# **Alberta Health Primary Care Network (PCN) Profiles**

# Wood Buffalo Primary Care Network

2<sup>nd</sup> edition, March 2018



# **Table of Contents**

ntroduction	1	.i
Primary Car	e Network (PCN) Information	1
Provincial M	Tap of GP Services for the Primary Care Network	2
Local Focus	sed Map of Select GP Services for the Primary Care Network	3
Demograph	ics	4
Table 1.1	Distribution of PCN Panel Population by Age and Gender as at March 31, 2016	4
Figure 1.1	Percentage Distribution of the PCN Panel versus All Alberta PCNs Population by Age Groups as at March 31, 2016	4
Figure 1.2	Primary Care Network Panel Population as at End of Fiscal Years 2012 – 2016	5
Socio-Econo	omic Indicators	6
Table 2.1	Population Percentage of First Nations with Treaty Status and Inuit as at March 31, 2016	6
Chronic Disc	ease Prevalence	7
Figure 3.1	PCN Panel Age-Standardized Chronic Disease Prevalence Rates (per 100 population), 2011/2012 – 2015/2016 (Chronic Obstructive Pulmonary Disease, Diabetes, Hypertension, Ischemic Heart Disease)	7
Figure 3.2	PCN Panel versus Alberta PCNs Age-Standardized Chronic Disease Prevalence Rates (per 100 population), 2015/2016 (Chronic Obstructive Pulmonary Disease, Diabetes, Hypertension, Ischemic Heart Disease)	8
Maternal and	d Child Health	9
Table 4.1	PCN Panel Maternal and Child Health Indicators for Three-Year Period (Number of Births, Percent of Low/High Birth Weight, Birth Rate, Fertility Rate, Teen Birth Rate, Percent Maternal Prenatal Smoking)	9
Inpatient Se	rvice Utilization1	0
Table 5.1	Inpatient Separation Rates (per 1,000 population) for the PCN Panel versus Alberta PCNs Panel, Fiscal Years 2013/2014 – 2015/201610	0
Figure 5.1	PCN Panel Age-Standardized Inpatient Separation (IP Sep) Rates (per 100,000 population) for Selected Conditions, 2011/2012 – 2015/2016 (Asthma, Diabetes, Influenza, Ischemic Heart Diseases, Mental and Behavioural Disorders due to Psychoactive Substance Use, Pneumonia, Pulmonary Heart and Pulmonary Circulation Diseases)	0
Figure 5.2	PCN Panel versus Alberta PCNs Age-Standardized IP Sep Rates (per 100,000 population), for Selected Conditions, 2015/2016 (Asthma, Diabetes, Influenza, Ischemic Heart Diseases, Mental and Behavioural Disorders due to Psychoactive Substance Use, Pneumonia, Pulmonary Heart and Pulmonary Circulation Diseases)	1

Appendix A – Definitions	. 12
Appendix B – PCN Panel Distribution by Municipality (Top 30)	. 16

#### Note:

Qualifiers such as 'higher than', 'much lower than', 'similar to' etc. are used throughout the PCN profile to compare Primary Care Network (PCN) indicator values to the provincial PCN panel average. Note that the qualifiers 'similar' and 'comparable' are chosen to describe situations in which the PCN indicator value is either identical or very close to the provincial PCN average. For further details on these qualifiers please refer to Appendix A.

## Suggested Citation:

Alberta Health, Primary Care Network (PCN) Profiles: [insert PCN name], 2<sup>nd</sup> edition, March 2018

#### INTRODUCTION

Primary Care Networks (PCNs) are the most common model of team-based primary health care delivery in Alberta. PCNs are groups of doctors working collaboratively with teams of health care professionals, such as nurses, dietitians and pharmacists, working together to meet primary health care needs in their communities. Approximately 80% of primary care physicians are registered in a PCN. Established in 2003, Alberta now has 42 PCNs involving more than 3,800 physicians and the full-time-equivalent of over 1,000 health care providers. PCNs provide services to close to 3.6 million Albertans.

The way PCNs operate is evolving to ensure Albertans have seamless access to consistent and comprehensive primary health care. A new PCN leadership structure is being created that includes a Provincial PCN Committee and five Zone PCN Committees. The 42 individual PCNs will continue to exist and will maintain grant agreements with Alberta Health. The Government of Alberta announced implementation of a new Primary Care Network (PCN) governance framework in June 2017 to support alignment and delivery of integrated community and primary health care to Albertans, and support for Albertans to receive the majority of their health care services closer to home. Alberta Health has created a Provincial PCN Committee to set strategic direction and priorities for PCNs with respect to services and policy. PCN Zone Committees will work toward alignment and integration of primary and community health services across PCNs, Alberta Health Services (AHS) and services provided by community-based organizations within each zone, create and implement a zone-wide service plan, and create efficiencies through shared services where appropriate.

