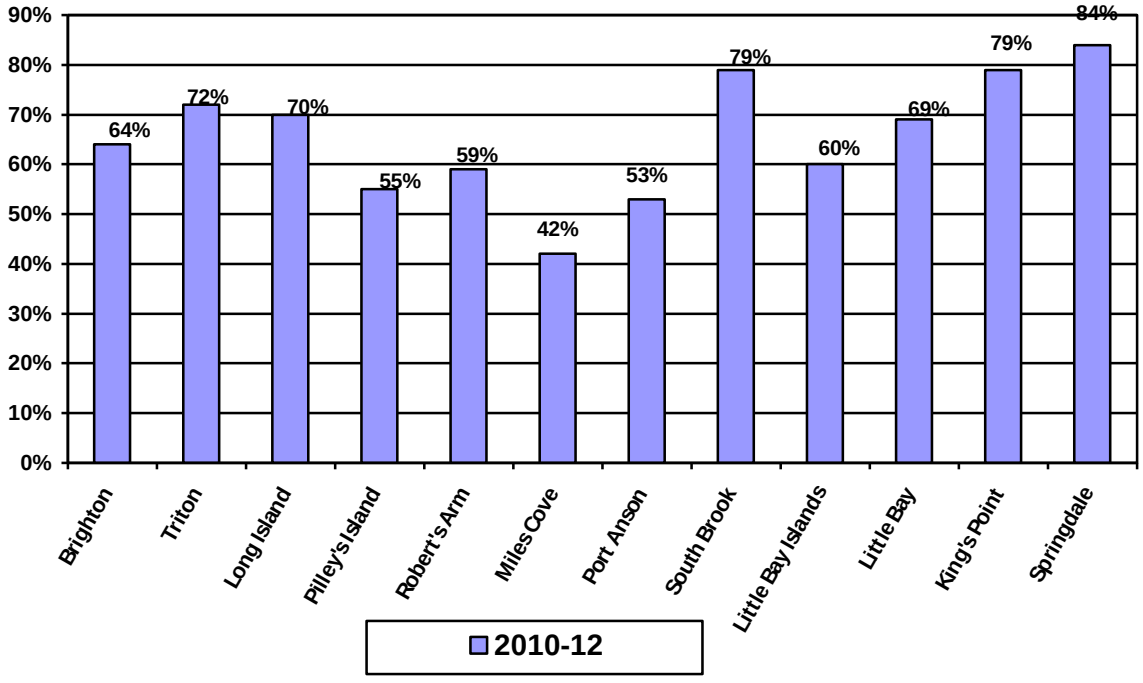


Figure 24: Cervical Screening Rates by Community in Green Bay, 2010-2012



3.6.8 Prostate Screening

For Canadian men, prostate cancer is one of the most commonly diagnosed cancers. Prostate cancer incidence increases almost exponentially with age, most cases are diagnosed in men ages 60 years or older (Canadian Cancer Society, 2013a).

In the 2009-10 CCHS, 57% of men age 35 and over in the Central Health region reported having had a Prostate Specific Antigen (PSA) blood test done at some point in their life. This rate is the second highest among the regional health authorities, which is on par with the current provincial rate (57%) but is higher than the national rate (55%). The rate of PSA screening in Central has also increased by 12% since the 2005 survey. The 2009-10 CCHS also showed that 69% of men age 35 and over had a PSA done within the last 6 months, which is the second highest among the regional health authorities and higher than the provincial (65%) and national (60%) rates.

The 2009-10 CCHS also revealed that 54% of men aged 35 and over in the Central Health region had undergone a Digital Rectal Exam, up from 13% since the 2005 survey. This rate is the second highest among the regional health authorities and is slightly higher than the current provincial and national rate of 52%.

In Zone 11, 54.3% of male respondents of the CCHS had prostate specific antigen test (PSA) completed in 2009-10; for digital rectal exam the rate is 48.2%. This rate for Zone 11 is lower than the province and the Central Health Region rate for both PSA and digital rectal exam.

3.6.9 Colorectal Cancer Screening

The Canadian Cancer Society (2013b) defines colorectal cancer as a disease in which cells in the colon or rectum become abnormal and divide without control, forming a mass called a tumor. Colorectal cancer in Newfoundland and Labrador has one of the highest rates in Canada, which is the second leading cause of cancer related death in both men and women.

Colorectal cancer screening checks for colorectal cancer as part of routine medical care when there are no symptoms present. The Canadian Cancer Society recommends men and women age 50 and over have a stool test (either a fecal occult blood test (FOBT) or fecal immunochemical test (FIT)) at least every 2 years. Stool tests help identify polyps before they become cancerous. Follow-up for a positive test could include a colonoscopy, double contrast barium enema and sigmoidoscopy. Results from the 2009-10 CCHS revealed that 32% of adults aged 35 or older in the region have had a colonoscopy or sigmoidoscopy at some point in their life. This is the highest among the health authorities and is slightly higher than the provincial rate of 31% and the national rate of 30%.

In partnership with Central Health, the NL Colon Cancer Screening Program launched a new screening program in the Central Region in June 2013. The screening program is a population-based screening program that uses an automated immunochemical test

(FIT) to screen for colon cancer and has replaced the previous FOBT program that was being offered in specific areas of the province. The goal of the program is to reduce mortality from bowel cancer among individuals 50-74 years who are at average risk. The contact number for the program is 1-855-614-0144.

3.6.10 Sexual Behavior

The World Health Organization (2012) defines Sexually Transmitted Infections (STI's) as infections that are spread primarily through person-to-person sexual contact. There are more than 30 different sexually transmissible bacteria, viruses and parasites. Each of these may contain hundreds of different strains of the virus or bacteria.

Sexual health is a critical component of well-being in a community and includes age at first intercourse, contraceptive use, sexually transmitted infections (STI's), and pregnancy outcomes. The percentage of Newfoundland and Labrador youth under 24 years that report having engaged in sexual intercourse is notably higher than the national rate. Youth in the region also reported a higher condom use rate than the national average (Canadian Federation for Sexual Health, 2007).

The age at first intercourse is of interest because the younger a person is at first intercourse, the longer they are exposed to the risk of an unintended pregnancy or of contracting an STI.

The 2009-10 CCHS revealed that 12.5% of respondents of the Central Health region said they were under the age of 15 years when they first had intercourse. This rate is the second highest among the regional health authorities and is higher than the provincial (12%) and national (10.3%) rates. These statistics support the need for sexual health education programs within the country.

The CCHS 2009-10 also states that 58.4% of respondents in the Central Health region said they used a condom the last time they had sexual intercourse. Compared to the 2005 CCHS, this rate has increased by 13.3%; it is the second highest rate among the regional health authorities and is higher than the provincial (57.2%) and national (55.8%) rates.

From 2000 to 2012 in the Central Health region, the numbers of Hepatitis B and C cases have both increased while Syphilis and Gonorrhea have both decreased.
The most common form of an STI in the Central Region and for the province is Chlamydia. From 2000 - 2012 there were 946 cases of Chlamydia in the Central Health region and 8078 cases in the province. Sexually transmitted infections for 2012 for the Central Region include Hepatitis C (2 cases), HIV (1 case), Chlamydia (58 cases), Gonorrhea (1 case), Hepatitis B (1 cases), and Syphilis (1 case) (See Table 12).

Table 12: Total Cases of Sexually Transmitted Infections 2000-2012
Central Region vs. Province

Year	Hepatitis C		HIV		Chlamydia		Gonorrhea		Hepatitis B		Syphilis (infections + noninfectious)	
	Central	NL	Central	NL	Central	NL	Central	NL	Central	NL	Central	NL
2000	4	42	0	1	128	555	1	5	0	16	0	0
2001	2	44	0	2	88	592	0	0	0	15	1	1
2002	6	36	0	0	83	519	0	9	2	19	0	0
2003	4	59	0	9	67	606	0	7	0	17	1	1
2004	3	72	0	6	93	789	0	1	0	24	0	0
2005	8	82	0	9	79	631	0	1	3	29	0	2
2006	8	95	0	6	58	551	2	8	1	13	0	0
2007	4	94	0	0	61	511	1	18	6	26	1	3
2008	2	99	0	3	51	597	1	13	2	28	0+0	8+5
2009	3	86	0	6	49	535	1	10	0	24	2+1	3+5
2010	4	60	0	4	75	644	0	12	2	22	0+0	4+10
2011	6	63	0	3	56	688	0	26	4	29	0+0	6+4
2012	2	66	1	8	58	860	1	16	1	14	1+0	9+4

Source: Population and Public Health, Central Health

3.6.11 Immunization

Childhood Immunization Program

In the Central Health region the childhood immunization program is delivered by Public Health Nurses. This program provides immunizations against:

- **DTaP-IPV-Hib**: protects against diphtheria, pertussis, tetanus, polio and haemophilus influenza B
- **Pneu-Conjugate**: protects against13 types of pneumococcal disease
- **Inf**: protects against influenza
- **MMRV**: protects against measles, mumps, rubella and varicella (chickenpox)
- **Men-C-C**: protects against type C meningococcal disease

- **Men-C-ACWY135**: protects against type A, C, Y, W135 meningococcal disease
- **HB**: protects against hepatitis B
- **HPV**: protects from human papilloma virus (cervical cancer)

The schedule for routine immunization for children beginning the series in early infancy is:

- 2 months – DTaP-IPV-Hib and Pneu-Conjugate
- 4 months – DTaP-IPV-Hib and Pneu-Conjugate
- 6 months – DTaP-IPV-Hib
- 6-23 months – Inf (Fall and Winter only)
- 12 months – Pneu-Conjugate, MMRV, Men-C-C
- 18 months – DTaP-IPV-Hib, MMR
- 4-6 years – DTaP-IPV-Hib

As part of the School Health Program the immunization schedule is:

- Grade 4 – Men-C-ACYW135
- Grade 6 – Hepatitis B and HPV (females only)
- Grade 9 – Tdap

Routine vaccination programs for Meningococcal C, Pneumococcal disease and Varicella were initiated in 2005 and routine immunizations for HPV were initiated in 2007.

The following table reflects the rates of immunization for the Central Health region for babies born in 2010. It should be noted that these rates reflect the number of children who have received the required number of doses for each vaccine at each age group.

Table 13: Immunization Status at Age Two for the Central Health Region

# 2010 births 729	**DTaP-IPV-Hib** 4 doses	**Pneumococcal** 4 doses	**MMR** 2 doses	**Varicella** 1 dose	**Men-C** 1 dose
Rate of vaccination	99.3%	98.2%	98.7%	98.7%	99.3%

School immunization programs are very effective within the Central Health region as can be seen from the table below.

Table 14: Immunization Status for Kindergarten, Grades 4, 6 and 9 for the Central Health Region

	Kindergarten (DTaP-IPV-Hib)	**Grade 4 (Men-C-ACYW135)**	**Grade 6 (Hepatitis B)**	**Grade 6 (HPV)**	**Grade 9 (Tdap)**
# eligible	859	877	852	410	988
*2012-13 series completion rate	96.7%	98.06%	95.8%	91.9%	95.95%

***** Some vaccinations require 2, 3 or 4 doses to complete the series

Influenza/Immunization Program

A respiratory illness which affects millions of Canadians each year is commonly referred to as the flu or influenza. "In Canada, flu season usually runs from November to April and an estimated 10 - 25% of Canadians may get the flu each year. Although most of these people recover completely, an estimated 4000 - 8000 Canadians, mostly seniors, die every year from pneumonia related to the flu and many others may die from other serious complications of flu" (Health Canada, 2006). In 2012-13, there were 704 laboratory confirmed cases of Influenza A and 19 cases of Influenza B, the majority of these being in the age group of 65+. Of the 704 cases of Influenza A, 160 were found in the Central Health region. Two of the 19 Influenza B cases were found in Central Health region. This is significant as there were only 71 cases of influenza the previous season (2011-12). The influenza season started in December within the Central Health region with 96% of influenza cases reported in the months of December through to February.

Influenza vaccination is an important step in maintaining the health of the population. The provincial government provides the influenza vaccine for all individuals who are 6-23 months old, pregnant women, aboriginals, residents of long term care centres or personal care homes, individuals who are 60 and older, and adults under the age of 60 with chronic illness in the at risk population. Influenza vaccines are also provided free of charge for all healthcare professionals and other populations deemed as essential workers or caregivers, including household contacts of any person considered at risk.

According to the 2009-10 CCHS, 66.6% of respondents age 12 and over from the Central Health region indicated they were immunized with the influenza vaccination within the last year. This number has increased from 65.4% since the 2007-08 survey. The proportion for the province during the same time period (2009-10) was 60.2%.

According to the Central Health Influenza Report 2012-2013 there were a total of 20,620 influenza vaccines administered by Public Health Nurses/Continuing Care Nurse Coordinators (PHNs/CCNCs), Occupational Health Nurses/Registered Nurses and Physicians/Nurse Practitioners in the Central Health region. Below is a break down of administrated vaccines.

PHNs and CCNCs administered a total of 12, 376 doses of influenza vaccine to individuals who met the high risk criteria as recommended by the Department of Health and Community Services (DOHCS). In addition, 672 doses of pneumococcal polysaccharide 23 vaccines (Pneu-P-23) were also administered to eligible individuals. In 2011-2012, 10,796 doses of influenza vaccine and 381 doses of Pneu-P-23 were administered.

Table 15: Influenza Vaccine Administered by Public Health Nurses (PHN) and Continuing Care Nurse Coordinators (CCNC)

Year	6–59 months	≥ 60 years	Chronic Illness	Essential Workers	Household Contacts	Pregnant Women	Aboriginal Persons	Poultry/ Swine Workers	Residential Care
2007-08	697†	3169♦	1906	1392	*	*	*	*	*
2008-09	633†	3433♦	2259	1412	222	13	*	*	*
2009-10	327†	3893♦	2151	184	36	11	*	*	*
2010-11	614	4416♦	2947	794	1191	26	401	*	*
2011-12	324†¥	6011	2117	729	1228	21	366	0	*
2012-13	548¤	6514	2138	623	1876	22	227	2	426

* Not included in eligible criteria
† 6 – 23 months of age
♦ ≥ 65 years of age
¥ 1st dose=211; 2nd dose=113
¤ 1st dose=349; 2nd dose=199

Physicians and NPs administered a total of 6, 584 doses of influenza vaccine to individuals who met the high risk criteria as recommended by the DOHCS. This number reflects a decrease in the number of doses of influenza vaccine administered by these practitioners. In 2011-2012, physicians and NPs reported immunizing 6,613 high risk individuals.

