Environmental Scan Central Health 2016

Central Health

This document is intended to provide a comprehensive current state analysis focused on the health status of the people and communities Central Health serves and the performance of the health system for strategic planning purposes.

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About the Scan

Central Health's Environmental Scan is a comprehensive assessment and current state analysis, focusing on the health status of the people and communities served and the performance of the health system. The region of focus is central Newfoundland and Labrador, more specifically the catchment area of the Central Regional Health Authority, or Central Health. The information found herein will be utilized to assist strategic and operational planning within Central Health.

An environmental scan can be defined as the analysis and evaluation of internal conditions, external data and factors that affect the organization. This information is used to identify trends and factors of change that affect communities and health system performance for improved strategic planning.

The analysis and evaluation of the internal conditions of Central Health involved an extensive review of corporate documents, internal reporting systems and databases. Input in the development of the scan was provided by all levels of health care including senior leaders, physicians, directors, managers, frontline employees and volunteers. External feedback from community partners, municipalities/service districts and the public was gathered from the Primary Care Facilitators and Community Development Nurses responsible for the Community Health Assessment Process (CHAP). Input was obtained from community groups, such as the Community Advisory Committees and public online surveys.

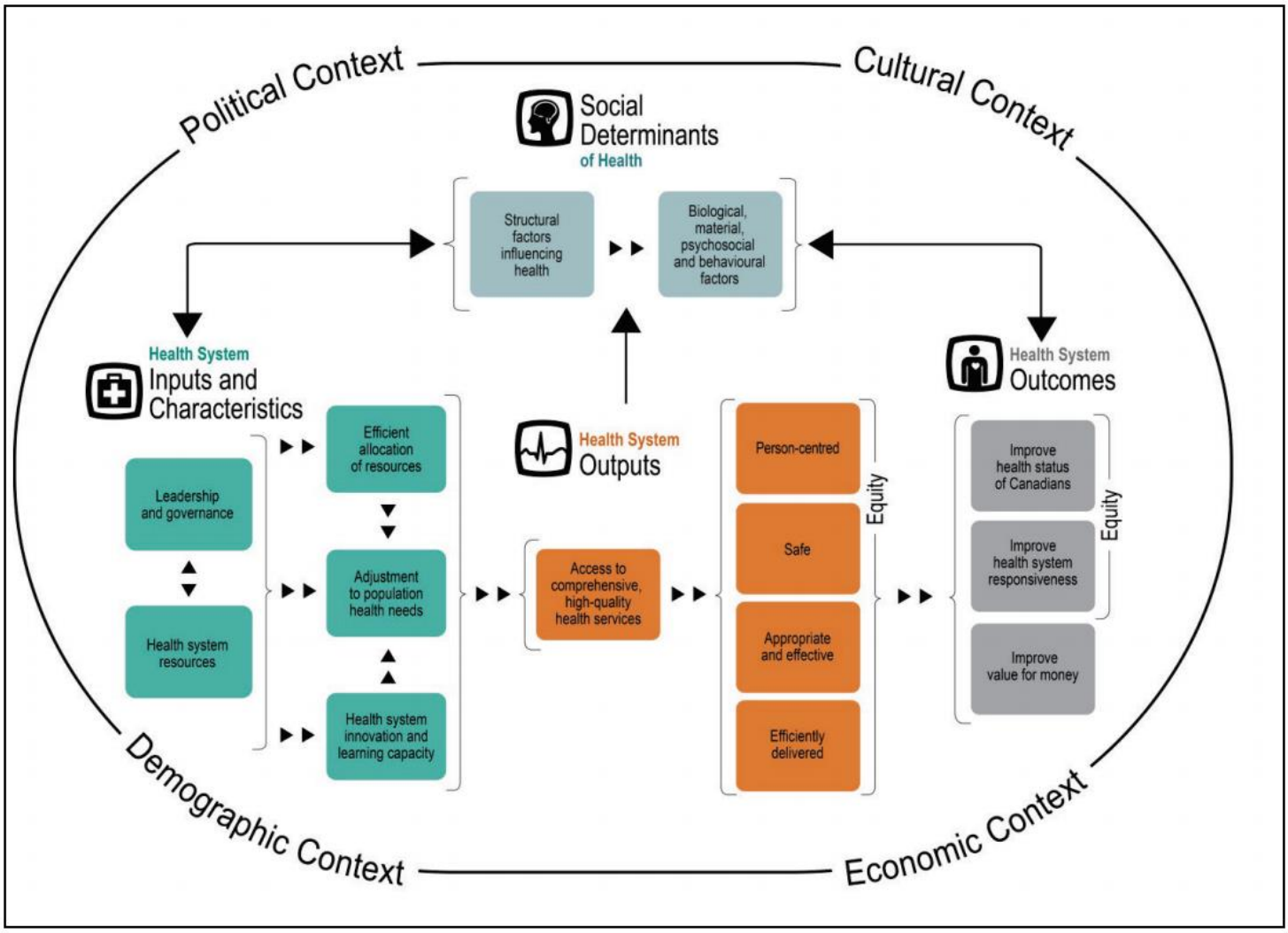
The 2017-2020 Strategic Directions set forth by the Provincial Government of Newfoundland and Labrador are outlined in Appendix A. These Strategic Directions must be considered as a part of the organizations strategic planning process and must be reflected as appropriate in the Central Health Strategic Plan, Operational Plans and also divisional work plans.

The majority of data provided in this document was derived from the following sources: Statistics Canada, (Canadian Census; Canadian Community Health Survey (CCHS), National Household Survey and Canadian Labor Survey); Newfoundland and Labrador Statistics Agency; Newfoundland and Labrador Centre for Health Information (NLCHI); Community Accounts; and the Canadian Institute for Health Information (CIHI). The most up-to-date statistics available were used and where possible comparisons with other regions, the province and the country are provided.

About the HSP Measurement Framework

The document is organized according to the new *Health System Performance (HSP) Measurement Framework* developed by The Canadian Institute for Health Information (CIHI). The framework builds on the previous CIHI–Statistics Canada Health Indicators Framework (Published in 1999) and meets the following criteria: it takes into consideration the evolving performance information needs of its various users; it is grounded in the current state of scientific knowledge; and it is actionable, because it offers an analytical and interpretative framework that can be used to manage and improve health system performance. The framework is divided into four quadrants composed of different performance dimensions linked through expected relationships. The quadrants sit within a demographic, political, economic and cultural context. The contextual environment influences the relationship among the dimensions of each quadrant and the way they interact with each other. An assessment of how well the health system achieves its goals cannot be done without considering all performance dimensions and contextual elements.

When interpreting information provided in this environmental scan, consideration of how the demographic, economic, cultural and political climate influences the health of the people and communities that Central Health serves will help assist the Board of Trustees to identify priorities and strategic directions for Central Health's strategic planning cycle for 2017-2020.



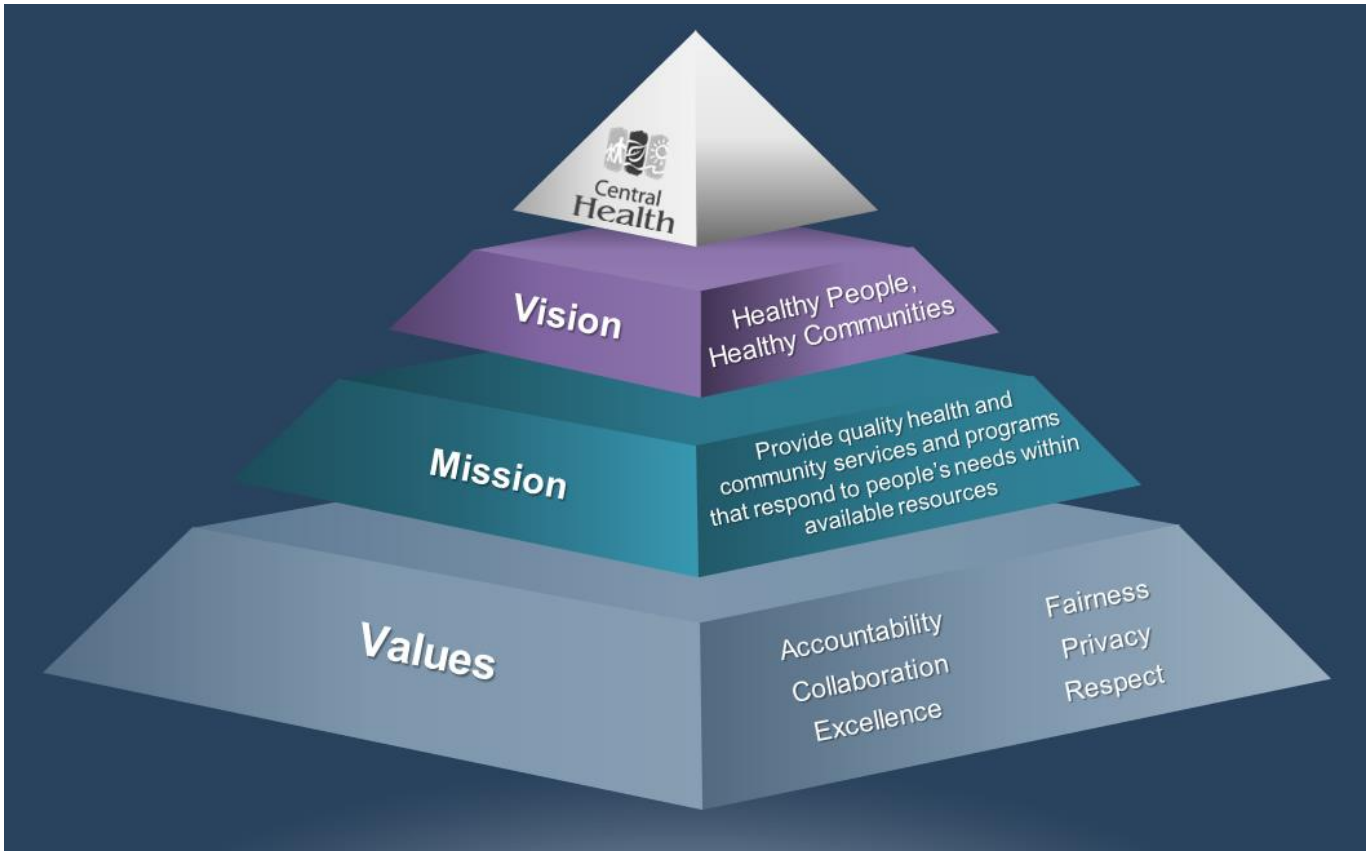
Source

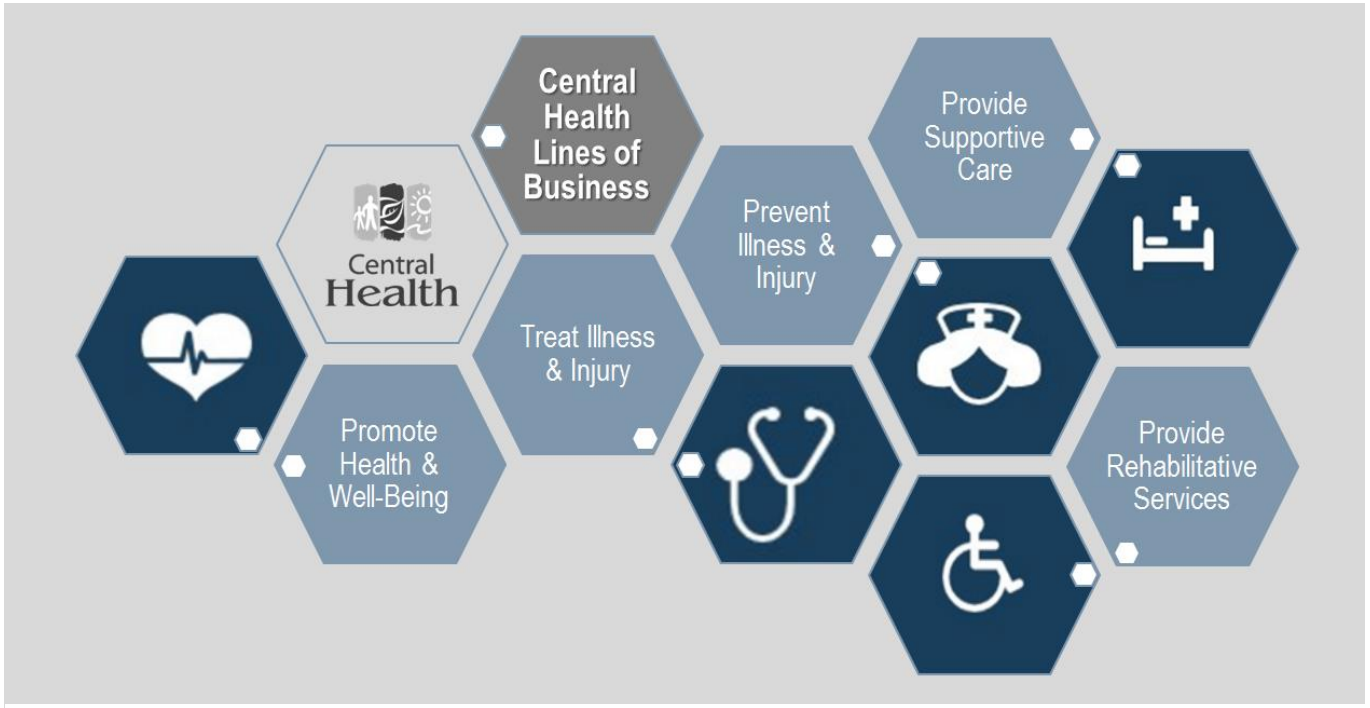
Canadian Institute for Health Information. *A Performance Measurement Framework for the Canadian Health System*. Ottawa, ON: CIHI; 2013.

About Central Health

The mandate for Central Health is the basis for the formation of the organization and creates a comprehensive accountability framework. The mission of the organization for 2011-2017, developed by the Board of Trustees, guides Central Health within the broader context of the mandate. The mission speaks to a strong focus on quality which will ensure that services and programs are provided in a safe, effective, person-centered and timely manner based on the best evidence available. In fulfilling its mission, Central Health strives to ensure that services and programs are responsive to the needs of the population, are available when needed and that clients' individual needs and expectations are respected. A challenge for Central Health is to ensure fiscal integrity of the organization while remaining committed to quality and responsive services.

Central Health's core values offer principles and a guiding framework for all employees, physicians and volunteers as they work in their various capacities to support the health and well-being of the people served by Central Health. This is achieved utilizing available resources, except where otherwise directed by legislation. There is currently a values review underway with feedback from residents of the Central region, clients/patients, physicians, employees and volunteers.





Central Health's Strategic Goals 2014-2017

Healthy Living

Access to Services

Client Flow

Social Determinants of Health

The social determinants of health present within the Central region influence the types of services required and the outcomes able to be achieved. Social determinants represent contextual factors influencing the health of a population (and inequalities in health) that shape and explain health system performance. These are separated into two different levels: structural factors and intermediary factors.

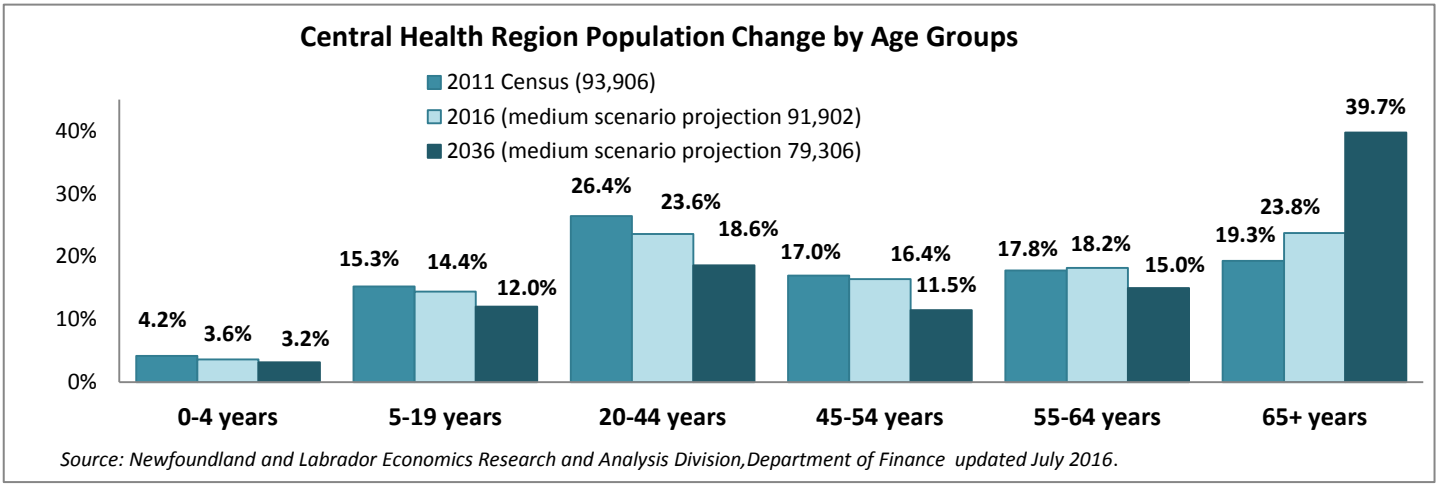
The People & Communities We Serve - Structural Factors

Central Health is the second largest of the Regional Health Authorities (RHAs) in Newfoundland and Labrador serving a population of approximately 93,906 providing health and community services to 177 communities divided into 10 health service areas. The region extends from Charlottetown in the east, Fogo Island in the north, Baie Verte in the west to Harbour Breton in the south. The geographical area encompasses more than half of the total landmass of the island and services 18.3% of the provincial population.

Based on public consultations, the Government of Newfoundland and Labrador released *Live Here, Work Here, Belong Here, A Population Growth Strategy for Newfoundland and Labrador, 2015-2025.* The strategy focuses on the workforce, families, communities and immigration. According to the strategy, there was a consistent decline in the population of Newfoundland and Labrador in the 15 years after the northern cod moratorium in 1992. Between 2008 and 2013, the province's population began to grow, which can be widely attributed to migration from other provinces and international migration (Government of NL, 2015).

The provincial government projects that the population of the Central Health region will reduce by about 15.5% over the next 25 years (a decline of about 14,600 people and a decrease of 2.5% of Newfoundland's overall population). This is the largest population change compared to the RHAs, the province and the country. In addition to the declining population, the average age of the population is increasing. By 2036, 2 out of 5 Newfoundlanders and Labradorians will be 65 years or older. The following are several relevant indicators related to the population of the Central Health region:

Aging Population ↑: Declining population is observed for all age groups except for 65 years and older, which accounted for about 20% of Central Health's population in 2011. This age group is expected to increase to about 40% of the population by 2036. It is projected the aging population will increase by 70% in the next 25 years, placing more pressure on the health care system. The median age is also higher –half of the population is living seven years longer compared to the country and 4 years longer compared to the province.



Source: Newfoundland and Labrador Economics Research and Analysis Division,Department of Finance updated July 2016.

- **Age-Dependency Ratio ↑:** A high dependency ratio indicates that the economically active population and the overall economy face a greater burden for supporting and providing social services required by the economically dependent population. Central Health's ratio is the highest among the four RHAs, the province and the country indicating an impact on social and economic development in the region. Increased social support and home support programs may be required as a result of less working-age people to support the aging population.
- **Migration Rate ↑:** The Central Health region has observed an increase in people moving, especially out of province. 295 individuals moved out of the Central region from 2006-2011, and about half of these people moved out of province. Central Health observed the highest interprovincial migration in this time period (47.3% compared to 17.8% in the country and 16.1% in the province).
- **Education ↓:** Student enrollment declined from 2012-2016 for the province and three of the RHAs, including Central. The total school enrollment for 2016 in the Central region was 11,528 (12.3% of the population).
- **Unemployment Rate ↑:** The number of people unemployed remains high in the Central region (18.2%) in comparison to the other RHAs, the province (12.8%) and the country (6.9%). The unemployed are at a greater risk of negative health behaviors and outcomes due to the socio-economic disadvantages associated with unemployment. Unemployment has been found to impact mental, physical and social health. Additionally, many studies have found an association between unemployment and increased mortality rates.
- **Income ↓:** A review of income indicators for 2013 shows that the people of the Central region made less money compared to the other RHAs, the province and the country. Personal income per capita was $5,300 less than the province, median income for couple families was $17,000 less than the province and average income for couple families was $20,000 less than couples in the province. The median income for lone-parent families was $3,500 less than the province. In addition, median income for females hovers around $15,000 less per year than that of a male.
- **Economic Self-Reliance Ratio ↓:** Canada has hovered around 87%-88%, Newfoundland and Labrador ranks second-last out of 12 provinces and Central Health has the lowest economic self-reliance ratio among the RHAs at 75.5%; however, there has been a slight upward trend since 2011.
- **Birth & Fertility Rate ↓:** Birth rates and fertility rates are declining nationally, provincially and regionally – Central has the lowest birth rate at 7.1 per 1,000 population compared to the RHAs, the province (8.9) and the country (11.4) for 2010-14. There were 635 births in 2015. Central Health has the lowest fertility rate (1.33 per 1,000 women) compared to the RHAs, the province (1.42) and the country (1.61). As well, both low and high birth weight rates are increasing for the region.

- **Death Rate ↑:** Death rates are increasing regionally, provincially and nationally. Central has the highest death rate, 10.6 per 1,000 population compared to the RHAs, the province (9.0) and the country (7.6).

Some of these indicators have been compiled by Health Service Area (HSA) in the table below. Notably, two of the ten HSA's showed an increase in population from 2006-2011 (Gander and Grand Falls-Windsor). The area that saw the largest decrease in population was Buchans; which also had the highest median age, proportion of population age of 65+ years, age-dependency ratio and death rate. The number of out migrants was 295 people in the Central region in 2013, which was the highest among the RHAs (54% moved out of the Iles of Notre Dame HSA). The Central Health region observed the highest proportion of the aging population among the RHAs, with a higher proportion residing in Buchans, Lewisporte and Green Bay HSA's.

POPULATION CHARACTERISTICS

AREA (See Page 6)	Population Change (2006-11)	Median Age (2011)	Age 65+ (2011)	Age-Dependency Ratio (2011)	Migration Rate (2006-11)	Birth Rate (2010-14)	Death Rate (2010-14)	Median Age of Death (2004-14)
National	5.9%	41	14.8%	21.6%	17.8%	11.4 ↑	8.0 ↑	78
Provincial	1.8%	44	16.0%	23.1%	15.4%	8.9 ↓	9.0 ↑	78
CH Region	**-2.1%**	**48**	**19.3%**	**29.0%**	**14.9%**	**7.1 ↓**	**10.6 ↑**	**79**
GHSA	9.7%	42	15.1%	22.2%	24.3%	9.8 ↓	8.9 ↑	81
GFWHSA	1.1%	47	18.6%	30.3%	14.7%	8.8 ↓	10.5 ~	75
BHSA	-10.1%	55	27.4%	45.0%	12.1%	5.6 ~	22.3 ↑	78
BVHSA	-7.5%	46	18.5%	23.9%	5.8%	5.1 ↓	9.4 ↑	76
GBHSA	-5.2%	50	21.2%	28.6%	18.5%	6.5 ↑	13.0 ~	75
COBHSA	-7.9%	46	16.2%	23.4%	7.6%	6.3 ↓	8.8 ↑	76
EHSA	-3.2%	49	20.7%	31.7%	15.4%	6.8 ↓	11.8 ↑	76
LHSA	-0.9%	50	22.4%	31.6%	19.5%	6.3 ↑	11.4 ~	78
INDHSA	-0.4%	51	20.6%	29.9%	10.6%	5.1 ~	9.7 ~	75
KCHSA	-4.8%	49	20.5%	32.3%	11.8%	6.6 ~	11.5 ~	78

INCOME CHARACTERISTICS

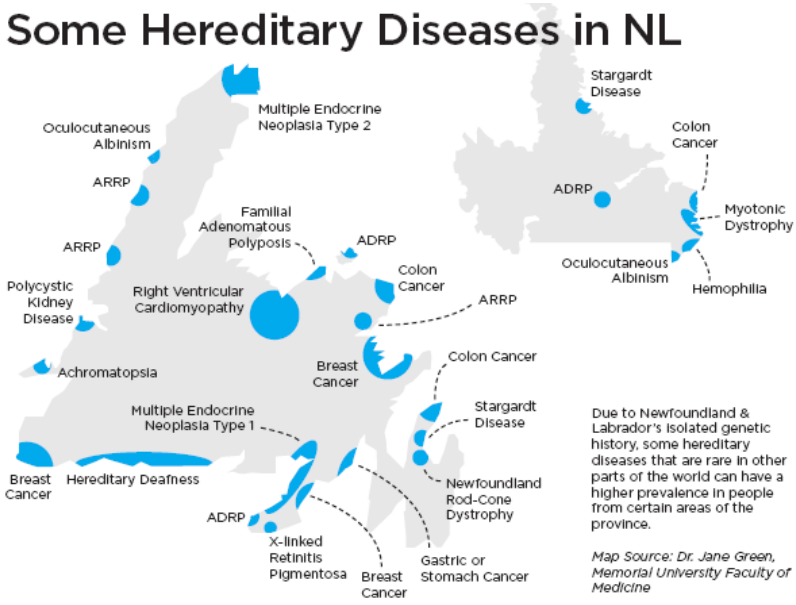
AREA (See Page 6)	Personal Income Per Capita (2013)	Average Couple Family Income (2013)	Low Income Family Incidence (2013)	Lone-Parent Family Median Income (2013)	Low Income Lone-Parent Family Incidence (2013)	Economic Self-Reliance Ratio (2013)	Income Support Assistance Incidence (2015)
National	$34,800	$105,600	-	$40,400	-	87.7% ↑	-
Provincial	$34,500	$101,300	15.9% ↑	$35,500	36.7% ↑	82.7% ↑	7.9% ↓
CH Region	**$29,200**	**$81,500**	**-**	**$32,000**	**-**	**75.5% ↑**	**8.1% ↓**
GHSA	$36,200	$105,200	14.5% ↑	$36,300	37.1% ~	86.0% ↑	7.1% ↑
GFWHSA	$31,400	$93,700	14.9% ↑	$30,600	39.0% ↑	78.6% ↑	6.7% ↓
BHSA	$30,500	-	14.0% ~	$39,000	35.1% ~	71.1% ~	7.5% ↑
BVHSA	$23,700	$73,600	12.6% ~	$30,450	42.2% ↑	69.3% ↑	6.4% ↓
GBHSA	$29,700	$82,350	12.0% ↑	$32,633	42.1% ↑	74.3% ↑	6.2% ↓
COBHSA	$26,300	$75,900	14.7% ↑	$30,500	39.6% ↑	73.9% ↑	6.4% ↑
EHSA	$23,360	$61,850	19.8% ~	$31,000	42.6% ~	66.0% ↑	12.7% ~
LHSA	$28,100	$74,450	13.5% ↑	$29,567	42.2% ↑	72.9% ↑	8.0% ↓
INDHSA	$24,529	$70,667	15.4% ↑	$29,560	42.3% ↑	65.9% ↑	8.9% ~
KCHSA	$27,443	$74,571	12.8% ~	$32,980	37.4% ↑	69.4% ↑	6.9% ↓

The People & Communities We Serve - Intermediary Factors

Intermediary determinants of health also influence the health of a population. Biological factors include genes, aging processes and sex-linked biology. Material circumstances include characteristics of neighborhoods, housing, working conditions and the physical environment. Psychosocial circumstances include stress, an individual's sense of control and social support networks. Behavioural factors include such things as smoking, exercise, diet and nutrition. There are interrelationships among these factors, as there are between intermediary and structural factors influencing the health of our people and communities in the Central Health region.

BIOLOGICAL FACTORS

The genes of our ancestors can have an effect on our health today. There has been provincial research done spanning the last three decades with regards to some rare hereditary diseases prevalent among communities of the Central Health region. Dr. Jane Green of Memorial University Faculty of Medicine has devoted her work to this area. Due to Newfoundland & Labrador's isolated genetic history, some hereditary diseases that are rare in other parts of the world can have a higher prevalence rate in people from certain areas. There are a number of diseases that have been identified in the Central Health region that have spanned many generations of families that are important to note about the population and include:



- **Cancer**

  There is a rare inherited cancer predisposition syndrome in which polyps form in the large intestine and may progress to colorectal cancer or other forms of cancer (e.g. endometrial or breast cancer in women). Regular colorectal screening has the potential to be particularly valuable in the province, where researchers have found that almost 4% of colorectal cancer cases come from families with *hereditary nonpolyposis* and that 0.9% of cases involve *familial adenomatous polyposis (FAP).* A further 43% of patients appear to have a familial link to colorectal cancer.

- **Sudden Cardiac Death**

  Arrhythmogenic Right Ventricular Cardiomyopathy/Dysplasia (ARVC/D) is a rare inherited disease of the heart muscle causing sudden cardiac death and is characterized with a disease-associated haplotype on chromosome 3p25 (ARVD5). Although rare elsewhere, ARVC/D is more prevalent among Newfoundlanders, particularly in the Central Health region (likely the highest incidence rate in the world for the disease). Since 1988, 14 families were diagnosed with an autosomal-dominant form of ARVC. Natural history data shows that males with ARVD5 who were not implanted with internal cardiac defibrillators (ICD) had a 50% chance of sudden cardiac death by the age of 40 and 80% chance by the age of 50. For women, the rate is 5% and 20%, respectively. This discovery has led to targeted genetic screening and individualized therapy that is significantly improving survival rates. Researchers developed a unique prevention program in 1999 in which people with no symptoms, but with a suspect gene and a family history, were implanted with internal cardiac defibrillators (ICDs), which can restart their hearts if they stop. Implanted ICD's for primary prevention in both sexes and secondary prevention in males significantly improves survival. Clinical diagnosis of ARVC is difficult. In the absence of accurate clinical tests for diagnosing ARVC, a genetic test can pre-symptomatically diagnose patients and can save lives if ICD treatment follows.

- Other conditions that were found to be more prevalent due to genetic predisposition in the province with a high proportion of families include:

- **Ocular Albinism:** This disease causes severe vision loss from birth due to a lack of pigment in the back of the eye.
- **Hemophilia A:** This is a genetic bleeding disorder that slows the blood clotting process. This genetic mutation causes slightly milder bleeding; however, it is prevalent among a large number of families in the Central region, particularly males.
- **Addison's Disease:** This is a rare hormonal disorder when the adrenal glands cease to function properly affecting cortisol and aldosterone production.

Autism Spectrum Disorder

Autism Spectrum Disorder (ASD), commonly referred to as Autism, is a complex developmental brain disorder caused by a combination of genetic and environmental influences. ASD is a condition that becomes noticeable in childhood, usually before a child turns 2 years old. ASD is characterized by communication difficulties, social and behaviour challenges and repetitive behaviours and it is considered a lifespan disorder. Having ASD can greatly affect everyday activities. Someone with ASD may have other health conditions that can be related to or are often seen with their ASD diagnosis. ASD makes it hard for people to adjust their behaviour to meet the demands of everyday life. Additional mental and health conditions can make this even more difficult. Some mental health conditions affecting those living with ASD include anxiety, depression, obsessive compulsive disorder (OCD), attention deficit hyperactivity disorder (ADHD). People with ASD also have higher rates of: epilepsy, sleep disorders, digestive issues, uncommon responses to pain (over- or under-reacting) and metabolism problems.

In Canada and the US, there has been an increase in the prevalence of ASD. According to the latest estimates (March 2014) from The Centers for Disease Control and Prevention (CDC) 1 in 68 8-year old children in the United States were identified with autism spectrum disorder (ASD). This represents a 30% increase in the prevalence rate previously reported by the CDC. This is the same rate used for Canada as well. Overall, current studies show that boys are almost 5 times more likely to receive a diagnosis of ASD than girls.

According to a needs assessment survey conducted for the Autism Society of Newfoundland and Labrador in 2015, there are currently no regularly collected statistics on ASD in the province, although two key studies have been completed to establish prevalence rates. One study indicated that 700 children between 2003 and 2008 were identified with ASD in at least one year. Another study found that the prevalence rates increased from 46 per 10,000 of 2-14 year olds in 2003 to 83 per 10,000 of 2-14 year olds in 2008. Data obtained from Central Health Child Development and Supportive Services indicate that rates seen in this clinic are estimated to be 19 per 10,000 of 0-14 year olds; however, this rate does not take into account all ASD diagnoses in the region. Due to the lack of comprehensive ASD surveillance, The Public Health Agency of Canada is in the process of developing a national surveillance system for ASD, dubbed "NASS".

Since 2014, children in the Central Region are able to be referred to the Child Development Team at JPMRHC. Prior to this, the Janeway Children's Hospital received most referrals for children with ASD, with some periodic service at JPMRHC. The Child Development and Supportive Services Department within the community obtained a developmental psychologist. This psychologist now provides some service to the developmental team at JPMRHC, enabling them to accept referrals for Autism more consistently since 2014.

Applied Behavioural Analysis (ABA) Intervention is delivered by Child Management Specialists in the Central region. This involves direct therapy by a Home Therapist in the child's home. Intervention is individualized and follows a model of service coordination with other service providers. Approximately 70% of preschoolers diagnosed with Autism avail of the ABA program, whereas only approximately 20% of children in school avail of the home therapy.

Down Syndrome

Down syndrome, a chromosomal abnormality that occurs due to the presence of an extra chromosome 21, is one of the most common congenital anomalies (or birth defects) worldwide. Most diagnoses are made by birth or within the first year after birth. Children with Down syndrome present with well-defined physical characteristics. They often experience intellectual delay and are at an increased risk for several medical conditions. Congenital heart defects and respiratory infections are the most frequently reported causes of death in children and young adults with Down syndrome.

Childhood leukemia is commonly associated with Down syndrome. The life-expectancy of individuals with Down syndrome has improved over time (Public Health Agency of Canada 2016).

The Public Health Agency of Canada's Canadian Congenital Anomalies Surveillance System (CCASS) monitors and reports on national estimates and trends of congenital anomalies including Down syndrome. According to the CCASS, the average rate of Down syndrome in Canada is 15.6 per 10,000 births (2005-2012). According to the Newfoundland and Labrador Anomalies Report 2015, the province had 24 per 10,000 births in 2013 with Down syndrome. Women 35 years of age and older are more likely to have a baby born with Down syndrome than younger women. Despite the increased risk to older women, there are more babies with Down syndrome born to younger women (age 34 and younger) because 52% of total births occur in women under 35 years.

Congenital Anomalies Surveillance

Congenital anomalies, or birth defects, are abnormalities of form, function or metabolism present at birth (although sometimes diagnosed later). The cause of most congenital anomalies is not known at this time. According to the Newfoundland and Labrador Anomalies Report for 2013 Births, congenital anomalies can have a significant impact on families, communities and the health care system. Major congenital anomalies can result in death or disability and require substantial medical care throughout life; less severe congenital anomalies can result in psychological, physiological, and economic difficulties despite treatment. The development of a congenital anomalies surveillance system is the first step in reducing the rate and burden of congenital anomalies in the province.

As a new system, congenital anomalies surveillance will provide baseline rates for Newfoundland and Labrador (NL). Due to low rates, data is unavailable for Central Health. However, in 2013 the province had:

- Circulator System:
    - Ventricular Septal Defect – 89 per 10,000
    - Stenosis Pulmonary Artery – 33 per 10,000
    - Atrial septal Defect – 24 per 10,000
    - Hypoplastic Left Heart Syndrome - <9 per 10,000
- Chromosomal:
    - Trisomy 18 - <9 per 10,000 births
    - Down Syndrome - 24 per 10,000 births
- Musculoskeletal System - <9-11 per 10,000 births
- Urinary System - <9 per 10,000 births
- Digestive System - <9 per 10,000 births
- Central Nervous System - <9 per 10,000 births
- Genital:
    - Hypospadias – 33 per 10,000 births
    - Undescended testis - <9 per 10,000 births
    - Indeterminate sex - <9 per 10,000 births
- Cleft palate - <9 per 10,000
- Cleft lip – 15 per 10,000

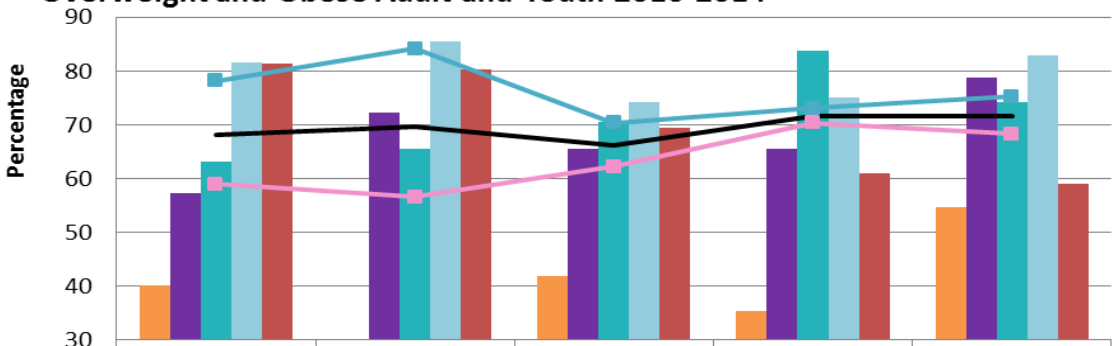
BEHAVIOURAL FACTORS

Overweight and Obesity

Being overweight or obese is a risk factor for many chronic diseases and is also associated with certain psychosocial problems, functional limitations and disabilities. In the Canadian Community Health Survey (CCHS), it includes those who reported height and weight corresponding to a body mass index (BMI) in the overweight range (adults 25-29.99) or obese range (adults 30+). Prevalence rates are on the rise. Overall rates in 2014 for adults were 54% for the country, 67.5% for the province and 71.6% for the Central Health region. More than half of adult Canadians are overweight and obese. Rates of overweight and obesity in Canadian adults have been on the rise, with significantly higher rates in 2014 than in 2010. In 2014, rates of adult overweight and obesity varied across Canada's provinces and territories, ranging from a low of 48% in BC to a high of 67.5% in Newfoundland and Labrador. In 2014, rates of overweight and obesity also varied across the different adult age groups, with lower rates observed among younger adults.

Overall rates in 2014 for youth (12-17 years) were 23.1% for the country, 46.6% for the province and 54.7% for Central Health. The percentage of youth who were categorized as overweight and obese ranged from a low of 18.6% in BC to a high of 46.6% in Newfoundland and Labrador. However, only Newfoundland and Labrador was significantly higher than the Canadian average. As with the youth rates, significantly higher rates were observed among adult males than among females in 2014.

Central Health Results of the Canadian Community Health Survey for Overweight and Obese Adult and Youth 2010-2014



	2010	2011	2012	2013	2014
12-17 Years	40.1	n/a	41.8	35.4	54.7
20-34 Years	57.3	72.3	65.6	65.6	78.8
35-44 Years	63.2	65.5	70.5	83.8	74.3
45-64 Years	81.6	85.4	74.3	75	82.8
65+ Years	81.4	80.3	69.5	61	59.1
Total (18+)	68.1	69.6	66.2	71.7	71.6
M 18+	78.2	84.1	70.4	73.1	75.2
F 18+	59	56.6	62.2	70.4	68.3

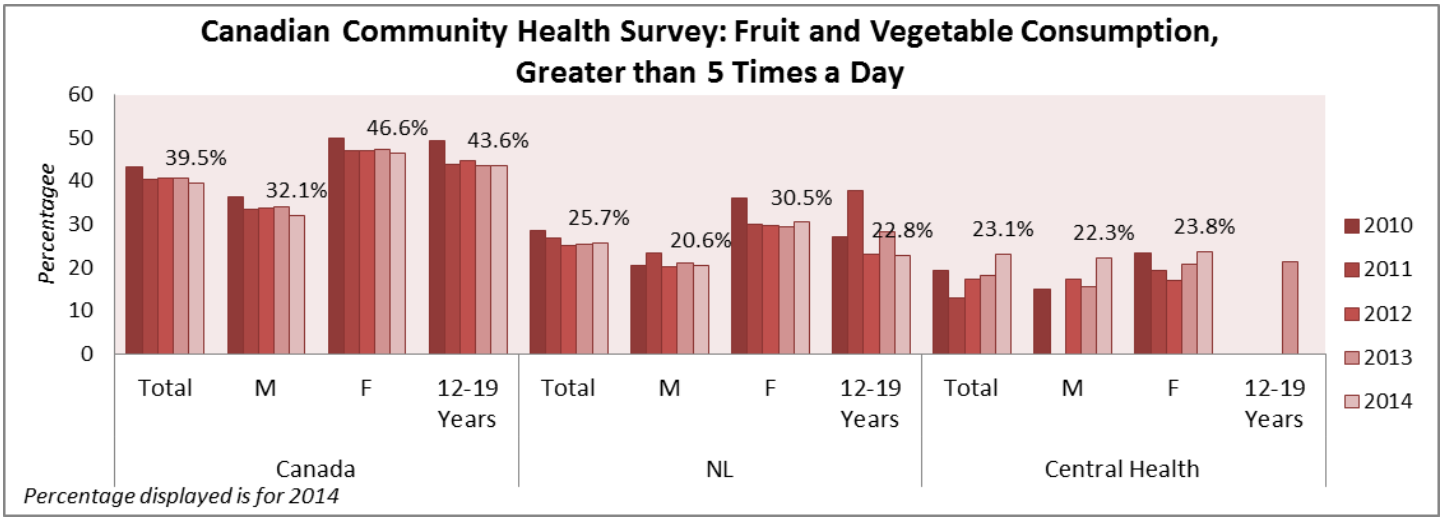
Note: data for the 18-19 Years subgroup was suppressed due to small counts

According to an article published in the Canadian Medical Association Journal May 2016 called *Recent Trends in the Prevalence of Overweight and Obesity among Canadian Children*, over the last 35 years, obesity rates among Canadian children and youth aged 6-17 years have more than doubled, from 6% in 1978-79 to 13% in 2013-14. Over the past 10 years, although there have been efforts to reduce childhood obesity, there has been no significant decline in childhood obesity and rates have remained stable but high.

Fruit and Vegetable Consumption

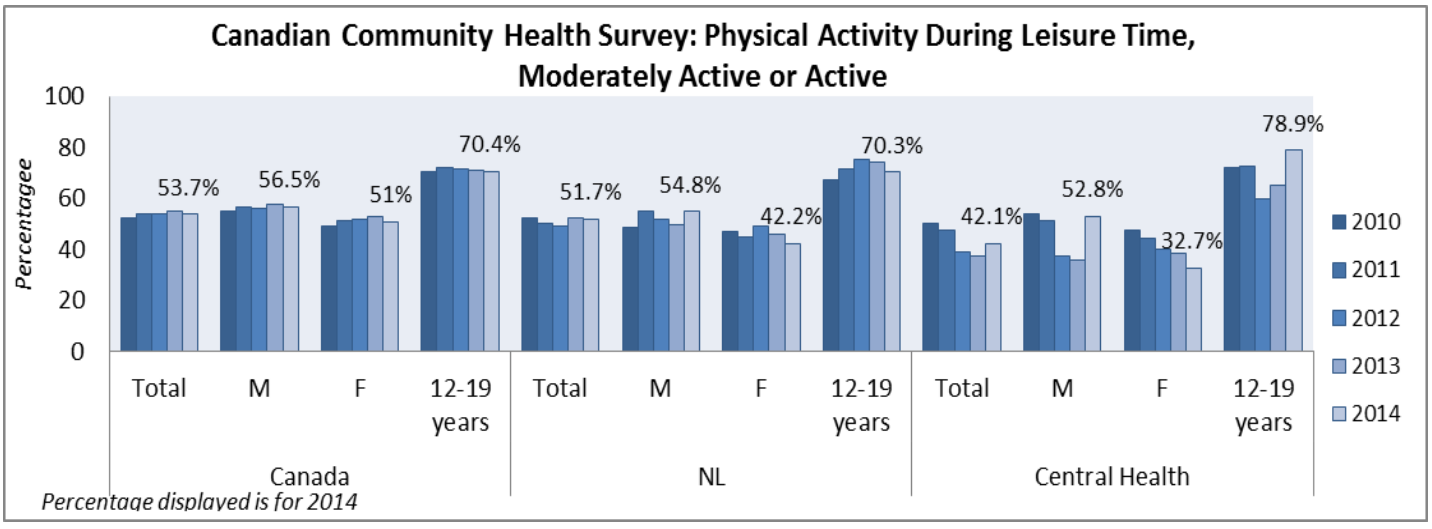
According to the World Health Organization (WHO), fruits and vegetables are important components of a healthy diet and are associated with healthy weights and a decreased risk of obesity. Sufficient daily consumption could help prevent major diseases, such as cardiovascular diseases and certain cancers. Insufficient intake of fruit and vegetables is

estimated to cause around 14% of gastrointestinal cancer deaths, about 11% of ischemic heart disease deaths and about 9% of stroke deaths globally. Since 2010, there has been a significant decrease in fruit and vegetable consumption among Canadians. Sex differences were also observed, with females having significantly higher rates of consumption than males. The proportion of those ages 12 and older who reported eating fruit or vegetables 5 or more times a day is the lowest for the Central Health region compared to the province and the country.



Physical Activity

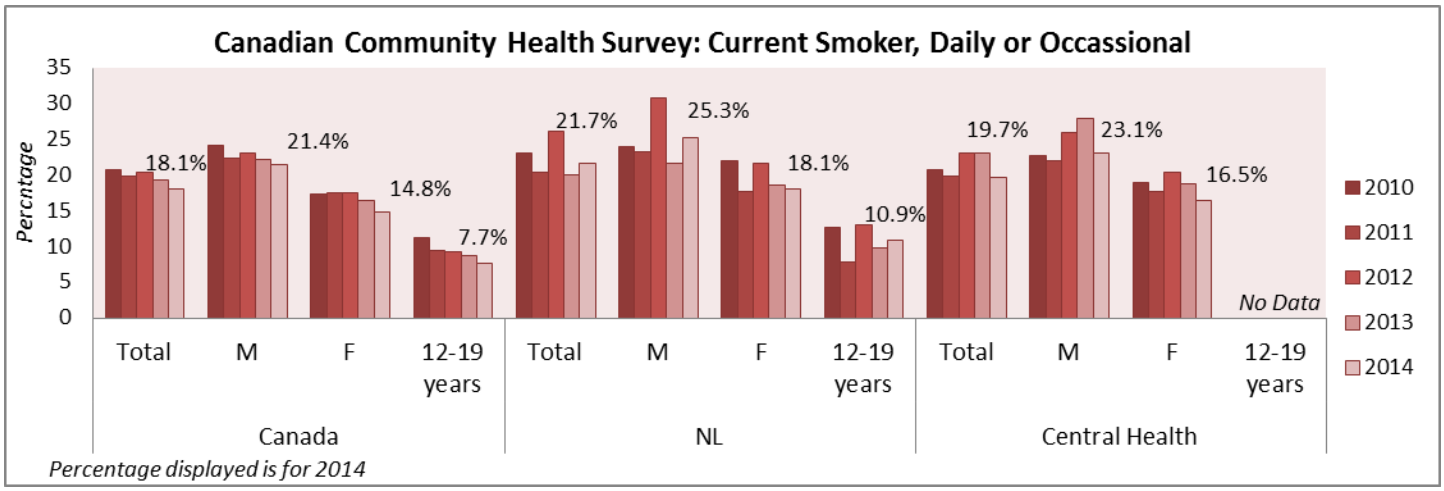
According to the WHO, globally, 6% of deaths are attributed to physical inactivity. This follows high blood pressure (13%), tobacco use (9%) and is equal to high blood glucose (6%). Moreover, the WHO reports that physical inactivity is the main cause for approximately 21-25% of breast and colon cancers, 27% of diabetes, and 30% of ischemic heart disease burden. Physical activity is on the decline for the Central Health region, more so for females and is lower compared to the province and the country. Physical inactivity is also higher for Central Health and is higher and increasing among females.



The results from two cycles of the Canadian Health Measures Survey (2009-11 and 2012-13) indicate almost 75% of three and four-year-olds in Canada are meeting recommended daily physical activity guidelines. However, for five-year-olds, the proportion is only 30%. The recommendation is 180 minutes a day of physical activity of any intensity, with progression toward at least one hour of energetic play by age five. For five-year-olds, the guidelines call for at least 60 minutes of moderate-to-vigorous physical activity a day. Physical activity among young children is associated with health benefits, including less obesity, motor skill development, psychosocial health and cardiometabolic health. Sedentary behaviour has been linked to increased obesity, and decreased psychosocial and cognitive development.

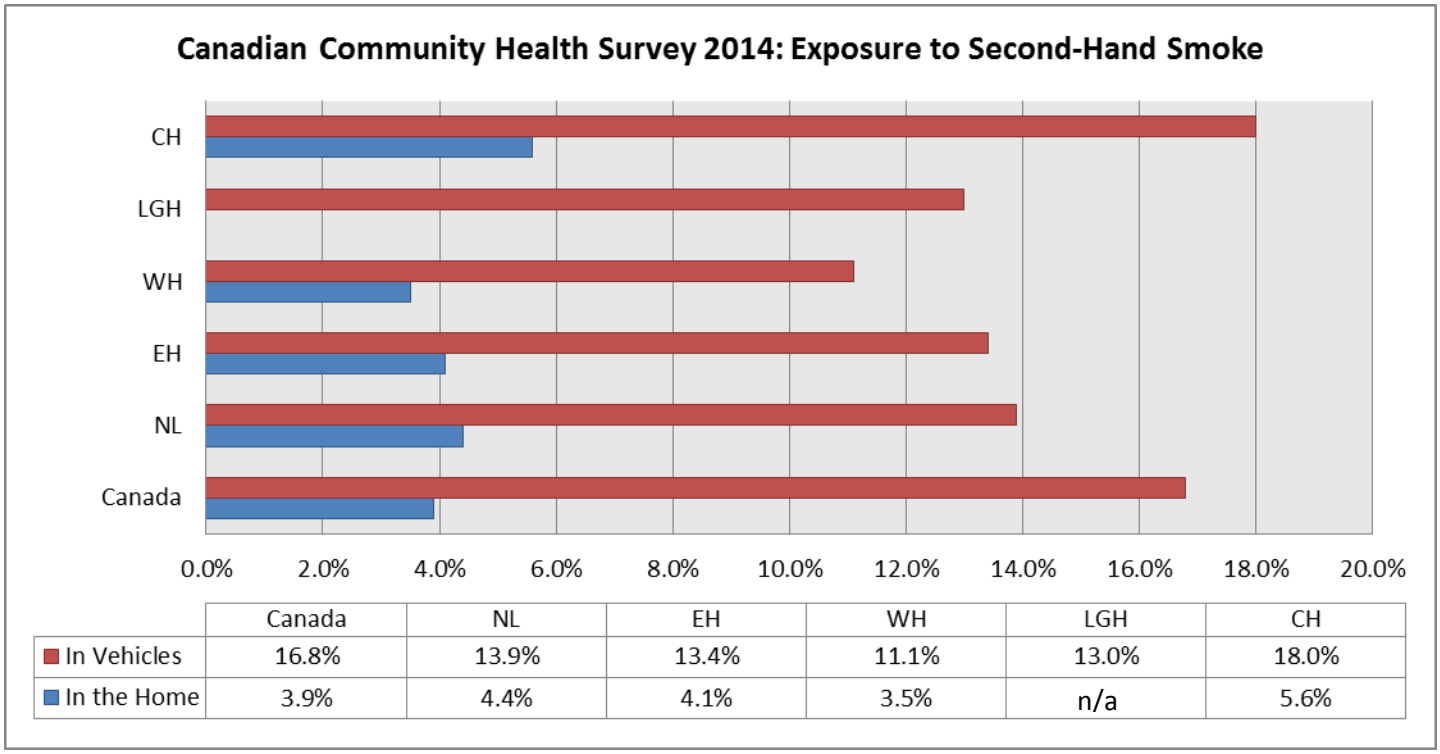
Smoking

The health and economic impacts of smoking are numerous and well documented. Smoking is a risk factor for lung cancer, heart disease, stroke, COPD and other conditions. According to the WHO, smoking is an important and preventable cause of death. Overall, smoking rates are on the decline for those 12 and older who smoke cigarettes daily or occasionally, however rates remain higher among males and rates for youth of the province remain unchanged.



Exposure to Second-Hand Smoke

Second-hand smoke (SHS) is one of the most important and most widespread exposures in the indoor environment. The link between SHS and several health outcomes, such as respiratory infections, ischemic heart disease, lung cancer and asthma, have long been established. Globally, more than a third of all people are regularly exposed to the harmful effects of smoke. The WHO indicates that this exposure is responsible for about 600,000 deaths per year, and about 1% of the global burden of disease worldwide. Central Health had the highest rates for second-hand smoke exposure in the home and in vehicles compared to the RHAs, the province, and the country.



	Canada	NL	EH	WH	LGH	CH
In Vehicles	16.8%	13.9%	13.4%	11.1%	13.0%	18.0%
In the Home	3.9%	4.4%	4.1%	3.5%	n/a	5.6%

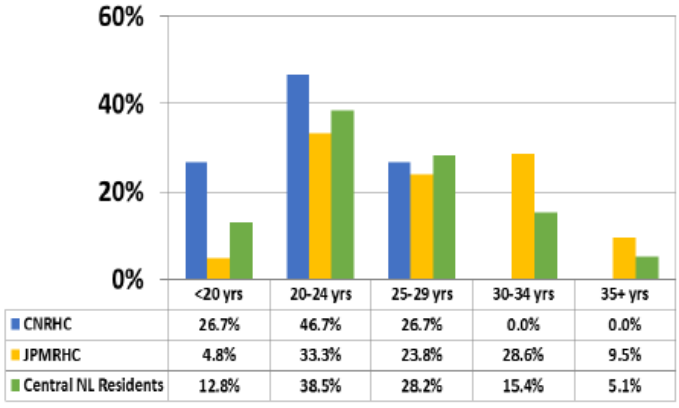
Maternal Smoking

The Newfoundland Perinatal Report (2015) indicated that 18% of mothers in the Central Health region smoked while pregnant. These rates are considered high compared to national and provincial rates.

Environmental Tobacco Smoke

Poor infant outcomes have been linked to a pregnant woman's exposure to second-hand smoke, also known as environmental tobacco smoke (ETS). ETS is both the smoke that comes from the burning of a tobacco product and that which is exhaled by smokers. For the calendar year 2013, the proportion of all non-smoking mothers who resided in Central and reportedly were exposed to ETS was 10.6%. This rate is considered low compared to national and provincial rates.

Age Groups of Central Newfoundland Non-Smoking Residents Exposed to Second-Hand Smoke*, 2013

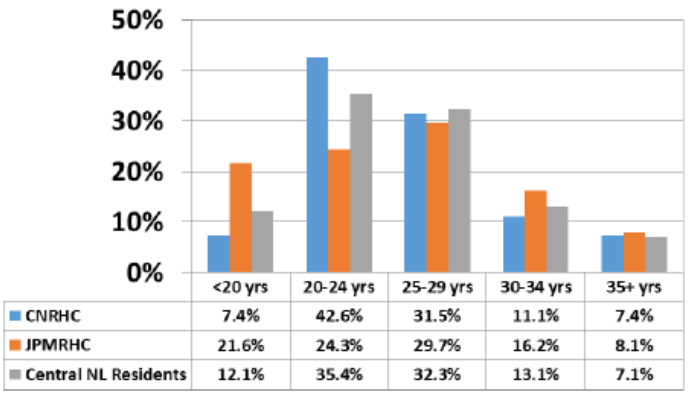


	<20 yrs	20-24 yrs	25-29 yrs	30-34 yrs	35+ yrs
CNRHC	26.7%	46.7%	26.7%	0.0%	0.0%
JPMRHC	4.8%	33.3%	23.8%	28.6%	9.5%
Central NL Residents	12.8%	38.5%	28.2%	15.4%	5.1%

Source: Provincial Perinatal Registry

* 10.4% of records had missing information and were excluded from the calculation of this estimate. Interpret with consideration.

Age Groups of Central Residents who Smoked During Pregnancy, 2013

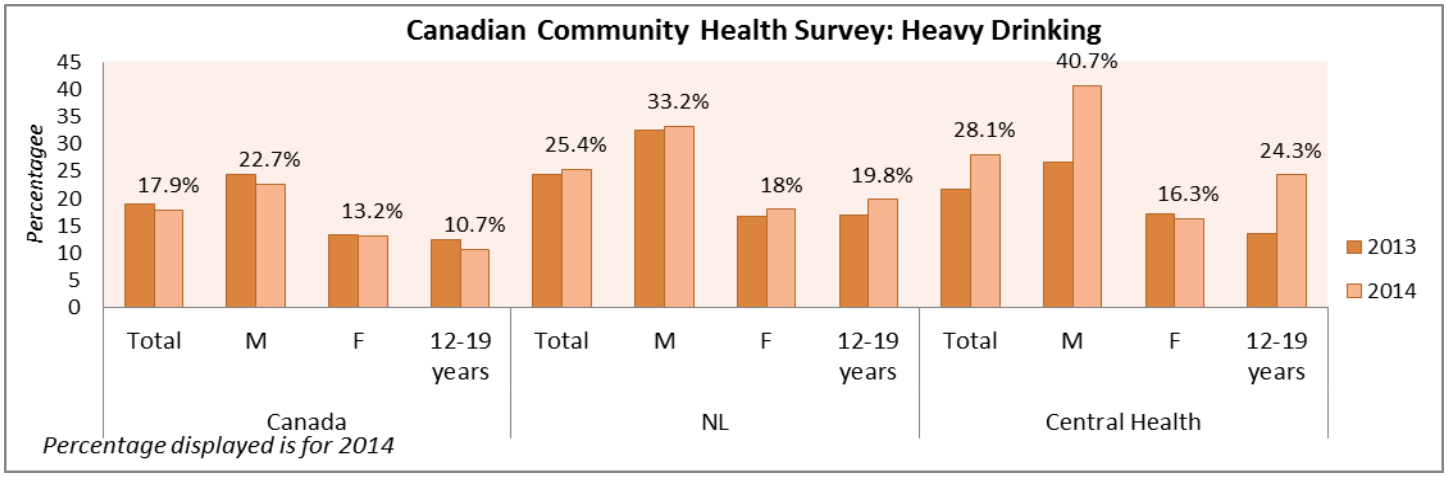


	<20 yrs	20-24 yrs	25-29 yrs	30-34 yrs	35+ yrs
CNRHC	7.4%	42.6%	31.5%	11.1%	7.4%
JPMRHC	21.6%	24.3%	29.7%	16.2%	8.1%
Central NL Residents	12.1%	35.4%	32.3%	13.1%	7.1%

Source: Provincial Perinatal Registry

Heavy Drinking

Alcohol consumption is a causal factor in more than 200 disease and injury conditions. Drinking alcohol is associated with a risk of developing health problems such as mental and behavioural disorders, including alcohol dependence, diseases such as liver cirrhosis, some cancers and cardiovascular diseases, as well as injuries resulting from violence and road clashes and collisions (WHO). Heavy drinking (5+ drinks male, 4+ drinks female on one occasion, at least once per month in the past year) is increasing and is higher for Central Health region compared to the province and the country, especially for males and youth. It is also highest among the RHAs.



Drug Use

Self-reports of drug use in the 2014 Canadian Community Health Survey (CCHS) indicated 24.3% of Central Health region respondents used or tried any illicit drug in their lifetime, which was lower compared to the province (30.8%). When asked if respondents used marijuana, cannabis or hashish in the last 12 months, 25.6% said yes compared to 22.4% for the province. When respondent were asked if they have NOT used or tried cocaine or crack, 97.1% agreed compared to 95.9% for the province.

Student Smoking, Drinking and Drug Use

The Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS) was conducted in 2014-15. A total sample of 42,094 students in grades 6 to 12 (grades 6 to secondary V in Quebec) completed the survey, which ran between October 2014 and May 2015 in the ten Canadian provinces. The weighted results represent over 2.5 million Canadian students. CSTADS 2014-15 collected information on tobacco use from students in grades 6 to 12, while students in grades 7 to 12 were also asked about alcohol and drug use.

- 23.3% of students grade 6-12 in Newfoundland tried smoking compared to 17.6% for the country
- 44.6% of students grade 7-12 used alcohol in the past 12 months compared to 39.5% for the country
- 30.1% of students grade 7-12 used alcohol excessively (5+ drinks on one occasion in the past 21 months) compared to 23.7% for the country.
- 22.3% of students grade 7-12 used cannabis compared to 16.5% for the country

Children Vulnerable in Areas of Early Development

This indicator is an important determinant of health and well-being in later life. It measures how many children are vulnerable in at least 1 area of development at school entry (age 5). It is based on the Early Development Instrument (EDI), a kindergarten teacher–completed checklist that measures 5 areas of child development, including physical health, emotional well-being, language and social skills. A lower percentage of children considered vulnerable at school entry is a positive indicator of healthy development at age 5. The rate for Central Health in 2012-13 was 15.9% which is better than average compared to the province (17.7%) and the country (26.7%).

Helmet Use

24.2% of Central Health region respondents of the 2014 CCHS indicated they always wore a helmet when riding a bicycle. This was lower than the province (48.6%), the country (42.5%) and was the second lowest among the RHAs.

Crimes

Canadian incident-based crime rates are decreasing overall since 2011. Statistic Canada reported in 2015 there were about 2,111,021 actual incidents for Canada in 2015 (1.6% of those occurring in Newfoundland and Labrador). RCMP detachments within the Central Health region accounted for 11.3% of the provinces incidences. Incident-based crime rates, adults charged and youth charged per 100,000 population were lower for the region compared to the province and the country, although, rates have increased for the Central Health region since 2014 for incidence based crimes.

CRIME RATES PER 100,000 POPULATION

Indicator	National	Provincial	Regional	GHSA	GFWHSA	BHSA	BVHSA	GBHSA	COBHSA	EHSA	LHSA	INDHSA	KCHSA
Incident-Based Crime Rate	5,888↓	6,356↓	3,619↑	5,771↑	5,715↓		2,093↓	3,992↑	2,643↑		3,394↑	2,125↑	3,221↓
Adults (18+ years) Charged	1,850↓	1,675↓	835↓	1,624↓	1,249↓	N/A	441↓	728↓	603↑	N/A	757↓	567↑	711↓
Youth (12-17 years) Charged	2,137↓	2,362↓	1,241↓	571↓	2,793↓		1,681↑	851↑	1,404↓		986↓	623↓	1,023↑

Source: Statistics Canada CANSIM Table 252-0075. *See Page 6 for Health Service Area names.*

Communicable Diseases

The Newfoundland and Labrador Communicable Disease Surveillance Report indicates there is an increase in Sexually Transmitted Infections (STI's) in the Central Health region at 103 per 100,000 population in 2015 compared to 78 in 2013. This rate is lower compared to the province (236 per 100,000). The Hepatitis C rate has increased from 7 to 21 per 100,000, Chlamydia increased from 65 to 76 per 100,000, Gonorrhea increased from 0 to 4 per 100,000. The vaccine preventable disease rate decreased from 69 to 24 per 100,000. Enteric, Food and Waterborne disease rate increased from 55 to 67 per 100,000.

