Environmental Scan 2013-2014

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Foreword

Dates written in the form "2012" represent a calendar year from January 1 to December 31.
Dates written in the form "2012/13" represent a fiscal year from April 1 to March 31.
Dates written in the form of "2012 and 2013" represent the two calendar years.
Dates written in the form of "2011 to 2013" represent combined data for the three calendar years.

The Canadian Institute for Health Information (CIHI) discontinued the annual Health Indicators Report in 2013. The Canadian Hospital Reporting Project has also been discontinued. Health indicators that continue to be reported are now available on CIHI's Health Indicator e-publication and/or Your Health System. Some indicators were not updated in these new releases however; the status of these indicators will be further discussed at the invitational Consensus Conference in the fall. Also, a number of indicators are available by request only.

External Analysis

Demographics

Population

The Western region includes communities from Port aux Basques southeast to Francois, northwest to Bartlett's Harbour, and on the eastern boundary north to Jackson's Arm. Based on an estimate by the Economics and Statistics Branch (2013) from the 2011 Statistics Canada census, the Western region's population in 2011 was 77,980 compared to 79,460 in 2006 and 81,595 in 2001. Those aged 65 and older comprised 20.0% of the population, while in the province, 16% were over the age of 65 and in Canada, this percentage was 14.8%. The provincial population has increased from 505,470 in 2006 to 514,535 in 2011 (1.8% change). This is the first time that the population of Newfoundland and Labrador has had a positive population change since the 1981-1986 Statistics Canada Census. The medium scenario is considered to be the "most likely" and is utilized in population predictions. Applying medium scenario assumptions, the Government of Newfoundland and Labrador (NL) is projecting that the population will decline from the current 77,980 to 74,239 by 2035 in the Western region, with 34.4% of the population being over the age of 65 years.

The segment of the population who are members of the Qalipu Mi'kmaq band has not been determined to date. At present there are a number of applications for membership in this band and they are yet to be processed. In the Western region, this is of significant importance, as culture must be considered in the provision of health care programs and services.

Migration

The Government of NL (2013) is expecting net in-migration for the next two years, followed by net out-migration between 2016 and 2018 as several major projects are completed; Hydromet facility in Long Harbour, Hebron, Kami, and the Lower Churchill. Investments in Muskrat Falls and the Vale nickel processing operation in Long Harbour also strengthen the economy. The Residual Net Migration (the population in the previous year minus the current population and

removing the effect that births and deaths has on the population) for the Western region was 0.32% (260 individuals) in 2011. For the province, it was 0.56% (2895 individuals) in 2011.

F*ertility*

According to the Newfoundland and Labrador Centre for Health Information (NLCHI), the birth rate in the Western region continues to decrease slightly. The crude rate per 1000 in 2013 was 7.5, compared to 7.6 in 2012 and 7.7 in 2011. The provincial rate in 2013 was 8.6, compared to 8.5 in 2012 and 8.8 in 2011. In 2013, the fertility rate for the Western region was 1.5 compared to the provincial rate of 1.4. Fertility rates are defined as the average number of children per woman.

Mortality

According to the NLCHI, the median age of death in the Western region in 2013 was 74.6, compared to 74.3 in 2012. The provincial median age of death was 75.0 in 2013. In 2013, there were 806 deaths in the Western region (rate of 1035.6 per 100,000), compared to 749 deaths in 2012 (972 per 100,000).

Income

Higher income is typically associated with better health. In 2010, the gross income for individuals in the Western region was $25,600 (Community Accounts, based on Canada Customs and Revenue Agency). For the province and Canada, gross personal income per capita was $28,900 and $31,600, respectively.

The personal income per capita level in the Western region continues to increase incrementally: $23,800 in 2008, $24,400 in 2009, and $25,600 in 2010 (Community Accounts, based on Canada Customs and Revenue Agency). In 2010, the provincial personal income per capita was $28,900, the eighth highest of the 13 provinces in Canada.

The median income for individuals 65 and older in the Western region continues to increase incrementally and in 2010, this figure was $18,400. The median income for the province in 2010 was $18,600 and in Canada it was $23,100.

Employment

In 2011, the unemployment rate for the Western region was 21.1%, compared to 14.6% in the province and 7.8% in Canada. The unemployment rate is defined by Statistics Canada as the ratio of unemployed individuals to the total labour force. According to Statistics Canada (2011), "Unemployed refers to persons 15 years of age and over, excluding institutional residents, who, during the week (Sunday to Saturday) prior to Census Day, were without paid work and were available for work and either had actively looked for work in the past four weeks, were on temporary lay-off and expected to return to their job, or had definite arrangements to start a new job in four weeks or less."

In 2012, 38.1% of the labour force collected employment insurance at some point which is the lowest since 1991 when this data was published on the Community Accounts website. The same trend was seen provincially as 29.9% of the provincial labour force received employment insurance at some point which is also at the lowest percentage since 1991 (compiled by the Community Accounts Unit based on information provided by Human Resources Development Canada). Employment Insurance Incidence is the number of people receiving Employment Insurance during the year divided by the number of people in the labour force. In 2012, 10.9% of the population in the Western region received income support benefits (formally Social Assistance) during the year.

Education

The 2011 census reported that 20.3% (19.9% in 2006) of the population within the Western region aged 25 to 54 years had a high school certificate only, as their highest level of schooling, compared to 20.9% provincially and 23.2% nationally. In the Western region, 25.6% of those aged 25 to 54 years had no high school certificate, diploma, or degree compared to 26.6% in 2006. In the province, this percentage was 20.3% and the national percentage was 12.7% (compiled by Community Accounts from Statistics Canada). In 2011, 39.3% of the population within the Western region aged 25 to 54 years had a trade or non-university certificate or diploma, compared to 38.4% in 2006 and 35.7% in 2001. In 2011, 7.5% (8.5% in 2006) of the population aged 25 to 54 years in Western region had a bachelor's degree compared to 11.0% in the province (10.1% in 2006) and 16.5% in Canada (15.8% in 2006) (compiled by the Community Accounts Unit from Statistics Canada, 2011).