Table 16: Influenza Vaccine Administered by Physicians and Nurse Practitioners (NP)

Year	6–59 months	≥ 60 yrs	Chronic Illness	Essential Workers	Household Contacts	Pregnant Women	Aboriginal Persons	Poultry/ Swine Workers	Residential Care
2007-08	48†	5214♦	2699	369	*	*	*	*	*
2008-09	75†	3300♦	1958	371	122	5	*	*	*
2009-10	6†	3338♦	2512	120	189	0	*	*	*
2010-11	70	4113♦	2696	393	278	22	14	*	*
2011-12	36†¥	4095	1837	246	385	8	6	0	*
2012-13	45¤	3954	1972	291	292	26	2	2	0

* Not included in eligible criteria
† 6-23 months of age
♦ ≥ 65 years of age
¥ 1st dose=33; 2nd dose=3
¤ 1st dose=39; 2nd dose=6

This season reflected an increase in the number of Central Health employees immunized against seasonal influenza. Last season 1,660 doses were administered to staff with an increase to 1,695 doses this season. Approximately 58% of Central Health employees were immunized against seasonal influenza.

Table 17: Influenza Vaccine Administered by Occupational Health Nurses (OHN), Registered Nurses (RN) and Infection Control Practitioners (ICP)

Year	Staff Health	Acute Care	LTC Residents	Other
2007-08	1644	301	463	0
2008-09	1714	280	566	61
2009-10	1211	161	472	0
2010-11	1731	102	468	75
2011-12	1660	112	457	31
2012-13	1695	184	450	89

3.6.12 Oral Hygiene

According to the CCHS (2010) 43.3% of the Central Health region's population visited the dentist within the last year. This is below the provincial average of 54.1%.

The provincial government funded children's dental program covers the following dental services for all children, up to and including age twelve:

- examinations at six-month intervals
- cleanings at 12-month intervals
- fluoride applications for children ages 6 to 12 at 12-month intervals (except where the School Rinse Program is in place)
- some x-rays
- routine fillings and extractions
- sealants

Coverage also includes 13 to 17 year olds living in families with low incomes. Families with an annual net income of $30,000 or less, but who are not in receipt of income support, qualify for this coverage as well. Services include:

- examinations every 24 months
- some x-rays
- routine fillings and extractions
- emergency examinations when a patient has pain, an infection or experience trauma.

Adult recipients of income support are eligible for emergency examination as a result of pain, infection, trauma, and extractions only.

There is also a government funded Adult Dental Program. This program is limited to clients enrolled under the Foundation Plan, Access Plan and the 65 Plus Plan of the Newfoundland and Labrador Prescription Drug Program (NLPDP). This program does not provide any preventive services such as cleanings and/or fluorides. Eligible services include an examination and two x-rays every three years, routine fillings on a three year

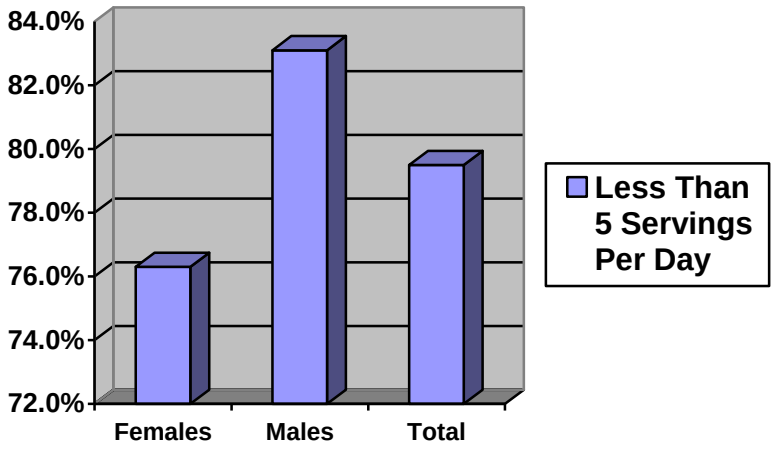
cycle, extractions, and standard dentures once every eight years. Proof of eligibility is required.

3.6.13 Fruit and Vegetable Consumption

Healthy eating is an important indicator of health. According to Health Canada (2011b), by following the recommendations in Canada's Food Guide, you will get the vitamins, minerals and nutrients you need. You may also reduce your risk of obesity, diabetes, heart disease, certain types of cancer and osteoporosis as well as contribute to your overall health and vitality.

According to the 2009-10 CCHS, only 20.2% of respondents from the Central Health region indicated they consumed fruits and vegetables 5 or more times per day. This rate has decreased since the 2007 survey (29.2%). Central Health is the lowest among the regional health authorities, the province (29%) and the country (44.2%) to consume the recommended number of servings of fruits and vegetables. The trend is that fruit and vegetable consumption is higher among females than males among the regional health authorities, the province and the country. In Economic Zone 11, 20.5% of the total number of respondents consumed more than 5 servings of fruits and vegetables per day.

Figure 25: Economic Zone 11 Fruit and Vegetable Consumption



3.6.14 Section Highlights

In regard to personal health practices and coping skills, there have been improvements noted for some factors while others have become progressively worse. Smoking rates have remained relatively the same in the last few years despite increased promotion of smoking cessation and prevention programs. Overall Green Bay fairs better than the province in this area. Illegal drug use appears to be decreasing for the milder drugs but increasing for the drugs that are labeled "hard core" (e.g. ecstasy, cocaine).

Screening rates for the Green Bay area have been increasing but improvements are still

needed for promotion and awareness of the screening programs. Many rates are on par with the Central Health region and the province (cervical screening, mammography, and colorectal screening) but prostate screening was lower.

Immunization programs for children are extremely successful for the Green Bay area for child health clinic and school health. Annual influenza and pneumococcal programs are well received but are limited to specific population groups at the current time.

Fruit and vegetable consumption is an area that needs much improvement, not only for Green Bay but for the Central Health region and the province as a whole. The risk of chronic health diseases is greater for those who do not consume a healthy diet, with fruit and vegetable consumption being a key factor in this effort.

4. Health Services

4.1 Provider Profile

4.1.1 Primary Health Care Provider Profile

The provision and delivery of health services designed to maintain and promote health, prevent disease and restore health and function, all contribute to population health. The citizens of Green Bay receive primary health care services from health professionals of Central Health as well as private practice providers. A profile of providers employed by Central Health at the Green Bay Health Centre and area are listed in Table 18.

Table 18: Primary Health Care Providers, Green Bay Health Centre and Area

PHC Provider	# FTEs	Collective Agreement	Age Range A= <36 B= 36-45 C= >45	Years of Service A= 0-10yrs B= 11-20yrs C= 20yrs
Director, Health Services	1	Management Hay Plan	B – 1	B – 1
Client Care Services Manager	2	Management Hay Plan	B – 1 C – 1	B – 1 C – 1
PHC Facilitator	1	NAPE HP	C – 1	A - 1
Care Facilitator (RN)	1	NLNU	C – 1	C – 1
Clinical Nurse Educator (RN)	1	NLNU	C – 1	C – 1
Registered Nurses (Acute, Long Term Care, Outpatients, Emergency)	15 FTE 4 Casual	NLNU	A – 1 B – 5 C – 13	A – 4 C – 13 B – 2
Licensed Practical Nurses (Acute, Long Term Care)	38 FTE 2 Casual	NAPE HS	A – 14 B – 8 C – 18	A – 21 B – 8 C – 11

Personal Care Attendant	8 FTE 13 Casual	NAPE HS	A – 4 B – 11 C – 6	A – 14 B – 1 C – 6
Primary Care Paramedics	6 FTE 1 Casual	NAPE HS	A – 3 B – 3 C – 1	A – 5 B – 1 C – 1
Nurse Practitioner	1	NLNU	B – 1	B – 1
Social Worker II, LTC	1	NAPE HP	C – 1	C – 1
Social Worker III, Mental Health	1	NAPE HP	A – 1	A – 1
Social Worker, Community Supports	1.5	NAPE HP	C – 2	C – 2
Physiotherapist	0.5	NAPE HP	A – 1	A – 1
Physiotherapy Aid	1.5	NAPE HS	A – 1 C – 1	B – 1 C – 1
Recreation Specialist II	Vacant	NAPE HS		
Recreation Therapy Worker	2	NAPE HS	A – 1 B – 1	A – 1 B – 1
Laboratory Technologist II	1	NAPE LX	A – 1	A – 1
Laboratory Technician I	1 FTE 2 part time	NAPE LX	B – 1 C – 2	A – 1 C – 2
Medical Lab Assistant	1 part time	NAPE LX	B – 1	A – 1
X-Ray Technologist II	1	NAPE LX	C – 1	C – 1
X-Ray Technologist I	1	NAPE LX	B – 1	A – 1
Clinical Dietitian II	1 (0.7 FTE)	NAPE HP	A – 1	A – 1
Public Health Nurse	2 - Springdale 1- Robert's Arm	NLNU	B – 1 C – 2	B – 1 C – 2
Public Health Nurse, Community Development	1	NLNU	B – 1	A – 1
Continuing Care Nurse Coordinator	Springdale: 1 (0.8 FTE) 1 (0.2FTE) Robert's Arm: 1 (0.6 FTE) 1 (0.4 FTE)	NLNU	A – 1 C – 3	A – 1 B – 1 C – 2
Child Management Specialist	1	NAPE HP	C – 1	C – 1
Behavior Management Specialist	1	NAPE HP	A – 1	A – 1
Mental Health Case Manager (RN)	1	NLNU	C – 1	C – 1
Social Worker, Addictions Counselor	1	NAPE HP	A – 1	A – 1

4.1.2 General Practitioner Profile

The target for the Green Bay area population is five Full Time Equivalent (FTE) General Practitioners (GPs). Currently there are four physicians at the Medical Clinic in Springdale. All physicians work in private practice and are fee-for-service. In addition to offering a family practice service, three physicians perform on call duties on a rotational basis. Physicians receive all benefits in accordance with the Memorandum of Understanding, May 2000. All physicians have admitting privileges to treat any acute or chronic condition they feel can be treated at the local health centre. They are responsible for the day-to-day care of any patients they admit. Unstable patients are referred to the appropriate secondary/tertiary centre.

Two physicians provide medical care for Long-Term Care residents living in the Valley Vista Senior Citizens Home. Currently two physicians from this practice provide service 2 days per week to the Triton Clinic and two physicians provide service 2 days per week to the Robert's Arm Clinic. Physicians also teach and supervise medical students.

Locum coverage is provided for vacation leave, education leave, etc. There is a local senior staff physician who is paid an annual stipend to assume the role of Senior Medical Officer. The Regional VP - Medical Affairs is available on a consulting basis and attends Medical Advisory Meetings on-site approximately twice per year.

There is a positive relationship between the physicians and other health professionals including a nurse practitioner, community nurses and others. While recruitment and retention of physicians continues to be a challenge, this PHC area is fortunate to have stability in physician leadership.

The nurse practitioner and physicians are currently running parallel practices and there continues to be room for improvement in collaboration, particularly in areas of communication and education around roles and scopes of practice. The nurse practitioner also collaborates closely with the clinical dietitian to offer diabetes education clinics and other chronic disease management services.

The three Public Health Nurses collaborate with the physicians especially in the effort to offer regular Well Women's Clinics, including pap tests and clinical breast exams.

4.2 Service Profile

Central Health provides primary care services from the Green Bay Health Centre and the Valley Vista Senior Citizen Home in Springdale. These services include:

- Long Term Care – 78 beds (Level III Residents)
- Residential Unit – 2 beds
- Long Term Palliative Care – 1 bed
- Respite Care – 2

- Acute Care – 9 (includes acute, alternate level of care and palliative)
- Special Care – 1
- Emergency Care 24 hours/day, 7 days/week
- Physician/ Nurse Practitioner Clinics
- Chemotherapy
- Pre-Assessment Clinic (PAC - for surgeries) – means clients do not have to travel to Grand Falls-Windsor for this service
- Physiotherapy
- Recreation Therapy
- Ambulance Services
- Dietetic Services
- Hyperlipidemia Clinic
- Diabetes Clinic - Springdale and Green Bay South
- Influenza Vaccination for all Long Term Care residents and staff
- Meals-on-Wheels
- Social Work Services
- Diagnostic Services (Lab, X-Ray) – Pictures Arching & Communication System (PACS) in the X-Ray Department
- Telehealth Technology

Community health services are currently housed in two separate locations in Springdale. Two Continuing Care Nurse Coordinators and a Community Supports Social Worker work from the Green Bay Health Centre. The remaining community health staff are located at the College Group Building and the staff include: three Public Health Nurses, one Behavior Management Specialist, one Child Management Specialist and the Mental Health Team including an Addictions Counselor, a Mental Health Case Manager, a Youth Outreach Worker, and a Mental Health Social Worker. One Public Health Nurse and two Continuing Care Nurse Coordinators work from the Robert's Arm office. Specific program areas covered by community-based staff include:

Health Promotion

Health promotion services are delivered primarily by Public Health Nurses in the Green Bay area and programs aim to enable people to increase control over and improve their health, through healthy choices and supportive environments. These programs include Early Childhood Education: Healthy Beginnings, BURPS (Babies Growth and Development, Understanding Role Changes, Resources, Parenting, Support); Child Health Clinics; Preschool Health Checks; Lifestyle Clinics; Well Women's Clinics; and School Health.