To assist the PCNs with primary health care planning, Alberta Health has developed a series of reports to provide a broad range of demographic, socio-economic and population health statistics considered relevant to primary health care for communities across the province. There are 42 PCNs across the province and the Alberta Health "PCN Profile" reports provide information for each of the 42 PCNs in Alberta.

The PCN Profiles are intended to highlight areas of need and provide relevant information to support the consistent and sustainable planning of primary health care services. Each Profile offers an overview of the current health status of paneled patient in the PCN, indicators of the PCN's current and future health needs, and evidence as to which quality services are needed on a timely and efficient basis to address the PCN's needs.

Each report includes sections that present panel level information. In addition, the Profile includes Appendices containing definitions and the PCN panel patients' geographic distribution by Municipality.

For more information contact primaryhealthcare@gov.ab.ca

© 2018 Government of Alberta i

#### Note:

Various data sources are used to compile the PCN Profiles. The Profiles are developed through the collaboration of Primary Health Care, Health Analytics in Alberta Health and Alberta Health Services.

© 2018 Government of Alberta

# Primary Care Network (PCN) Information

This section contains information (demographics, First Nations/Inuit population proportion, maternal and child health rates, chronic disease prevalence, and inpatient service utilization) presented at both the individual PCN Panel and the Provincial PCN Panel. As of 2013/2014 there are 42 active PCNs in Alberta. The panel sizes of these PCNs varies from very small (~4k) to very large (~360k).

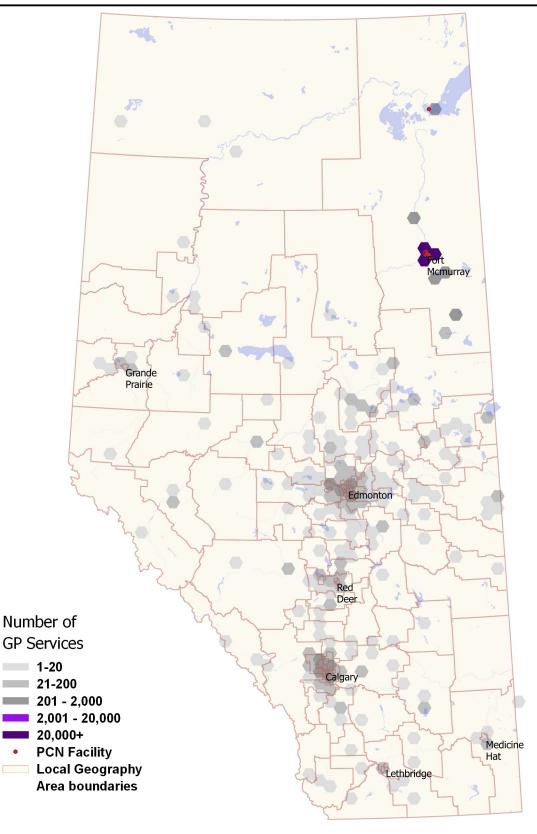
# Map Descriptions:

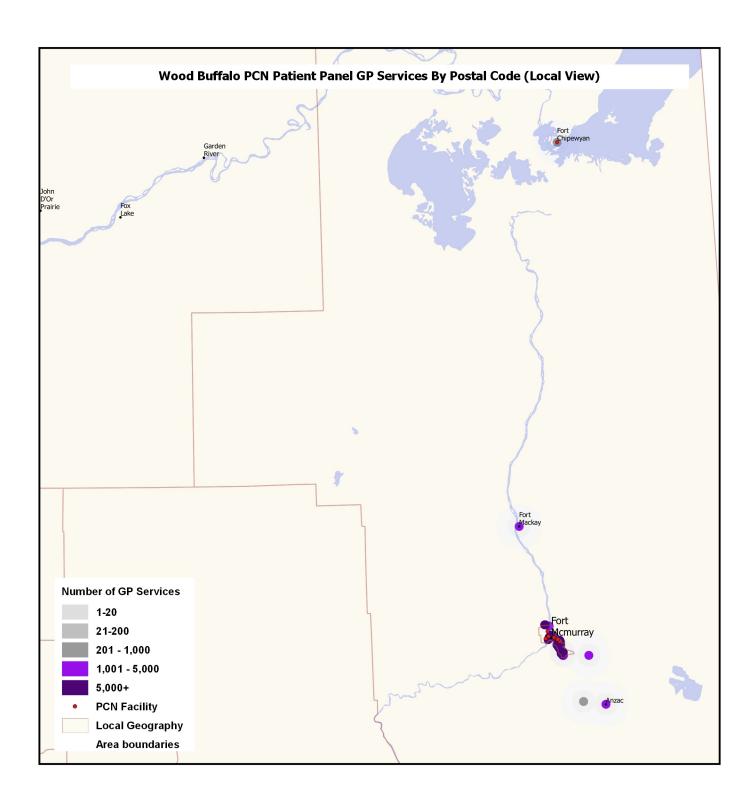
**The provincial view map** depicts the distribution of PCN panel patient General Practice (GP) services by postal code at the level of the whole province. The hexagons capture GP services to panel patients residing at all postal codes within the hexagon area.