Based on 2013/14 data from the Department of Education, student enrolment in the Western region is declining (Table 1). Significant decreases in school enrolment in the province have also occurred (Table 2).

Table 1. Student Enrolment in the Western Region

School Year	2003-2004	2013-2014
Total Students	12,895	9,730
Primary	3,190	2,645
Elementary	2,895	2,180
Junior High	3,415	2,295
Senior High	3,395	2,610

Table 2. Student Enrolment in the Province

School Year	1989-1990	2013-2014
Total Students	130,610	67,435
Primary	36,695	19,945
Elementary	28,920	14,860
Junior High	32,420	15,615
Senior High	31,500	17,015

Wellness

Well-Being

Compared to other provinces within Canada, residents in the Western region reported a greater sense of community belonging. According to the Canadian Community Health Survey (CCHS) (2011 and 2012) 84.3% of respondents in the Western region reported a sense of community belonging, up from 82% in the 2009 and 2010 survey, compared to 77.3% in the province and 65.4% in Canada. A sense of community belonging was seen in the rates of giving, volunteering and participating within the province. According to the 2010 Canada Survey of Giving, Volunteering and Participating, 92% of those 15 years of age or older in NL donated money in the past year and this is highest in the country and significantly above the national average of 84%. Just over 52% of those 15 years or older said they volunteered during the past year. This survey was administered again in 2013 and data will be available in 2015.

Research indicates that perceived stress can result in negative health consequences. In the CCHS (2011 and 2012), the percentage of respondents in the Western region who reported perceiving that most days in their life were quite a bit or extremely stressful was 12.6% down from 13.7% (2009 and 2010) compared to 12.6% provincially, and 23.2% nationally. In the same survey, 92.3% of respondents from the Western region reported being satisfied or very satisfied with life compared to 92.5% in NL and 92.3% in Canada.

Health Status

A major indicator of well-being is how a person rates his or her own health status. According to the CCHS (2011 and 2012), 56.4% of individuals in the Western region rated their health status as being very good or excellent compared to 60.3% of individuals in the province and 59.9% in Canada. The CCHS also includes a question about perceived mental health. In 2011 and 2012, 72.2% of the respondents in the Western region reported that their mental health was very good or excellent, compared with 73.2% in the province and 72.2% in the nation.

In 2010/11, CIHI introduced three new indicators to assess the performance of the mental health system; self injury hospitalization, 30-day readmission rates and repeat hospitalization rates. These rates continue to be presented through CIHI's Health Indicator e-publication available on

the CIHI website. Table 3 provides mental health performance indicators for the Western region, the province and Canada. Table 4 outlines the suicide rates per 100,000 population by Regional Health Authority and the province.

Table 3. Mental Health Performance Indicators

Indicator	Data Source	Western Region	NL	Canada
Age standardized self-injury hospitalization rate per 100,000	CIHI	2010/11-123 2011/12-100 2012/13-109	2010/11-83 2011/12-86 2012/13-97	2010/11-66 2011/12-67 2012/13-66
Risk adjusted 30-day readmission percentage for selected mental illness	CIHI	2010/11-14.1 2011/12-12.2 2012/13-14.9	2010/11-11.0 2011/12-13.3 2012/13-12.3	2010/11-11.4 2011/12-11.6 2012/13-11.5
Risk adjusted percentage of individuals with repeat hospitalizations for mental illness within one year	CIHI	2009/10-15.7 2010/11-18.7 2011/12-17.9	2009/10-12.0 2010/11-11.0 2011/12-13.1	2009/10-10.8 2010/11-10.9 2011/12-11.1

Table 4. Annual Suicide Rates per 100,000 Population by Regional Health Authority of Residence, 2007-2009. Ages 10 plus, NL

Year of death	Regional Health Authority				Province
	Eastern	Central	Western	Labrador/Grenfell	
2007	11.21	5.82	12.63	20.86	11.13
2008	7.04	8.18	13.97	24.42	9.57
2009	8.46	10.55	14.10	24.52	10.86

Health Behaviors

Behaviors such as alcohol, drug, and tobacco use, tobacco exposure, physical activity, diet, and helmet use contribute to health.

alcohol use. Statistics Canada defines a heavy drinker as one who reports drinking five or more drinks on one occasion, at least once a month in the past year. According to the CCHS (2011 and 2012), 26.2% of people in the Western region reported having 5 or more drinks on one occasion, at least once a month in the past year compared to 21.5% of the previous survey. Provincially, 26.8% reported having more than 5 or more drinks on one occasion at least once a month in the past year, compared to 18.2% nationally.

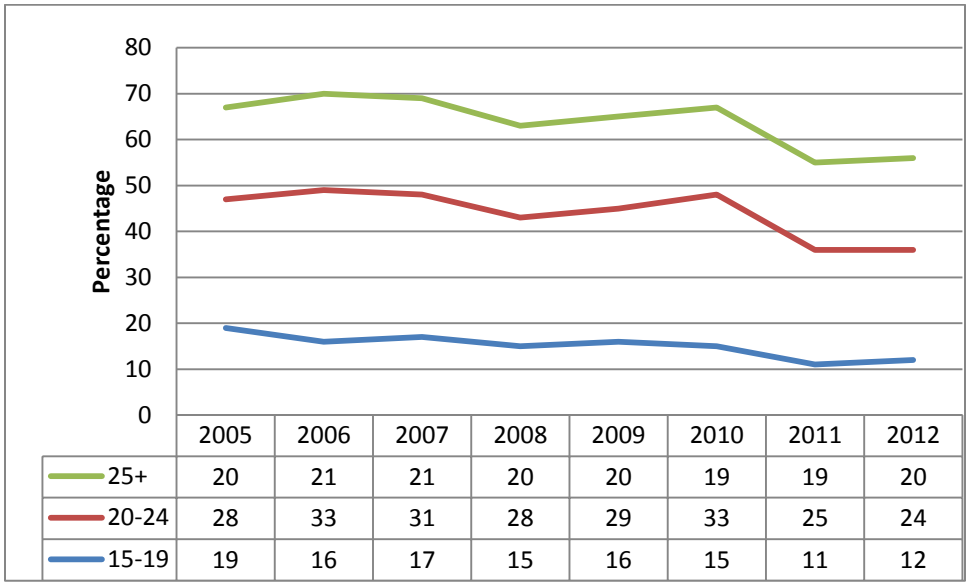
drug use. According to the Health Canada Canadian Alcohol and Drug Use Monitoring Survey (2012), there has been a slight increase in the number of people in NL who used cannabis in the past year and this was consistent with the national data. In 2012, 11% of those surveyed used cannabis in the past year compared to 10% in 2010 (10.2% in 2012 in Canada). There was also a slight increase in the percentage of NL respondents who reported using cannabis, cocaine/crack, methamphetamine/crystal methamphetamine, ecstasy, hallucinogens, salvia,