Other programs are also available for nutrition, reproductive health, environmental health, communicable disease, dental hygiene and other health promotion areas. In this area, it is emphasized that all providers have a role in health promotion. Although health promotion efforts are difficult to evaluate in terms of having an impact on health outcomes, providing skills and knowledge can promote healthy development of children and families.

Community Support Services

Community support services include a mix of health, social, and support services to maintain and where possible, to improve the quality of life of individuals. Services include assessment and placement; nursing services; social work services; home supports and coordination; delegation of function to support alternate care givers; personal care home licensing and monitoring; alternate family care home approvals and monitoring; individual living arrangements; palliative care; respite care; and community behavioral services program. Pending financial eligibility and other criteria, these services are available to seniors and individuals with physical and /or developmental disabilities.
Other services may include financial support for supplies and equipment; drug card and medical transportation; limited assistance program for support of persons dealing with chronic health conditions; investigations of allegations of neglect and administration of the Neglected Adults Act; and temporary home support following hospital discharge, including drugs, equipment, supplies, and palliative care which includes the End of Life support program.

Supportive Services – home care, alternate family care and respite care for primary caregivers have made it possible for many clients/seniors to stay at home, supported in their own communities. While home support services are invaluable, the maximum number of hours provided under existing guidelines is up to 7 hours/day, with family members carrying the remaining burden of care giving, therefore the potential for caregiver stress and burnout is high. The utilization rate for respite care beds indicate there is potential to enhance this service, possibly through more awareness of the service, improved coordination of assessment, and planning for clients in the community requiring complex care.

Alternate Family Care Homes (AFCH) - AFCH is a private, approved family residence that provides board and lodging, supervision, personal care and social supports to unrelated adults, 65 years and under, with developmental disabilities. This provides a residential option for adults with developmental disabilities who cannot live independently due to developmental or behavioral difficulties. An AFCH can provide long term care or short term respite to families. There is one licensed AFCH in the Green Bay area.

Personal Care/Long Term Care/Respite Care – When supportive services are no longer able to meet the needs of clients at home, personal care homes and long term care services may be utilized, both of which are available in the Green Bay area. There is one long term care facility, the Valley Vista Seniors Home, which is located in this health services area and is a part of the Green Bay Health Centre. This can accommodate Level III nursing care residents. There are two Personal Care Homes in the Green Bay area, the Springdale Retirement Centre and Robert's Arm Senior's Manor which can accommodate Level I and II residents.

Special Child Welfare Allowance (SCWA) – SCWA programs offers services to children 0-18 years with disabilities. If eligible, the child may qualify for

transportation, respite hours and drug cards.

Family Rehabilitative Services - a range of community-based support services to individuals with a physical and /or developmental disability including social work counseling, community residential alternatives and respite care; special child welfare allowance; administration of the Neglected Adults Act; direct home services; and community behavioral services program.

Mental Health and Addictions Services

Provides mainly outpatient based counseling services to individuals, families and groups with mental health/illness issues, substance use, and/or gambling issues. Health promotion, education, prevention and early intervention services is also available to individuals, families and communities. Specialized services within Mental Health and Addictions Services includes *Case Management Program* which is available to individuals 18 years of age and older with severe and persistent mental illness; *Regional Early Psychosis Case Management Program* which is available to individuals with first episode of psychosis and; *Inpatient Psychiatric Treatment*, in which individuals are admitted via psychiatrist to Central Newfoundland Regional Health Centre (CNRHC) located in Grand Falls-Windsor.

In the Green Bay PHC area, Central Health offers the following Mental Health and Addictions Services Program:

Community Mental Health & Addictions Services **-** Offers outpatient based counseling services to individuals, families and groups experiencing mental health issues such as mental illness, substance use and/or gambling issues. All referrals are screened daily and processed based on client needs. Referrals are accepted by various service providers both internal and external to Central Health. Self referrals are encouraged and accepted. Providers include the Addictions Counselor and Mental Health Social Worker. They are responsible for the delivery of mental health and addictions services in the Green Bay and White Bay areas. Staff travel to Baie Verte one day a week to provide services to individuals living in the White Bay area.

Early Intervention and Outreach Program **-** Offers community based services targeted towards youth ages 10 – 15 years within the Green Bay area. Services focus on prevention and early intervention for youth and families with mental health and addictions issues. The early outreach youth worker is located in Springdale.

Case Management Program **-** Offers home based services to individuals with severe and persistent mental illness living in the Green Bay area. This home based program works closely with families/caregivers and collaborative providers. Referrals are accepted by existing mental health and addictions provider and/or the client's psychiatrist. The Case Manager is located in Springdale.

There is a provincial mental health crisis line that is accessible through a toll free number, 24 hours/day for all mental health services.

Behavior Management Specialists (BMS)

BMS' offer a unique, proactive service that is free, home-based, and voluntary. The Community Behavioural Services Program (CBSP) provides support to people school aged or older with intellectual disabilities and Behavioural difficulties at home and in the community. BMS' include the individual and caregivers in the development of Behavioural Programs, focusing on why the Behaviour occurs. BMS', through the CBSP, use positive programming techniques. Individuals can be referred to the program by a doctor or other service provider, such as a nurse, social worker, or Occupational Therapist. Caregivers can also self-refer.

Child Management Specialists (CMS)

CMS help children who have, or are at risk of having, a developmental delay or disability. They look at all areas of a child's development, from academics, communication and physical development, to self-help skills and social and emotional skills pertaining to play and behavior. This is a direct home service program working with children with autism, as well as children with Down syndrome, cerebral palsy, multiple sclerosis, fetal alcohol spectrum disorder or with general developmental delays. Children with autism are seen from birth up to Grade 3, while care of other children ends once they enter kindergarten. Children can be referred to the program by a doctor or other service provider, such as a nurse, physiotherapist or occupational therapist. Parents can also self-refer.

4.3 Regional Services

Mental Health Services

Regional Early Psychosis Case Management Program **-** Offers services to individuals aged 16-45 years who are experiencing symptoms of psychosis for the first time or are in their first 6 months of treatment. This is a home based program that works closely with families/caregivers and collaborative providers. Referrals are accepted by psychiatrist only. The Early Psychosis Case Management Program is a regional program that is available to individuals living in any community within the Central Health area. The Early Psychosis Case Manager is located in Grand Falls-Windsor.

Inpatient Psychiatric Treatment (CNRHC – 2E Unit) **-** Offers hospital based services for individuals requiring a higher level of mental healthcare. Admission occurs following an assessment and referral by psychiatry. An interdisciplinary team comprised of pharmacy, dietitian, recreational therapy, social work, psychology, occupational therapy and psychiatry, acts as the care team for each patient. This

unit is the regional facility for individuals detained for certification under the Mental Health Care and Treatment Act.

Other Services

In addition to those services which are provided locally, there is a network of professionals who provide clinical or consultative services on a regional basis. These include Health Promotion Consultant, Reproductive Health Nurse, Communicable Disease Control Nurse, Cervical Screening Initiatives Coordinator, Nutritionist, Environmental Health Services Coordinator, Genetics Counselor, Lactation Consultant, Occupational Therapist, Parent and Child Health Coordinator, Wound Care Consultant, Financial Assessors, Child Care Services Consultant, Family Child Care Home Visitor, and the Medical Officer of Health. This is not an exhaustive list as many other Central Health employees may be utilized on a needs basis to provide ongoing consultation and support to staff and communities.

4.4 Non – Central Health Services

Primary health care utilizes a population health approach, which acknowledges that health is influenced by a variety of factors outside the health system, commonly referred to as determinants of health. A population health approach calls for shared responsibility and accountability for health outcomes with multiple sectors whose activities directly or indirectly impact health or the factors known to influence it. A true primary health care model will have many stakeholders to consider in the delivery of primary health care.

Stakeholders and programs in the Green Bay area, excluding primary health care providers previously referenced, can be described in different categories and include but are not limited to:

Health Protection

Health protection programs are designed to assist people to protect themselves from disease and injury. These programs also address the identification, reduction and elimination of hazards and risks which affect the health of the population. Programs include disease control with monitoring, as well as monitoring of public water supplies. An Environmental Health Officer, which falls under a provincial government program, serves the Green Bay area. This program is responsible for food inspection, school inspection, monitoring of public water supplies, public swimming pools, as well as several other programs.

Child, Youth and Family Services (CYFS)

CYFS includes services that focus on promoting the safety, well-being and protection of children and supporting the capacity of families and communities, with preservation of family as a primary goal. Core services include prevention, investigation and treatment of child abuse and neglect; recruitment, training and support of foster parents; promotion of reunification of families, coordinating the adoption process and provision

of support to adoptee and birth parents. The Green Bay area has 5 Child, Youth and Family Services Social Workers. One Social Work Assistant travels from Baie Verte to Springdale 1 day per week to assist the CYFS Social Workers with their workload.

Community Youth Corrections and Youth Services Program – Provides justice services to youth aged 12-18 years who have come in conflict with the law, and voluntary residential and non-residential services for youth 16-17 years of age. Services include a youth justice program for young persons (Green Bay Youth Justice Committee) alleged to have committed a minor offense and community supervision services.

Early Learning and Child Development Division – Responsible for licensing, monitoring and supporting group child care centres and family-based child care and administering a subsidy program for child care fees and transportation. Direct home services are provided to children with developmental delays and support services, including Applied Behavioral Analysis (ABA) therapy, which is provided to children with Autism.

Dental Services

Private dental services operate out of Springdale and serve the population of Green Bay. A Dentist and Dental Hygienist are available 3 days per week. Other dental services are available in Grand Falls-Windsor and Gander.

Pharmacies

There are four pharmacies located in the Green Bay area. There are two in Springdale, one in Robert's Arm and one in Triton.

Foot Care Service

Private foot care nurses are available to people in the area requiring this service. People living with diabetes, sight impairment, circulation problems or mobility limitations, or those taking blood thinning medications, may benefit from this service.

Committees and Associations

- Pastoral Care Committee
- Hospital Auxiliary
- Women's Institute
- Central Regional Wellness Coalition
- Violence Prevention Committee
- Association for Community Living
- Service Clubs (i.e. Kinsmen, Lions, Lioness)
- Green Bay Community Employment Corporation
- Town Councils
- Grand Falls-Windsor, Baie Verte, Harbour Breton Rural Secretariat

- Associations, Councils and Regulatory Bodies representing each provider group
- Unions representing each provider group

Government Agencies

- Department of Justice/RCMP
- Human Resources Skills Development Centre
- Advanced Education & Skills
- Newfoundland & Labrador English School District - Central Region

Primary health care services are also provided by various organizations and individuals in private practice and services. These include audiologist, chiropractor, optometrist, childcare services, Chamber of Commerce, local service districts, community-based ambulances (Triton & Robert's Arm), funeral director and Lifeline.

4.5 Secondary Services

Central Health is responsible for the provision of healthcare services to the population of the Central region. Secondary care services are available from either JPMRH (Gander), or the CNRHC (Grand Falls-Windsor). Services include surgery, internal medicine, ophthalmology, psychiatry/psychology, urology, respiratory technology, obstetrics/gynecology, neurology, dialysis, pediatrics, dermatology, audiology, speech language pathology, otolaryngology, nephrology, and oncology.

4.6 Adjacency to Secondary Services

Some secondary care services are available at the Green Bay Health Centre in Springdale. The majority is available from the Central Regional Health Center in Grand Falls-Windsor with the exception of Orthopedics which is available at the James Paton Memorial Hospital in Gander. Springdale is located 104km from Grand Falls-Windsor; Robert's Arm is located 106km and Triton is located 125km from Grand Falls-Windsor. Springdale is located 200km from Gander; Robert's Arm is located 201km and Triton is located 220km from Gander. In cases of emergency, the majority of clients would first access the Green Bay Health Centre in Springdale for stabilization and then be transferred from there to the appropriate secondary care centre.

Telehealth

Consulting with a specialist or other healthcare provider no longer means a long drive, often overnight, to a distant medical centre for residents of Central Newfoundland. Patients can now 'see' medical specialists in their home communities through two-way video communication using telehealth mobile carts located in 14 clinics throughout the region.

In 2012, patients in the Central NL area participated in 2,945 telehealth appointments with an average of over 245 appointments/month. This average increased to 276

appointments/month as of May 2013 (The Beacon, May 2, 2013). It was noted in 2013 by the provincial telehealth coordinator that there has been an increase in telehealth usage in the province by approximately 16% every year.

The telehealth coordinator for the region also noted an overall increase in telehealth appointments in the Central Health region, which had the 2nd highest number of appointments (next to Eastern Health) for the period of April-July 2013.

Table 19: Total Number of Telehealth Appointments by Regional Health Authority (2013)

Telehealth Appointments	Apr	May	Jun	Jul	Total
Central	274	281	259	281	1095
Eastern	438	423	364	408	1633
Labrador	261	241	215	260	977
Western	215	190	187	174	766
Total	1188	1135	1025	1123	4471

At Green Bay Health Centre there was a slight increase in telehealth appointments in the past year. In 2013-14 there were a total of 149 appointments as compared to 141 appointments in 2012-13. The majority of the telehealth appointments that took place at Green Bay Health Centre were for oncology services. Mental health, bariatric and hematology conditions are other common reasons for utilizing telehealth technology.

4.7 Migration Patterns

Migration patterns refer to where residents go to access primary care. For the Green Bay area, the majority of the population access primary care at the GBHC. A number of residents in the area also access service in nearby health centres in Triton, Robert's Arm or Grand Falls-Windsor.

4.8 Access to Family Physician/PHC Provider

According to the Statistics Canada 2012 Health Profile, 82.2% of the Central Health population aged 12 and over reported having contact with a medical doctor in the past 12 months. For Central Health, 87.4% of the population reported having a regular medical doctor.

4.9 Satisfaction with Health Care

According to the CCHS (2010), 87.9% of individuals aged 15 years and older living in Newfoundland and Labrador reported being satisfied with the way healthcare services were provided. Eighty seven percent were satisfied with the way the hospital services were provided, and 94.3% were satisfied with the way physician care was provided. This was higher than the national average of 86.5%, 81.9%, 90.8% for healthcare services, hospital services, and physician services, respectively.