The local view map depicts the distribution of PCN panel patient GP services by postal code for the core service area near PCN facilities. The local view maps are calculated by drawing a 2 km radius around every postal code and aggregating the data for all postal codes that fall within each circle. In rural areas, the population of postal codes is aggregated to towns with post offices and therefore the circles represent the town and surrounding rural population together. Additionally, concentric 5 and 10 km buffers surround the 2 km circles, or clusters of 2 km circles. The PCN postal codes do not actually fall within these light grey buffer areas, as the core PCN population, or their post office locations, are located within 2 km of the circle centers.

In both maps, PCN facilities (only those where GP services from panel patients were reported during the report timeframe) are represented through red dots. The number of patient panel GP services is captured though shades of grey or blue, where intensity of services increases from light grey (lowest) and dark grey, to lighter blue and darker blue (highest). Local geographic area boundaries (132 Alberta subdivisions identical to the ones used in the Community Profiles: <a href="http://www.health.alberta.ca/services/PHC-community-profiles.html">http://www.health.alberta.ca/services/PHC-community-profiles.html</a>) depicted with lines, municipality names (black text) and lakes (light blue) are also provided as reference features.

# Wood Buffalo PCN Patient Panel GP Services by Postal Code (Provincial View)





#### **DEMOGRAPHICS**

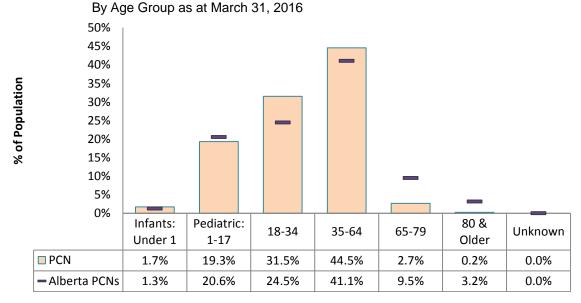
Table 1.1 shows the population distribution of the Primary Care Network (PCN) patient panel broken down by age group and gender, for the most recent fiscal year available. Specific age groups have been identified. Children under the age of one year were defined as infants, while the pediatric age group includes all minors excluding infants. People with no age information available were categorized as unknown.

**TABLE 1.1** Distribution of PCN Panel<sup>1</sup> Population by Age and Gender As at March 31, 2016

Primary Care Network Panel Population						
Age Group	Female	Male	Total			
Infants: Under 1	601	587	1,188			
Pediatric: 1-17	6,554	6,901	13,455			
18-34	11,870	10,082	21,952			
35-64	13,914	17,127	31,041			
65-79	778	1,095	1,873			
80 & Older	103	68	171			
Unknown	0	0	0			
Total	33,820	35,860	69,680			

Figure 1.1 profiles the panel population distribution by age group for both the PCN and all PCNs in Alberta, for the most recent fiscal year available.

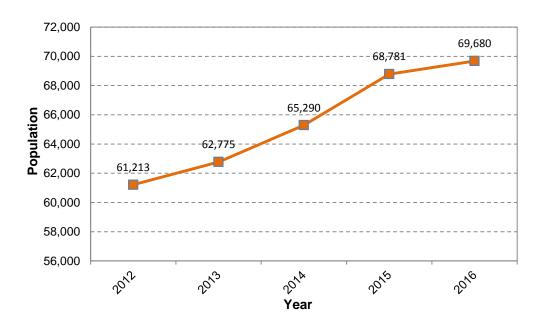
FIGURE 1.1 Percentage Distribution of the PCN Panel versus All Alberta PCNs Population



.

The population counts for each year between 2012 and the most recent fiscal year are provided in Figure 1.2.

FIGURE 1.2 Primary Care Network Panel Population<sup>2</sup> Covered as at End (i.e. Mar 31) of Fiscal Years 2012 - 2016



The population of Wood Buffalo Primary Care Network increased by 13.8% between 2012 and 2016. A low of 61,213 individuals was reported in 2012 and a peak of 69,680 people was reported in 2016.

#### Sources:

Alberta Health Care Insurance Plan (AHCIP) Annual Population Registry File, Alberta Health Primary Care Network (PCN) Patient Panel File, Alberta Health

#### Notes:

<sup>&</sup>lt;sup>1</sup> Patient panel derived based on four-cut methodology.

