

# **Alberta Health**

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

### **Alberta Heartland PCN**

3rd Edition, October 2020

## Table of Contents

<b>Introduction</b> .....	i
<b>Primary Care Network (PCN) Information</b> .....	1
<b>Provincial Map of GP Services for the PCN</b> .....	2
<b>Local Focused Map of Select GP Services for the PCN</b> .....	3
<b>Demographics</b> .....	4
Table 1.1 Distribution of PCN Panel Population by Age and Gender as at March 31, 2019.....	4
Figure 1.1 Percentage Distribution of the PCN Panel versus All Alberta PCNs Population by Age Groups as at March 31, 2019 .....	4
Figure 1.2 PCN Panel Population as at End of Fiscal Years 2015 – 2019 .....	5
<b>Socio-Determinants of Health Indicators</b> .....	6
Table 2.1 Population Percentage of First Nations with Treaty Status and Inuit as at March 31, 2019..	6
<b>Chronic Disease Prevalence</b> .....	7
Figure 3.1 PCN Panel Age-Standardized Chronic Disease Prevalence Rates (per 100 population), 2014/2015 – 2018/2019 (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), 2018/2019 (Chronic Obstructive Pulmonary Disease, Diabetes, Hypertension, Ischemic Heart Disease) .....	8
<b>Maternal and Child Health</b> .....	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
<b>Inpatient Service Utilization</b> .....	10
Table 5.1 Inpatient Separation Rates (per 1,000 population) for the PCN Panel versus Alberta PCNs Panel, Fiscal Years 2014/2015 – 2018/2019.....	10
Figure 5.1 PCN Panel Age-Standardized Inpatient Separation (IP Sep) Rates (per 100,000 population) for Selected Conditions, 2014/2015 – 2018/2019 (Asthma, Diabetes, Influenza, Ischemic Heart Diseases, Mental and Behavioural Disorders due to Psychoactive Substance Use, Pneumonia, Pulmonary Heart and Pulmonary Circulation Diseases) .....	10
Figure 5.2 PCN Panel versus Alberta PCNs Age-Standardized IP Sep Rates (per 100,000 population), for Selected Conditions, 2018/2019 (Asthma, Diabetes, Influenza, Ischemic Heart Diseases, Mental and Behavioural Disorders due to Psychoactive Substance Use, Pneumonia, Pulmonary Heart and Pulmonary Circulation Diseases) .....	11

**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 Health Care – Primary Care Network (PCN) Profiles: [insert PCN name], 3<sup>rd</sup> Edition, October 2020

## INTRODUCTION

The Government of Alberta is working to improve primary health care in the province through its investment in Primary Care Networks (PCNs) to support the delivery of team-based primary care. PCNs are partnerships between a group of family physicians (who form a non-profit corporation) and Alberta Health Services (AHS) to provide interdisciplinary programming and services such as chronic disease management and prevention, mental health, geriatric care, rehabilitative care, palliative care, family planning, and obstetrical care. They aim to provide comprehensive, collaborative primary health services to the local communities they serve.

In Alberta, there are a total of 41 PCNs with over 4,000 physicians and 1,300 other full-time equivalent health care providers (such as nurses, dietitians, psychologists, mental health therapists, pharmacists and midwives) serving over 3.8 million Albertans (approximately 85% of the population). Each PCN has the flexibility to develop programs and provide services in a way that meets the specific needs of patients. Allocation of funding is a PCN Board decision based on many different factors including, but not limited to, population-based data. PCNs are divided into five zonal groups that align with the five AHS Zones to help ensure the integration of services and uniformity in the various areas of the province.

PCNs were originally established under the 2003-2011 Trilateral Master Agreement between Alberta Health, the Alberta Medical Association (AMA) and the regional health authorities (now AHS). PCNs were established because the parties were concerned about the number of Albertans who did not have a family physician, the decreasing number of medical students choosing family medicine and the lack of coordination in primary health care delivery. The first PCN opened in 2005.

Alberta Health developed "PCN Profile" reports (Profiles) to assist PCNs with primary health care planning by providing a broad range of demographic, socio-economic and population health statistics considered relevant to primary health care for communities across the province. The Profiles provide information for each PCN and highlight areas of need for 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 patients 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 and its patients' needs. Each report includes sections that present panel-level information. The Profiles also include Appendices with definitions and the PCN panel patients' geographic distribution by municipality.

For more information, contact Alberta Health's PCN Operations Unit at [PCNOps@gov.ab.ca](mailto:PCNOps@gov.ab.ca).

**Note:**

Various data sources are used to compile the PCN Profiles. The Profiles are developed through the collaboration of Alberta Health's divisions: Health Standards, Quality and Performance and Health Workforce Planning and Accountability with Alberta Health Services.