4.10 Primary Reason for Use of Emergency Department

For a select period (February 2013, May 2013, July 2013 and October 2013) data was collected on the use of the emergency department at GBHC. The biggest reason for use was symptom relief of pain (including chest pain and abdominal pain) (435 visits), followed by musculoskeletal (broken bones, injuries to arms, legs, arthritis) (363 visits), then ENT (sore throat, eye conditions, ear infection) (275 visits) and respiratory (includes asthma, COPD and shortness of breath) (230 visits) (Central Health 2013).

Appropriate use of the emergency department has been a concern in this local area for a long time. Patients who are not in need of urgent or emergency care continue to present to the emergency department after hours for assessment and treatment.

4.11 Section Highlights

In this local area there is a variety of health services that both focus on treatment and prevention. The compliment of physicians has improved for this area and the physicians have established practices to improve access for patients. There has been a number of new positions established in the area as well which has improved our service delivery and our ability to engage in health promotion and community development efforts. Service delivery to those requiring high levels of care has been a challenge. The population is aging and demand for home support and/or facility placement has increased. This is noted as a great concern as many in the local area are awaiting placement in long term care without any beds available in the region. Palliative care has also been noted as a concern with more than one patient at any given time, requiring palliative care within the acute care facility. Resources are lacking to support this need. A need for more local and accessible mental health services has also been noted in this local area, however data is limited. There have also been improvements noted in telehealth advancements to improve access and service delivery in the area.

5. Health Outcomes or Status

Health status is the level of health of the individual, group, or population as self assessed by the individual or by more measurable factors. How individuals feel about their health is usually a reflection of their physical, mental and social well being.

5.1 Self Perception of Health

Within the Central Region, 59.7% of the population aged 12 and over rated their own health status as very good or excellent in 2009-10. According to the Canadian Community Health Survey (CCHS) 2009-10, 60.3% of the population thought that their health was very good or excellent in the province. For Zone 11, the percentage rating their health as very good or excellent has decreased since 2005 (63.9%) to 56.8% in 2009-10.

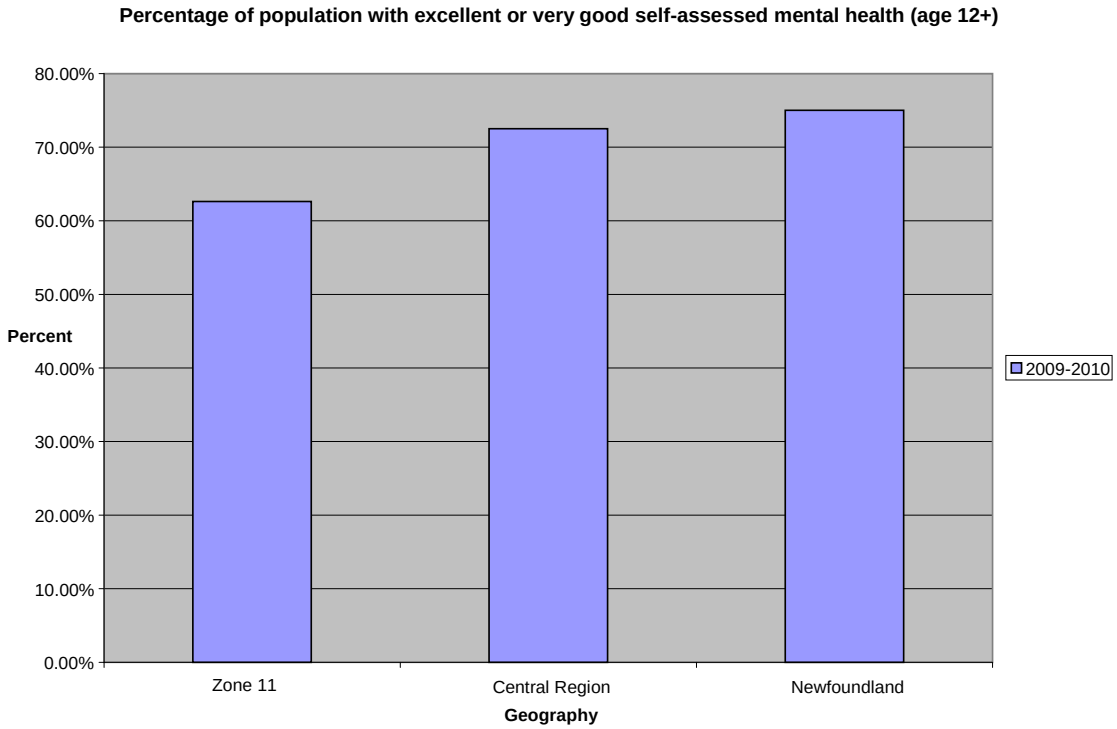
5.2 Self Perception of Mental Health

The World Health Organization (2003) defines mental health as a "state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (p. 7).

Mental health is a crucial dimension of overall health and an essential resource for living. It influences how we feel, perceive, think, communicate, and understand. Without good mental health, people can be unable to fulfill their full potential or play an active part in everyday life. Mental health issues can address many areas from enhancing our emotional well-being, treating and preventing severe mental illness to the prevention of suicide (Health Canada, 2009).

In the Central Health region, 72.5% rated their mental health as very good or excellent (age 12+ years) compared to the provincial rate of 75%. (CCHS, 2009-10). For Zone 11, the rate was 62.4%.

Figure 26: Self Perception of Mental Health



5.3 Life Stress Status

Perceived life stress refers to the amount of stress in the individual's life, on most days and is classified by asking respondents to rank their life stress into one of the five categories: not at all stressful, not very stressful, a bit stressful, quite a bit stressful, or extremely stressful. Stress contributes to heart disease, high blood pressure, strokes, and other illnesses in many individuals. It also contributes to the development of alcoholism, obesity, suicide, drug addiction, cigarette addiction, and other harmful behaviors.

In the Central Health region, 11.6% rated their stress levels as quite a bit stressful. This was on par with the provincial average of 11.7% but lower than Canada at 19.3%. (Canadian Community Health Survey 2009-2010). Data was not available for Green Bay or Zone 11. When surveyed about work stress, 14.8% in the Central Health region reported quite a bit of work stress which is on par with the provincial rate 15.0% but much lower than the Canadian rate of 24.5 %.

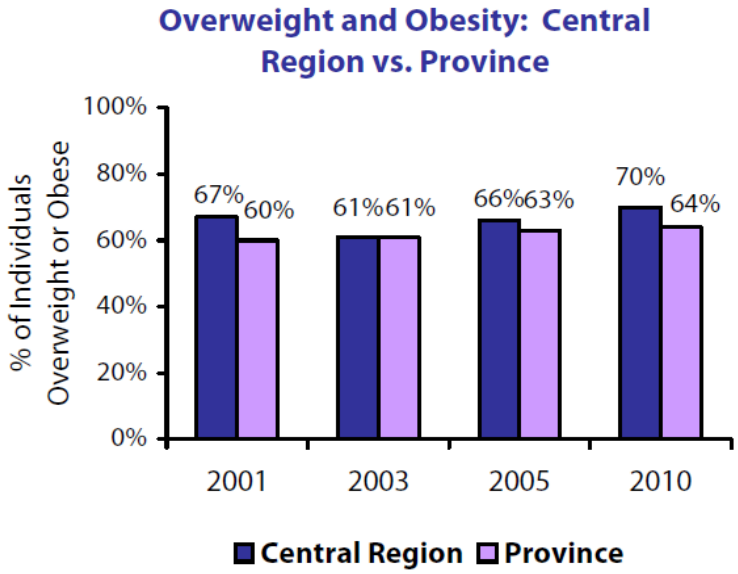
5.4 Overweight/Obesity

Overweight is defined as having a Body Mass Index (BMI) between 25-29.9 kg/m^2 while obesity is defined as having a BMI of 30 kg/m^2 or greater. BMI is calculated by dividing the individual's body weight (kilograms) by their height (meters) squared.

Obesity is a risk factor in a number of chronic diseases. The number of Canadians who are overweight or obese has increased dramatically over the past 30 years. (Health Canada 2006). Rates of overweight and obesity have increased in both the region and

the province.

Figure 27: Overweight and Obesity – Central Region vs Province



Source: Community Accounts

In 2010, approximately 70% of individuals aged 18 and older in the Central Health region reported themselves to be overweight or obese. A trend suggests that this percentage is decreasing with 2012 rates noted to be 67.8%. Reports of obesity and overweight were higher in men at 80.8% than women at 59.6% (Stats Canada, 2009-10). This rate in the Central Health region is the highest among the regional health authorities and higher than the overall provincial rate of 64% (CCHS 2009-10).

Overweight and obesity rates have nearly tripled in Canada over the past 30 yrs in youth ages 12-17 (Stats Canada, 2011-12). Youth BMI is measured differently than adult BMI as youth are considered to be still maturing. According to Statistics Canada, the self reported youth overweight and obesity rate was 35.6% in 2007-08 and was 34.7% in 2011-12 for Newfoundland and Labrador. However, this rate has decreased in the Central Health region from 47.5% in 2007-08 to 32.0% in 2011-12.

5.5 Underweight

Underweight is defined as having a body mass index (BMI) below 18.5. Being underweight can increase your risk of osteoporosis, fertility problems, weaken your immune system, and cause other health problems including mental health issues such as low self-confidence and low self-esteem (Stats Canada, 2011b).

In the Central Health region, 2.8% considered themselves to be underweight (CCHS 2009-10) compared to 3.8% in 2007-08.

5.6 Chronic Disease Rates

A chronic disease is classified as one that has been present for three months or more. 95% of the province's residents aged 65+ and 61% of residents aged 12+ report having at least one chronic condition. Central Health is moving forward in the area of Chronic Disease Prevention and Management (Central Health, 2012b).

Table 20: Self-Reported Chronic Conditions for Central Health, NL and Canada (2009-10)

Self-Reported Chronic Conditions 2009-10			
	Canada	NL	Central Health
Anxiety Disorders	5.2%	5.2%	5.4%
Arthritis	15.7%	23.2%	19.9%
Asthma	8.4%	8.4%	6.5%
Bowel Disorders	4.5%	6.8%	6.8%
Cancer	1.9%	2.1%	1.8%
COPD	4.2%	4.8%	3.8%
Diabetes	6.1%	8.1%	10.0%
Heart Disease	4.8%	6.5%	8.0%
High Blood Pressure	16.9%	22.9%	25.9%
Mood Disorder	6.6%	5.3%	4.5%

Source: Canadian Community Health Survey, Community Accounts, 2009-10

5.6.1 Diabetes

According to the Canadian Diabetes Association, there are three main types of diabetes. **Type 1 diabetes** is usually diagnosed in children and adolescents. Approximately 10 per cent of people with diabetes have Type 1 diabetes. The remaining 90 per cent have **Type 2 diabetes** which usually develops in adulthood, although increasing numbers of children in high-risk populations are being diagnosed.

A third type of diabetes, **gestational diabetes**, is a temporary condition that occurs during pregnancy. It affects approximately 2 to 4 per cent of all pregnancies (in the non-Aboriginal population) and involves an increased risk of developing diabetes for both mother and child.

Scientists believe that lifestyle changes can help prevent or delay the onset of Type 2 diabetes. A healthy meal plan, weight control and physical activity are important prevention steps.

Ten percent of the population in the Central Health region have diabetes (this includes all three types of the disease). This is the highest in Newfoundland and Labrador and higher than Canada overall.

Table 21: Percentage of People with Diabetes for Regional Health Authorities, NL and Canada (2009-10)

Geography	Diabetes
Canada	6.1%
Newfoundland and Labrador	8.1%
Central Health Authority	10.0%
Eastern Health Authority	6.9%
Labrador-Grenfell Health Authority	6.1%
Western Health Authority	8.8%

Source: Canadian Community Health Survey (CCHS), 2009-2010, Statistics Canada.

While the percentage of people with diabetes is the highest in the Central Health region, the rate has seen a decrease from 2007-08 (12%) to the 2009-10 rate of 10%. This is in line with the noticed trend in Canada and the province. The percentage of people diagnosed with diabetes has decreased in the province as well with a reported rate of 7.7% in 2012.

The rate of diagnosis of diabetes increases dramatically with age. Approximately thirteen percent (13.9%) of the population within the Central Health region ages 45-64, and 26.3% of the 65 years of age or older had a diagnosis of diabetes.

The latest data available for Green Bay was for 2007-08 (CCHS) which showed a rate of 14.7% for those aged 12+ having been diagnosed with diabetes.

5.6.2 Cardiovascular Disease

Cardiovascular disease is a term that refers to more than one disease of the circulatory system including the heart and blood vessels. Cardiovascular diseases are the leading cause of death in adult Canadian men and women (Public Health Agency of Canada, 2011).

Heart disease affects 8.0% of people age 12 years and older living in the Central Health region which is an increase since 2008 at 5.6%. This 2011 percentage is higher than that reported in the province (6.5%) and Canada (4.8%) (Community Accounts, 2011). In 2005, 2% of the population of Zone 11, aged 12 and over had been diagnosed with heart disease; in 2009-10 this rate was estimated to be 14.4%.