<sup>&</sup>lt;sup>2</sup> Population might be missing during early years due to some PCNs being established later on. See Appendix A for details.

#### **SOCIO-ECONOMIC INDICATORS**

Tables 2.1 present information regarding First Nations and Inuit populations for both the PCN panel<sup>1</sup> as well as all PCNs in Alberta. This information is presented as percentages.

TABLE 2.1 Population Percentage of First Nations with Treaty Status<sup>2</sup> and Inuit as at March 31, 2016

Indigenous				
	Wood Buffalo Primary Care Network	Alberta PCNs		
Percent of Population that is First Nations or Inuit	3.0%	2.6%		

#### Sources:

Alberta Health Care Insurance Plan (AHCIP) Annual Population Registry Files, Alberta Health Primary Care Network (PCN) Patient Panel File, Alberta Health

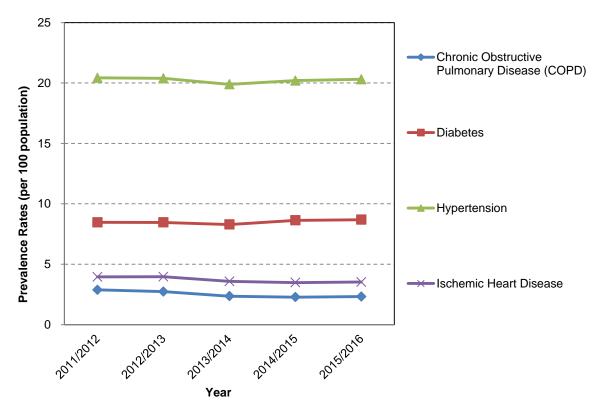
#### Notes:

- 1 Patient panel derived based on four-cut methodology. See Appendix A for details.
- <sup>2</sup> See Appendix A for details.

#### CHRONIC DISEASE PREVALENCE

Figure 3.1 displays the rates per 100 population of the select chronic diseases in the PCN patient panel. The prevalence rates refer to the number of diagnosed individuals at a given time and have been standardized by age.

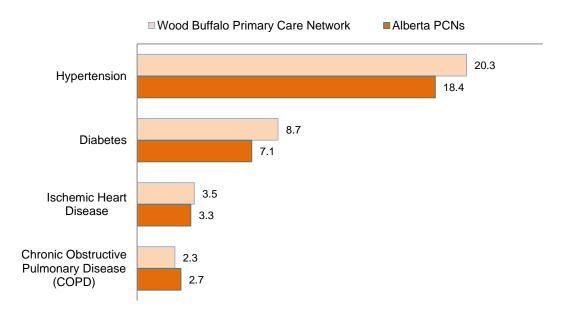
**FIGURE 3.1** PCN Panel Age-Standardized Chronic Disease Prevalence Rates<sup>1,2,3</sup> (per 100 population) 2011/2012 - 2015/2016



On average, the condition with the highest chronic disease prevalence rate reported for Wood Buffalo Primary Care Network during 2011/2012 to 2015/2016 was hypertension. In 2015/2016, Wood Buffalo Primary Care Network ranked number 15 in hypertension, number 6 in diabetes, number 25 in ischemic heart disease and number 34 in COPD among prevalence rates reported for the 42 Primary Care Networks (PCNs).

Figure 3.2 depicts the 2015/2016 age-standardized prevalence rate for select major chronic diseases, per 100 population, for both the PCN panel and Alberta PCNs.

FIGURE 3.2 PCN Panel versus Alberta PCNs Age-Standardized Chronic Disease Prevalence Rates (per 100 population), 2015/2016



Age-Standardized Prevalence Rates (per 100 population)

In 2015/2016, the Wood Buffalo Primary Care Network prevalence rate for hypertension per 100 population was 1.1 times higher than the corresponding rate reported for the provincial PCNs (20.3 vs. 18.4 AB PCNs). In addition, Wood Buffalo Primary Care Network showed prevalence rates higher than the provincial PCN rates for three of the four chronic diseases included above.

#### Sources:

Alberta Health Care Insurance Plan (AHCIP) Physician Claims Data, Alberta Health
Alberta Health Care Insurance Plan (AHCIP) Quarterly Population Registry Files, Alberta Health
Alberta Hospital Discharge Abstract Database (DAD), Alberta Health
Primary Care Network (PCN) Patient Panel File, Alberta Health
Census 2011 Population Data, Statistics Canada

#### Notes:

<sup>&</sup>lt;sup>1</sup> Age-standardized prevalence rates are adjusted using the direct method of standardization, with weights from Statistics Canada's 2011 census population.