Influenza Immunization for Seniors

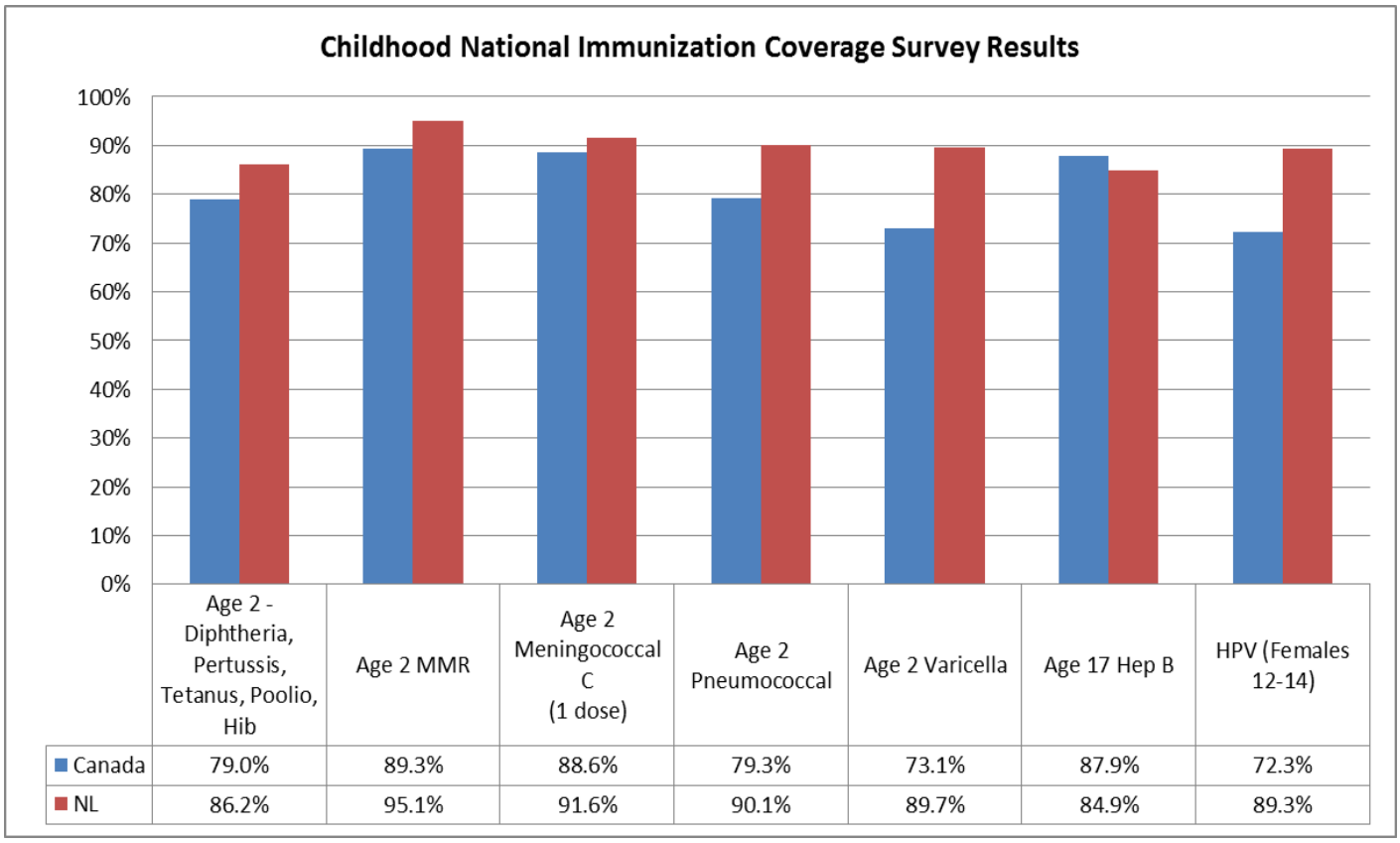
It has been recognized for many years that people age 65 years and older are at greater risk of serious complications from influenza compared with younger populations. Every year, up to 20,000 Canadians are hospitalized as a result of influenza illness. It is estimated that between 4,000 and 8,000 people, mostly seniors, die from pneumonia or pneumonia-related complications each year. Seniors age 65 years and older are advised to get vaccinated each year. In the CCHS 2014, the age-standardized prevalence rate of seniors 65+ years who reported being immunized in the Central Health region against influenza in the last 12 months was 58.9%, which is higher than the province (56.3%) but lower than the country (63.1%). This rate has been on an increasing trend.

LTC Influenza and Pneumococcal Immunization

Central Health Infection Prevention and Control statistics indicate that for 2016, 88.9% of LTC residents received the influenza vaccine, which is an increase from 2015 (85.9%) and 85.0% were given the pneumococcal vaccine, which is an increase from 2015 (78.7%). Central Health aims to have at least 80% of LTC residents vaccinated.

Childhood Immunizations

According to the Childhood National Immunization Coverage Survey in 2013, the largest immunization survey in Canada, Canada is not meeting national immunization coverage goals for any antigen. Rates are higher for the Central Health region ranging from 94.1%-99.5%.



	Age 2 - Diphtheria, Pertussis, Tetanus, Poolio, Hib	Age 2 MMR	Age 2 Meningococcal C (1 dose)	Age 2 Pneumococcal	Age 2 Varicella	Age 17 Hep B	HPV (Females 12-14)
Canada	79.0%	89.3%	88.6%	79.3%	73.1%	87.9%	72.3%
NL	86.2%	95.1%	91.6%	90.1%	89.7%	84.9%	89.3%

Cancer Screening

According to the Cancer Research Society, there are cancer risk factors that are avoidable. Nearly 30% of cancer deaths are due to the 5 following main risk factors associated with behaviour and diet:

- Smoking
- Being Overweight
- Low fruit and vegetable intake
- Lack of physical activity
- Alcohol Use

According to the Canadian Cancer Statistics 2015 Report efforts for cancer prevention among the population are similar to other provinces, with the exceptions of overweight and obesity (where the rate in Newfoundland and Labrador is the highest in the country) fruit and vegetable consumption (where the rate in Newfoundland and Labrador is the second lowest in the country) and smoking cessation (where the rate in Newfoundland and Labrador is the third lowest in the country). On its own, tobacco use is the most important cancer risk factor causing the largest number of deaths annually. It is responsible for 71% of lung cancer deaths in Canadians. Tobacco use among residents of the Central region still remains high. HPV vaccination rates for Newfoundland and Labrador are the highest among all the provinces.

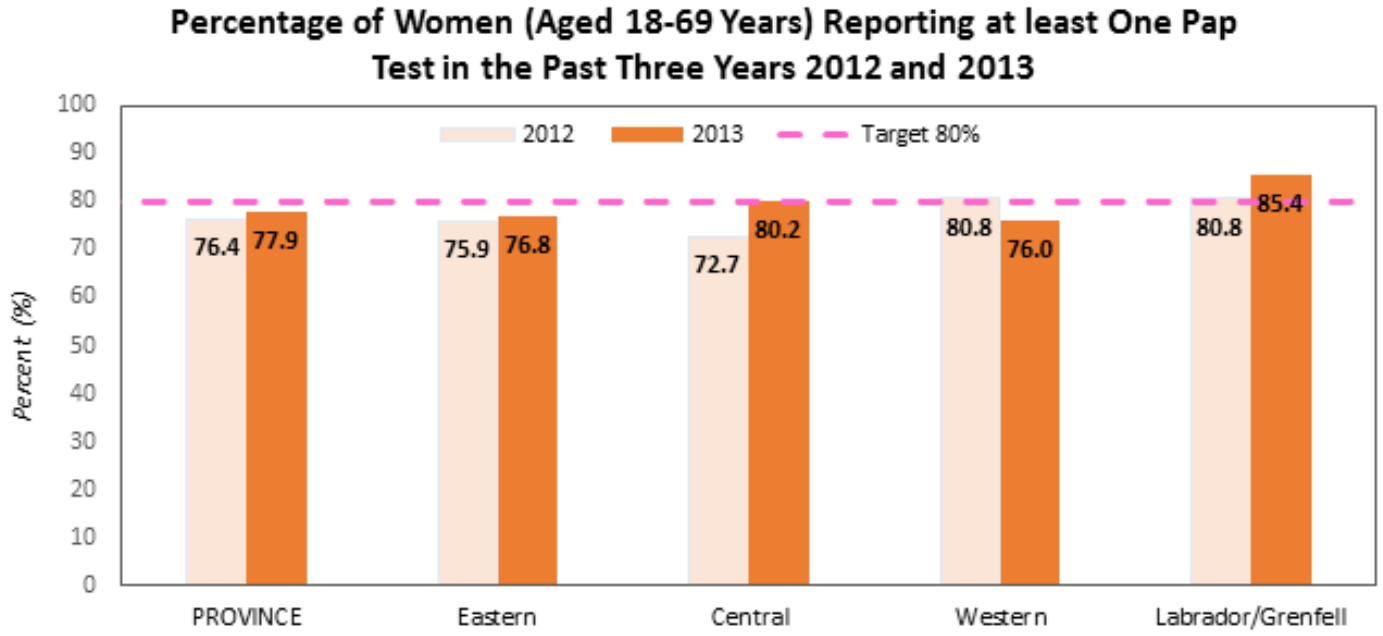
According to the 2016 Cancer System Performance Report, Newfoundland and Labrador's cancer screening rates for cervical and breast cancer are comparable to the country, however, rates for colorectal cancer screening are low among the provinces (42%).

- **Cervical Cancer**

Cervical cancer is one of the most preventable cancers. It is caused by infection with high-risk types of human papillomavirus, or HPV. Cervical cancer screening is an essential part of a woman's routine health care. It is a way to detect abnormal cervical cells. Routine cervical screening has been shown to greatly reduce both the number of new cervical cancers diagnosed each year and deaths from the disease. The provincial Cervical Screening Initiatives program works closely with all physicians, nurse practitioners, health professionals and community partners to educate the public on the importance of regular Pap screening.

Cervical Screening Initiatives
A simple test that can save your life!

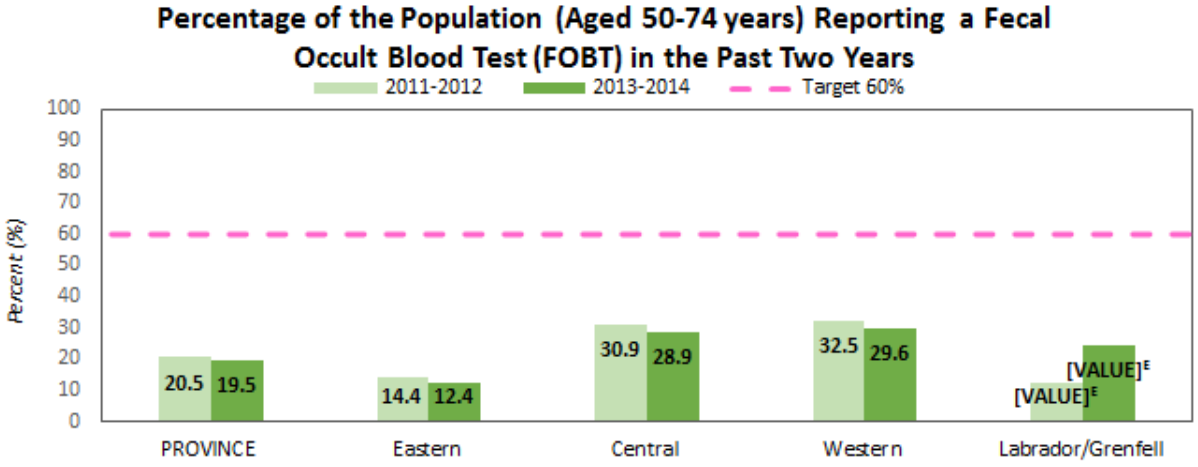
The Central Health Cervical Screening Initiatives Program participation rate for women from 21-69 years of age was 52%



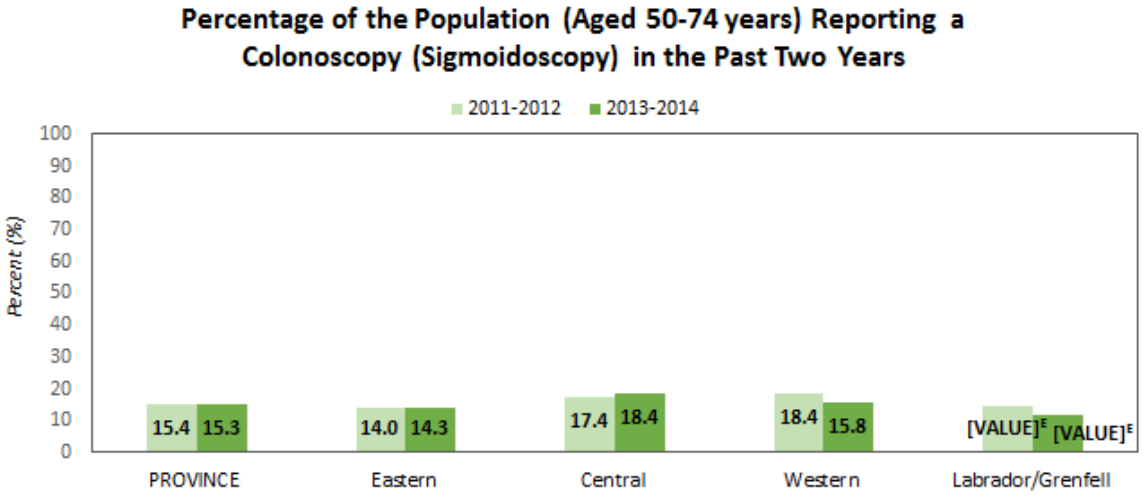
Data Source: Statistics Canada's Canadian Community Health Survey, Share File, 2012, 2013

Colorectal Cancer

It is recommended that men and women age 50 to 74 undergo regular colorectal cancer screening. Screening usually involves a stool test (fecal occult blood test or fecal immunochemical test). A positive test may result in the need for further tests such as a colonoscopy or barium enema. 28.9% of Central Health respondents of the 2014 CCHS indicated they had a screening fecal occult blood test in the last 2 years and 18.4% had a screening sigmoidoscopy/colonoscopy in the last 2 years.



Data Source: Statistics Canada's Canadian Community Health Survey, Share File, 2011-12, 2013-14
Estimates with letter E indicate high sampling variability and should be used with caution



Data Source: Statistics Canada's Canadian Community Health Survey, Share File, 2011-12, 2013-14
Estimates with letter E indicate high sampling variability and should be used with caution

FIT Testing

The Newfoundland and Labrador Colon Cancer Screening Program uses a test known as the Fecal Immunochemical Test (FIT). The FIT checks for blood in the stool that cannot be seen with the naked eye. It is more advanced and more sensitive than other available tests and is considered an effective method for screening those at average risk for colon cancer.

The Newfoundland and Labrador Colon Screening Program launched four years ago and has been fully provincial for one year. The overall program statistics indicate that the province has the highest cancer rate and adenoma detection rate within the country. For the 2015-16 year, 2497 individuals from the Central Region requested FIT kits, with a response rate of 70%. Approximately 1800 completed the screening kit and 20% had a positive result (abnormal result = blood found in sample). For the province as a whole, 41 cancers were detected, 444 advanced adenomas and a further 425 regular adenomas were detected as a result of FIT testing. The adenoma detection rate for the province was 63.2%. The Canadian Partnership Against Cancer (CPAC) has a goal of >50%.

Breast Cancer

Breast cancer screening guidelines may vary based on risk factors such as age, family history and the province or territory where a woman lives. General recommendations are that women aged 50-69 should have a mammogram at least once every two years. 71.6% of Central Health female respondents of the 2012 CCHS age 50-69 years indicated they had received a mammogram within 2 years. This rate has increased slightly since 2003 (71.1%) and is slightly higher than the province (71.4%).

Prostate Cancer

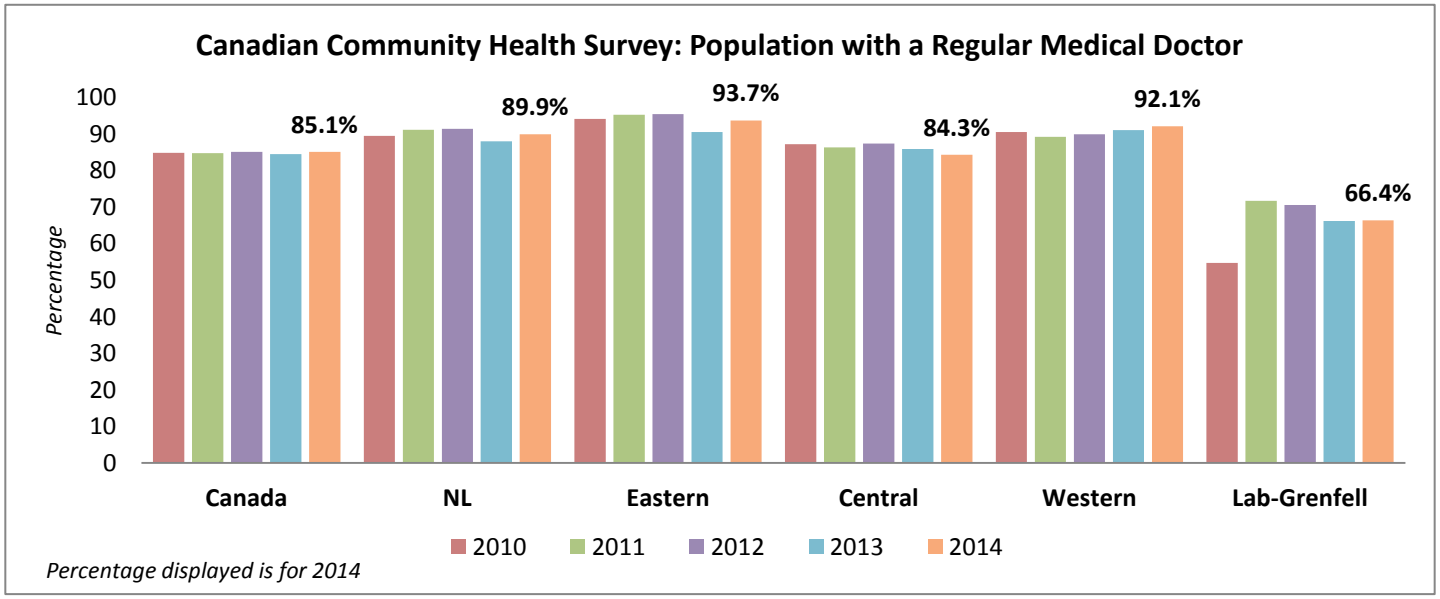
Prostate cancer screening uses two tests: the prostate-specific antigen (PSA) blood test and the digital rectal examination (DRE) test. Routine prostate screening using PSA is not recommended for those at average risk because there is no definitive evidence that screening such men without symptoms reduces deaths from prostate cancer. The DRE however is often performed as part of an annual health examination in men over the age of 50.

From 2010-2013, the percentage of men aged 35 and older who reported having a PSA test in the past year ranged from 15.8% in the Northwest Territories to 35.5% in Newfoundland and Labrador. The percentage who reported having a PSA test in the past two years ranged from 20.8% in the Northwest Territories to 45.2% in Newfoundland and Labrador. The percentage who reported ever having a PSA test ranged from 21.5% in Nunavut to 52.7% in Newfoundland and Labrador. 57.0% of Central Health region male respondents of the 2010 CCHS indicated they had PSA testing and 53.5% indicated they had DRE testing. These rates were both higher compared to the province (56.9% and 52.2%, respectively).

OTHER INTEMEDIARY FACTORS

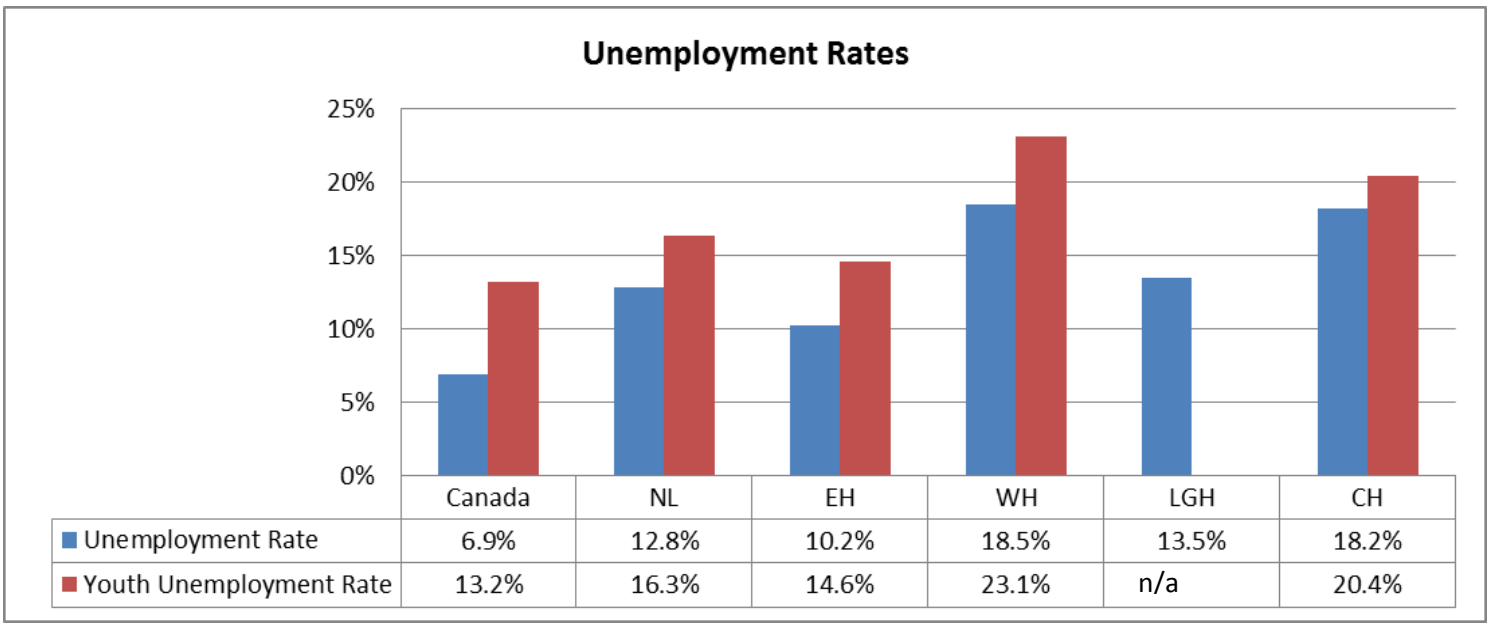
Population with a Regular Medical Doctor

84.3% of respondents of the 2014 CCHS indicated they had a regular medical doctor. This was a decrease since 2010 and is lower compared to the province (89.9%) and the country (85.1%).

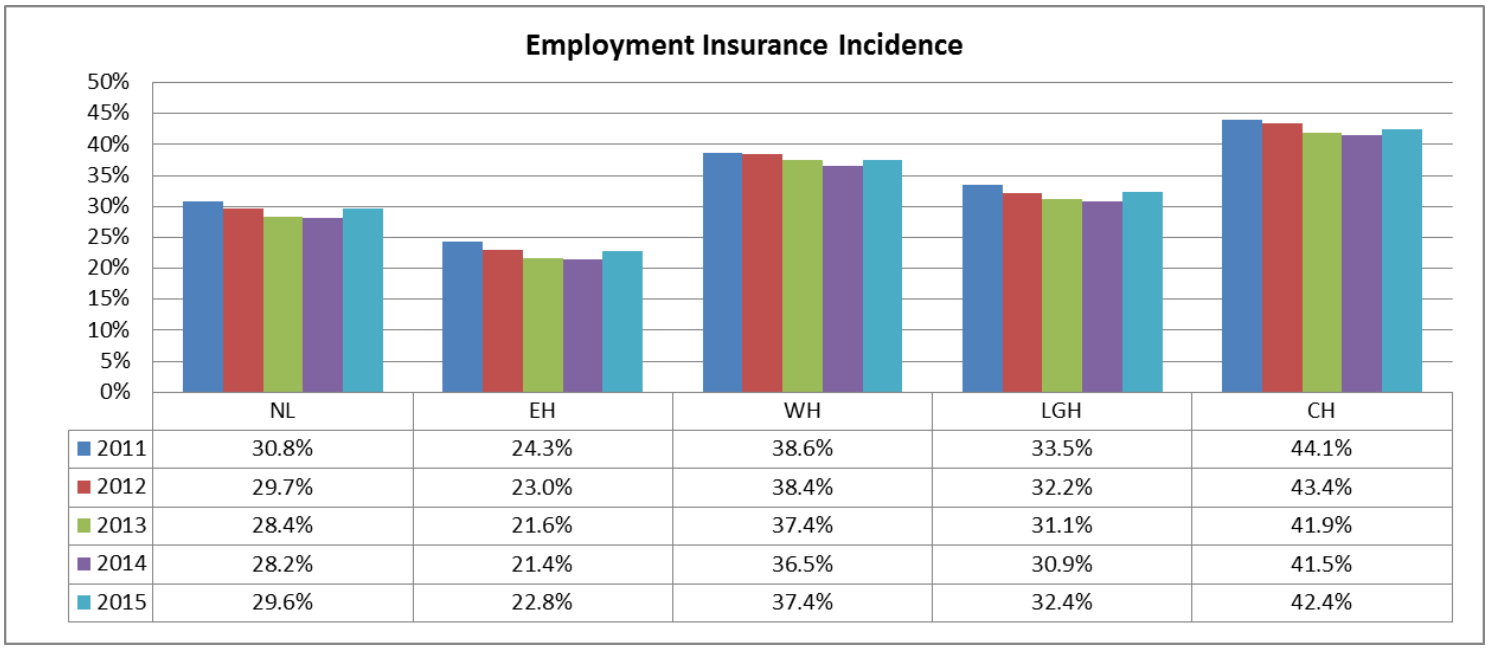


Employment

The Statistics Canada Labor Force Survey indicated the employment rates in 2015 were higher at 64.5% in 2013 for Central Health region compared to the RHAs, the province (53.3%), and the country (61.3%). However, the Central Health region had the highest unemployment rates compared to national, provincial and regional rates and the highest employment insurance incidence rate as reported by the Newfoundland and Labrador Statistics Agency compared to the province and the RHAs.



	Canada	NL	EH	WH	LGH	CH
Unemployment Rate	6.9%	12.8%	10.2%	18.5%	13.5%	18.2%
Youth Unemployment Rate	13.2%	16.3%	14.6%	23.1%	n/a	20.4%



	NL	EH	WH	LGH	CH
2011	30.8%	24.3%	38.6%	33.5%	44.1%
2012	29.7%	23.0%	38.4%	32.2%	43.4%
2013	28.4%	21.6%	37.4%	31.1%	41.9%
2014	28.2%	21.4%	36.5%	30.9%	41.5%
2015	29.6%	22.8%	37.4%	32.4%	42.4%

Source: Newfoundland and Labrador Statistics Agency, Government of Newfoundland and Labrador

Perceived Life Stress

11.9% of Central Health region respondents of the 2014 CCHS indicated they perceived their life to have extreme or quite a bit of stress. This was lower than the province (16.1%), the country (23.0%) and was the lowest among the RHAs.

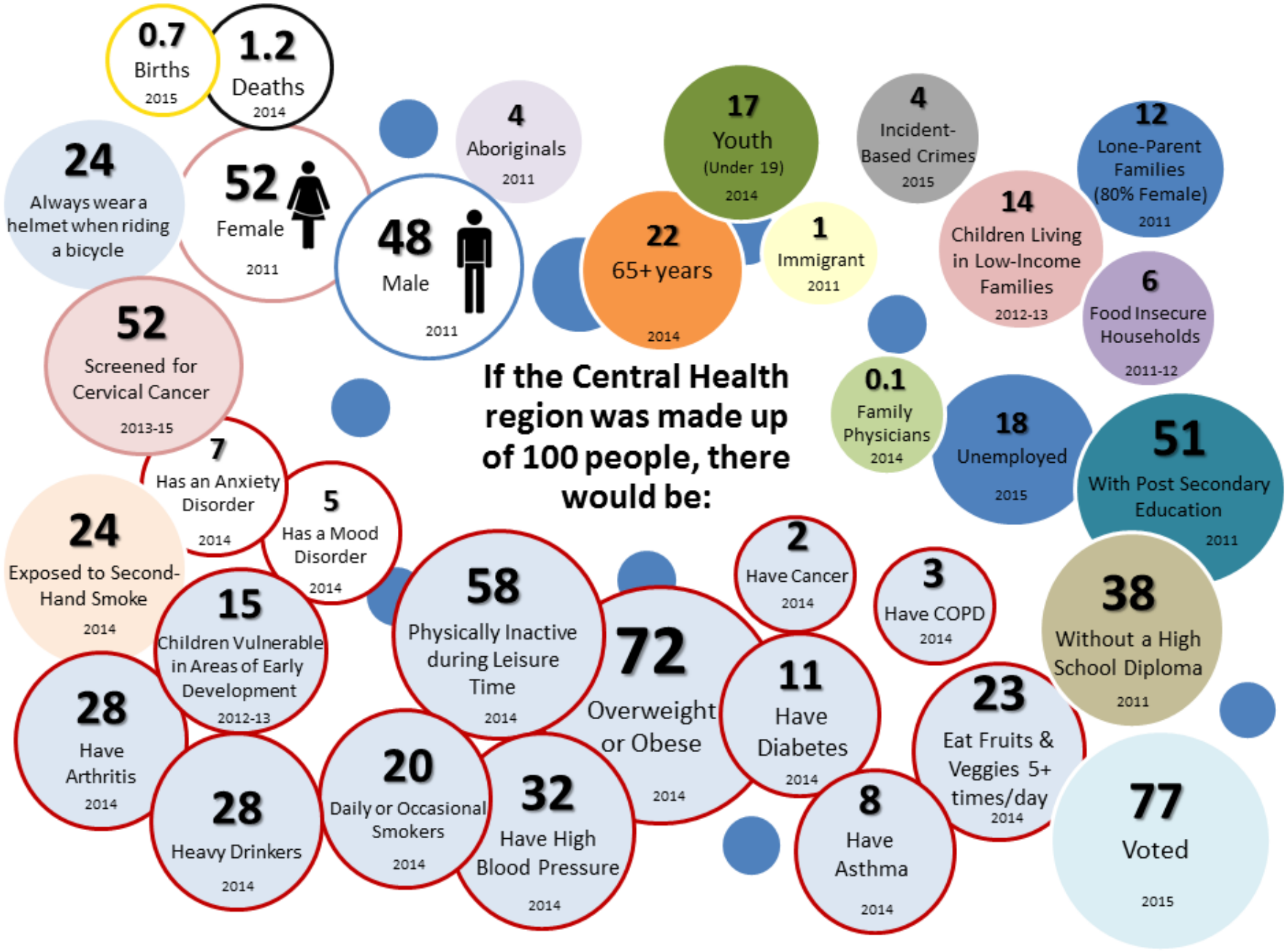
Sense of Belonging to the Local Community

83.3% of Central Health region respondents of the 2014 CCHS indicated they have a strong sense of belonging to the local community. This was higher than the province (77.0%), the country (66.4%) and was the highest among the RHAs.

OTHER INTERMEDIARY DETERMINANTS OF HEALTH

Indicator	National	Provincial	Regional	GHSA	GFWHSA	BHSA	BVHSA	GBHSA	COBHSA	EHSA	LHSA	INDHSA	KCHSA
Immigrant Population (2011)	20.6%	1.8%	0.9%	1.6%	2.1%	0.6%	0.4%	0.3%	0.2%	0.9%	0.9%	0.3%	0.7%
Aboriginal Population (2011)	4.3%	7.1%	4.1%	4.5%	5.5%	2.9%	1.5%	0.7%	18.0%	3.9%	1.1%	3.4%	1.2%
Visible Minority Population (2011)	19.1%	1.4%	0.7%	1.3%	1.7%	0.0%	0.0%	0.5%	0.0%	0.9%	0.3%	0.1%	0.6%
Boil Order Advisories (2015-16)	-	-	29↓	0	1	2	0	6	9	3	0	3	5
Voter Turn Out (2015)	77.0%	-	77.0%	82.5%	81.6%	84.6%	82.5%	84.1%	78.5%	82.5%	82.9%	76.9%	84.5%
Without a High School Diploma (2011)	20.1%	28.0%	38.0%	21.6%	26.5%	34.1%	50.4%	40.2%	44.5%	40.7%	37.7%	46.9%	40.6%
Student Enrollment (2015-16)	-	66,800 ↓	11,528 ↓	1,942 ~	-	-	644 ↓	913 ↓	766 ↓	-	991 ↓	-	1,535 ~
Employment Rate (15+) (2013)	61.3% ↓ (2015)	53.3% ↑ (2015)	64.5% ↓	58.6% ↑	54.8% ↑	49.2% ↓	53.8% ↓	55.3% ~	57.7% ↓	54.5% ↓	51.3% ↓	55.0% ↓	54.4% ↓
Low Birth Weight Births (2013-15)	-	6.3% ↑	6.6% ↑	5.0% ↑	5.0% ↓	-	-	10.6% ↑	5.1% ↓	6.2% ↑	11.5% ↑	7.8% ↑	6.3% ↓
High Birth Weight Births (2013-15)	-	2.5% ↓	2.8% ↑	3.0% ↓	2.9% ↑	0% ↓	0% ↓	-	5.1% ↑	-	2.6%	-	3.3% ↑

Source: Statistics Canada, Community Accounts, NL Provincial Government and NLCHI (accessed August 2016). See Page 6 for Health Service Area names.

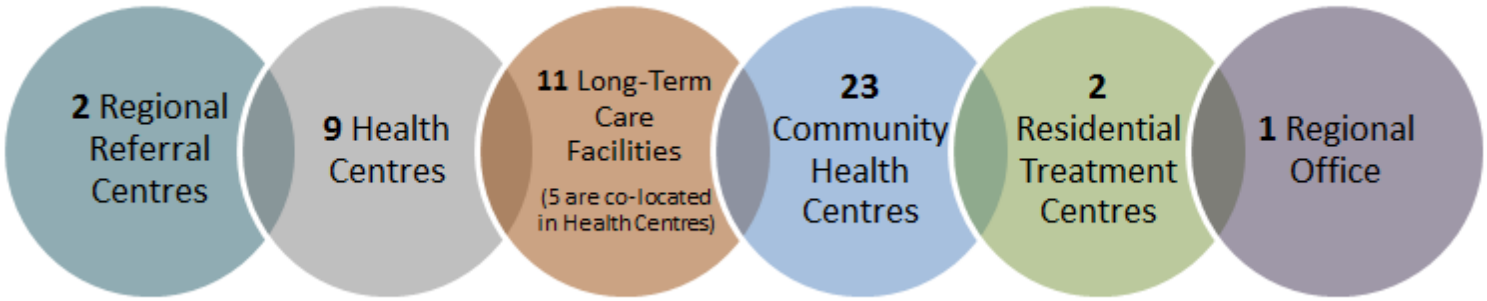

If the Central Health region was made up of 100 people, there would be:
0.7 Births 2015
1.2 Deaths 2014
4 Aboriginals 2011
17 Youth (Under 19) 2014
4 Incident-Based Crimes 2015
12 Lone-Parent Families (80% Female) 2011
24 Always wear a helmet when riding a bicycle
52 Female 2011
48 Male 2011
22 65+ years 2014
1 Immigrant 2011
14 Children Living in Low-Income Families 2012-13
6 Food Insecure Households 2011-12
52 Screened for Cervical Cancer 2013-15
0.1 Family Physicians 2014
18 Unemployed 2015
51 With Post Secondary Education 2011
7 Has an Anxiety Disorder 2014
5 Has a Mood Disorder 2014
24 Exposed to Second-Hand Smoke 2014
58 Physically Inactive during Leisure Time 2014
2 Have Cancer 2014
3 Have COPD 2014
38 Without a High School Diploma 2011
15 Children Vulnerable in Areas of Early Development 2012-13
72 Overweight or Obese 2014
11 Have Diabetes 2014
23 Eat Fruits & Veggies 5+ times/day 2014
28 Have Arthritis 2014
28 Heavy Drinkers 2014
20 Daily or Occasional Smokers 2014
32 Have High Blood Pressure 2014
8 Have Asthma 2014
77 Voted 2015

Health Systems

The primary purpose of a health system is to promote, restore and maintain health and includes:

- **Health care services (preventative, diagnostic, therapeutic, rehabilitative and palliative care services) provided to individuals and groups**
- **Public health services (health surveillance and protection, health promotion and disease prevention that focus on health determinants that apply to the entire population)**

Within Central Health, there is a diverse array of primary, secondary, long-term care, community health and various enhanced secondary services. These are provided through:



Health and community services are provided through 41 facilities with 822 beds as of April 2016. In addition, Central Health licenses and monitors standards at 25 privately owned personal care homes and oversees implementation and monitoring of standards for 3 private ambulance operators and 9 community ambulance operators. In any year, the number and types of beds at any facility may fluctuate slightly as a result of major renovations and capital infrastructure.

CENTRAL HEALTH ACUTE CARE STATISTICS 2015-16

INDICATOR	Central Health	JPMRHC	CNRHC	AMG	BVPHC	CPHC	DYKJK	FIHC	GBHC	NDB
Beds ₱ (as of Apr 2016)	262# 11 palliative care	85 3 pal	117 1 pal	3 1 pal	7 1 pal	7 1 pal	12 1 pal	5 1 pal	9 1 pal	17 1 pal
Patient Days ¥	83,056↓	30,488↑	37,727↓	345~	1,803~	2,269↑	3,008↑	1,344↓	2,165↓	3,907↓
Separations ¥	8,114↑	2,949↑	3,724↑	67↑	168↓	305~	335↑	63↓	185↓	317~
Discharges ¥ (per 100)	78.4↓	78.3↓	84.2↑	73.1↑	60.7↓	72.1↓	59.7↓	61.9↓	47.0↑	69.7~
Transfers ¥ (per 100)	15.2↑	14.8↑	11.1~	20.1~	27.9↑	22.6↑	28.6↑	28.5↑	40.0↑	20.8↑
Left Against Medical Advice ¥ (per 100)	8.8↑	0.9↑	0.9↓	0	0	0.7↑	1.5~	0	0.6↑	0.6↓

CENTRAL HEALTH ACUTE CARE STATISTICS 2015-16

INDICATOR	Central Health	JPMRHC	CNRHC	AMG	BVPHC	CPHC	DYKJK	FIHC	GBHC	NDB
% Age 60+ ¥	56.0↑	56.3↑	47.8~	85.0↓	76.7~	62.3~	77.0↑	87.3↑	86.4↑	80.4↑
% of ED Admissions ¥	60.9↑	58.1↑	56.5↑	67.2↓	84.5~	86.9↑	71.0~	84.1~	66.5↓	81.3~
OR Procedures ₱	9,070↑	3,587↑	5,483~							
ICU Cases ¥ (per 100)	13.5↑	16.7↑	10.9↑							
Average ICU Days ¥	4.82↓	5.10↓	4.48↓							
Average ICU Days Medical ¥	5.67↓	5.69↓	5.65↓							
Average ICU Days Surgical ¥	3.73↓	4.93↓	2.58↓							
% of Palliative Care Cases ¥	2.3~	2.9↑	0.6↑	3.0↓	8.0~	3.6~	5.6~	7.9↓	3.2↓	4.7~
Mortality Ratio ¥ (per 100)	5.4↓	5.9↓	3.8↓	6.0↓	11.3↓	4.6↓	10.1↓	9.5~	12.4↓	8.8↓
Unplanned Readmissions ¥ (per 100)	4.5↑	3.3↑	3.6↓	7.5↑	7.7↓	12.1↑	11.6↑	4.7~	5.4~	8.8~
ALOS ¥ (days)	10.24↓	10.33↓	10.13↓	5.15↓	10.73↑	7.44↑	8.98↓	21.33↓	11.70↑	12.32↑
ELOS ¥ (days)	5.16↓	5.02↓	5.40↓	4.64↓	4.94↓	4.40↑	4.49↓	4.49↓	5.48↓	5.07↓
% Hospital Occupancy ₱	74 (Average)	93	91	33	76	74	69	79	66	86
% Patient Days in ALC ¥	24.6↓	26.9↑	21.1↓	0~	47.4↑	36.5↑	21.3~	43.3↓	21.5↑	22.7↓
Top CMG+ by Cases ¥ (2013-16)*	COPD	Unilateral Knee Replace-ment	COPD		Palliative Care	COPD	Palliative Care	COPD	Palliative Care	COPD
Top CMG+ by Days to Save ¥ (2013-16)*	Dementia			Diabetes	Heart Failure	Conval-escence	Dementia		Conval-escence	Dementia
Deliveries ¥	569~	233↓	333~							
% Vaginal Deliveries ¥	71.0↑	71.2↑	70.6↑							
% C-Sections ¥	29.0↓	28.8↓	29.4↓							

CENTRAL HEALTH LONG-TERM CARE STATISTICS 2015-16												
INDICATOR	Central Health	AMG	BVPHC	Bonn-ews	Carmel-ite	CPHC	DHTHC	FIHC	Valley Vista	Lake-side	LHC	NDB
Beds (as of Apr 2016)** ₱	524	18	19	45	65	13	80	9	78	102	63	32
Admissions ₱	465	34	24	37	81	9	76	2	58	67	44	33
Discharges ₱	436	24	27	35	82	8	64	1	47	65	53	30
% Occupancy ₱	98	96	97	97	99	99	97	98	96	99	97	97
Resident Days ₱	182,088	6,313	6,712	16,045	23,450	4,339	28,071	3,215	27,676	36,801	18,130	11,336
% Residents Younger than 65 €	6.5	2.5	12.5	0%	5.8	5.3	6.1	11.1	3.3	3.2	6.7	1.8
% Residents Older than 85 €	51.1	32.5	43.8	58.3	31.4	47.4	41.2	44.4	34.7	47.4	42.7	51.8
% Residents with Dementia €	60.4	56.4	54.8	48.5	63.3	41.2	65.5	66.7	43.8	68.3	72.5	75.0
% Residents with CHF €	12.0	12.8	19.4	6.1	7.6	5.9	5.5	0	17.9	9.7	7.2	61.5

Source: ¥ Central Health's 3M Most Responsible Diagnosis Flatfie for coded discharged records, ₱ Meditech, and € CIHI

**Normal Newborn, Singleton Vaginal Delivery birth was the top CMG+ for Central Health and CNRHC*

***LTC bed count includes respite, palliative, and/or protective community residence.*

 # Total acute care bed count includes 11 acute palliative care and 5 restorative care beds at NDB. This count excludes 24 bassinettes, 12 beds at Youth Addiction Treatment Centre, and 4 beds at Therapeutic Residence.

↑ means the value is increasing; ↓ means the value is decreasing; ~ means the value is steady

For more information on the definitions of these indicators please refer to the CIHI website or contact the Corporate Improvement Department.

Health System Inputs & Characteristics

The inputs and characteristics of the health system represent contextual factors that shape and explain health system performance. They refer to the relatively stable characteristics of the health system including the governance and leadership capacities in the system, the resources available for use, the distribution and allocation of those resources, the capacity to adjust and adapt to meet population health needs, and the innovation and learning capacities of the system. Health system inputs and characteristics comprise of the providers of services, the tools and resources providers have at their disposal and the physical and organizational settings in which they work. These factors potentially explain performance and can therefore be seen as levers of health system performance improvement.

Health system inputs determine how many and what inputs are available. At the organizational level, the focus is on leadership and local governance, how to both allocate and develop resources (including staff and information) and how to best respond to the needs of the community served to achieve outcomes.

Leadership & Governance

Leadership and governance involves ensuring that strategic policy frameworks exist and are combined with effective oversight, coalition-building, the provision of appropriate regulations and incentives, attention to system design and accountability. It also refers to the capacity of the health system to lead and to coordinate strategies across sectors that can contribute significantly to the health of individuals and populations.

THE BOARD OF TRUSTEES, BOARD COMMITTEES AND SENIOR LEADERSHIP TEAM

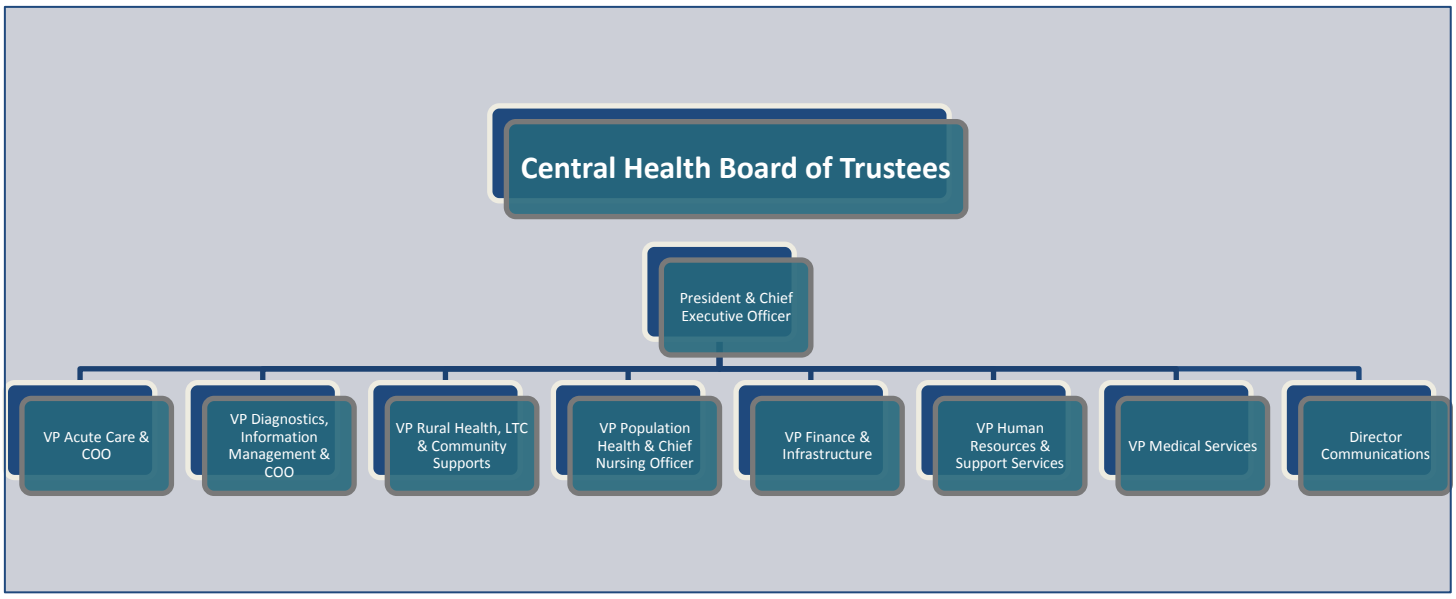
According to Accreditation Canada, effective leadership is a critical element in the provision of high quality health services. The unique role of leadership in health care organizations is to:

- establish a value system and a common vision
- set strategic goals
- align efforts within the organization to achieve strategic goals

Effective health leadership considers resources for the creation, spread, and sustainability of effective health systems, removes obstacles to improvement for clinicians and staff, and fosters accountability for practices that will promote patient safety (Botwinick et. Al., 2006). The challenge as leaders and care providers is to be constantly mindful of why we do this work – to ensure that we maintain a population of healthy people in healthy communities through service centered around our clients, patients, residents and families (CEO Report, Annual General Meeting, 2016).

The two levels of governance direct strategic and operational matters at Central Health. One level of governance is the Board of Trustees (The Board) that governs Central Health through the direction and supervision of the business and affairs of the corporation in accordance with the RHAs Act, the By-Laws, Strategic Plan, Vision, Mission and Values, Board Policies and other applicable laws and regulations. The Board consists of citizens from a variety of communities, backgrounds and experiences and adheres to a model of governance through which it provides strategic leadership and policy direction. The Board maintains a culture of honesty and integrity, open debate, forthright examination of all issues and strives for a consensual approach to decision-making. The Board members consist of one chairperson, one vice-chairperson, and nine trustees. The Board is committed to quality and safe care and as such ensures structures and mechanisms are in place to monitor and drive quality efforts. The committees of the Board have one essential role—to strengthen and support the work of the Board as a whole. There are a number of Board Committees including Governance, Planning and Finance, Board Performance Improvement (BPIC) and Community Advisory (CACs) committees.

The other level of governance is the Senior Leadership Team, which directs the high-level operational matters of Central Health, with the CEO reporting directly to the Board of Trustees.



In the 2013 Accreditation Canada Report, Central Health had 67 out of 77 criteria met for Accreditation Canada's for the governance set of standards for meeting the demands for excellence in governance practice. The one unmet standard indicated that the governing body *regularly assesses its own functioning using the Governance Functioning Tool at least once every three years by monitoring its team functioning and taking action based on the results*. This criterion has now been met. In the report, the board members were assessed as having good experience and knowledge of the region's population, a good level of understanding regarding the region's strategic operational plans, knowledgeable about and supportive of patient safety and quality improvement.

ORGANIZATIONAL CULTURE

Central Health acknowledges that organizational culture plays a significant role in the quality of care, client experiences and staff engagement. It is a set of shared values, beliefs, and assumptions which drive and shape norms of behaviour in groups. In March of 2010 through November 2010, an evaluation was conducted by an externally contracted consulting firm, to complete a cultural assessment of the organization using the CulturePrint™ tool. The 2011 final report revealed that Central Health had organizational values in place but consistent demonstration of these values and embedding these in the organization were unable to be determined. The main recommendation was that investment in the culture of the organization needed to be made in the context of the improved strategic plan. However, key strengths were identified to help Central Health move towards its desired future state for organizational culture. The strengths that were identified was a passion to deliver quality patient and family care, a sense of responsibility, a willingness to participate, adherence to organizational protocol, and aligned and dedicated leadership. The largest and most high risk gaps between desired culture and the current perceived cultural state that were identified were among the following dimensions:

- **Learning/Adaptive** - Encourage learning, support innovation, embrace change and propensity for risk
- **Relationships** - Involvement and openness and trust
- **External Focus** -Shared goals and objectives and strategic context

Several recommendations were made for investment into the culture of Central Health, including the Development of a Long-Term Plan for Organizational Culture. The CulturePrint™ exercise was a key milestone in the development of the culture plan for Central Health. This process recommended developing specific objectives for the culture of the organization through a formal process of planning for organizational culture. An action plan was developed as a result and work has been ongoing in the organization.

While the foundation of this work was set with the cultural assessment in 2010, the development has grown to include leadership development, healthy workplace and psychological safety. It is important that we see the development of our desired culture through the integration of our values and our mission, and not as a separate project or goal. The focus on leadership development is integral to a strong and supportive culture, as congruence between the leadership values and the organization's values is a salient indicator of organizational success. It is within and through our organizational culture that we achieve our desired outcomes.

LEADERSHIP DEVELOPMENT

LEADS in a Caring Environment framework is a leadership capabilities framework representing an innovative and integrated investment in the future of health leadership in Canada. The LEADS framework represents the key skills, abilities, and knowledge required to lead at all levels of an organization. It aligns and consolidates the competency frameworks and leadership strategies that are found in health sectors and other progressive organizations. In 2015-16, Central Health invested in the education of its formal leadership team in the 5 domains of the LEADS framework, offering five one-day workshops to executive leadership, directors, managers and physicians leaders.

To fully-embed LEADS throughout the organization, a cultural shift is required. Central Health leaders appreciate the enormity of the task of leading through the complexities of health care, and have embraced the knowledge that the organization's mission can be attained through a foundation of self-awareness and self-development. Leaders were inspired by the realization that by knowing themselves better, they could better engage others, and thereby build partnerships and coalitions which could help achieve the organization's vision of healthy people in healthy communities. These changes and accomplishments enable the transformation of the system, a living and changing entity which is essential to meeting the challenges which lie before us.

It is the goal of Central Health to embed the LEADS framework throughout all leadership development. This is being achieved through the development of a LEADS working group, and Central Health's involvement in the Provincial LEADS Working Group, a sub-committee of the Provincial Workforce Planning Group. Provincial LEADS materials have been developed and Central Health, along with the other RHAs, will have trained facilitators who will continue the delivery of the LEADS workshops. This will be in conjunction with the establishment of management and leadership competencies and alignment of all leadership development along the LEADS domains.

With a strong and competent leadership team, Central Health is positioned to lead into the future with confidence and skill. The organization is growing in its ability to respond and meet the needs of its community, with a goal of providing safe, quality, person and family-centered care to all its clients.

HEALTHY WORKPLACE

Central Health strives for a safe environment for staff, visitors, clients, and all stakeholders. Employee Wellness Health and Safety focuses on safety initiatives identified from current trends. This information is collected from Service NL Occupational Health Inspections, Employee Accident Near Miss Reporting System, Occupational Health and Safety (OHS) Committee concerns, employee concerns, and Workplace NL injury statistics.

Current initiatives include:

- Safe Resident Handling training and equipment provision for LTC

- Ergonomics and safety in facility design and renovation
- Psychological safety at work programming
- Lone worker safety program
- Employee immunization and targeted injury prevention activities
- Fire Life Safety monitoring and OHS Legislation

From an employee perspective, there are many ways to support the organization's culture by ensuring Central Health's employees have a healthy working environment. This includes areas such as civility and respect, violence prevention, and mental and physical health. Key priorities for improving health in the workplace are focused on leadership development with regards to civility and respect, hazard recognition and control, conflict management, "Just Culture" and overall engagement.

Workplace Psychological Health and Safety

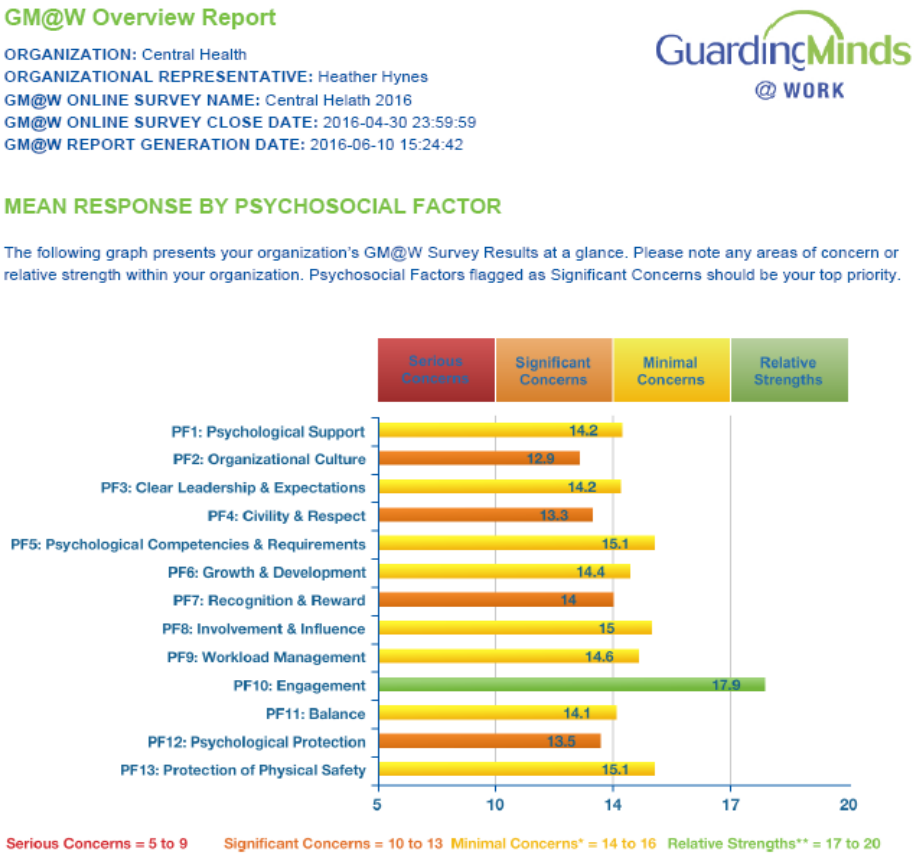
Improving psychological health and safety of the workplace is a priority for Central Health through *Excellence Canada's Mental Health at Work (MH@W) program*® The program defines organizational culture as a work environment characterized by trust, honesty and fairness. Out of the 13 psychosocial factors of the 2016 survey, organizational culture was among one of the 4 significant concerns for Central Health employees as well as Civility and Respect, Recognition and Reward and Psychological Protection.

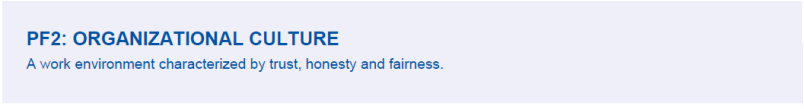
Results of the Guarding Minds@Work Survey (GM@W) showed:

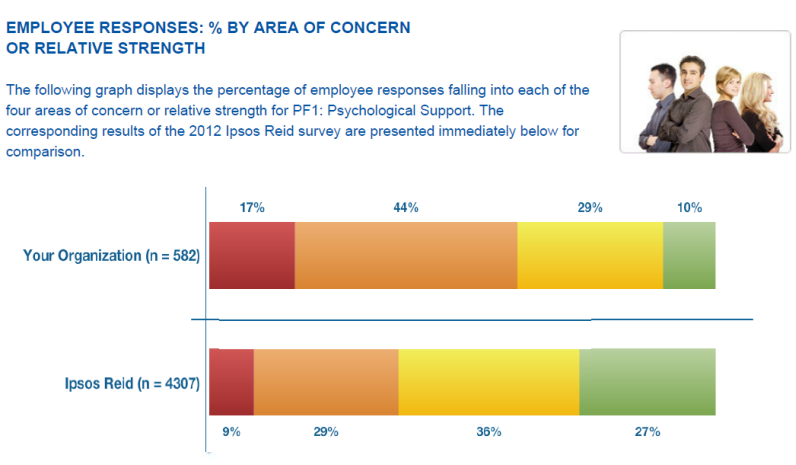
- 11.4% of employees reported being bullied or harassed, either verbally, physically or sexually in the workplace (this was higher compared to the national average from the Ipsos Reid Canadian results of 6.7%).
- 3.2% of employees reported being treated unfairly in the workplace because they have a mental illness.
- 2.6% of employees reported experiencing discrimination in the workplace because of their cultural/ethnic background, disability, sexual orientation, gender or age.

Central Health currently holds the Silver/Level 2 for Canada Awards for Excellence (CAE) certification. In May of 2016, Central Health was assessed for Gold/Level 3 certification, however, was awarded a score of 64%, with requirements for certification needing a score of 70% or more. To achieve Gold status, by November 2017, Central Health must:

1. Leverage the upcoming strategic planning process to ensure alignment of the Mental







Health at Work (MH@W) plan to Central Health's strategic priorities and indicators
2. Establish evaluation metrics and indicators for the MH@W initiative i.e. a scorecard
3. Ensure management accountability for completion of an action planning process for GM@W 2016 assessment – especially in areas that have not done so for previous assessments
4. Cascade mental health in the workplace training to frontline employees to build awareness

In the Verification Report prepared by Excellence Canada, the Verifiers noted passion and commitment of the Senior Leadership Team in support of this important work, as well as a genuine desire by all staff to do good work and serve the people of Central Newfoundland and Labrador.

The findings indicated:

- Good progress on opportunities noted in the Silver/Level 2, including routine psychosocial risk assessments (Guarding Minds at Work (GM@W) survey) and implementation of an action planning process to engage staff.
- Commendable focus on effective leadership, including a mandatory mental health and safety management training program (4 modules) and extensive LEADS training.
- Enhancements to staff safety policy development (Second Victim Response Policy) and efforts to improve communications on mental health in the workplace (Communication Specialist sits on the MH@W Committee).
- Ongoing efforts of the Senior Leadership Team to increase visibility across the organization (Walk Abouts).
- Many focus group participants from all levels voiced how they were 'glad Central Health was doing this work' and appreciated being asked to provide feedback.

The verification process identified some key opportunities that appear to be undermining Central Health's improvement efforts:

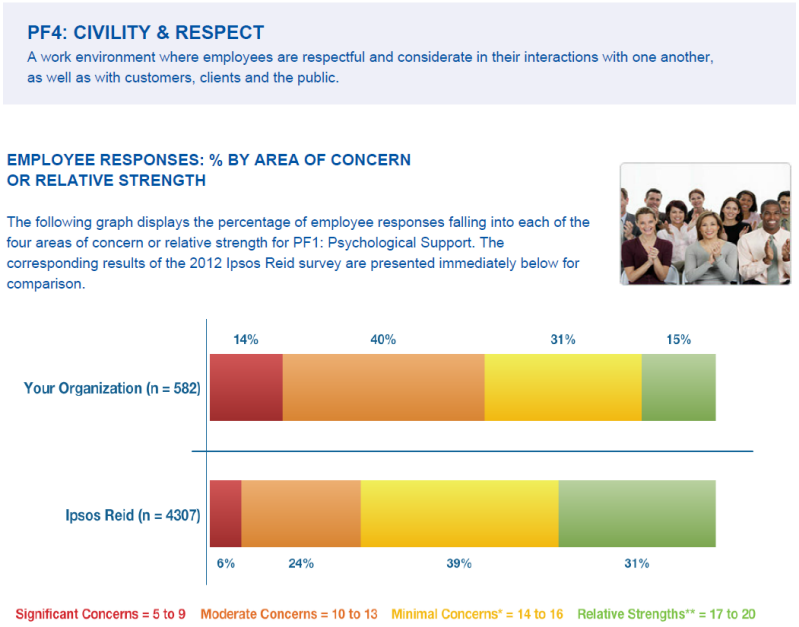
- Most notably, focus group participants spoke of the issue of respect and trust in the workplace, despite mandatory respectful workplace training.
- Concerns were voiced by frontline employees about the lack of awareness or involvement in this work and/or only very recent involvement in the assessment. They noted a lack in understanding the purpose of this initiative.
- Another key concern was the need to confirm the strategic direction and alignment of the mental health and safety initiative so that staff can understand how this works fits with the strategic priorities of the organization as well as alignment of their role to this work. As the new strategic plan is developed in 2017, this will be an opportune time to move from 'project' status and strategically position this work, and in doing so, identify and align indicators, and link to the accountabilities of management in terms of their role and operational plans.

Gold/Level 3 certification requires an organization-wide implementation of a strategic focus on mental health. Though there is significant progress in implementation across the organization, it is still in the early stage and there are areas that have yet to be involved or aware of this work. Central Health demonstrated commendable progress and Excellence Canada recognized the organization for its dedication to, and continued focus on creating a mentally healthy and safe workplace. Upon completion of the recommendations outlined in the report, Central Health will be eligible for Gold/Level 3 CAE Certification.

Civility and Respect

Civility and Respect has been identified as paramount to support employees, patients and their families as well as the overall organizational culture. The LEADS workshops provided an opening into honest and frank conversations between all leaders, and led to a prioritization of the goals for the future. It has lent a voice to the development of a Strategic Human Resources Plan, and to the prioritization of enhancing civility and respect throughout the organization.

Central Health has engaged Sharone Bar-David, author of Trust Your Canary, to deliver eight workshops to Central Health leaders early in 2017. This will give the leaders a basis from which they can return to their workgroups and bring the same message to front line staff, having developed a greater skill in delivering the concepts of civility and the importance of enhancing it in each program. Civility and respect are key elements of a safety culture.



Second Victim Support

Second victims are defined as health care providers involved in an unanticipated patient incident, a medical error and/or a patient related injury, who become victimized in the sense that they are emotionally traumatized by the event. In many of these cases, health care providers can feel personally responsible for the patient outcome. Many feel as though they have failed the patient and second-guess their clinical skills and professional competence.

Adverse events occur each day within health care that have the potential to cause physical and psychological harm to patient(s), their families, staff (including physicians), the community, and the organization. Organizations have paid much attention to system improvement to create safer health care and the appropriate handling of patients and their families (first victims) in adverse events. However, there is growing recognition that caring for second victims is an important part of an integrated system for handling adverse events.

Research suggests that second victims presumably need two kinds of support:

1. Emotional
2. Informational; they need to understand how this could happen (i.e. a nurse ideally talking to a nurse, surgeon to surgeon, etc.)

In the literature specific to second victim's, informal emotional support and peer support were among the most requested and most useful strategies identified. Second victims need a sense of support and understanding following an adverse event. The preference is moving towards peer-support program development.

"….in the aftermath of serious clinical adverse events, patients, families, staff, organizations, and communities will all say, we were treated with respect" ~Institute for Healthcare Improvement, 2011

Central Health is in the early phases of developing a formal response for coordinating support for second victims. Although Central Health provides EFAP and Psychological First Aid (PFA) these programs are currently underutilized. Central Health has three applicable policies that support moving forward with this work:

- Occurrence Reporting
- Disclosure
- Psychological First Aid

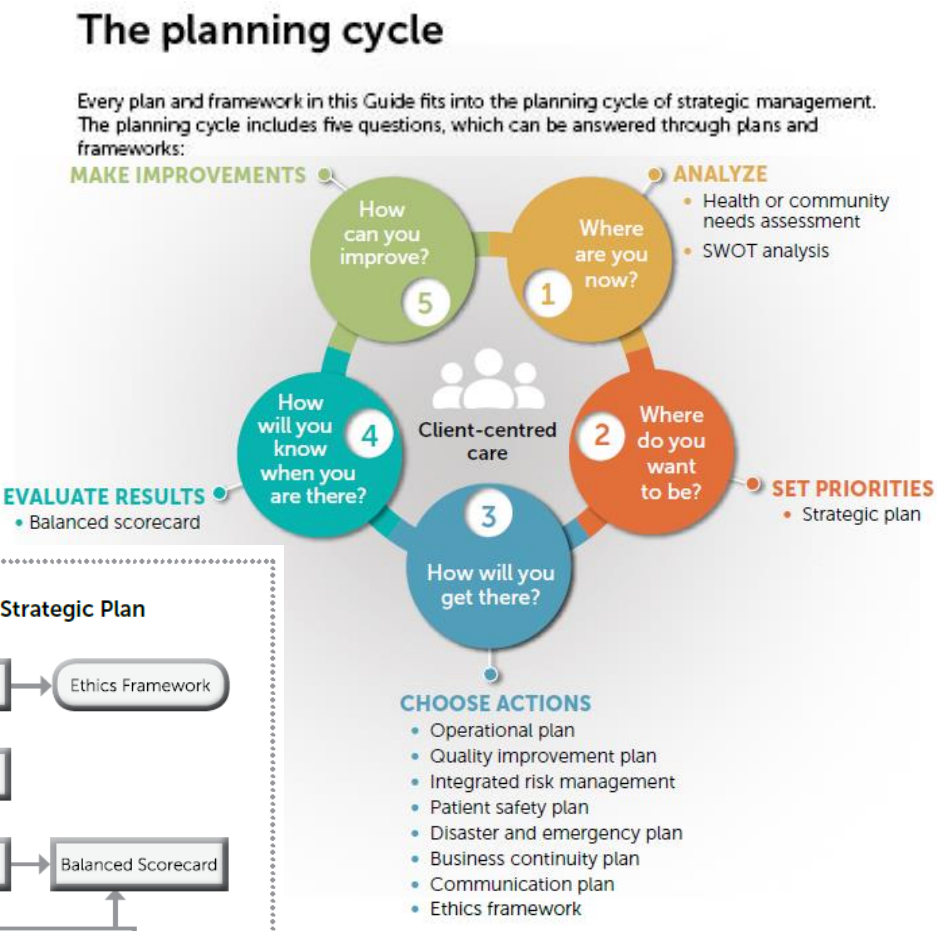
Central Health is leading in this work and is in line with many peers nationally. The development of a Second Victim Support Framework began in 2015. Education and Training has been rolled out to 3 program areas, Maternal Child (OBS), and Critical Care and ER regionally and included program leadership, frontline staff, and physician leaders. This work forms the beginning phase of developing management competencies within the program leadership. Next steps will include erecting a committee structure and moving this training across the organization as well as exploring the development of a peer support model.