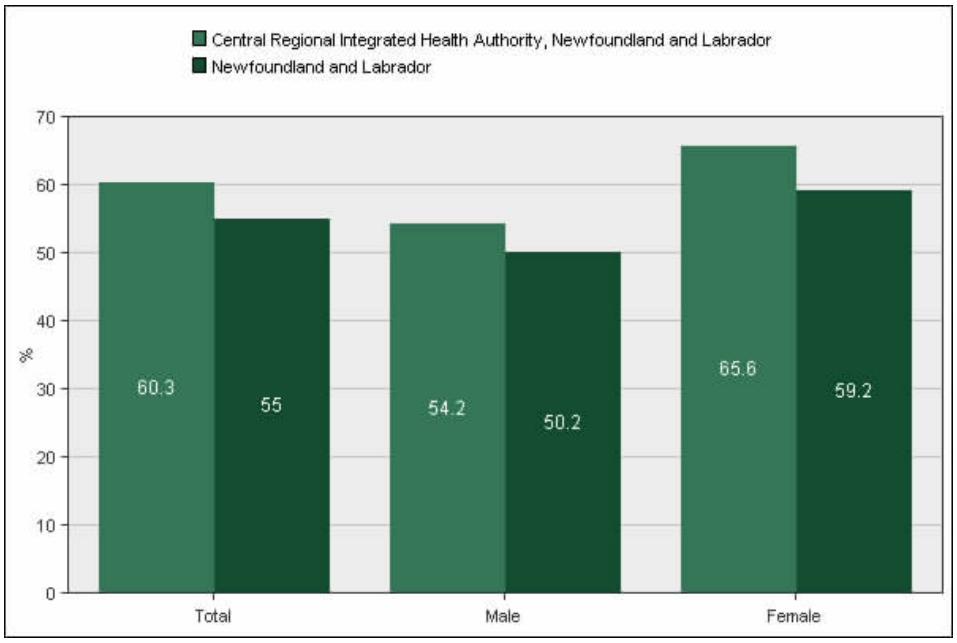
5.6.2.1 High Blood Pressure

High blood pressure (hypertension) is a major risk for heart disease and stroke. Hypertension is a condition that can be prevented and or controlled through healthy lifestyle options such as physical activity and healthy eating.

The percentage of people who self-report high blood pressure in the Central Health region is higher at 25.9% than that of Canada (16.9%) and Newfoundland (22.9%). For Zone 11, 31.4% of the population self-reported high blood pressure.

Similar to diabetes, the rate of high blood pressure increases dramatically with age as 60.3% of the population within the Central Health region, age 65 and older, have been diagnosed with heart disease.

Figure 28: Health Conditions: High blood pressure, percentage by sex, 65 years and over, Central Health region, Newfoundland and Labrador (CCHS 2009-2010)



5.6.2.2 Acute Myocardial Infarction

Acute Myocardial Infarction (AMI) is one of the leading causes of morbidity and death. This indicator is important for planning and evaluating preventative strategies, allocating health resources and estimating costs. The rate of new acute AMI events admitted to an acute care hospital age 20 and older in 2010-11 for Central Health was 364 per 100,000, which was the highest among the regional health authorities, higher than the provincial rate (320) and higher than the national rate (209) (Canadian Institute for Health Information, 2012).

AMI Initiative (Green Bay Health Centre)

As part of a Safer Health Care Now initiative, an interdisciplinary Acute Myocardial Infarction (AMI) Team was formed at Green Bay Health Centre with a goal to improve the delivery of care to patients that present with symptoms suspicious for AMI. The objective of this initiative was to ensure that patients who present with AMI symptoms receive timely and appropriate medical interventions to ensure the best possible

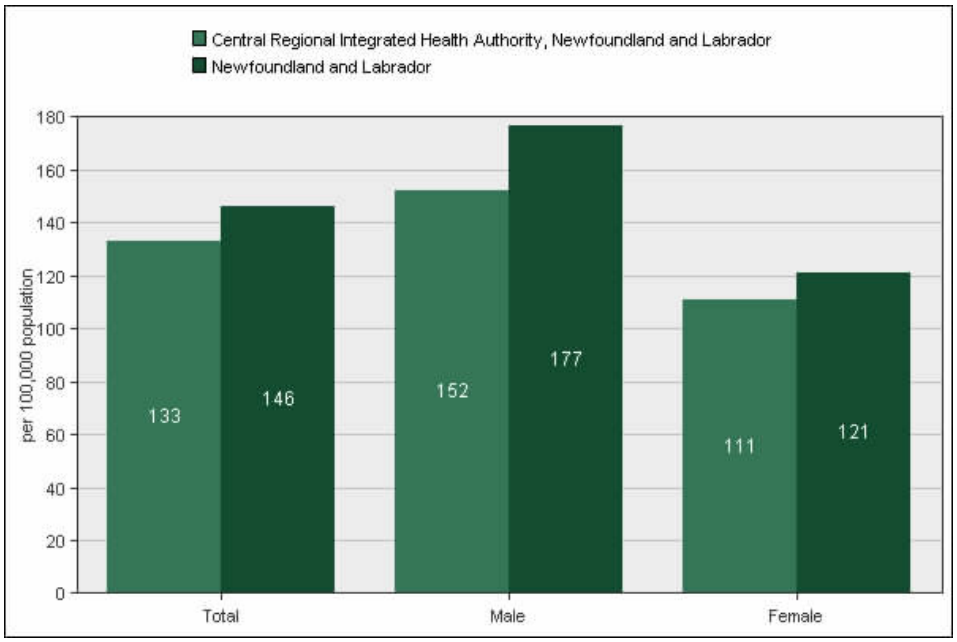
outcome. By using a model for improvement based on the principles of Plan, Do, Study, Act (PDSA) the AMI Team implemented a change in the registration process to promote early recognition and intervention for patients with AMI symptoms.

5.6.2.3 Stroke

Stroke is one of the leading causes of long-term disability and death. This indicator is also important for planning and evaluating preventative strategies, allocating health resources and estimating costs.

Within the Central Health region there were 133 hospitalized stroke events per 100,000 of the population in 2012. Provincially, the rate was 146 per 100,000 (Discharge Abstract Database, CIHI).

Figure 29: Health Conditions: Hospitalized stroke event rate (per 100,000 population) by sex, 12 years and over, Central Health, Newfoundland and Labrador

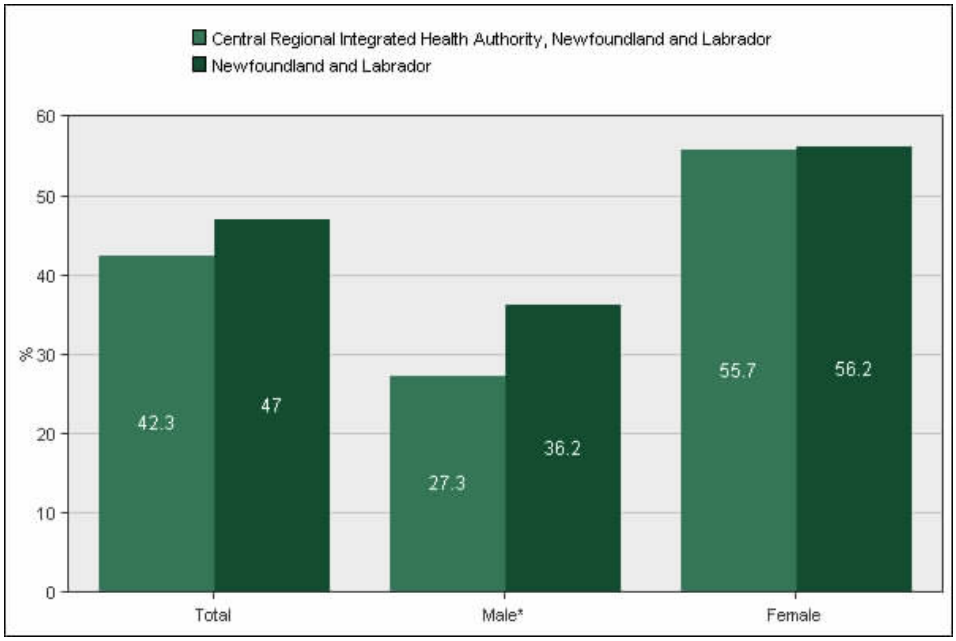


5.6.3 Arthritis

The term arthritis is used to describe more than 100 conditions that affect joints, the tissues which surround joints, and other connective tissue. These conditions range from relatively mild forms of tendonitis and bursitis to systemic illnesses, such as rheumatoid arthritis.

The percentage of people living with arthritis in the Central Health region is lower than that of the province at 19.9% and 23.2% respectively. In Canada the rate is lower at 15.7%. For Zone 11, the rate of arthritis was estimated to be 20.4%. While lower than the Province, the percentage of people living in Central NL with arthritis within the 65+ age group is significantly high at 42.3% and is much higher in women than men (CCHS 2009-10) (See Figure 30).

Figure 30: Health Conditions: Arthritis (%) by sex, 65 years and over, Central Health, Newfoundland and Labrador (CCHS 2009-10)



In 2012, Central Health saw an increase in the rate of diagnosis with arthritis at 25.5% while the province remained the same (Stats Canada 2012).

5.6.4 Asthma

Asthma is a chronic health disorder affecting a substantial proportion of children and adults worldwide. It is characterized by coughing, shortness of breath, chest tightness, and wheezing. The percentage of people diagnosed with asthma within the Central Health region (6.5%) is lower than that of both the province and Canada (both 8.4%) (CCHS, 2009-10). Data for Green Bay is not available.

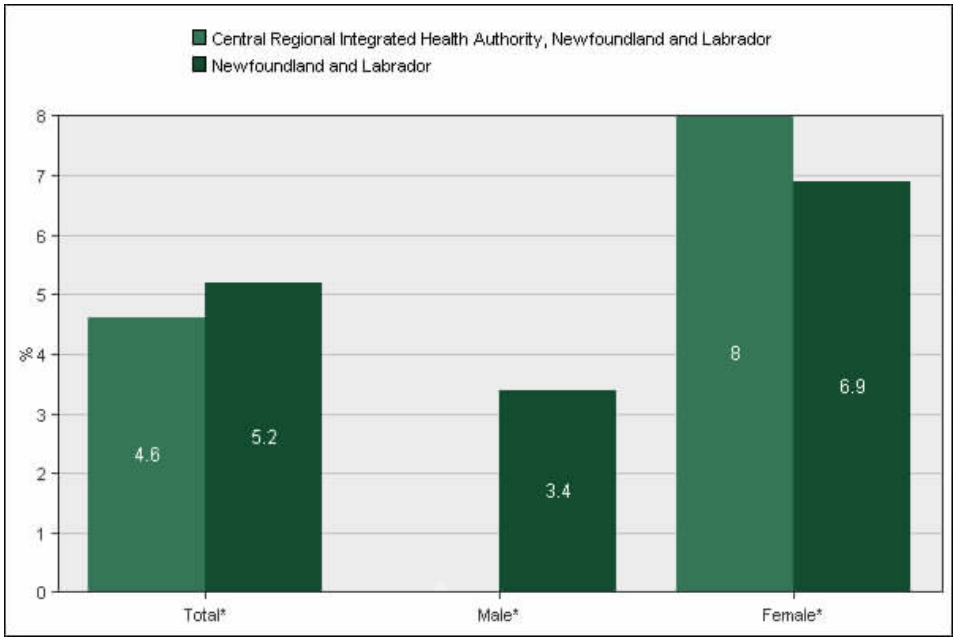
5.6.5 Chronic Obstructive Pulmonary Disease (COPD)

COPD includes such disorders as chronic bronchitis or emphysema. Within the Central Health region, 3.9% of the population aged 35 and over was diagnosed as having COPD, compared to 4.9% of the population in the province. The rate in Canada was 4.2%. Data for Green Bay is not available.

5.6.6 Mood Disorder

The percentage of people reporting that they had been diagnosed by a health professional as having a mood disorder, such as depression, bipolar disorder, or mania in 2010 in the Central Health region was 4.6%. This is lower than the rates in the province (5.2%) and Canada (6.6%). There was a noticeable difference in diagnosis based on gender with 8% of the female population diagnosed with the disorder in the Central Health region and 0% in men. Data for Green Bay is not available.

Figure 31: Health Conditions: Mood disorder (%) by sex, 12 years and over, Central Health, Newfoundland and Labrador (CCHS. 2009-10)



5.6.7 Cancer

According to the CCHS 2009-10, there were 349.8 cases of cancer per 100,000 people in the Central Health region population. Within the province in that year, there were 382.6 cases per 100,000. The percentage of people diagnosed with cancer in Central in 2010 was 1.8% which was in line with the rate in the country at 1.9% and slightly lower than the provincial rate of 2.1%. Data for Green Bay is not available.

Chemotherapy is available to patients who reside in this PHC area who are assessed to be eligible and appropriate for treatment at this site. A designated chemotherapy room and trained staff are available at the Green Bay Health Centre. However, there are circumstances where patients need to travel for chemotherapy treatment as a result of the type of chemo required or other individual situations. Telehealth technology is available at the Green Bay Health Centre and has greatly improved access for patients in the Green Bay area. Residents requiring appointments with a specialist, such as oncologists, nephrologists, psychiatrists or wound care specialists can make use of the Telehealth equipment at the Green Bay Heath Centre which can be less of a stress on the patient who would otherwise have to travel to St. John's.

5.7 Chronic Pain

Health Canada considers chronic pain as pain that "persists (beyond) the normal time of healing, is associated with protracted illness, or is a severe symptom of a recurring condition", and is of 3 months duration or more (Ospina & Harstall, 2002).

According to the Government of Newfoundland and Labrador (2011b), 17.0% of Newfoundland and Labrador's population reported living with chronic pain.

5.7.1 Pain or Discomfort, Moderate or Severe

In the Central Health region, 16.5% of the population reported pain or discomfort that was moderate or severe. This is slightly higher than the provincial rate of 15.1% and the national rate of 14.2% (Statistics Canada, 2012). This rate increases with age.

5.7.2 Pain or Discomfort that Prevents Activities

In 2012 in the Central Health region 18.4% were reported to have pain or discomfort that prevents activities. This is higher than the provincial rate of 17.0% and 14.9% for Canada (Statistics Canada, 2012). This rate also increases with age.

5.7.3 Participation and Activity Limitation

Approximately forty percent (40.3%) of the population in the Central Health region reported experiencing participation and activity limitation sometimes or often in 2012. The provincial rate was 39.4% and the national rate was 33.7%. This rate increases with age with 58.9% of the population age 65+ in the Central Health region having this limitation sometimes or often (Statistics Canada, 2012).