<sup>&</sup>lt;sup>2</sup> Patient panel derived based on four-cut methodology. See Appendix A for details.

<sup>&</sup>lt;sup>3</sup> Population might be missing during early years due to some PCNs being established later on. See Appendix A for details.

#### MATERNAL AND CHILD HEALTH

Table 4.1 highlights maternal and child health indicators such as birth weight, fertility rate, teen birth rate and prenatal smoking for the PCN panel and Alberta PCNs. The indicator information is presented as rates, percentages, or raw numbers, depending on the indicator.

TABLE 4.1 PCN Panel<sup>2</sup> Maternal and Child Health Indicators<sup>3</sup> for Three-Year Period

Maternal and Child Health Indicators	Period	Wood Buffalo Primary Care Network	Alberta PCNs
Number of Births		4,296	142,682
Percent Low Birth Weights (of Live Births) <sup>1</sup> , less than 2500 gm		6.3%	7.0%
Percent High Birth Weights (of Live Births) <sup>1</sup> , greater than 4000 gm		10.5%	9.2%
Birth Rate (per 1,000 population) <sup>1</sup>	2012/2013 - 2014/2015	44.9	28.2
Fertility Rate (per 1,000 Women 15 to 49 Years) <sup>1</sup>		70.1	56.2
Teen Birth Rate (per 1,000 Women 15 to 19 Years)		18.7	15.4
Percent of Deliveries with Maternal Prenatal Smoking		12.8%	13.1%

During 2012/2013 to 2014/2015, Wood Buffalo Primary Care Network 's birth rate of 44.9 per 1,000 women was much higher than the provincial PCN rate, and the teen birth rate of 18.7 per 1,000 was similar to Alberta's PCN teen birth rate. In addition, a similar proportion of prenatal smoking cases were reported compared to the province (12.8% vs. 13.1% AB PCNs).

#### Sources:

Alberta Hospital Discharge Abstract Database (DAD), Alberta Health
Alberta Health Care Insurance Plan (AHCIP) Annual Population Registry File, Alberta Health
Alberta Vital Statistics Births File
Primary Care Network (PCN) Patient Panel File, Alberta Health

#### Notes:

<sup>&</sup>lt;sup>1</sup> See Appendix A for definition.

<sup>&</sup>lt;sup>2</sup> Patient panel derived based on four-cut methodology. See Appendix A for details.

<sup>&</sup>lt;sup>3</sup> Some PCNs do not have indicator values for this section due to the PCN being established after 2011/2012. See Appendix A for details.

#### INPATIENT SERVICE UTILIZATION

Table 5.1 describes inpatient separation<sup>1</sup> rates per 1,000 population for the PCN and Alberta PCNs patients accessing health facilities across all of Alberta. The rate of inpatient separations is the ratio between the total number of separations and the total panel population, for each year.

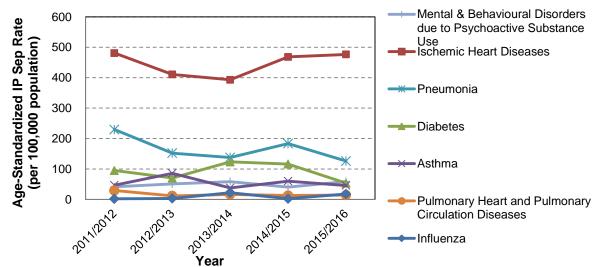
**TABLE 5.1** Inpatient Separation Rates (per 1,000 population) for the PCN Panel<sup>2</sup> vs. Alberta PCNs Panel 2013/2014 - 2015/2016

Inpatient Separation Rates (per 1,000 population) <sup>3</sup>				
Fiscal Years	Wood Buffalo Primary Care Network	Alberta PCNs		
2013/2014	85.3	92.8		
2014/2015	82.7	91.4		
2015/2016	86.7	89.7		

Wood Buffalo Primary Care Network 's inpatient separation rate for panel patients in this PCN varied between 82.7 in 2014/2015 and 86.7 in 2015/2016. In addition, in 2015/2016, the inpatient separation rate for patients in the Wood Buffalo Primary Care Network panel was similar to the provincial PCN rate (86.7 vs. 89.7 AB PCNs).

Figure 5.1 presents inpatient separation PCN panel rates for select health conditions (per 100,000 population), for the fiscal years 2011/2012 through 2015/2016. The rates have been standardized by age.