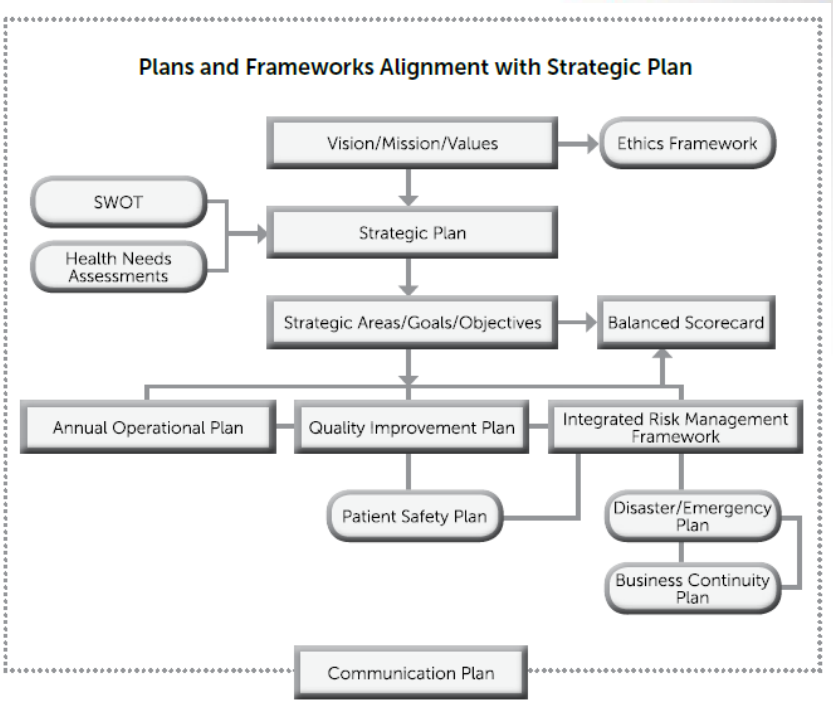
STRATEGY DEPLOYMENT

In the 2013 Accreditation Canada Report, Accreditation Canada indicated Central Health met the criteria for the planning and service design priority process of developing and implementing infrastructure, programs, and services to meet the needs of the populations and communities served. Although Central Health has been successful in achieving its set strategic issues as evidenced by achievement of its stated goals and objectives, improved quality can be achieved with improved strategy deployment across the entire organization. Enhanced planning processes, with improved alignment, throughout Central Health will contribute to greater attainment of goals. Improved planning processes are a goal for the 2017-2020 planning cycle.

Planning Processes

Central Health follows the Accreditation Canada Plans and Frameworks Guide to meet the Leadership Standards with respect tc planning and designing services. The planning cycle (as depicted in the Accreditation Canada graphics), as well several other plans anc frameworks, align with the Strategic Plan.





Monitoring Strategic Issues

The Board of Trustees scorecard is a quarterly report compiled to monitor and review key performance data on the strategic issues for the organization. The Board Performance Improvement Committee (BPIC) and the Board Planning and Finance Committee monitors the scorecard. Information and data on the following are included:

- 5 indicators examining progress towards the mission: *"By March 2017, Central Health will have provided quality health and community services and programs which respond to the identified needs of the people of central Newfoundland and Labrador within available resources".* As of the end of the 2015-16 fiscal year, Central Health is meeting the target for 3 out of the 5 indicators. Work is ongoing and on track.

- Strategic Issue 1: **Access to Services**: *"By March 31, 2017, Central Health will have improved access to select health and community services".* As of the end of the 2015-16 fiscal year, Central Health is meeting the target for 3 out of the 5 indicators. Work is ongoing and progressing.
- Strategic Issue 2: **Healthy Living**: *"By March 31, 2017, Central Health will have improved capacity to address population health-related issues within the region".* As of the end of the 2015-16 fiscal year, Central Health is meeting the target for 1 out of the 3 indicators. Work is ongoing and on target.
- Strategic Issue 3: **Client Flow**: *"By March 31, 2017, Central Health will have reduced and mitigated overcrowding in the emergency department by improving client flow".* As of the end of the 2015-16 fiscal year, Central Health is meeting the target for 2 out of the 4 indicators. Work is ongoing and progressing.

There are 7 additional organizational overview indicators that highlight overall functioning of the organization that could highlight system-level issues that are monitored. These include budget variance, percentage of total corporate consolidated revenues that exceeded or fell short of total expenditures, number of records with physician documentation for discharge summaries incomplete after 28 days, percentage of incomplete records outside 28 day limit as per policy, percentage of draft reports that are unsigned 7 days after transcription, total overtime hours for all employees, and sick leave days per FTE.

ACCREDITATION

The 8 dimensions of quality help us to understand and define what quality really means in health care. These dimensions are monitored and evaluated to determine if care and services are considered to be of quality. Looking at the dimensions of quality from the patient, client or resident's point of view:

SAFETY means: "Keep me safe"
CLIENT-CENTERED SERVICES means: "Partner with me and my family in our care"
WORKLIFE means: "Take care of those who take care of me"
EFFICIENCY means: "Make the best use of resources"
APPROPRIATENESS means: "Do the right thing to achieve the best results"
ACCESSIBILITY means: "Give me timely and equitable services"
CONTINUITY means: "Coordinate my care across the continuum"
POPULATION FOCUS means: "Work with my community to anticipate and meet our needs"

Central Health is committed to progressively improving the quality of the care and services delivered throughout the Central region. As part of this commitment, Central Health participates in the Accreditation Canada program. Accreditation is a comprehensive self-assessment, conducted by external peer surveyors from Accreditation Canada. They conduct site visits, on-site survey and staff interviews during which they assess the organization's leadership, governance, clinical programs and services against Accreditation Canada requirements for quality and safety. These requirements include national standards of excellence; required safety practices to reduce potential harm; and questionnaires to assess the work environment, patient safety culture, governance functioning and client experience.

Following the Accreditation survey, Central Health's accreditation status was escalated to the next level: **Accredited with Commendation**. Central Health achieved a 95.9% compliancy of eligible criteria for standards of excellence and originally received the designation Accredited (Report) in May 2013. This means that the majority of standards were met, with recommendations for improvement within a specified timeline. Central Health was able to fulfill those requirements within the required timeframe and the evidence submitted met Accreditation Canada's criteria for the next level of accreditation. In 2012 Accreditation Canada surveyed 1,066 health and social services organizations, 23 per cent of those were Accredited with Commendation.

In May 2016, Central Health received a certificate for the Leading Practice Award for *Building Organizational Capacity to Use Survey Results to Drive Quality Improvement*.

The organization will have its next on-site survey in September 2018. Self-assessments have been completed and required surveys have been administered or there is a plan outlined to achieve the requirements.

QUALITY IMPROVEMENT, PATIENT SAFETY & RISK MANAGEMENT

Central Health has made significant progress in the area of quality improvement. Continuous quality improvement and patient safety has been a priority for Central Health with a goal of improving the culture of patient safety for a number of years.

Safety is Central
making patient safety our commitment

Integrated Quality Improvement Framework

In 2011, Central Health approved an *Integrated Quality Improvement Framework* for the organization and in 2013 the framework document was updated. The implementation of the framework is an indicator for the 2011 – 2017 Central Health mission. The quality framework identifies the structures, processes, accountabilities and the improvement methodologies to be utilized by the organization. The framework enables the implementation of the Strategic Quality and Safety Plan and provides a number of tools for measuring, evaluating and improving quality. To meet Accreditation Canada expectations the framework incorporates risk and utilization management; performance measurement including monitoring of strategic goals; client safety and quality improvement. Central Health's Board of Trustees has adapted the following definition of quality for use within the organization:

> ***"Quality is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with the strongest current evidence, as expressed through a set of dimensions of quality."*** *– Central Health*

Central Health strives to provide:

- **The Right Care**
- **The Right Service**
- **To The Right Person**
- **At The Right Time**
- **Every Time**

Central Health has adapted concepts from the European Foundation for Quality Management (EFQM) Excellence Model as the basis for an integrated quality improvement framework for Central Health. The European Foundation for Quality Management Excellence Model is a self-assessment framework for measuring the strengths and areas for improvement across all activities within an organization. The model starts with the premise that results are achieved by leadership driving policy, strategy, people, partnerships and resources leading ultimately to excellence in key performance results.

<table>
<tr><th colspan="5">Central Health Integrated Quality Improvement Framework</th></tr>
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Quality and Patient Safety Plan

The results of the Accreditation Canada patient safety surveys administered in 2009, 2012 and 2015 helped to inform Central Health's Patient Safety Plan, which guides ongoing patient safety work. The roll out of CSRS, Patient Safety Days Forums, IHI Open School Education, implementation of SBAR, the Patient Safety Education Program, ongoing Patient Safety Leadership Walk Rounds, and the continued work on Required Organizational Practices (ROPs) such as VTE and Safe Surgery Checklist are some patient safety initiatives highlighted in the plan. As well, Quality Case Reviews (QCR's) for serious occurrences causing harm, expansion of Safer Healthcare Now initiatives such as Falls Prevention, the development of a new Patient Safety Scorecard, ongoing audits and trending and monitoring of data are additional initiatives advancing patient safety. The Board Patient Safety Subcommittee (BPSS) is responsible for the Patient Safety Plan. This committee is in the process of determining priorities for 2017. Some of the areas identified include communication including handover, falls and injury prevention, identification of deteriorating patients and medication management.

Integrated Risk Management

Central Health is committed to ensuring a healthy and safe environment for our patients, their families, staff, physicians, volunteers, and visitors. Management of key organizational risks is imperative in health care and a systematic application of risk management across an organization, in alignment with Accreditation Canada standards, is Integrated Risk Management (IRM). IRM yields a framework for understanding and prioritizing different types of risk spanning across an organization, establishing a system for documenting and reviewing the most significant risks, and for identifying and ensuring implementation of risk mitigation strategies with clear accountabilities for management (IRM Risk Resource Guide, 2014). Central Health is implementing an IRM program to ensure a continuous proactive system wide approach to identifying, assessing, understanding, acting on, and communicating risk from an organization-wide, aggregate perspective.

Beginning in February 2017, an 18 month robust implementation plan is expected to be rolled out, guided by an IRM Guidance Team, that will include development of an IRM framework and guiding policy, development of and implementation of IRM education and training for leadership. Identification of Central Health's top risks will occur and these risks will be monitored through existing organizational models such as the Board Scorecard and program specific action plans that will outline implementation of specific risk mitigation strategies with documented clear management accountabilities. The HIROC Risk Register tool will be used to document organizational risks as well as mitigation strategies.

Risk Assessment Checklist (RAC) Program

The Risk Management Program is one of many mechanisms which support the protection of clients, staff, visitors, the organization and its assets from any loss caused by unplanned and/or uncontrolled events to improve patient safety. The RAC Program is a tool which helps to identify areas of risk and potential safety issues. This is a program provided through Central Health's insurer, Healthcare Insurance Reciprocal of Canada (HIROC). The program aims to increase the impact on patient safety and decrease risk by focusing on the highest ranked risks in the HIROC database. The main objectives of the program are to focus on top risks, focus on top mitigation strategies, and increase the impact on patient safety and decrease adverse events and claims. The modules for this tool are provided by HIROC via their website. These modules focus on each program area in health care and challenge organizations to examine their policies and practices to reduce preventable risks through organization-wide participation in their identification, assessment, and management.

Central Health's top three areas of focus include Patient Falls; Failure to Interpret/Respond to Abnormal Fetal Status; and Failure to Appreciate Status Changes/ Deteriorating Patient Condition. Within the RAC program there are 30 risk modules identified across the country based on claims and their ratings are based on claim costs. The #1 risk is Failure to Interpret/Respond to Abnormal Fetal Status, and the #2 risk is Failure to Appreciate Status Changes/ Deteriorating Patient Condition. In Central Health, 2 of our top 3 areas of focus are consistent with the top ranked risks across the country. Patient Falls are ranked as #8 across the country. The Risk Reference Sheets and Risk Worksheets were recently revised for Cycle 2. Cycle 2 (Year 1) commenced on May 20, 2016. Central Health's submission for Cycle 2 (Year 1) is due May 2017.

Health System Resources & Efficient Allocation of Resources

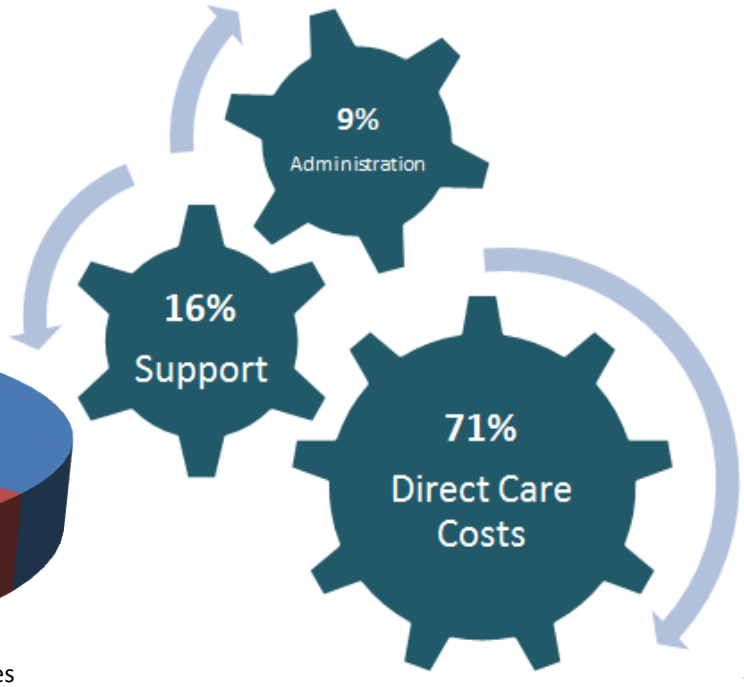
Health system resources are the financial, human, physical (facilities), technical and informational (including availability of evidence and high-quality data) resources that are available to the health system. These resources are mobilized and used by the health system to produce the goods and services required to achieve its ends. Evidence is a key informational resource, and its availability and relevance is the cornerstone of performance improvement at all levels of the health system, as it informs and supports many types of decisions.

Efficient allocation of resources measures how resources are combined to produce health services to meet the population-based demands and needs of a society and enable the health system to achieve better outcomes.

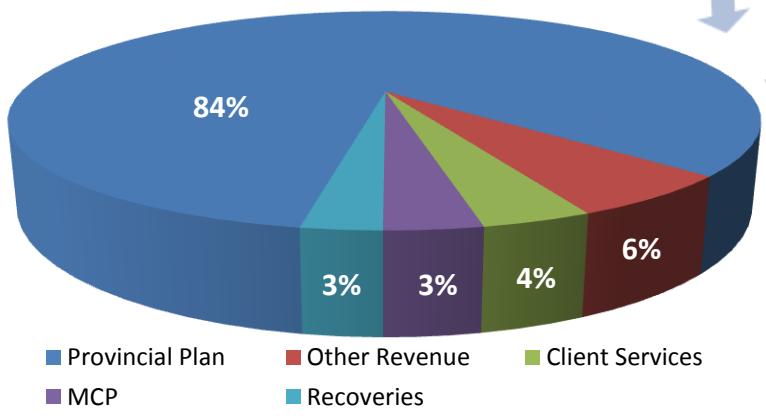
FINANCIAL RESOURCES

Central Health's financial environment is tied to the provincial fiscal environment as the province of Newfoundland and Labrador provides the majority of the funding. Budget 2016 saw a number measures that reduced funding significantly. The emphasis continues to be cost containment and looking for efficiency in operations.

Central Health's leaders are responsible for making the best use of funds to provide clients with the best possible care. According to financial statements, Central Health showed a deficit of $3.4 million in 2016 compared to a surplus of $1.0 million in 2015.



Revenue 2015-16



Compiled from Grant Thornton Financial Statements March 31, 2016

Central Health's revenue for 2015-16 was $396 million and 71.0% was invested into direct care costs. Administration costs increased by 1% from 2014-15, which accounted for 9% of the expenditure. Support service costs decreased by 1% from the prior year, however direct care costs increased by 1%. For direct care costs:

- Community and Social Services accounted for 25%, a 1% increase from 2014-15
- Nursing Inpatient Services accounted for 23%, which was a 1% decrease from 2014-15
- Diagnostic and Therapeutic Services accounted for 12%, which was the same proportion from 2014-15
- Ambulatory Care Services accounted for 6%, which was the same proportion from 2014-15
- Medical Services accounted for 5%, which was the same proportion from 2014-15

Central Health's budget for 2016-17 projects the following:

- Decreasing Administration accounting by 1% (8%)
- Increasing Community and Social Services accounting by 3% (28%)
- Maintaining Nursing Inpatient Services accounting at 23%
- Increasing Diagnostic and Therapeutic Services accounting by 1% (13%)
- Increasing Ambulatory Care Services accounting by 1% (7%)
- Maintaining Medical Services accounting at 5%

As previously referenced, Central Health's fiscal environment is tied to the provincial fiscal environment, which has created a challenging situation. For 2016-17, Central Health continues on the path of cost containment and increased efficiencies, although the pace of identifying and implementing these opportunities is not keeping up with the funding reductions and targets set out by the province. Central Health's leaders have made this a top priority and regularly review the fiscal status.

The changes dictated by past studies of the Health Care Management Review and Strategic Procurement Project are all in the maturity phase and all savings have been achieved to the extent possible. Due to its fiscal situation, the province, through the Department of Health and Community Services (DHCS), continues to look for ways of lowering spending and this will continue to have an impact on the level of services provided by Central Health. To make the best use of available resources, the Government of Newfoundland and Labrador has commenced a Government Renewal Initiative (GRI) that is targeted at reducing expenditures by 30% over the next three years. Central Health is part of that process and is also expected to reduce expenditures by a similar amount.

In 2015, government announced that it intended to create a shared services organization to consolidate administrative functions such as purchasing, human resources, supply chain, communications, and information management. Staff and managers in the areas identified have participated in a workshop with the Shared Services Implementation Team regarding the new structure. Until further decisions are reached the RHAs continue to work together in many areas in attempts to move in a consistent direction. The *Shared Service Strategy and Supply Chain Assessment* project was completed with the conclusion of moving to shared services for supply chain being accepted by the Government. This has now moved into the 'how to implement phase' with all RHAs supporting an implementation team. The results of this action are now with Government. Any changes are waiting for approval and will be announced by Government.

Administrative Expense

In 2014-15 CIHI reports that 4.5% of Central Health's total expenses were spent in administrative departments (finance, human resources, etc.). This is a decrease since 2010-11, however, is still higher than the province (4.0%) and the country (4.4%). Note: Central Health's definition for administrative expense is different than CIHI's definition, which explains the discrepancy in results. Central Health continues to identify opportunities to improve efficiencies and decrease administrative costs.

In the 2013 Accreditation Canada Report, Accreditation Canada indicated Central Health met all the criteria for the resource management priority process of monitoring, administration, and integration of activities involved with the appropriate allocation and use of resources.

Cost of a Standard Hospital Stay

This CIHI indicator measures the ratio of a hospital's total acute inpatient care expenses to the number of acute inpatient weighted cases related to the inpatients for which the hospital provided care (cost of a standard hospital stay). This cost has decreased from $7,832 in 2010-11 to $6,730 in 2014-15 however, is much higher for Central Health compared to the province ($6,252) and the country ($5,789). This likely is influenced by the geographical constraints in the Central Health region, which limits the ability to realize economies of scale given the small number of acute care beds located in rural facilities in the region.

In the CIHI publication *Leading Hospitalization Costs in Acute Inpatient Facilities in 2012-13,* in Canada, seniors accounted for 78% of the three most expensive hospital stays by diagnosis: Respiratory disease, pneumonia and heart failure without angiogram. Seniors also accounted for 63% of the combined costs of knee replacements, hip replacements and hip/femur repairs.

Resource Allocation

Making resource allocation decisions that affect care and services is challenging given the complexity of health needs of residents and the available resources. Accreditation Canada in past surveys has noted that Central Health is a good steward of its resources. There is a well-documented policy and procedure to support the capital equipment and capital renovation allocation decisions discussed in detail below. There is good communication between Central Health and the Health Foundations, the main fundraising entities in the region. As a result of this relationship, the Boards of the

Foundation are able to clearly understand resource requirements and are able to clearly communicate the organizations needs to the funders. This relationship results in appropriate resource allocation and ensures that the most pressing needs are met.

Central Health's approach to resource allocation is an ethical decision-making framework for fair priority setting. The developed decision tool identifies a number of criteria that should be considered in priority setting. Additionally this tool allows for the establishment of tools, templates and processes that ensure the incorporation of core values into the decision-making process.

INFRASTRUCTURE

In the 2013 Accreditation Canada Report, Accreditation Canada indicated Central Health met all the criteria for the physical environment priority process of providing appropriate and safe structures and facilities to achieve the organization's mission, vision, and goals. Overall, buildings are maintained and meet functional needs of programs and services. Most buildings are older and have required renovation to maintain safety and meet program and patient needs.

Preventative Maintenance Program

To support infrastructure and equipment, Central Health established a Preventative Maintenance (PM) Program designed to support the safe delivery of service to clients and staff. PM is a Required Organizational Practice (ROP) of Accreditation Canada. This program is tracked through a regional Computerized Maintenance Management System (CMMS) and customized PM programs are established in accordance to manufacturers' guidelines. In addition to the PM system, processes are in place for identifying broken equipment, equipment problems and product alerts and recalls. This is achieved through the Clinical Safety Reporting System (CSRS), communications from manufacturers, Health Canada and the Emergency Care Research Institute. An electronic tracking program for recall alerts, the Risk and Safety Management Alert System (RASMAS), is also in place.

Capital Planning and Priorities Process

Central Health is committed to moving toward a capital planning and priorities process that is based on the criteria of equipment condition and useful life guidelines as set out by the American Society for Health Care Engineering. In keeping with this commitment, Central Health has adopted VFA, a software package utilized to manage, track, and assess facility infrastructure. VFA is considered to be a rolling tool as it facilitates long term planning for infrastructure maintenance while maximizing the allotted expenditures. The VFA process involves a Facility Condition Assessment (FCA) and is designed to provide accurate infrastructure data that can be used by the organization for planning and resource management. During the past year Central Health updated its facility condition database with the help of outside consultants. This will help inform Central Health on repairs and renovations priorities for the next five years.

With respect to physical structures and resources, Central Health continued to perform considerable work on infrastructure needs in the past number of years. Criteria have been developed for infrastructure priorities that are based upon audit and inspection of facilities allowing for multi-year planning. Currently there are a total of 118 ongoing projects being completed in facilities throughout Central Health. The types of projects range from outpatient department renovations for Twillingate, boiler upgrade for Brookfield, redevelopment of the medical unit for Gander and building envelope upgrade for Grand Falls-Windsor.

- CNRHC continues with operation room redevelopment with planned renovations for new Endoscopy and Cystoscopy suites. With these new suites, Central Health will be able to continue to provide this highly demanded service to patients and to meet Accreditation and Occupational Health and Safety standards. Redevelopment of the laboratory is also scheduled for CNRHC, which will combine two current lab locations in this facility to optimize patient and staff flow. This project will also meet current IQMH (Institute for Quality Management in Healthcare) standards.
- Replacement of the Springdale Health facility has begun in recent years with two construction phases completed including the preparation of the site and installation of all water and sewer infrastructure. This new facility will replace the current Green Bay Health facility and will include 9 acute care beds, emergency room facility's

including two trauma rooms, ambulatory services such as laboratory and diagnostic imaging and also clinics for the physicians.

In all recently completed capital projects, Central Health has implemented a Lean-led design process called 3P (Production Prepare Process), which is a method for product and production design (i.e. designing a production process and production space layout for a particular product). The goal is to develop a process or product that meets patient requirements in the "least-wasteful way". It is not difficult to make the intellectual leap to using 3P in facility design and process improvements, particularly in health care where the activities of "producing" and "preparing" services for patients depends heavily on a well-tuned "process". This activity is typically accomplished by conducting a multi-day "3P event" in which a team rapidly creates and tests potential designs. The goal is to optimize flow and value to the patient. The team focuses on the processes and space related to one service line or department and is comprised of cross-functional members essential to the work. This process uses collaboration with all people involved in the value stream including patients, families, front line staff and physicians.

WASTE REDUCTION

Employee Wellness, Health and Safety deliver the Waste Management Program for Central Health. Central NL Waste Management has implemented a recycling program that encompasses all site in Central Health's region excluding those on the Bay d'Espoir highway and the Springdale and Baie Verte areas. While few sites have converted to the clear and blue bag system, to date, Central Health has been diverting recyclable material from the land fill with diversion of almost 20% of solid non-hazardous general waste (i.e. paper, cardboard) over the last two years. As Central Health moves forward, there will be a move towards a clear bag for general non-hazardous waste disposal and then an identification of further opportunities for recycling and diversion of solid waste in a fiscally responsible manner.
Central Health is working towards becoming a greener organization. Some suggestions from the 2016 Community and Employee Survey to expand the program include:

- Develop a strategic environmental waste reduction plan.
- Conduct an environmental audit
- Consult Conservation Corps Newfoundland and Labrador (CCNL)
- Partner with local municipalities and Central Newfoundland Waste Management (CNWM)

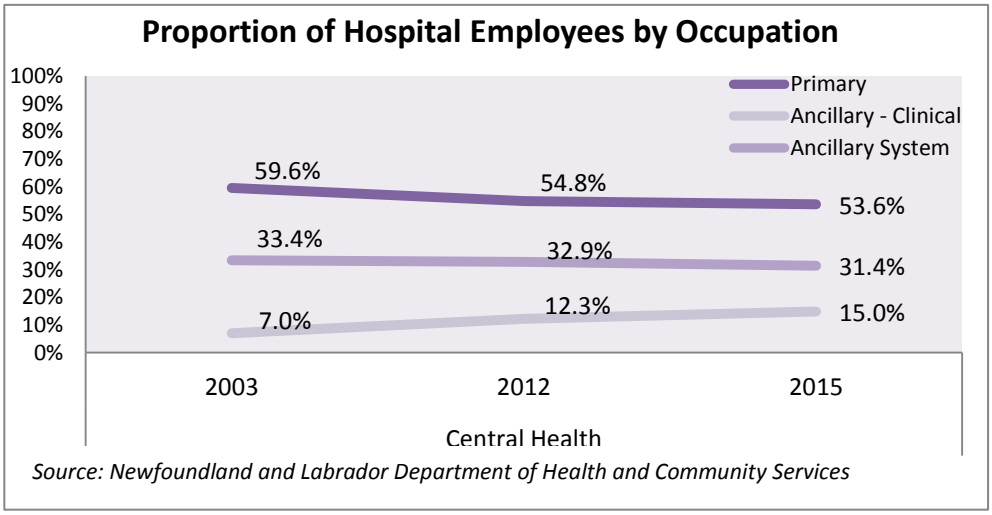
Some ideas for waste reduction and reducing the carbon footprint at Central Health from the 2016 Community and Employee Survey include:

- Recycling abilities for all sites
- Reduce water and electricity wastage
- Eliminate use of non-necessary disposable items such as styrafoam cups, plastic utensils, etc.
- Promote a no idling policy
- Reduce phantom power (turn off electronics when not in use e.g. computers)
- Compost

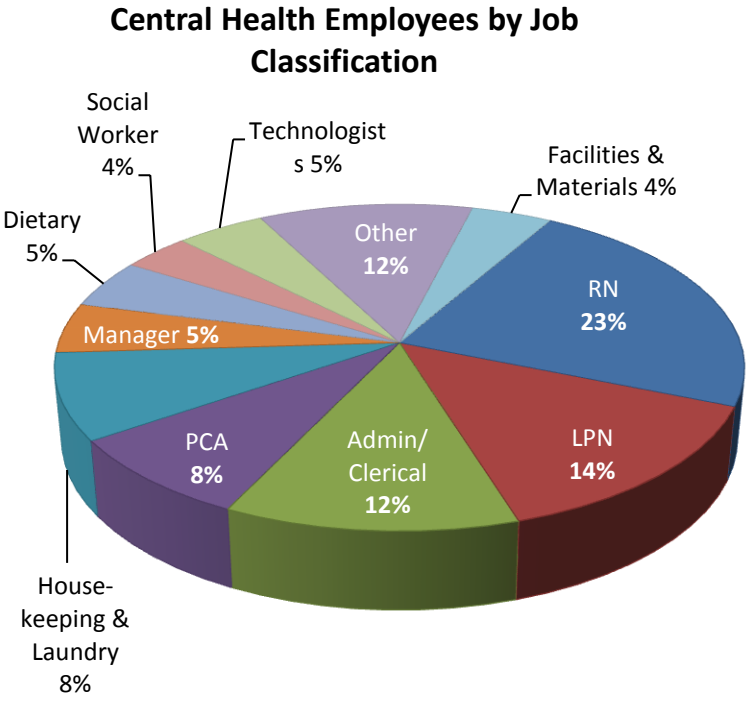
HUMAN RESOURCES

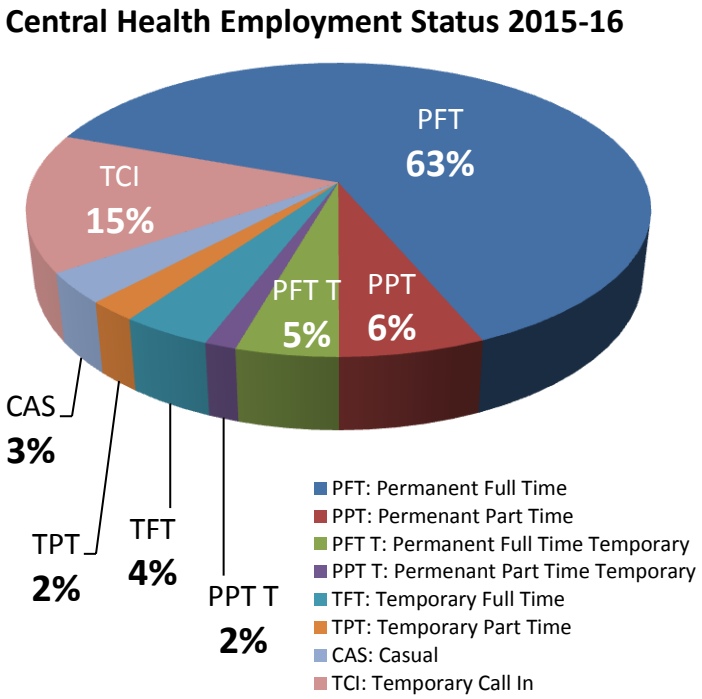
Central Health employs approximately 3,100 individuals who work collaboratively with 111 fee-for-service physicians, about 700 volunteers and two health care foundations to provide quality health care services.

The percentage of clinical occupations (such as physiotherapists, technologists, etc.) is increasing while the percentages of primary and ancillary system occupations are declining.



Source: Newfoundland and Labrador Department of Health and Community Services





In the 2013 Accreditation Canada Report, Accreditation Canada indicated Central Health met the criteria for the human capital priority process of developing the human resource capacity to delivery safe, high quality services.

Human Resources Planning

Central Health is working to build on previous departmental plans to develop a comprehensive Strategic Human Resources Plan. The plan will be finalized by March 2017. This plan sets out the work of departments who are collectively responsible for all areas of human resources (namely, Employee Relations/Human Resources; Occupational Health, Safety and Wellness; and Professional Development and Continuing Education Services).

The Plan will consist of 4 key strategies:

1. Developing the Workforce
2. Developing the Organization
3. Strengthening Leadership
4. Building a Quality Work Environment

Some of the initial priorities build on existing work around the establishment of a talent management plan (including succession planning), a recruitment strategy and a recognition strategy that demonstrates value and rewards for staff; the development of higher-functioning and more efficient teams by enabling staff to work to their full scope of practice; embedding LEADS principles in developing leaders and moving toward systems transformation while continuing to focus on accountability and growing staff engagement in a safe and respectful environment.

The plan draws from, and is in alignment with, the *Newfoundland and Labrador Strategic Health Workforce Plan 2015-2018*, Central Health's Strategic Plan 2014-2017 and Government's new plan: *The Way Forward: Shaping the Future*, among others (See Appendix C). The adoption of this plan is an Accreditation Canada leadership standard and is an indicator of the 2011-17 Central Health mission.

Recruitment

Predicting recruitment needs can be a challenge given the series of variables that affect recruitment and retention. While retirements may be easy to project, it is more difficult to predict short-term absences or employee departures. Additionally, external factors affecting the labour market are particularly difficult to predict and often greatly impact HR's ability to recruit for difficult-to-fill positions.

In an effort to address some of these challenges, HR will be integrating workforce planning information into the newly developed Strategic Human Resources Plan. Consideration will be given to such variables as projected retirements, trends in leave and turnover, and provincial/national forecasting of the labour supply in key job classifications. This process will also be informed by the data collected via the new exit survey process that employees who are leaving the organization or transferring internally will complete.

In the past, the organization has been challenged by the recruitment and retention of relief staff, particularly in nursing (including RNs, LPNs and PCAs,) and clerical staff. Additionally, Psychologist, NPs and Laboratory Technologist vacancies have often proven difficult to fill, as have many vacancies related to Rehabilitative Services, such as Physiotherapists and Occupational Therapists.

Recruitment and retention of RNs is an area that requires consistent attention. Despite the large volume of RNs employed by Central Health (approximately 750), a seemingly stable complement of RNs can quickly change with several leaves and unexpected vacancies. Without a school for RNs in the region, the local labour supply can also quickly change, often making it difficult to immediately recruit nursing staff when necessary. In 2016, Central Health participated in Canada's largest nursing recruitment event in Toronto which resulted in the recruitment of numerous RNs. Due to the benefit realized from this initiative relative to the cost, the organization will likely participate in this event again in 2017.

Central Health has also recently experienced a high volume of managers and directors exiting the organization. While there is often a significant volume of interested candidates for these vacancies, the loss of knowledge when long-term employees exit the organization is not without impact.

Physician Recruitment

Physician attrition is a concern for Central Health, in that the ability to provide uninterrupted, coordinated care and service is a challenge. The Medical Services Department spends significant time and energy in the detailed process of hiring short term replacements (locums). The heavy draw of team resources to locum work reduces capacity for permanent new hire recruiting and initiation of retention and satisfaction measures to support ongoing requirements for the region. The cost of locums is also significant. Medical Services anticipates improvement with an "in process, custom built" document management system. Presently there are 162 physicians (this is a decrease from 2013 of 173 physicians). Central Health is looking to recruit approximately 20 physicians. This includes positions in pediatrics, radiology, surgical assist, internal medicine, obs/gyn, anesthesia, psychiatry, pathology and family medicine. Timelines for recruiting physicians pose major challenges with maintaining continuity of service.

Hospitalist Review at JPMRHC

Central Health implemented a "Hospitalist" program staffed by a number of Clinical Associates (who are International Medical Graduates). According to the JPMRHC review conducted in October 2015 by an external consulting firm, a hospitalist service staffed by International Medical Graduate (IMG) physicians is responsible for approximately half of admitted patients to the medicine service. There are several community Family Physicians with admitting privileges who see their own patients in hospital and participate in evening and weekend calls.

The local leaders in Gander have faced a number of challenges in engaging the local general practitioner (GP) community in providing inpatient care. There are also challenges at CNRHC as well. Currently, at JPMRHC there is a less than ideal fee-for-service schedule that reportedly undervalues inpatient care provincially. In addition, there is a perception that inpatient care is unnecessarily disruptive to physician work-life balance and inpatient care can be high intensity compared with office practice. For now, there remains a small group of dedicated community GPs who continue to provide inpatient care for their patients, but these physicians are finding it increasingly difficult to maintain their current involvement.

As a part of the review, interviews were conducted with frontline physicians who provide inpatient care at JPMRHC, including those on the hospitalist service and the community-based GP's who continue to see their patients in the hospital as well as GP's who no longer provide inpatient services, local and regional physician leaders and administrative staff.

The short-term recommendations outlined in the review are:

- Improve remuneration for inpatient work
- Prioritize recruitment of Canadian-licensed physicians
- Define the responsibilities of hospitalists
- Commit to implementing improvements to ensure program sustainability

The long-term strategic recommendations outlined in the review are:

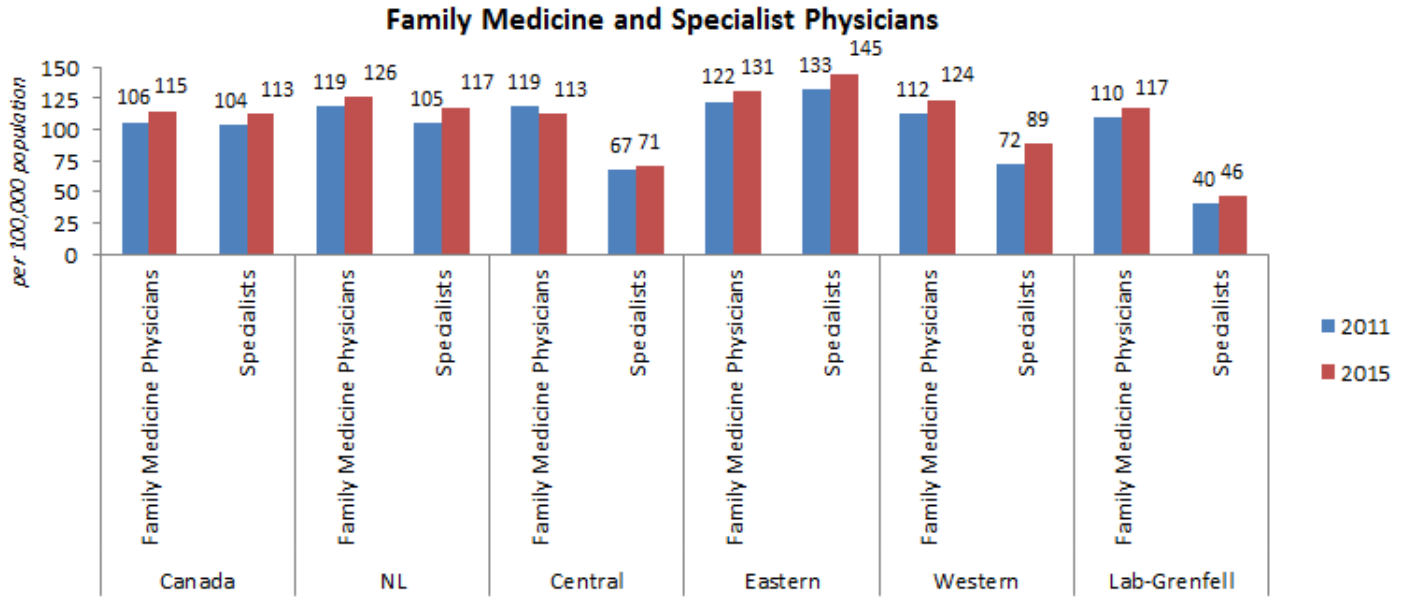
- Complete a community needs assessment
- Choose a Hospitalists Model
- Implement a governance system for inpatient care
- Define scope of practice and required competencies for different admitting services
- Develop a sustainable remuneration model
- Complete a workload and staffing analysis
- Prioritize recruitment and retention of local physicians
- Define and track performance metrics

The operational (workflow) recommendations are:

- Develop standardized care pathways
- Improve communication and documentation
- Cohort hospitalist patients
- Involve physicians in error reporting
- Assign a rapid response team in the hospital
- Frontline staff should participate in a rapid-cycle process improvement system

Physician Supply

- Family medicine physicians play an important role in the health care system given they directly influence how most health care resources are used. Information on the supply and distribution of family medicine physicians will help to support health decision-makers and planners as they prepare for future needs. In the CIHI Scott's Medical Database, the number of practicing family medicine physicians per 100,000 population in 2015 for Central Health was 113. This is a decrease of 7.1% compared to 2011. This is the only decrease observed compared to the other RHAs, the province and the country.
- Specialists also play an important role for health care resources. The number of practicing specialist physicians per 100,000 population in 2015 for Central Health was 71. This is an increase of 3.1% compared to 2011.

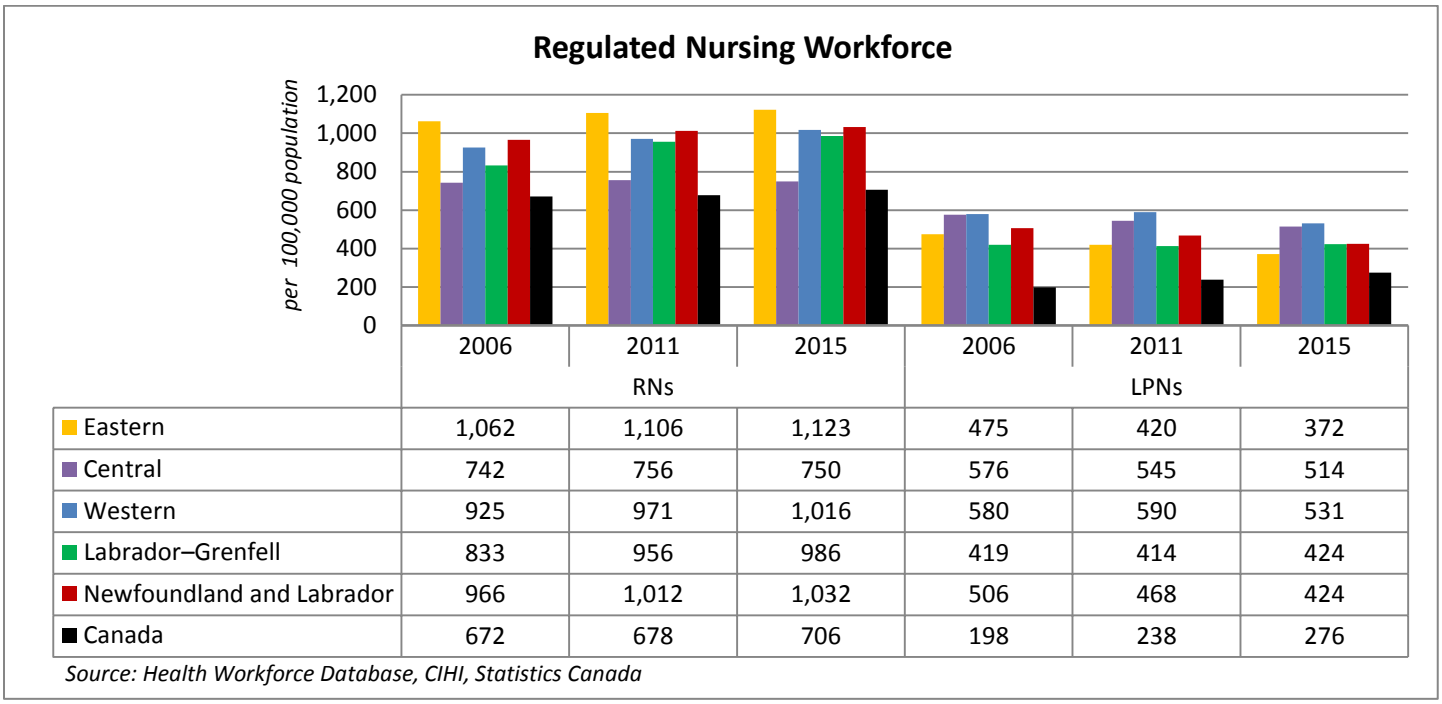


Source: CIHI Scott's Medical Database

Regulated Nurses

There are 3 regulated nursing professions in Canada. Each province and territory has its own legislation governing nursing practice, as well as its own body that regulates and licenses its members. Regulated nurses include Registered Nurses (RNs including NPs), Registered Psychiatric Nurses (RPNs) (where applicable) and Licensed Practical Nurses (LPNs).

According to the CIHI Health Workforce Database, the rate of all regulated RN's (excluding regulated nurses who are not working in nursing) working in the Central Health region is the lowest per 100,000 population among the RHAs and the province. This rate has been steady for Central Health since 2006. The rate of regulated LPN's working at Central Health is the second highest per 100,000 population among the RHAs and is higher than the province and the country. This rate has been declining slightly since 2006.



	RNs			LPNs		
	2006	2011	2015	2006	2011	2015
Eastern	1,062	1,106	1,123	475	420	372
Central	742	756	750	576	545	514
Western	925	971	1,016	580	590	531
Labrador–Grenfell	833	956	986	419	414	424
Newfoundland and Labrador	966	1,012	1,032	506	468	424
Canada	672	678	706	198	238	276

Source: Health Workforce Database, CIHI, Statistics Canada

RN's and NP's Employed in a Public Health Setting

In the CIHI Health Workforce Database, the number of practicing registered nurses and nurse practitioners in primary health care (PHC) per 100,000 population in 2014 was 142 for Central Health, which is steady since 2010 (141) but was higher compared to the province (125) and the country (67).

Volunteers

On average, approximately 700 volunteers serve patients, residents, clients and their family members across Central Health with a goal of enhancing the entire care experience. The highlights below are a representation of the work being carried out in communities across the region. Volunteers in smaller and more rural communities continue to be the backbone of many Central Health volunteer programs and services from friendly visits to decorating the halls for Christmas and bringing joy through live music. Every volunteer – whether they give of their time on a daily or weekly basis or come once a year – makes an important contribution in terms of human connection and camaraderie, and program delivery.

Each year, Central Health celebrates the tremendous contribution of volunteers. In the spring of 2014, 2015, and 2016, National Volunteer Week was celebrated with entertainment, delicious food and kind words of thanks at events across the region. Volunteer Services also organized a special 50th anniversary for the Central Newfoundland Women's Auxiliary of Grand Falls-Windsor in 2016. Over the course of their history, they have raised an extraordinary $1.3 million in support of vital health initiatives.

In April 2016, Volunteer Services, the Food and Nutrition Services Department and Lakeside Homes partnered to pilot a volunteer feeding program. It was a great success and continues today with six trained volunteers. Volunteers deliver a friendly presence and conversation for residents, encouraging them to eat while also providing hands-on feeding assistance – thus directly impacting nutrition levels and quality of life. Following evaluation of the program at Lakeside Homes, the plan is to expand the program region-wide.

In early fall 2016, nearly 55 youth (with the goal of becoming health care professionals) applied to volunteer at our two regional referral centres. For CNRHC, this is the first in many years that the youth program is up and running again. At these two referral centres and across the region, volunteers are fulfilling a variety of roles from gift shop attendant and comfort assistant to music entertainer and support companion. You will often find a volunteer 'doing' a resident's nails or baking with residents to engaging in conversation with a patient and escorting them for a change of scenery.

In partnership with the Palliative Care/End of Life Program, seven palliative care volunteers were trained in November 2016 to provide companionship to those who are at the end of life at JPMRHC, CNRHC and Lakeside Homes. Volunteers provide a comforting presence when a patient doesn't have family nearby but also provides family members with a much needed reprieve when they are spending many hours at their loved one's bedside.

Volunteers are helping to reduce no-shows and wait lists by making person-to-person appointment reminder calls to supplement the appointment letters that are sent out by Central Health. This program pilot started with Cardiopulmonary Services in December 2016.

Volunteer Services' will be piloting the St. John Ambulance Therapy Dog program at JPMRHC in the new SMART room. Therapy Dog visits will take place on the medical unit to enhance the care experience for all interested patients but specifically medically discharged patients waiting for placement in LTC. The first Therapy Dog visit took place December 2016.

After many years of dedication and service, two auxiliaries have closed their chapters – the Green Bay Health Centre Auxiliary and the James Paton Memorial Hospital Auxiliary. Some members have volunteered an extraordinary forty years plus during their time as an Auxiliary member. A truly commendable contribution to Central Health and the communities they have served over the years. Central Health is fortunate that many former members remain active in various roles.

Health Foundations

Central Health has two registered charities that endeavor to make additional investments in its health programs and services throughout the Central Health Region: the Central Northeast Health Foundation and the South and Central Health Foundation.

The Director of Development and Volunteer Services is knowledgeable of capital equipment needs and program needs through Central Health's region as a member of the Capital Infrastructure Review Committee and the Person- and Family-Centered Care Committee. Requests for support of Central Health programs and services are brought to the attention of the two Foundation Boards for further discussion, presentations and voting. The magnitude of the support provided by donors via the Foundations is quite remarkable.

The two Foundations have a long history of investments in health care equipment and technologies, along with enhancements to the physical environment encountered by patients, residents and clients. In 2015-16, some of the projects successfully launched with the help of Foundation donors include:

- Mental Health First Aid Training for front line care providers
- Funding for the completion of the Baie Verte Therapeutic Wander Garden
- Revitalization of three patient rooms within the Mental Health Unit at the CNRHC
- Enhancements to Emergency Department technology, furnishings and waiting areas in both Gander and Grand Falls-Windsor
- Creation of a Bike Sharing Program for Mental Health and Addictions clients
- Provision of two Therapeutic Service Dogs, Bear and Bella, for youth receiving care at Hope Valley Centre

There is significant support in the community and amongst the employees of Central Health for the work of the Health Foundations. The Foundations do recognize that current challenges include the fiscal climate within the province of Newfoundland and Labrador, donor fatigue, and competition for the donor dollar.

Central Health staff also contributes to their Foundations in countless ways. Many employees contribute to weekly Jeans Days during the year through payroll deductions. Staff at the Lewisporte Health Centre contributes a small amount every payday to a fund used to purchase Christmas gifts for their long term care residents every year. Staff at other health facilities organizes special events to raise funds to support the health of their local communities. The Brad Mercer Ride for Health in New-Wes-Valley is an example.

Health System Innovation & Learning Capacity

Health System Innovation and Learning Capacity is the knowledge of the epidemiologic profile of the population to understand health needs (including disease, disability, injuries and other health problems) so the allocation of resources can be adjusted to meet those needs. It reflects the capacity of the health system to adapt to a changing environment of population needs. Innovation represents the implementation of an internally generated or borrowed idea - whether pertaining to a product, device, system, process, policy, program or service - that was new to the organization at the time of adoption. Learning capacity in the health system refers to the extent to which the system is "skilled at creating, acquiring, and transferring knowledge, and at modifying its behaviour to reflect knowledge and insights. The learning capacity of the health system is not only a prerequisite for its ability to innovate and adapt to its environment, it is also a pillar for quality and performance improvement.

PROFESSIONAL DEVELOPMENT & CONTINUING EDUCATION

Professional Development & Continuing Education Services supports and delivers a wide range of learning opportunities for Central Health employees and physicians. These opportunities include, but are not limited to advanced life support courses, continuing medical education, general orientation and Library Services.

Learning Management System (LMS)

The Medworxx Learning Management System (LMS) is a web-based application designed to support the development, management, and delivery of classroom and online learning. The LMS is a replacement for the spreadsheet used for the Training Matrix required for Occupational Health and Safety requirements. Among other benefits, the LMS will:

- Improve accessible education opportunities by offering anywhere, anytime online learning
- Manage classroom schedules, registrations and attendance online
- Track learning history and course activities through easy-to-read reports
- Assign learning items with mandatory due dates, recurrences and notification reminders
- Support organizational training and learning objectives by ensuring mandatory learning items are made available to targeted learners and provide easily accessible reports that demonstrate organizational compliance with regulatory learning requirements
- Help lower operating costs of traditional classroom-based learning through reduced travel time, reduced overtime, and reduced printing costs

The introduction of the LMS to Central Health provides unlimited opportunity for education and training. The LMS can be leveraged to meet educational requirements related to patient safety, worker safety, person and family-centered care, and mandatory sessions to name a few.

As of November 29, 2016, a total of 404 frontline employees have completed basic learner training and 184 managers, educators or designates have completed the advanced/essentials training. Training continues with an anticipated go-live date of February 2017.

CHANGE MANAGEMENT

Change Management is the application of a structured process and set of tools for leading the people side of change to achieve a desired outcome. Change Management has many definitions. To keep it simple, Kotter states that, change management is an approach to transitioning individuals, teams, and organizations to a desired future state. It is a process utilizing tools and techniques aimed at helping organizations understand, commit to, and accept and embrace changes in their current environments. Central Health has adopted Prosci's Change Management principles and processes as a model for change throughout the organization. The adoption of an approach or model to change management is an Accreditation Canada leadership standard requirement.

To help guide a successful change management strategy, Central Health currently employs two change managers within the Information Management & Technology Department. The change managers are currently focused on two major initiatives:

- HEALTHe NL Viewer – The project involves the integration of the Provincial Electronic Record into the workflow of clinical programs and departments across the region. HEALTHe NL Viewer is a portal that provides authorized

health care professionals with one point of access to view important patient information available in the electronic health record. The viewer is providing better access to medication profiles available through the Pharmacy Network. A comprehensive Adoption Plan includes the RHAs' data which will be available early 2017. Access to more comprehensive patient information offers significant benefits for patients, health care professionals and the health care system as a whole. It supports more informed decision-making, resulting in efficiency, improved quality and safer patient care. Over time, it will reduce duplication of tests, saving time and money. Timely access to patient information when and where it is needed, at the point of care, improves the health of our population.

- Report Distribution – This complex project will reduce and eliminate risks associated with report distribution and management of paper reports and results throughout Central Health. This initiative will enable providers to utilize HEALTHe NL to improve workflow through its increased functionality "Notifications". This project will result in significant cost savings and efficiencies across the organization. This initiative will also reduce risk to the organization and improve patient safety.

Organizational change management employs a structured approach to ensuring that changes are smoothly and successfully implemented to achieve lasting benefits. The *Keep the Change Newsletter* keeps staff current regarding ongoing change management activities.

LEAN

Lean, an approach to facilitating quality improvement, is one of the methodologies adopted by Central Health to continuously improve processes and practices to add value to service delivery. Lean methodology involves a systematic approach to identify and eliminate non value added activities or waste to improve the flow of clients, information, inventory, etc. while creating efficiencies in the pursuit of perfection. The application and utilization of Lean principles in health care enables the organization to:

- operate more quickly and efficiently at lower costs
- become more responsive to the needs of patients, clients and residents
- utilize less operational space
- use less human effort to deliver services
- improve client and employee satisfaction

There are currently 20 managers/directors who have completed or are enrolled in the Lean Green Belt and Black Belt certification program from the Leading Edge Group. The Black and Green Belts have formed a Lean Council at Central Health. The Lean graduates and candidates in this Council are sharing Lean methodology and tools and assisting in the implementation of Lean initiatives throughout Central Health. The goal is to build improvement capability and capacity at all levels of the organization – frontline employees, managers, directors, senior leadership and physicians.

One such way is though the Lean Education Series, which has been made available to all staff (9 sessions offered each quarter for the last two years) to raise Lean awareness throughout the organization. Currently there are 213 staff who attended these sessions with 92 completing all courses to obtain the certificate of completion. In 2016, a Lean Apprentice Training (LAT) Program was started at Central Health for those wishing to complete a basic Lean certification. As of December 2016, there are 26 leaders in the organization who have completed this training, which is equivalent to the Yellow Belt. An expression of interest was circulated to all Central Health employees in December 2016. The response will inform the 2017 training plan. The current training plan is:

- Lean Basics – This will be developed in 2017 for all new staff
- Lean Education Series – A series of 9 one-hour webinars offered twice every quarter facilitated by certified and to-be certified Green and Black Belt candidates
- Lean Apprentice Training – An intensive 2-day training using simulation for learning facilitated by certified and to-be certified Black Belt candidates

- Online Green Belt Training
- Online Black Belt Training

The goal of Lean training is to develop a critical mass of employees thinking and working Lean. There are a number of Lean initiatives underway in different program areas at Central Health. Some of the initiatives include:

1. **5S**: The elimination of different wastes in inventory (overstock), motion (looking for items), defects (expired items) and transportation (moving items to and from Stores) is achieved with conducting 5S. There has been considerable recovery of costs with the 5S projects that have been completed:
    - Medical Unit at JPMRHC - $5,800 in total was retrieved in expired items and overstocked inventory. The two utility rooms held an approximate value of $10,000 in inventory. This Lean tool reduced nearly 40% of unnecessarily stocked inventory
    - General Surgery Unit at JPMRHC - $4,400 of expired and overstocked items were pulled from the utility room
    - Diagnostic Imaging at CNRHC - Approximately $4,200 of expired items were removed
    - Dr. Y.K. Jeon Kittiwake Health Centre - Approximately $1,400 of expired items were removed from inventory while over $9,300 of inventory was deemed overstock

2. **Applying Lean Tools in the Diagnostic Imaging Department:** The staff and leaders from Diagnostic Imaging (DI) located at CNRHC along with their director, who was completing the Lean Green Belt education, pulled in Lean candidates to organize their inventory and reduce waste. The DI team aimed to eliminate waste in space, inventory, defects, motion, and non-utilization of staff creativity. The Lean tools, 5S and a two bin system, were utilized to achieve these goals. The 5S system was successfully implemented in July of 2016 which resulted in a decrease of:
    - Stocked inventory by $2,602
    - Time looking for items by 78% (down 1 minutes from 5 minutes)
    - Time to count stock by 98% (down to 30 seconds from 26 minutes)
    - Time to restock by 76% (down 6 minutes from 25 minutes)

3. **Five Kaizens on the Medical Unit at JPMRHC**: To enhance patient flow, a team effort was required to eliminate waste in motion, transportation, defects, non-utilization of staff creativity, etc. so that nurses could return that recovered time from non-nursing duties back to patient care. The 5 Kaizen events included:
    - 5S in the utility rooms
    - Installation of computers on medication carts
    - Design and development of a SMART room (Seniors Maintaining Active Recreation Time)
    - A Patient Safety Equipment Room using 5S
    - Improvements to the wander guard system

4. **Lean thinking in Ambulatory Care Clinics at JPMRHC**: Staff recognized issues with the registration process that created inefficiencies and impacted the patient experience. There were issues with space, layout and signage. The staff identified waste in patient waiting, redirecting patients, and patient motion; in addition, patient and employee dissatisfaction continued to increase. During their Lean journey some areas for improvement included:
    - Patients registered in the same location as their appointment, e.g. Orthopedics, Speech, etc., decreasing patient motion
    - Appointment letters were printed at the time of registration instead of mailed, which eliminated 130 working hours per year
    - Mail is collected only once a day for the area equaling a work time savings of 43 hours per year

- All patients use the orthopedic waiting room, which eliminated standing in hallways
- Psychiatry was relocated to Mental Health & Addictions program area, which improved patient flow and satisfaction

There is also a monthly *Just LEAN* Newsletter, which began circulation to all staff in January 2016, which highlights the different Lean tools and Lean initiatives that are conducted in different program areas. The newsletter includes a Lean email address encouraging employees to connect with the Lean experts and request assistance in initiating a Lean activity or project in their respective areas. With continued support from the Senior Leadership Team, employees will embrace Lean methodology and help the organization reach a future state of more efficient processes and practices that will continuously add value to service delivery for our staff, patients, clients, residents and their families.

INFORMATION MANAGEMENT & TECHNOLOGY

Information Management and Technology (IMaT) at Central Health is accountable for the planning, development, implementation, operation and evaluation of the organization's information management and technology services. In additional to internal accountability, the department plays a significant role in developing and sustaining key partnerships with Government, NLCHI, and other health care providers, vendors and agencies. Central Health has seen the successful implementation of public health laboratory, patient order sets, Operating Room Management System (ORM), Home Care Reporting System, Anesthesia Information Management System, Telehealth, and Ambulance Dispatch and Management System to name a few.

eResults

Access to more comprehensive patient information offers significant benefits for patients, health care professionals and the whole health care system. It supports more informed health care decisions, resulting in better efficiency, improved quality and safer patient care. Central Health, in partnership with NLCHI, are transitioning away from paper-based reporting in favor of eResults. Leveraging the Healthe NL Viewer is one point of access to view important patient information. This technology will enable Central Health to achieve its goal of having a comprehensive electronic health record available to those who need it, anywhere at any time. The Viewer will become the real time transport mechanism for results including lab results, diagnostic images and select clinical records. The aim is to:

- Improve patient safety – Access to more complete information enables more informed health care decisions, resulting in safer patient care.
- Improve quality – Access to more comprehensive patient profiles improves the quality of care by supporting better decisions about medications, diagnoses and treatments.
- Improve accessibility – Timely access to patient profiles ensures current information is available in one place when and where it is needed, at the point of care.
- Increase efficiency – Access to medication profiles and eventually other relevant clinical information, will reduce the amount of time spent calling other clinicians for information. Over time, this will reduce duplication of tests, saving time and money.

Patient Order Sets

In 2015, Central Health, in collaboration with Think Research, piloted the *EntryPoint- Patient Order Sets* electronic ordering application at BVPHC. Order Sets are a grouping of orders used to standardize and expedite the ordering process for a common clinical scenario or diagnosis. The goal was to remove unnecessary differences of physician and nurse practitioner ordering practices to decrease inconsistencies in patient care and enhance patient safety across the region's health centers. The secondary goal was to decrease unnecessary faxing or sending of sensitive patient information, such as prescriber orders, to the Pharmacy and other departments.

As of December 2016, there have been approximately 18,000 patient orders entered into the *EntryPoint- Patient Order Sets* application by Physicians, Nurse Practitioners, Pharmacists, Registered Nurses, and Licensed Practical Nurses across the region. This represents significant waste elimination and improved patient safety.

The system is currently live at all 9 Rural Health Centres, all Long Term Care Facilities and Units across the region, the Regional Renal Program (Dialysis Unit) at both JPMRHC and CNRHC, the Transitional Unit at CNRHC, Regional Pharmacy

Services and, most recently, was spread to the Internal Medicine service in the Intensive Care Unit at CNRHC. Work is underway with Physicians in both the Pediatric Program and the Emergency Rooms at CNRHC and JPMRHC to develop sets for these services with a plan to Go Live in the Spring of 2017.

Operating Room Management System

Improving operating room capacity, throughput and efficiency is yet another example where Central Health leverages technology to improve patient safety and reduce cost. Over the course of a six month implementation period, Central Health has implemented Meditech's ORM (Operating Room Management solution). This technology enables better and more efficient care by:

- Improving operating room capacity, throughput and efficiency by reducing scheduling conflicts and insufficient resource allocations.
- Automating clinical documentation and performing conflict checks to provide safer care and enhanced communication between areas of care in the OR theatre.
- Interactive big boards help monitor, analyze and measure operating room performance displaying real-time information associated with each surgery, such as: patients, surgical personnel, case progression, patient risks/allergies and laboratory results.
- Optimizing operating room inventory by automating the movement of materials from the supply chain to their point of use.

Anesthesia Information Management System - Centricity Perioperative Management

The Anesthesia Information Management System (AIMS) project began in September 2016 and will see full implementation by February 2017 at JPMRHC and CNRHC. This system is comprehensive and follows a patient from first contact to discharge. Its core is the recording of intraoperative data from patient monitors and also includes a comprehensive pre-operative assessment and post-operative monitoring.