5.8 Dementia

Dementia describes a group of symptoms affecting thinking and social abilities severely enough to interfere with daily functioning. Many causes of dementia symptoms exist. Alzheimer's disease is the most common cause of a progressive dementia.
It is estimated that 500,000 Canadians over age 65 have dementia. Based on provincial population estimates, the number of individuals over the age of 65 with a form of dementia is expected to rise to over 10,000 by 2026 (Provincial Strategy for Alzheimer Disease and Other Dementias, 2002). For the population of Canada in general, it is projected that 1,125,200 will have dementia by 2038 which is 2.3 times the current level (Alzheimer's Society of Canada, 2010).

While we do not have numbers to indicate the percentage of individuals impacted by dementias in our local area, it has been noted as an increasing concern. In consultation with local community supports staff, the level of concern regarding this population was tremendous. From their caseload perspective, dementia appears to be on the rise and along with it, the resources required to support this clientele and their families is not adequate. Individuals in the community with dementia are being cared for by family members who are burdened with the stress involved in this role. Adequate placement options are not available and capacity assessment wait times are lengthy.

5.9 Section Highlights

The rates of overweight and obesity as well as Type 2 Diabetes are very high in this area with a noticed increase. Rates of other chronic diseases are not available locally but thought by health providers to be in line with the region with high rates of individuals being diagnosed with high blood pressure and cardiovascular disease. The number of individuals affected with dementia and the impact on them and their families has been noted as a great concern. Families are struggling to cope with demands and individuals are having difficulty accessing the high level of care they require.

6. Morbidity and Mortality

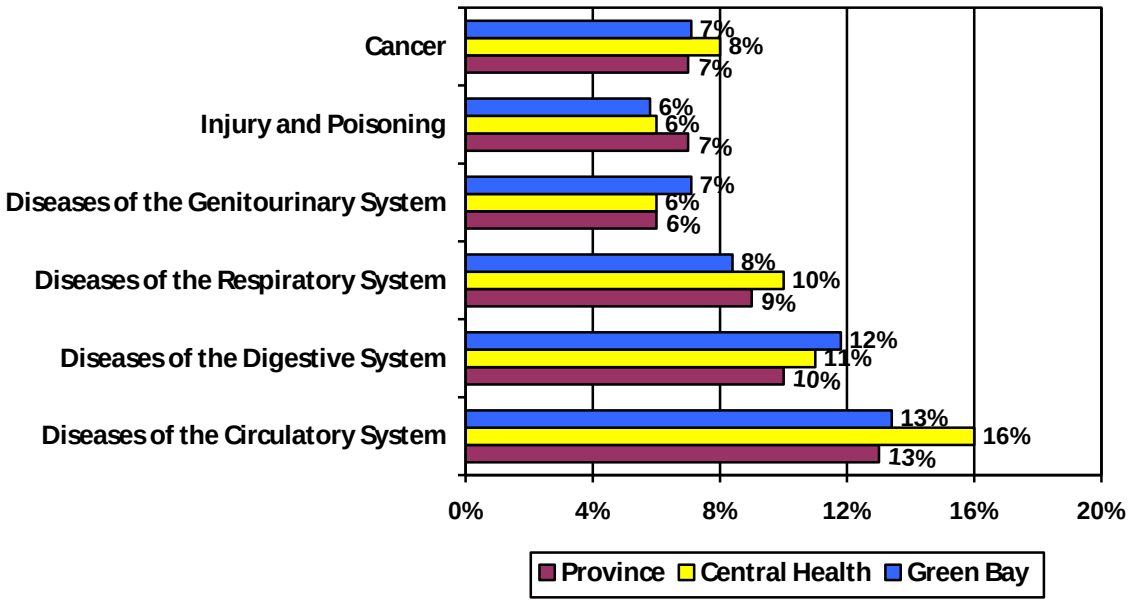
6.1 Hospital Morbidity

Hospital morbidity refers to the number of separations from hospitals due to discharges, transfers and deaths. It is based on diagnosis most responsible for patient stay but numbers do not reflect on an individual basis. For example, one person with multiple separations/readmissions will be counted multiple times.

The highest rate of hospital morbidity in Green Bay was seen for diseases of the circulatory system (13%) (Community Accounts, 2008-09). This agrees with rates seen regionally (16%) and provincially (13%). All other conditions for hospital morbidity were comparable locally, regionally and provincially (within 1%).

Morbidity rates are influenced by the age structure of the population. In 2008-09, the median age of all hospital admissions in the Central Health region was 57 years, which was among the highest of the regional health authorities and was higher than the provincial age of 53 years. There is no significant difference in the local area compared to the region as the Green Bay area had median ages of 62 years for the Halls Bay area, 53 years for the Pilley's Island area and 59 years for the King's Point area. The largest number of hospital admissions in Green Bay occurred in the 65+ age group which was 42%. This is 8% higher than the region at 39% and the province at 34%.

Figure 32: Hospital Morbidity/Separations, Local, Regional and Provincial Comparison, Province of NL, 2008-2009



6.2 Mortality

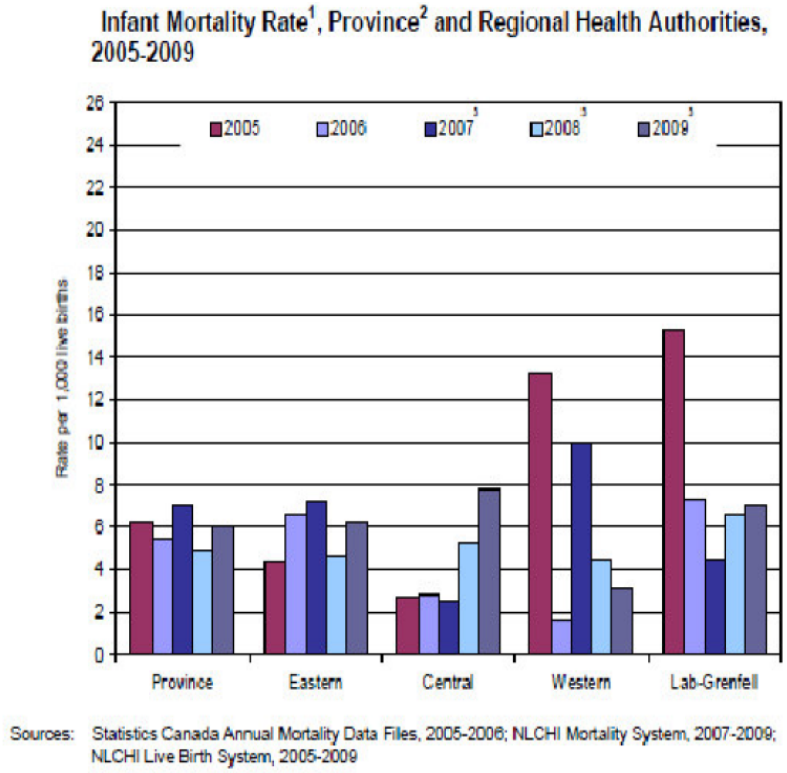
6.2.1 Total Mortality Rates (death rates)

Information about mortality can be used to assess the health status of the population. Mortality rates are calculated for specific diseases or conditions and act as indicators of population health. In 2010-11, the Central Health region had a total of 975 deaths. Seventy nine percent of individuals were aged 65 and older, which is comparable to the province (78%). For the Green Bay area there was a total of 85 deaths in 2010-11 with 88% of these being individuals 65 years or older.

6.2.2 Infant Mortality Rates

The number of infant deaths in the Central Health region was 19 in 2009 giving an infant mortality rate of 7.8 per 1,000 births. This is higher than the provincial rate of 6.1. (Infant is defined as a child within the first year of life). This data is not available locally.

Figure 33: Infant Mortality Rate for NL and Regional Health Authorities (2005-2009)



6.2.3 Potential Years of Life Lost (PYLL)

Potential years of life lost is the number of years of life "lost" when a person dies "prematurely" from any cause before the age of 75. A person dying at age 25, for example, has lost 50 years of life.

In the Central Region the PYLL rate for 2009 (per 100,000 population) was 4919.5. Comparatively, within the province, the PYLL rate (per 100,000 population) for 2009 was 5293.0. (Newfoundland and Labrador Health Information, 2010).

6.2.4 Potentially Avoidable Mortality

Potentially avoidable mortality is defined as deaths before age 75 that could potentially have been avoided through all levels of prevention (primary, secondary, tertiary). It refers to untimely deaths that should not occur in the presence of timely and effective healthcare or other public health practices, programs, and policy interventions. It serves to focus attention on the portion of population health attainment that can potentially be influenced by the health system (Central Health, 2012). For the Central Health region this rate was lower than all health authorities and the province with a rate of 188 per 100,000 for 2006-08. The provincial rate was 220 per 100,000. (Statistics Canada, 2008).

6.2.4.1 Avoidable Mortality from Preventable Causes

Mortality from preventable causes is a subcategory of potentially avoidable mortality, representing deaths before age 75 that could potentially have been prevented through primary prevention efforts such as lifestyle modifications or population level interventions (e.g. vaccinations, injury prevention). This can inform efforts to reduce the number of initial cases (incidence reduction). For the Central Health region the avoidable mortality rate from preventable causes per 100,000 for 2006-08 was 114, which is lowest among the regional health authorities and lower than the provincial rate (132). (Statistics Canada, 2008).

6.2.4.2 Avoidable Mortality from Treatable Causes

Mortality from treatable causes is a subcategory of potentially avoidable mortality, representing deaths before the age of 75 that could potentially have been avoided through secondary or tertiary prevention. This indicator informs efforts aimed at reducing the number of people who die once they have the condition (case-fatalities). For the Central Health region, the avoidable mortality rate from treatable causes per 100,000 for 2006-08 was 74, which was among the lowest of regional health authorities, and was lower than the provincial rate of 88. (Statistics Canada, 2008).

6.2.4.3 Unintentional Injury Deaths

For the Central Health region (2005-2007) the rate of unintentional injury causing death was 23.1 per 100,000 population. These injuries are related to transport accidents, falls, poisoning, drowning and fires but not complications of medical and surgical care (Statistics Canada, 2008).

According to the Social Determinants of Injury report by the Atlantic Collaborative on Injury Prevention (2009), injury rates have been declining in recent decades. However, the report notes that there is a significant difference in injury rates according to socio-economic status (the poorest Canadians experience injury at a rate 1.3 times higher than the wealthiest) and that seniors, children, and adolescents are at a higher risk of injury than other age groups. Aboriginal peoples also experience injury at a significantly higher rate. These trends and differences should be considered when looking at prevention strategies.

6.2.4.4 Intentional Injury Deaths

For the Central Health region in 2005, there were 5.0 per 100,000 of the population suicides and self-inflicted injuries causing deaths.

6.2.5 Leading Causes of Death

The leading cause of death in Newfoundland and Labrador in 2009 was cancer (31.4%) which is up by 3.0% since 2006. The second leading cause of death was diseases of the heart (22.5%) which is down by 3.0% since 2006.

6.3 Section Highlights

Most data for this section was regional as local data was difficult to obtain. During review of local issues, it is apparent that much work is needed to address chronic conditions and to improve health through prevention efforts.

7. Community Assets

A community asset is anything that can be used to improve the quality of community life. It can be a person, a physical structure or place, and/or a business that provides jobs and supports the local economy (Work Group for Community Health and Development, 2013).

Community involvement and participation is an integral part of the successful primary health care model for service delivery. The community advisory committee process has been established in Green Bay to ensure meaningful community involvement. The purpose of a Community Advisory Committee (CAC) is to provide a mechanism for input into the delivery of health services and community programs, and to provide a liaison between Central Health and the communities it serves. The Community Advisory Committee is accountable to a Board of Trustees.

The Green Bay Community Advisory Committee was formed in December 2006. This committee is comprised of representation from various sectors including health, education, justice, clergy, youth, seniors, economic development, service clubs, businesses, and municipalities. These also represent the various communities of Green Bay. One of the roles of the committee is to prioritize the issues from the communities and groups they represent. Through this process, there has been an increase in community participation and intersectoral collaboration. Communities are taking ownership of issues, partnerships are being formed and there are improved links between organizations.

While the CAC is a great asset to the communities of Green Bay, there are various other groups, committees, councils, and businesses that partner to maintain or improve the health of citizens through various means. Examples include but are not limited to:

Life Unlimited for Older Adults
A community volunteer group in Springdale who provide programs for older adults. The goal is to encourage healthy living by engaging older adults in social, recreational, educational and intergenerational activities.

- Some of the programs offered include:

- Life Long Learning
- Moving for Health
- Social Networking
- Vial of Life
- Bus Excursions

- Partnerships
  - Intergenerational activities with the Community Youth Network, Family Resource Centre and Girl Guides
  - Community Kitchen with Training Wheels Family Resource Centre
  - Town of Springdale provides space for programming and a resource room
  - Local churches

Red Leaf Centre

- The Town of Springdale and Life Unlimited for Older Adults have partnered to provide a resource room for older adults. The centre is located in Springdale's Town Hall.

Active Living for Older Adults

- A community volunteer group in Robert's Arm who provide programs and special events to the older adults in the community.
- Some programs include:
  - Healthy Living Workshops
  - Moving for Health
  - Lifelong learning
  - Bus excursions

Age Friendly Communities Initiative

- The Town of Springdale received funding from the Age-Friendly Newfoundland and Labrador Community Grants Program in April 2010 to initiate the process of an age-friendly community in Springdale.
- A working group referred to as Age-Friendly Springdale Advisory Network (AFSAN) has been established to move forward with this initiative.

Care2ride Transportation Program

- The Town of Springdale received funding from the provincial government to develop a transportation program for seniors living in Springdale. The Town partnered with Life Unlimited for Older Adults to develop the program.
- Care2ride is a multi-community regional model designed to provide transportation services for seniors and individuals who live with mobility challenges. This model will build upon a "culture of cooperation" involving significant volunteer capacity.
- Transportation will be provided through the use of the Valley Vista bus and volunteers' vehicles.
- The volunteers will be available to drive people to appointments, the store for

groceries or prescriptions, the library and many more places in Springdale.