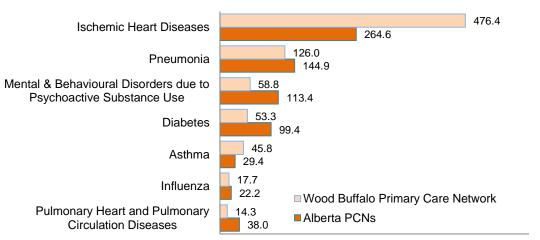
**FIGURE 5.1** PCN Panel Age-Standardized<sup>3,4</sup> Inpatient Separation (IP Sep) Rates (per 100,000 population) For Selected Conditions, 2011/2012 - 2015/2016



On average, the highest inpatient separation rates, among select health conditions, reported in Wood Buffalo Primary Care Network during 2011/2012 to 2015/2016 were due to ischemic heart diseases. These rates reached a high of 480.8 per 100,000 population in 2011/2012 and a low of 393.0 per 100,000 population in 2013/2014.

Figure 5.2 presents inpatient separation rates per 100,000 population for panel patients in the PCN, compared to provincial PCN rates, for the most recent fiscal year and select health conditions.

FIGURE 5.2 PCN Panel versus Alberta PCNs Age-Standardized IP Sep Rates (per 100,000 population) For Select Conditions, 2015/2016



Age-Standardized IP Sep Rates (per 100,000 population)

In 2015/2016, the three highest inpatient separation rates were reported for ischemic heart diseases, pneumonia, and mental & behavioural disorders due to psychoactive substance use. The most common reason for inpatient separations in Wood Buffalo Primary Care Network panel was ischemic heart diseases, which had a much higher rate compared to the provincial PCN rate per 100,000 population (476.4 vs. 264.6 AB PCNs). Additionally, Wood Buffalo Primary Care Network 's inpatient separation rates were higher than the provincial rates for two of the seven diagnoses.

#### Sources:

Alberta Hospital Discharge Abstract Database (DAD), Alberta Health Alberta Health Care Insurance Plan (AHCIP) Quarterly Population Registry Files, Alberta Health Primary Care Network (PCN) Patient Panel File, Alberta Health

Census 2011 Population Data, Statistics Canada

Notes: 1 See Appendix A for definition.

<sup>&</sup>lt;sup>2</sup> Patient panel derived based on four-cut methodology. See Appendix A for details.

<sup>&</sup>lt;sup>3</sup> Population might be missing during early years due to some PCNs being established later on. See Appendix A for details.

<sup>&</sup>lt;sup>4</sup> Age-standardized rates are adjusted using the direct method of standardization, with weights from Statistics Canada's 2011 census population.

Definitions Appendix A

#### Age Standardization

Age standardization is a technique applied to make rates comparable across groups with different age distributions. A simple rate is defined as the number of people with a particular condition divided by the whole population. An age-standardized rate is defined as the number of people with a condition divided by the population within each age group. Standardizing (adjusting) the rate across age groups allows a more accurate comparison between populations that have different age structures. Age standardization is typically done when comparing rates across time periods, different geographic areas, and or population sub-groups (e.g. ethnic group).

#### **Birth Rate**

The birth rate is the number of live births, of a given geographic area in a given year, per 1,000 population of the same geographic area in the same year. (Statistics Canada)

#### **Chronic Obstructive Pulmonary Disease (COPD)**

The population aged 35 and over who reported being diagnosed by a health professional with chronic bronchitis, emphysema or COPD. (Statistics Canada, Canadian Community Health Survey)

COPD is a progressive disease that makes it hard to breathe. It can cause coughing that produces large amounts of mucus, wheezing, shortness of breath, chest tightness, and other symptoms. Cigarette smoking is the leading cause of COPD. Most people who have COPD smoke or used to smoke. Long-term exposure to other lung irritants (such as air pollution, chemical fumes, or dust) also may contribute to COPD.

#### **Fertility Rate**

The fertility rate is the number of live births per 1,000 women of reproductive age (15 - 49 years) in a population per year. This is a more standardized way to measure fertility in a population than birth rate because it accounts for the percentage of women of reproductive age. (Statistics Canada)

#### **First Nations with Treaty Status**

First Nations is a term that came into common usage in the 1970s to replace the word "Indian". Although the term First Nations is widely used, no legal definition of it exists. Among its uses, the term "First Nations people" refers to the Indian people in Canada, both Status and non-Status.

Starting in 1701, the British Crown entered into solemn treaties to encourage peaceful relationships between First Nations and non-Aboriginal people. Over the next several centuries, treaties were signed to define, among other things, the respective rights of Aboriginal people and governments to use and enjoy lands that Aboriginal people traditionally occupied. The Government of Canada and the courts understand treaties between the Crown and Aboriginal people to be solemn agreements

that set out promises, obligations and benefits for both parties. (Aboriginal Affairs and Northern Development Canada)

#### **Four Cut Methodology**

The Four Cut Funding Methodology is a way of assigning patients to one primary care provider in the province. All patients who have visited a family physician (or pediatrician or nurse practitioner in select circumstances) are assigned to a patient list for that physician. These patients are called enrollees. The application of the Four Cut Funding Methodology only permits patients or enrollees to be counted once even if they have seen multiple physicians.