The patient care, safety and efficiency benefits of AIMS include:

- Comprehensive clinical assessments (including a detailed History and Physical) can be built within Centricity Perioperative Management (CPA) to ensure co-morbidities (i.e COPD, Sleep Apnea) are automatically captured prior to any procedure, which could have a direct impact on the treatment plan set forth by the Anesthetist and successful post-op outcomes
- Access to previous case history to identify such things as allergies, difficult Intubations, adverse reactions to anesthetic and previous procedure outcomes, etc.
- Real-time access to Clinical Lab results submitted during the procedure (i.e Arterial Blood Gas)
- Automatic alerts can be generated to ensure adherence of medication protocols for such things as antibiotics thus decreasing the potential for surgical site infections
- Improved provider-to-provider communication
- Reports (Anesthesia Record) will be generated and transmitted to Meditech for viewable access via PCI, which will reduce the time spent on patient information look-up

Benefits of CPA include:

- Standardization of Anesthesia documentation between both facilities (JPMRHC, CNRHC)
- Electronic Anesthesia Record to be included in patient EMR
- Easily customizable to match workflow/process/procedure needs.
- Prebuilt physician notes for procedures outside of the OR.
- Handover Reports

Automatic Notification System

Missed appointments and no-shows for appointments are a significant cause of waste in the health care system and is a major source of avoidable inefficiency that impacts on patient health and treatment outcomes. Data on appointment no shows vary, however studies from around the world consistently report no show rates of between 15% and 30%. No-

show rates at Central Health vary across service areas but rates as high as 35% have been documented. The consequences of no shows include:

- Increased wait times
- Increased costs of care delivery
- Underutilization of equipment and resource
- Reduced appointment availability
- Reduced patient satisfaction

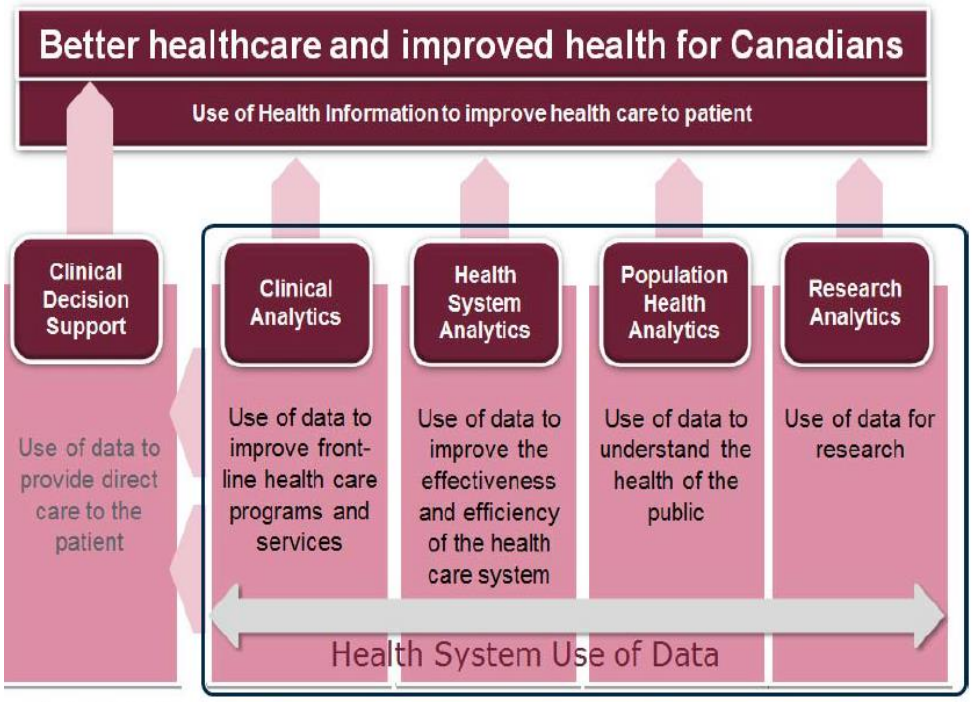
In 2016 Central Health introduced a technology solution to assist patients with information regarding their upcoming appointments. This new Automated Notification System (ANS) provides a helpful reminder via telephone to the patient of their upcoming appointment. More importantly this interactive system allows the patient to confirm their attendance and allow staff to fill any cancelations reducing the amount of appointment times that go unused; and ensuring timely access to care. This patient-centered care initiative focuses on improving wait times and providing timely access to services, one of Central Health's strategic priorities.

Central Health launched the ANS on October 11, 2016 to remind patients by telephone of endoscopy appointments. This system will enable better utilization of resources and will help to reduce wait times for patients who require endoscopy procedures, such as colonoscopies. The ANS will be beneficial to patients as it will provide a telephone reminder seven calendar days before a scheduled appointment which will allow patients to confirm or cancel their appointment. If they are unable to keep their scheduled appointment other patients will be booked in unused appointment slots. Patients will receive a call to their primary telephone number listed with Central Health from the automated system.

Initially the system is being used to contact patients scheduled for Endoscopy Services appointments; however, the system and implementation will be evaluated over the next year and decisions to expand the system will be made based on the evaluation. Patient experience with the system will be monitored to inform improvements. Early results indicate this technology solution can have a significant impact on no-show appointments.

Leveraging Technology to Improve Outcomes

Data collection might be the single greatest advantage that new technologies can offer to health care system improvement. In the past, providers have been divorced from the results of their work. For example, if you were to ask a clinician how many people they've helped quit smoking it would be very difficult to find the answer quickly and efficiently. The systematic use of data, information technology and methods to create insights in context that inform clinical and business decision-making around the planning, delivery, management and measurement of health care is known as Health Analytics. In the fall of 2016, Central Health introduced its Analytics Framework to better understand how the organization is performing against its targets in order to make the best use of resources. By linking individual and team performance to organizational goals, analytic capabilities such as scorecards or dashboards can help users determine how their roles drive organizational performance, and quickly spot delivery trends, which in turn can better support quality initiatives. This is still in its infancy and the emphasis will be centered around Descriptive



Source: Canada Health Infoway

Analytics, examining data to answer what has happened in the past (such as how many patients were admitted to the hospital, how many patients returned within 30 days, a list of patients with diabetes that haven't been seen by their primary care team in more than 1 year for the management of their condition, etc.). It's the first step in turning data into actionable insights to illuminate events that have already occurred, resources that have been consumed, or patients who have a new diagnosis. This examination of historical data will help Central Health provide a safer, more cost-effective care to patients, define the right mix of services at a particular location to ensure optimal flow and improve workforce efficiency and utilization. Transforming disparate data from many sources into real-time information strengthens efforts to improve quality care and operational efficiency. More than ever, it is critical clinicians can quickly identify and address gaps in care, quality, risk, and utilization to support improvements in clinical and quality outcomes and financial performance.

In 2016, the DHCS collaborated with stakeholders from across the health system, including provincial government departments, the RHAs, NLCHI, the Newfoundland and Labrador Centre for Applied Health Research (NLCAHR), the Canadian Institute for Health Information (CIHI), the NL Statistics Agency and Memorial University to participate in a workshop to provide input into the development of a Provincial Data Analytics and Health Research Strategy to better leverage data and research so that decision makers can make more informed decisions and are able to more strategically track system level issues and improvements. Central Health is engaged in this work.

HEALTH INFORMATION MANAGEMENT

Over the past several years the use of technology in Health Information Management (HIM) has allowed Central Health to share resources across the region, become more efficient, and improve turnaround times. Some of these improvements include:

- **Dictation and Transcription System and Front-End Speech Recognition:** The implementation of the Lanier Dictation and Transcription System and front-end speech recognition has allowed Central Health to reduce the number of transcriptionists in HIM from 14 to 11 at regional referral centres while continuing to meet and exceed provincial standards for turnaround times. The system allows the ability for workload to be shared between multiple sites to eliminate the need for relief costs and training costs. There are further efficiencies and cost savings to be realized by consolidating rural transcription and reducing the number of transcriptionists currently involved in rural transcription.
- **Scanning and Archiving:** In June 2016, scanning and archiving was implemented at CNRHC. There is currently no paper being filed on the client record now at JPMRHC or CNRHC. The efficiencies gained through this implementation are numerous. Client information for both sites now is available to any caregiver throughout the region. This results in better client care, a reduction in requests for disclosure and a reduction in floor space to store records. It also results in a reduction in resources required to file paper and pull charts for patient care. It also allows for better utilization of specialized HIM staff, such as coders. Central Health can now utilize HIM professionals in Harbour Breton and Brookfield to code charts from CNRHC and JPMRHC because they no longer need access to the paper record. In 2017, the plan is to implement scanning in all of the rural sites, compounding the benefits that were realized at JPMRHC and CNRHC.
- **Remote Registration in the ED:** Over the past two years, remote registration has been implemented in the ED at JPMRHC and CNRHC. All ED patients at both sites are registered over the phone from the ED triage room to Health Records. This allows the nurse to triage the patient while they are being registered and also allows the HIM staff to stay in the department and perform other duties between presenting patients. With the time savings from scanning, a pilot project will begin in 2017 to register patients from our rural sites through remote registration at JPMRHC and CNRHC after hours. Currently, nursing staff are registering patients at rural sites after hours resulting in nursing time being lost as well as an increase in registration errors. Through remote registration to one of our regional referral sites, the goal is to improve the registration process and allow nursing staff to return to nursing duties.
- **An App for Managing Incomplete Records:** Incomplete physician documentation is one of the biggest issues dealt with on a daily basis. Late or incomplete documentation affects patient care and the ability to properly code records. This missing information also impacts the ability to disclose information and because this information is shared with CIHI, it affects the accuracy of data and indicators for monitoring quality. Many of these indicators are

shared publically and used to compare rates with other health authorities, provinces and the country such as hospital deaths (HSMR). The volume of incomplete and late records causes many inefficiencies such as re-transcribing reports and sending out multiple letters to physicians reminding them to complete documentation. In general, about 75% of incomplete records and draft reports fall outside the acceptable limits according to Medical Services policy. A large amount of time is wasted managing incomplete records to ensure physician documentation is completed and communicating these results to senior medical staff. An app was created in 2016, which allows senior medical staff immediate, real-time access to the number of incomplete records for each physician as well as the length of time the record has been incomplete. This saves a lot of time in preparing and distributing this information to the medical staff leaders. The number of incomplete records is an indicator monitored on the Board's Scorecard.

Despite many improvements in HIM over the past few years, there have been a number of challenges including incomplete and late physician documentation and the limited resources to focus on data quality and monitoring systems to ensure quality.

PRIVACY AND DISCLOSURE

Central Health is committed to respecting privacy and safeguarding confidential information in its custody and control in accordance with legislation. Privacy is an area of significant risk for the organization if not managed effectively. As the development of Central Health's privacy policies and processes in the protection of confidential information is ongoing, its goal is to examine the current knowledge and practices surrounding privacy and confidentiality and identify gaps to enhance further the privacy and confidentiality to support a culture of privacy.

There are four pillars of the Central Health Privacy Framework:

Lifecycle Records Management, Integrity and Security

Central Health is committed to building a strong foundation and learning capacity to support a culture of accountability and privacy within health care. Effective safeguards are required to monitor access to personal health information that is entrusted to the care or custody of Central Health. As part of the Central Health Information Security Framework, Security Audit Manager (SAM) was implemented within Central Health in 2013 to support authorized access to personal health information contained in Meditech clinical information systems. Implementation of SAM fulfills the following goals to:

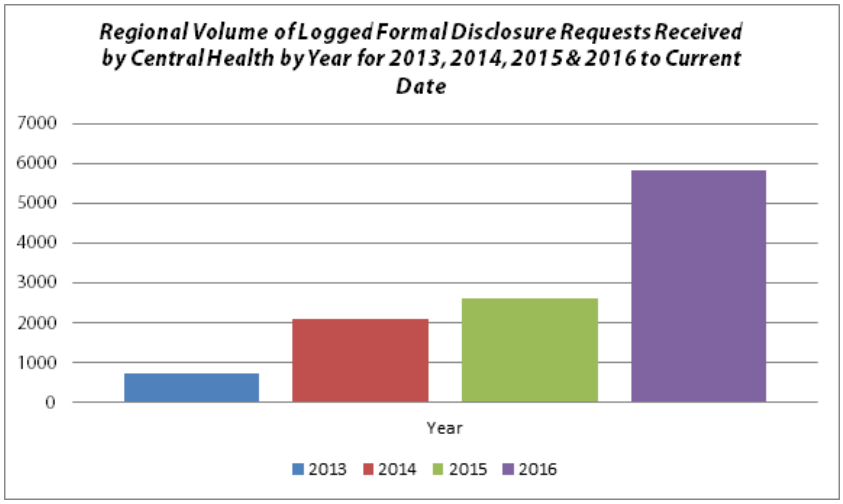
- Support authorized role-based access to personal health information consistent with professional practice standards, Central Health policy framework and legislative requirements for protection of personal health information
- Reinforce a culture of accountability for health record management and security
- Provide analysis of trends and opportunities for targeted education to support authorized collection, use and disclosure of personal health information
- Allow proactive auditing and early detection and management of incidents of unauthorized access to personal health information
- Support client confidence and trust in the health care system

Privacy related incidents have been identified through SAM's automated auditing, random sample auditing and targeted auditing protocols. The number of privacy incidents has been decreasing since 2013. There were 117 reported in 2013, 61 reported in 2014 and 46 in 2015.

Authorized Disclosure of Client Records

In September 2013, a regional Disclosure Working Group was established to review and propose a regional program structure and service model for formal disclosure of personal health information in the custody or control of Central Health. A quality improvement plan was proposed in October 2013 to implement a centralized model for formal disclosure of personal health information. The approved project plan proposed a consistent, sustainable, and quality model for disclosure of personal health information within Central Health to ensure access to information according to six quality indicators: accuracy and completeness, effectiveness, client centeredness, timeliness, efficiency and equity. Effective September 1, 2016, all regional disclosure requests for formal disclosure of personal health information are

received, logged and processed by the Health Information Management & Privacy Disclosure Office within Central Health, according to quality service indicators and compliant with legislative requirements under the *Personal Health Information Act (PHIA).*



As of September 2016, Central Health achieved 100% compliance for disclosure of personal health information within the legislated time period, not greater than 60 days from date of receipt of request, by valid consent of an authorized individual as determined by Section 7 of the PHIA. Noteworthy, access to timely client information is an Accreditation standard. In the past, over 100 people were involved with disclosure in the region. With a client-focused, centralized model, this number has been reduced to roughly 15 people across the region. Revenues for disclosure have increased significantly and the quality and standardization of the documentation has improved.

CH Privacy Education Framework

The Central Health Privacy Education Framework is based on an adult learning methodology, to support a continuous learning environment and transfer of learning across functional program areas within Central Health. Privacy education is currently offered according to a learning gradient from awareness to comprehension, application and analysis. The framework consists of the following components:

- Pre-employment privacy education requirements
- Central Health General Orientation
- Program specific privacy education and training
- Clinical practice discussion sessions
- Privacy program consultations
- LMS System privacy curriculum development and self-directed learning

As of March 2016, based on available VHR Data, the compliance rating for Oath of Confidentiality and PHIA Education session were as follows:

TOTAL COMPLETE PHIA EDUCATION SESSION	**3265**	**99% COMPLIANCE**
HRIS RECORD OF OATH RETENTION	**2802**	**85% COMPLIANCE**
TOTAL EMPLOYEE COUNT	**3300**	

As of October 2016, 4141 Central Health affiliated individuals completed the PHIA Education Session.

Privacy Incident Reporting and Breach Management:

Future opportunities to enhance privacy at Central Health include:

- Definition of the Central Health legal record for disclosure and discovery purposes
- Integration of information systems to ensure availability and integrity of complete record sets
- Increase learning capacity concerning record severing compliant with applicable legislation
- Stakeholder feedback survey concerning disclosure service indicators and opportunities for improvement
- LMS utilization for learning curriculum development and transfer of learning specific to program identified needs

EMERGENCY HEALTH MANAGEMENT

In the 2013 Accreditation Canada Report, Accreditation Canada indicated Central Health met all criteria for the emergency preparedness priority process of planning for and managing emergencies, disasters, or other aspects of public safety.

Central Health provides a coordinated and systematic approach to emergency management by sites, program areas, leadership, and key stakeholders. It has also adopted an "All-Hazards" methodology to address potential disasters and emergency events which are based on the assumption that the basic actions required in addressing the effects of disasters and emergencies are essentially the same, irrespective of the nature of the incident.

In order to ensure a consistent approach to delivering an "All-Hazards" program Central Health has adopted the Universal Emergency Colour Codes which is used throughout all the RHAs in Newfoundland and Labrador as well as throughout many provinces in Canada and the United States. These Codes provide a uniformed and standardized system which enables individuals who work within and across facilities/sites to respond appropriately to specific emergencies, thereby enhancing their own safety as well as the safety of patients, clients, residents, and visitors.

Exercising and evaluating an emergency plan is a cumulating component of response and recovery preparedness. Exercising brings the skills, knowledge, functions, and systems together and applies them against event scenarios. This provides the closest thing to an event to evaluate the state of response efforts. Typical exercise types include drills, tabletop, and mock disaster. All of these exercises have been delivered throughout Central Health sites. Drills have generally focused on fire and evacuation, whereas tabletop and mock exercises are scenario driven and focus on small scale event such as a Code White (Violent Situation) or a large scale event such as a Code Orange (External Disaster). Some recent exercises that Central Health participated in with its community partners include:

- Tabletop Exercise-Violent Situation, Lewisporte Community Health Centre, June 11, 2015
- Mock Disaster Exercise– Lewisporte, Provincial Multi-Agency, March 12, 2014
- Mock Exercise- Violent Situation, Grand Falls-Windsor, Community Health Centre, July 13, 2016
- Tabletop Exercise -Violent Situation, St. Alban's Community Health Centre, September 21, 2016
- Mock Disaster Exercise, Gander, Canadian Forces, 9 Wing Gander, September 26, 2016
- Mock Disaster Exercise - Buchans, Canadian Forces, 9 Wing Gander, October 28, 2015

In managing and coordinating exercises and real-life events (e.g. Thanksgiving Weekend 2016 Rainfall Event) Central Health has developed both regional and site-specific Incident Command System (ICS) structures which are set up when an Emergency Operations Centre(s) (EOC) are activated. Training has been provided to employees who are identified to be members of an EOC. In addition to EOC and ICS training, Mass Causality Incident training was provided in October 2016 to approximately 30 paramedics employed throughout Central Health. In the future this particular training will be offered on an ongoing basis to other paramedics. While training and exercise conduction are considered critical components to enhancing Central Health disaster/emergency response capabilities, the recent approval from the DoHCS's Joint Emergency Preparedness Plan (JEPP) fund to purchase two Disaster Response Trailers to house medical supplies/generators to be available to transport to a disaster site, as required, will undoubtedly augment Central Heath's response capacity.

Adjustment to Population Health Needs

An adjustment to population health needs refers to the capacity of the health system to continually adapt itself to meet the health needs of the population through innovation and learning and also by adjusting the allocation of resources.

In the provincial *Department of Health and Community Services 2014-17 Strategic Plan*, Population Health was identified as a strategic direction. Additionally, Central Health identified healthy living as a strategic issue for 2014-17. There are many factors that impact the health of the population and an individual's overall health. Being free from illness is just one indicator. By providing services and supports across the life span and across all areas of health care (from prevention and promotion to health protection, diagnosis, treatment and care) the aim is to influence the social, economic, physical and environmental conditions that shape the health of the population and help individuals achieve optimal health and wellbeing (Department of Health and Community Services Annual Performance Report 2015-16).

CHRONIC DISEASE PREVENTION & MANAGEMENT

Chronic Diseases are defined by the WHO as "diseases of long duration and generally slow progression." Common themes found in other definitions state that chronic diseases:

- Have many causes but often share common risk factors (i.e. tobacco use, physical inactivity, unhealthy eating, and/or excessive alcohol use),
- Usually begin slowly and develop gradually over time,
- Can occur at any age, although they become more common in later life,
- Can impact quality of life and limit daily activities, and
- Require ongoing actions on a long-term basis to manage the disease, with involvement from individuals, health care providers and the community.

Chronic diseases impact the health of the population as well as the sustainability of the health care system. According to the 2014 Canadian Community Health Survey, over one third of Canadians had at least one of 10 main chronic diseases in the population 20 years and older; many people live with more than one. These diseases and conditions affect a large proportion of the population and have a significant impact on quality of life. Some of these include diabetes, stroke, lung disease, cancer, arthritis, chronic pain, diabetes, heart disease and kidney disease.

Data from the *Report on Residents of Central Health Hospitalized with Specific Chronic Conditions (released Jan 2014)*, indicated that of acute care hospitalizations due to select chronic diseases, the majority were due to COPD (37%), followed by CHF (26%) At that time COPD was the second Case Mix Group (CMG) and CHF was the fourth CMG that accounted for all hospital admissions. Length of stay was higher than expected for both COPD and CHF.

Central Health's Chronic Disease Prevention and Management (CDPM) Department through Population and Public Health, has been working to impact efforts in addressing Central Health's strategic issue of healthy living. The goal is that *Central Health will have improved capacity to address population health-related issues within the region by March 31, 2017*. The goals are being monitored on the Board of Trustees Scorecard and work is progressing towards targets, in all areas. These goals are to:

1. Implement components of the Central Health CDPM Strategy
2. Improve supports for clients and providers to implement a self-management approach to care
3. Develop and strengthen community partnerships

The Chronic Disease Advisory Committee finalized and approved a work plan prioritizing 5 goals defined in Central Health's CDPM Strategy. While providing direction for the priority areas identified below, the work plan is focused on shifting from usual care to chronic care through defining and implementing new models of care. The focus areas are:

- Chronic Obstructive Pulmonary Disease (COPD) Outreach Program
- Heart Failure Outreach Program
- Self-Management Program
- Regional Stroke Program
- Regional Diabetes Care Program

- Cardiac Rehabilitation
- Telehealth

Based on a review of health care utilization and environmental scanning data, the two priority health issues identified by the Chronic Disease Prevention and Management Advisory Committee and the Senior Leadership Team were COPD and Heart Failure.

The 5 priority goals align with 3 components of the Expanded Chronic Care Model: Self-Management/Develop Personal Skills; Delivery System Design/Re-Orient Health Services; and Information Systems. Goals and objectives have been defined to challenge how Central Health currently provides services in order to sustainably shift how care is provided to people with chronic disease, therefore focusing on improving access, flow, care processes and outcomes for people living with identified high priority chronic diseases. Current research, national best practice guidelines, Central Health's CDPM Strategy, the Expanded Chronic Care Model and Primary Health care Service Delivery Model all provide the framework and foundation to guide development and implementation of this work.

COPD Outreach Program

According to the 2014 Canadian Community Health Survey, 4.0% of Canadians reported having COPD in the population 35 years and older. The rate was 3.9% for the province and 3.3% for Central Health.

Central Health's COPD Outreach Program is an 18 week program based in patients homes, for people with advanced COPD. Bringing together an interdisciplinary team, the primary objectives of the program are to provide self-management support, system navigation, coordination of care, individualized COPD action plans, psychosocial support and access to advanced care planning. The program has reduced length of stay and reduced emergency room visits for patients participating in the program. Funding for the program has been extended to March 31, 2017.

According to data provided in the Board of Trustees Scorecard, for 2015-16:

- The number of new clients attending the Respiratory Care Centre at JPMRHC was 77
- The number of new clients participating in the COPD Outreach Program (Gander and area) was 13

According to Central Health's 3M Most Responsible Diagnosis (MRDx) data from 2013-16:

- COPD accounted for 3.5% of all hospital separations (ranked 2nd highest)
- The average length of stay (LOS) for COPD was 11 days compared to an expected LOS of 7 days (ranked 12th highest)
- COPD separations accounted for 5.1% of ALC cases (ranked 6th highest), which was equivalent to the utilization of 5 acute care beds.

Heart Failure Outreach Program

According to the 2011-12 Canadian Community Health Survey, 3.6% of Canadians reported having heart failure in the population 40 years and older. In the 2014 survey 4.8% reported having heart disease with 5.6% for the province and 6.5% for Central Health.

Central Health's Heart Failure Outreach Program is a structured telephone support program for the management of Heart Failure. Developed based on clinical protocols and best practice guidelines, this telephone-based chronic disease management program is designed to enhance the ability of clients with Heart Failure to understand and self-manage their condition, to supplement existing treatment plans, and work in partnership with primary care providers (PCPs) and other care providers within the patient's circle of care. The program provides long term support, and the alternate model of care opens access broadly across the region.

The program consists of a collaborative partnership between a patient, PCP, Registered Nurse (RN) and other health care professionals, resulting in a cost-effective, patient-centered and personalized approach to managing heart failure, leading to optimal level of health and quality of life. Components of the program are in various stages of development and implementation and include:

- Defined skill sets with specified education and training

- Comprehensive and holistic assessments
- Individualized, patient-centered care plans
- Long-term support and coordination of care
- System and community navigation
- PCP partnerships and engagement

Patients receive regularly scheduled phone calls from a registered nurse who works with them to increase their knowledge base and life skills as well as motivate and coach patients toward reaching their optimal level of health and quality of life. Patients are required to be active participants in the process of decision-making, goal setting, behavior change and health management.

The program works within a population health and primary health care framework and was developed using a self-management approach to care. The course of the program shifted in March 2016 seeing a phased out partnership with FONEMED and shifting to a fully sustainable internal solution for the program. Utilizing research and program experience, the internal solution identified and engaged resources required for the clinical, clerical, administrative and IMaT support required for development and implementation. The program's progression up to that point saw the intuitive development of a chronic disease case management model of care for people living with Heart Failure. Shifting to a fully internal solution enabled CDPM to begin to further define, develop and implement chronic disease case management components sustainably into the program's structure and delivery model. The Heart Failure Outreach Program is available to anyone with Heart Failure in the region and currently the program is in the process of implementing a new sustainability plan.

This new innovative approach to managing a chronic disease has the potential to provide significant benefits for our region's population health. According to data provided in the Board of Trustees Scorecard, for 2015-16:

- The number of client referrals received was 60
- The average enrollment rate (percentage of total referrals consented into the program) was 58%
- The average percentage of clients who declined/withdrew participation from the program was 22%

According to Central Health's 3M Most Responsible Diagnosis (MRDx) data from 2013-16:

- Heart Failure accounted for 2.6% of all hospital separations (ranked 3rd highest)
- The average LOS for Heart Failure was 15 days compared to an expected LOS of 8 days (ranked 6th highest)
- Heart Failure hospital separations accounted for 24.4% of ALC cases (ranked 1st), which was equivalent to the utilization of 9 acute care beds.

Self-Management Program

Self-management (SM) are tasks an individual must undertake to live well with one or more chronic disease. It is empowering people with the skills they need to cope with their chronic disease, to gain confidence and self-efficacy to deal with medical management, role management and emotional management related to their life, health and chronic disease. Utilizing a SM service delivery model recognizes the client/patient as a key player in the therapeutic relationship and as an active member in their care management and health care team.

The overall goal of utilizing a SM approach/service delivery model is to strengthen a person's competence and confidence to manage their chronic disease/health, make informed decisions about their care, and adopt healthy behaviors. This will then lead to better health outcomes, and more appropriate system utilization.

The CDPM work plan has identified SM as a priority, with the goal to have an integrated, comprehensive approach to self-management implemented across the region. This work requires two specified areas of focus: to empower and prepare individuals to manage their health and health care; and to provide and evaluate training and support for health professionals to enable them to implement effective SM strategies.

A framework defining the components to deliver a successful self-management approach to chronic disease management within Central Health has been defined and is being utilized as the foundation for the organizations self-management goals and objectives. Over the past 2 years, the CDPM Department has been defining models of care, components, programs and appropriate supports for the implementation of a sustainable SM service delivery

model, tailored to meet Central Health's needs. This work has developed a strong foundation for the implementation of a SM service delivery model.

By investing in a SM approach and developing community partnership, Central Health will enhance CDPM to reduce emergency visits and hospitalizations related to chronic disease. The Improving Health My Way Self-Management Program provides sessions that continue to be offered throughout the region.
According to data provided in the Board of Trustees Scorecard, for 2015-16:

- The number of sessions provided for Improving Health My Way Self-Management Program was 11
- The number of health service areas offering the Improving Health My Way Self-Management Program was 7 out of 10
- The number of participants who started the program was 120
- The percentage of participants who completed the program was 75% exceeding the target of 70%

Regional Stroke Program

According to the 2014 Canadian Community Health Survey, 1.1% of Canadians reported having effects of Stroke in the population 20 years and older. This rate was 1.2% for the province and 1.6% for Central Health. New knowledge and treatment has the potential to effectively prevent stroke and to dramatically improve Stroke care outcomes. The goal of Central Health's Regional Stroke Program is to implement a coordinated and integrated approach to stroke care. The program aims to:

- Reduce the incidence of Stroke and transient ischemic attacks (TIA) in the region
- Optimize recovery and quality of life for Stroke survivors throughout the region
- Reduce the financial burden of Stroke in NL
- Improve Stroke care by implementing standards that are based on the most current evidence, i.e. Canadian Best Practice Recommendations for Stroke Care

According to Central Health's 3M Most Responsible Diagnosis (MRDx) data from 2013-16:

- Stroke accounted for 2.1% of all hospital separations (ranked 9th highest)
- The average LOS for Stroke was 19 days compared to an expected LOS of 8 days (ranked 2nd highest)
- Stroke hospital separations accounted for 6.9% of ALC cases (ranked 3rd highest), which was equivalent to the utilization of 11 acute care beds.

Central Health re- established the Regional Stroke Steering Committee in 2016. The Steering Committee redefined the regional work plan to align closely with provincial priorities while meeting regional needs. Focus areas are acute care and hyperacute care.

Regional Diabetes Care Program

According to the 2014 Canadian Community Health Survey, 6.7% of Canadians reported having Diabetes in the population 20 years and older. This rate was 9.0% for the province and 11.3% for Central Health. Diabetes is a common chronic condition that affects Canadians of all ages. It occurs when the body loses its ability to produce or properly use insulin, a hormone that controls sugar levels in the blood. There are three main types of diabetes: type 1, type 2 and gestational diabetes. If left uncontrolled, diabetes results in high blood sugar levels, which can lead to serious complications. Fortunately, it is possible to remain healthy with Diabetes, so long as it is well managed.

The main purpose of the Diabetes Care Program at Central Health is to coordinate the development, implementation and evaluation of the program. The program consists of nationally certified diabetes nurses and dietitians who work in consultation with other health professionals such as physicians, social workers and psychologists in a multi-disciplinary approach with the management of the person with Diabetes.

Services provided through Diabetes care support adult, pediatric, and gestational programs by conducting education sessions (both individual and group) and providing ongoing counseling and support to promote a better understanding of Diabetes management in both inpatient and outpatient settings.

The Program has two comprehensive centers located in Gander and Grand Falls-Windsor, as well as programs in each of the Health Service areas. Throughout 2015-16, a new operational model of care was developed and implemented to

meet program needs in the Lewisporte Health Service area due to a change in nursing support in the Lewisporte program. This gap was met through capacity identified from the Grand Falls-Windsor Diabetes Care Program. Service delivery was developed and implemented utilizing Telehealth technologies, supplemented with face to face service when required. Central booking and clerical support was also a key component of this model. The model was implemented with a focus on continuous quality improvement, and is now successfully utilized to meet Diabetes care needs in this area.

The Diabetes Care Program serves as a resource to health care workers and the public with the aim to decrease the incidence of Type 2 Diabetes and complications of diabetes in the Central region through health promotion and effective management.

According to Central Health's 3M Most Responsible Diagnosis (MRDx) data from 2013-16:

- Diabetes accounted for 1.3% of all hospital separations (ranked 19th highest)
- The average LOS for Diabetes was 9 days compared to an expected LOS of 5 days (ranked 9th highest)
- Diabetes hospital separations accounted for 1.2% of ALC cases

PRIMARY HEALTH CARE

In 2015, the Government of NL released the *Healthy People, Healthy Families, Healthy Communities: A Primary Health Care Framework for Newfoundland and Labrador 2015-2025*. The framework lays out a vision where individuals, families and communities are supported and empowered to achieve optimal health and well-being within a sustainable system.

Primary health care was identified in the Premier of Newfoundland and Labrador's December 2015 mandate letter (See Appendix B), directing the Minister of Health and Community Services to work with primary health care stakeholders to develop regional primary health care teams. Beginning in 2017, the Newfoundland and Labrador Government will expand the number of primary health care teams throughout the province to provide timely access to primary health care supports for individuals to help them achieve optimal health and well-being. The continued plan is to work with communities and health care providers to expand multi-disciplinary teams to ensure more individuals can access an appropriate primary health care provider within their region and close to their communities. Government will establish these health care teams and identify additional sites across the province. Government will work with communities and the RHAs (RHAs) to identify additional opportunities to expand the use of primary health care teams throughout the province as actioned in the *Way Forward: A Vision for Sustainability and Growth in Newfoundland and Labrador* (See Appendix C). For Central Health, these new teams will be built on the strong foundation of primary health care throughout the region.

FAMILY PRACTICE RENEWAL PROGRAM

The Primary Health Renewal Program has been re-branded as the Family Practice Renewal Program (FPRP), which better reflects the program's identity and its mission to transform family practice for better health. The program, which is governed jointly by the Newfoundland and Labrador Medical Association (NLMA) and the Department of Health and Community Services, has a mandate to design new programs and initiatives and will become an influential body in the future evolution of the physician role in primary health care in the province. The program will also establish new regional Family Practice Networks (FPNs) that will be physician-governed non-profit corporations. One of the most important functions of the FPNs will be to improve physician influence by working with senior RHA managers to identify and solve problems facing family medicine in each region. The new brand identity reinforces the fact that (i) improved population health and health system sustainability in the province will require a renewed focus on primary health care reform, and on family practice reform in particular; and (ii) that family physicians have an important role to play in the improvement and full integration of primary care and primary health care services and supports. The program aims to renew a focus on primary health care reform, and on family practice reform, in particular. The broad principles of the program include:

- Patient-centered continuous care
- Improved access
- Comprehensive family practice
- Collaborative care

- Community engagement
- A focus on local population health needs

MENTAL HEALTH & ADDICTIONS

One in 5 people in Newfoundland and Labrador experience a mental health or addictions issue in a given year. The 2016 Report from the Canadian Chronic Disease Surveillance System indicated roughly three quarters of Canadians who use health services for a mental illness in a given year use them for mood and/or anxiety disorders. The age group that uses health services for mood and/or anxiety disorders the most is middle-aged Canadian adults (30-54 years), followed by older adults (55 years and older).

The demand for mental health and addiction services is increasing and many people within communities and employees of Central Health have voiced their concerns in the Central Health Consultation 2016 surveys indicating that mental health is a major concern, which further reinforces the need to address the increasing concerns in our region. In November 2016, the provincial Government released *The Way Forward: A Vision for Sustainability and Growth in Newfoundland and Labrador* (See Appendix C), which indicates an action by government to respond to recommendations from the All Party Committee on Mental Health and Addictions indicating that a comprehensive Mental Health and Addictions Strategy needs to be implemented. The All-Party Committee on Mental Health and Addictions *Progress Report (dated October 2015)*, notes that "like any other health issue, mental illness and addictions require a range of high quality and accessible programs and support services to provide individuals with the best possible outcomes and opportunities for recovery". The report notes that several themes have emerged as a result of the public consultations and review process including:

1. Improving access to services by:
    - Increasing investments in mental health resources
    - Addressing wait times
    - Ensuring equal access to services
    - Increasing awareness of available services and the ability to navigate them
    - Enhancing coverage for specialists and medications
2. Improving the quality of care by:
    - Providing patient-centered care
    - Increasing the education of health care providers
    - Enhancing the use of multi-disciplinary teams
    - Ensuring appropriate follow-up
    - Increasing the use of Telehealth as a means of improving services
3. Promotion of positive mental health and prevention of mental illness by:
    - Addressing stigma through education and awareness
    - Promoting psychological resilience
4. Improving policy and programming by:
    - Applying a harm reduction lens
    - Applying a mental health lens
    - Increasing opportunities for community engagement
    - Applying a recovery-focused lens
5. Strengthening community supports by:
    - Building relationships with community partners offering mental health and addictions services
    - Embedding mental health and addictions within the community
    - Strengthening financial commitment to partners

The final report of the committee is expected to be released in the winter of 2017. Work is underway at Central Health in many of these areas.

In April 2015, through collaboration with the NLCHI, the Department of Health and Community Services, in partnership with the RHAs, released its first ever Provincial Mental Health and Addictions Programs Performance Monitoring Report. The report contains over 40 indicators to help evaluate the system in the following areas: quality, safety, access,

utilization, efficiency, spending and population health outcomes. The intent is to update the report on a regular basis to allow for monitoring of change over time. In the future, additional indicators may be added as they become available with the aim of filling gaps in community mental health and addictions programs and services. The product serves as a valuable tool for both the department and RHAs to identify areas requiring quality improvement, targeted interventions, program development and allows for monitoring system performance.

Data provided by NLCHI in the report indicated that Central Health was the highest among the RHAs in 2012-13 for:

- Average number of ALC Days per Mental Health and Addictions Hospitalizations - 7.2%
- Proportion of total length of stay that are ALC days for Mental Health and Addictions – 33.2%
- Proportion of Inpatient and Surgical Day Care Hospitalizations for Mental Health and Addictions – 23.4%

Central Health broke new ground with the introduction of triaging for Mental Health and Addiction Services and the development of a centralized model of service delivery for community-based services. From October 2014 to April 2016, the majority of clients throughout the region were provided an appointment time within the evidence-based wait time benchmarks established for each clinical group. Work is currently underway to implement a central triage process for psychiatry services throughout the region. A significant upfront commitment will be required to support the Central Triage Psychiatry Model.

HEALTHY AGING

A Healthy Aging Strategy has been developed and is an indicator of the Central Health mission for 2011-2017. The strategy document is currently undergoing revision to incorporate recommendations from *Central Health's Long Term Care Report (2015)*, recommendations from the *Provincial Home Support Review (2016)* as well as incorporation of other revised provincial documents. This strategy will contribute to the overall health of the aging population in central Newfoundland and Labrador. A Healthy Aging Advisory Steering Council framework and Terms of Reference have been developed. Planning for a first meeting is underway with the Healthy Aging Advisory Steering Council to establish membership and begin work on selection of the top three priorities from the revised strategy for implementation in the 2016-17 fiscal year.

LONG-TERM CARE

The demands for long-term care (and community support) are continuously expanding as the average age of residents' increases. The challenge is even greater in the Central region as the population is aging faster than anywhere else in the province. As of April 2016, Central Health has 524 LTC beds (including LTC palliative and respite) throughout the region in 11 facilities. The current occupancy rate at all LTC sites ranges between 95-100%. The waitlist for LTC placement has grown by 82% since 2007 and the number of ALC days per year has almost doubled over the past 7 years. In order to meet current demand and anticipated future needs of LTC clients, Central Health required an assessment of existing LTC and community support services and recommendations to address future service needs and residential gaps, with a focus on maintaining clients at the highest level of independence and as close to home as possible. Central Health engaged a consulting firm to help carry out this work. The Long Term Care Needs Assessment report was released in February 2015 and included an analysis of the LTC services being provided, a review of best practices and service models, an analysis of the current population availing of LTC services, recommendations of the types of services that Central Health and the DHCS need to invest in to be responsive to LTC, capital infrastructure estimates and operating costs for recommended residential options and a detailed analysis and capital cost estimates pertaining to the nursing home sector. Recommendations in the report related to:

1. Nursing Home Capital Development/Redevelopment – Targeted investments in areas with the greatest need will provide higher confidence that increased capacity will be utilized by increasing the number of nursing home beds and provide a lower cost, more appropriate care setting for ALC clients waiting for nursing home placement. The recommendation is to build 75% of the projected demand.

Recommendation of a mix of bed types to support more effective demand management

	Recommended investment (Total Number of new Beds)	Nursing Beds	PCU Beds	Specialized Care Beds (Complex Care)	Assessment Beds /Holding Beds
NEW BEDS					
Lakeside Homes	56	43	12	N/A	1
Carmelite House	34	21	12	N/A	1
Dr. Hugh Twomey	0	N/A	N/A	6*	N/A
Total	90	64	24	6*	2
REPLACEMENT BEDS					
Lakeside Homes	102	74	28	N/A	N/A
REFURBISHED BEDS					
Valley Vista	18	N/A	N/A	N/A	18

- *The 6 Bed Specialized Care Unit at **Dr. Hugh Twomey** would not require new beds, but would rather utilize a portion of an existing unit

2. Human Resources – Build regional capacity and local expertise. There were 3 areas of specific staff support required to fill key gaps in assessment and treatment
    1. Enhanced Care Pilot Project Expansion
    2. Implementation of a Specialized Mobile Dementia Team
    3. Recruitment of a Geriatric Psychiatrist
3. Training and Education – Increased access to education and training for older adults, dementia care, behaviour management, and safe patient handling. Availing of online programs for both clinical and non-clinical staff in LTC and Acute Care caring for ALC seniors. Collaboration with organizations across the region, such as the Alzheimer's Society, to develop strategies to operationalize an action plan for learning as a basis for the provision of optimal care to residents.
4. Regional Planning – Develop a dementia care strategy, perform a home support service assessment and develop a home first strategy.
5. Community Programs – Developing additional services in the community could shift 10% of seniors care away from institutional settings by 2026. Support access to First Link Dementia Referral System, develop adult day programming for dementia clients and group living options for clients with intellectual disabilities.

These recommendations, where appropriate, have been added to the LTC operational pan. Funding or reallocation of resources is needed to implement some of the recommendations.

Improving Client Flow from Acute Care to LTC Placement

In 2016, a LTC multidisciplinary team collaborated to improve client flow from acute care to LTC to ensure quality and safe care in the right setting. Process improvements including key messaging, multiple admissions on the same day, and on weekends and evenings all helped to decrease times for clients waiting for LTC beds. The average admission time from acute care to LTC was 3.4 days at baseline (March to May 2016 and decreased to 1.4 days post-implementation (June to December 2016) thereby meeting the team's goal of admission within 24-48 hours.

Reducing Potentially Inappropriate Use of Antipsychotic Medication in LTC Pan-Canadian Pilot Project

Across Canada, more than 1 in 4 seniors in LTC are on antipsychotic medication without a diagnosis of psychosis. Antipsychotics are often prescribed in an effort to reduce responsive behaviours. However, antipsychotic medications have a sedating effect and can cause serious harm such as falls and unnecessary hospital visits.

In 2014, the Canadian Foundation for Health care Improvement (CFHI) launched a pan-Canadian quality improvement collaborative to support the appropriate use of antipsychotic medication, working with 15 teams spanning 56 LTC

facilities in 7 provinces and 1 territory. At the time, the national average for LTC residents on potentially inappropriate antipsychotics was 28%. The evidence showed that only 5-15% of seniors in LTC facilities should be on antipsychotic medication. At almost 40%, Newfoundland and Labrador had the highest rate in the country. Central Health joined the CFHI collaborative in September 2014 and CFHI provided funding, coaching and mentoring; educational materials and tools; and forums for sharing with other innovators to support reducing inappropriate antipsychotic medication use. Central Health established a Regional Advisory Steering Committee that comprised of key champions, including physician and family engagement.

The Central Health team decided to focus initially on four LTC homes (Dr. Hugh Twomey Health Centre; Lakeside Homes; Bonnews Lodge; and North Haven Manor) where the antipsychotic use rates among residents ranged from 22 to 60%. Supported by the CFHI quality improvement collaborative, the team set a goal to reduce antipsychotic medication use among a selected cohort, at those four sites, by 15% within a year and, at the same time, enhance quality of care, and improve patient and family satisfaction.

A key component was a resident-centered care approach. At each site there were:

- Education sessions for staff, family, and physicians;
- Education and training in Gentle Persuasive Approach (GPA) for frontline staff and leadership team
- P.I.E.C.E.S™ training for 3 clinical champions and regional consultants, which addressed the "physical, intellectual, emotional, capabilities, environment and social" needs of people with dementia; and
- Individualized intervention kits developed and implemented to residents that were targeted for the antipsychotic reduction.

Staff at the homes selected a cohort of residents and, with family consent, enrolled them in the medication reduction and discontinuation program. The leadership also engaged the residents' families through education sessions and handouts. The initial goal set out was a 15% reduction in the use of antipsychotic medication in LTC at the 4 selected pilot sites, however, the outcome of the pilot project resulted in an overall reduction of 26%. The site specific result includes: 20% reduction at Dr. Hugh Twomey Health Centre; 28.6% reduction at Lakeside Homes; 33% reduction at Bonnews Lodge; and 25% reduction at North Haven Manor. By the summer of 2016, the initiative had spread to three of the remaining seven Central Health LTC facilities. To sustain the initiative, a standardized Medication Reconciliation Form has been developed and implemented. It highlights antipsychotic medications taken by residents upon admission, and when they are transferred or discharged to/from LTC. In addition, an electronic standardized order entry set ("LTC Deprescribing of Antipsychotic Medications Order Set") has been developed and implemented for all nurse practitioners and physicians who work in LTC.

Since the formal end of the CFHI collaborative, Central Health has continued to further reduce the rates of potentially inappropriate use of antipsychotic medications, across all LTC facilities.

HOME CARE/COMMUNITY SUPPORT

The number of seniors availing of home support services has grown by 250% since March 2006. Home Support is a benefit available within the Community Support & Residential Services Program of Central Health, which enables eligible individuals, who require assistance with Activities of Daily Living (ADLs) and Independent Activities of Daily Living (IADLs) to reside independently. Home Support is intended to supplement, not replace, services provided by the individual's family and natural support network. Eligibility for publically funded home support is based on:

- Need for supportive service as determined by the Long-term Care & Community Support Program Adult Needs Assessment
- Age – must be 65 years or older or 18 years or older with a permanent disability
- Residency – Must reside in their own home, board and lodging, alternate family care home, apartment, condominium, assisted living unit or shared living arrangement

As of December 1, 2016, there were a total of 1,583 clients availing of home supports: 946 seniors, 257 adults with physical disabilities; and 380 adults with intellectual disabilities.

Provincial Home Support Program

The Provincial Home Support Program (PHSP) is part of a wider array of community support services and is intended to enable eligible individuals who require assistance with activities of daily living to remain independent in their homes and communities. Ideally, the provision of home supports would prevent, delay or provide a substitute for institutional placement or acute care admission. The program is experiencing significant demand and funding growth which has led to the need to identify options to improve its effectiveness and gain program efficiencies.

Deloitte was engaged by the Government of Newfoundland and Labrador's Department of Health and Community Services (DHCS) to complete a comprehensive review of PHSP in collaboration with the RHAs. The DHCS sought to determine whether the PHSP is operating efficiency and effectively as possible, to identify opportunities to improve capacity and quality of programs and to inform changes required to help ensure the future sustainability of the program. Extensive consultations were held with internal and external stakeholders. The review also included a client satisfaction survey, a jurisdictional scan and literature review, data collection and analysis, and regular meetings and workshops.

In August 2016, the DHCS released the Provincial Home Support Program report completed by Deloitte. The report identified the current state of the program, highlighted key findings and provided opportunities for improvement. The DHCS and the RHAs plan to work together with the community stakeholders to achieve a more sustainable system based on present and future demands. While a client survey by Deloitte suggests a degree of satisfaction and effectiveness in the program as it currently exists, there are opportunities for improvement.

The report outlines a variety of suggested opportunities for improvement, including:

- Enhance the clinical assessment process;
- Streamline the financial assessment process;
- Align policies among the RHAs in program delivery;
- Improve standards to reflect best practices in home support;
- Develop a performance management framework to monitor and evaluate outcomes; and
- Establish agency agreements with service providers to increase accountability and oversight

Implementation of the DHCS Home Support Action Plan is set for 2017 to transform the provincial home support program, in support of seniors and persons with disabilities. This will require significant work to implement.

Paid Family Caregiving Option

In March 2014, the provincial government introduced the Paid Family Caregiving Option (PFCO) pilot project in order to increase a client's flexibility and choice by making it easier for adults eligible for home support to hire a family member, if required. Through this option, the definition of family members includes parents, children, grandparents, grandchildren, siblings and relatives residing in the same home (spouses and common-law partners are excluded as there is still the expectation that the natural care giving roles provided by these individuals will continue). Provincially, this option provided up to 250 subsidies for seniors and adults with disabilities to pay a family member for home support. There were 55 subsidies in total allotted for Central Health. However, given the uptake for seniors exceeded this, DHCS reallocated subsidies from Eastern Health, Labrador Grenfell Health and Western Health to bring the total subsidies from 55 to 71. As of December 2, 2016, there are 65 seniors and/or adults with disabilities availing of the PFCO. The provincial final evaluation report from NLCHI was completed with recommendations forthcoming to all the RHAs regarding the future implementation of this home support option.

Enhanced Personal Care Home Program

On August 1, 2013, the Enhanced Care in Personal Care Homes Pilot Project was launched by DHCS. The project responds to a variety of factors, including: the aging population; increasing pressures from acute care; regional waitlists for placement in long-term care facilities as well as the trend of smaller families; outmigration; and decreasing community and informal supports. The project promotes healthy aging in places where seniors can remain in close proximity to community, family and friends while receiving appropriate care and supervision.

For Central Health, one personal care home (PCH) was licensed to admit up to 8 clients who require an enhanced level of care – 2+ for a period up to February 2015. In February 2015, the DHCS announced that the Enhanced Care in Personal Care Homes will continue as per the favorable outcomes reported from the CIHI evaluation.
Between March 2014 to December 2, 2016, 31 individuals participated in Enhanced Care Program. Of those 31:

- 16 eventually went to LTC;
- 8 that were on the LTC waitlist deceased in the PCH before they were placed in LTC; and
- 7 currently remain in the program.

The Provincial Budget report released on April 14, 2016 indicated 100 additional subsidies were granted provincially, with Central Health being granted 20 subsidies. Enhanced care subsidies assignment is based on clients and not to specific PCH's. RHAs began accepting applications from interested operators in October 2016. Applications from 6 clients have been received to date and are pending approval.

Direct Home Services Program

Central Health offers the Direct Home Services Program (DHSP) with Child Management Specialists (CMS) through Child Development and Supportive Services to provide early intervention for families of infants or preschool children who have or are at risk for delayed development. The program goals aim to assist each child to reach their potential in all areas of development, to enhance parenting skills, to assist parents in managing their child's behaviour and to promote community inclusion. DHSP is available to children who are birth to school entry age and not attending school, have a developmental delay in the areas of socialization, communication, self-help, motor and cognition or have a diagnosis associated with lags in development e.g. autism, pervasive development disorders (PDD), Cerebral Palsy).

There are currently 10 CMS and 1 Senior CMS for the Central region covering a caseload of 108 children (80 on the Direct Home Service caseload and 28 receiving Autism Services).

Special Child Welfare Allowance Program

The Special Child Welfare Allowance (SCWA) Program at Central Health is available to financially eligible families who have a child with a diagnosed developmental or physical disability. The program is designed to assist with additional expenses incurred by families directly due to the child's disability. Some examples of services provided include: medical transportation expenses; medical equipment; medical supplies; respite services and drug cards. Social Work support is also available to all families of children with disabilities regardless of financial eligibility. This program is open to families with children from birth to age eighteen. There are two Social Workers working with this program in Central Health and one half-time Financial Assessor. The average active number of cases in 2016 was 72, a decrease compared to 2015, of 77 cases.

Community Rapid Response Team

In November 2014, Central Health began the implementation a provincial pilot program, the Community Rapid Response Team (CRRT). The implementation of this project was a part of the *Strategy to Reduce Emergency Department Wait Times in Newfoundland and Labrador 2012*. The purpose of this team is to service individuals at high risk for hospitalization or emergency department utilization. The team also services individuals admitted to hospital who need some additional supports to achieve a timely discharge. Criteria for admission to the program have changed over the life of the pilot to increase uptake and better match the needs of clients who can be safely managed at home. Initially, the program only serviced individuals living in Grand Falls-Windsor, Badger and Botwood area. In October 2016, the program expanded to include Gander, Glenwood and Appleton. The goal is to provide safe, competent care to clients at home; resulting in enhanced inpatient bed utilization. The CRRT program consists of the following:

- Availability of home-based follow-up from a nurse practitioner, physiotherapist, occupational therapist, and registered nurse as determined by assessment up to 30 days
- Availability of 168 hours of home support services for up to 2 weeks (without any financial assessment or charge to the client)

In October 2016, the DHCS has approved the expansion of the program's eligibility criteria in order to enhance the team's capacity. On a go forward basis, CRRT will accept referrals from JPMRHC for the following clients whose needs can be safely met within available resources. The enhanced criteria are as follows:

- Any client, 18 years of age or older who can be:
  Cared for safely within their home and reside (or willing to stay) in Gander, Glenwood or Appleton area.
- Is in need of, or at a high risk for, hospital admission/repeated emergency department utilization
  - Accepting outpatient referrals from physicians/nurse practitioners provided the patient has been seen by the referring providers within the past 48 hours
  - Priority is given to clients referred from the emergency department and those deemed highest risk to become inpatients

Home-Based Therapy Program

Central Health was provided provincial funding in 2015 to start a home-based therapy program for dialysis (hemo and peritoneal dialysis). Home based therapy provides an efficient modality for dialysis and increases a client's quality of life by giving them ownership for treatment scheduling and a less restrictive diet than traditional dialysis. In collaboration with their physician and/or nurse practitioner, patients can choose their mode of therapy. The program is staffed by a full time registered nurse who trains and monitors patients in the program in consultation with Nephrologists at Eastern Health.

Health System Outputs

Health system outputs are intermediate objectives that correspond to the capacity of the health system to provide access to timely, continuous and effective health services. Services delivered that result from activities undertaken by the organization and individuals that are part of the health system. The dimensions within the Health System Outputs quadrant describe the characteristics that contribute to the quality of services. These characteristics apply to all services delivered by the health system, including public health and health promotion and disease prevention services delivered to populations, as well as services delivered to individuals, for example, hospital, physician, mental health or long-term care health services.

Access to Comprehensive, High-Quality Health Services

The range of health services available, including public health, health promotion and disease prevention services, and the ability to meet the needs of the population or an individual without time delay, financial, organizational or geographical obstacles standing in the way of seeking or obtaining health services. The attributes of "high-quality" health services are defined by the other dimensions in this quadrant and encompass the definition of quality developed by the Institute of Medicine.

Central Health is committed to a Primary Health Care (PHC) model of service delivery where a multidisciplinary team of health professionals, support staff and partners provide the right care to the right person at the right time. Throughout the region, Central Health provides a continuum of community, acute and long-term care (LTC) services.

WAIT TIME MANAGEMENT

According to Statistics Canada, access to health care can be defined as the ability of clients to obtain care or service at the right place and right time from the most appropriate health care provider. While Central Health has made progress in improving access to select priority services, there are areas where timely access to care continues to remain a challenge. In response, access to care was identified as a priority in Central Health's 2014-2017 strategic plan. The stated goal was to improve access to select health and community services by March 31, 2017.

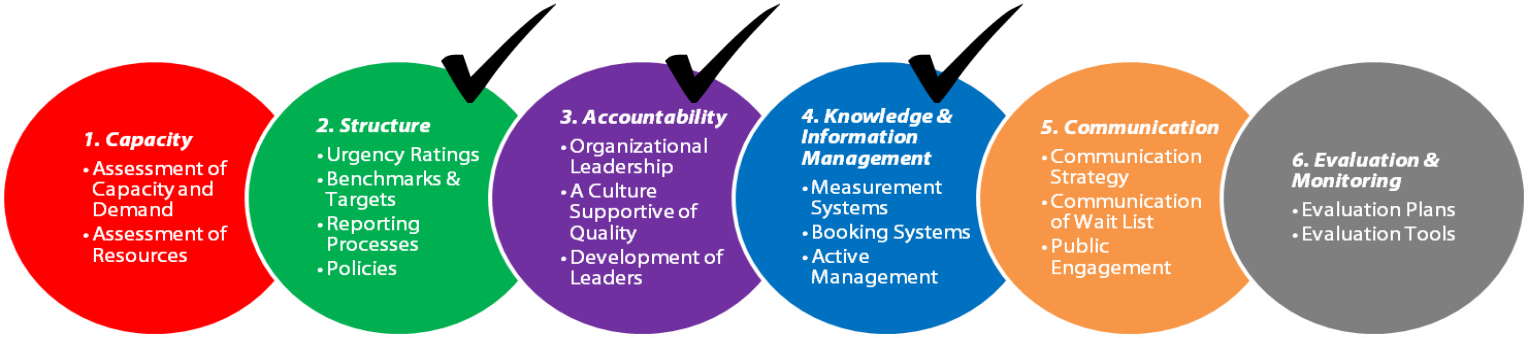
In order to achieve this goal, it was recommended that Central Health develop a common approach to addressing wait times that would produce greater efficiency and effectiveness in efforts to improve wait times. With this objective in place, the following steps were taken:

1. A current state assessment of waitlists and wait time management practices for all services that maintain waitlists for service at Central Health was completed.
2. Research of best practices in wait time management was conducted.
3. Components of a wait time management framework were identified.
4. Central Health Wait Times Management Framework was developed.

A current state assessment was conducted in 2014-15 of waitlists and wait time management practices for all services that maintained waitlists at Central Health. This assessment focused on the referral and intake process, booking and scheduling practices, targets and benchmarks, and wait time management strategies. The results showed 11 program areas and 76 services that actively monitored wait times and/or wait lists. It highlighted the variation in wait time management practices (i.e. no show policies, wait time monitoring processes, validation practices); emphasizing the need for greater consistency in wait time management throughout the region. In conjunction with the current state assessment, a literature review was completed to identify best practices in wait time management. Elements of provincial strategies that have been effective and align with Central Health's goals and objectives. Together, the current state assessment and literature review underscored the need for a common approach to managing wait times and served to support the development of *Central Health's Wait Time Management Framework*.

Wait Time Management Framework

The framework was developed to address the 2014-2017 strategic issue of access to services to improve access to select health and community services. The framework consists of six components (see depiction below). The framework provides practical tools and resources to facilitate increased knowledge and understanding of wait time management. The framework document was created and disseminated throughout the organization in 2015-16, which provided background to the development of the framework, including an environmental scan and literature review findings. The six components of a successful wait time management framework were introduced with requirements and tools incorporated. The framework will help Central Health successfully implement wait time management strategies; ultimately improving care and access.



Implementation of recommendations from 3 of the 6 components of the *Wait Time Management Framework* was the primary focus for 2015-2016. Various strategies have been utilized and have proved beneficial to improving wait times to date, including:

- Review/modification of referral forms to increase access to medically appropriate services
- Review/modification of evidence-based urgency categories to increase timely access
- Review/development of clinically appropriate benchmarks and targets
- The development of wait time working groups
- Validation of waitlists (making sure everyone on the list is in need of service)
- Education and increased skillset to develop wait time strategies (e.g. LEADS and Lean)

In addition to the implementation of the *Wait Time Management Framework* and partnerships to implement wait time management strategies, the Corporate Improvement Department continues to monitor and evaluate wait times for select services areas. Displayed below are the most recent wait time information for clinical areas that are regularly reported to the DHCS.

Wait Times

When reviewing the wait time information, please keep the following definitions in mind:
Surgical wait time: The time from which the patient and surgeon agree that surgery is indicated (also known as the decision to treat date) to the point in time when the surgery is complete.
Decision to treat date: The date the client and health and care provider agree on treatment/surgery and client is ready, willing and able.
Procedure wait time (Endoscopy, Cardiopulmonary, Diagnostic Imaging): The time from which the order/requisition is received (from a referring health care provider) to the time the patient has the procedure.
Urgency rating: Established urgency ratings, also referred to as priority ratings, are a means by which clients waiting for the service are seen in order of need. Clients are prioritized and placed on the waitlist based on this need.
Benchmark: A time within which most cases (or a specified percentage) should be done – the maximum medically acceptable wait time for a given procedure or service. Benchmarks are evidence informed and typically come from outside the organization (developed through provincial/national or professional governing groups).
90th percentile wait time - The number (in calendar days) at which 90% of the cases are completed. The time a patient waits for a specified health care activity or task, such as an appointment, consult or service.
50th percentile (median) wait time: The number (in calendar days) at which 50% of cases are completed.

Surgical Services

To improve understanding of the challenges to accessing surgery services, Central Health continues to work with local surgeons and staff to improve the wait for patients. Priority initiatives in 2015-16 for Cataract Surgical Services included a new booking process at JPMRHC; utilization of increased OR time for Ophthalmology Services, the purchase of ophthalmology equipment to enhance operational efficiencies in the perioperative setting, and implementation of the ORM System. Benchmarks continue to be met for cataract surgical services at CNRHC and strategies are underway for 2017 to improve access at JPMRHC.

Evaluation of the Orthopedic Intake Assessment Clinic (OIAC) resulted in changes to the referral process and patient criteria to improve access and patient outcomes. A new triage system with physicians reviewing all referrals for medical appropriateness was initiated in 2015-16. Also, a focus on knees joints only as the primary referral for the OIAC was implemented. Other priority initiatives included development and dissemination of quarterly wait time reports for hip and knee replacement surgeries, an enhanced communication strategy to primary health care providers regarding the OIAC and validation of hip and knee surgical wait lists.

Surgical Services % of Clients Receiving Surgery Within Benchmark		2015-2016				Benchmark
		Q1	Q2	Q3	Q4	
Hip Replacement *JPMRHC only*		100%	92%	92%	79%	182 days
Knee Replacement *JPMRHC only*		63%	71%	80%	79%	
Emergency Hip Fracture Repair *JPMRHC only*		100%	100%	100%	100%	48 hours
Cataract Surgery	*CNRHC*	100%	85%	97%	90%	112 days
	JPMRHC	50%	49%	53%	22%	

Cancer surgery wait times continue to meet provincial targets.

Cancer Surgery Wait Time, Decision to treat – 90th percentile in Days		2015-2016				Benchmark
		Q1	Q2	Q3	Q4	
Breast Cancer Surgery	*CNRHC*	26	26	19	33	30 days
	JPMRHC	No data	27	27	18	
Colorectal Cancer Surgery	*CNRHC*	17	28	19	26	
	JPMRHC	13	^	^	25	
Prostate Cancer Surgery *CNRHC only*		^	^	^	48	60 days
Bladder Cancer Surgery *CNRHC only*		13	47	40	41	30 days

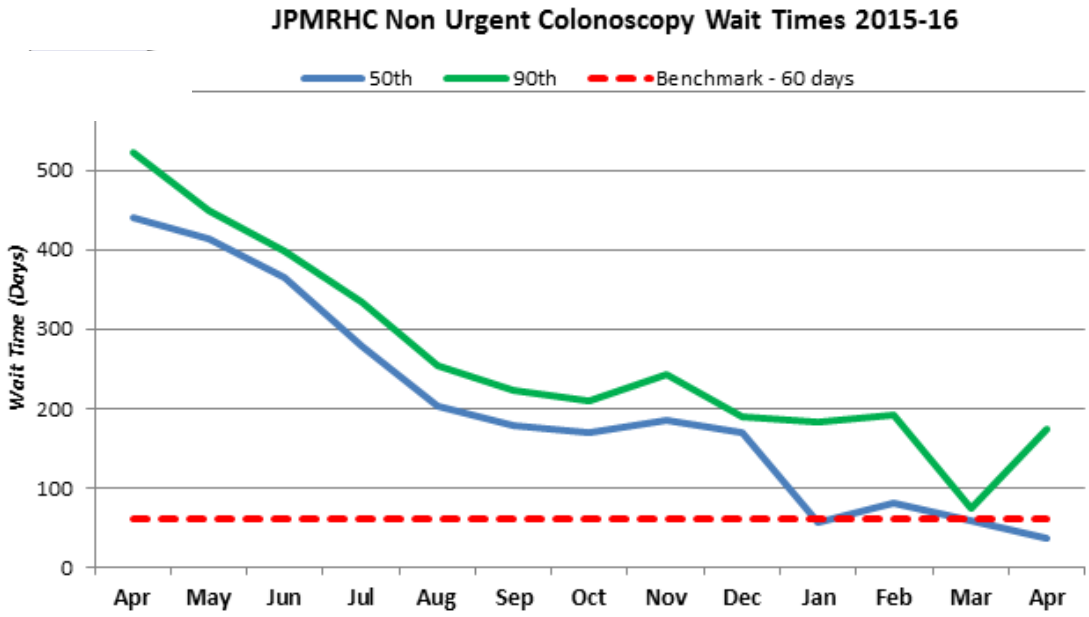
^ *Too few to report*

Currently, there isn't a centralized booking process for surgical minor procedures throughout Central Health. Many surgeons continue to maintain their own wait list, in which an overall wait time for minor procedures cannot be determined at present.

Endoscopy Services

With the implementation of wait time management strategies and use of targeted strategies including the removal of the longest waiters from the wait list and diversion efforts, there has been significant improvement in wait times for colonoscopies at JPMRHC, resulting in an improvement in equitable access to care throughout the region. Urgent benchmarks for colonoscopy at JPMRHC are now consistently being achieved with the majority of patients having their procedure within 0-14 days. Non-urgent waits have also dropped notably at JPMRHC (see graph below) with the average wait for a non-urgent colonoscopy being 63 days; this compares to a 537 day wait in March 2015. A graph was not provided for CNRHC as the change in wait times for CNRHC were not as significant.