Community Youth Network

- ICECAP Youth Centre
  - Offers programs for youth aged 12 to 18 years
  - Have expanded to offer programs to youth aged 9 to 11 years (Future Clubs and after school sports)

Family Resource Programs

- Training Wheels Family Resource Centre
  - Offer programs to families with children aged 0 to 6 years. Their mission is to enhance children's opportunity to reach their full potential by focusing on programs and activities that promote parent/child relationships and healthy prenatal and child development. They help families support their children by building strong communities
  - Family Resource Programs expanded from Springdale and Robert's Arm to satellite sites: Triton, South Brook and King's Point
    Some of the programs offered are:
    - Healthy Baby Club
    - Parent Break
    - Mother Goose
    - Themed programs
    - Making Connections
    - Community Kitchen

Emergency First Responders

- Long Island (Beaumont-Beaumont North and Lushes Bight) and Little Bay Islands are both rural islands in the Green Bay area that are only accessibly by boat or helicopter. The population of these islands is 275 and 155 respectively and to access these islands, one must take a ferry boat ride of 5 minutes to Long Island and 30 minutes to Little Bay Islands (one-way). During the winter the challenge of ice around the islands sometimes makes it impossible for the ferry to run thus requiring helicopter service after 3 days without a ferry or in the event of an emergency. Previously there was a ferry for each island but now one ferry serves both islands, thus there is decreased ferry service to both. Some healthcare providers provide service to the islands intermittently but the majority of the healthcare needs have to be accessed through the Green Bay Health Centre which takes more than one hour to reach from either of the islands.
- Due to geographic isolation and lack of on-site emergency services the citizens of these islands have been seeking assistance in acquiring training and equipment such as basic first aid, defibrillation, etc. which they can use to address the needs of any possible emergencies until assistance can be acquired from trained paramedics. The Green Bay Primary Health Care Leadership Team identified this as a priority. In March 2010 they supported the early

development of this program through the purchase of learning/training kits and the salary of a trained paramedic who could instruct the program to community volunteers interested in becoming a 'first responder'. Currently, there are 14 volunteers who have been trained on Long Island and 6 on Little Bay Islands. Recently, supplies and materials were acquired through federal funding to run this program adequately and efficiently. Providing Long Island and Little Bay Islands with the required training and materials to effectively deal with any emergency or hazard impact will enhance these community's capacity to reduce their vulnerability to potential risks, including serious health complications or even death. Furthermore, it will build a local resilience that will promote and sustain these communities during any emergency or disaster event.

Other Community Assets

- Smoking Cessation Program
- Indoor Walking Program
- Lifestyle Clinics for Seniors
- Moving for Health (volunteer driven exercise groups in Springdale, Robert's Arm, Long Island, and Little Bay)
- Cancer Support Group
- Bicycle Rodeos
- Primary Health Care Newsletter that is published 3 times per year
- Local Church Groups
- RCMP
- Fire Departments
- Public Libraries
- Sports Associations
- Recreation Committees
- Food Bank
- Regional Caregiver Network
- Women's Institute
- Service Clubs
- Hospital Auxiliary
- Kids Eat Smart Foundation
- Schools
- Physical spaces such as playgrounds, community centres, physical fitness centres, walking trails, ball fields, soccer pitches, pools, snowmobile trails, parks, etc.

8. Health Priorities

In fall 2012, the Community Advisory Committee re-evaluated the priority areas for the communities of Green Bay. The Primary Health Care Leadership Team (PHCLT) reviewed the list of priorities and agrees with the CAC members about the focus of the priority areas for Green Bay. Although all of the identified priorities are important, several of the issues are currently being addressed and others will require system and policy changes. The priority areas identified by the Primary Health Care Leadership

Team and Community Advisory Committee are as follows:

1. Chronic Disease Prevention and Management

Chronic diseases such as diabetes, arthritis and cardiovascular disease are contributing to large numbers of death and disability in Green Bay. Expansion of the dedicated programming is required to help to prevent chronic diseases and promote self-management of the existing chronic diseases.

Chronic Disease Prevention and Management Lead Team (CDPMLT)

Green Bay Health Centre currently has an active CDPMLT. Diabetes prevention and management has been the initial focus of the CDPMLT for Green Bay with attempts for improvement in service delivery. The CDPMLT will focus attention on other prevalent chronic diseases as indicated by the community's health status. This will follow the implementation and evaluation of change in diabetes management and prevention in the area. There are many chronic disease prevention efforts ongoing in this area such as Lifestyle clinics and Improving Health: My Way (chronic disease self management program) as well as community driven programs such as Moving for Health and Indoor Walking Programs.

2. Expand on Programs and Services for Children and Youth Aged 7-11 Years

Green Bay is fortunate to have the services of the Family Resource Centre, which offers free programming to families with children 0-6 years old and the Community Youth Network (CYN), which offers programming to the youth age 12-18 years old. While this age group was formerly at a disadvantage as there were limited programs available, many improvements have been made and are ongoing. The CYN have expanded their programming, church groups provide evening activities, and a joint partnership with the CYN and school board through a transportation initiative allows a greater number of youth to take part in after school activities. While programming and access has improved in larger communities of Green Bay, more work is still needed to reach youth of our rural communities.

3. Mental Health and Addictions Services

Mental health issues and addictions have been identified as a growing problem in the Central Health region, and are just as prevalent in Green Bay. These may lead to serious negative effects on individuals, families and communities. The Community Advisory Committee has adopted a sub-committee, Mental Health and Addictions Awareness Committee (MHAWC), to address some of these issues and have met great challenges, including financial roadblocks. There is a commitment to create more awareness about these issues by educating the public about the importance of mental health and the realities and dangers of substance abuse and gambling. There is a need to bridge the gap between community needs and program services and to alleviate the stigma experienced by individuals and families affected by mental health and addiction issues.

4. Programs and Services for the Aging Population

Since the population is aging, the needs of older adults are changing. Support for aging at home, concurrent chronic diseases, as well as cost of living are some examples of issues affecting this population. While much work has been done locally to address these issues, there is still a need to continue to work on this priority, especially to areas outside Springdale.

One particular issue of importance for this population at the present time is dementia. The healthcare professionals at Green Bay Health Centre and community members have indicated that there are increasing numbers of clients in Green Bay accessing emergency services with moderate to advanced dementia. The healthcare team has been overwhelmed with these clients and realizes that a process must be established for effectively managing clients with dementia, including support for the families and care givers. The healthcare team has recently been exploring ways to improve the services for these clients including the formation of a dementia committee and education sessions for professionals and staff.

5. Programs and Services for Unpaid Caregivers

Caregivers support their family members and friends, including persons of all ages who have intellectual and physical disabilities, and those affected by progressive and chronic illness. In consultation with Community Supports staff, members of the Regional Caregivers Network, older adult groups and through caregiver events, it has become apparent that support and services for unpaid caregivers do not meet the needs.

6. Communication and Awareness

The Primary Health Care team of Green Bay recognizes that ongoing communication with the general population is a way to create awareness of the PHC model of service delivery as well as services provided.

9. Next Steps

9.1 Action/Implementation Plan

A committed administrative team at Green Bay Health Centre is dedicated to delivering health services via a primary health care model, keeping in view the determinants of health. Recognizing that a healthcare system will be only one of the ingredients that determine the quality of one's life, the Primary Health Care Leadership Team together with the Community Advisory Committee of Green Bay promotes a team based, interdisciplinary approach to service delivery. These teams also support a needs based, population focused and intersectoral approach to health, with a focus on health promotion and prevention.

The strategies for change in this document outline an approach to strengthen and improve the health delivery system. Implementing the strategies outlined will be a

long-term process and will involve the cooperation of many partners. Communities within Green Bay have a number of assets to build upon and these assets translate into a foundation for healthy and sustainable communities. Measuring success and accomplishments on an ongoing basis will be critical. The leadership team is committed to tracking progress on a regular basis and to adjusting action items accordingly to meet identified goals.

Overall, the model of PHC needs to be facilitated in such a way that moves the community from participants to partners. The community is integral from the needs identification process through to solution identification, implementation, and evaluation. We look forward to working with all of our partners to find flexible ways of meeting our primary health care goals and objectives.

9. 2 Primary Health Care Model

Central Health has committed to a PHC Model for service delivery. The primary health care approach, as a model for service delivery, is a philosophy of healthcare, a strategy for organizing health services and includes a range of health services. It extends beyond the traditional healthcare system to include all services that play a part in health, such as income, housing, education, and environments.

A health services system rooted in a primary health care philosophy emphasizes health and demonstrates a transparent, inclusive, team-based approach in planning and decision making processes. It incorporates a needs-based, population focused, community development, and intersectoral approach to health services planning, implementation, and evaluation.

Primary health care, as a strategy for organizing health services, is the first level of contact in a well-integrated continuum of health services. It addresses the main health concerns in a community, providing promotive, preventative, curative, supportive, and rehabilitative services. It includes well defined and effective linkages with health and community service programs, and secondary and tertiary levels of health services, in order to facilitate efficient and effective client referral processes between the three levels of services.

At the primary health care level, teams work in collaborative partnership with clients to determine the most appropriate health service providers to meet needs in the initial and continuing team/client relationship. Within this relationship, health service providers will be supported and enabled to fully use their knowledge and skills, and clients will be enabled to take control of their own health. The community, as a client, will be supported by the team in building capacity to improve the health of the community population.

The Primary Health Care Model of service delivery is based on five principles, including:

- Accessibility
- Intersectoral Collaboration (i.e. partnerships among professionals)
- Public Participation
- Health Promotion
- Appropriate Technology

9.2.1 Strengths, Challenges

Accessibility

Strengths

- Primary care physicians are integral members of the PHC Team. The population for Green Bay is 7719 and has five physician positions. Physicians conduct clinics Monday to Friday, 9:00 am through to 4:30 pm with offices and clinic space situated within the GBHC.
- The GBHC has a full time Nurse Practitioner (NP) who works in collaboration with physicians and other health professionals.
- There is a 24 hour emergency on call service provided by three physicians on a rotational schedule.
- Diagnostic imaging and laboratory services are available at GBHC.
- Many regional healthcare providers visit GBHC via prearranged schedules and provide services to the residents of Green Bay. Some of these providers include Speech-Language, Occupational Therapist, and Lactation Consultant. While this is a benefit to the local public, there are often factors that can impact visitation schedules such as adverse weather or emergencies at regional sites.
- On June 22, 2012 the Newfoundland and Labrador government announced that basic 911 coverage will be expand province wide by 2014.
- There is a new Provincial Flight Team that assists the region with urgent medical transfers.
- Designated landing pads are available for emergency services if required.

Challenges

- Given the high rates of Type 2 diabetes in the area, there is a concern that clients who could potentially be utilizing the services of a dietitian are not availing of same. Community and provider consultations have indicated that this could be due to a lack of awareness that this service exists in the area, or a lack of understanding of the benefits of such a service.
- Physiotherapy, dietetics, community supports, and mental health and addictions services are shared between Green Bay and White Bay. This has implications for service access and team work. Sometimes there are difficulties regarding the referral process as lines of communication between the local team members and other service providers are not consistent.

- Dental services are provided on a part-time basis in Green Bay thus many residents go out of the area for service (e.g. Grand Falls-Windsor, Corner Brook).
- There is a lack of space within the healthcare facility for visiting team members. The GBHC already holds more providers than was originally intended.
- There is difficulty in recruitment of certain health professions in the Green Bay area including nursing, paramedicine and physiotherapy.
- The lack of cell phone coverage within certain areas of Green Bay can interfere with communication during patient transfers.

Primary Health Care Teams/Intersectoral Collaboration

PHC teams provide interdisciplinary health services while working together to promote health and wellness, provide comprehensive primary health care services with available resources, and respond to the health needs of the population. An interprofessional team based approach to care is becoming increasingly embraced and endorsed by many governments with the aim of improving patient access to care, and delivery and efficiency of health services.

Strengths

- The Green Bay Health Centre (GBHC) currently has a PHC Lead Team in place which consists of a group of healthcare providers from various disciplines who work together to provide and improve continuity of care; reduce duplication of services; and ensure access to the appropriate healthcare professionals. The skill sets of team members are broad in range and reflect an array of existing PHC services.
- The Green Bay Discharge Planning Team is an interdisciplinary team that meets regularly to review the care plans of inpatients at Green Bay Health Centre to ensure that follow up care is pre-arranged before discharge.
- In collaboration with Memorial University of Newfoundland's (MUN) School of Medicine, GBHC assists in the education of medical students.
- The Professional Practice Committee (PPC) is designed for the purpose of ensuring clinical competencies are being met and addressing professional practice concerns in nursing.
- Community health staff (Social Workers, Mental Health Case Manager, Child Management Specialist, Public Health Nurses, Continuing Care Nurses, etc) work with other health professionals at the GBHC to facilitate improved programs and services for the public.
- The Rural Medical Advisory Committee (MAC) has the responsibility of, but not limited to, working with the Regional MAC to deal with medical care services in their area of responsibility, encompassing quality, safety, coordination, timeliness and adequacy. It serves as a forum for discussion and, if necessary, decision making among the various elements in providing local medical care.

Challenges

- Physician involvement in the PHC model of service delivery in Green Bay is made more difficult by the current physician payment model (i.e. fee-for-service).
- Building relationships between physicians and their colleagues at the regional referral centers can be challenging due to geography. Lack of understanding and effective communication has at times posed problems in regard to stabilization and transfer of patients (i.e. regarding level of support from tertiary centers).
- Provider consultations revealed that there is sometimes a lack of understanding of each others roles and responsibilities.

Community Input and Community Capacity Building (Public Participation)

The hallmark of PHC is promoting health with input by the people, for the people (World Health Organization, 1998). Capacity building is much broader than skills, people, and plans; it includes commitment and resources for it to be successful. Capacity building places emphasis on existing strengths and abilities, rather than focusing on gaps and deficiencies. Increased capacity is a direct result of effective community development (Circle of Health, 1995).