inhalants, heroin, pain relievers, stimulants, and/or sedatives to get high. In 2012, 11.1% of NL respondents reported using one or more of these drugs as compared to 10.2% in 2010 and 8.4% in 2009.

tobacco use. According to the Canadian Tobacco Use Monitoring Survey (CTUMS) (2012), the NL percentages are somewhat higher than national percentages across all age groups (15+, 15-19, 20-24, 15-24, and 25 plus age groups). Decreases in the 20-24 age groups have been reported in the province from the 2011 to the 2012 CTUMS surveys. Smoking prevalence in those aged 15 to 19 years was 12% in NL compared to 11% in Canada, 24% of those aged 20 to 24 years reported smoking compared to 20% in Canada, 18% of those aged 15-24 in NL reported smoking compared to 16% nationally and 20% of those 25 and older reported smoking in NL compared to 16% in Canada.

According to the 2011 and 2012 CCHS, 20.2% of respondents in the Western region reported being daily smokers compared to 19.1% provincially and 15.3% nationally. Refer to Figure 1 for smoking behavior by age group in the Western region. Although some increases in smoking behavior has been reported in the province, the prevalence of students reporting having ever tried smoking a cigarette decreased since 2010-2011 in NL from 35% to 26% (Youth Smoking Survey, 2012-2013). Health Canada is moving towards a new biannual survey merging tobacco, alcohol and drug content in 2013. The survey is called the Canadian Tobacco, Alcohol and Drugs Survey (CTADS).

Figure 1. Smoking Behavior by Age Group in the Western Region (%)



	2005	2006	2007	2008	2009	2010	2011	2012
25+	20	21	21	20	20	19	19	20
20-24	28	33	31	28	29	33	25	24
15-19	19	16	17	15	16	15	11	12

tobacco exposure. The percentage of children up to age 17 years in NL who are regularly being exposed to tobacco smoke continues to decrease; a significant success for health promotion efforts across the country. The CTUMS (2012) reported that 3.1% of children up to the age of 17 years in NL are regularly exposed to tobacco smoke compared to 5.5% in 2010, 6.0% in 2009, 8.2% in 2008, 9.7% in 2007, and 18% in 2005. In 2012, the national figure for

children up to age 17 years being exposed to tobacco smoke was 4.5%, compared to 6.2% in 2010, 6.7% in 2009, 8% in 2008 and 9.5% in 2007.

physical activity and diet. Although more residents in the Western region reported being more active compared to the province and the nation, a greater percentage of residents in the Western region are overweight or obese (See Table 5). A substantial decrease in the population aged 12 and over who consume fruits and vegetables 5 to 10 times per day was reported from the 2009 and 2010 to the 2011 and 2012 CCHS. This percentage is also lower when compared to the overall percentage of Canadians.

Table 5. Personal Behaviors

Personal Behaviors	Data Source	Western	NL	Canada
Estimated % of adult population (aged 18 +) who are overweight (BMI 25.0 – 29.9) (Excludes pregnant women)	CCHS	2007 and 2008- 38.5 2009 and 2010-37.8 2011 and 2012- 35.9	2007 and 2008- 37.9 2009 and 2010-36.1 2011 and 2012-39.4	2007 and 2008- 33.9 2009 and 2010-33.9 2011 and 2012-34.0
Estimated % of adult population (aged 18+) who are obese (BMI 30.0 or higher) (Excludes pregnant women)	CCHS	2007 and 2008- 20.8 2009 and 2010-25.9 2011 and 2012-29.6	2007 and 2008- 25.3 2009 and 2010-27.8 2011 and 2012-26.8	2007 and 2008- 17.0 2009 and 2010-18.0 2011 and 2012-18.3
Estimated % of adult population (aged 18+) who are overweight or obese (BMI 25.0 or higher) (Excludes pregnant women)	CCHS	2007 and 2008-59.4 2009 and 2010-63.7 2011 and 2012-65.5	2007 and 2008-63.2 2009 and 2010-63.9 2011 and 2012-66.2	2007 and 2008-50.9 2009 and 2010-52.0 2011 and 2012-52.3
Estimated % of adult population (aged 12+) who are physically active or moderately active	CCHS	2007 and 2008- 47.3 2009 and 2010-53.5 2011 and 2012-55.1	2007 and 2008- 45.4 2009 and 2010-47.4 2011 and 2012-50.3	2007 and 2008- 50.5 2009 and 2010-52.3 2011 and 2012-53.8
Population % aged 12 and over, that consume fruits and vegetables 5 to 10 times per day	CCHS	2007 and 2008- 36.9 2009 and 2010-37.5 2011 and 2012-24.0	2007 and 2008- 30.8 2009 and 2010-29.0 2011 and 2012-25.9	2007 and 2008- 43.8 2009 and 2010-44.2 2011 and 2012-40.5

helmet use. According to CCHS (2011 and 2012), 47% of the respondents over the age of 12 in the Western region reported always wearing a helmet when riding a bicycle in the last 12 months compared to 40.7% in 2009 and 2010. Thirty nine point nine percent of the respondents over the age of 12 in the province reported always wearing a helmet (CCHS, 2011 and 2012).

Health Practices

Health practices of a population may be reflective of overall health. Indicators of health practice include cervical screening, mammography, and influenza vaccination uptake. Table 6 outlines statistics related to these health practices.