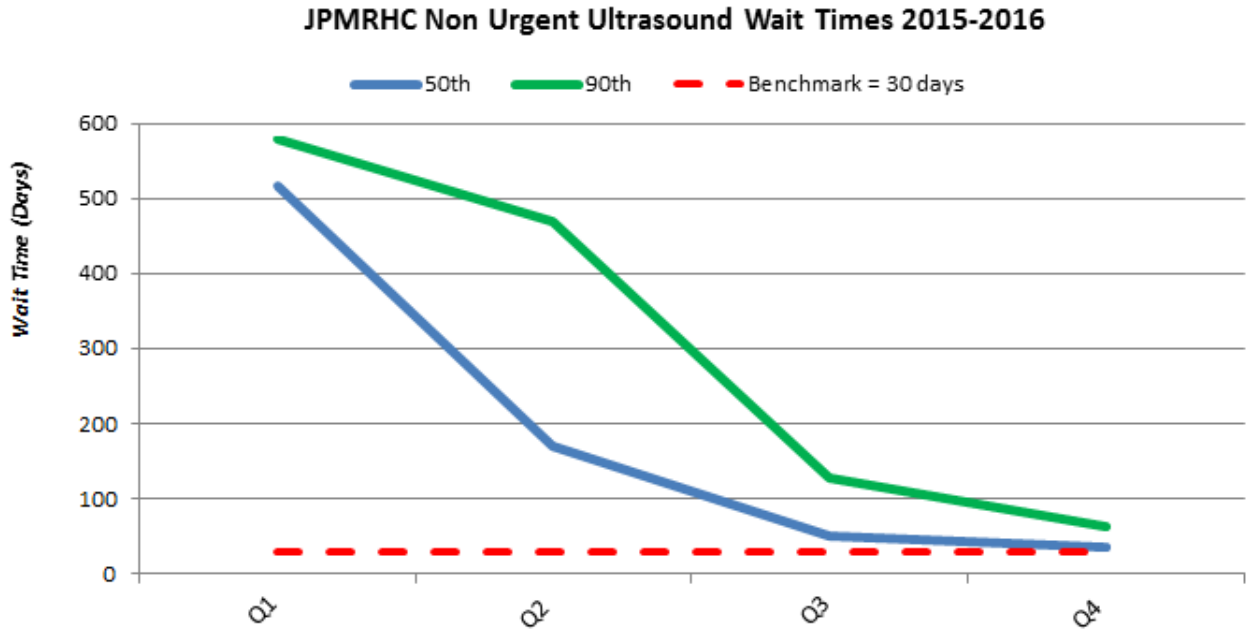
Endoscopy – Colonoscopy % of Clients Receiving Colonoscopy Within Benchmark		2015-2016				Benchmark
		Q1	Q2	Q3	Q4	
Urgent	*CNRHC*	74%	74%	74%	68%	14 days
	JPMRHC	87%	92%	90%	87%	
Non Urgent	*CNRHC*	77%	62%	39%	**data missing*	60 days
	JPMRHC	6%	5%	15%		



Diagnostic Imaging

In 2015-16, as a strategy to improve access to Ultrasound appointments, the Diagnostic Imaging Department diverted a portion of patients from JPMRHC to CNRHC. This diversion strategy coupled with wait list validation and management processes, resulted in a 50% decrease in the number of patients waiting for ultrasound at JPMRHC and urgent benchmarks (0-14 days) are now consistently being achieved (see graph below). A graph was not provided for CNRHC as the change in wait times for CNRHC were not as significant. The impact on non-urgent wait times is displayed below:

Diagnostic Wait Time Referral to Procedure – 90th percentile in Days		2015-2016				Target
		Q1	Q2	Q3	Q4	
Urgent Procedures						
Ultrasound	*CNRHC*	33	34	32	35	14 days
	JPMRHC	69	62	39	39	
CT Scan	*CNRHC*	15	19	15	15	
	JPMRHC	36	42	48	49	
Mammogram	*CNRHC*	15	20	22	22	
	JPMRHC	35	41	40	48	
MRI *JPMRHC only*		72	71	66	70	
Non Urgent Procedures						
Ultrasound	*CNRHC*	107	34	68	58	30 days
	JPMRHC	578	468	128	62	
CT Scan	*CNRHC*	35	43	39	35	
	JPMRHC	48	65	70	78	
Mammogram	*CNRHC*	300	338	131	163	
	JPMRHC	52	90	79	100	
MRI *JPMRHC only*		95	91	91	105	



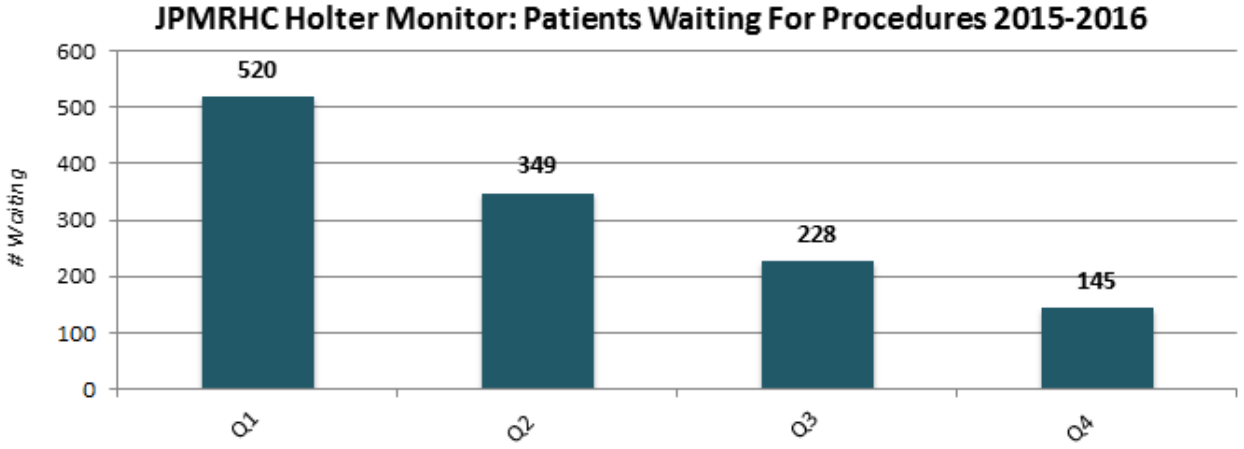
Cardiopulmonary Services

Cardiopulmonary services provide a broad range of high quality cardiopulmonary and diagnostic neurophysiology care to meet the inpatient and the outpatient needs of the clients of Central Health. Services include:

- Diagnostic Neurophysiology
- Echocardiography
- Non-Invasive Cardiology
- Respiratory Therapy

The Cardiopulmonary Services Department is actively working to meet requirements of the *Wait Time Management Framework*, including the creation of new validation and wait time management processes, and restructuring of resources to improve access to care. In 2015-16, there was also an increase in the number of Holter monitor tests being completed. At JPMRHC, 628 procedures were completed compared to 240 the year prior. At CNRHC, 736 were completed compared to 423 the year prior. The additional capacity to increase the volume of Holter monitoring tests being conducted and validation of wait lists resulted in a decrease in the number of clients waiting; in March 2015, 826 people were waiting for a Holter monitor which dropped to 145 people waiting in March 2016 (see graph below).

Cardiopulmonary Services Wait Time Referral to Procedure – 90th percentile in Days		2015-2016 Q1	Q2	Q3	Q4	Target
Holter Monitor - Urgent Wait Time	*CNRHC*	120	70	43	82	14 days
	JPMRHC	605	630	557	407	
Echocardiogram - Urgent Wait Times *CNRHC only*		87	71	57	71	7 days
Echocardiogram – Non Urgent Wait Times *CNRHC only*		111	156	159	185	-



Additional Cardiopulmonary Services Wait Times as of December 2016		Wait Time (Estimated)
Pulmonary Function Test	*CNRHC*	6 weeks
	JPMRHC	3 weeks
Sleep Studies	*CNRHC*	1 year +
	JPMRHC	1 year +
Stress Test	*CNRHC*	4-6 weeks
	JPMRHC	8 weeks

Diagnostic Neurophysiology

There are currently two Neurologists working throughout Central Health.

Diagnostic Neurology - As of December 1, 2016		
Site	**Non Urgent Wait for 1st Neurologist Appointment**	**Urgent for 1st Neurologist Appointment**
CNRHC	8 months	1 month
JPMRHC	1.5-2 years	1 month

Rehabilitative Services

Audiology - As of November 1, 2016			
Referral Priority - Site		**Number Patients Waiting For First Appointment**	**% Meeting Wait Time Target**
Urgent	*CNRHC*	29	>90% meeting 1 month target
	JPMRHC	23	>90% meeting 1 month target
Semi Urgent	*CNRHC*	23	>90% meeting 3 month target
	JPMRHC	19	100% meeting 3 month target
Routine	*CNRHC*	34	100% meeting 6 month target
	JPMRHC	49	>90% meeting 6 month target

Occupational Therapy - Outpatient Services As of November 1, 2016 Outpatient Services	**Referral Category- Site**		**Number Patients Waiting for 1st Appointment**	**Wait Time for First Appointment**
	Urgent	*CNRHC*	0	18 months*
		JPMRHC	6	6 months
	Semi Urgent	*CNRHC*	35	18 months*
		JPMRHC	23	23 months
	Routine	*CNRHC*	14	18 months*
		JPMRHC	9	23 months
Occupational Therapy - Community Services As of November 1, 2016 Outpatient Services	**Referral Category- Site**		**Number Patients Waiting for 1st Appointment**	**Wait Time for First Appointment**
	Urgent	*CNRHC*	13	5 months
		JPMRHC	21	10 months
	Semi Urgent	*CNRHC*	68	20 months
		JPMRHC	74	24 months
	Routine	*CNRHC*	2	20 months
		JPMRHC	0	24 months

* *No outpatient services from October 2015- September 2016 which impacted wait times*

Speech-Language Pathology - As of November 1, 2016 (CNHRC & JPMRHC)		
Number Patients Waiting For 1st Appointment	**Current Wait Times for 1st Appointment**	**Wait Times Between First Assessment and Treatment Start**
59	10 weeks~	18 months+

~This is urgency dependent, with urgent cases being seen first. + Clients are normally seen within this time frame, with urgent cases seen first.

In 2015-16, a review of outpatient services within Central Health was completed. As an outcome of this review, a project utilizing Lean to improve patient access to physiotherapy services was developed and will be implemented at CNRHC beginning January 2017. This project involves the implementation of a new appointment referral and booking process that will reduce time spent on waitlist management and increase time on direct patient care. Additionally, it is patient focused in that patients will be able to book appointments when they are ready for treatment and at times that are best for them.

Physiotherapy Services			
	Referral Category-Site	**Number Patients Waiting for 1st Appointment**	**Wait Time for First Appointment**
Urgent As of November 1, 2016	CNRHC	Transitioning to new process for booking of procedures- no data to report	
	JPMRHC	0	Within 1-2 weeks
	Notre Dame Bay–Twillingate	0	Within 1-2 weeks
	GBVV	0	Within 1-2 weeks

Physiotherapy Services			
	Referral Category-Site	**Number Patients Waiting for 1st Appointment**	**Wait Time for First Appointment**
Semi Urgent As of November 1, 2016	CNRHC	Transitioning to new process for booking of procedures- no data to report	
	JPMRHC	36	Within a month
	Notre Dame Bay–Twillingate	16	3- 4 months
	GBVV	42	Within 8 months

Physiotherapy Services			
	Referral Category-Site	**Number Patients Waiting for 1st Appointment**	**Wait Time for First Appointment**
Non Urgent As of November 1, 2016	CNRHC	Transitioning to new process for booking of procedures- no data to report	
	JPMRHC	96	Within 6 months
	Notre Dame Bay–Twillingate	100	> 18 months
	GBVV	No data to report- routine referrals sent to CNRHC	

Internal Medicine

There are 9 Internists practicing throughout Central Health (6 at CNRHC; 3 at JPMRHC). At present, there is not a centralized booking process for Internal Medicine Services at Central Health. While an exact overall wait time cannot be determined, the non-urgent wait time range varies between 4-12 months. It is reported that urgent cases are normally seen within 14 days.

Community Mental Health and Addictions

There has been significant progress made in wait times in Community Mental Health and Addiction Services. Clients can access community-based mental health and addictions services in one of the 9 sites across the region. To access services, clients contact the centralized mental health and addictions triage line (1-844-353-3330) to speak with a clinician, obtain information on services and/or receive their first appointment. The triage clinician completes an initial assessment and determines the most appropriate service or professional to meet their needs. Clients may receive services from a RN, Social Worker, Psychologist, or Occupational Therapist. The level of service provided in the community ranges from counseling, assessment, and treatment of mental health and addictions concerns, to more intensive services such as case management or assertive community treatment.

Wait Time 1: Time between referral received and triage completed (phone call made to client)

- As of November 1, 2016, there is a 1 day average wait for triage

Wait Time 2: Time from triage to first appointment with Mental Health and Addictions clinician

- As of November 1, 2016
  - 19 people waiting for first appointment
  - 14 day average wait, based on clinical priority ranking[#] with most urgent being seen first

[#] *wait time benchmarks: Urgent (severe) - 5 days, Semi-urgent (moderate) - 20 days; Non-urgent (mild) - 30 days.*

Psychiatry Services

Currently, there isn't a centralized booking process for Psychiatry Services throughout Central Health. Many Psychiatrists continue to maintain their own wait lists, in which an overall wait time cannot be determined at present.

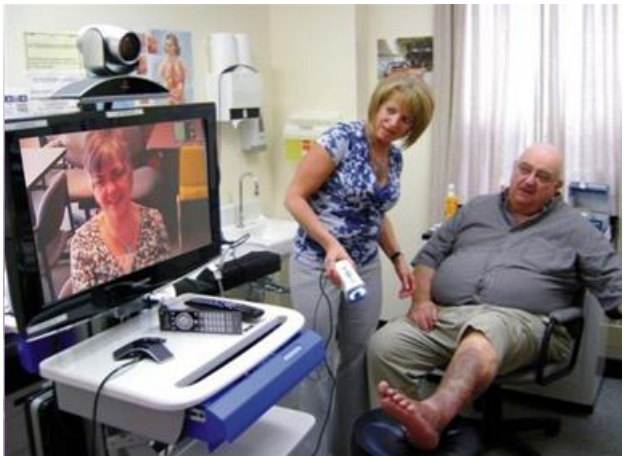
MISSED APPOINTMENTS

The number of missed appointments, or no-shows, continues to be a concern for Central Health. When a person doesn't show at the appointed time, or doesn't give sufficient cancellation notice, there is no time to offer that appointment to someone else. This results in underutilized staff and equipment resources and lost procedure times that can never be recouped. The following are the no-show rates for select services as of March 2016. Central Health will be closely monitoring these rates over time and with targeted strategies, there is a goal to continue to reduce the no-show rates for 2016-2017. No show rates should not be above 4%.

No-Show Rate		
Procedure	**Site**	**Jan- Mar 2016 (Q4)**
Colonoscopy – Non Urgent	*JPMRHC*	6.8%
	CNRHC	14.5%
Sleep Study	*JPMRHC*	18.5%
	CNRHC	26.8%
Holter	*JPMRHC*	19.7%
	CNRHC	11.8%
Echocardiogram	*CNRHC*	4.5%
CT	*CNRHC*	6.2%
	JPMRHC	6.3%
MRI	*JPMRHC*	7.9%
Mammography	*JPMRHC*	8.4%
	CNRHC	9.6%
Ultrasound	*JPMRHC*	8.3%
	CNRHC	10.4%

As noted earlier, a pilot project is underway within Endoscopy Services to reduce no-shows by using an electronic appointment reminder system (the ANS). A Lean Black Belt project is also underway testing strategies to reduce no-shows in select areas. The reduction of no-shows can have a significant impact on access to services and the waiting time. There are over 175,000 appointments scheduled at Central Health annually. A 10% no show rate would see over 17,500 missed appointment slots each year.

TELEHEALTH



Telehealth is experiencing growth in Central Health along with the other RHAs. Currently there are 20 Telehealth sites within the Central region. Over the past few months, significant work has been completed around formalizing the Telehealth program. Telehealth started at Central Health with an appointment between a mother and her palliative son in 2005. Oncology was the first program area to start using Telehealth as a form of service delivery in this province in 2005 followed by support for dialysis in 2008. Since 2005, program areas using Telehealth has grown. There are approximately 21 different program areas using Telehealth in service delivery. There was an increase of approximately 14% in scheduled Telehealth appointments from 2014-15 to 2015-16. Enhanced Telehealth Services is an indicator for improved access to services in Central Health's 2014-2017 Strategic Plan.

A Quality Improvement Team, formed in October 2015 has worked to develop an action plan for Telehealth services in the region in line with Accreditation Canada standards. The Telehealth standards will be assessed for the first time during the 2018 Accreditation on-site survey.

A Telehealth Program-Technical Committee, formed in 2016, meets regularly to review program needs and technical requirements and capabilities. The current project focus has been on the roll out of a desktop option for health care providers. There are currently six licenses for this option and four health care providers have been trained to use this system. Following the pilot phase, a determination will be made regarding other uses and providers interested in this option.

Site visits have been taking place since late September 2016 by the Telehealth coordinator and the Chronic Disease Management and Prevention consultant. These visits have allowed for the presentation of updates on the Telehealth Program as well as solidifying the connection between the sites and health care teams with the program. The Telehealth application process is reviewed during these sites with many opportunities noted for expansion and growth of Telehealth to improve access, efficiency, continuity of care and patient experience.

A Telehealth Steering Committee has been formed that will assist in reviewing and prioritizing new system level Telehealth initiatives and will aid in decision making and implementation of Telehealth initiatives within Central Health.

Regular connection between the RHAs along with NLCHI occurs through provincial committee meetings. Work is underway to develop a new program manual as well changes are planned regarding the definition of a Telehealth site. This change will allow more providers to receive compensation for delivery services through the use of Telehealth that is more convenient.

The potential for growth of Telehealth in the coming months and years is tremendous. It is anticipated there will be increased utilization of Telehealth within Central Health with much discussion around consideration of this option for various regional positions and regional clinics. Greater utilization of Telehealth to support urgent/emergency type situations is also anticipated. Given the rural nature of the region and the challenge geography presents, Telehealth offers exciting possibilities.

PAIN MANAGEMENT

Chronic pain is an issue for residents within the Central region. There is currently no access to a formally structured or coordinated approach to pain management. Many health care providers can deal with chronic pain to an extent, but there are clients that require more intense treatment with specialized services. Maintenance and treatment of chronic pain can lead to decreased utilization of ED services and other unscheduled visits to the health care system, as well as improve the quality of life and participation in daily activities for those living with chronic pain (Chronic Pain Association Canada, 2014).

Since 2008, there has been an informal process established whereby consults have been received by anesthesia at CNRHC to provide treatment to clients' requiring further specialized services however, capacity to meet all client demands outside of a formalized approach has been inconsistent. In addition, there has been no standardized referral form to allow for triage of patients. From 2008-2014, the percentage of consults seen was 42% with 57.5% remaining on the waitlist.

Treatments received by patients include:

- I/V Sympathetic Block
- I/V Lidocaine
- Sacroiliac Injection
- Epidurals (+/- Caudal)
- Trigger Point
- Axillary Block
- Facet Joint Injection
- Methadone
- Blood Patch
- Intra-Clavicular Injection
- Inter-Scalene Injection
- Occipital Nerve Block
- Supraspinatus Tendon Injection
- Stellate Ganglion Block
- Botox Injection
- Medical management of complex cases

There is a need for the development of a Chronic Pain Program at both JPMRHC and CNRHC. Currently, there are no specialized services in the Central region. Western Health has a similar program, which had been previously implemented within Central Health. Eastern Health has a pain program somewhat established however, accessibility for residents within the Central region is an issue.

Patient Experience with Health Services

Person-centered health services are respectful of and responsive to the preferences, needs and values of individuals and ensure that their preferences guide all clinical decisions. This also refers to the integration of and connections across health system structures, functions, sectors and professionals that put the individual receiving services and his or her informal caregivers at the centers of delivery and that support continuity of care. Equity refers to the capacity of the health system to deliver comprehensive, high-quality outputs (services) to individuals and populations in an equitable way, without the imposition of financial or other barriers to receiving care that is person-centered, safe, appropriate and effective, and efficiently delivered.

PERSON- AND FAMILY-CENTERED CARE (PFCC) ORGANIZATION

Person- and Family-Centered Care (PFCC) is an approach to the planning, delivery and evaluation of health care that is grounded in mutually beneficial partnerships among health care providers, patients, clients, residents and families. Providing PFCC means working collaboratively with clients and their families to provide care that is respectful, compassionate, culturally safe and competent thereby improving the quality and safety of the services provided at Central Health. PFCC is responsive to the needs, values, cultural backgrounds beliefs and preferences (adapted from the Institute for Patient- and Family-Centered Care (IPFCC) 2008 and Saskatchewan Ministry of Health 2011). Ultimately PFCC shifts providers from doing something *to* or *for* the client to doing something *with* the client. PFCC is an approach to health care that shapes policies, programs, facility design and day-to-day interactions. Evidence shows it leads to better health outcomes, wiser allocation of resources and greater client and family satisfaction. PFCC practitioners recognize the vital role that families play in ensuring the health and well-being of clients of all ages. They acknowledge that emotional, social, and developmental supports are integral components of health care. They promote the health and well-being of individuals and families and restore dignity and control to them.

Central Health's PFCC Action Plan was developed for 2015-17 by the PFCC Steering Committee with 17 actions identified for completion by the end of the 2017 fiscal year. Accreditation Canada standards and Required Organizational Practices (ROP's) regarding PFCC are embedded throughout the leadership, governance and service standards. There are currently approximately 2860 standards with 25% of those utilizing PFCC terminology such as input, partnership, consultation, sharing information, obtaining feedback with patients and families. Out of 156 ROP tests for compliance, there are 25 that include the patient and family in the care process.

The plan for the Person- and Family-Centered Care Steering Committee is to work with patients, residents, clients, committees, managers, physicians and front-line staff to spread the PFCC philosophy throughout Central Health. Becoming a PFCC organization will require a fundamental change in the organizational culture and will ensure that there is more choice for clients, more personalized care and real empowerment and involvement of people to improve their health.

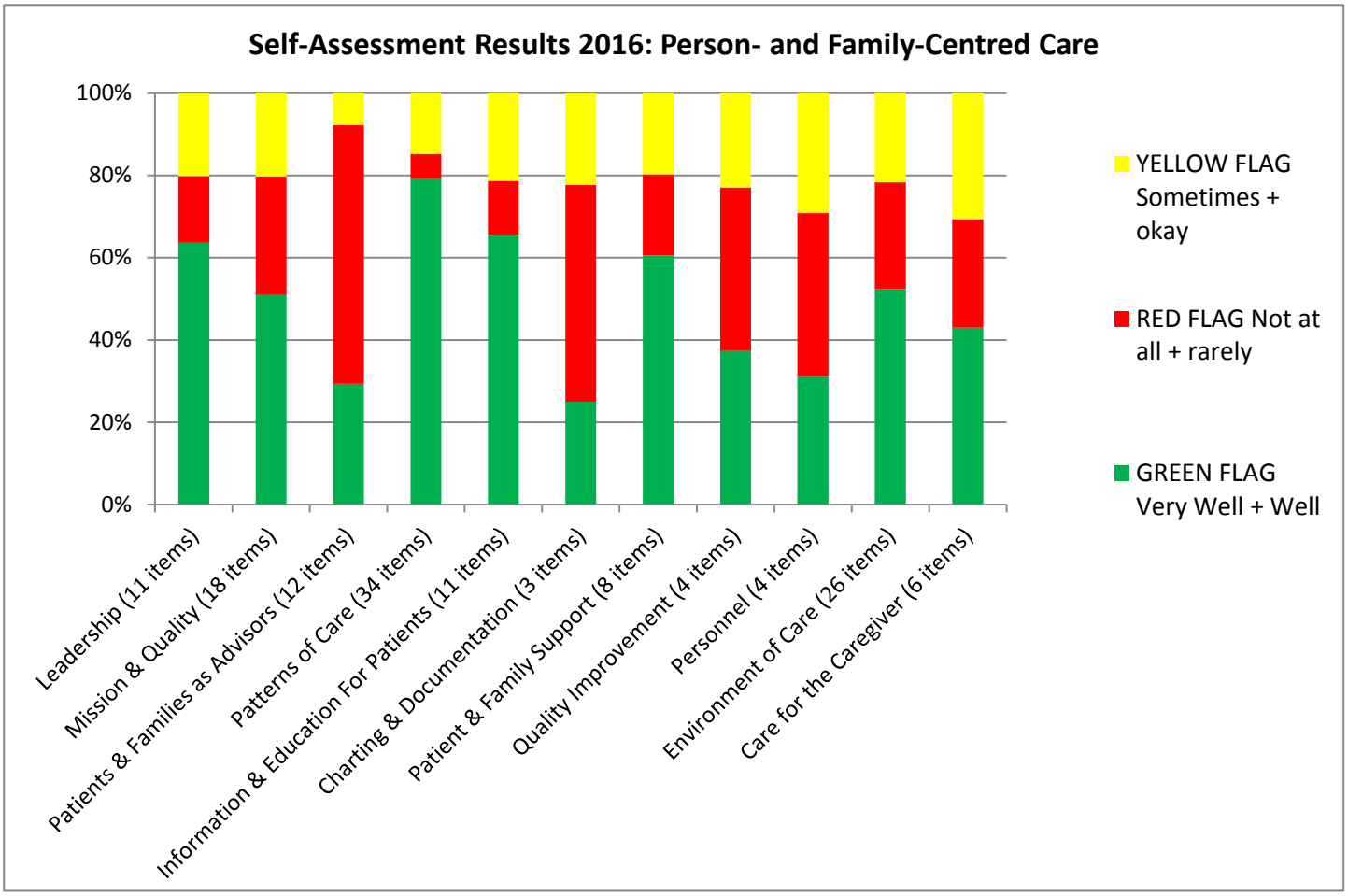
The vision of the PFCC Steering Committee is to create the ideal client and family experience at Central Health. Central Health has adopted the four core concepts as outlined by Accreditation Canada that were identified by the Institute for Person- and Family-Centered Care:

1. **Dignity and Respect -** Listening to and honoring client and family perspectives and choices. Client and family knowledge, values, beliefs, and cultural backgrounds are incorporated into the planning and delivery of care.
2. **Information Sharing -** Communicating and sharing complete and unbiased information with clients and families in ways that are affirming and useful. Clients and families receive timely, complete, and accurate information in order to effectively participate in care and decision-making.
3. **Participation -** Encouraging and supporting clients and families to participate in care and decision making to the extent that they wish.

4. **Collaboration -** Collaborating with clients and families in policy and program development, implementation and evaluation, facility design, professional education, and delivery of care.

As a part of the PFCC work, an assessment to determine the current state was completed in 2016. A wide array of individuals including physicians, staff, members of the public and clients participated in the self-assessment process that was facilitated in each health service area throughout the region. This assessment will inform and help guide the planning work of the committee. Self-assessment results revealed there was a higher proportion of yellow flags (medium level of compliance) and red flags (low level of compliance) in the following areas:

- Patients and families as advisors
- Charting and documentation
- Personnel



Beryl Institute Membership

In July 2015, Central Health purchased an institutional membership to The Beryl Institute, which is a global community of practice and premier thought leaders on improving the client experience in health care. All physicians and staff are eligible to access this membership, which allows for direct connection to the largest community of health care leaders committed to improving the patient experience. To date, there are *2.5% (82) of* Central Health employees with an active membership. Some benefits of this membership include access to a library of white papers and research reports, webinars, and registration for patient experiences events and certification programs. This best practice information is helping to guide the PFCC work at Central Health.

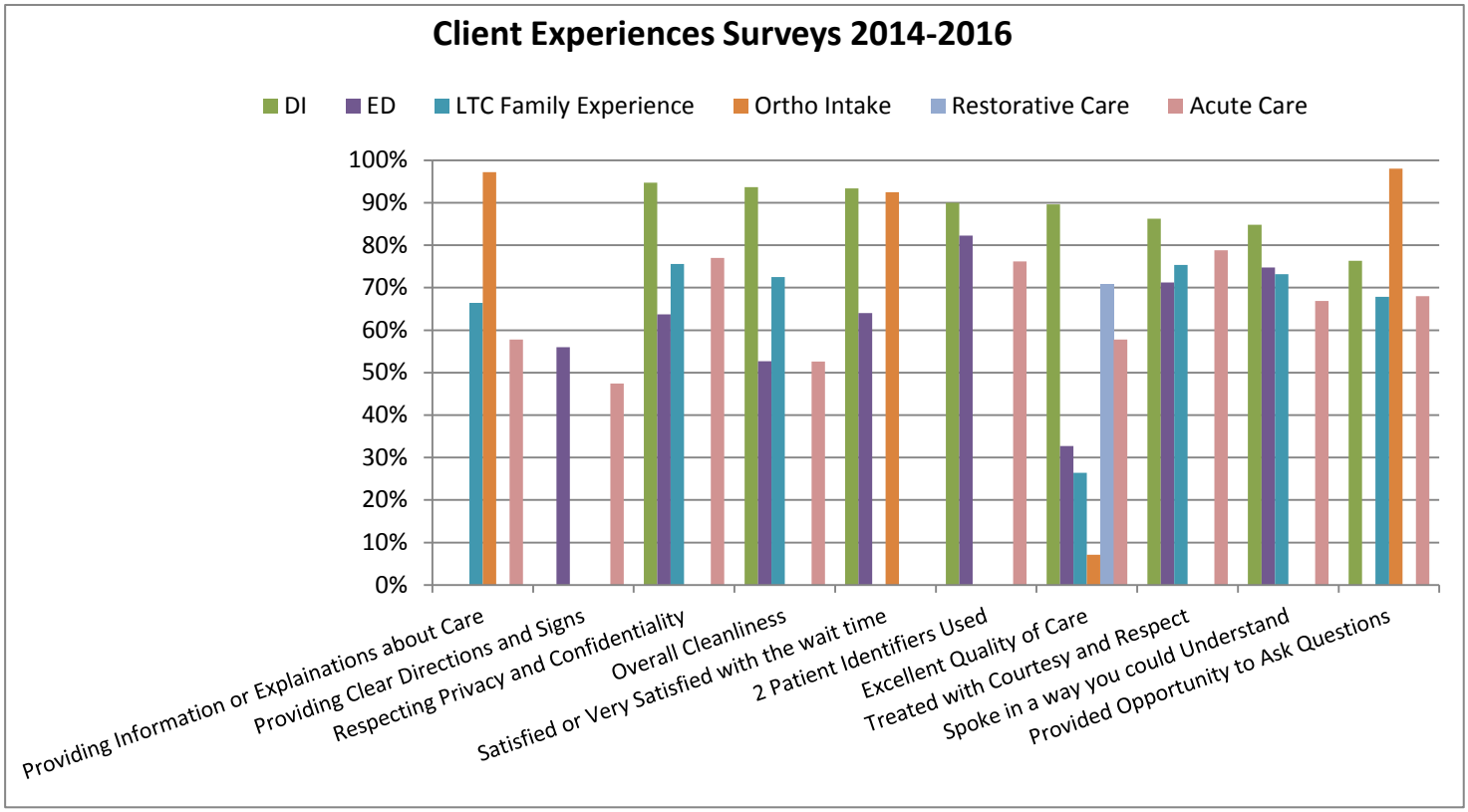
Client Experiences

Patient experience has become an increasingly important area in the assessment of health care systems. It provides an opportunity to establish benchmarks and monitor performance to improve care, enhance strategic decision-making, pay

attention to patient's expectations, and make health care more transparent and accountable to the local population. Research has found positive associations between reported patient experience, patient safety and clinical effectiveness for a wide-range of disease areas, settings, outcome measures and study designs. These findings support the case for the inclusion of patient experience as one of the central dimensions of quality management in health care.

Patient satisfaction is the gap between patient experiences and expectations. Patient experiences measures what happens during the course of receiving health care, including objective facts, subjective views, and the extent to which patient needs were met. Asking about patient experiences can be more helpful in pinpointing areas for improvement *(Sullivan, M. and Bornstein, S. The Effectiveness of Digital Surveys for Collecting Patient Feedback in Newfoundland and Labrador Rapid Evidence Report July 2016 Newfoundland and Labrador Centre for Applied Health Research, Memorial University).*

Client experience surveys are used in a number of program areas throughout Central Health and are collected from patients either through the Central Health website, electronic survey software or by paper in select client service areas. A number of surveys are under development to obtain feedback on client experience. The feedback from these surveys is provided to program leadership to help inform improvement efforts throughout the organization.



Long Term Care Family Experience Survey

LTC facilities at Central Health continuously strive to improve services and provide the best care possible to positively impact the lives of residents and their families. Family input is invaluable in helping understand how residents and their family members view their care experience. There was both staff and family engagement in relation to the development of the questions on the long-term care family experience survey.

In September 2015, the LTC Family Experience Survey was launched. One survey was sent via Canada Post to the substitute decision maker/Next of Kin of every resident in LTC at Central Health. The results were:

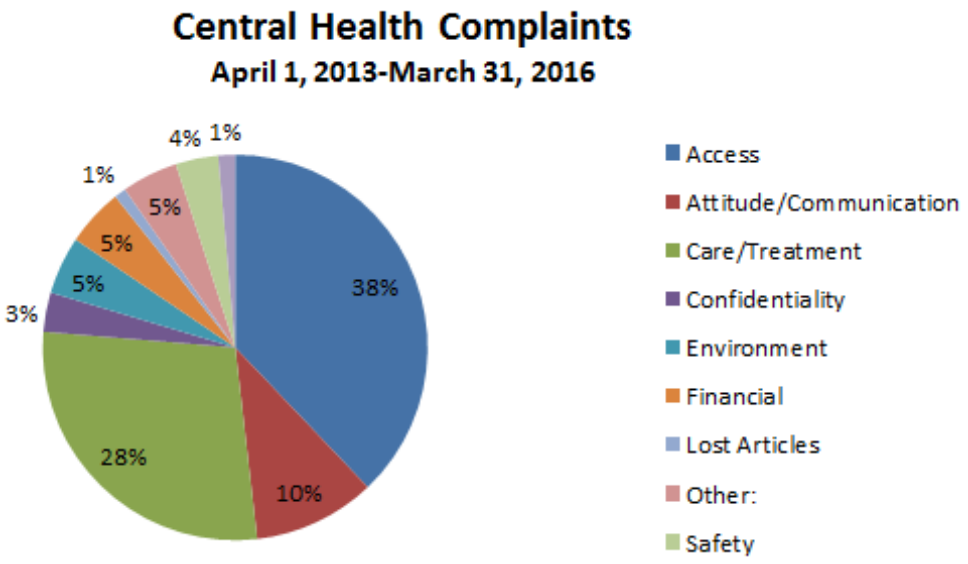
- 518 surveys were sent out with a response rate of 51%
- 90% of respondents said they would recommend the LTC home to their family member currently living in LTC and to others.
- 87% of respondents said the LTC that their family member currently lived in was their first choice.

Action planning is underway for all LTC homes; the action plan will include leadership, staff, resident and family engagement to focus on 3 top priority areas:

1. Increase emotional support provided to resident or family member
2. Increase spiritual support provided to resident or family member
3. Development and implementation of a standardized orientation process/package for new residents and family members

Client Relations

Central Health has a well-established Client Relations Management Program that collects information about client experience to support improved patient and family-centered care. The Client Relations Coordinator (CRC) oversees the follow-up and investigation process of client inquiries through the electronic Compliments/Complaints Reporting System.



It is important to Central Health that expressions of satisfaction and dissatisfaction be dealt with in a timely and effective manner. The receipt of a complaint is not viewed as a criticism but rather as an opportunity for improvement. Research shows that if complaints are addressed in a timely fashion, they can often be resolved and losses mitigated. Client Relations is responsible for and/or assists with the investigation of complaints which have organization-wide implications or require complex resolutions. This office also ensures that avenues for client feedback are accessible and that complaints are addressed in a timely, appropriate, and respectful manner. On a broader scale, Client Relations works with key stakeholders to facilitate resolutions which will result in a decrease in recurrence. A database of complaints, compliments, and outcomes is maintained to determine trends and allow analysis to assist with quality improvement initiatives. Data shows that complaints have been increasing since 2013-14 and the highest proportion of complaints pertains to access followed by care and treatment concerns.

PALLIATIVE/END OF LIFE CARE

Central Health continues to pursue the vision of integrated palliative/end of life care (PEOLC) services in Central Health. With this vision of integration as the cornerstone, enhanced program developments and key improvements are being made in the area of systems delivery for community services, inpatient bed access and LTC services. Central Health leads in this province in the volume of home-based palliation offered by supporting the foundation of community nursing care with the development of a secondary specialist regional palliative/end of life care team. A multidisciplinary team supports the palliative client and their family in any sector of care and helps the client navigate through the system through the course of their palliation while at the same time, supporting primary care providers who are also journeying with the client and their families. In addition to the effective utilization of a specialist consult team, improvements are being made with inpatient room enhancements; standardized palliative care patient order practices; program delivery enhancements in long term care; best practice educational program delivery; and leading edge grief and bereavement supports in both our larger and rural centers. These are just a few of the accomplishments that have been achieved in recent years under the portfolio of integrated palliative/end of life care services in which specialist referrals have increased 30% each year since its inception in 2010.

Medical Assistance in Dying (MAiD)

In response to legislation Bill C-14, Central Health acknowledges the right of the individual to request Medical Assistance in Dying. The DHCS has requested that all RHAs work independently to operationalize and resource their internal structures to address these requests. In response to their direction, Central Health has brought together a working group made up of key stakeholders who are actively working to address MAiD and to ensure a patient-centered approach is considered a primary mandate. This group is working diligently to identify processes related to a patient-centered approach for MAiD, including continuing staff support and ongoing education, both general and discipline specific in nature. With ongoing developments at the federal and provincial levels on systems delivery, research, data collection and evaluation, Central Health remains committed to ensuring all clients have the right to request this service and receive it knowing that this will be delivered according to best-practices, in both a confidential and respectful manner, according to their wishes, within available resources.

PASTORAL/SPIRITUAL CARE

Central Health acknowledges the importance of providing holistic care in our region, which includes the provision of appropriate Pastoral/Spiritual Care services. Central Health partners with church leadership in the area, including local spiritual care providers, to help address the spiritual care concerns of our acute and long term care patients. With their support, patients and residents appreciate one-on-one pastoral visitation, regular worship activities, holiday celebrations, memorial events as well as other appropriate supports. With improvements being made in service delivery and policy/program development, local spiritual leaders are engaged in regular conversation with administration on how to improve spiritual care practices in Central Health. With an ongoing commitment to providing quality education, as available, Central Health remains committed to this partnership on both the regional and local levels and is thankful to providers for including spiritual care among their many care priorities.

ETHICS

In the 2013 Accreditation Canada Report, Accreditation Canada indicated Central Health met the criteria for the principle-based care and decision-making priority process of identifying and decision-making regarding ethical dilemmas and problems. There is an ethics committee structure with three areas of focus; research review, ethics consultation and promoting the use of core values as well as ethical principles in organizational decision-making. The organization has prioritized principle-based care and decision-making in both its clinical and non-clinical areas and has provided both support and direction to the ethics committee. There is a mandate to the ethics committee to promote awareness and use of core values and ethical principles in organizational decision-making by the board trustees, physicians, staff and volunteers There is a memorandum of understanding (MOU) and it has resulted in enhanced collaboration with provincial experts in ethics via the Provincial Health Ethics Network of Newfoundland and Labrador (PHENNL), established in 2012 as a result of collaboration in the province to provide ethics support to the four health authorities. There is access to ethical expertise for consultations, policy review, systemic crisis issues of pandemic and drug shortage and education and professional development.

In 2016, ethics consultation services reviewed 14 requests, which is average compared to prior years. The Research Review Committee approved 13 research studies on topics such as adult learning, breast cancer, hearing loss and nutrition.

Quality & Safety of Health Services

Safe health services are ones that avoid injuries to individuals from the care that is intended to help them. Equity refers to the capacity of the health system to deliver comprehensive, high-quality outputs (services) to individuals and populations in an equitable way, without the imposition of financial or other barriers to receiving care that is person-centered, safe, appropriate and effective, and efficiently delivered.

PREVENTABLE HOSPITAL HARM

CIHI and CPSI partnered to develop an indicator to measure type of harm in acute care Canadian hospitals. Central Health was one organization that was involved with piloting this project to aid the development of this indicator. National results reveal that most patients do experience safe care, however in 2014-15, 5.6% experienced unintended or preventable harm (1 in 18). These numbers are consistent with other international studies. The range of harm includes:

- 37% - health care and medications (such as pressure ulcers or getting the wrong medication)
- 37% - infections (such as surgical site infections)
- 23% - procedure-related (such as bleeding after surgery)
- 3% - patient accidents (such as falls)

Because this indicator is still in development, provincial and regional results are not yet available, however, will be helpful for monitoring and preventing patient harm in hospitals. Preliminary data that was reviewed during the pilot phase (while not comparable at present) will help inform improvement efforts.

A CULTURE OF QUALITY & SAFE HEALTH SERVICES

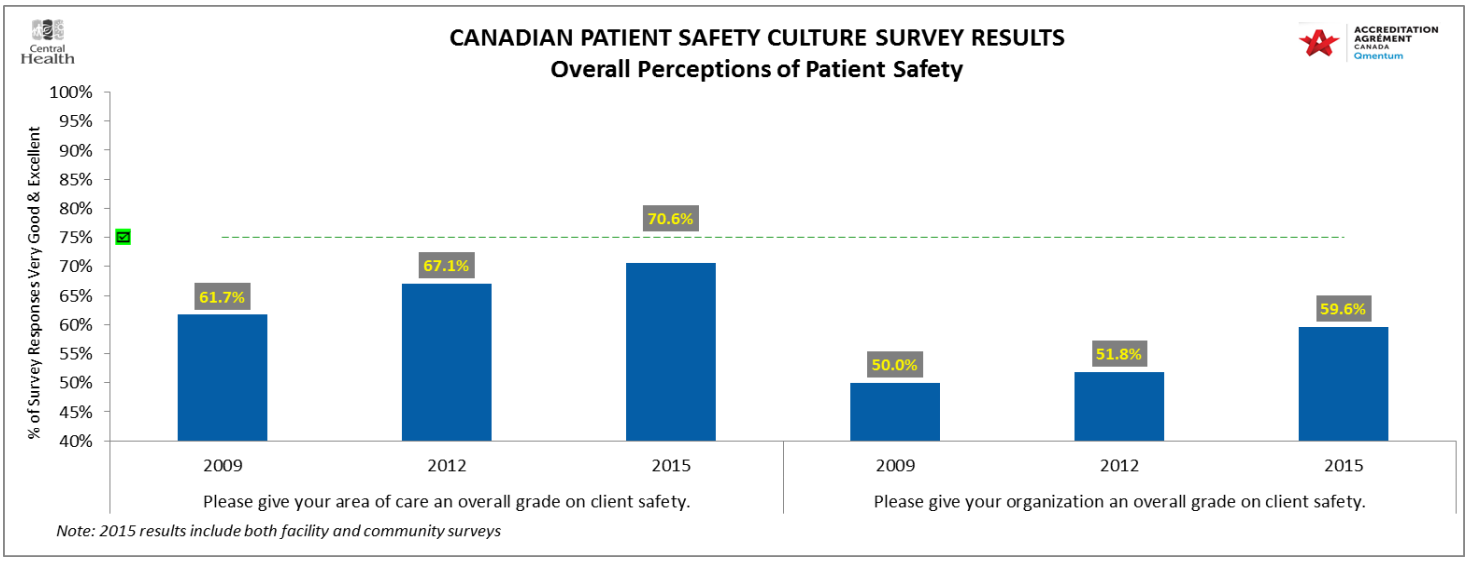
Quality Improvement is a systematic approach to assessing the quality dimensions of services and improving them on a priority basis. Systematic improvement in quality requires recognition of the systems and process of the service being provided. Quality Improvement efforts at Central Health have been ongoing. In the 2013 Accreditation Canada Report, Accreditation Canada indicated Central Health met the criteria for the integrated quality management priority process of using a proactive, systematic, and ongoing process to manage and integrate quality and achieve organizational goals and objectives.

"Central Health's attention to quality and safety as one of its three strategic priorities has resulted in a shift in the culture of the organization." – Accreditation Canada 2013

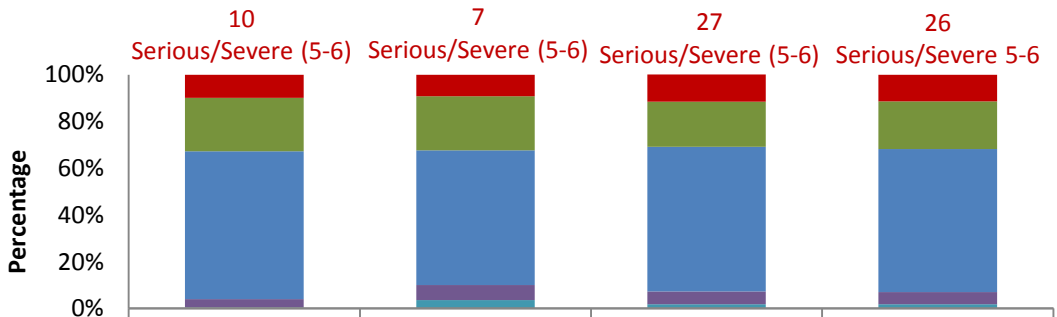
According to CPSI, culture refers to shared values (what is important) and beliefs (what is held to be true) that interact with a system's structures and control mechanisms to produce behavioural norms. It influences patient safety directly by determining accepted practices and indirectly by acting as a barrier or enabler to the adoption of behaviours that promote patient safety. Understanding the components and influencers of culture and assessing the safety culture is essential to developing strategies that create a culture committed to providing the safest possible care for patients. Patient safety culture is multi-dimensional consisting of a number of features:

- **Informed Culture** – relevant safety information is collected, analyzed and actively disseminated.

The 2015 Patient Safety Culture Survey revealed that perceptions of patient safety are increasing, however, there are opportunities for Central Health to meet the target set out by Accreditation Canada. One such opportunity could be with improved dissemination of safety information.



Since 2011, provincial and regional safety data has been captured through the Clinical Safety Reporting System. This system allows Central Health to track and trend adverse event and close call data to help inform improvement efforts and enhance the care we provide to patients. From April 1, 2012 to March 31, 2016, 5200-5500 occurrences were reported annually in CSRS with 10.5% of occurrences rated a severity indicating harm and 0.4% related to death. Data from CSRS is tracked and trended and shared with the Board Patient Safety Subcommittee on the quarterly Patient Safety Scorecard and uploaded to the Intranet. Other reports are compiled from CSRS data including a Falls Report, Medication Occurrence Report and several ad hoc reports for the purpose of informing improvement efforts.

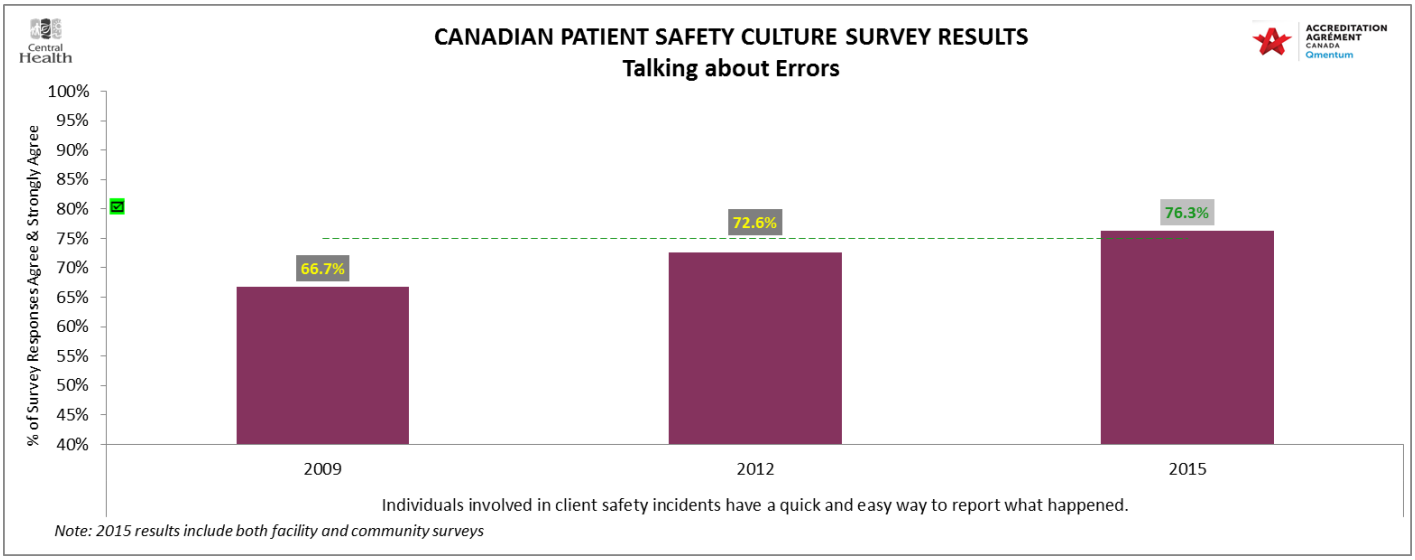


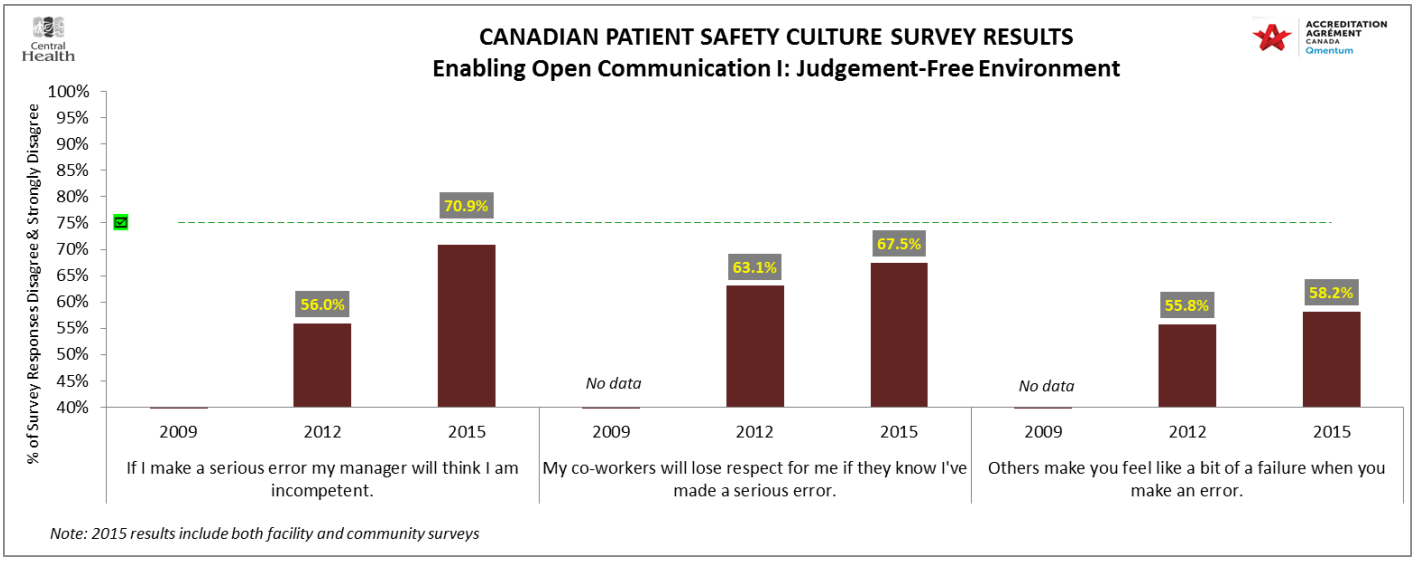
	2012-13	2013-14	2014-15	2015-16
With Harm (3-6)	9.9%	9.3%	11.6%	11.4%
Multi-Client/Unrated Occurrences	22.8%	23.0%	19.2%	20.4%
Without Harm (1-2)	63.2%	57.7%	61.9%	61.2%
Close Calls	3.6%	6.4%	5.5%	5.1%
Non-Client Related	0.4%	3.6%	1.8%	1.9%

Extracted from CSRS October 24, 2016

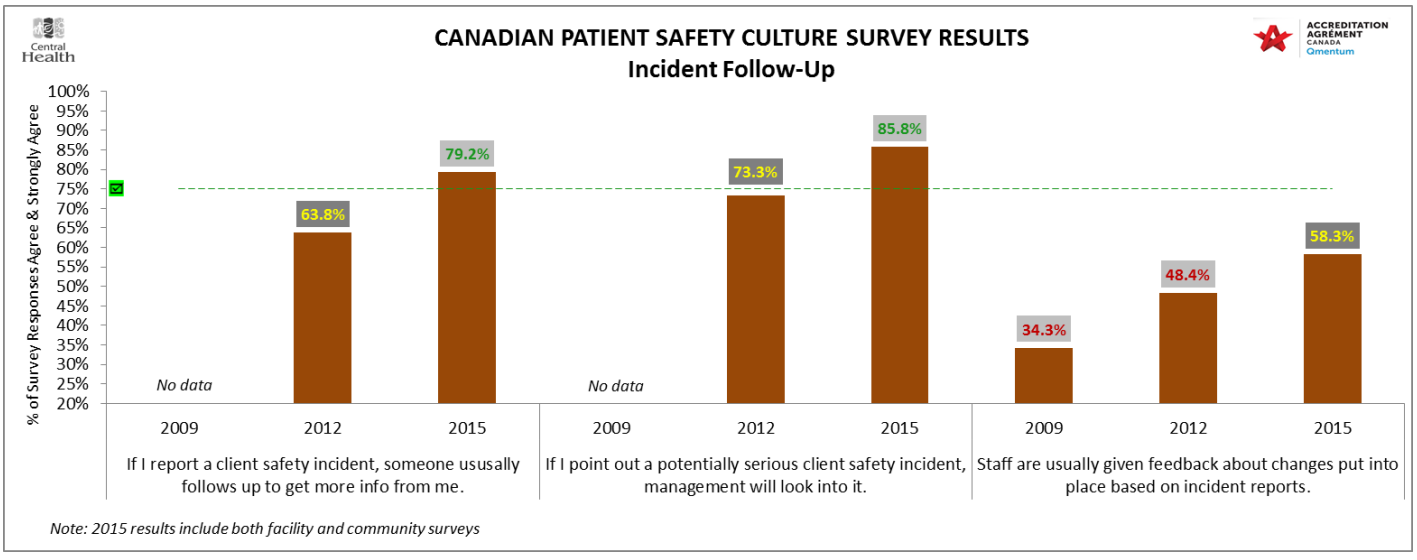
CIHI releases indicators to help inform quality improvement and patient safety. This data is compiled and shared with Board members, physicians, leaders and employees and uploaded to the Intranet with regional, provincial and national comparisons. Additional CIHI reports are shared when applicable.

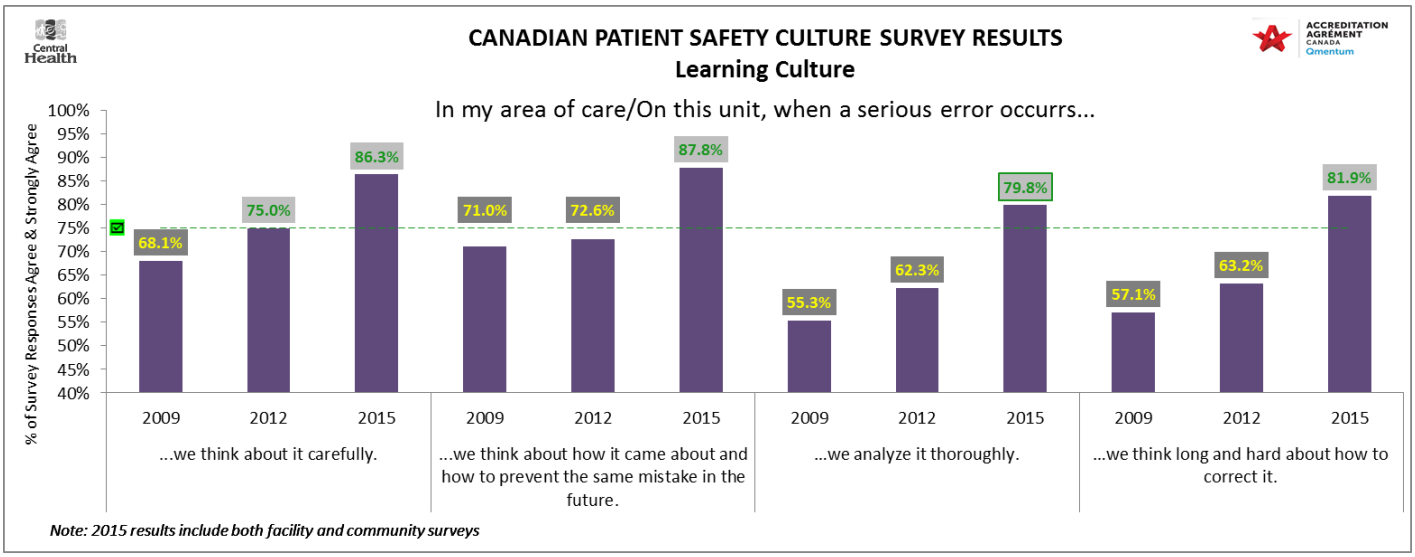
- **Reporting Culture** – an atmosphere where people have the confidence and feel safe to report safety concerns without fear of blame, and they trust that concerns will be acted upon.





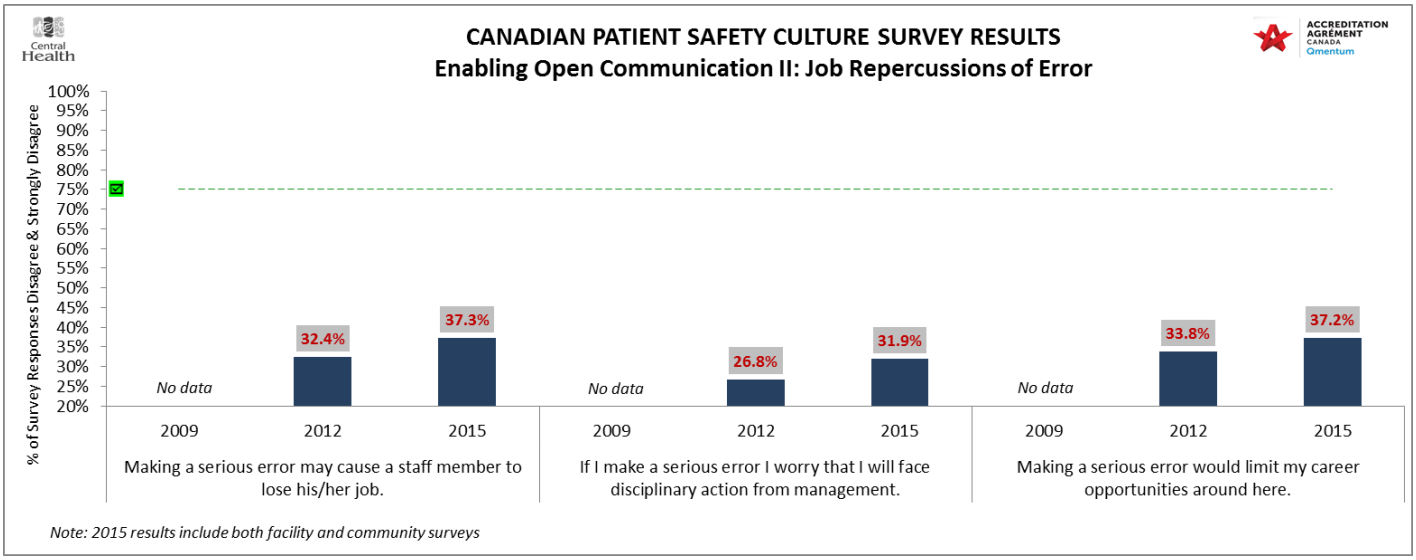
- **Learning Culture** – Preventable patient safety incidents are seen as opportunities for learning and changes are made as a result.





- **Just Culture** – the importance of fairly balancing and understanding system failure with professional accountability. Work is underway with respect to developing a fair and just culture, which is one of the key elements of a safety culture. Central Health has amended and adopted a fairness algorithm or incident decision tree. This tool is considered the backbone of a fair and just culture and through a series of questions helps determine individual and/or system accountability. A fair and just culture is founded on justice and process improvement. There is a balance between an open learning culture and the need to hold individuals accountable for their choices.

The 2015 Patient Safety Culture Survey revealed 3 organizational alerts, which all fall under the dimension of Job Repercussions of Error. These results are also comparable to national results.



- **Flexible Culture** – people are capable of adapting effectively to changing demands
  - Change Management – With the introduction of change management to Central Health a more flexible culture will be able to be established. Work is underway in this area.

MONITORING PATIENT SAFETY & QUALITY IMPROVEMENT

Monitoring for improvement begins with measurable data to evaluate and track performance. Central Health regularly monitors data to inform improvement efforts. Some of the indicators monitored are noted in the sections that follow.

Board Patient Safety Scorecard

The Board Patient Safety Subcommittee (BPSS) is provided with a scorecard on a quarterly basis that highlights data on quality and patient safety indicators including:

- CSRS Occurrences (with harm, Level 5 and 6, Lab, DI, Never Events)
- Health care-Associated Infections (surgical site infections, C. Diff, MRSA, VAP)
- Hand Hygiene
- Medication Safety
- Falls Prevention
- VTE Prevention
- Safe Surgery
- Patient Safety Leadership Walk Rounds
- AMI Care
- Sepsis Safety
- Obstetrical Safety
- Pressure Ulcers
- Hospital Mortality
- Influenza immunization

In 2017, the scorecard will become more focused and limited to priority areas identified by the BPSS.

Quality Case Reviews

Quality Case Reviews (QCR's) are generally conducted when an incident occurs that resulted in harm to a patient (e.g. a near death or death). A QCR is a structured process that aims to identify the what, how and why, the incident occurred and what can be done to reduce the risk of recurrence to make care safer and share the learning with others. QCRs are generally conducted when the incident meets the mandatory review criteria as set out in the Central Health Quality Review Guidelines, when the incident has a high severity rating, when there are significant system or service delivery issues or when it is felt that considerable organizational learning could occur. A QCR is a system focused process and is not an accountability or performance review of individuals.

QCRs involve forming a committee of individuals who are tasked with finding the facts, analyzing the incident using tools, such as root cause analysis, and then determining the contributing factors. At the end of the review, the team develops recommendations with the intent of improving the system to prevent recurrence. QCRs have the benefit of analyzing a situation in detail retrospectively, which may enable rich understanding of events to promote organizational learning and to promote continuous quality improvement. There have been 30 quality case reviews undertaken by Central Health since 2010. The majority of quality case reviews are related to obstetrical, emergency, critical care or surgical services.

The most commonly occurring root cause of adverse events at Central Health is failure in communication. This finding is consistent with other health care organizations. Communication will continue to be identified as a priority for the Quality and Patient Safety Plan for 2017. Failure to identify deteriorating patients has also been identified and a quality improvement team has been formed and is in the process of developing a patient safety initiative to address this issue.

Quality Improvement (QI) Teams

There are currently 23 established quality improvement (QI) teams in the organization supported with education, training and documents on a variety of quality-related topics including:

- Leading QI

- Developing a QI plan
- Guiding the implementation of QI initiatives
- Tracking and monitoring data for improvement

The Co-chairs of the teams and the Directors form the Quality Improvement Oversight Committee (QIOC) that meets on a quarterly basis. There are also many ad hoc process improvement teams that are formed to address an issue where improvement is required. The QIOC reports to the Board Performance Improvement Committee.

Physician engagement is recognized as a key element necessary to the success of quality improvement, and efforts have been made to support physician participation in quality improvement. Clearly stating role expectations for physicians, as well as the implementation of a single set of Medical Bylaws have all contributed to increased physician engagement.