A patient is added to the physician list in the following manner:

- 1. Single physician A patient visiting a single physician is assigned to that physician.
- 2. Most visited physician The remaining patients who have seen more than one physician are assigned to the physician they visited most frequently.
- 3. Physical exam If the remaining patients have seen two physicians the same number of times, then they are assigned to the physician who completed the last physical exam.
- 4. Last physician If the remaining patients have seen two physicians the same number of times and have not received a physical exam, then they are assigned to the physician who saw them last.

These patient enrollee lists are calculated twice a year – April 1 and October 1 – and payments based on the calculations are sent to each PCN. Each PCN also receives a report twice a year after the calculation and data run are completed, providing specific information on the PCN's population.

#### **High Birth Weight**

Birth weight is the body weight of a baby at its birth. High birth weight is defined as live births with a weight of 4,500 grams or more, expressed as a percentage of all live births with known weight (Statistics Canada, Vital Statistics, Birth Database)

#### **Hospitalization Rate**

The hospitalization rate is the age-standardized rate of acute care hospitalization, per 100,000 population. (Canadian Institute for Health Information)

#### Inpatient

An inpatient is an individual who has been officially admitted to a hospital for the purpose of receiving one or more health services. (Canadian Institute for Health Information: MIS Standards 2011)

#### **Inpatient Separations (Seps)**

A separation from a health care facility occurs anytime a patient (or resident) 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.

#### Inuit

Inuit are the Aboriginal people of Arctic Canada. As of Sept 2010, it is estimated that about 45,000 Inuit live in 53 communities in: Nunatsiavut (Labrador); Nunavik (Quebec); Nunavut; and the Inuvialuit Settlement Region of the Northwest Territories. Each of these four Inuit groups have settled land claims. These Inuit regions cover one-third of Canada's land mass. Please note that small numbers of Inuit people can be found in various other regions of Canada other than the four regions listed above.

The word "Inuit" means "the people" in the Inuit language called, Inuktitut and is the term by which Inuit refer to themselves. (Aboriginal Affairs and Northern Development Canada)

#### **Low Birth Weight**

Birth weight is the body weight of a baby at its birth. Live births less than 5.5 pounds or 2500 grams at birth are considered as babies with low birth weight. Low birth weight is a key determinant of infant survival, health, and development. (Statistics Canada, Vital Statistics, Birth Database)

#### **Prevalence Rate**

Prevalence is a measure of disease that allows us to determine a person's likelihood of having a disease. Therefore, the number of prevalent cases is the total number of cases of disease existing in a population. A prevalence rate is the total number of cases of a disease existing in a population divided by the total population. (<a href="http://www.health.ny.gov/diseases/chronic/basicstat.htm">http://www.health.ny.gov/diseases/chronic/basicstat.htm</a>)

#### **Primary Care**

Primary care is the first point of contact that people have with the health care system for medical needs requiring treatment and referral to other services as needed and is usually provided by a family physician or other health care professional.

(http://www.albertapci.ca/aboutpcns/primarycare/pages/default.aspx)

#### **Primary Care Networks (PCN) Launch Year**

The following PCNs were established after 2009/2010 which resulted in the data missing in some of the reported tables.

PCN Name	Established in the Year
Lloydminster Primary Care Network	2010/2011
Wainwright Primary Care Network	2010/2011
Peaks to Prairies Primary Care Network	2012/2013
Drayton Valley Primary Care Network	2013/2014
Grande Cache Primary Care Network	2013/2014

#### **Qualifier (comparisons between indicator values)**

In comparing indicators across Primary Care Network (PCN) and the Provincial PCN, this report uses qualifiers such as 'higher than', 'lower than', 'similar to', etc. These statements are based on a simple statistical comparison that determines how far apart the indicator values are on the full scale of values for the indicator. For each indicator, the standard deviation (SD) was used as the measuring stick for whether the values are "close" or "far apart". For each indicator, the distance between the PCN value and the provincial (AB) PCN value was measured as number of SDs, and the direction of the difference (plus or minus). For example, if the PCN value is two SDs above the AB PCN value, then the PCN value is said to be 'much higher' than the provincial value. The complete set of comparison criteria is given below.

Qualifier	Distance between values		
Much Lower	below -1.5 SD		
Lower	−1.5 SD <i>to</i> −0.25 SD		
Similar/Comparable	–0.25 SD <i>to</i> +0.25 SD		
Higher	+0.25 SD to +1.5 SD		
Much Higher	+1.5 SD and higher		

#### **Separation Rate**

A separation from a health care facility occurs anytime a patient (or resident) leaves because of death, discharge, sign-out against medical advice or transfer. The separation rate is the total number of inpatient separations divided by the total population.