The Provincial Breast Screening Program and Cervical Screening continued to share space in the Western Memorial Health Clinic in an effort to enhance the Women's Wellness Program in the

Western region. An evaluation of this co-location was completed and actions have been identified based on the findings. The Provincial Breast Screening Program uptake is presented in table 6 below, however, it must be noted that a significant number of women in the Western region also have screening mammograms in other diagnostic imaging departments within the region. The 2011 to 2013 cervical screening rate (women aged 20 to 69) for Western Health was 63%, compared to 69% from 2009 to 2011 and 64% in the province.

In the prevention of cervical cancer, the HPV vaccination is offered to eligible girls. Since its' introduction, the 2012/13 fiscal year was the first year that there was an increase in its uptake. Staff influenza vaccinations also increased to 58% in the 2013/14 fiscal year from 55% in 2012/13 and 50% in 2011/12.

Table 6. Health Practices

Health Practices	Data Source	Western Region
Cervical Screening	Western Health	2009 to 2011- 69% 2011 to 2013-63%
Mammography	Provincial Breast Screening Program	2009/10-58% 2010/11-60% 2011/12-58.5%
Influenza Vaccination for staff of Western Health who received influenza vaccine through employer	Western Health	2011/12-50% 2012/13-55% 2013/14-58%
Influenza Vaccination for Long Term Care residents	Western Health	2010/11-88% 2011/12-88% 2012/13-90%
Population aged 12 and older receiving influenza vaccination	CCHS	2007 and 2008-25.1% 2009 and 2010-23.9% 2011 and 2012-28.1%

Healthy Child Development

Children born in low-income families are more likely than those born in high-income families to have low birth weights, to eat less nutritious food, and to have more difficulty in school. Half of the lone parent families in the Western region had incomes of less than $29,000 in 2010, compared to $28,000 in 2009 and $26,800 in 2008 (compiled by the Community Accounts Unit based on Canada Customs and Revenue Agency, Statistics Canada). In 2010, half of the lone parent families in the province had incomes of less than $31,100. The national figure was $37,100.

The total number of children up to the age of 17 in the Western region in families receiving Income Support Assistance has continued to steadily decline and in 2012, this number was 2210.

The incidence of obesity and diabetes is high in the Western region of NL. Literature indicates that breastfeeding is a strategy that can deter the incidence of obesity and diabetes through

healthy feeding practices early in life. Breastfeeding initiation rates continue to increase on a regional and provincial level (See Table 7).

Table 7. Provincial and Western Region Breastfeeding Initiation Rates

Year	Western Region	NL
2010	59.9%	65.6%
2011	62.5%	66.7%
2012	61.4%	68.0%
2013	64.2%	69.6%

Chronic Disease

Health Outcomes

Research indicates that unhealthy practices are correlated with chronic diseases such as asthma, diabetes, cardiac disease, and cancer. The incidence of chronic diseases produces poorer health outcomes. The Western region of NL has higher rates of many chronic diseases than the province and Canada (See Table 8).

Table 8. Health Outcomes

Health Outcomes	Data Source	Western Region	NL	Canada
Asthma% (Aged 12+)	CCHS	2007 and 2008- 8.3 2009 and 2010- 8.1 2011 and 2012-8.4	2007 and 2008- 6.7 2009 and 2010- 8.4 2011 and 2012-8.3	2007 and 2008- 8.2 2009 and 2010- 8.3 2011 and 2012-8.3
Diabetes% (Aged 12+)	CCHS	2007 and 2008- 8.5 2009 and 2010-9.3 2011 and 2012-9.4	2007 and 2008- 8.8 2009 and 2010-8.2 2011 and 2012-9.4	2007 and 2008- 5.8 2009 and 2010-6.2 2011 and 2012-6.3
High Blood Pressure % (Aged 12+)	CCHS	2007 and 2008- 21.0 2009 and 2010-24.5 2011 and 2012-26.9	2007 and 2008- 20.7 2009 and 2010-22.9 2011 and 2012-22.5	2007 and 2008- 16.2 2009 and 2010-17.0 2011 and 2012-17.5
Bronchus and Lung Cancer incidence (age standardized rate per 100,000)	Statistics Canada Canadian Cancer Registry	2003 to 2005-44.1 2004 to 2006-42.9 2005 to 2007-42.5	2003 to 2005-44.3 2004 to 2006-57.4 2005 to 2007-49.7	2003 to 2005-57.4 2004 to 2006-57.3 2005 to 2007-56.9
Breast Cancer incidence (age standardized rate per 100,000 in the female population)	Statistics Canada Canadian Cancer Registry	2003 to 2005-80.8 2004 to 2006-76.8 2005 to 2007-83.4	2003 to 2005-88.9 2004 to 2006-86.8 2005 to 2007-85.8	2003 to 2005-97.5 2004 to 2006-98.0 2005 to 2007-98.4
Colon, rectum and recto sigmoid junction Cancer incidence (age standardized rate per 100,000)	Statistics Canada Canadian Cancer Registry	2003 to 2005-62.1 2004 to 2006-70.2 2005 to 2007-69.2	2003 to 2005-68.4 2004 to 2006-67.7 2005 to 2007-68.7	2003 to 2005-50.4 2004 to 2006-50.2 2005 to 2007-49.9
Prostate Cancer incidence (age standardized rate per 100,000)	Statistics Canada Canadian Cancer Registry	2003 to 2005-92.5 2004 to 2006-102.4 2005 to 2007-105.7	2003 to 2005-93.3 2004 to 2006-107.1 2005 to 2007-120.3	2003 to 2005-121.7 2004 to 2006-123.6 2005 to 2007-124.3

There is a higher incidence of colorectal cancer in the Western region and NL compared to Canada. In an effort to reduce the incidence of colorectal cancer in the Western region, Western Health continues to participate in the Provincial Colorectal Cancer Screening Initiative and report data related to this pilot project. Further efforts to reduce the incidence of colorectal cancer include Western Health's participation in the Provincial Endoscopy Initiative.

Western Health participated in the Atlantic Collaborative for Health Care Improvement- Self Management Support. Western Health implemented and evaluated self management support in diabetes and will use this plan as a template for other self management programs.