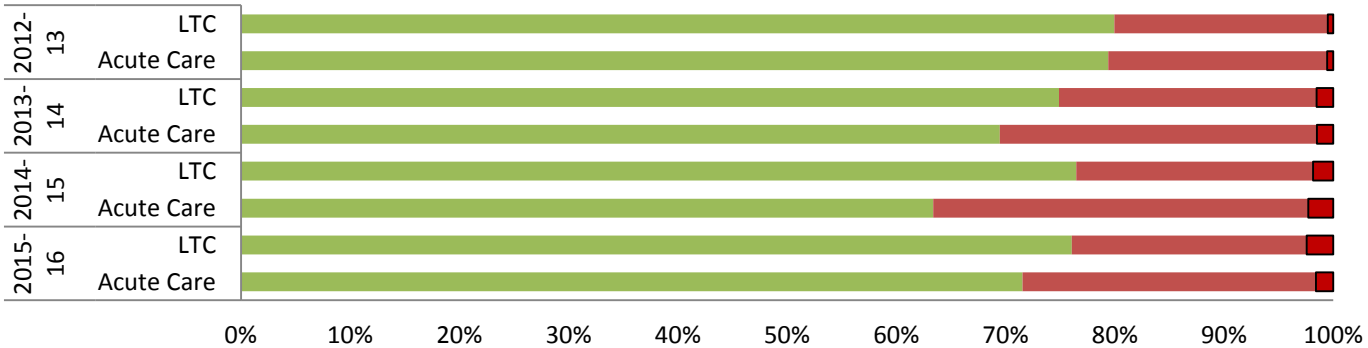
Below is a list of current QI Teams at Central Health and the frequency of planned meetings for 2015-16:

Central Health QI Teams	
1. Ambulatory Care - Monthly	2. Case Management - Monthly
3. Critical Care - Monthly	4. Diagnostic Imaging – Once every 2 Months
5. Emergency Medical Services - Monthly	6. Falls Prevention - Monthly
7. Emergency Services - Monthly	8. Nutrition & Food Services - Quarterly
9. Governance	10. Health Information Management - Quarterly
11. Housekeeping/Laundry - Quarterly	12. Infection Prevention & Control - Monthly
13. Laboratory Services – Ad hoc	14. Long-Term Care - Monthly
15. Medication Management - Monthly	16. Medical Care - Monthly
17. Mental Health & Addictions - Monthly	18. Obstetrical Services - Monthly
19. Public Health Services - Monthly	20. Population Health & Wellness – Monthly
21. Telehealth - Monthly	22. Surgical Care – Monthly
23. Skin & Wound Care - Monthly	

- **Falls Quality Improvement**

Falls is the most reported occurrence in the organization. Over the last four years (April 1, 2012-March 31, 2016), 34% of all CSRS occurrences are related to a patient falling (approximately 7,300 falls). Of those falls, 25.2% resulted in harm (1.6% fractures, 23.6% other injuries). 68% of falls occur in LTC. For 2014-16, the rate of falls for acute care was 7.2 per 1,000 patient days resulting in 31.5% of injuries and 2.1% of fractures. For LTC, the rate of falls was 6.8 per 1,000 patient days resulting in 23.7% of injuries and 2.4% of fractures. Reported fall and fracture rates have continued to increase over the last four years.

Proportion of Falls, Injuries and Fractures by Care Type per Year



	2015-16		2014-15		2013-14		2012-13	
	Acute Care	LTC	Acute Care	LTC	Acute Care	LTC	Acute Care	LTC
Falls without Injury	71.6%	76.1%	63.4%	76.5%	69.5%	74.9%	79.4%	80.0%
Falls with Injuries	26.9%	21.5%	34.3%	21.7%	29.0%	23.6%	20.0%	19.5%
Falls with fractures	1.6%	2.4%	2.3%	1.9%	1.5%	1.5%	0.6%	0.5%

On average, long-term care fall occurrences are twice the volume of acute care occurrences, however, there is a higher proportion of injourous falls observed in the acute care setting.

Falls in the Last 30 Days in Long-Term Care

Falls are the leading cause of injury for seniors and contribute to a significant burden on the health care system. Residents are at a higher risk of falling if they have a history of falls or are taking certain medications. This CIHI indicator compiled from the Community Care Reporting System (CCRS) shows how many long-term care residents fell in the 30 days leading up to the date of their quarterly clinical assessment. In 2015-16, the percentage of falls in 30-days was 11.0%, which was higher than the previous year but lower than the province (11.2%) and the country (15.7%). This rate is higher for Dr. Hugh Twomey (15.6%), Notre Dame Bay (14.1%), North Haven Manor (13.0%) and Carmelite (11.2%).

Falls Prevention

In Canada, the Canadian Patient Safety Institute and Accreditation Canada has identified falls prevention as a safety priority. Falls have a negative impact on quality of life, as they are the leading cause of injury for seniors across Canada, accounting for over 85% of all injury-related hospitalizations (Scott et al., 2011). Also, falls are a financial burden to the health care system. According to Parachute Canada, the total economic burden of falls is estimated at $6 billion annually.

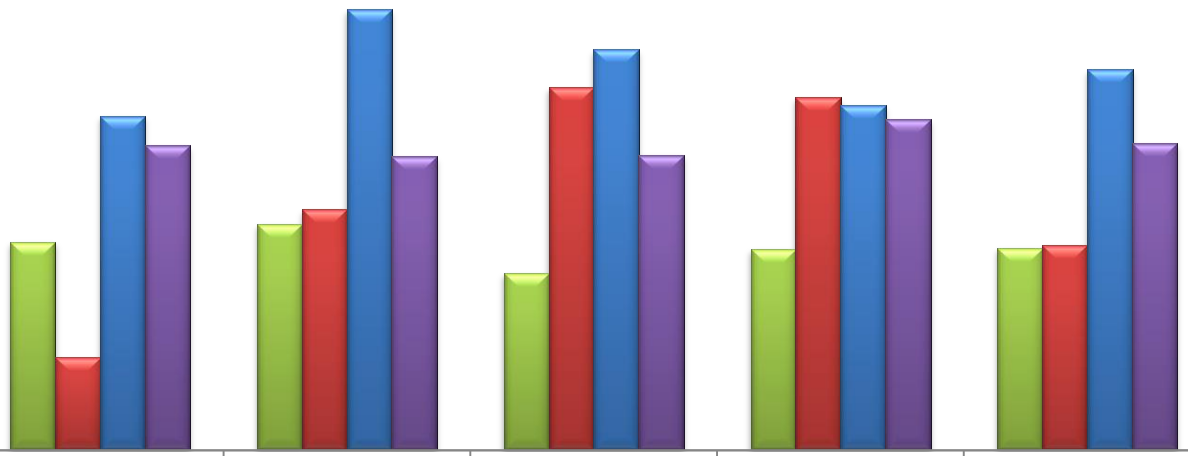
The goal of the Falls Prevention Program at Central Health is to reduce and minimize injury from falls. The Falls Prevention Program at Central Health was implemented in Acute and Long Term Care in 2011, with expansion to the community sector in April 2013. This implementation effort was led by the Falls Prevention Steering Committee. Once implemented, efforts shifted to evaluating the program and implementing improvement initiatives. In 2015, after evaluating the current state of the Falls Prevention Program at Central Health, the decision was made to realign the Fall Prevention Steering Committee within the quality improvement structure. As a result, the Falls Prevention Quality Improvement Team was formed in January 2015, with membership representing key stakeholders. The priority of the team for the next year will be focusing on universal falls precautions, standardizing education for clients and staff, and implementing post fall huddles/assessments. Falls continues to be a priority area for the Board Patient Safety Subcommittee (BPSS) and will require continued focus in 2017.

Medication Management Quality Improvement

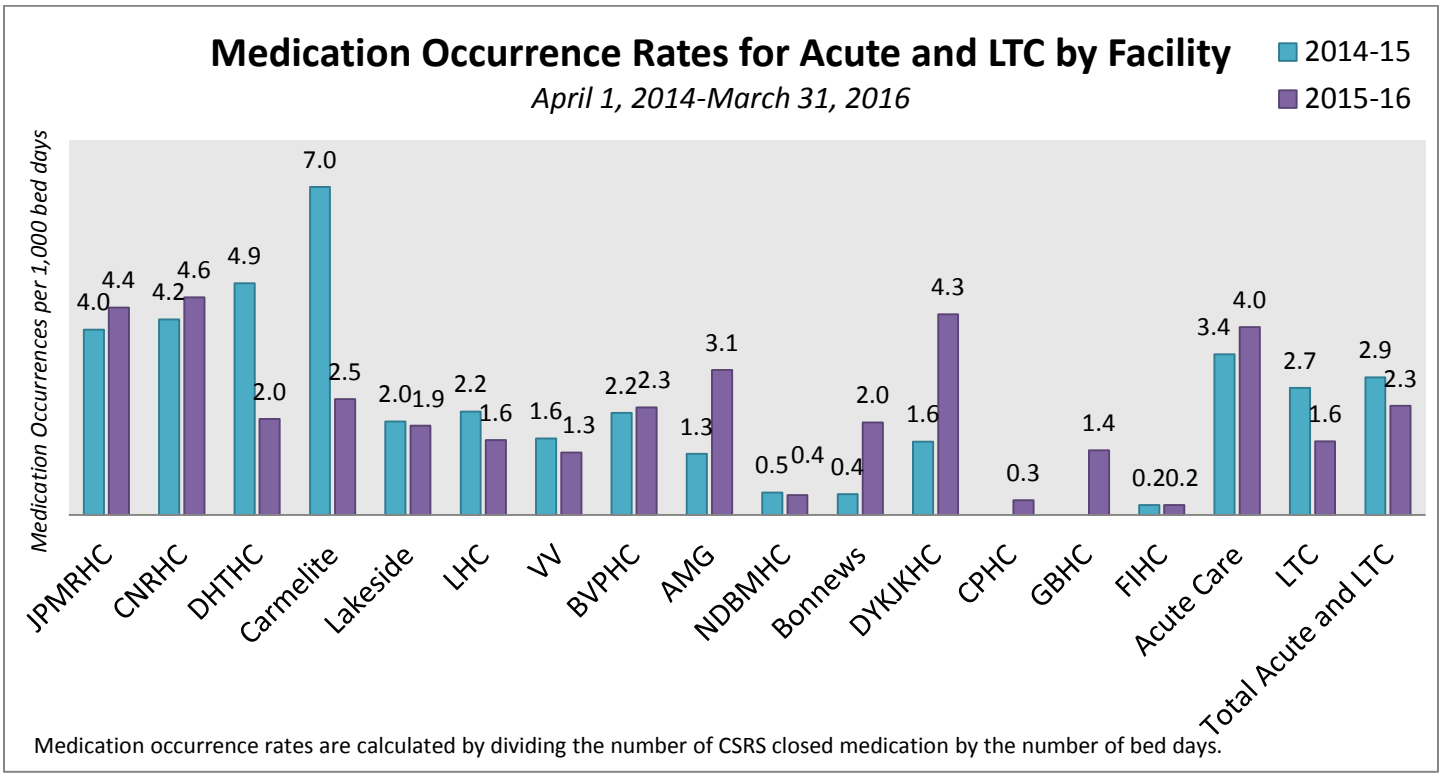
Medication Occurrences

The percentage of medication occurrences reported in CSRS has increased, primarily for transcription errors in acute care and missed doses in long term-care. Currently, 16.2% of occurrences reported are medication occurrences. 2.3 medication errors occur every 1,000 patient days in acute and long-term care.

Percentage of Medication Occurrences



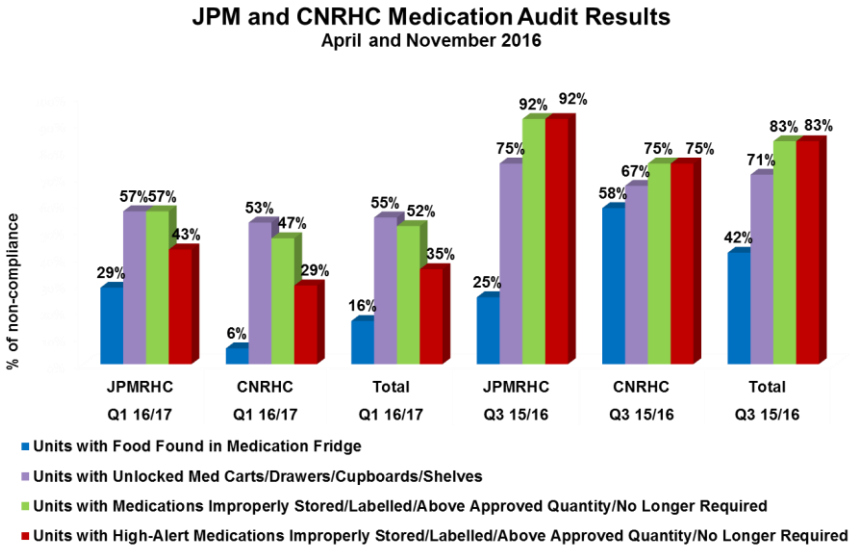
	Q1	Q2	Q3	Q4	Yearly
2012-13	10.4%	11.3%	8.9%	10.1%	10.1%
2013-14	4.7%	12.1%	18.2%	17.7%	10.3%
2014-15	16.8%	22.1%	20.1%	17.3%	19.1%
2015-16	15.3%	14.7%	14.8%	16.6%	15.4%



Medication occurrence rates are calculated by dividing the number of CSRS closed medication by the number of bed days.

Medication Management

A Medication Management Quality Improvement Committee was formed in June 2015. Given medication safety is a priority for Central Health, the Committee is co-chaired by the Director of Pharmacy and a Risk and Patient Safety Manager. The purpose of the committee is to promote a collaborative approach to prevent and reduce patient safety incidents involving medications by addressing all aspects of the medication management process to protect patient safety. The work of this committee is guided by the Required Organizational Practices (ROPs) set out by Accreditation Canada, as well as, the medication incidents reported in the organization's Clinical Safety Reporting System. The committee sets the direction and plan in order to successfully meet the ROPs as well as reduce medication incidents in the organization. This committee engages key stakeholders in striving toward new innovations and technology in order to advance our ability to manage medications safely.



There are 13 ROPs relating to medication management. To date, the team has passed several new medication policies and procedures in order to promote safe medication practices. The team regularly works to educate staff regarding the ROPs, new policies and procedures and safe medication practices through the use of face to face sessions, webinars, and newsletters. The team is regularly auditing client service areas for high alert medications, concentrated electrolytes, heparin products and narcotics. The team has successfully spread a safety initiative to reduce missed doses in LTC across all eleven facilities. A plan to reduce transcription errors in acute care is currently in progress.

Medication Reconciliation (Med Rec)

Medication reconciliation is a safety initiative to reduce the incidence of adverse drug events. It is a systematic and comprehensive review of all of the medications that a client is taking to ensure that medications being added, changed, or discontinued are carefully assessed and documented. Communicating effectively about medications which is enhanced with Med Rec is a critical component of delivering safe, quality care.

Med Rec is a Required Organizational Practice (ROP) by Accreditation Canada which Central Health must meet by the on-site survey in 2018. It is a key priority for our organization and its progression is monitored by the Board Patient Safety Subcommittee. The Med Rec Steering Committee has been working toward a sustainable solution to achieve complete implementation of this patient safety initiative in all applicable areas on admission, transfer, and discharge. Med Rec has been implemented fully on admission transfer, and discharge within the LTC and Mental Health program areas. Various acute care settings have admission, transfer and discharge implemented, as well as the preadmission clinics at CNRHC and JPMRHC. Training on Best Possible Medication History (BPMH) is underway throughout Central Health.

While working with other RHAs in the province over the last 2 years, Central Health has procured an electronic Med Rec solution that will contribute to an efficient process allowing medication information to be immediately accessible to all appropriate caregivers. A Med Rec Project Team has been recently formed that will guide and oversee the implementation of Med Rec across applicable areas of Central Health to ensure safe, quality care for the patients of this region. Implementation of Med Rec will require leveraging significant resources in the organization in 2017 and 2018.

POTENTIALLY INAPPROPRIATE MEDICATION PRESCRIBED TO SENIORS

Seniors are at a greater risk for adverse drug reactions as well as other types of drug-related adverse events due to the number of drugs they take, the higher prevalence of certain chronic conditions and age-related changes in the body. The Beers list is an internationally recognized list of drugs identified as potentially inappropriate to prescribe to seniors because they are shown to be ineffective, they pose an unnecessary high risk for older persons or a safer alternative is available. This CIHI indicator is interpreted as the rate of seniors (65+ years) who take a medication identified as potentially inappropriate to prescribe to seniors because they are ineffective. The rate for 2014-15 for Central Health was 71.0%, which has increased steadily since 2009 and is highest among the RHAs, the province (69.9%) and the country (49.7%). This is an area that requires exploration.

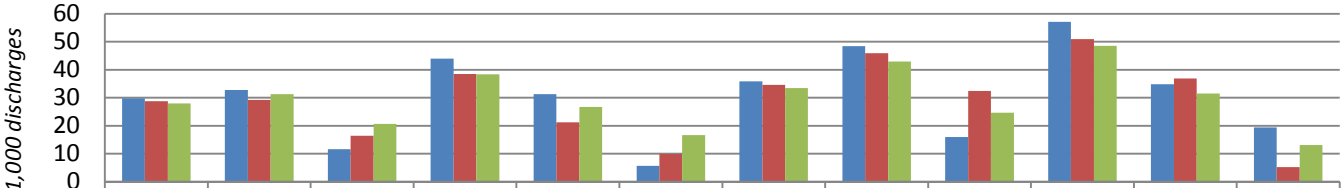
WORSENED PRESSURE ULCER IN LONG-TERM CARE

Pressure ulcers can happen when a resident sits or lies in the same position for a long period of time. Immobility may be due to many physical and psychological factors, neurological diseases like Alzheimer's and improper nutrition or hydration. Careful monitoring is required to ensure good quality of care. This CIHI indicator from the Continuing Care Reporting System (CCRS) examines the percentage of residents whose stage 2-4 pressure ulcer had worsened since the previous assessment. In 2014-15 Central Health's rate was 1.5%. In 2015-16 this rate has decreased to 0.9%, which was lower than the province (1.7%) and the country (2.9%). Rates were highest at Baie Verte (3.6%), Dr. High Twomey (2.1%) and Dr. Y.K Jeon (1.8%). There are focused efforts at Central Health to prevent pressure ulcers in acute and LTC. There is a Skin and Wound Care Quality Improvement Team in place to focus on the Required Organizational Practice (ROP) related to pressure ulcers and wound care.

NURSING-SENSITIVE ADVERSE EVENTS

Based on the definition used by the WHO, adverse events refer to incidents caused by medical management instead of complications of disease. Some studies have found that adverse events increase the costs of patient care and have suggested that nurse staffing, in particular, is associated with adverse events such as pneumonia, urinary tract infections, pressure ulcers and in-hospital falls. While nurses are not solely responsible for adverse events that occur in hospital, there is research to support that there is a strong relationship between nurse staffing and patient outcomes. This CIHI indicator can help hospitals identify potential issues in nursing care. Further investigation and analysis based on the indicator results may possibly lead to quality improvement in nursing care. Nursing-Senitive Adverse Events (NSAE) for medical and surgical patients measures the rate of nursing-sensitive adverse events, which includes urinary tract infections (UTI), pressure ulcers, in-hospital fractures and pneumonia per 1,000 medical and surgical discharges age 55

years and older. Central Health's rate is fairly low compared to the country, province and health authorities, however has been increasing over the last 3 years. This indicator needs further review by nursing leadership.



	Nursing-Sensitive Adverse Events for Medical Patients						Nursing-Sensitive Adverse Events for Surgical Patients					
	CA	NL	CH	EH	WH	LGH	CA	NL	CH	EH	WH	LGH
2012-13	29.8	32.8	11.7	44.0	31.3	5.7	35.9	48.4	16.0	57.1	34.9	19.4
2013-14	28.8	29.2	16.4	38.5	21.2	9.9	34.6	45.9	32.4	50.9	36.9	5.3
2014-15	28.0	31.3	20.7	38.4	26.7	16.7	33.5	43.0	24.7	48.6	31.5	13.1

INFECTION PREVENTION & CONTROL

The goal of the Infection Prevention and Control (IPAC) Program is to prevent and control transmission of infections and infectious diseases throughout Central Health thus providing a safe environment for patients, residents, clients, staff and visitors. This is achieved in accordance with the Required Organizational Practices (ROP's) determined by Accreditation Canada.

Hand Hygiene Education and Compliance

- Hand Hygiene is the single most important thing staff can do to prevent the spread of infection.
- All staff are required to complete an online Hand Hygiene E-learning Module annually.
- Beginning in January 2017, Central Health will be conducting hand hygiene audits on all inpatient units at both referral sites. These rates will be publically reported by the province and region quarterly. This initiative will roll out to community and long term care by the end of 2017.
- Hand Hygiene auditors are staff volunteers and training is an ongoing process.

Infection Rate Surveillance

- Central Health is an active participant in the provincial surveillance of Methicillin Resistant Staphylococcus Aureus (MRSA) and Clostridium Difficile (C-Diff). Rates of colonization and infection are monitored and reported quarterly by means of a provincial database. There has been a steady decline in these rates over the past few years.
- IPAC actively participates in monitoring infection rates in targeted procedures including Surgical Site Infections, Ventilator Associated Pneumonia, Central Line Infections (Dialysis) and Urinary Tract Infections in LTC. These targeted procedures are part of "bundle care" initiatives designed to implement a change in practice to improve outcomes.
- IPAC is currently in the data collection phase of a new initiative to review Catheter Associated Urinary Tract Infections in acute care. Review of data over a 6 month period will determine what bundle elements will be implemented to improve infection rates and change in practice.
- IPAC participates in active Influenza Like Illness (ILI) surveillance in all health care facilities.

Reprocessing

- The processes for cleaning, disinfecting and sterilization are collectively known as reprocessing. Monitoring reprocessing helps to identify areas of improvement and reduce health care associated infections.
- IPAC and Medical Device Reprocessing (MDR) have recently developed a Working Group to identify areas/issues of concern and address appropriately. This group will also be responsible for implementation of new or updated standards and guidelines for reprocessing practices.

Vaccination of High Risk Groups

- IPAC follows policy and current national recommendations to vaccinate high risk populations for vaccine preventable illnesses (Influenza, Pneumonia). These include staff, patients, residents and clients.

Outbreak Management

- IPAC engages Infection Control Nurse Liaisons at each rural facility. These liaisons are responsible for the daily assessment of residents, patients and staff for signs and symptoms of communicable illness (Example: Influenza).
- Interventions such as vaccination and Personal Protective Equipment (PPE) are used in the prevention of respiratory viral illness.
- In the event an outbreak does occur within a facility, IPAC best practice interventions and protocols are implemented to ensure quick resolution and minimal negative outcomes.

IN-HOSPITAL SEPSIS

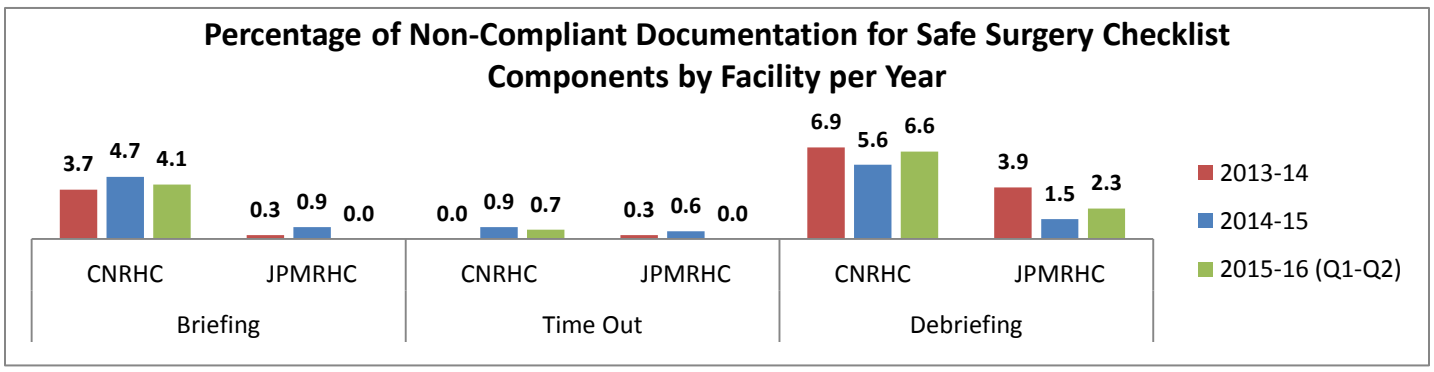
In Canada, 4 patients per 1,000 developed in-hospital sepsis in 2014-15. Sepsis is a clinical syndrome that occurs as a complication of infections. It is defined as a systemic inflammatory response due to infection. It is a leading cause of mortality and is linked to increased hospital resource utilization and prolonged stays in intensive care units. Appropriate preventative and therapeutic measures during a hospital stay can reduce the rate of infections and/or progression of infection to sepsis. This indicator measures the risk-adjusted rate of sepsis that is identified after admission and addresses the extent to which acute care hospitals are effective in preventing the development of sepsis. Central Health reported a rate of 1.4 per 1,000, which was lower than the provincial and national rates. This is a decrease from the 2013-14 rate of 3.8. The rate for CNRHC was 1.7 and the rate for JPMRHC was 1.0. There has been a focus on sepsis education over the past few years at Central Health and a quality improvement initiative is underway to improve identification of sepsis.

SURGICAL SAFETY

In 2008, the WHO developed a surgery checklist aimed at improving patient safety in the operating room by reducing complications associated with surgical procedures. The Safe Surgery Checklist (SSCL) was designed to assist surgical teams to reduce the number of preventable surgical complications, improve efficiency and further improve surgical outcomes. Use of an approved surgical checklist is a requirement for Accreditation. The checklist is a Required Organizational Practice (ROP) with 5 tests for compliance. There is an agreed upon three-phase safe surgery checklist that is used for every surgical procedure performed in the operating rooms at Central Health with a process in place to monitor compliance with the checklist. *BRIEFING* entails communicating key aspects of the surgical procedure before induction of anesthesia; *TIME OUT* occurs immediately prior to skin incision, a time-out is called to review details of the surgical procedure; *DEBRIEFING* communications occur after the operation is complete, details of the operation are shared with the surgical team before the surgeon and patient leave the OR.

The Safe Surgery Checklist initiative was launched in the operating rooms of CNRHC and JPMRHC in October of 2012. Central Health's SSCL is a patient safety tool used to facilitate effective communication between the surgical team members before, during, and after surgical procedures.

To measure compliance of the SSCL, quarterly audits were conducted with a random sample of charts of surgical patients to document that the three phases of the checklist on the OR form were completed. This audit has now been discontinued in favor of observation audits during surgeries. Now that ORM is available, quicker and more frequent documentation audits are now possible. The Surgical Management Team are accountable for ongoing audits and ensuring ROP compliance.



OBSTETRICAL SAFETY

Obstetrical Services Data

Data from the Provincial Perinatal Registration in 2013 indicated:

- 46.9% of births at CNRHC and 96.2% births at JPMRHC were attended by obstetricians
- 1.9% of births were vacuum-assisted while 4.2% of births reported use of forceps at CNRHC. The rates of vacuum-assisted and forcep deliveries at JPMRHC were 6.5% and 3.4%, respectively
- 41.7% of women who gave birth at CNRHC were induced while 33.3% were induced at JPMRHC. The most common documented indication for induction was management of post-term pregnancy (27.9% at CNRHC and 54.0% at JPMRHC) followed by hypertension (CNRHC only)
- In terms of labour pain management, 12.1% of births in 2013 were supported with no analgesia (22.6% were first time mothers)
- Narcotic-use for analgesia was observed higher at CNRHC (69.3%) compared to JPMRHC (12.7%)

MoreOB Program

Obstetrical care is a high risk area. Central Health has committed to implementing the MoreOB Program in the obstetrical units. Managing Obstetrical Risk Efficiently (MoreOB) is a comprehensive patient safety development and performance program for obstetrical caregivers that aims to decrease the number of adverse events and errors in obstetrics. The program is designed to help create a working environment in the birthing unit that eliminates professional autonomous silos, organizational hierarchy, communication gaps, uncoordinated teamwork and a culture of blame. The focus is on team members learning together, problem solving, advocating and promoting best practice in efficient, evidence-based and safe environments. All health regions in NL are participating. Central Health remains committed to this program and just recently renewed its contract.

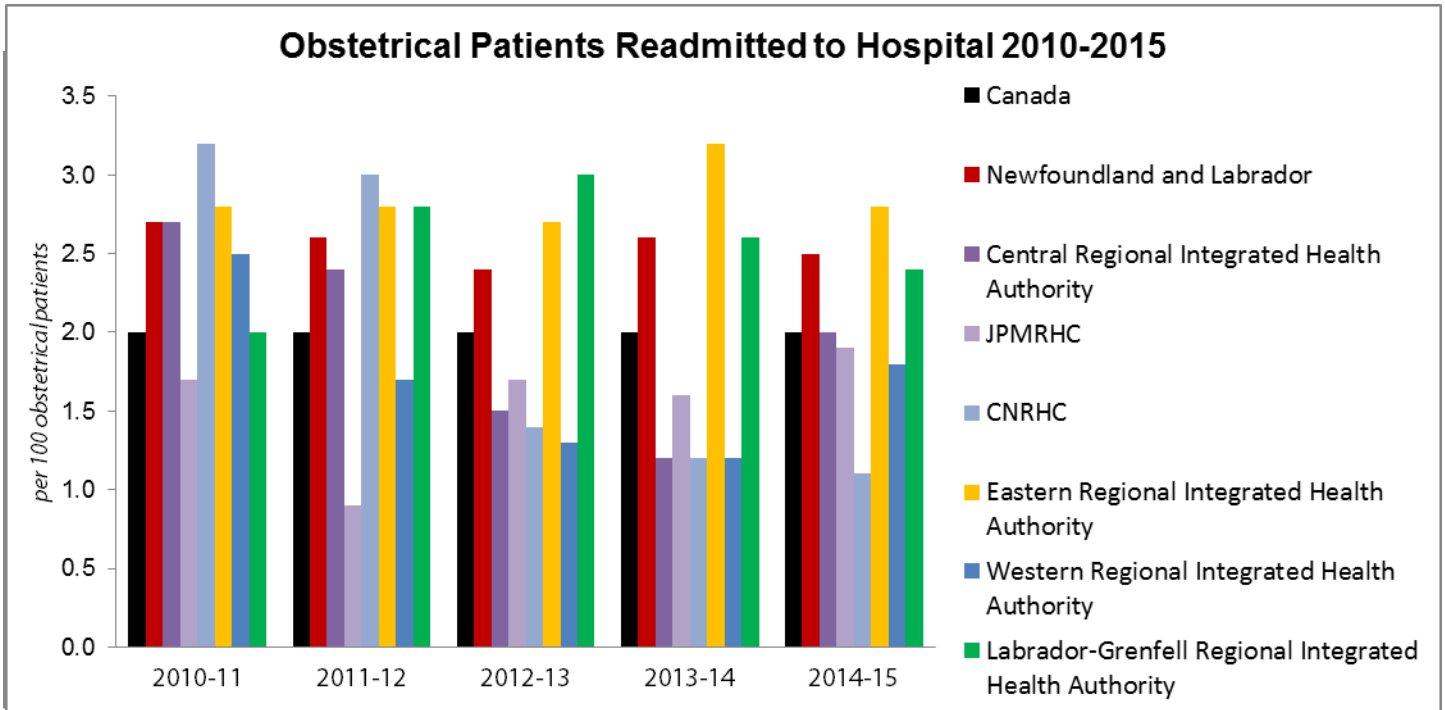
Obstetric Trauma for Vaginal Delivery

Obstetric trauma is among the most common patient harms in Canada and may result in longer lengths of stay for mothers, as well as chronic complications such as fecal incontinence, dyspareunia, perineal pain and other pelvic floor disorders.

- One of the most significant and potentially modifiable risk factors for obstetric trauma is the use of instruments during vaginal delivery. By ensuring appropriate training and adherence with best practice guidelines during instrument-assisted deliveries, hospitals can potentially reduce the risks. This indicator measures the risk-adjusted rate of obstetric trauma (lacerations that are third degree or greater in severity) for instrument-assisted vaginal deliveries. Rates for the country have been steady since 2010. Rates for Newfoundland and Labrador have increased since 2010. Central Health had a rate of 16.2% for 2014-15, which was an increase from 2010 (8.6%), was higher than the province (10.6%), Eastern (10.5%) and Western Health (10.2%) but was lower than the country (18.3%).
- For Obstetric trauma vaginal delivery without instrument, the rate for 2014-15 for Central Health was 2.1%, which was a decrease from the year prior (9.8%) and lower compared to the country (3.6%) but was higher compared to the province (1.9%), Eastern Health (1.7%) and Western Health (1.6%).

Obstetrical Readmissions

In Canada, 2 out of 100 obstetrical patients are readmitted to hospital. Since 2012, readmission rates for Central Health have decreased from 2010 to 2014, however have increased for 2014-15 (2.0 per 100). This rate is lower compared to the province (2.5 per 100).



CIHI Indicator Definition: This indicator measures the risk-adjusted rate of urgent readmission for the obstetrical patient group.
Source: DAD, HMDB

Caesarean Sections

Caesarean section delivery is associated with higher costs and increased risk of maternal morbidity and mortality. The WHO recommends the rate of C-section births to be between 10-15% of all births. According to Central Health's 3M Most Responsible Diagnosis (MRDx) flatfile data, in 2015-16, there were 570 deliveries with a C-section rate of 28.9% (29.4% at CNRHC and 28.8% for JPMRHC). This C-section rate is a decrease from 2014-15 (30.4%) and 2013-14 (37.6%). The average length of stay (ALOS) for C-section in 2015-16 was 3.9 days with an expected length of stay (ELOS) of 2.9 days (ALOS was 4.3 for JPMRHC; 3.6 days for CNRHC). For vaginal deliveries it was 3.1 days for ALOS and 1.7 for ELOS (ALOS was 3.6 for JPMRHC; 2.8 days for CNRHC).

According to the *Central Newfoundland Perinatal Report (2015)*, the main indication for C-section for first time mothers in 2013 was failure to progress/dystocia (48.1% CNRHC; 29.3% JPMRHC), non-reassuring fetal heart rate (17.3% CNRHC; 7.3% JPMRHC) and breech/malpresentation (17.3% CNRHC; 19.5% JPMRHC). The mean length of postpartum hospital stay for C-section births at CNRHC was 3.8 days versus 2.7 days for vaginal births. This was higher for JPMRHC (4.2 days for C-section births and 3.6 days for vaginal births).

In Canada, over the last 5 years, the rate for low-risk C-sections (among singleton term cephalic pregnancies for women without placenta previa or previous C-section) has remained unchanged around 14%. The rate for Central Health was 20.7% in 2014-15, which is a decrease since 2011 but is still higher than the country (14.1%) and province (19.8%) and the second highest among the RHAs. This rate is higher for JPMRHC (29.7%) compared to CNRHC (15.6%).

Vaginal Births after Caesarean Section

Vaginal Births after C-section (VBAC), refers to the number of women delivering vaginally after a previous caesarean birth. VBAC is a strategy to lower the C-section rate. According to the *Central Newfoundland Perinatal Report (2015)*, in 2013, there were less than 5 vaginal births (0.3%) coded as VBAC at CNRHC and 6 (2.3%) coded at JPMRHC. This is lower than the national rate and rates for eastern provinces. The data is conflicting, however, as outcomes demonstrate that at CNRHC and JPMRHC, 25% and 13% of women, respectively, with a previous C-section went on to have a vaginal birth. Information is limited as to whether these vaginal births were planning as VBAC's or not, indicating a need for improved quality of documentation and/or coding practices.

Efficiency of Health Services

Efficiently delivered services avoids waste, including waste of equipment, supplies, ideas and energy. This corresponds to the technical efficiency of the health system and refers to maximizing outputs (services) for a given level and mix of inputs (resources), or minimizing the inputs used to deliver a given level and mix of outputs.

CLIENT FLOW

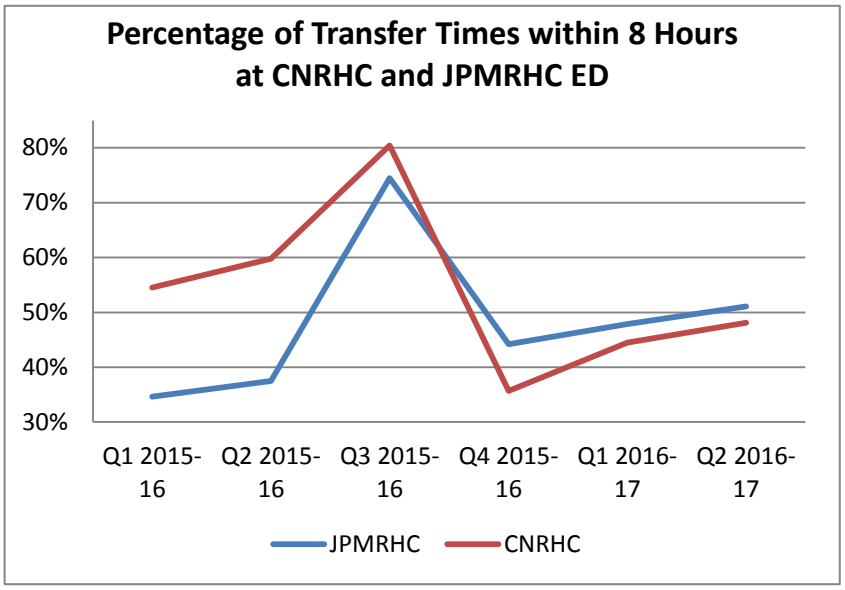
Client flow is a strategic priority for Central Health as well as a Required Organizational Practice (ROP) for Accreditation Canada. The goal in the 2014-17 Strategic Plan is, by March, 2017, the organization will have reduced and mitigated overcrowding in the emergency department (ED) by improving client flow. In 2015-16, there were about 22,889 ED visits at JPMRHC and 23,802 visits to CNRHC. This was an increase of 836 visits to JPMRHC and an increase of 1,237 visits to CNRHC compared to the previous year. 7%-10% of these visits required admission.

It is recognized that improving client flow from the ED to the inpatient units impacts safety, accessibility, efficiency, effectiveness and client experience. In addition to client experience and satisfaction, employee and physician satisfaction is also important when focusing efforts on enhancing client flow. In the last three years, objectives and indicators were developed in order to enhance flow through this entry point. To meet the indicator targets, it was important that multidisciplinary teams, along with managers and physicians, understood how well current processes, such as bed availability, transfers/repatriation, length of stay, discharge planning, etc. support the flow of clients through the system while ensuring client and/or family involvement.

There has been a tremendous amount of work completed by various teams to meet the targets outlined in the three year strategic plan. Research was completed to determine what impacted client flow and ED overcrowding, which included the inquiry into why admitted patients were boarded in the ED and why the demand exceeded the organization's capacity. It was discovered this was due to poor flow on inpatient units secondary to:

- Inefficient discharge planning
- Increased length of stay
- Variations in many processes and practices including communication protocols
- Wastes inherent in the system

With this information, current state analyses were completed to identify challenges and to seek opportunities for improvement. It was determined that information and data such as length of stay, ED wait times and transfer times needed to be shared to all involved stakeholders. A comprehensive team approach was necessary to move to a future state with improved processes and enhanced flow from the ED to inpatient units. Lean methodology was applied and action plans were developed to strive toward the desired future states of improved flow. As a result of this work, the length of stay (for identified cohorts of patients) and transfer times from the ED have both decreased. Data for JPMRHC from April 2015 to August 2016 showed a reduction in the average hours for transfer to under the benchmark of 8 hours. However, there are still a large proportion of patients admitted to hospital who exceed 8 hours in the ED once they are admitted. 41.4% exceeded 8 hours from April 2015 to August 2016 for both referral centre ED's (44.0% for CNRHC and 38.1% for JPMRHC).



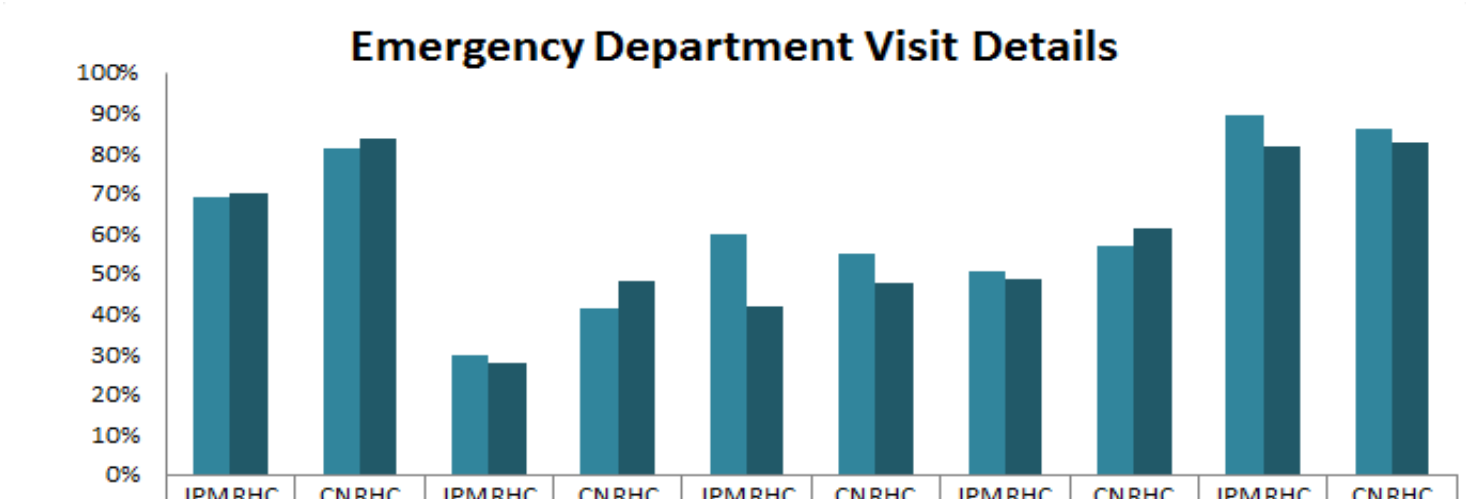
Four priority areas were chosen to improve client flow, the inpatient units of General Surgery and Medicine at both secondary sites. There have been gains in efficiencies on one unit, such as improved communication protocols utilized by site coordinators, which will also prove to be beneficial to other inpatient units.

Client flow information continues to be shared among teams and improvement projects are ongoing including:

- Opportunities to improve discharge planning
- Timely lab results for certain patient populations
- Effective policy application

This work is being extended beyond the inpatient care units to other program areas including LTC, community, palliative care, etc., which all have a direct and indirect impact on the flow to and through the ED.

Client flow indicators are monitored quarterly in the Board of Trustees Scorecard. As of June 2016, Central Health is meeting two out of the four goals—Documented and implemented a coordinated approach to improve client flow and developed and monitored targets for improving client flow. The other two goals are progressing towards the target, which are implementing priority initiatives consistent with the provincial *"Strategy to Reduce Emergency Department Wait Times (2012)"* and reducing overcrowding in the ED.



	JPMRHC	CNRHC	JPMRHC	CNRHC	JPMRHC	CNRHC	JPMRHC	CNRHC	JPMRHC	CNRHC
	% ED Visits CTAS Level 4-5		% Seen by MD within 30 mins (Target 75%)		% Seen by NP within 30 mins (Target 80%)		% d/c by MD within 120 mins (Target 80%)		% d/c by NP within 120 mins (Target 100%)	
2014-15	68.9%	81.4%	29.6%	41.4%	59.7%	54.8%	50.8%	57.0%	89.6%	86.2%
2015-16	70.2%	83.7%	27.9%	48.2%	41.9%	47.9%	48.7%	61.1%	81.6%	82.6%

Source: Compiled from data provided in the BPIC Scorecard

BED MANAGEMENT

According to the Auditor General's Report 2016, bed management is the allocation and provision of acute care beds. The proper management of acute care patient services, including the timely, safe and appropriate admission, placement, treatment and discharge from hospital, are vital to the well-being of patients and the efficient and effective functioning of the organization. As such, acute care bed management should optimize bed utilization and ensure patients are admitted to the most appropriate program area in a timely manner to receive safe and quality care. Central Health's goal for client flow for 2014-17 is to reduce and mitigate overcrowding in the Emergency Department (ED) by improving client flow. An audit covering an 8-month period from January 1, 2015 to September 30, 2015 at CNRHC was completed with the objective of determining whether the RHAs were effectively managing patient flow with respect to acute care bed management. The audit indicated that Central Health had bed occupancy rates higher than the national benchmark of 85%. The following four recommendations were highlighted in this report and are currently being reviewed. The next steps include

developing action plans to be assigned to different leaders in order to provide quarterly updates to the Office of the Auditor General.

1. RHAs should identify and/or establish performance indicators related to acute care bed management and ensure national benchmarks are identified or hospital targets are established for each performance indicator.
2. RHAs should develop acute care bed management policies and procedures which encompass admission and discharge processes that are complete and comprehensive.
3. RHAs should establish bed management processes and systems which include daily multidisciplinary meetings, daily bed huddles, electronic bed boards, posted and informative whiteboards in units and patient rooms, early discharge times, patient transfer/repatriation protocols, and information systems that promote good planning and monitoring of acute care bed usage/availability.
4. RHAs should compare actual results to established benchmarks and targets for key performance indicators, in order to identify variances that require follow up and action. Statistical and performance indicator reports should be provided to senior staff, bed managers and other interdisciplinary team members for effective planning and resource decisions.

Since the go live date of March 2015, relevant staff at Central Health have been using the Bed Manager, a software application used to provide real time information with respect to patient/client flow and bed utilization for all facilities in Central Health. This tool pulls data from Meditech and provides a suite of tools including dashboards, assessment tools, key performance indicators and reports. It is used to view the bed availability which helps to facilitate the necessary conversations to promote the utilization of all regional acute care beds to effectively mitigate overcrowding in EDs at the secondary sites. Training in this technology has been provided for key stakeholders at CNRHC, JPMRHC and the rural sites to complete discharge assessments on all acute inpatients to determine and document discharge delays. Reports have been developed in Bed Manager to display historical data with respect to the top five community and hospital delays for patient discharge. For example, waiting for long term care beds and home supports are delays captured in the reports. Recently, these reports have been shared with the managers and directors to review and determine how best to address these delays. An effort to enhance awareness and increase utilization of the Bed Manager tool and the available reports is ongoing.

There are number of strategies being introduced and revitalized to improve discharge planning and timely discharge to enhance patient flow and bed utilization. This includes early discharge by 11 am, written conditional discharges to facilitate timely communication and documentation, and bed huddles. Much more work is needed in this area including discharges being evenly distributed throughout the week. These opportunities for improvement were also cited in the *Auditor General's Report.*

Alternate Level of Care (ALC)

ALC refers to the utilization of acute care beds for clients who occupy an acute care bed but no longer require acute care services. According to Central Health's code discharge data, the number of ALC cases is increasing from 2013-14, however the length of stay of these cases are decreasing (see graph in Hospital Morbidity section on page 109). The impact of this is significant as acutely ill clients remain in the ED due to unavailable acute care beds, surgeries are cancelled or postponed, and overflow beds are added to the inpatient units to manage the overcapacity within the acute care facility.

Although it is typically assumed ALC patients are waiting for placement to LTC, many are waiting for alternative services including convalescence, assessment for personal care homes or long term care, rehabilitative services, etc. Increasing the volume of long-term care beds will help to alleviate some challenges, however, it is also recognized that improved discharge planning strategies are beneficial in optimizing bed utilization and improving patient flow.

Since September 2016, the organization has been providing ALC reports to the Department of Health and Community Services each month. The reports include the total of number of patients who are designated ALC and the reason why they no longer require the acute care bed.

ALC MONTHLY BED REPORTS FOR CENTRAL HEALTH (ACUTE CARE BEDS WAS 245)							
Month	Approved for LTC or PHC (Awaiting Placement)	Assessment Ongoing for Placement to LTC or PHC	Waiting for Home Supports	Waiting for Rehab/ Convalescence	Waiting for PT/OT Services	Waiting for Transfer Out of Region	Other
September 2016	16.7%	6.9%	0.8%	1.6%	0.8%	0.8%	2.9%
October 2016	13.9%	4.5%	0.4%	0.8%	1.2%	0.8%	0.8%
November 2016	13.5%	4.9%	1.6%	0.8%	0.4%	0%	6.5%

Repatriation Policy

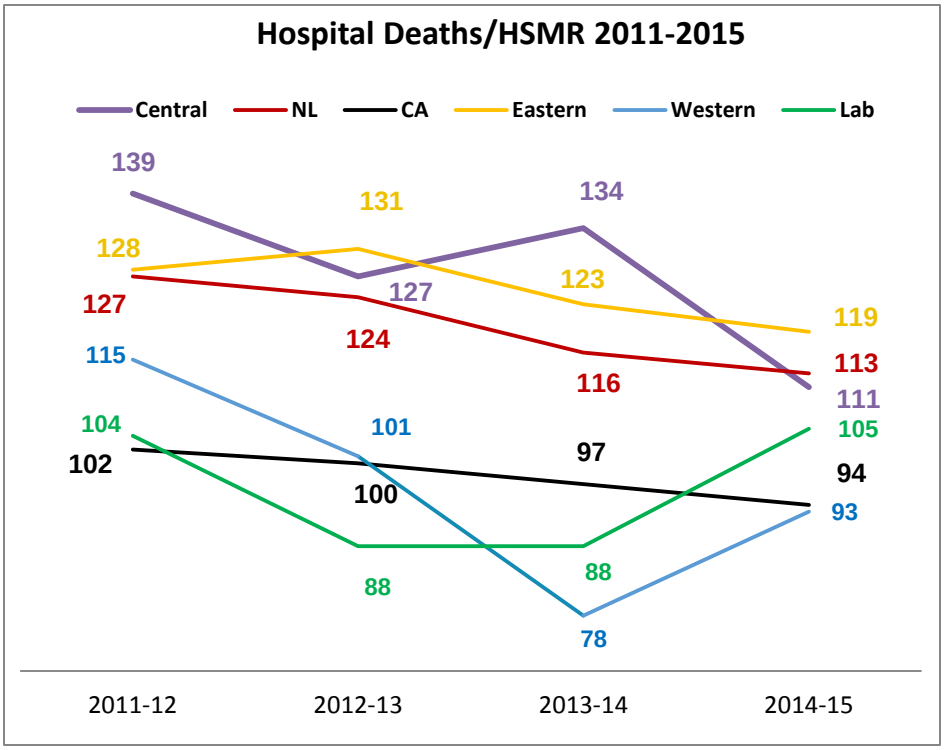
Client repatriation is another strategy used to improve client flow. It is the process whereby the patient, once medically stable, is transferred to his or her referring health care facility deemed to be the closest to his or her home address or to another facility within Central Health following an acute episode of care. Patients are repatriated to another facility in order to receive the right care, in the right place, for the right amount of time. This enables Central Health to meet the needs of all clients requiring care. The geographical complexities within the region often cause concern for clients in that they are sometimes repatriated to another facility that is further from the client's home. Central Health is committed to making every effort to repatriate these clients to a facility closer to their home if a bed becomes available. While it is difficult to determine the amount of time this will take, the clients' health care team and physicians work together with the client to repatriate them to the facility nearest their home promptly if a bed becomes available.

Clients awaiting LTC placement are placed based on the First Available Option policy which is applied when a vacancy becomes available in a facility within the region that is suitable to meet the client needs. This means that the client will transfer to the facility where a bed is available and wait until a bed is available in the facility they selected. Every effort is made to transfer an individual to their preferred facility.

Appropriateness & Effectiveness of Health Services

Providing care to only those who could benefit, this reduces the incidence, duration, intensity and consequences of health problems.

HOSPITAL DEATHS



The hospital standardized mortality ratio (HSMR) is a quality indicator and measurement tool that compares a hospitals mortality rate with the overall average rate. It has been used worldwide to assist in analyzing mortality and identify areas for improvement. Tracking death as an outcome measure for health system performance is advantageous because death is a definite and unique event, and records are usually accurate. Hospital Deaths, or (HSMR), measures the ratio of actual number of in-hospital acute care deaths to the number that would have been expected based on the types of patients a region treats. In other words, the HSMR is the ratio of observed to expected deaths. All rates for Central Health from 2011-2015 are statistically different from the national average. Historically, Central Health's HSMR has been higher than most of the RHAs and higher than the average provincial and national experience; however, has been declining in the last few years. In 2014-15, Central Health's ratio was below the provincial rate for the last two years, however it is still above the national rate.

Since 2011, the top 10 case mix groups (CMG's) that have had the highest number of observed to expected deaths for Central Health are:

1. Heart failure without coronary angiogram
2. Dementia
3. Ischemic Event of the Central Nervous System
4. Renal Failure
5. Myocardial Infarction/Shock/Arrest without coronary angiogram
6. COPD
7. Respiratory failure
8. Other/Unspecified Sepsis
9. Malignant Neoplasm of Respiratory System
10. Hemorrhagic Event of the Central Nervous System

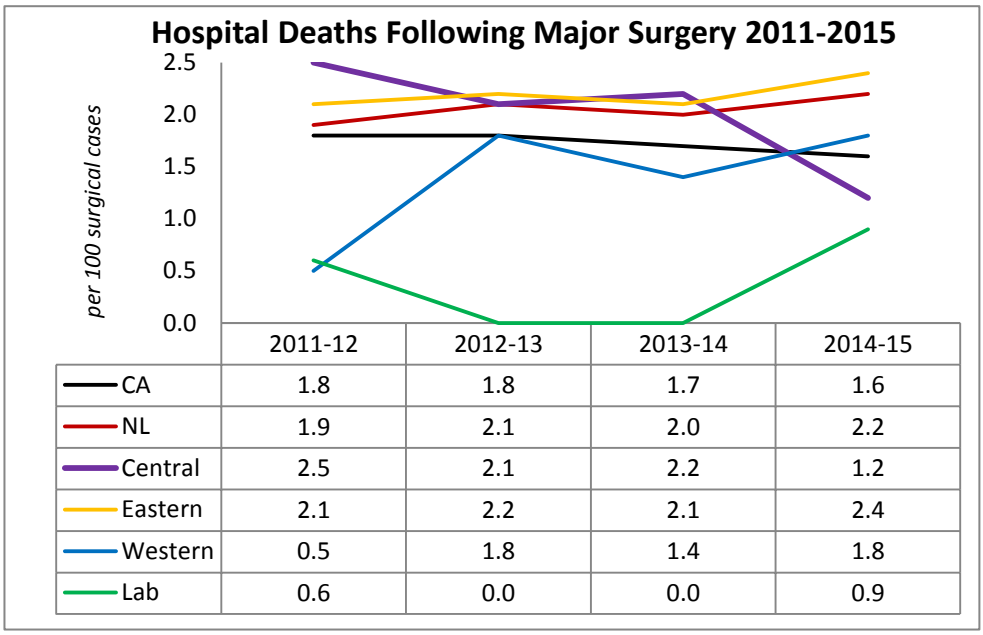
At Central Health, there is committee formed to review HSMR data, as well as a subcommittee that reviews death charts for quality coding and documentation. As a result, efforts have been implemented to ensure improvements with consistent coding and data quality across the region, which, in turn, reflect a more accurate HSMR. This enables Central Health to better understand in-hospital mortality, and inform improvement efforts. Patient safety initiatives also influence the HSMR and significant work is ongoing. Documentation of charts has been an area identified requiring improvement, specifically the quality of documentation.

HOSPITAL DEATHS FOLLOWING MAJOR SURGERY

The volume of surgical procedures undertaken every year is considerably large. Complications in surgical care have become a major cause of death; as a result, surgical safety has been recognized as a significant public health concern and was one of the areas selected for the Global Patient Safety Challenges by the WHO.

Studies have shown the importance of pre-operative assessment of patient conditions and risk, intra-operative surgical and anesthetic management and post-operative support in preventing surgical deaths. Although not all deaths are preventable, reporting on and comparing mortality rates for major surgical procedures may increase awareness of surgical safety and act as a signal for hospitals to investigate their processes of care before, during or immediately after the surgical procedure for quality improvement opportunities.

A 30-day follow-up time frame is commonly used for reporting hospital mortality, including mortality following major surgery. This allows for sufficient follow-up for complications from major surgery such as failure to wean, systemic sepsis, stroke and renal failure.



	2011-12	2012-13	2013-14	2014-15
CA	1.8	1.8	1.7	1.6
NL	1.9	2.1	2.0	2.2
Central	2.5	2.1	2.2	1.2
Eastern	2.1	2.2	2.1	2.4
Western	0.5	1.8	1.4	1.8
Lab	0.6	0.0	0.0	0.9

CIHI reports that the number of deaths due to all causes occurring within 30-days following major surgery per 100 surgical cases was lower for Central Health compared the province and the country. Historically, rates were higher for CNRHC in the last three years compared to JPMRHC, however, the gap is closing and rates are currently comparable for both facilities (1.3 for JPMRHC and 1.2 for CNRHC for 2014-15).

AMBULATORY CARE SENSITIVE CONDITIONS

Calculating the rate of ambulatory care sensitive conditions (ACSC) is considered a measure to track the appropriateness of health care, in other words, if the rate is high, the client's health concern could have been managed in an appropriate ambulatory care setting that could have prevented the onset of the illness or condition or have controlled an acute eposide of the condition. ACSC includes conditions such as COPD, asthma, heart failure, pulmonary edema, hypertension, angina and diabetes for the population younger than age 75. For Central Health, the age-standardized acute care hospitalization rate for conditions where appropriate ambulatory care prevents or reduces the need for admission to hospital in 2014-15 was 412 per 100,000. In the past, this rate has been consitently higher compared to the province and the country however, since 2012 the rate has been below the provinicial rate, indicating a possible reflection of more appropriate access to primary health care. Rates for Central Health have also been consistently higher for males compared to females.

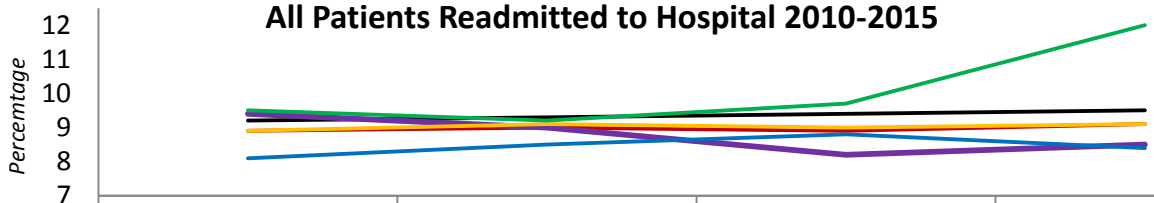
AMBULATORY CARE SENSITIVE CONDITIONS								
Fiscal Year	Central Health			Newfoundland and Labrador	Canada	Eastern Health	Western Health	Labrador-Grenfell Health
	Total	Male	Female					
2010-11	588	655	519	521	349	453	607	671
2011-12	495	504	483	475	337	418	586	627
2012-13	447	481	413	472	335	433	606	531
2013-14	423	445	403	462	328	432	570	527
2014-15	412	443	381	475	331	457	573	531

HIGH USERS OF HOSPITAL BEDS

This measure is meant to assist in understanding the number and profile of patients who are most often in hospital. Knowing more about patients who utilize hospital beds more than others at the local level can help reduce the use of hospital beds by improving community services and coordination of care. In any given year, thousands of Canadians visit the hospital for care—some more often than others. For 2014-15, the first year for this indicator, 1 in 20 patients in Canada who were hospitalized returned 3 or more times within the year and spent more than 30 days in care. 66% of high users were age 65+ years with a wide range of medical conditions and the majority of high users were from lower socioeconomic backgrounds. The top 3 reasons for repeat hospitalizations in Canada was for heart failure (8%), COPD (7.5%) and palliative care (6%), which remained consistent across the provinces. Central Health was on par with national (4.6%) and provincial rates, and the lowest compared to Western and Labrador-Grenfell Health at 4.7%.

READMISSION RATES

Readmission rates show the percentage of clients who were readmitted to an acute care facility within 30-days of discharge. According to CIHI, this is an important balancing indicator to determine if changes to patient flow through the system are negatively affecting care. While some readmissions are expected, others may be indications of a quality issue related to shortened length of stay, premature discharge or inappropriate discharge planning. Clients who are readmitted inappropriately require additional care for their condition and use up valuable health care resources that could have otherwise been avoided. Since 2013, Central Health's overall readmission rate has been lower than the province and the country. For 2014-15, readmission rates are higher for three rural health facilities—Baie Verte Peninsula, Connaigre Peninsula and Dr. Y.K Jeon Kittiwake.



	2011-12	2012-13	2013-14	2014-15
CA	8.7	8.8	8.9	9.0
NL	8.4	8.5	8.4	8.6
Central	8.9	8.5	7.7	8.0
Eastern	8.4	8.6	8.5	8.6
Western	7.6	8.0	8.3	7.9
Lab	9.0	8.7	9.2	11.5

CIHI Indicator Definition: The risk-adjusted rate of urgent readmissions within 30 days of discharge for episodes of care for the following patient groups: obstetric, patients age 19 and younger, surgical and medical. **Source:** DAD, HMDB

For 2015-16, for the medical, surgical, obstetrical and 19 years and younger patient population, readmissions to hospital have been lower than the province and the country since 2013. In 2014-15, medical readmissions were the highest at Baie Verte Peninsula (22.2%), surgical readmissions were higher at CNRHC (5.7%) compared to JPMRHC (4.3%), obstetrical readmissions were higher at JPMRHC (1.9%) compared to CNRHC (1.1%) and readmissions for patients 19 years and younger was higher at JPMRHC (4.7%).

POTENTIALLY INAPPROPRIATE USE OF ANTIPSYCHOTICS IN LONG-TERM CARE

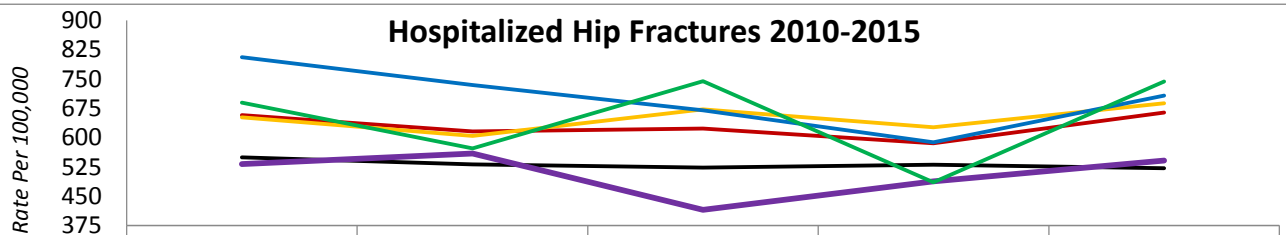
Results from the Continuing Care Reporting System (CCRS) for 2014-15 showed that 42.1% of LTC residents were taking antipsychotic medication without a diagnosis of psychosis. This rate decreased to 35.6% for 2015-16. This rate is lower compared to the province (37.5%) but higher than the country (23.9%). Rates were highest at Fogo (71.0%), A.M Guy (64.5%) and Notre Dame Bay (58.2%). These rates are monitored by the LTC Council and a collaborative initiative has been underway to reduce these rates as mentioned in the LTC inputs section.

RESTRAINT USE IN LONG-TERM CARE

2014-15 was the first year for this CIHI indicator. Results from the Continuing Care Reporting System (CCRS) showed that 14.1% of residents had experienced the use of restraints. This rate increased to 15.4% for 2015-16. This rate is higher compared to the province (12.1%) and the country (7.4%). Facilities with the highest rates were Green Bay (23.8%), Fogo (23.5%) and Lakeside Homes (20.5%). Data was not provided for A.M Guy or Notre Dame Bay. This indicator is being tracked on Central Health's LTC scorecard and monitored by the LTC Council.

HOSPITALIZED HIP FRACTURES

Hip fractures represent a significant burden for the health system. As well as causing disability or death, hip fractures may have a major effect on independence and quality of life. Measuring the occurrence of hip fractures in the 65 + age group is important for planning and evaluating preventative strategies, allocating health resources and estimating costs. The rate for Central Health was 541 per 100,000 (680 for female; 349 for male). Rates have been consistently higher for females.

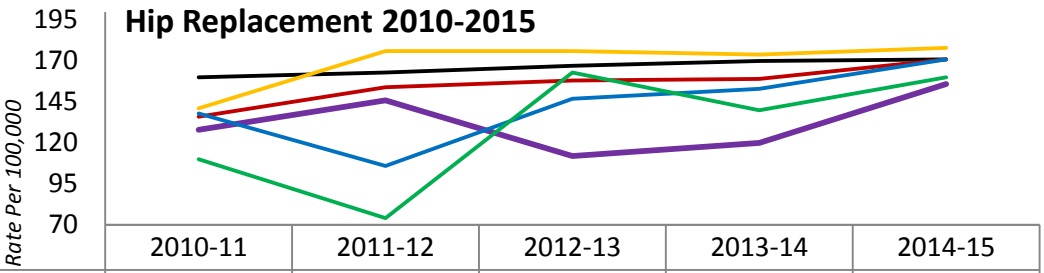


	2010-11	2011-12	2012-13	2013-14	2014-15
CA	549	531	523	530	521
NL	657	616	623	585	664
Central	532	559	415	488	541
Eastern	652	604	672	626	688
Western	806	734	670	588	707
Lab	689	572	744	485	743

CIHI Indicator Definition: Age-standardized rate of new hip fractures admitted to an acute care hospital per 100,000 population age 65 and older. **Source:** DAD, HMDB

HIP REPLACEMENT RATE

A hip replacement procedure has the potential to improve functional status, reduce pain and contribute to other gains in health-related quality of life. Over the past two decades, rates of hip replacement procedures have increased substantially. Wide inter-regional variation in joint replacement rates may be attributable to numerous factors, including the availability of services, provider practice patterns and patient preference. Rates for Central Health have increased, however remain lower compared to the RHAs, the province and the country.