Strengths

- Central Health has invested in a community development approach to health and has invested in public health nursing positions with a community development focus to support this approach. Community development is a process involving a partnership with community members or groups to build on the community's strengths, self-sufficiency, and well being and to solve problems.
- There have been many groups and organizations established to address local issues (e.g. Age Friendly Committee), lifestyle clinics, seniors groups, etc. These developments have occurred through partnership with volunteers and health professionals to address needs and sustainability.
- There is an active CAC with input from community members throughout Green Bay.

Challenges

- Community capacity building will require a shift in how health providers and the community views health.
- There is a declining volunteer base.

Health Promotion and Wellness

A PHC Model for service delivery incorporates a focus on health promotion and illness prevention and wellness, and is based on needs assessments that include the determinants of health.

Strengths

- Central Health has adopted the Circle of Health as a framework for health promotion. The purpose of the framework is to create a common understanding of health promotion and to assist with planning and evaluation.
- There are many examples of health promotion and wellness activities by providers already underway in the Green Bay area. These include: Lifestyle Clinics, Well Women's Clinics, Chronic Disease Self- Management Program, Healthy Baby Club, etc.
- The number of community groups and organizations in existence in the area shows the community already understands the need for community involvement in factors that impact health and well-being. For example: Family Resource Centre, seniors groups, Community Youth Network, etc.
- Other sectors, such as education, are demonstrating an expanded awareness of factors impacting health and well-being. For example, anti-bullying campaigns, smoking prevention/cessation programs, Kids Eat Smart program etc.
- The provincial government and regional wellness committees continue to demonstrate commitment to health and wellness by supporting and promoting provincial initiatives such as the Provincial Wellness Grants, Healthy Aging Seniors Wellness Grants and Community Addictions Prevention and Mental Health Promotion Grants. Changes to public policy such as increased restrictions around smoking in public places, school food guidelines and The Declaration of Bill 27 which addresses the dangers of semi-permanent and permanent body modifications including tanning beds and tattoos, also demonstrate a growing commitment to wellness.

Challenges

- Through the community profile process it was identified that the vulnerable population are not availing of the existing programs.
- Limited funding for sustainability of programs initiated by community groups.

Appropriate Technology

Primary Health Care is about improved coordination of information between healthcare providers and expanded access to information for those using the health system or seeking health advice. Information and communication technology is necessary to support a PHC model for service delivery.

Ready access to evidence based practice information, consistently updated research information, and shared client information will improve services and care if properly utilized.

Strengths

- Telehealth is used for consults between clients and various specialists such as Oncologists.
- The province has established the Provincial Health Line which provides 24/7 access to health information and advice to people across the province.

- Central Health has its own website which provides information to clients such as services provided and health promotion activities.
- GBHC subscribes to a PHC Facebook page to provide information to the public about health promotion information and services that can benefit their health.

Challenges

- There are challenges with regards to sharing of information between providers as all systems are not linked within the region, as well as across the province (e.g. Medical Records, prescriptions, etc.)
- High speed Internet service is available to some areas of Green Bay while other areas still have dial-up.
- Privacy and confidentiality concerns often arise with advancements in technology.

9.2.2 Opportunities

- Development of an integrated electronic health record for all users that would be accessible to all providers would ensure continuity of care.
- Need to ensure that our programs and services meet the needs of the vulnerable population.
- Clarify roles of the different providers to enhance referral processes.
- Ongoing communication with the general population by the leadership team, as a way to create awareness and continued support of the PHC model for service delivery, as well as services provided.
- Continued and improved support for the utilization of telehealth and videoconferencing as a way of improving the consistency of service delivery and limiting demands on available clinic space.
- Advocate for increased services for mental health clients in order to reduce the wait list for services.
- Encourage youth to become active participants in their communities by participating in local activities such as municipal councils, CAC, community youth networks, etc. The involvement of youth will bring new, innovative ideas that will further enhance the development of the community.

References

Atlantic Collaborative on Injury Prevention (2009). *The Social Determinants of Injury*. Retrieved from: http://www.parachutecanada.org/downloads/research/reports/ACIP_Report_SDOI.pdf

Canadian Cancer Society (2013). *Smokers' Helpline Clients from Selected Postal Code Regions.* St. John's, NL: Author.

Canadian Cancer Society (2013a). *Risk Factors for Prostate Cancer.* Retrieved from: http://www.cancer.ca/en/cancer-information/cancer-type/prostate/risks/?region=on

Canadian Cancer Society (2013b). *What is Colorectal Cancer?* Retrieved from: http://www.cancer.ca/en/cancer-information/cancer-type/colorectal/colorectal-cancer/?region=nl

Canadian Federation for Sexual Health (2007). *Sexual Health in Canada: Baseline 2007*. Retrieved from: http://www.cfsh.ca/Resources/Research/SexualHealthBaseline2007.aspx

Canadian Institute for Health Information (2012). *Discharge Abstract Database.* Retrieved from: https://secure.cihi.ca/free_products/health_indicators_2012_en.pdf

Central Health (2012a). *Statistical Analysis for Green Bay Health Service District 2012.* Gander, NL: Author

Central Health (2012b). *Regional Profile.* Grand Falls-Windsor, NL: Author

Central Health (2013). *Use of Emergency Department.* Gander, NL: Author. Retrieved from Meditech system.

Community Health Assessment Guidelines Working Group (2009). *Community Health Assessment Guidelines.* Retrieved from: https://www.gov.mb.ca/health/rha/docs/chag.pdf

Eastern Health (2012). *Health Status Report*. Retrieved from: http://www.easternhealth.ca/WebInWeb.aspx?d=1&id=1413&p=379

Ferris, J., & Wynne, H. (2001). *The Canadian Problem Gambling Index: Final report*. ` Retrieved from: http://www.jogoremoto.pt/docs/extra/TECb6h.pdf

Government of Newfoundland and Labrador (2001-2013). *Community Accounts*. Retrieved from: http://www.communityaccounts.ca

Government of Newfoundland and Labrador (2007). *Newfoundland and Labrador Student Drug Use 2007.* Retrieved from: http://www.health.gov.nl.ca/health/publications/sdus_summary_report_2007_11_15_final_r_.pdf

Government of Newfoundland and Labrador (2009). *Newfoundland and Labrador Gambling Prevalence Study*. Retrieved from: http://www.health.gov.nl.ca/health/publications/2009_gambling_study.pdf

Government of Newfoundland and Labrador (2011a). *Department of Education 2010-2011 Annual Report* Retrieved from: http://www.ed.gov.nl.ca/edu/publications/annualreports/doe_ar1011.pdf

Government of Newfoundland and Labrador (2011b). *Improving Health Together.* Retrieved from: http://www.health.gov.nl.ca/health/chronicdisease/Improving_Health_Together.pdf

Government of Newfoundland and Labrador (2013a). *Department of Education Safe & Caring Schools Policy*. Retrieved from: http://www.ed.gov.nl.ca/edu/k12/safeandcaring/policy.pdf

Government of Newfoundland and Labrador (2013b). *Department of Education Early Childhood Learning.* Retrieved from: http://www.ed.gov.nl.ca/edu/libraries.html

Government of Newfoundland and Labrador (2013c). *Department of Child Youth and Family Services: Child Care Services*. Retrieved from: http://www.gov.nl.ca/cyfs/childcare/index.html

Government of Newfoundland and Labrador (2013d). *Boil Water Advisories for Public Water Supplies in Newfoundland and Labrador.* Retrieved from: http://www.env.gov.nl.ca/wrmd/BWA_Reports/BWA_Summary_Community.pdf

Government of Newfoundland and Labrador (2013e).*Youth Corrections Program.* Retrieved from: http://www.gov.nl.ca/cyfs/youthcorrections/index.html

Health Canada (2009). *Mental Health.* Retrieved from: http://www.hc-sc.gc.ca/hl-vs/mental/index-eng.php

Health Canada (2011a). *Canadian Tobacco Use Monitoring Survey*. Retrieved from: http://www.hc-sc.gc.ca/hc-ps/tobac-tabac/research-recherche/stat/_ctums-esutc_2011/ann_summary-sommaire-eng.php

Health Canada (2011b). *Eating Well with Canada's Food Guide: A Resource for Educators and Communicators.* Retrieved from: http://www.hc-sc.gc.ca/fn-an/pubs/res-educat/res-educat-eng.php

Health Canada (2012). *Canadian Alcohol and drug Use Monitoring Survey*. Retrieved

from: http://www.hc-sc.gc.ca/hc-ps/drugs-drogues/stat/_2012/summary-sommaire-eng.php

Newfoundland and Labrador Centre for Health Information (2010). *Mortality Statistics*. Retrieved from: http://www.nlchi.nl.ca/images/PDFs/Mortality%20Fast%20Facts%20Dec%202%202010.pdf

Nova Scotia Department of Health (2002). *A Healthy Start: A New Life.* Retrieved from: http://www.health.gov.nl.ca/health/publications/healthy_start.pdf

Ospina, M. & Harstall, C. (2002). *Prevalence of chronic pain: An overview.* Retrieved from: http://ihe.ca/documents/prevalence_chronic_pain_0.pdf

Public Health Agency of Canada (2003). *What Makes Canadians Healthy or Unhealthy.* Retrieved from: http://www.phac-aspc.gc.ca/ph-sp/determinants/determinants-eng.php

RCMP Springdale Detachment (2009). *Local crime rates.* Springdale, NL: Author

Rehm, J., Baliunas, D., Brochu, S., Fischer, B., Gnam, W., Patra, J., Popova, S., Sarnocinska-Hart, A., Taylor, B. (2002). *The Costs of Substance Abuse in Canada*. Retrieved from: http://www.ccsa.ca/Resource%20Library/ccsa-011332-2006.pdf

Reilly, J. J. (2005). Early life risk factors for obesity in childhood: A cohort study. *British Medical Journal, 330 (7504)*, p. 1357. doi: 10.1136/bmj.38470.670903.E0

Shapcott, M. (2009). Housing. In D. Raphael (Ed.) (2010), *Social Determinants of Health: Canadian Perspectives (2nd ed.)* (pp.221-234). 2nd edition. Toronto: Canadian Scholars' Press.

Statistics Canada (2008). *Premature and potentially avoidable mortality, Canada, provinces and territories.* Retrieved from: http://www5.statcan.gc.ca/cansim/pick-choisir?lang=eng&p2=33&id=1024312

Statistics Canada (2009a). *Survey of Household Spending*. Retrieved from: http://www.statcan.gc.ca/daily-quotidien/101217/dq101217a-eng.htm

Statistics Canada (2009b). *New cases and age-standardized rate for primary cancer by cancer type and sex, Canada, provinces and territories.* Retrieved from: http://www5.statcan.gc.ca/cansim/pick-choisir

Statistics Canada (2010a). *Live birth, by birth weight (less than 2,500 grams) and sex, Canada, provinces and territories, annual*. Retrieved from: http://www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=4#M_4

Statistics Canada (2010b). *Health indicator profile, two-year period estimates, by age group and sex, Canada, provinces, territories, census metropolitan areas and influence zones.* Retrieved from: http://www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=4#M_4

Statistics Canada (2011a). *Live births, by birth weight and sex*. Retrieved from: http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/health103a-eng.htm

Statistics Canada (2011b). *Body Composition of Canadian Adults*. Retrieved from: www.statcan.gc.ca/pub/82-625-x/2012001/article/11708-eng.htm

Statistics Canada (2013). *Labour Force Survey*. Retrieved from: http://www5.statcan.gc.ca/cansim/a05?lang=eng&id=01095324

The Newfoundland and Labrador Alliance for Control of Tobacco (2013). *Second-Hand Smoke*. Retrieved from: http://www.actnl.com/problemsecondhand.html

University of Waterloo (2011). *Youth Smoking Survey 2010-2011*. Retrieved from: http://www.yss.uwaterloo.ca/results/YSS2010-2011_supplementary_tables_en.pdf

Vaughan, D. A., Cleary, B. J., Murphy, D. J. (2013). Delivery outcomes for nulliparous women at the extremes of maternal age: A cohort study. *British Journal of Obstetrics and Gynaecology*, *121(3)*, p. 261-8. doi: 10.1111/1471-0528.12311

Work Group for Community Health and Development (2013). *Identifying Community Assets and Resources Community Tool Box*. Retrieved from: http://ctb.ku.edu/

World Health Organization (2003a). *Investing in Mental Health*. Retrieved from: http://www.who.int/mental_health/media/investing_mnh.pdf

World Health Organization (2003b). Diet, nutrition and the prevention of chronic diseases. *WHO Technical Report Series,* 916. Retrieved from: http://www.who.int/dietphysicalactivity/publications/trs916/en/gsfao_overall.pdf?ua=1

World Health Organization (2012). *Sexually Transmitted Infections*. Retrieved from: http://www.who.int/topics/sexually_transmitted_infections/en/

Appendix

Community Consultations

Community consultations occurred in various communities in Green Bay including South Brook, Triton, Robert's Arm and Springdale. Attendance was low as it is a challenge to get people to participate in public meetings. GBHC staff were encouraged to attend the community consultations.

Results:

Some of the biggest concerns for Green Bay include mental health issues, aging population, access to healthy foods, caregiver support, street drugs and or abuse of prescription drugs and transportation to access services and programs.

For many communities outside of Springdale, childcare is an issue as there is a lack of daycare centres which can affect parents' ability to work. Access to health and services is also an issue for communities outside of Springdale either due to transportation issues, distance or other factors. Some communities in Green Bay struggle with water quality issues.

All communities felt there were adequate services and programs available for child development but feel they are underutilized. Many respondents felt that citizens in their communities are generally unhealthy.

An aging population means fewer volunteers; fewer programs due to lack of participants to sustain; strain on healthcare systems, caregiver issues; increasing chronic diseases; and lower tax base to support municipal economies. Businesses may also be affected due to fewer consumers or consumer finances.

Consultations that occurred validate the priorities of the Green Bay Primary Health Care Lead Team and the Community Advisory Community (see page 85).