According to the NLCHI (2012), the leading causes of death for the province in 2009 were cancer (32.2%), diseases of the circulatory system (31.7%), and diseases of the respiratory system (8.4%). In the Western region, 31.2% of deaths were caused by diseases of the circulatory system, 30.5% by cancer and 8.9% by diseases of the respiratory system. Among the provinces, the highest rates of colorectal cancer are generally reported in the Atlantic Provinces (especially NL) and lowest rates in British Columbia and Alberta. See table 9 cancer,

cerebrovascular, circulatory, and total mortality and life expectancy in the Western region, NL, and Canada.

Table 9. Mortality Rates and Life Expectancy

Indicator	Western Region	NL	Canada
Lung Cancer mortality rate age standardized rate per 100,000 Statistics Canada, Health Profile	2000 to 2002- 55.8 2005 to 2007- 58.6	2000 to 2002- 45.0 2005 to 2007- 50.7	2000 to 2002- 47.4 2005 to 2007- 45.4
Prostate Cancer mortality rate age standardized rate per 100,000 Statistics Canada, Health Profile	2000 to 2002- 12.3 2005 to 2007- 14.0	2000 to 2002- 11.9 2005 to 2007- 9.8	2000 to 2002- 10.2 2005 to 2007- 8.3
Breast Cancer mortality rate age standardized rate per 100,000 Statistics Canada, Health Profile	2000 to 2002- 15.8 2005 to 2007- 13.9	2000 to 2002- 14.9 2005 to 2007- 13.7	2000 to 2002- 13.7 2005 to 2007- 11.9
Colorectal Cancer mortality rate age standardized rate per 100,000 Statistics Canada, Health Profile	2000 to 2002- 17.1 2005 to 2007- 21.8	2000 to 2002- 20.7 2005 to 2007- 23.7	2000 to 2002- 18.8 2005 to 2007- 17.9
Cerebrovascular Disease age standardized rate per 100,000 Statistics Canada, Health Profile	2000 to 2002- 53.3 2005 to 2007- 42.0	2000 to 2002- 49.2 2005 to 2007- 46.6	2000 to 2002- 40.9 2005 to 2007- 30.8
Circulatory Diseases (includes ischemic heart and cerebrovascular diseases, and all others) Age standardized rates per 100,000 Statistics Canada, Health Profile	2000 to 2002- 255.4 2005 to 2007- 225.5	2000 to 2002- 256.9 2005 to 2007- 232.4	2000 to 2002- 201.1 2005 to 2007- 157.3
Total Mortality (rate per 100,000) NLCHI	2011- 992.8 2012- 972.0 2013-1035.6	2011- 870.3 2012- 896.9 2013- 916.8	2007-714.4 2008- 716.2 2009- 706.8
Life Expectancy (age) 2007-2009 Statistics Canada, Health Profile	78.9	78.9	81.1

In 2012, CIHI introduced avoidable mortality indicators which link population health outcomes to the functioning of the health system. "Avoidable mortality refers to untimely deaths that should not occur in the presence of timely and effective health care or other public health practices, programs and policy interventions." (CIHI, 2012) The Western region is higher than Canada on all indicators and higher than the province on avoidable mortality from preventable causes (see Table 10).

Table 10. Avoidable Mortality Indicators (CIHI, 2014)

Indicator	Western Region	NL	Canada
Potentially avoidable mortality (age standardized mortality rate per 100,000)	2008/09-211 2009/10-203 2010/11-202	2008/09-211 2009/10-205 2010/11-200	2008/09-183 2009/10-177 2010/11-171
Avoidable mortality from Preventable Causes (age standardized mortality rate per 100,000)	2008/09-133 2009/10-125 2010/11-123	2008/09-128 2009/10-124 2010/11-120	2008/09-118 2009/10-115 2010/11-111
Avoidable Mortality from treatable Causes (age standardized mortality rate per 100,000)	2008/09-78 2009/10-79 2010/11-79	2008/09-83 2009/10-82 2010/11-80	2008/09-65 2009/10-63 2010/11-60

Internal Analysis

Internal Business Processes

Performance Indicators

The following indicators were previously reported in the environmental scan, however, CIHI temporarily suspended these indicators pending consultation with stakeholders; 28-day readmission after AMI, stroke and hysterectomy, hysterectomy, caesarean section, coronary artery bypass graft, percutaneous coronary intervention, cardiac revascularization, use of coronary angiography, hip and knee replacement rates, and readmission after hip and knee replacements. The performance indicators presented in table 11 are available on CIHI's Health Indicator e-publication (CIHI, 2014). The indicators presented in table 12 were made available to Western Health upon request. Table 13 provides effectiveness and appropriateness performance indicator data that are available on Your Health System Report (CIHI, 2014).

Table 11. Performance Indicators (CIHI, 2014)

Indicator	Western Health	NL	Canada
Hospitalized hip fracture event (rate per 100,000)	2010/11-631 2011/12-594 2012/13-550	2010/11-546 2011/12-533 2012/13-529	2010/11-439 2011/12-435 2012/13-428
Ambulatory Care Sensitive Conditions (Age standardized rate per 100,000)	2010/11-530 2011/12-518 2012/13-540	2010/11-461 2011/12-423 2012/13-419	2010/11-299 2011/12-290 2012/13-289

Table 12. Performance Indicators (CIHI, 2014)

Indicator	Western Health	NL	Canada
In-hospital hip fractures Age 65+ (rate per 1000)	2010/11- 2.11 2011/12-1.95 2012/13-1.1	2010/11- .99 2011/12-0.6 2012/13-0.9	2010/11- .79 2011/12-.13 2012/13-0
30-day AMI In-hospital Mortality rate per 100	2010/11-7.2 2011/12-8.0 2012/13-7.2	2010/11-8.1 2011/12-8.5 2012/13-7.5	2010/11-7.3 2011/12-7.0 2012/13-6.9
30-day Stroke In-hospital Mortality rate per 100	2010/11-17.4 2011/12-15.5 2012/13-13.1	2010/11-20.4 2011/12-20.4 2012/13-20.4	2010/11-15.0 2011/12-14.7 2012/13-13.8
Nursing sensitive adverse events for medical conditions (rate per 1000)	2010/11- 33.29 2011/12-36.84 2012/13-31.3	2010/11- 31.26 2011/12-29.83 2012/13-32.8	2010/11- 28.65 2011/12- 19.82 2012/13-21.7
Nursing sensitive adverse events for surgical conditions (rate per 1000)	2010/11- 44.1 2011/12-38.45 2012/13-34.9	2010/11- 48.97 2011/12-42.86 2012/13-48.4	2010/11- 36.15 2011/12-21.62 2012/13-25.6