	2010-11	2011-12	2012-13	2013-14	2014-15
CA	160	163	167	170	171
NL	136	154	158	159	171
Central	128	146	112	120	156
Eastern	141	176	176	174	178
Western	138	106	147	153	171
Lab	110	74	163	140	160

CIHI Indicator Definition: Age-standardized hospitalization rate for hip replacement procedures performed in acute care facilities per 100,000 population age 18 and older. **Source:** HMDB

Health System Outcomes

Health system outcomes reflect the high-level outcomes that are the ultimate goals of the health system, corresponding to the expectations of the population and of health system stakeholders. Three different goals can be considered ultimate goals and are largely consistent with other international frameworks:

- **Improve health status of the population**
- **Improve the responsiveness of the health system**
- **Improve value for money**

Health Status

The first goal is to improve the health status of the population where "health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmary". This is subdivided into three elements: health conditions, human functioning and well-being. Health conditions reflect health problems and alterations of health status such as diseases, disorders and injuries. Human functioning refers to the more general health status and functioning capacity of the population associated with the consequence of diseases and disorders. Well-being reflects the level of physicial, mental and social well-being of individuals and of populations as it relates to materal conditions, quality of life and sustainability of well-being over time.

CANCER

The Canadian Cancer Society reports that 2 in 5 Canadians will develop cancer in their lifetime (males have a 1 in 2.2 chance; females 1 in 2.4) and 1 in 4 will die from cancer (males 1 in 3.5 chance; females 1 in 4.1). Cancer is the leading cause of death in Canada (29.9%) and the leading cause of premature death as measured by potential years of life lost (PYLL). An estimated 202,400 new cases of cancer and 78,800 deaths from cancer will occur in Canada in 2016. Lung, colorectal, breast and prostate cancer account for the top four newly diagnosed cancers. Newfoundland and Labrador has the highest incidence of cancer cases across the country, specifically, for colorectal cancers for both sexes (111.3 per 100,000 men; 78.4 per 100,000 women) and has the highest mortality rate for colorectal cancer (40 per 100,000) (Statistics Canada, Canadian Cancer Registry and Vital Statistics Death Database).

In 2016, an estimated 1,450 people will die of cancer in Newfoundland and Labrador and 3,900 new cases will be diagnosed. Lung cancer is the leading cause of death in both men and women in Newfoundland and Labrador. Newfoundland and Labrador also has the highest incidence of breast cancer mortality out of all the provinces.

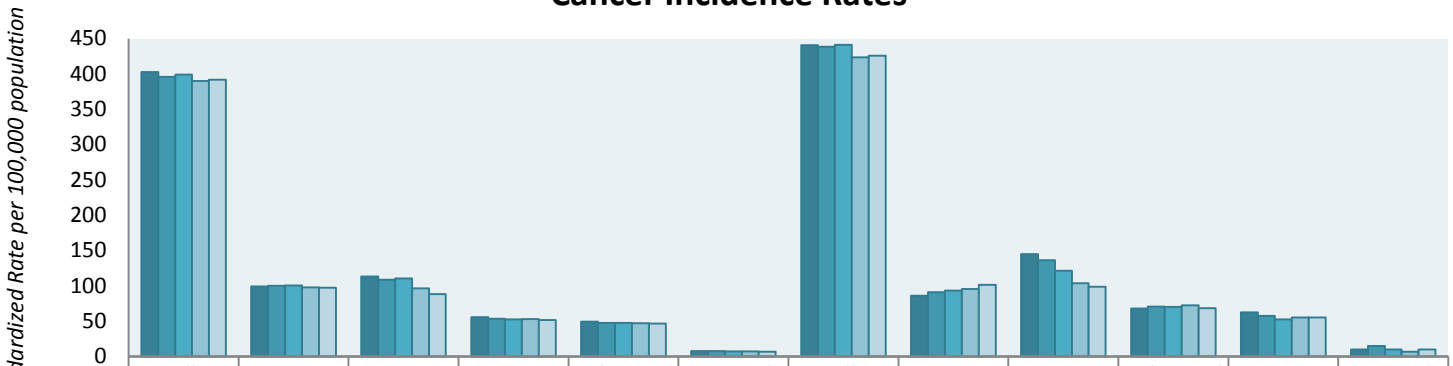
In 2016, for men, an estimated:

- 440 will be diagnosed with and 75 will die of prostate cancer
- 360 will be diagnosed with and 130 will die of colorectal cancer
- 330 will be diagnosed with and 220 will die lung cancer

In 2016, for women, an estimated:

- 440 will be diagnosed with and 100 will die of breast cancer
- 260 will be diagnosed with and 90 will die of colorectal cancer.
- 230 will be diagnosed with and 140 will die of lung cancer

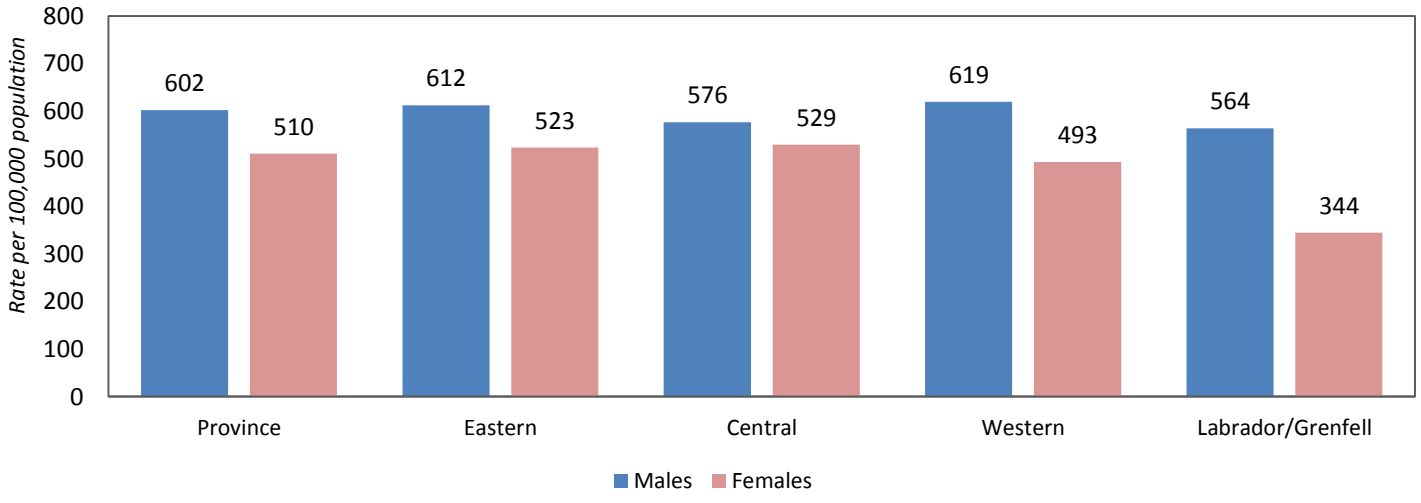
Cancer Incidence Rates



	Canada						Newfoundland & Labrador					
	All	Breast	Prostate	Lung	Colorectal	Cervical	All	Breast	Prostate	Colorectal	Lung	Cervical
2009	402.8	99.4	113.2	55.7	49.4	7.9	441.2	86.0	144.9	67.9	62.6	10.0
2010	396.4	100.3	108.9	53.7	47.7	7.7	438.9	91.0	136.3	70.6	57.7	15.1
2011	399.5	100.7	110.6	52.7	47.7	7.5	441.7	93.2	121.4	70.4	52.8	9.8
2012	390.2	98.1	96.7	52.9	47.2	7.2	423.7	95.7	103.9	72.6	55.2	6.7
2013	392.1	97.6	88.5	51.6	46.7	7.0	426.1	101.5	99.0	68.6	55.5	9.9

Statistics Canada. *Table 103-0553 - New cases and 1991 age-standardized rate for primary cancer (based on the August 2015 CCR tabulation file), by cancer type and sex, Canada, provinces and territories, annual,* CANSIM (database). (accessed: September 2016)

Age-Standardized Incidence Rates for All Types of Cancers, By Sex and RHA of Residence (2011-2013)

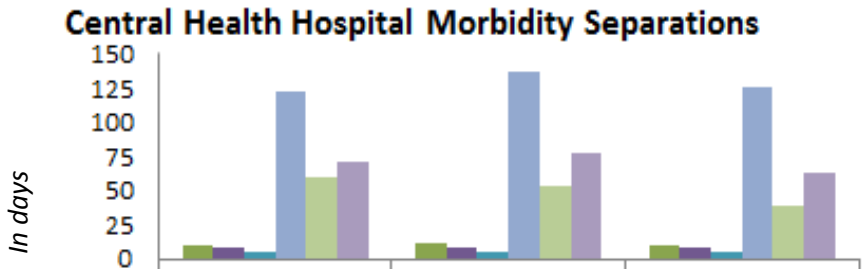


Source: Canadian Cancer Registry NL submission file (2011-13); NLCHI population file (2011)

HOSPITAL MORBIDITY

Separation from a health care facility occurs anytime a patient leaves because of death, discharge, sign-out against medical advice or transfer. The number of separations is the most commonly used measure of the utilization of hospital services. Separations, rather than admissions, are used because hospital abstracts for inpatient care are based on information gathered at the time of discharge. This is one of the measures of morbidity used when determining the burden of a disease. The second factor used is length of a hospital stay (in days).

The number of separations has decreased by about 30% in 2012-13 in Newfoundland and Labrador since 1995-99. The mean age of admission has increased by about 10 years to age 56, and the average length of stay (ALOS) in increased by one and a half days to 8.1 days. This is fairly consistent among all the RHAs with the exception of Central Health, which had the smallest decrease in separations (27%) (*Compiled from Community Accounts from NLCHI, Clinical Database Management System*).



	2013-14 Separations: 7,978 Patient Days: 83,332 ALC Cases: 391	2014-15 Separations: 7,866 Patient Days: 87,870 ALC Cases: 485	2015-16 Separations: 8,114 Patient Days: 83,056 ALC Cases: 518
ALOS	10.45	11.17	10.24
ALOS Acute	7.51	7.91	7.72
ELOS	5.42	5.47	5.16
Beds to Save	122	137	125
ALOS ALC	60	53	39
ALC Eq Beds	71	78	62

Compiled from Central Health's 3M flatfile data

Outside of labor and births, the Major Clinical Categories (MCC) for Most Responsible Diagnosis (MRDx) from 1999-2013:

- Diseases of the Circulatory System (accounts for 26% for NL; 27% for Central Health)
- Diseases of the Digestive System (accounts for 20% for NL; 21% for Central Health)
- Diseases of the Respiratory System (accounts for 18% for both NL and Central Health)
- Neoplasms (Cancer) (accounts for 12% for both NL and Central Health)
- Diseases of the Genitourinary System (accounts for 12% for NL; 11% for Central Health)
- Injury and Poisoning (accounts for 12% for NL; 10% for Central Health)

Looking at Case Mix Groups (CMGs) for 2013-16 (excluding labor and births, which accounted for 14% of all separations), heart attacks accounted for the highest proportion of hospital separations overall (4.2%) followed by Chronic Obstructive Pulmonary Disease (COPD) (3.5%), Heart Failure (2.6%), Palliative Care (2.9%), and Pneumonia (2.7%). Here are the top CMGs below by MCC.

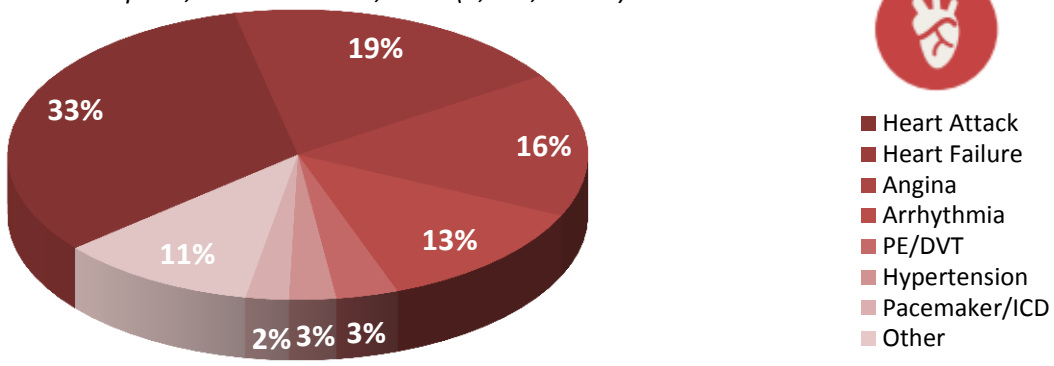
Circulatory System

Diseases of the circulatory system account for the highest number of inpatient hospitalizations and highest cost incurred by hospitals to provide services (excluding physician fees) for cardiac conditions. According to CIHI, in 2012-13, this cost Canadian hospitals $2.4 billion dollars. Heart failure without angiogram was the third most expensive type of hospitalization at $276 million *(Leading Hospitalization Costs in Acute Inpatient Facilities in 2012-13, CIHI).* Of the 13.6% acute care hospitalizations that were due to diseases and disorders of the circulatory system, 7% accounted for heart attacks and heart failure. Heart attacks accounted for the highest number of patient days in this category (4.1% of all patient days), with the majority of patients occupying beds at CNRHC. Overall, average length of stay in this MCC was 11 days compared to an expected length of stay of 6 days, which was the same for heart attack cases. Heart failure accounted for the second highest number of patient days in this category (3.8% of all patient days), with the majority of

patients occupying beds at CNRHC. The ALOS for the MCC, as a whole, was 12 days with an ELOS of 6 days. The percentage of cases that were ALC was 11.0%

Inpatient Hospitalizations by Major Clinical Category (MCC): Diseases and Disorders of the Circulatory System

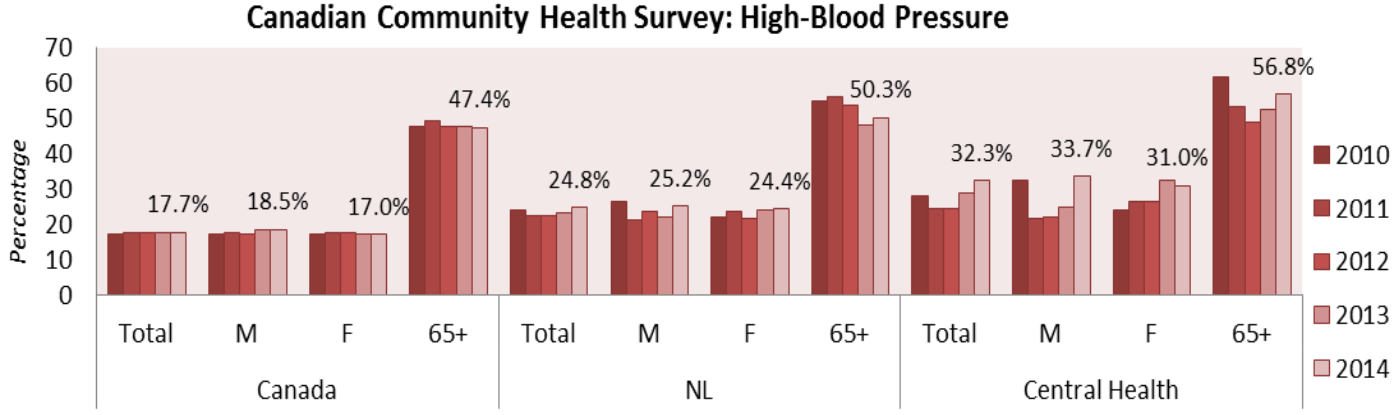
April 1,2013-March 31, 2016 (3,248, 13.6%)



Compiled from Central Health's 3M flatfile data

Prevalence of High Blood Pressure

In the Canadian Community Health Survey, many residents in the Central Health region indicated higher self-reported rates of high blood pressure in comparison to the province and the country.



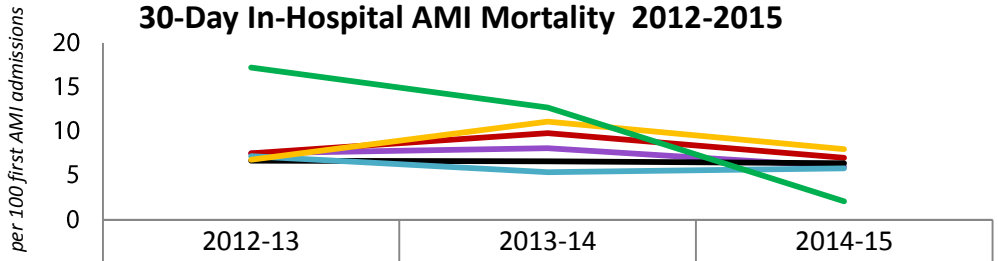
Percentage displayed is for 2014

Heart Attacks

Heart Attacks or Acute Myocardial Infarction (AMI) is one of the leading causes of morbidity and death. Measuring its occurrence in the population is important for planning and evaluating preventative strategies, allocating health resources and estimating costs. From a disease surveillance perspective, there are three groups of AMI events: non-diagnosed events, fatal events occurring outside the hospital and events admitted to acute care hospitals. Although AMI's admitted to a hospital do not reflect all AMIs in the community, this information provides a useful and timely estimate of the disease occurrence in the population. CIHI reports the prevalence of hospitalized heart attacks for first – ever hospitalization for AMI or a recurrent hospitalized AMI (occurring more than 28 days after the admission for the previous event) for residents of the Central Health region in 2014-15 has been consistently higher than average at 332 per 100,000 compared to the country (252 per 100,000) although rates are comparable to the province (344 per 100,000) and the second lowest among the RHAs. Looking at 3M hospital separations data, heart attack was the number one reason for all inpatient hospitalizations at Central Health from 2013-16. The average length of stay in hospital in this time frame was 11 days with an expected length of stay of 6 days. The percentage of cases that were ALC was 2.7%

AMI Mortality

CIHI indicates that a lower risk-adjusted mortality rate following AMI may be related to quality of care or other factors. It has been shown that the 30-day in-hospital mortality rate is highly correlated with total mortality (death in and out of hospital) following AMI. For 2014-15, Central Health's mortality rate 30 days from hospitalization is 6 per 100 first AMI admissions, which was lower compared to the country and the province and has decreased since 2012.



	2012-13	2013-14	2014-15
Central Regional Integrated Health Authority	7.5	8.1	6.0
Newfoundland and Labrador	7.5	9.8	7.0
Canada	6.7	6.6	6.4
Western Regional Integrated Health Authority	7.2	5.4	5.8
Eastern Regional Integrated Health Authority	6.8	11.1	8.0
Labrador-Grenfell Regional Integrated Health Authority	17.2	12.7	2.1

CIHI Indicator Definition: The risk-adjusted rate of all-cause in-hospital death occurring within 30 days of first admission to an acute care hospital with a diagnosis of acute yocardial infarction (AMI). **Source:** DAD, HMDB

AMI Readmission Rates

CIHI's 30-day AMI readmission rate for the country has decreased steadily since 2007 to 11% in 2014-15. Rates for Newfoundland and Labrador have generally been higher with the 2014-15 rate being 11.3%. Central Health's rate is higher at 12.7% and is also higher than Eastern Health (10.4%) and Western Health (12.5%).

Coronary Artery Bypass Graft

CIHI's Coronary Artery Bypass Graft (CABG) rate for 2014-15 for the country was 68 per 100,000 population. This rate was higher for males (114) than females (27). The rate for the province was 75 (27 female; 126 male). Central Health's rate was 73, which was higher compared to the country but lower than the province, Eastern (76) and Labrador-Grenfell (117).

Cardiac Revascularization

CIHI's cardiac revascularization rate for 2014-15 for the country was 269 per 100,000 population. This rate was higher for males (423) than females (127). The rate for the province was 277 (118 female; 445 male). Central Health's rate was 250, which was lower compared to the country, the province, Eastern (301) and Labrador-Grenfell (319).

Percutaneous Coronary Intervention

CIHI's Percutaneous Coronary Intervention (PCI) rate for 2014-15 for the country was 204 per 100,000 population. This rate was higher for males (313) than females (102). The rate for the province was 203 (92 female; 322 male). Central Health's rate was 178, which was lower compared to the country, the province and to Eastern (225), and Labrador-Grenfell (206).

Heart Failure

According to the *Heart and Stroke Foundation 2016 Report on the Health of Canadians*, Heart Failure is a long-term chronic condition that develops after the heart becomes damaged or weakened including heart attacks and other medical conditions. Heart Failure is on the rise as more people survive heart attacks and other acute heart conditions. It is estimated that there are about 600,000 Canadians living with heart failure. The most common risk factor is damage to the heart muscle cause by a heart attack and the second most common cause is high blood pressure. There is currently no cure for heart failure. Many patients can improve with lifestyle changes (by reducing salt and improving their diet, becoming physically active and quitting smoking). Depending on the severity of symptoms, heart dysfunction, age and other factors, half of those diagnosed with heart failure will die within 5 years and most die within 10 years.

CIHI reports 60,000 Canadians visited the hospital for heart failure in 2013-14 and this rate has increased by 13% in the last six years. This is a crude rate of 1.8 per 1,000, which is lower than the Central Health rate of 2.6 per 1,000 for the same time period.

According to 3M hospital separations data, heart failure was the third reason for all inpatient hospitalizations at Central Health from 2013-16. The average length of stay in hospital in this time frame was 15 days with an expected length of stay of 8 days. The percentage of cases that were ALC was 40.8%, which was the second highest of all the CMGs.

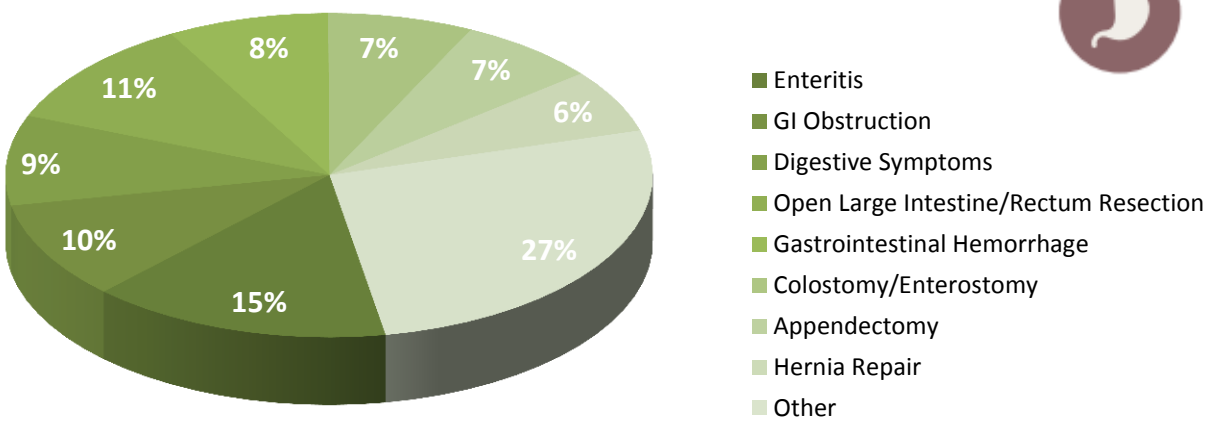
Digestive System

Diseases of the digestive system account for the second highest number of inpatient hospitalizations (11.9%) and third highest cost incurred by hospitals to provide services (excluding physician fees). According to CIHI, in 2012-13, this cost Canadian hospitals $1.7 billion dollars *(Leading Hospitalization Costs in Acute Inpatient Facilities in 2012-13, CIHI).*

3M hospital separation data from 2013-16 indicates "Other" category accounted for the highest proportion of cases in this MCC followed by Enteritis and GI Obstruction. Colostomy/Enterostomy accounted for the highest number of patient days in this category, with the majority of patients occupying beds at CNRHC. Other intervention with gastrointestinal diagnosis accounted for the highest average length of stay (17 days) compared to an expected length of stay of 7 days. The overall average length of stay was 8 days with an expected length of stay of 6 days. The average length of stay for ALC was 40 days. The percentage of cases that were ALC was 4.2%.

Inpatient Hospitalizations by Major Clinical Category (MCC): Diseases and Disorders of the Digestive System

April 1 ,2013-March 31, 2016 (2,857, 11.9%)



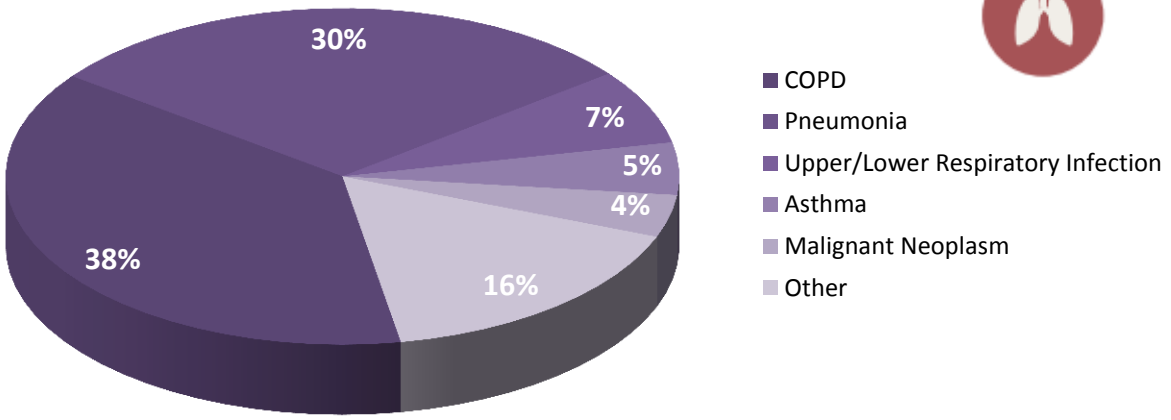
Compiled from 3M most responsible diagnosis coded data

Respiratory System

Diseases of the respiratory system account for the third highest number of inpatient hospitalizations and fourth highest cost incurred by hospitals to provide services (excluding physician fees). According to CIHI, in 2012-13, this cost Canadian hospitals $1.5 billion dollars. COPD was the most expensive type of hospitalization in Canada at $445 million followed by pneumonia at $299 million *(Leading Hospitalization Costs in Acute Inpatient Facilities in 2012-13, CIHI)*. Admissions for chronic obstructive pulmonary disease (COPD) accounted for the highest proportion of cases in this category, followed by pneumonia and respiratory infections. COPD accounted for the highest number of patient days in this category (3.7% of all patient days), with the majority of patients occupying beds at CNRHC. Awaiting placement accounted for the highest average length of stay (180 days) compared to an expected length of stay of 32 days. Overall, the average length of stay for this MCC was 11 days compared to an expected length of stay of 7 days and the average length of stay for ALC was 39 days. The percentage of cases that were ALC was 8.9%.

Inpatient Hospitalizations by Major Clinical Category (MCC): Diseases and Disorders of the Respiratory System

April 1 ,2013-March 31, 2016 (2,230, 9.3%)

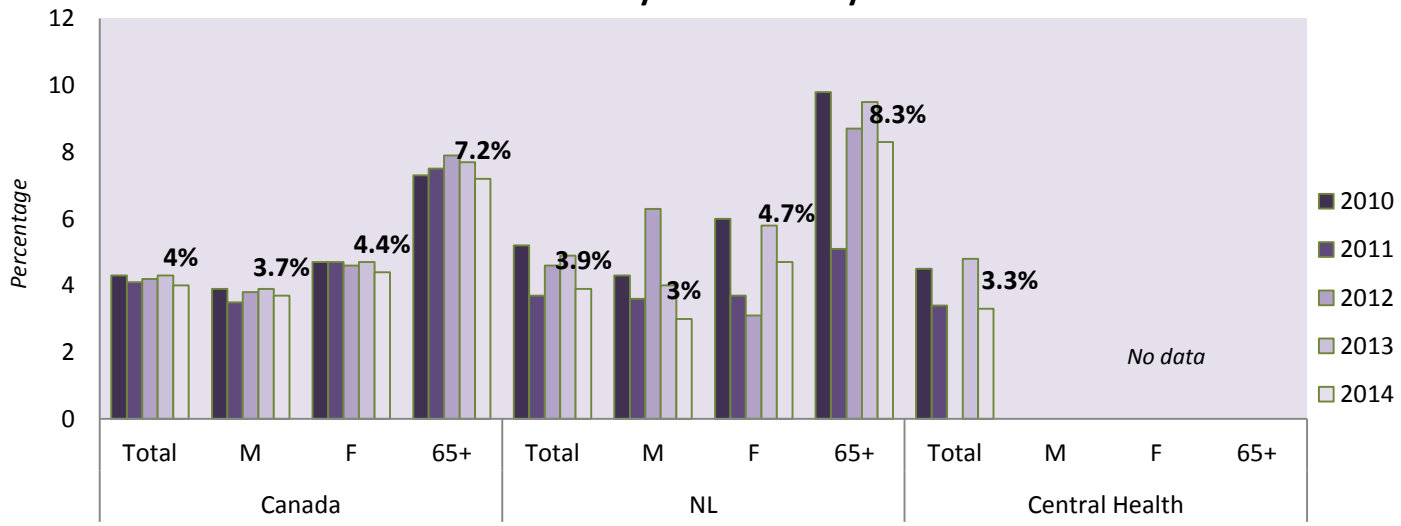


Compiled from 3M most responsible diagnosis coded data

Prevalence of COPD

According to the Canadian Community Health Survey, many residents in the Central Health region indicated comparable self-reported rates of COPD in comparison to the province and the country.

Canadian Community Health Survey: COPD



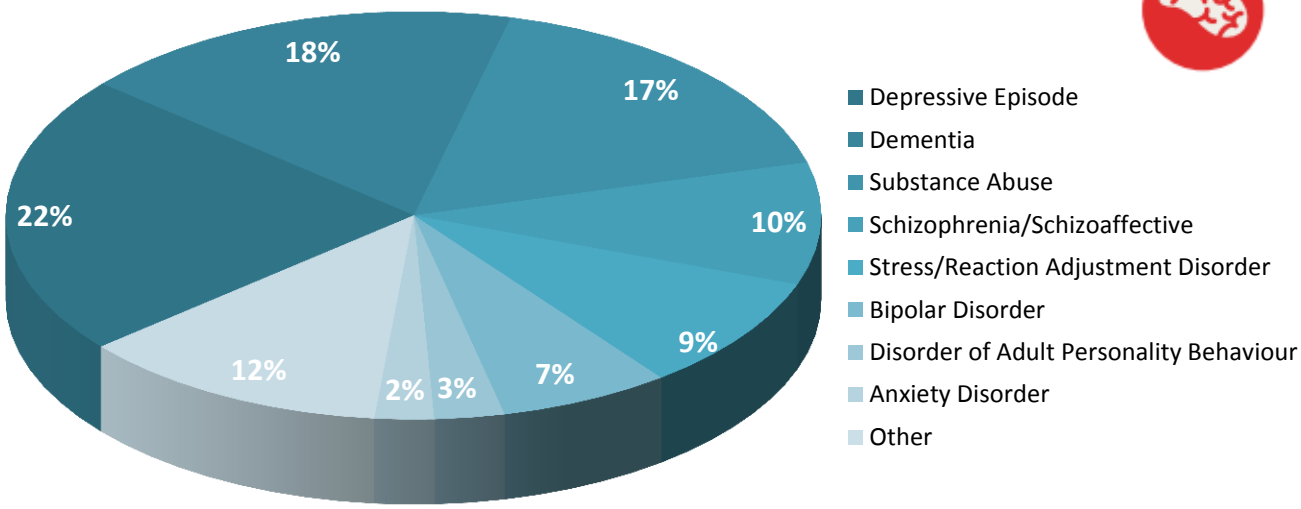
Percentage displayed is for 2014

Mental Illness

Mental diseases and disorders account for the fourth highest number of inpatient hospitalizations and second highest cost incurred by hospitals to provide services (excluding physician fees). Dementia was the sixth most expensive type of hospitalization by diagnosis in Canada at $194 million. According to CIHI, in 2012-13, this cost Canadian hospitals $1.7 billion dollars *(Leading Hospitalization Costs in Acute Inpatient Facilities in 2012-13, CIHI).* From 2013-16, 6.8% of Central Health's acute care hospitalizations were due to mental diseases and disorders, 4.0% for depression, dementia and substance abuse. Mental health separations accounted for the highest percentage of patient days (18%), average length of stay (29 days; ELOS was 11 days), days to save (28,345), beds to save (86), ALC cases (315) and ALC equivalency beds (70) for all inpatient hospitalizations. The percentage of cases that were ALC was 22.6%. Admissions for depressive episodes accounted for the highest proportion of cases in this category, followed by dementia then substance abuse. Dementia accounted for the highest number of patient days in this category (8.5% of all patient days), with the majority of patients occupying beds at JPMRHC. Overall, dementia also accounted for the highest average length of stay (ALOS) (75 days) compared to an expected length of stay (ELOS) of 15 days. In the last three years, Central Health may have had the potential to save 17,398 patient days. Dementia was the CMG with the highest percentage of cases overall that were ALC at 69.3%.

Inpatient Hospitalizations by Major Clinical Category (MCC): Mental Diseases and Disorders

April 1, 2013-March 31, 2016 (1,620, 6.8%)

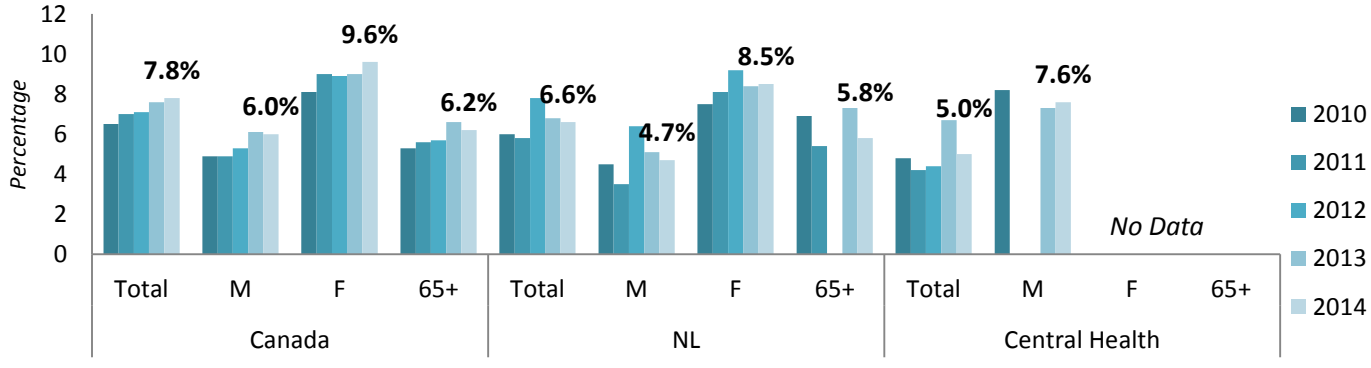


Compiled from 3M most responsible diagnosis coded data

Prevalence of Mood Disorders

According to the Canadian Community Health Survey, self-reports of the population with mood disorders in 2014 in the Central region (5.0%) was lower compared to the province (6.6%) and the country (7.8%).

Canadian Community Health Survey: Mood Disorders



Percentage displayed is for 2014

Mental Illness Hospitalization

This CIHI indicator measures the age-standardized rate of separations from general hospitals through discharge or death following a hospitalization for a selected mental illness per 100,000 population. The selected mental illnesses for this indicator (and the 3 that follow) include substance-related disorders; schizophrenia, delusional and non-organic psychotic disorders; mood/affective disorders; anxiety disorders; and selected disorders of adult personality and behaviour. While this indicator does not include data from free-standing psychiatric facilities, it is acknowledged that in some jurisdictions (e.g., Alberta) direct substitution between general and psychiatric facilities exists; the extent of this practice is unknown. As such, this indicator provides a partial view of hospital utilization for mental health issues in an acute setting. The rate for Central Health in 2013-14 was 596 per 100,000, which has increased since 2009-10. This rate was higher compared to the province (431) and the country (502) but was the second lowest among the RHAs. Rates are higher for males nationally and provincially as well as for all RHAs with the exception of Labrador-Grenfell.

Repeat Hospital Stays for Mental Illness

This CIHI indicator is considered an indirect measure of appropriateness of care, since the need for frequent admission to hospital depends on the person and the type of illness. Challenges in obtaining appropriate care/support in the community and/or the appropriate medication often lead to frequent hospitalizations for mental illness. The rate for Central Health in 2013-14 was 12.9%, which has increased since 2010-11. This rate was higher compared to the province (11.0%) and the country (11.2%) and was the second highest among the RHAs.

30-Day Readmission for Mental Illness

Readmission to inpatient care may be an indicator of relapse or complications after an inpatient stay. Inpatient care for a person living with a mental illness aims to stabilize acute symptoms. Once stabilized, the individual is discharged, and subsequent care and support are ideally provided through outpatient and community programs in order to prevent relapse or complications. High rates of readmission 30 days from discharge for a mental illness could be interpreted as a direct outcome of poor coordination of services and/or an indirect outcome of poor continuity of services after discharge. CIHI data for 2014-15 shows a higher than average risk-adjusted rate for Central Health of 13.6%. This rate has decreased slightly since 2011-12 but is still higher in comparison to the RHAs, the province (11.4%) and the country (11.8%).

Mental Illness Patient Days

This indicator measures the age-adjusted rate of the total number of days in general hospitals for selected mental illnesses (MRDx) age 15 years and older per 10,000 population. While this indicator does not include data from free-standing psychiatric facilities, it is acknowledged that in some jurisdictions (e.g., Alberta) direct substitution between general and psychiatric facilities exists; the extent of this practice is unknown. As such, this indicator provides a partial view of hospital utilization for mental health issues in an acute setting. CIHI data for 2013-14 shows a higher than average rate for Central Health of 806 per 10,000. This rate has decreased slightly since 2009-10 but is still higher in comparison to the province (472) and the country (698) and is the second highest among the RHAs. National rates are higher for males and provincial rates are higher for females. Rates are higher among males for Central Health.

Depressive Mood in Long-Term Care

Depression affects quality of life and may also contribute to deteriorations in activities of daily living and an increased sensitivity to pain. CIHI data from the Continuing Care Reporting System (CCRS) for 2015-16 shows a low percentage of long-term care residents whose mood from symptoms of depression worsened (9.7%) and was lower in comparison to the prior year, the province (16.4%) and the country (22.3%). The highest facility rates were observed for Baie Verte Peninsula (14.7%), Dr. Hugh Twomey (13.3%) North Haven Manor (11.5%) and Lakeside (11.5%).

Self-Injury Hospitalization

Self-injury is defined as a deliberate bodily injury that may or may not result in death. This type of injury is the result of either suicidal or self-harming behaviours, or both. Self-injury can be prevented, in many cases, by early recognition, intervention and treatment of mental illnesses. While some risk factors for self-injury are beyond the control of the health system, high rates of self-injury hospitalization can be interpreted as the result of a failure of the system to

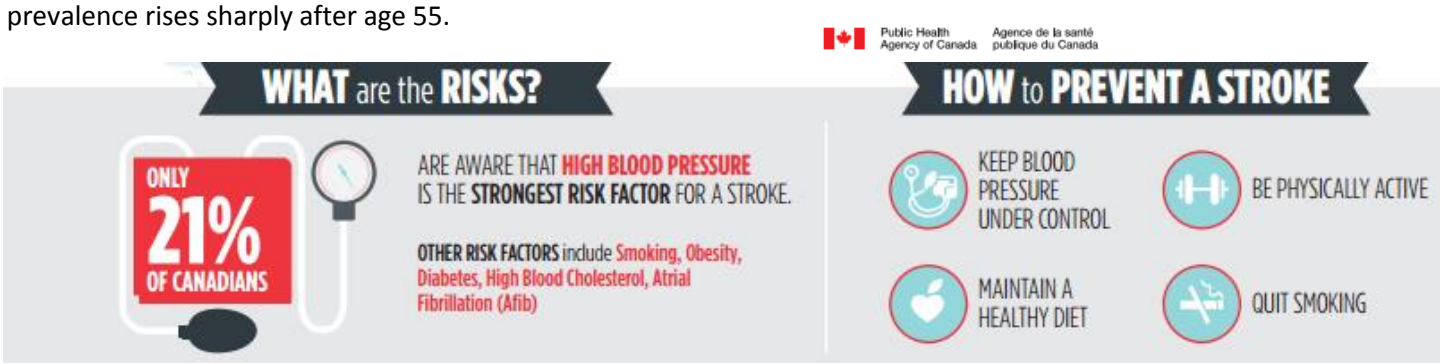
prevent self-injuries that are severe enough to require hospitalization. This CIHI indicator measures the age-standardized rate of hospitalization in a general hospital due to self-injury, per 100,000 population age 15 years and older. Using the available data sources, capturing intention is difficult. This indicator cannot distinguish whether or not the self-injury was intended to result in death (self-harming or suicidal behaviour). Neither unintentional nor undetermined injuries were included in this indicator, even though it is assumed that a small number of these cases were, in fact, intentional. CIHI data for 2014-15 shows a lower than average rate for Central Health of 76 per 100,000. This rate has decreased slightly since 2013-14 and is lower in comparison to the province (84) but higher than the country (65) and is the second lowest among the RHAs. Interestingly, national, provincial and RHA rates are much higher for females than males.

Other Inpatient Admissions

Stroke

Ischemic Stroke was the ninth most expensive type of hospitalization by diagnosis in Canada at $146 million *(Leading Hospitalization Costs in Acute Inpatient Facilities in 2012-13, CIHI).*

A stroke is a sudden loss of brain function caused by a sudden brain blood vessel blockage (ischemic stroke) or rupture (hemorrhagic stroke). Ischemic stroke is the most common type. Stroke can happen at any age, however stroke prevalence rises sharply after age 55.



Stroke is one of the leading causes of long-term disability and death so measuring its occurrence in the population is important for planning and evaluating preventative strategies, allocating health resources and estimating costs. From a disease surveillance perspective, there are three groups of strokes: fatal events occurring out of the hospital, non-fatal strokes managed outside acute care hospitals and non-fatal strokes admitted to an acute care facility. Although strokes admitted to a hospital do not reflect all stroke events in the community, this information provides a useful and timely estimate of the disease occurrence in the population. The prevalence of hospitalized strokes for residents of the Central Health region is higher than average (172 per 100,000) compared to the province (166 per 100,000) and the country (151 per 100,000).

CIHI reports the prevalence of hospitalized strokes in 2014-15 for first ever hospitalization for stroke or a recurrent hospitalized stroke (occurring more than 28 days after the admission for the previous event) for residents of the Central Health region has been consistently higher than average since 2010 at 172 per 100,000 compared to the country (151 per 100,000) and higher than the province since 2013 (166 per 100,000). Central Health has the second highest rate among the RHAs.

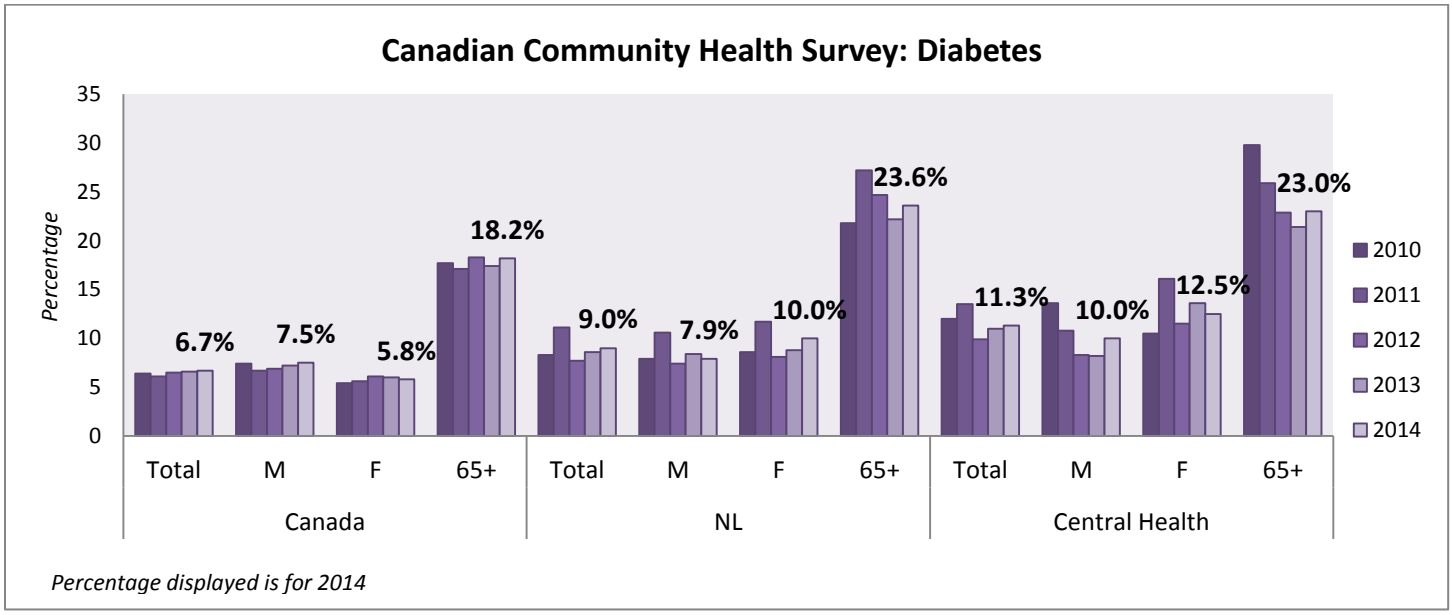
According to 3M hospital separation data, from 2013-16 Stroke (Ischemic, Hemorrhagic, TIA, unspecified) accounted for 2.1% of all hospital separations with an ALOS of 19 days and ELOS of 8 days. The percentage of cases that were ALC was 14.0%

Stroke Mortality

CIHI indicates that a lower risk-adjusted mortality rate following stroke may be related to quality of care or other factors. It has been shown that the 30-day in-hospital mortality rate is highly correlated with total mortality (death in and out of hospital) following stroke. For 2014-15, Central Health's mortality rate 30 days from hospitalization is 23 per 100 for first stroke admissions, which was higher compared to previous years and higher than the country (13.6), the province (17.8), Eastern Health (18.8) and Western Health (6.6).

Diabetes

According to the Canadian Chronic Diseases Surveillance System 2016, about 1 in 10 Canadian Adults age 20 years or older, 1 in 333 children and youth (age 1-19) live with Diabetes and 1 in 18 women who give birth have gestational Diabetes. About 10% of Canadians have Type 1 Diabetes and 90% have Type 2. Diabetes is more common among adult men than women. While only 1% of Diabetes cases are among Canadians between the ages of 1-19, 50% of cases are among seniors age 65 years and older. Self-reports of Diabetes on the CCHS indicate rates are higher in the Central region compared to the country and the province.



Percentage displayed is for 2014

According to 3M hospital discharge data, 1.3% of Central Health's hospital separations from 2013-16 were due to diabetes complications. The ALOS was 9 days compared to an ELOS of 5 days. The percentage of cases that were ALC was 4.3%

Hip and Knee Replacement

Unilateral knee and hip replacements were the most expensive type of hospitalization by intervention in Canada at $398 million and $260 million, respectively *(Leading Hospitalization Costs in Acute Inpatient Facilities in 2012-13, CIHI).* According to Central Health's 3M hospital separation data, from 2013-16 hip and knee replacements amounted for 4.8% of all cases. Hip replacements had an ALOS of 13 days with an ELOS of 7 days and knee replacements had an ALOS of 6 days with an ELOS of 4 days. The percentage of cases that were ALC for hip replacements was 16.0% and for knee replacement it was 4.3%.

The table below outlines characteristics of the top 25 hospital separations at Central Health from April 1, 2013 to March 31, 2016.

TOP 25 HOSPITAL SEPARATION CHARACTERISTICS 2013-16									
CMG	Cases (%)	Patient Days (Days)	ALOS (Days)	ALOS Acute (Days)	ELOS (Days)	Days to Save (Days)	Beds to Save (Beds)	ALC Cases	ALOS ALC (Days)
Heart Attack	998 (4.2%)	10,656	11	10	6	4750	14	27	34
COPD	845 (3.5%)	9477	11	9	7	3976	12	54	32
Heart Failure	630 (2.6%)	9,724	15	11	8	4822	15	257	53
Palliative Care	698 (2.9%)	10503	15	14	8	4656	14	24	43
Pneumonia	655 (2.7%)	7127	11	9	6	3031	9	38	38
Hip Replacement	594 (2.5%)	4845	13	9	7	3946	12	95	28
Knee Replacement	553 (2.3%)	3539	6	5	4	1327	4	24	27
Angina	522 (2.2%)	5415	10	9	4	3346	10	17	40
Stroke	513 (2.1%)	9897	19	13	8	5756	18	72	18
GI Obstruction/ Hemorrhage	509 (2.1%)	2761	5	5	4	772	2	9	33
Enteritis	429 (1.8%)	2790	7	5	4	981	3	12	51
Convalescence	417 (1.7%)	7131	17	9	2	6256	19	63	54
Arrhythmia	407 (1.7%)	3398	8	7	5	1561	5	16	44
Cancer	407 (1.7%)	5770	14	12	7	2863	9	22	46
Depressive Episode	383 (1.6%)	6410	17	16	11	2242	7	18	24
UTI	360 (1.5%)	4205	12	7	5	2505	8	46	37
Hysterectomy	363 (1.5%)	732	2	2	3	0	0	0	0
Large Intestine/ Rectum Resection	347 (1.4%)	3387	10	10	9	348	1	4	17
Diabetes	302 (1.3%)	2691	9	7	5	1109	3	13	36
Renal Failure	297 (1.2%)	4107	14	9	7	2103	6	21	64
Substance Abuse	289 (1.2%)	2546	9	8	4	1381	4	11	12
Dementia	287 (1.2%)	21706	76	15	15	17400	53	199	88
Disorder of the Biliary Tract	255 (1.1%)	1101	4	4	4	166	1	2	6
Colostomy/ Enterostomy	208 (0.9%)	3493	17	15	15	468	1	6	49
Appendectomy	200 (0.8%)	446	2	2	2	16	<1	0	0

Source: Central Health's 3M Hospital Separation Flatfile (accessed October 2016)

HEALTH & HUMAN FUNCTIONING

The general health status and functions of the population and is associated with the consequences of diseases, disorders, injuries and other health conditions. Health functions include body functions/structures (impairments), activities (activity limitations), participation (restrictions in participation) and life expectancy. e.g. PYLL or healthy life expectancy. Equity is an overarching health system outcome that encompasses the equitable distrbuton of health status and system responsiveness across socio-economic groups - the equity of the health system. This implies that "everyone should have a fair opportunity to attain their full health potential and that no one should be disadvantaged from achieving this potential, if it can be avoided".

Life Expectancy

Used worldwide, life expectancy at birth is understood as a measure of the general health of a population. For the most recent year of data, Central Health's general life expectancy for 2007-09 was 79.3 years, which is lower compared to the country (81.1 years) but higher compared to the province (78.9 years) and the other RHAs.

The number of years a person would be expected to live at age 65 in the central region was 18.5 years, which is the same as the province but lower than the country (20.2 years).

Health-adjusted life expectancy (HALE) measures the average number of years an individual is expected live in a healthy state. It is a summary measure that combines both quantity of life and quality of life (combines mortality and a morbidity experience into a single summary measure of population health. It can be used to measure the burden of disease and injury, risk factors in the population and the performance of public health efforts. This measure is not available by health region, however, for Newfoundland and Labrador this was 75.8 years for males and 80.8 years for female in 2005-2007, which was lower than the country.

Mortality

Avoidable Deaths

Avoidable mortality indicators provide additional insight into the health system and can be used to assess the impact of prevention strategies and the outcomes of health policy decisions and health care provision. Avoidable mortality refers to untimely deaths age 75 and under that should not occur in the presence of timely and effective health care, including prevention. It serves to focus attention on the portion of population health attainment that can potentially be influenced by the health system. It includes conditions such as diabetes, COPD, VTE, some infections and circulatory system conditions, to name a few.

Potentially Avoidable Deaths includes premature deaths that could potentially have been avoided through all levels of prevention (primary, secondary, tertiary). National rates have been declining steadily since 2006, and rates for Newfoundland and Labrador are also following this trend. This rate for Central Health was 233 per 100,000, which was higher than the country (207 per 100,000) but lower than the province (239 per 100,000) and the lowest among the RHAs. This rate for Central Health has not changed since 2006.

Avoidable Deaths from Preventable Causes is a measure that focuses on premature deaths from conditions that could potentially be avoided through primary prevention efforts, such as lifestyle modification or population-level interventions (e.g. vaccinations and injury prevention). This indicator informs efforts aimed at reducing the number of initial cases, or incidence reduction, as deaths are prevented by avoiding new cases altogether. National rates have been declining steadily since 2006, and rates for Newfoundland and Labrador are also following this trend but are still higher compared to the country. The most recent rate of avoidable deaths from preventable causes (2010-12) for Central Health was 138 per 100,000, which is comparable to the country (135) but lower than the province (143) and the lowest among the RHAs. This rate for Central Health has not changed since 2006.

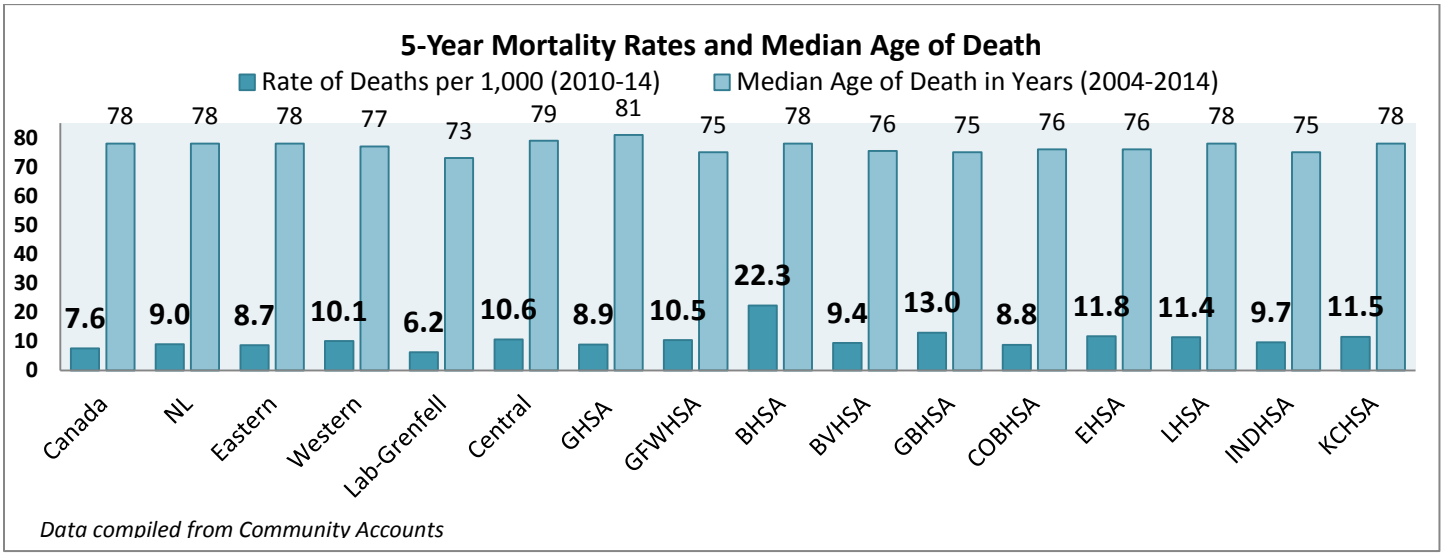
Avoidable Deaths from Treatable Causes is a measure that focuses on premature deaths that could potentially be avoided through secondary and tertiary prevention efforts such as screening for and effective treatment of an existing disease. This indicator informs efforts aimed at reducing the number of people who die once they have a condition, or case-fatality reduction. National rates have been declining steadily since 2006, and rates for Newfoundland and Labrador are also following this trend but are much higher compared to the country. The most recent rate of avoidable

deaths from treatable causes (2010-12) for Central Health was 95 per 100,000, which is higher than the country (72), comparable to the province (96) and the second highest among the RHAs. This rate for Central Health has not changed since 2006.

Potential Years of Life Lost (PYLL) is the number of years of potential life not lived when a person dies prematurely, defined for this indicator before age 75. This measure from Statistics Canada provides an alternative measure to death rates by taking into account average life expectancy and giving more weight to deaths that occur among younger people (CANSIM Table 102-4315). The three year average for Central Health for 2010-12 for:

- Avoidable deaths - 3,726 years, which was higher than the national average but lower than the provincial average
- Avoidable deaths from preventable causes - 2,319 years, which was higher than the national and provincial averages
- Avoidable deaths from treatable causes - 1,406 years, which was higher than the national average but lower than the provincial average

Mortality refers to the number of deaths that occur per 1,000 population. This indicator measures the overall health of the population and represents data that correlates with life expectancy.



Data compiled from Community Accounts

Infant Mortality

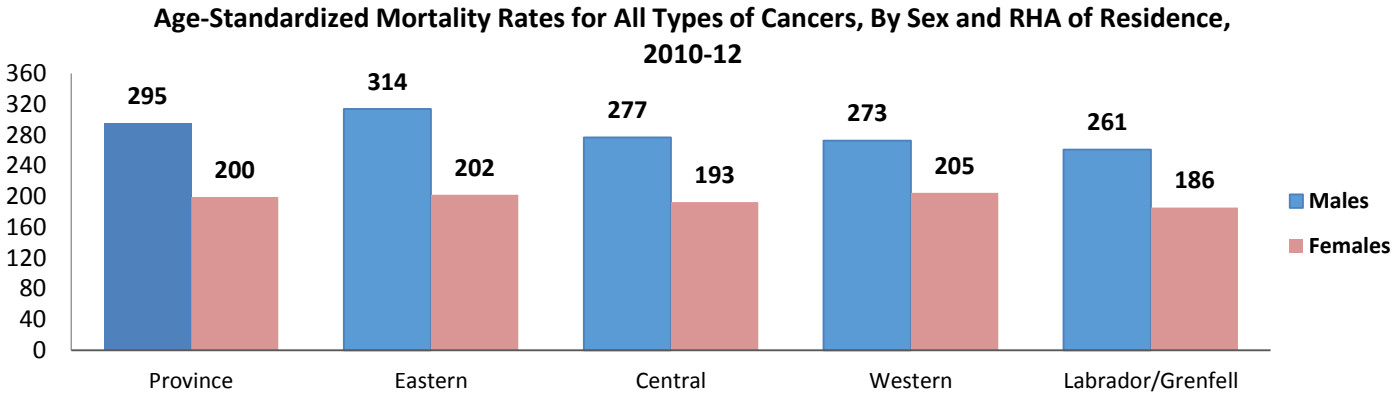
The infant mortality rate, the rate at which babies of less than one year of age die, reflects economic and social conditions for the health of mothers and newborns, as well as the effectiveness of health systems (*Organization for Economic Co-operation and Development,* OECD Factbook 2009: Economic, Environmental and Social Statistics *(Paris: OECD, 2009), 246.)* Many health experts view the infant mortality rate as a sentinel indicator of child health and the well-being of a society over time. Indeed, infant mortality is an important measure of the well-being of infants, children, and pregnant women because it is associated with a variety of factors, such as maternal health, quality and access to medical care, socioeconomic conditions, and public health practices. (*Medicinene.com*). Infant mortality also indicates health disparities between different populations, both within and between countries. The United Nations' *Human Development Report 2005* states: "No indicator captures the divergence in human development opportunity more powerfully than child mortality" (United Nations, *Human Development Report 2005* (New York: UNDP, 2005), 4.). Infant mortality is often used as an indicator to measure the health and well-being of a nation, because factors affecting the health of entire populations can also affect the mortality rate of infants (Centers for Disease Control and Prevention, *Infant Mortality*). The infant mortality rate for 2012 was 4.8 per 1,000 live births for the country and 5.7 per 1,000 live births for the Newfoundland and Labrador. Rates for Central Health are lower than the national and provincial rates.

Perinatal Mortality

Perinatal deaths are the rate of late fetal deaths (stillbirths with a gestational age of 28 weeks or more) and early neonatal deaths (deaths of infants aged less than one week) per 1,000 total births. In 2013, the perinatal mortality rate

for the country was 8.0 per 1,000 live births and for Newfoundland and Labrador was 9.2 per 1,000 live births. The number of stillbirths is increasing for both the country and the province since 2009. Rates for Central Health for 2013 are lower than the national and provincial rates (Data not provided due to privacy and confidentially reasons).

Cancer Mortality



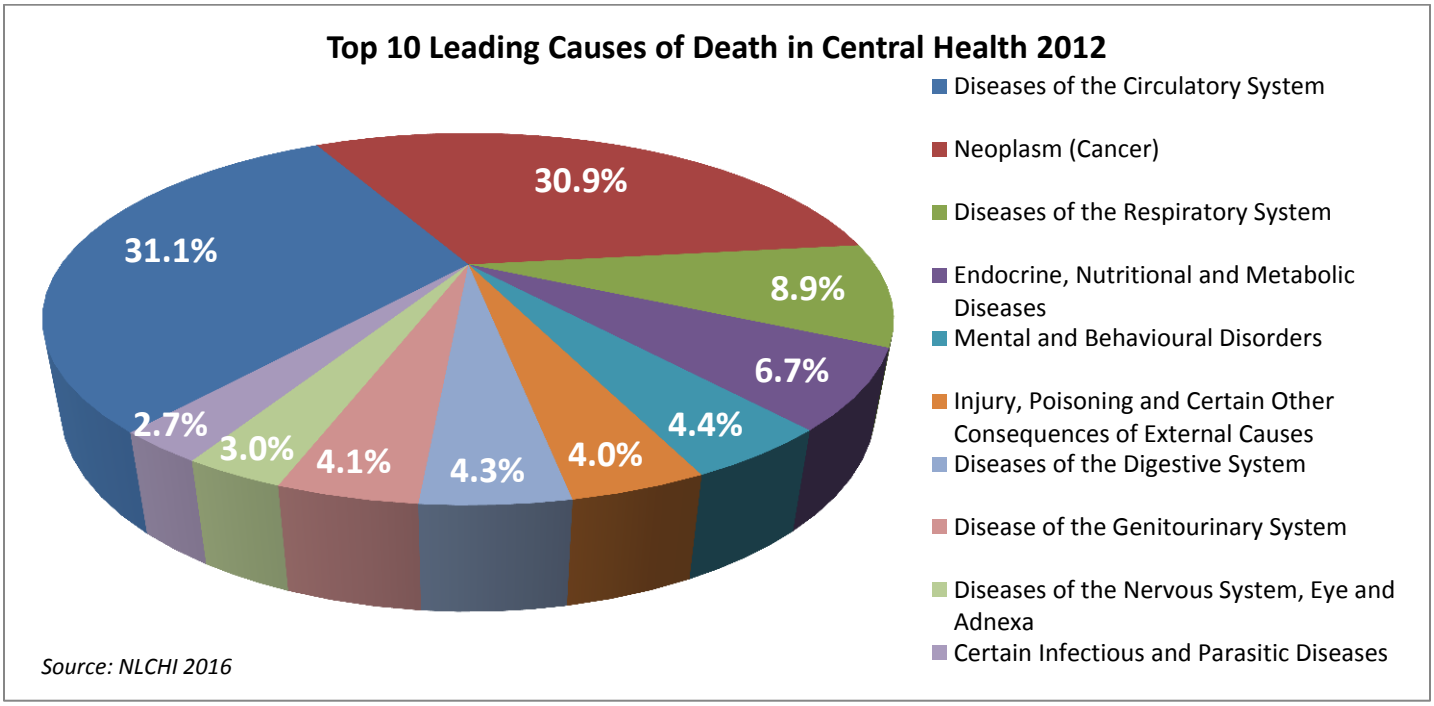
Source: Canadian Cancer Registry NL submission file (2011-13); NLCHI population file (2011)

Suicide

The crude suicide rate, compiled by NLCHI from the Suicide Database 2009, captures the number of deaths due to intentional self-injury in the population aged ten years and older. In 2009, the overall suicide rate in the province was 10.7 per 100,000 population. The highest rate was observed in Labrador-Grenfell (24.1), followed by Western (13.9), Central (10.4) and Eastern (8.3).

Leading Causes of Death

Diseases of the circulatory system and cancers are the top two causes of death among the region, province and country. Mental and Behavioural Disorders have moved up in rank from 7th to 5th and Injuries have dropped in rank from 5th to 8th for both the province and Central Health.



Source: NLCHI 2016

Life Satisfaction

Life satisfaction is a personal subjective assessment of global well-being (Statistics Canada). Survey respondents of the 2014 CCHS for the Central Health region indicated a slightly higher rate of satisfied or very satisfied compared to the province (93.2%) and the country (92.2%) at 94.6%. Rates for Central Health were also the highest among the RHAs.