#### **Teen Birth Rate**

The teenage live birth rate is the number of live births per 1,000 women aged 15 to 19. (E-STAT, Statistics Canada)

# Appendix B

# Wood Buffalo Primary Care Network Panel Patient Distribution by Municipality

The following listing shows the distribution of the PCN patient panel population by municipality (top 30 municipalities for the most recently available five fiscal years. The population counts might be missing during early fiscal years due to some PCNs established later on in the 5 fiscal year period examined.

MUNICIPALITY	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
FORT MCMURRAY	53,395	55,093	57,800	61,020	61,847
FOR I WICIWIORRAT	(87.3%)	(87.8%)	(88.5%)	(88.7%)	(88.8%)
EDMONTON	1,949	2,126	2,140	2,390	2,732
EDMONTON	(3.2%)	(3.4%)	(3.3%)	(3.5%)	(3.9%)
CALGARY	1,297	1,405	1,427	1,437	1,301
CALGAINT	(2.1%)	(2.2%)	(2.2%)	(2.1%)	(1.9%)
FORT MACKAY	408	402	417	407	465
FORT WACKAT	(0.7%)	(0.6%)	(0.6%)	(0.6%)	(0.7%)
ANZAC	422	435	421	412	426
ANZAO	(0.7%)	(0.7%)	(0.6%)	(0.6%)	(0.6%)
CHARD	323	309	303	309	303
CHARD	(0.5%)	(0.5%)	(0.5%)	(0.4%)	(0.4%)
SHERWOOD PARK	160	150	149	145	147
SHERWOOD FARK	(0.3%)	(0.2%)	(0.2%)	(0.2%)	(0.2%)
RED DEER	181	168	162	174	146
NED DEEK	(0.3%)	(0.3%)	(0.2%)	(0.3%)	(0.2%)
SPRUCE GROVE	104	111	124	127	139
SPRUCE GROVE	(0.2%)	(0.2%)	(0.2%)	(0.2%)	(0.2%)
FORT CHIPEWYAN	738	298	139	107	106
FORT CHIFEW TAIN	(1.2%)	(0.5%)	(0.2%)	(0.2%)	(0.2%)
ST. ALBERT	133	132	105	103	99
ST. ALBERT	(0.2%)	(0.2%)	(0.2%)	(0.1%)	(0.1%)
FORT SASKATCHEWAN	107	112	121	121	85
FORT SASKATOTIEWAN	(0.2%)	(0.2%)	(0.2%)	(0.2%)	(0.1%)
GRANDE PRAIRIE	106	121	126	118	84
GRANDE FRAIRIE	(0.2%)	(0.2%)	(0.2%)	(0.2%)	(0.1%)
AIRDRIE	66	78	78	99	72
AINDNIE	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)
STONY PLAIN	39	59	76	68	68
STONT PLAIN	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)
CONKLIN	76	80	71	68	60
CONKLIN	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)
BEAUMONT	61	78	62	51	55
BEAUWONT	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)
MORINVILLE	46	61	49	56	55
WUKINVILLE	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)
LETHRRIDGE	59	61	76	71	53
LETHBRIDGE	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)

MUNICIPALITY	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
LEDUC	50	58	54	49	52
	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)
LAC LA BICHE	76	70	52	64	51
	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)
COCHRANE	31	44	51	40	45
	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)
COLD LAKE	44	42	53	51	44
	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)
SYLVAN LAKE	31	39	31	41	40
	(0.1%)	(0.1%)	(0.0%)	(0.1%)	(0.1%)
OKOTOKS	33	33	38	38	37
OKOTOKS	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)
ATHABASCA	41	38	42	45	36
ATTABASCA	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)
BROOKS	32	29	33	38	36
BROOKS	(0.1%)	(0.0%)	(0.1%)	(0.1%)	(0.1%)
BOYLE	23	27	23	24	34
BUTLE	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)
MEDICINE HAT	38	50	44	43	33
MEDICINE HAT	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.0%)
CAMROSE	22	27	36	28	31
CAIVIRUSE	(0.0%)	(0.0%)	(0.1%)	(0.0%)	(0.0%)
ALL OTHER MUNICIPALITIES	1,085	1,024	981	1,014	942
ALL OTHER MUNICIPALITIES	(1.8%)	(1.6%)	(1.5%)	(1.5%)	(1.4%)
TOTAL BON BORULATION	61,176	62,760	65,284	68,758	69,551
TOTAL PCN POPULATION	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)

#### Sources:

Alberta Health Care Insurance Plan (AHCIP) Annual Population Registry File, Alberta Health Primary Care Network (PCN) Patient Panel File, Alberta Health