Table 13. Performance Indicators (CIHI, 2014)

Indicator	Western Health	NL	Canada
Hospital Standardized Mortality Ratio (HSMR)	2010/11-119 2011/12-105 2012/13-90	2010/11-121 2011/12-114 2012/13-110	2010/11-96 2011/12-91 2012/13-89
30-Day Overall Readmission (Percent)	2010/11-8.7 2011/12-7.6 2012/13-8.0	2010/11-8.8 2011/12-8.4 2012/13-8.5	2010/11-8.6 2011/12-8.7 2012/13-8.8
Hospital Deaths Following Major Surgery (Rate per 100)	2010/11- 1.9 2011/12-.5 2012/13-1.8	2010/11- 2.1 2011/12-1.9 2012/13-2.1	2010/11-1.9 2011/12-1.8 2012/13-1.8
30-Day Medical Readmission (Percent)	2010/11-13.4 2011/12-12.1 2012/13-12.6	2010/11-13.7 2011/12-12.6 2012/13-12.8	2010/11-13.2 2011/12-13.4 2012/13-13.5
30-Day Obstetric Readmission (Percent)	2010/11-2.5 2011/12-1.7 2012/13-1.3	2010/11-2.7 2011/12-2.6 2012/13-2.4	2010/11-2.0 2011/12-2.0 2012/13-2.0
30-Day Readmission of Patients 19 and Younger (Percent)	2010/11-4.7 2011/12-6.6 2012/13-6.6	2010/11-4.3 2011/12-5.9 2012/13-6.4	2010/11-7.0 2011/12-6.6 2012/13-6.5

Efficiency

In the last fiscal year, regional median wait times for placement into long term care (LTC) increased by 12 days. With the exception of Dr. Charles LeGrow Health Centre (CLHC) and Bonne Bay Health Centre, all average wait times increased (See Table 14).

Table 14. Median Wait Times to Access Institutionally Based Long Term Care

Site	Median Wait Time 2011/12	Median Wait Time 2012/13	Median Wait Time 2013/14
Corner Brook Long Term Care Home	74 days	71 days	129 days
Bay St. George Long Term Care Centre	87 days	34 days	47 days
Calder Health Centre	235 days	14 days	15 days
Dr. Charles LeGrow Health Centre	9 days	35 days	16 days
Rufus Guinchard Health Centre	8 days	17 days	77 days
Bonne Bay Health Centre	127 days	153 days	104 days
Overall	68 days	52 days	64 days

Most responsible admitting diagnoses vary throughout Western Health facilities depending upon the program area. Further analyses of these diagnoses provide insight into the health and subsequent health needs of the population. The most responsible admitting diagnoses within the Medicine Program are diseases and disorders of the heart, COPD, signs/symptom of the digestive system, pneumonia and lower urinary tract infection. In the Surgery Program, the most

responsible diagnoses are unilateral knee replacement, partial excision/destruction of prostate closed approach, hysterectomy with non-malignant diagnosis, convalescence and unilateral hip replacement. Within the Acute Mental Health Program, the most responsible diagnoses are depressive episode without Electroconvulsive Therapy (ECT), stress reaction/adjustment disorder, bipolar disorder without ECT and schizophrenia and anxiety disorder.

In 2013/14 the average age of the adult population accessing acute care services, excluding admission related to pregnancy and childbirth, was 63.73 years compared to 63.92 years in 2012/13 and 63.46 years in 2011/12. Of this population, 20% were 80 years or older in 2013/14 and 2012/13.

Western Health continues to have high percentages of alternate level of care (ALC) which places pressures on acute care beds. These ongoing ALC issues may lead to inefficient patient flow, longer stays in emergency departments and cancellation of services. Significant challenges are noted for patients, particularly older adults, who wait in acute care for alternate care services, as the acute services no longer meet their needs, resulting in functional, social, and emotional decline. ALC days represent 26% of all the acute care days for Western Health. In 2013/14, Western Health utilized 57.84 acute care beds for ALC care, with an average length of stay of 45.56 days.

The Your Health System Report (CIHI, 2014) indicates that the cost of a standard hospital stay in the Western region was $6380 in 2012/13 compared to $6299 in the province and $5567 in Canada (Table 15). Efforts to improve clinical effectiveness of programs and services using lean principles continue throughout programs and services within Western Health.

Table 15. Cost of a Standard Hospital Stay (Dollars)

Indicator	2010/11	2011/12	2012/13
Western Health	6194.00	6278.00	6380.00
NL	6461.00	6537.00	6299.00
Canada	5338.00	5409.00	5567.00

Finance

Financial Conditions and Infrastructure

In the last fiscal year, Western Health received just over 3.8 million dollars from the Provincial Government for capital equipment. Investments in capital equipment and construction included; Western Memorial Regional Hospital (WMRH) Operating Room Boom Arm and Camera Tower Project, TRUS Biopsy Unit and Cysto Table for urology, Bone Density Measurement Unit, kitchen equipment at CLHC, Burlodge Meal delivery system at WMRH, construction of the Restorative Care unit within Corner Brook Long Term Care Home, medical imaging departments PACS servers, workstations and monitors, new equipment in the Sterile Processing

Departments at WMRH and CLHC, expansion of Logi-D throughout units within WMRH, emergency preparedness equipment (trailers for Mass Casuality Events) and so on.

Clinical Online Documentation was expanded to include implementation at WMRH, Corner Brook Long Term Care Home, and Sir Thomas Roddick Hospital.

Discussions related to hospital planning continue.