Perceived Health, Perceived Mental Health and Functional Health

- 61.2% of Central Health respondents of the Canadian Community Health Survey (CCHS) in 2014 rated their perceived health as excellent or very good, which was higher than the province (60.6%) and the country (59.0%) however these rates have declined slightly since 2010. This self-rated health indicator measures an individual's perception of his or her overall health. It refers to a person's health in general—not only the absence of disease or injury but also the presence of a physical, mental and social well-being. Good to excellent self-reported health status correlates with lower risk of mortality and use of health services.
- Perception of mental health has declined since 2010 for the province (72.2%), the country (71.1%) and Central Health (70.8%).
- Self-rated reports of functional health rated as good to full from the CCHS was 79.0% for Central Health, which was the second highest of the RHAs, was lower than the province but higher than the country.

Participation and Activity Limitation

The percentage of Central Health respondents of the CCHS in 2014 indicating they sometimes or often experience limitations in activities due to health issues was 36.5%. This rate was second highest among the RHAs and was higher than the province and the country.

Pain or Discomfort

The percentage of Central Health respondents of the CCHS in 2014 indicating they experience moderate or severe pain was 14.2%. This rate was comparable to the other RHAs, the province and the country. 15.2% of respondents indicated they experience pain or discomfort that prevents them from doing activities. This rate is the highest among the RHAs, the province and the country.

Pain in Long-Term Care

- The consequences of pain include increased difficulty with activities of daily living, depression and lower quality of life. The prevalence of persistent pain increases with age, and proper treatment of pain is necessary to improve the health status of residents. CIHI data from the Continuing Care Reporting System (CCRS) notes that 15.5% of Central Health residents in 2015-16 experienced pain in LTC, which is a decrease from the prior year, higher compared to the province (14.7%) and lower than the country (8.5%). Facilities with the highest rates were Dr. Hugh Twomey (23.1%), Carmelite (22.1%) and Notre Dame Bay (17.6%). Rates for Fogo and Connaigre were not available.
- Worsening pain can be related to a number of issues, including medication complications and/or improper management of medications. Careful monitoring of changes in pain can help identify appropriate treatment. Worsened pain raises concern about resident's health status and the quality of care received. 7.4% of residents experienced worsened pain, this is lower compared to the province (11.5%) and the country (10.5%). Facilities with the highest rates were Baie Verte (14.9%), Dr. Hugh Twomey (12.0%) and Lakeside (9.4%).

Physical Functioning in Long-Term Care

This CIHI indicator shows how many LTC residents improved or remained independent in transferring and locomotion. Being independent or showing an improvement in these two activities of daily living may indicate an improvement in overall health status and provide a sense of autonomy. This rate for 2015-16 for Central Health for improved physical functioning was 32.6%, which was a decrease from the prior year, lower than the province (39.8%) but higher than the country (31.7%). The lowest facility rates were Connaigre (2.1%), Baie Verte (3.0%) and Fogo (6.1%). The rate for Central Health for LTC residents who worsened or remained completely dependent in transferring and locomotion was 31.4%, which was lower than the province (31.6%) and the country (33.1%). An increased level of dependence on others to assist with transferring and locomotion may indicate deterioration in the overall health status of a resident.

Provider & Community Perspective

Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis

As a part of the data collection process for the environmental scan to inform the strategic planning process a SWOT analysis was completed, which is a strategic planning tool that helps assess an organization's **STRENGTHS, WEAKNESSES, OPPORTUNITIES**, and **THREATS**. A SWOT analysis helps organizations better understand all the factors, positive and negative, that may affect strategic planning and decision making. SWOT analysis helps to develop a strategy by providing a way to match the organization's resources and capabilities to the pressures and threats it is likely to face. A successful SWOT analysis can lead to a strategy that will leverage the organization's strengths, minimize areas for improvement, mitigate external threats, and capitalize on opportunities (Credit Valley Hospital & PricewaterhouseCoopers, 2007).

From August through December 2016, several SWOT sessions were held for leadership in the organization. The following sessions seen a total of 109 leaders participating in the following sessions:

- Leadership Council SWOT Session – one (1) session held in August 2016 – 27 senior leaders & directors participated
- Managers SWOT Sessions – nine (9) sessions held in October 2016 – 61 managers/directors participated
- Physician SWOT Sessions – three (3) sessions, one for each of CNRHC, JPMRHC, and Rural Medical Advisory Committee held from October to December 2016 – 21 physician leaders (Chiefs and Senior Medical Officers) participated

Management Perspective

Leadership Council & Manager SWOT

The results from leadership council and managers perspective for the 2016 SWOT analysis highlight the following **STRENGTHS**:

- Good physician base with a wide variety of specialists available
- Wide variety of services in region i.e. Smoking Cessation, Cervical Screening, Adult Protection Program, Healthy Baby Club, etc.
- Board of Trustees is highly informed and engaged
- Vision and passion for quality care
- Organizational maturity
- Fiscally responsible and aware
- LEAN (quality improvement methodologies used) & Lean education opportunities
- Ethics and Research Framework
- Focus on continuous quality improvement
- Quality Improvement Framework
- Quality Improvement teams and support for these teams to function
- Patient safety and shift in safety culture
- Patient Safety Walk Rounds
- Staff safety with OH&S committees well established
- Safety training, such as CPI and safety line
- Safe Resident Handling Program
- Developing a fair and just culture
- Good communication mechanisms between senior leadership, directors and managers
- Organization responds well in a crisis as people really come together to achieve a common goal
- Good supportive, accountable, dedicated people in the organization
- Learning culture and learning organization
- Staff education, orientation, training (many free courses) and professional development opportunities
- Investment in staff and leadership
- Assessable resources i.e. subject matter experts, internal expertise, library services
- New Learning Management System (LMS)
- Strong volunteer base
- Respect among peers/managers/groups
- Trust among managers and appreciation of each other's strengths
- Strong partnerships in different areas i.e. in Springdale two church services every week in Valley Vista, children visit seniors homes
- CEO has good leadership abilities i.e. clear vision and able to communicate what is expected, visible, compassion and leadership stories as well as personal touch

- Committed leadership, tries to do the best
- Improved privacy culture
- Good security/vetting process to keep patients safe (i.e. police check/staff/volunteers)
- "Good" dedicated employees in organization - qualified, skilled, knowledgeable, committed to providing quality care, using resources wisely, embracing Lean and LEADS, change, willingness to change
- People want to do a good job
- Staff involvement and participation throughout the organization
- Teamwork
- LEADS adopted as leadership framework
- Leadership development
- Innovative/progressive thinking
- Openness and transparency to the public i.e. disclosure of information to public or individuals when there is an adverse event
- Move to person and family centered care
- External peer assessments such as Accreditation, peer review
- Program management structure facilitates development of the program and accountability
- Staff know reporting structure
- Improved access to data for decision making
- Use of Technology i.e. CSRS,Meditech,CRMS,HealtheNL,scanning,ORM,SAM,etc. and structure to support it i.e. Help Desk in IMT
- Engagement and relationship with communities, i.e. CAC's
- Primary health care model
- Good infrastructure and maintaining organizational commitment to improve
- Understanding importance of privacy
- Single point of entry for some services
- Staff recognition i.e. WOW cards
- ER Strategy
- GPA & Philosophy of LTC
- Achieving PRIME and reinvesting into safety
- EFAP and Mental Health Workplace Model
- Central Health care Initiatives such as Caring for Seniors
- Standardization in community sector
- Shared services

The results from leadership council and managers perspective for the 2016 SWOT analysis highlight the following **WEAKNESSES**:

- Communication to frontline employees
- All managers not held accountable as unclear expectations of what is required
- Over-reaching beyond personal capacity
- Challenges with sustainability
- Need to make it easier to die at home i.e. preloaded/color coded medication
- Impact of cost for access out of region
- Lack of physician awareness of Lean
- Integrated health care needed including holistic care and thinking outside the box
- Increasing respect for the cost of the health system (education for patients)
- Wait time management – need regional sharing of information and working on same issues together
- Not being able to schedule your own appointments
- Self-scheduling capabilities for patients/clients
- Self-registering kiosks
- Navigation for patients
- Efficiencies needed i.e. regional sites needing a small number of items but have to get a box of the item, Pharmacy recycling program,
- Infrastructure (equipment, software, physical; i.e. virtual colonoscopies)
- Palliative care culture especially within the physicians group
- Regional inventory plan (i.e. 4x4's as example)
- Lack of business intelligence
- Technology in organization - Wi-Fi for patients, TV's for patients, equipment obsolete, behind in operating systems
- Lack of reliable data and Inaccurate information for programs and planning
- Getting access to information through IM+T from Meditech
- CRMS vs Meditech—lack of connection
- IM&T infrastructure
- All employees need to be dealt with equally (i.e. policies, respectful workplace)
- Don't use internal expertise enough and sometimes not sure who has the expertise
- "Onboarding" process for new employees/new managers/directors
- Collaboration across programs i.e. sepsis, lab testing
- Communication - lack of inclusion of people, there is exclusion of people
- Communication/education about our programs and services
- Internet/intranet information for the public i.e. paper newsletter, live chat for patients, Facebook/Twitter
- Social media - Need Twitter, Facebook, LinkedIn; website out of date; intranet (unable to navigate)
- Do not engage in social media for recruitment/good news stories
- Lack of branding of Central Health for recruitment
- Not promoting good news stories, i.e. Central Health Cares, services available
- Not promoting strengths

- Lack of clerical capacity with the way we do things now (re: booking/no one to answer phones)
- Positive identification policy needs to be strictly enforced
- Access to client/patient information - need to have information available and accessible to patients
- Are we focusing enough on employee health and wellness (basic for client-centered call and safe H.Q)
- Paper reporting – need to stop printing
- Advance health care directives
- Baseline data for employee satisfaction within the organization
- Appropriateness/utilization of testing
- Blame culture still alive in some areas
- Do not tap into value of the people as much as needed
- Central Health reputation, for patients/public and for staff
- Lack of standardization
- What do we know about people wanting or not wanting to work here – need indicators
- Culture - "we" and "they" which limits our ability to standardize
- Best practice not always followed
- Demands on staff/ managers on daily basis is hard to manage (what is demanded/needed)
- Very reactive, therefore not being proactive
- Current structure (hybrid) - Current structure creates lack of accountability, i.e. influenced by lack of role clarity, lack of role clarity among different levels in the organization, lack of a accountability/ownership because of lack of role clarity
- ER observational unit – Western Health has such a unit
- Program structure creates silos within the organization (vs. value stream)—path/flow of the patient (so many connects between program area)
- Aging infrastructure, specifically physical buildings, i.e. buildings needs paint, improved bathrooms, etc.
- Overcapacity in the ER creates pressure at referral centers, maintenance, support services, dietary
- Trust/lack of transparency/consistency, i.e. postings vs. appointments this impacts buy-in - If we aren't transparent or consistent in decision making people won't trust us
- Explanation needed for decisions made related to postings vs. appointments
- Evaluation, sustainability and champion building
- Legal issues from employees
- Sick leave (lacking resources and support for employees)
- Lack of HR strategy is impacting the morale of the frontline staff
- Staff turnover, i.e. retirement, on-call replacement
- Aging staff
- Generational gaps within the organization and impact of same
- Succession planning
- Retiring employees now can't work for 20 weeks if paid severance when retired – this will impact skilled workforce available
- Central Health staff retiring and loss of institutional memory
- Regulatory body regulations impact physician recruitment
- Not able to recruit the right people or get the right people in the right job
- Lack of staff including physicians continue to fatigue, lack of fatigue management
- Perceived lack of trust
- Staff unable to get vacation
- Lack of belongingness in the frontline
- Organizational culture – incivility and lack of respect
- Bullying
- Psychological safety of employees
- Work-life balance
- Employee and manager engagement
- Leadership recognizing individuals who contribute
- Lack of accountability with physicians, managers and frontline - accountability needed from top to bottom
- Lack of authority
- Lack of patient and family centred care
- Lack of standardization i.e. OR, Lab, etc.
- Change management
- Project management
- Need align lines of business
- Need to spread program management to all sites and sustain it
- Shared services (direction, expense, view, HR)
- Effective communication, i.e. navigate intranet, need multiple ways to communicate, bring items to frontline, urban vs. rural, not fully amalgamated
- Regional programming - struggles with sparse resources, decreasing content expertise in all programs being managed
- Convoluted processes, takes too long to do something, too many competing priorities
- Lack of priority setting
- Managerial skills not being utilized, i.e. learned skills, not given opportunity, need to cross train if skills are available
- Feeling that LEADS died
- Department members located in different spots
- Policy development and deployment
- Not all staff understand QI and how to contribute
- Time management
- Not enough resources for Ethics
- Projects on side of desk
- If not linked to strategic plan then not supported

The results from leadership council and managers perspective for the 2016 SWOT analysis highlight the following **OPPORTUNITIES**:

- Telehealth, need to expand availability of services (more benefits to patients because of nurse availability)
- National focus on person and family-centered care
- Growing knowledge base, i.e. Lean, QI, service delivery, etc.
- Inclusiveness for all populations to improve health outcomes, transgender population as an example
- Patient engagement - Resource base of patients and families for helping us at Central Health with improving quality
- Volunteer feeding program spread programs throughout the organization
- Retiring staff provide opportunities such as leveraging people's strengths from their lifelong career, now as volunteer. The retiring population from community provides excellent volunteer base
- Communications plan - Good news stories (share information) – there are many community newspapers throughout the central region with available slots. Highlight successes—media, LEAN processes, audio-visual equipment, storyboards. News media/social media are so open to stories we could leverage this. Have photo consent when residents move into LTC. Need process for introducing innovative new practices/creativity, encourage innovation
- Public education/communication - Costs of health care and services, no-shows, accountability, choosing wisely, chronic diseases, healthy living, programs and services
- Improvement/enhance partnership opportunities - Public/patients are willing to be involved in initiatives, partnerships with towns and communities to help with recruitment, municipalities - health promotion activities, engage with emergency planners, and community planning, recycling program, Community Advisory Committees (CACs), Seniors Resource Centre, government departments – engage with consultants, violence prevention, schools, blood services, health care organizations, public/private partnerships
- Environmentally friendly
- Increased access to information and knowledge
- Technology—leverage and utilizing technology across the organization - Wi-Fi for patients, residents and families, technological advances, provincial Health NL Viewer, EHR
- Assisted death and dying opportunities
- Strategic decisions regarding location of services
- Provincial Data Analytics Strategy – avail of NLCHI expertise
- RHAs sharing ideas i.e. Accreditation, quality, patient safety, etc.
- Shared services - More effective purchasing, HR, better info for decision making
- Provincial standards i.e Lab, DI
- Expand Safe Resident Handling
- Chronic disease prevention and management
- Existing physician leadership
- Develop better framework action for psychological safety and environmental safety
- Professionals returning to province
- Immigration

The results from leadership council and managers perspective for the 2016 SWOT analysis highlight the following **THREATS**:

- Demographics of population
- Aging population
- Caregiver burden
- Declining population, outmigration
- Labor market
- Socio-economic status
- Volunteer base declining because of age, smaller communities
- Economic situation, reduced tax base
- Budget situation/fiscal situation/new budgeting model
- Seniors/retirement communities
- Insufficient housing for seniors
- Lack of long term care beds
- Sustaining the services that we currently have
- Patient/client expectations related to services
- Threats of aggressive clients, media and law suits
- Weather conditions/climate change i.e. extreme weather events such as floods
- Health of population
- Chronic diseases, including Mental Health concerns
- Lack of activity and obesity in population, including children
- Drug and addiction issues, including opioid crisis
- Multitude of diverse treatments
- Geography - transportation, isolation
- Change in Government and political agendas
- Urban vs Rural
- Centralized vs decentralized services
- Community resistance to change
- Social media, threat to the vulnerable
- Public expectations
- Lack of knowledge and awareness of community perspective
- Greater public expectations and litigation
- Pace of change
- Increasing risk/criticism/legal with increasing technology
- Government departments working in silos health vs school
- Provincial RHA amalgamation

Physician SWOT

The results from the physician perspective for the 2016 SWOT analysis highlight the following **STRENGTHS**:

- Educational opportunities & learning culture
- Teamwork/teambuilding & relationships
- Support & commitment from Board of Trustees & Senior Leadership Team
- Senior Leadership Team responsive & respectful
- Collaboration between physicians & program leadership
- Strong partnerships & linkages (health foundations, university, town councils, etc.)
- Patient safety culture
- Focus on quality & quality improvement
- Equipment & infrastructure
- Physician involvement in decision making
- Some sites co-housed in a single site and offering a wide array of services in a collaborative manner
- Waiting times
- Staff commitment
- Skilled physicians & staff
- Reporting systems for management, tracking & follow-up (i.e. occurrences, complaints, employee accidents)
- Caring staff
- Generalist & specialized services
- Size of organization provides benefits
- Technology Infrastructure
- Willingness to innovate & change
- Efficiencies identified

The results from the physician perspective for the 2016 SWOT analysis highlight the following **WEAKNESSES**:

- Lack of supports/allied health professionals
- Primary health team/reform
- Right people are not always doing the right job
- Understaffed
- Scope of practice for physician – physicians can provide oversight but work can be done by other professionals which would free up physicians time to work to full scope i.e. needing physician extenders so physician can focus on scope
- Physicians with so many other duties that less time for direct care/contact with patients\
- Not having the basic information to plan the care/service i.e. information on requisitions\
- Patient-centered concerns that are missed because of continuity of care i.e. family information, dynamics . i.e. Lack of youth mental health services – from an ER perspective
- Waits/waitlist constraints including in specialty care/diagnostics
- Need appropriate access to services
- Diagnostic services i.e. MRI requests by MDs needed
- Efficiency – little to no accountability for tests ordered, or equipment used, late arrivals/starts, etc.
- Reactive as opposed to being proactive through planning
- Incentives can impact access
- Targeted populations that are falling between the cracks – total system response is needed
- Interdepartmental communication
- Measurement/indicators – need decision support for improvement efforts
- Sometimes patient safety is traded off for efficiency
- Over focus on some areas i.e. focus on “older” population vs. pediatrics/youth population
- Addiction and drug issues i.e. need to pay attention to the opioid crisis
- Division of resources between two referral centers
- Concern about patient entitlement – need for patient education so that patients understand proper use of resources i.e. ER/ family practice physician
- Public education is required related to many topics
- Model of Nursing concerns not addressed
  - One person becomes the expert so mentoring is impacted
  - Not having <u>one</u> person in charge
  - Team part of nursing is gone – everyone on their own
  - Different scopes of practice, lower scopes of practice and sometimes roles not understood/lack of role clarity
  - Not coordinated communication
  - Lack of coordination and more direct line to physicians – so many nurses needing to contact physicians as opposed to one contact per unit
  - Physicians have become “go to” for more issues
  - Team leader had more power, responsibility
  - When conducting rounds no one to talk to, patient nurse gone and no one know information about the patient – no way to contact nurse if off floor
  - No continuity of nursing staff
  - Metrics – what metrics are being tracked
  - What is the outcome of the evaluation
  - Expected lower job satisfaction/morale for staff
  - Questions whether there is a value for the clinical nurses(RN’s) in the organization
  - LPN’s sick payments
- Physician orientation – physician showed up and no one knew he was coming
- Create community engagement in settling in new health professionals
- Salaried physicians – who defines the work week, organization not good at measuring workload and distribution of labor

- History of unclear expectations impacts accountability i.e. position descriptions, performance appraisals, work requirements
- Lack of recruiting locally trained physicians, especially in rural sites and in Gander for GP's
- Physician recruitment/human resource planning for physicians
- Rapid turnover of MD's in rural sites
- Cultural and ethnicity creates challenges for coherence, communication and expectation—sometimes a challenge and awkward
- Skill level of rural physicians often place demands on referral center physicians
- Physicians at rural sites skill level (maybe the rural physicians would benefit from starting at the referral center)
- Division between east and west
- Rural SMOs need to connect periodically with the referral centres – better relationships needed
- Need more investment in relationships between rural sites and referral centers
- Disrespect to rural physician from referral centers
- Need better patient coordinated care (organized care)
- Communication between rural and referral centers
- Rural SMOs need to connect periodically with the referral centres – better relationships needed
- Need more investment in relationships between rural sites and referral centers
- Disrespect to rural physician from referral centers
- Need better patient coordinated care (organized care)
- Communication between rural and referral centers
- Cultures within the organization that are resistant to change i.e. low change competency
- Decline in the level of professionalism (cause may be lack of mentoring/role models) i.e. between groups of professionals, how to people speak to one another & dress
- Dialysis Unit at JPM – CH should have control/responsibility for the unit
- Lack of follow-through of occurrences, etc.
- Amount of change happening—too much
- Lack of some processes in place related to quality of care i.e. death chart review
- Peer support
- CMEs should be provided by webinars
- Rural MAC connection to other MACs and feedback to front line Rural MD's lacking
- Lack of objective assessment of clinical outcomes
- Length of time for decision making
- Clarity of ownership of programs
- Ambulance service
- No access to up-to-date information, especially in rural sites
- SMO involvement in leadership of health facility and inclusion
- Management addressing of staff concerns
- Confidentiality level in all communities

The results from the physician perspective for the 2016 SWOT analysis highlight the following **OPPORTUNITIES**:

- Utilizing equipment and resources to reduce/eliminate wait lists
- Efficiencies in reduced testing (labs & diagnostics) – i.e. Choosing Wisely
- Improve community supports (i.e. community IV program, community supports, etc.)
- Work with focused populations
- Centralized common intake processes booking/scheduling
- Enhanced Telehealth (including Tele-pathology)
- Recruitment – learn from what has worked at Central Health Training medical learners at Central Health
- Leveraging resources to address concerns such as mental health issues
- Reduce waiting times for Mental Health Services
- Recruitment office that recruits for all of NL
- Enhance partnerships
    - Identify different partnership opportunities
    - Collaborative care and partnership opportunities
    - Research collaboration with provincial & national partners
    - Collaborative research centers for models of care
    - Leverage work done in other organizations
    - Partner with technology companies
- Hospitalist system
- Family Practice Groups
- Increase rural specialty clinics
- Enhance home supports to keep people at home to decrease ALC
- Technology to increase efficiency & decrease duplication
    - Universal electronic documentation
    - Electronic standard documentation (especially for internal medicine)
    - Electronic health record
    - Improve Meditech – no evaluations of changes to Meditech
- Healthe NL – needs more communication
- Streamline LTC referral assessment (currently 25 pages)
- Provincial ambulance service
- Education
    - CME's on webinars to increase access
    - Develop partnerships in distributed learning
- Palliative care physicians
- Relationship/team building
- More community based services
- Enhance rural diagnostics
- Practice standards

The results from the physician perspective for the 2016 SWOT analysis highlight the following **THREATS**:

- Differing needs between rural and urban sites
- Lack of provincial physician recruitment strategy considering physician requirements throughout the province
- Lack of regional recruitment strategy
- Divide between the west and east of the organization
- Fractured relationships between rural/centralized care
- Specialist follow-up of complicated cases in rural sites
- Drugs – Opioids
- Aging population & lack of planning (lack of long term care beds & increased ALC)
- Lack of care providers for home supports & personal care homes
- Childhood obesity
- Chronic disease burden
- Ambulance services
- Lack of trained staff
- Lack of adherence to evidence based practice
- Lack of clear standards of care
- Over-investigating patients (labs, diagnostics)
- Increased mental health issues
- Lack of access to mental health services
- Lack of clear referral/consultation process between rural sites and referral centers (increases patient risk & organizational liability)
- Fiscal reality in province
- Patient entitlement
- Sparsely populated region/size of region

Provider Consultations

There were a total of 129 providers who participated in 9 hosted provider consultation sessions across Central Health facilitated by a Primary Health Care Facilitator/Community Development Nurse in each HSA. The results from the 2016 Community Health Assessment Process (CHAP) for provider consultations highlight the following information:

COMMUNITY HEALTH ASSESSMENT RESULTS - Providers

AREA (See Page 8)	My Community is NOT Healthy because…	Main Health Concern/Issue in Your Community	Strengths of the Health System	Gaps in Services
GHSA	-Difficult for low income families to be involved in activities -Cost of living -Transient service providers -Lack of family doctors or choice -Drugs/alcohol abuse -Lack of Mental Health Services -Under recognition of community diversity (homelessness, low income)	-Wait times -GP availability and stability -Lack of Mental Health and Addiction Services and awareness -No Family Resource Centre -Lack of Provider engagement in Strategic Planning Process	-Orthopedics -Pediatrician -ED open 24 hours -Ambulance close by -Home Support services and agencies -Health services in close proximity -nursing homes (LTC and PCH) -Protective Care Unit -'fairly' well-staffed (more than one RN on nights)	-Instability of GPs and OBS -Specialists in St. John's (travel) -Wait times -Only 1 pediatrician and 1 obstetrician -LTC is over filled (separating married couples) -Acute care beds filled with medically discharged clients -Lack of transportation to appointments -No family resource center -No health services past 5:00pm other than ED -ED wait time long -Lack of Mental Health Services
GFWHSA	1 Session was scheduled with no attendees			
BHSA	None held			
BVHSA	-Fresh foods are limited -Diabetes	Data not provided	-Caring and compassionate providers (RN, LPN, physicians)	-Aging Population -The Budget -Job cut backs for RNs -Lack of teamwork
GBHSA	1 Session was scheduled with no attendees			
COBHSA	-Lack of health services -Cultural habits (lack of nutrition, physical activity)	-Mental Health and Addictions -Diabetes nutrition -Sedentary	-Dedicated staff -Team approach -Partnerships -Free health care	-Lack of funds -Geography -Services not equitable -Wastes in workplace

AREA (See Page 8)	My Community is NOT Healthy because…	Main Health Concern/Issue in Your Community	Strengths of the Health System	Gaps in Services
COBHSA	-Government cutbacks (meds, clinic closures) -Job loss and risk of job loss -Mental health stigma -Chronic diseases -Wait times -Obesity -Drugs and alcohol -Inactivity -Attitudes -Lack of health food choices -Low-income families -Lack of cell service	lifestyle/obesity -Aging population -Appropriate LTC -Drugs and alcohol abuse -Gambling -Housing for seniors -Diet/education (culture leads to chronic diseases) -Wait times -Cultural habits -Heart Disease and Hypertension -Cancer -Poverty -Access to services for patients in Hermitage	-Resources available and accessible -Knowledge and education in area -Strong infrastructure -Technology -Diabetes education clinics -Pap clinics -Short wait time for mental health	-Lack of communication between departments -Government cutbacks -Overlap in services -Call back systems -Disparity in services between rural and urban -Lack of continuity of services/ resources -Recruitment and retention (high turnover of physicians -Lack of confidentiality -Wait times for specialist appointments -LTC beds -Home support -Lack of PCU (Alzheimer's patients) -Lack of cell service
EHSA	Data not provided	-Access to medications -Addiction/ rehab supports -Access/ support for Mental Health Services locally -No emergency services past 8pm -High cost of healthy food -Housing for low income -High rate of low income families and employment -Lack of primary health care provider -Lack of Home Support Services -Chronic diseases	Data not provided	Data not provided
LHSA	Data not provided	-Chronic diseases -Substance abuse/ addiction -Mental health -Access to services -Senior wellness issues -Health and wellness education and awareness -Lack of government education -Lack of youth engagement -Lack of understanding of personal well-being -Socio-economic health of province	Data not provided	Data not provided

AREA (See Page 8)	My Community is NOT Healthy because…	Main Health Concern/Issue in Your Community	Strengths of the Health System	Gaps in Services
INDHSA	-Chronic diseases -Drugs/Addiction -Lifestyle -Low opportunities for youth -Limited employment opportunity -Obesity -Inactivity -Lack of physical activity -Aging population -Stigma on mental health issues -Too much salt fish -Low income, can't afford health eating -Lack of fresh produce -Lack of understanding -Lack of resources (fitness programs) -Lack of service coordination -Lack of participation for public -Lack of resources for seniors	-Lifestyle -Lack of buy-in for prevention (from community and sometimes providers) -Misuse of services	-Emergency care -Primary Health care Model -Multidisciplinary rounds -Resources available -Access for people	-Inpatients discussed in rounds, outpatients lacking -Client flow -Lack of communication among health care providers -No family physician in NWI at present
KCHSA	-Lack of Canadian trained physicians that will stay long-term -Traditional culture of unhealthy food -Hard to access fruits and vegetables -High cost of healthy food -Transient workers, -Lack of support for families -High cost of recreation/sports -Lack of affordable activities	-Aging population -Obesity rates -Cervical screening rates -Transient physicians -No Protective Care Unit in the area -Separation of couples when entering LTC -Addiction (street drugs and prescription) -Lack of opportunity for physical activity	-Nurses -No wait list (mental health, physicians, diabetes educator, lab, xray) -Mental Health team -Lab and x-ray services -100% vaccination rate with children -LTC, acute care and ED -Diabetes educator -Public Health -Continuing Care -Seniors apartments -Homecare agency -Visiting Palliative Care team -Palliative Care room -Foot care available -Dentist in area -Massage therapy in area	-High turnover of physicians -No continuity of care -Lack of support from management -No specialist visits -Ottawa Nursing Model not working here -Lack of orientation for new employees (especially physicians) -Prescriptions given too easily -Inappropriate use of ambulance escorts -No Physiotherapy on site -Large geographical area

Employee, Physician, Management & Volunteer Perspective

Employee Survey

The 2016 Employee Survey was available online from October 3 until October 27, 2016. There were 681 responses received.

When employees, physicians, management and volunteers were asked if they thought their community was healthy 35.6% disagreed, 35.0% agreed, 29.4% were neutral. The reasons for these results are similar to the reasons listed in the community survey.

The top 15 most concerning issues identified were:

1. Mental Health - 10.3%
2. Overweight and Obesity – 7.7%
3. Unhealthy Eating Habits – 5.9%
4. Alcohol and/or Drug Use – 5.7%
5. Care of Seniors – 5.7%
6. Diabetes – 5.6%
7. Heart Disease – 5.5%
8. Cancer – 5.1%
9. Smoking – 4.4%
10. High Blood Pressure – 3.8%
11. Access to Services (e.g. Wait Times) – 3.7%
12. Stroke – 3.5%
13. Unemployment – 3.2%
14. Access to Primary Care Provider (General Practitioner or Nurse Practitioner) – 3.1%
15. Chronic Pain – 2.6%

The top 5 strengths of Central Health (what is working well now):

- Dedicated and knowledgeable health care professionals – 21.3%
- Teamwork, communication and partnerships – 18.6%
- Patient-centered and quality patient care – 10.3%
- Access to services - 7.9%
- Patient Safety and Quality Improvement – 5.2%

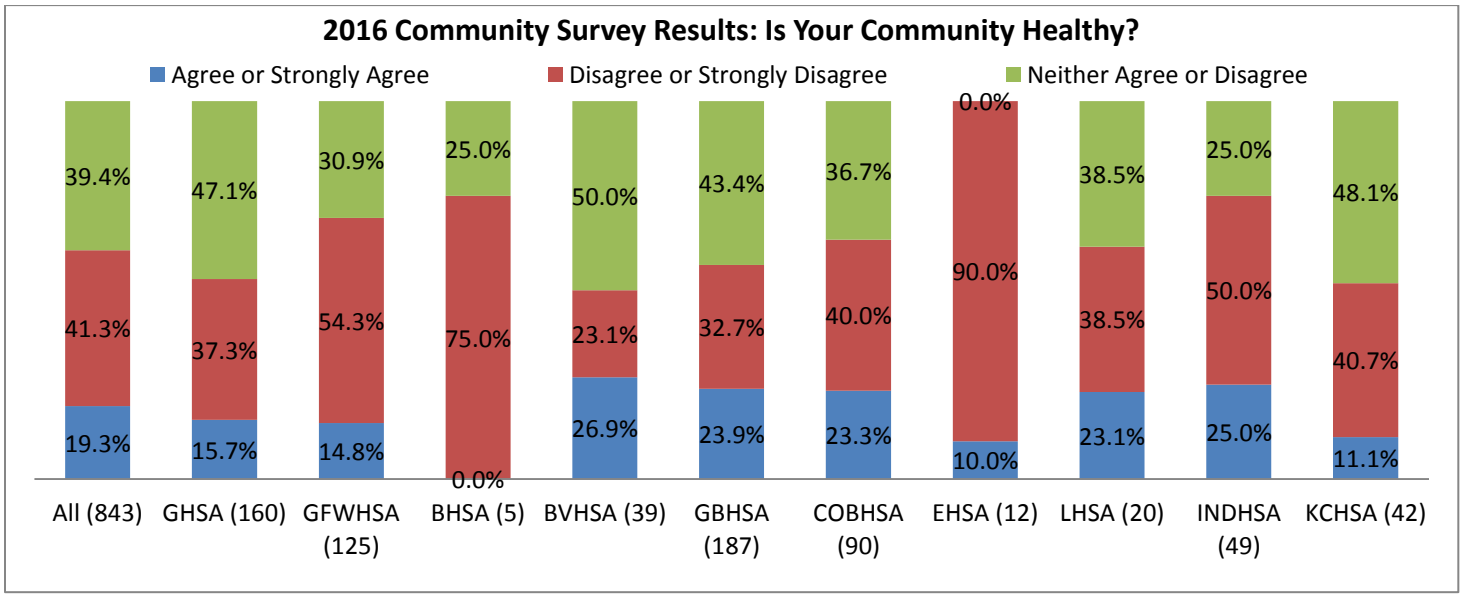
The top 5 challenges to Central Health providing quality services were identified as:

- Lack of human resources – not enough or high turnover of frontline staff and physicians and staffing, scheduling and workload concerns – the demand for services exceeds capacity to provide services – 21.4%
- Lack of communication, collaboration and teamwork between departments, facilities and management and frontline employees and lack of accountability and engagement and leadership and management concerns – 17.2%
- Lack of access to services including wait times and geographical constraints and availability of acute and LTC beds – 17.1%
- Lack of financial resources – budget constraints, inefficient allocation of funds and issues with old infrastructure – 12.9%
- Not adjusting to the health needs of the population with regards to the aging population, obesity, chronic diseases – 4.2%

Community Perspective

Community Survey

The 2016 Community Survey was available online to the public from September 19 until October 27, 2016. Central Health received 843 responses. 41% indicated they did not feel their communities were healthy (39% were undecided). This was consistent among educated and employed cohorts however, was lower for the age 65+ group but higher for those who often used health care services.



The top 3 reasons why respondents believe their communities are healthy:

- Access to health care services
- Physical activity
- Their communities offer recreational events or activities and facilities including parks, trails, etc.

Many respondents believe their communities are unhealthy because of:

- Unhealthy lifestyle or behaviours such as unhealthy eating habits and lack of physical activity, substance use, gambling, smoking, etc.
- Aging population
- Prevalence of chronic diseases (the majority being diabetes)
- Prevalence of overweight and obese individuals (including children and youth)
- Mental health concerns (including young adults)
- Lack of access to programs and facilities to promote healthier lifestyles (e.g. recreation programs, nutrition advice, restaurants, indoor fitness facilities)
- Higher costs associated with healthy living (e.g. milk vs. pop, junk food vs. fruits and vegetables, cost of recreation for kids and adults)
- Culture – the tradition of eating poorly and living a sedentary lifestyle

Overall, respondents considered the following to be the top 3 concerns in their communities:

1. Chronic Diseases & Unhealthy Lifestyle
2. Mental Health & Addictions
3. Access to Services

The top 15 most concerning issues identified were:

1. Mental Health - 8.7%
2. Overweight and Obesity – 6.3%
3. Cancer – 6.2%
4. Diabetes – 5.4%
5. Heart Disease – 5.4%
6. Unhealthy Eating Habits – 5.3%
7. Lack of Physical Activity – 5.2%
8. Care of Older Persons/Seniors – 4.8%
9. High Blood Pressure – 4.7%
10. Alcohol and/or Drug Use – 4.6%
11. Access to Services (e.g. Wait Times) – 4.4%
12. Access to Primary Care Provider (General Practitioner or Nurse Practitioner) – 4.3%
13. Smoking – 4.2%
14. Stroke – 3.3%
15. Unemployment – 3.1%

The top 5 strengths of Central Health (what is working well now):

- Dedicated and caring health care professionals working as a team (nurses, nurse practitioners, physicians, first responders) – 26%
- Access to health facilities and clinics – 19.1%
- Access to programs such as public health, community supports, chronic diseases – 11.0%
- Quality and efficiency of health care (wait time improvements, client flow, patient-centeredness) – 8.7%
- Emergency Services – 5.2%

**Note there were also a large number of respondents who indicated there were no strengths*

The top 5 challenges to Central Health providing quality services were identified as:

- Recruitment and Retention – 34.1%
- Lack of Funding/Resources – 19.3%
- Access to Services – 12.8%
- Management – 7.7%
- Geographical constraints – 5.9%

Community Consultations

There were a total of 230 community members who participated in 22 hosted community consultation sessions across Central Health facilitated by a Primary Health Care Facilitator/Community Development Nurse in each HSA. The results from the 2016 Community Health Assessment Process (CHAP) for community consultations highlight the following information:

COMMUNITY HEALTH ASSESSMENT RESULTS – Community Members				
AREA (See Page 8)	**My Community is NOT healthy because…**	**Main Health Concern/Issue in Your Community**	**Strengths of the Health System**	**Weakness of the Health System**
GHSA	-negative attitudes -communication not getting through -food policy and education -lack of healthy food choices -cost of living -seniors - fixed income, lack of transportation, snow clearing	-Wait times -Holistic issues (mental health) -Not enough specialists (specialty services) -Obesity -Education -Poor eating habits -Commitment to diagnostic tests (long waits) -Lack of family doctors, x-ray techs and specialists -Effective and efficient use of resources	-everybody is entitled to health care -universal health care -facilities -professionals -community staff (consultants, etc.)	-Long waiting for appointments i.e. Lab -Care not sufficient -Holistic medicine still considered to be 'not ok' -Confusion around process of getting help -Communication of available services/supports to public -Mental health help -Inefficient spending of health dollars (GPs giving flu shots while PHN's holding clinic)
GFWHSA	-Lack of family physicians -Mental health stigma -Lack of access to affordable healthy food – lack of healthy restaurants, food at school -Lack of education for health eating -lack of affordable recreation -Lack of physical activity in schools Lack of recreation Seniors -Mainland link transportation barriers -Recruitment and retention of medical staff	-Mental health issues – not getting the help they need, stigma -Mental health resource – lack of education and awareness -Obesity -Lack of physical activity Unhealthy eating -Lack of LTC services/beds -Improved home care programming and funding -Awareness of adult and child referral process	-Free service -Local Well educated staff -Good services -Emergency wait times -Dialysis -Cancer clinic -CT scan -New surgical suites -Frontline knowledge (pharmacists)	-Wait times for procedures -Lack of LTC beds -Medical travel for low-income families -Senior health -Palliative care -Staff shortage (frontline) -Cut backs -Mental Health and Addiction Services -Youth services -Specialist shortages -Lack of a proactive approach -Rural services (medical) -Access to family physicians
BHSA	None held			

AREA (See Page 8)	My Community is NOT healthy because…	Main Health Concern/Issue in Your Community	Strengths of the Health System	Weakness of the Health System
BVHSA	-Limited resources for recreation Lack of health education -Seniors -Drinking water unsafe -Inactive youth -Lack of volunteers -No sidewalks -Poor nutrition choices -Limited healthy food choices (fruits, vegetables) -Lack of participation in activities -Lack of education -Lack of facilities -Cultural habits -Lack mental health support -Lack of physicians -Lack of community health nurse visits -Lack of blood collection services -Unemployment	-Access to services (public health nurse, CCNC, physician) and fear of losing current services/facilities -Not taking an active role in own health (apathy) -Access to preventative services	-Access to local services (physicians, physio, ultrasound, massage, pharmacies, x-ray, lab, ambulance, public health) -Minimal wait times -Online appointment booking -Sense of community within hospital (comfort level with physician) -Close proximity to services -Technology -Caring health professionals -Senior volunteers Family Resource Centre -BVPHC and ambulance at LaCie – 2 PCPs -NP or MD at LaScie Telehealth	-Staff shortages -Wait times -Distance/time to specialists/tests -Home Care Services (untrained workers) -Own physician not always available -Shared ambulance service -Lack of support groups -Lack of Mental Health Services -Lack of drop-ins at the clinic -Not enough individual attention -No community health or public health nurse -Aging population needing to travel -No dental care -Lack of NP
GBHSA	-No sidewalks to walk on or rest areas -Poor lifestyle choices (inactivity, eating habits, smoking) -High cost of healthy food -Lack of physical activity facilities -Water system poor -Chronic diseases -Reliance on medical interventions, medicine vs. lifestyle changes -Lack of accountability for own health -Lack of engagement in activities and programs	-Recruitment and retention of health care professionals and physicians -High incidence of chronic diseases and poor lifestyle -Mental health and addictions -Long waitlists for physicians and specialists	-Access to services (hospital, x-ray, lab, ambulance, pharmacies, public health, physicians) -Staff who care about their patients	-Specialist wait times -Chronic disease prevention -Lack of Mental Health and Addiction Services -Ambulance response time – concern regarding shared service -Recruitment and retention and turnover -Lack of privacy (receptionist saying patients name in waiting room) -Lack of courtesy (not acknowledged waiting at medical clinic) -Language barriers of foreign doctors -Lack of Physiotherapy Services -Lack of funding -Age of facilities
COBHSA	-Aging population -Chronic diseases (Heart Disease, Diabetes) -Obesity -Addictions (including youth)	-Recruitment and retention of physicians and nurses -Loss of services Lack of PCHs -Chronic diseases	-Accessible clinic -First responders (ambulance and fire department) -Stable services -Professional staff	-Retention and recruitment of physicians and nurses -Lack of clinics and PCH's -Inadequate Metal Health and Addiction Services

AREA (See Page 8)	My Community is NOT healthy because…	Main Health Concern/Issue in Your Community	Strengths of the Health System	Weakness of the Health System
COBHSA	-Gambling -Lack of programs for youth -Healthy food is expensive -Minimum wage restrictions -Depression and anxiety -Lack of continuity of care -Wait times -Access to Medical Services -No triaging at health care facilities -Lack of home care services -Mental Health -Cancer rates (breast, bowel)	-Obesity -Lack of Mental Health and Addiction services -Mental health and addictions (drugs, alcohol, smoking, gambling) -Lack of physical activity and facilities -Lack of engaging youth on improving health -Lack of recreation for persons with disabilities -Senior housing -Lack of respite beds -Lack of policing (increasing crime rate) -Support groups for addictions -Drugs at schools -Access to services -No clean drinking water in certain communities -Stress -Poverty/low-income -Lack of health care education -Lack of fresh produce -Lack of proper sanitation (sewage system)	-On-call physicians - Emergency unit -Access to videoconferencing-911 -High employment rates in most communities -Access to Telehealth -Good infrastructure -LTC -Youth Centre -Schools -Daycare	-Lack of support staff for medical team -Lack of continuity of care -Geography (having all services available at one location would be better access) -Communications with Central Health (protocols) -Lack of follow-up -Wait times -Lack of CH communication to the community -Lack of acute and LTC beds -Lack of Blood Collection services -Transportation
EHSA	Data not provided	-ED Services closed -Chronic diseases/Diabetes -Access to essential services to support emergency response (cell service and snow clearing) -Unhealthy habits -Addictions/drugs -Mental health-suicide, anxiety and depression -Lack of Mental Health Services and access -Inadequate housing and care for seniors -Lack of awareness for available resources -Wait times -Lack of family physicians	Data not provided	Data not provided
LHSA	Data not provided	-Physician turnover and recruitment/ retention -Fear of losing services/resource	Data not provided	Data not provided

AREA (See Page 8)	My Community is NOT healthy because…	Main Health Concern/Issue in Your Community	Strengths of the Health System	Weakness of the Health System
LHSA	Data not provided	-Symptom treatment vs. Health Promotion -Lack of LTC beds -Lack of youth programs/ physical activity in schools -People not taking care of their own self -Mental health prevention and awareness -Lack of NPs/ not operating to full scope of practice -Drug/alcohol use -Continuity and continuum of care/education and awareness	Data not provided	Data not provided
INDHSA	-Limited resources for physical and mental health -Chronic diseases -Access to fresh produce -Unhealthy habits – lack of nutrition and exercise -Not enough education sessions to attend regarding healthy living and disease management -Lack of interest in health -Obesity -Income -Smoking -Genetics -Hemophilia -Limited fruit and vegetable selection and quality -Lack of access to fitness facilities -Lack of good drinking water -Limited access to health services -No family physician -Wait time for appointments -Aging population -Low income for seniors	-Lack of physicians -Lack of good drinking water -Overweight -Lack of exercise -Status of NWI clinic (no physician) -Updates to LTC unit at NDBMHC -Lack of addictions services -Poor diet -Cancer -Diabetes -Smoking	-Availability of good physicians and nurses -Excellent communication -Ability to get patients off the island in an emergency -Emergency response team -Community input -Access to home and community care -Timely appointments -New facility -Access to a family doctor -Connection/ communication with other providers -Good pharmacists	-No health care on weekends -Long wait times -Lack of physicians -Lack of communication with health providers -Not enough first responders -No formal recreation/exercise programs -Slow response of Central Health to community needs -Emergency transportation (ferry) -Lack of therapists -Lack of mental health supports -Lack of home care for seniors -Having to travel to Gander for Services (expense) -Wait times for specialists
KCHSA	-Addiction -Lack of volunteers -No continuity of care with physician -Long wait times for long term providers -Lack of responsibility for own health	-Adult and youth mental health Education/ awareness about taking ownership for one's health -Management/ allocation of services	-Access to Continuing Care and Public Health nurses -NP's -Supports travel to rural areas (Speech Pathology, Behaviour Management)	-High turnover of physicians -Long wait times for specialist appointments and services (CT, MRI, ultrasound)

AREA (See Page 8)	My Community is NOT healthy because…	Main Health Concern/Issue in Your Community	Strengths of the Health System	Weakness of the Health System
KCHSA	-Limited access to healthy food (limited variety, poor quality and high cost) -Few opportunities for organized physical activity -Long waits for Ambulance Service	-Access to Emergency Services -Lack of Mental Health Services -Closure of local clinic (Hare Bay) -Lack of fitness opportunities -Lack of timely access to family physicians -Wait times for specialists	-Fairly close proximity to hospital -Home Supports for seniors -Telehealth -Excellence, caring staff at Brookfield and clinics -Community information sessions -Prescriptions delivered by drug stores	-Hard to navigate the system (lack of awareness of existing services and programs or how to access them) -Ambulance service too far away -Shortage of LTC beds -Lack of low-income housing

Appendix A: Department of Health and Community Services Strategic Directions for 2017-2020

LOWER COST THROUGH IMPROVEMENT

- Improved health and community services system by lowering costs, improving patient outcomes through appropriateness and appropriate utilization of care
    - eHealth
    - Performance measurement
    - Healthcare workforce planning
    - Policy development
    - Shared services

BETTER HEALTH FOR THE POPULATION

- Improved health outcomes and well-being for the people of Newfoundland and Labrador
    - Cardiovascular health
    - Chronic disease prevention and management
    - Mental health and addictions
    - Primary health care
    - Public health
    - Health in all policies

BETTER CARE FOR INDIVIDUALS

- Better accessibility to services towards better care for the population, including vulnerable populations
    - Ambulance reform
    - Wait times
    - Community capacity
    - Medical transportation
    - Infrastructure improvement

Appendix B: Mandate Letter for Premier to Minister of Health and Community Services

Newfoundland Labrador

Government of Newfoundland and Labrador
Office of the Premier

December 14, 2015

Honourable John Haggie
Minister of Health and Community Services

Dear Minister Haggie:

I am honoured to welcome you to your role as Minister of Health and Community Services. We have been given an extraordinary opportunity to serve the people of our province and together we will work to create a stronger tomorrow for Newfoundland and Labrador. Over the next four years, we will fulfill our commitments, building on the trust placed in us on November 30, 2015. We shall, without fail, act with integrity in all aspects of our service, striving for excellence in discharging our responsibilities.

Embarking on this journey together, we will be guided by *A Stronger Tomorrow: Our Five Point Plan* to Restore Openness, Transparency and Accountability; Build a Stronger, Smarter Economy; Improve Health and Healthcare; Support Safe and Sustainable Communities; and Invest in Our Future Through Education.

As Premier of Newfoundland and Labrador I expect you to follow the principles of openness, transparency and accountability. It is my intention to ensure policy decisions in government are informed by research, evidence, and evaluation so that citizens can understand how and why decisions are made. It is critical that our government's decisions are also informed by engagement with stakeholders, including our Aboriginal partners, to ensure everyone's voices are heard.

Our government is committed to modernizing our province's legislative process in accordance with these principles and I call upon you to engage your fellow Members, constituents and the general public; avail of the Committee process of the House of Assembly; and seek opportunities for non-partisan cooperation.

We are also committed to creating an environment that captures the full potential of our province's many riches, through diversification, job creation and growth. We will take action to improve the health and well-being of people, empower sustainable community development, protect public safety and advance educational opportunities and outcomes.

Our province is facing significant fiscal challenges that require our collective leadership and the engagement of the public. Together, our government will lead our province towards a more sustainable, economic future.

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Health care touches all residents, regardless of where they live. As Minister of Health and Community Services, I expect you to ensure that our government, through the regional health authorities and policy and standards development, offers accessible and quality care to residents. The system must be cost-effective, responsive and efficient, and improve the health and well-being of residents. I expect you to oversee this broad mandate and to implement the specific items outlined below.

Primary Health Care

Improving health outcomes in our province starts by embracing a holistic concept of health. It requires a greater focus on primary healthcare as a philosophy and a service delivery model. I expect you to work with primary care stakeholders to develop regional primary healthcare teams to provide better care and help address recruitment and retention of family physicians, nurses, and other health care providers who want to work in this environment.

Health Care Management

A priority of our government is to improve the responsiveness, effectiveness and efficiency of the healthcare system. You must conduct a thorough review of health outcomes in all areas of the province's health system and set meaningful and measurable goals for future improvements. I expect you to: provide support to the Newfoundland and Labrador Centre for Health Information (NLCHI) to continue with the implementation of the Electronic Health Record including consultation with NLCHI and the Newfoundland and Labrador Medical Association on full implementation of the electronic medical records program; support NLCHI to expand its data collection and analysis of the healthcare system and identify new health information systems to improve patient care; and, support a cardiovascular Centre of Excellence, including improving diagnostic services and timelines to reduce waitlists for detection and diagnosis of cardiovascular disease.

Health Promotion and Healthy Living

Our province has some of the highest rates of chronic disease among provinces. Working with your colleagues, I expect you to work to lower the rate of chronic diseases through a health promotion and healthy living strategy being developed in collaboration with the Minister of Seniors, Wellness and Social Development, which will include investment in health promotion, healthy living programs and early intervention. This strategy will require collaboration across portfolios, and will reduce acute healthcare costs in the longer term and help to achieve a healthy population in the province. This comprehensive plan will include measurable goals and milestones and a strong emphasis on public reporting and accountability. The plan will focus on chronic disease prevention and management program and an innovative youth wellness program.

More specifically, with respect to chronic disease prevention, I expect that this strategy will: enhance early detection, screening and treatment by primary healthcare teams; implement a diabetes prevention and management program starting with the establishment of a province-wide diabetes database to support evidence-based decision making; require regional health authorities to measure the health indicators of people in their regions and report on these indicators to government; and, improve diagnostic services and timelines to reduce waitlists for detection and diagnosis of cardiovascular disease.

On the matter of youth wellness, I expect that under this strategy you will work with your Cabinet colleagues to: establish health risk assessments in schools beginning with Kindergarten children; provide support to children with autism beyond grade three through Applied Behaviour Analysis; and, establish regional adolescent health clinics that offer preventative care services, sexually transmitted infections testing, treatment for acute health issues, and counselling in such areas as bullying, sexual orientation, eating disorders, and unhealthy relationships.

Scope of Practice

Allowing healthcare professionals to work to their full scope of practice provides an optimal opportunity to enhance a patient's access to care. You are directed to develop a comprehensive plan to expand health professionals' scope of practice. This will include conducting a thorough legislative review to identify ways to allow health care professionals to work to their full scope of practice, and working with midwives and other health professionals to implement regulated midwifery.

Expand Seniors Care

By 2025, one in four Newfoundlanders and Labradorians will be seniors. Working with your colleagues, I expect you to: provide in-home healthy living assessments for seniors aged 70 years and older at no cost to them; create a home support system that is flexible and responsive to the diverse needs of seniors; modernize the existing Medical Transportation Assistance Program; and, create a dementia management program to allow timely identification and assessment of individuals with dementia, and ensure that effective treatment and care plans are in place to support them and their caregivers.

Mental Health and Addictions Care

One in five people in Newfoundland and Labrador experiences a mental health or addictions issue in a given year. This issue must be tackled openly and heads on. To enhance access to services, you will be responsible to work with your colleagues to implement a comprehensive Mental Health and Addictions Strategy, which will include: continuing to support the work of the All-Party Committee on Mental Health and Addictions; developing a more coordinated, integrated and responsive approach across departments and agencies when addressing mental health and addictions needs; reviewing mental health legislation to ensure the province is keeping pace with emerging best

practices; strengthening policies to demonstrate the importance placed on mental health within the healthcare system; establishing an adult inpatient unit for the treatment of eating disorders; working with community partners and schools to ensure coordinated and seamless approaches to mental health and addictions; developing a mental health and addictions course for the high school curriculum; and, encouraging and supporting employers to assist employees who are coping with mental health and addictions issues.

Health Infrastructure

Improving healthcare infrastructure plays a key role in strengthening the efficient delivery of quality care within the healthcare system. The construction of a new mental health facility to replace the Waterford Hospital is a priority and will proceed without delay. In 2016, you must work with the Minister of Transportation and Works to plan and define the scope of work so that construction can begin in 2017, taking advantage of the available local skilled workforce that will be finishing work on other large projects at that time. The planning process will involve finding the right tool for the design, construction, financing and possible maintenance of the project, including traditional delivery and performance-based infrastructure. Further, you must immediately begin the process for replacement of the Western Memorial Regional Hospital with a new regional hospital.

Autism Services

Autism-related services are presently delivered by many departments. You will lead the development of a provincial autism strategy in collaboration with your colleagues to address the lack of communication between government departments responsible for providing autism-related services. You must also eliminate use of IQ70 to determine service needs and provision of autism related services.

In fulfilling your responsibility as Minister you must ensure collaboration, in a positive and constructive manner, with your Cabinet colleagues. I take this opportunity to remind you that as you carry out your responsibilities, as a Member of the House of Assembly and Member of Cabinet, adhering to the Code of Conduct and the Conflict of Interest guidelines are mandatory, to ensure you discharge your duties with the highest ethical standards.

Deputy Ministers are your key source of support and will provide you with non-partisan advice in meeting your responsibilities. I expect you to develop a positive, respectful and trusting relationship with your Deputy Minister and the public service. I would also ask that you be mindful that Deputy Ministers, among their various responsibilities, are ultimately accountable to me, through the Clerk of the Executive Council.

Our government will report back to the public annually on the achievement of our commitments and make adjustments as required. As a Minister you are accountable for achieving these priorities and meeting other responsibilities within your Department.

Together, we will provide strong leadership to deliver the change we need to move beyond today's challenges and on to a stronger tomorrow.

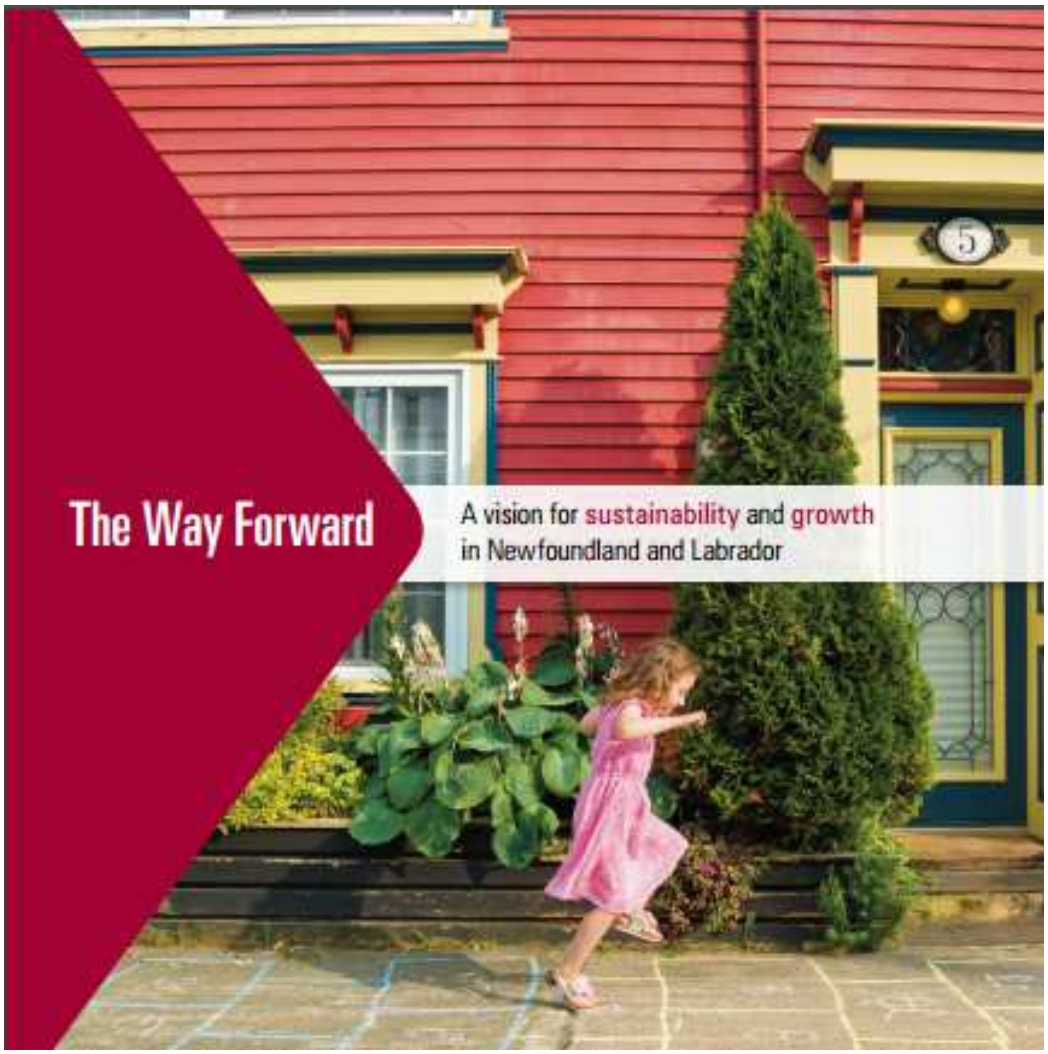
Sincerely,

DWIGHT BALL
Premier

Appendix C: The Way Forward
A Vision for Sustainability and Growth in Newfoundland and Labrador

The Vision will guide Provincial Government actions to achieve greater efficiency, strengthen the province's economic foundation, enhance services, and improve outcomes to promote a healthy and prosperous province. The document is available online at www.gov.nl.ca/pdf/the_way_forward.pdf

"This Vision was developed from the feedback of residents, for the benefit of all Newfoundlanders and Labradorians. It will hold government to a higher standard – one where success is not defined by the value of commodity prices, but by sound fiscal management, and actions defined by clear goals, timelines, and regular reporting. I encourage everyone to read the Vision, and appreciate how it provides the people of the province with a tangible path that will guide us to a stronger tomorrow." *- The Honourable Dwight Ball, Premier of Newfoundland and Labrador*



Moving forward, Government will launch tangible initiatives in phases, which will address emerging issues. At the beginning of each fiscal year Government will release the next phase of tangible actions to ensure the vision becomes reality. At the end of each phase, a report card on the progress of that phase will be issued.

To achieve the vision, Government will focus on the following four objectives within each of the Three Phases of Action:

1. A more efficient public sector
2. A stronger economic foundation
3. Better services; and
4. Better outcomes.

In total, "*The Way Forward*" includes more than 50 initiatives, all of which contribute to achieving the fiscal target set in Budget 2016 to return to surplus within seven years while maintaining quality programs and services.

Phase 1: Securing our Footing: The First Six Months

The focus of this phase is on rapidly implementing initiatives to reduce spending and support economic growth. The following actions will be implemented within each focus area.

Focus Area 1: A More Efficient Public Sector

- Reduce Government's Building Footprint
- Adopt a Flatter, Leaner Management Structure
- Reduce Silos in Government Operations
    - Reduce the number of Government agencies, boards and commissions by 20 per cent
    - Implement a single entry medical transportation assistance program
    - Consolidate government marketing functions
    - Consolidate engineering services
- Reduce red tape and publish service standards for major programs
- Implement a Government-wide Shared Services Model for back-office functions
- Enhance Government-wide service delivery
- Utilize zero-based budgeting
- Procure the Corner Brook long term care facility

Focus Area 2: A Stronger Economic Foundation

- Enhance access to Crown Lands
- Increase Immigration to NL by 50 per cent by 2022
- Increase the number of vendors completing Government IT work
- Double resident and non-resident visitor spending by 2020
- Implement a provincial tourism product development plan
- Transition to groundfish
- Implement regional innovation systems pilot projects
- Introduce a new Procurement Act

Focus Area 3: Better Services

- Establish a major investment projects unit
- Release a multi-year infrastructure plan
- Improve the Provincial road network
- Release a five-year marine infrastructure plan
- Advance regional collaboration through infrastructure and sharing of services
- Review the NL Housing Corporation
- Position NL globally as a preferred location for oil and gas development
- Designate industry facilitators for the natural resources sector

Focus Area 4: Better Outcomes

- Establish a leaders roundtable with indigenous governments and organizations
- Adopt a health-in-all policies approach
- Respond to recommendations from the all party committee on mental health and addictions
- Modernize College of the North Atlantic
- Increase Memorial University and College of the North Atlantic collaboration
- Proceed with the Premier's task force on improving educational outcomes

Phase 2: Realizing Our Potential: Six to eighteen months

The focus of this second phase is to undertake action to reverse negative social and economic indicators that are preventing economic growth and driving up public expenditures. The following actions will be implemented within each focus area.

Focus Area 1: A More Efficient Public Sector

- Strategically leverage federal funding
- Support innovative work arrangements
- Implement more effective business financing

Focus Area 2: A Stronger Economic Foundation

- Release a business innovation agenda
- Increase the number of social enterprises in NL
- Introduce a Status of the Artist Act
- Increase revenue to the Province through international education
- Increase activity in mining sector through targeted promotion and core digitization
- Support growth of the aquaculture industry

Focus Area 3: Better Services

- Improve Community Support Services
- Implement an individualized funding model
- One-window, multi-year community grants

Focus Area 4: Better Outcomes

- Expand Primary Health Care teams
- Implement health living initiative to achieve a healthier tomorrow
    - Increase awareness and engage individuals to take action for health living
    - Create communities that support health living
    - Engage schools to create settings that support healthy living and learning
- Implement child health risk assessments for school-aged children
- Implement healthy living assessments for seniors
- Streamline the financial assessment process for Community Support Services and Residential Long Term Care Services
- Implement responsive justice and public safety measures
- Provide increased educational support to disengaged and at-risk students and youth
- Improve performance of Child Protection Services
- Advance and finalize land claims and self-government agreements
- Release a climate change action plan

Phase 3: Building for our Future: Beyond eighteen months

The focus of the third phase is to create long-term conditions for growth by investing in the future, including redesigning government services to fit demographics of the future and investing in children and youth. Government has set down a variety of long-term goals to establish stronger economic foundations and achieve better outcomes.
Progress will be measured through the following target such as:

- By 2022-23, our Government will return to surplus.
- By 2022, Newfoundland and Labrador will have increased its food self-sufficiency to at least 20 per cent. Our province is currently only about ten per cent self-sufficient in its food requirements.
- By 2020, there will be a 20 per cent increase in timber allocations and harvest levels over the previous five year period.
- By 2018, the water area available for development to support growth of the salmon industry will have increased to 50,000 MT and the mussel industry will have increased to 10,750 MT annually.
- By 2020, Newfoundland and Labrador's annual tourism spending by residents and non-residents will be double 2009 levels.
- By 2022, immigration to Newfoundland and Labrador will increase by 50 per cent. In 2015, Newfoundland and Labrador welcomed just over 1100 immigrants.
- By 2025, Newfoundland and Labrador's breastfeeding initiation rate will increase by seven per cent. The current provincial rate is 72.7 per cent, while the national rate is 90 per cent.
- By 2025, Newfoundland and Labrador's obesity rate will be reduced by five per cent. The current provincial obesity rate is 30.4 per cent, while the national rate is 20.2 per cent.
- By 2025, Newfoundland and Labrador's smoking rate will be reduced by four per cent. The current provincial smoking rate is 21.7 per cent. This target will bring us to the national rate of 18.1 per cent.
- By 2025, Newfoundland and Labrador will increase our physical activity rate by seven per cent. The current provincial rate of physical activity during leisure is 48.3 per cent. This seven per cent increase will see Newfoundland and Labrador surpass the national rate of 53.7 per cent.
- By 2025, Newfoundland and Labrador residents will increase their rate of vegetable and fruit consumption by five per cent. The current provincial rate is 25.7 per cent, while the national rate is 39 per cent.