Human Resources

Human Resource Planning

Western Health's Human Resources Branch partners with external agencies in the recruitment and retention of health professionals. Many new employees were hired in 2013/14 including a youth case manager, social workers, nurse practitioners, occupational therapists, physiotherapists, family practice and emergency room physicians, internal medicine physicians, anesthetists, a general surgeon, psychiatrists, and an obstetrician/gynecologist. Human Resources was also involved in provincial negotiations, Health Care Management processes, implementation of the Health Human Resources Information System, and verifying information for the auditor general's report. The Attendance Management Program reported a slight increase in average sick leave per employee from 13.17 in 2012/13 to 13.53 in 2013/14.

Learning and Growth

Best Practice

Employee Development continued to support Western Health employees in their knowledge of best practice through the provision of education in Advanced Cardiac Life Support, International Trauma Life Support, 12 week ICU/ER Training Program, LPN Scope of Practice and many others. E-Learning modules continue to be developed and published for employees to access at their convenience.

The regional library provides a valuable resource to employees and students throughout the Western region to support evidence-informed decisions and best practice. The library performed 872 literature searches in the 2013/14 year.

Policies assist staff in best practice implementation. Staff throughout Western Health continue to develop, review and update policies as needed.

Accreditation

Work was ongoing within Western Health to achieve the key activities in the critical path in preparation for accreditation 2013. During the week of November 17 to November 22, 2013, surveyors from Accreditation Canada visited sites throughout the region. Surveyors had an opportunity to meet with staff, physicians, clients/patients/residents and community partners to

obtain feedback on the programs and services provided by Western Health. Western Health received Accreditation with Report. Western Health met 98% of the applicable criteria from the standards utilized to evaluate programs and services with only 51 of the total criteria evaluated unmet. Following the onsite survey visit, Western Health was required to provide evidence of action to Accreditation Canada on 11 unmet criteria in two reports to be submitted in April 2014 and April 2015. In follow-up to the submission to Accreditation Canada in April 2014 the accreditation decision awarded to Western Health was changed to Accredited with Commendation. Work continues to address the remaining unmet criteria including the priority criteria for the April 2015 report to Accreditation Canada.

Research and Evaluation

Quality Management and Research initiated, continued or completed 31 evaluations in the 2013/14 fiscal year. The Community Health Needs and Resources Assessment and Client/Patient/Resident Experience Surveys were significant projects completed in the last year. Many other quality improvement evaluations were initiated or completed including; the use of antipsychotic medications in LTC, the reduction of blood glucose monitoring in LTC, a health care provider satisfaction survey with laboratory services, falls prevention in personal care homes, provincial rapid response team evaluation, and many others. Western Health also reviews research to assess impact on resources and to determine whether the organization can accommodate or benefit from the research. The Western Health Research Resource Review Committee reviewed and approved twelve new studies to be conducted within the Western region.

Western Health staff contribute to knowledge and best practice through publication in academic journals and presentation at conferences. An article titled "Impact of Relocation from Home or Institution to Assisted Living on Adults with Mild to Moderate Dementia" was accepted for publication in the Perspectives Journal and "Analysis of the Influencing Factors Associated with Being Designated Alternate Level of Care" was accepted for publication in Home Health Care Management & Practice. Evaluation results have also been presented throughout Western Health such the Client/Patient/Resident Experience Survey results and the Evaluation of the CLHC Dialysis Satellite Unit findings. The staff at the Western Regional School of Nursing were integral in the coordination of the Atlantic Regional Canadian Association of Schools of Nursing conference held in Corner Brook in which faculty members presented their research.

Ethics

Western Health continued to partner with the Provincial Health Ethics Network Newfoundland and Labrador (PHENNL) in 2013/14. A policy was developed and implemented at Western Health based on the provincial feeding guidelines established by PHENNL. The Western Health Ethics Committee conducted six case consultations to help staff with ethical issues related to neglected adult, patient rights, sexuality and the elderly, substitute decision makers, nutrition and hydration, and organ transplantation. Awareness of Western Health values were highlighted using the virtues described in the Virtues Project developed by Pastoral Care.

Employee Wellness/Health and Safety

Employee Wellness/Health and Safety continues to support Western Health employees through the provision of many programs and services. Western Health was successful in the last PRIME audit which awards a significant refund. Occupational Health and Safety audits and regulatory Occupational Health and Safety inspections revealed positive outcomes, however, also illustrated opportunities for improvement which will help guide the development of the injury prevention program. Funding was also provided to obtain an electronic monitoring system for employees conducting client home visits. Further services included the Safe Resident Handling Program for LTC, which has been successful in reducing staff injuries, the Employee Health Support Program pilot, Smoking Cessation Program, Influenza Vaccination Program, Years of Service Award, Employee Wellness Grants, and Employee Assistance Program.

Clients/Patients/Residents

Best Practice

Based on best practice and research, several programs and initiatives have been implemented or continued in the last fiscal year:

- Care of the frail elderly with diabetes
- Wound and skin care practices in LTC
- Reduction in the use of antipsychotic medications in LTC
- Implementation of self management model in Diabetes
- Safety Huddles
- Central Orthopedic Intake Clinic
- Sexual Assault Nurse Examiner Refresher
- Chronic Obstructive Pulmonary Disease Pilot Project
- Restorative Care Unit
- Fast Track Clinic in Emergency Department
- Clinical Decision Unit
- Breastfeeding Policy
- Western Health Model of Nursing Clinical Practice

Some of these initiatives were the result of partnership with external agencies such as Canadian Agency for Drugs and Therapeutics, Canadian Foundation for Health Information, and ConvaTec.

Volunteers have significantly improved the delivery of programs and services throughout Western Health. Within Pastoral Care alone, there are 122 volunteers assisting in the delivery of Pastoral Care programming.

Client/Patient/Resident Feedback

Western Health values client/patient/resident feedback and provides opportunities for input. Client/patient/resident experience surveys were administered throughout the Western region in 2013/14 throughout all programs and services. Results indicated that Western Health has many strengths including care from health care providers and that one of the opportunities for improvement is enhanced communication. Reports were compiled and uploaded to the intranet and the Western Health website.

Safety

Client/patient/resident safety is a priority for Western Health and is evident in the many safety initiatives across the continuum of care;

- Falling Star Program
- Calcium and Vitamin D Supplementation Program
- Feeding Guidelines
- Safe Client Handling and Movement Program
- Medication Reconciliation
- Prevention of Ventilated Associated Pneumonia
- Prevention of Surgical Site Infections
- Stop Infections Now
- National Framework for Palliative Care, "The Way Forward"
- Community Action and Referral Effort
- Staff Safety Alert Panel
- Point of Care Glucometer Testing
- Preparation for the Adult Protection Act
- Falls Prevention Program in Personal Care Homes
- Prevention of Venous Thromboembolism
- Antimicrobial Stewardship Program

Occurrence reporting is essential to improving patient safety and enhancing quality of care. Western Health continued to support the ongoing development, utilization and review of the Clinical Safety Reporting System (CSRS) clinical operations as well as well as data integrity initiatives in partnership with external agencies. Enhancing communication related to occurrence reports and trends was also a priority within Western Health.

Improving Population Health

Community Health Needs and Resources Assessment Summary Reports were completed and provided information to inform Western Health's Strategic Plan. These documents were uploaded to the intranet and internet. Strategies to address the key challenges confronting community members throughout the Western region continued through a number of venues including partnerships with external organizations and community advisory committees. Inclusion of populations such as the aboriginal and francophone groups was highlighted in these assessments and efforts to include and improve connections with these groups were initiated. In

addition, the Regional Health Promotion Framework document and strategies were finalized which support partnerships in addressing identified health needs in the community. Ongoing initiatives, new activities, committees, and partnerships with external organizations to promote healthy behaviors and practices throughout the Western region included:

- Community Forums
- Kids in the Community Kitchen
- Obstacle Course Program
- Action Bins Program
- Western Regional Wellness Coalition
- Western Injury Prevention Coalition
- 5-2-1-0 Campaign
- Learning from the Start Program
- Lifestyle Awareness Workshops
- Safer Bars Campaign
- Girls/Boys Circle
- Strengthening Families
- What's with Weed
- Raising Families group
- Promoting Positive Choices
- Youth Voices, Healthy Choices

Access

According to the CCHS (2011 and 2012), 89.5% of residents in the Western region of NL reported having a regular medical doctor compared to 91.3% in the province and 84.9% in Canada.

From 2012/13 to 2013/14, telehealth usage increased by 9%, enhancing access to residents of the Western region. Programs and services offered through telehealth such as chronic disease prevention and management of diabetes, social work, mental health and addictions, psychiatry, internal medicine, and so on, can now be accessed throughout other sites in the Western region. These new sites include Bay St. George, Ramea, Francois, and Woody Point. Occupational Therapy now offers services through telehealth as well. Significant increases in mental health and addictions services through telehealth were reported throughout the Western region, particularly in Mental Health Review Board Conferences, pediatric appointments, and adult psychiatry. To address the challenges related to awareness and utilization of telehealth, actions have been established in the 2014/15 Telehealth Plan.

Telehealth has alleviated some issues related to access; however, access continues to be a challenge for Western Health, particularly in rural areas of the region. Services to residents in rural areas of the region are also offered through outreach clinics and visiting specialists and include neurology, urology, dermatology, oncology, internal medicine and so on.

Despite the increase in referrals to the Mental Health and Addictions Program, the number of clients on the wait list has not significantly increased. From 2012/13 to 2013/14, the number of referrals to Mental Health and Addictions Program increased by 8.6% and the number of clients on the wait list increased from 367 in 2012/13 to 368 in 2013/14. The establishment of clinical efficiency standards, telehealth, Assertive Community Treatment team, and other strategies has improved access to this program.

Healthy Child Development

The number of live births increased from 2012/13 to 2013/14 from 548 to 628. As a result, visits and activities in Child Health Clinics and Healthy Beginnings have also increased. Community Health and Family Services/Health Promotion-Primary Health Care Programs identify and monitor areas of concern related to child health through Preschool Health Checks. The top three concerns are: speech defect, BMI for age greater than 85%, and vision defects. Referrals to Speech Language Pathologists, Nutritionists, and Dietitians have increased. However, nearly 80% of parents of children identified as having a BMI greater than 85% refuse referrals. Plans to identify issues related to the high number of refusals are being established.

Healthy Aging

Western Health continues to foster a healthy aging environment within LTC and throughout the Western region by delivering programs and services such as restorative care and healthy aging clinics. Also, palliative care and end of life care education has been provided to LTC staff. These staff are now able to provide these services in LTC rather than residents having to be admitted to acute care, further improving delivery of care to residents in the Western region. Planning for the Community Rapid Response Team which is designed to assist older individuals to live at home with appropriate supports is in progress. Other work continues within LTC to promote positive aging images such as the development of age related posters, training on the Gentle Persuasion Approach, Person Centred Care, About Me program, Healthy Aging Calendar, Resident Art Shows, Seniors Month and other activities.

Conclusion

Opportunities and Challenges

Common challenges exist for branches throughout Western Health including: recruitment and retention of difficult to fill vacancies, improving awareness of programs and services, improving access to Western Health programs and services, medication safety, hospital planning, and patient flow. The new strategic goals will assist Western Health to alleviate some of these challenges.

Strategic Plan Goals

As Western Health staff continue to lead the organization in successes and accomplishments, new goals and priorities are established. The new strategic plan (2014-2017) outlines goals for the upcoming three years:

1. By March 31, 2017, Western Health will have enhanced cardiovascular programs and services in keeping with the expanded chronic care model;
2. By March 31, 2017, Western Health will have enhanced medication safety to improve outcomes for clients, patients, residents and staff;
3. By March 31, 2017, Western Health will have improved access to emergency room services in keeping with the provincial strategy;
4. By March 31, 2017, Western Health will have enhanced access to information about programs and services through the implementation of a communication strategy.

Operational Goal

The following operational goal has also been established:

By March 31, 2017 Western Health will continue to enhance work life culture through the introduction and continuation of programs and initiatives, to align with the National Standard for Psychological Health and Safety in the Workplace.

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