**Contributors:**

**David Onyschuk** - Analytics and Performance Reporting, Alberta Health

**Jennifer Bian** - Analytics and Performance Reporting, Alberta Health

**Gary Gilham** - Analytics and Performance Reporting, Alberta Health

**Mengzhe Wang** - Analytics and Performance Reporting, Alberta Health

**Kir Luong** - Analytics and Performance Reporting, Alberta Health

**Candy Gregory** - Primary Care Network (PCN) Operations, Alberta Health

**Michelle Roxas** - Primary Care Network (PCN) Operations, Alberta Health

**Nelson Roth** - Primary Care Network (PCN) Operations, Alberta Health

**Farah Jamil** - Primary Care Network (PCN) Operations, Alberta Health

## 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 2020/2021 there are 41 active PCNs in Alberta. The panel totals for these PCNs vary from very small (~4k) to very large (~360k).*

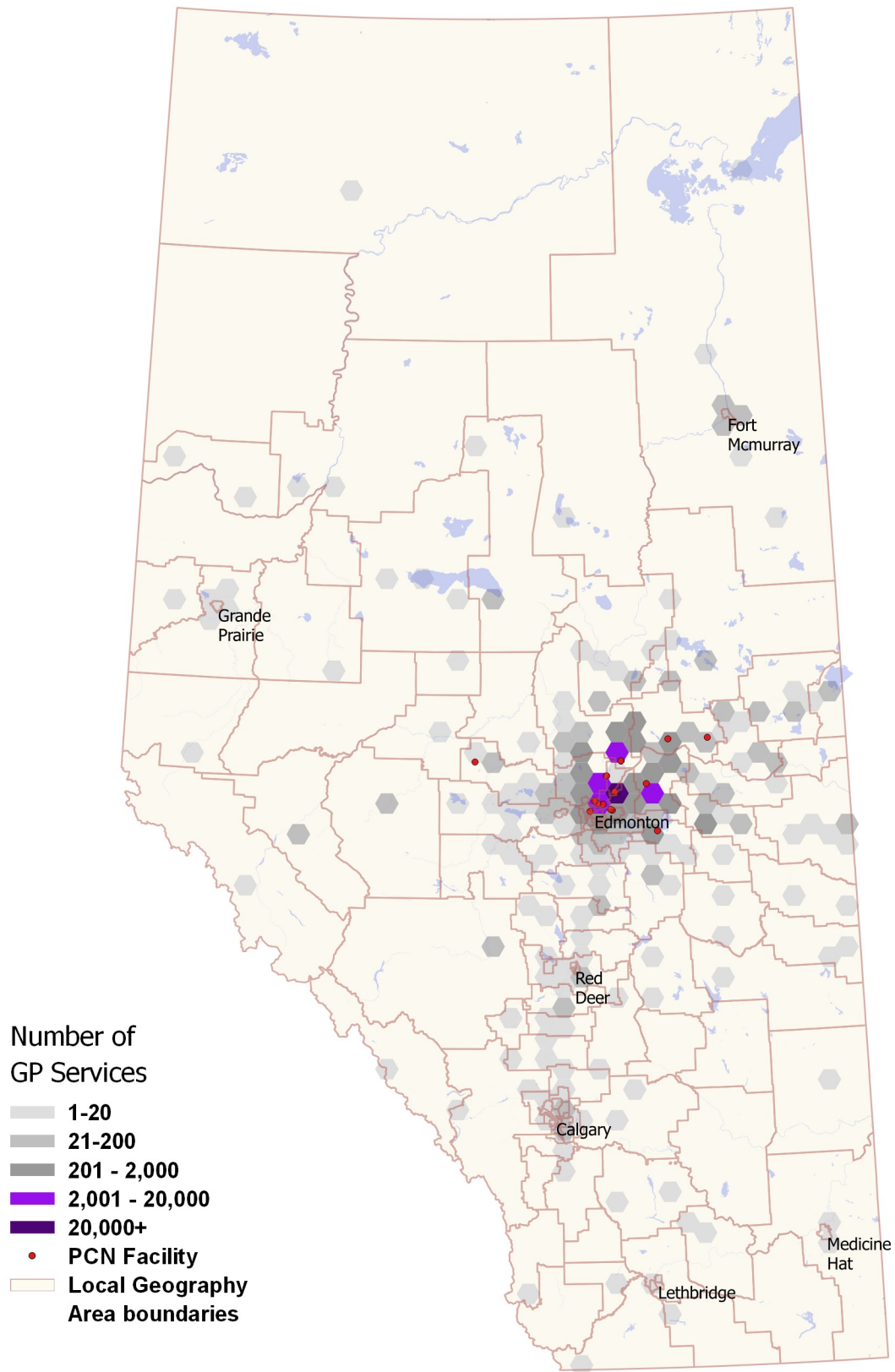
### **Map Descriptions:**

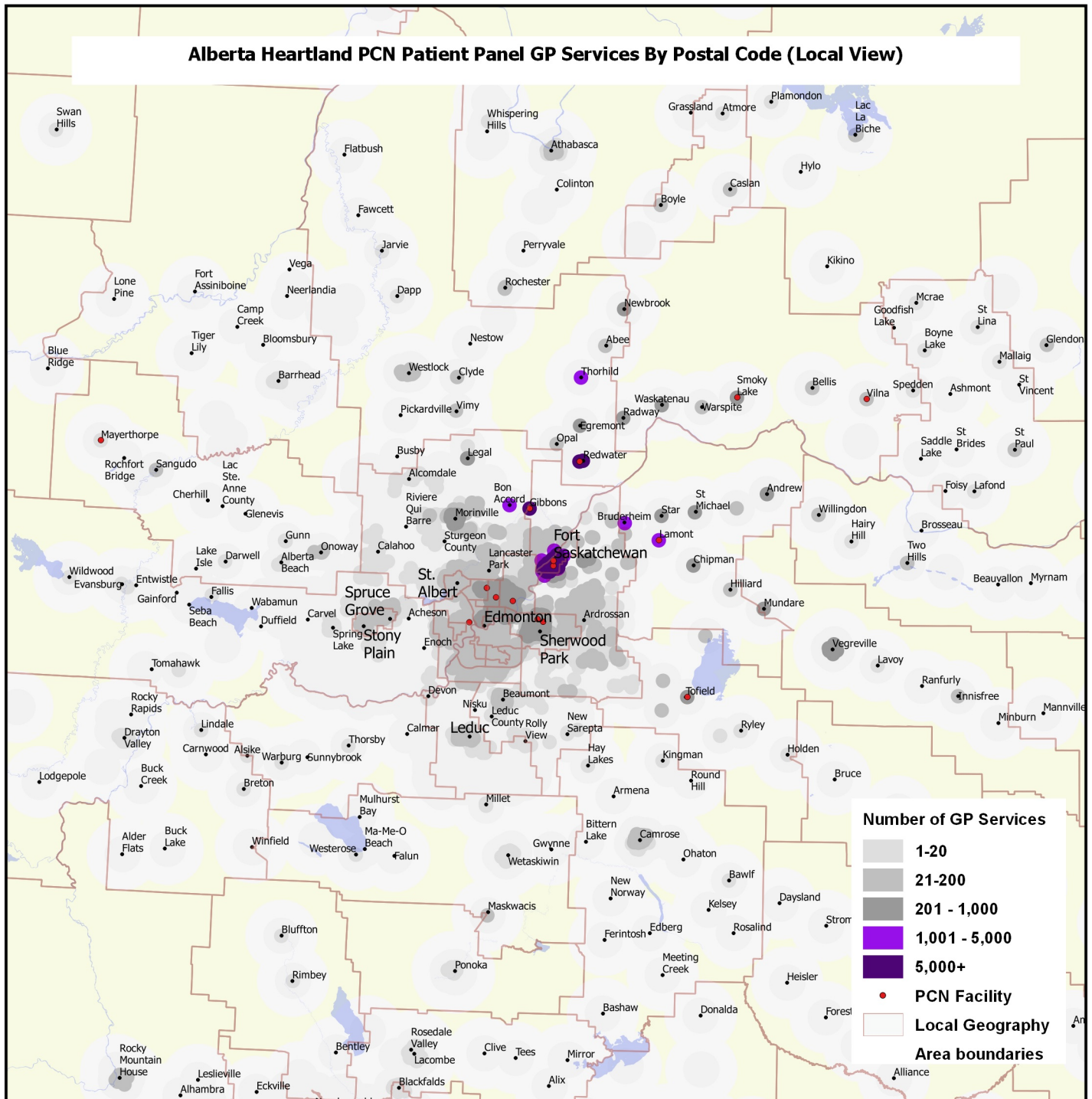
***The provincial view map** depicts the distribution of PCN panel patient GP services by postal code at the level of the whole province. The hexagons capture GP services to panel patients residing at all postal codes within the hexagon area.*

***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 through shades of grey or purple, where intensity of services increases from light grey (lowest) and dark grey, to lighter purple and darker purple (highest). Local geographic area boundaries (132 Alberta subdivisions identical to the ones used in the Community Profiles: <http://www.health.alberta.ca/services/PHC-community-profiles.html>) depicted with lines, municipality names (black text) and lakes (light blue) are also provided as reference features.*

**Alberta Heartland PCN Patient Panel GP Services by Postal Code (Provincial View)**







## Primary Care Network: Alberta Heartland PCN

### DEMOGRAPHICS

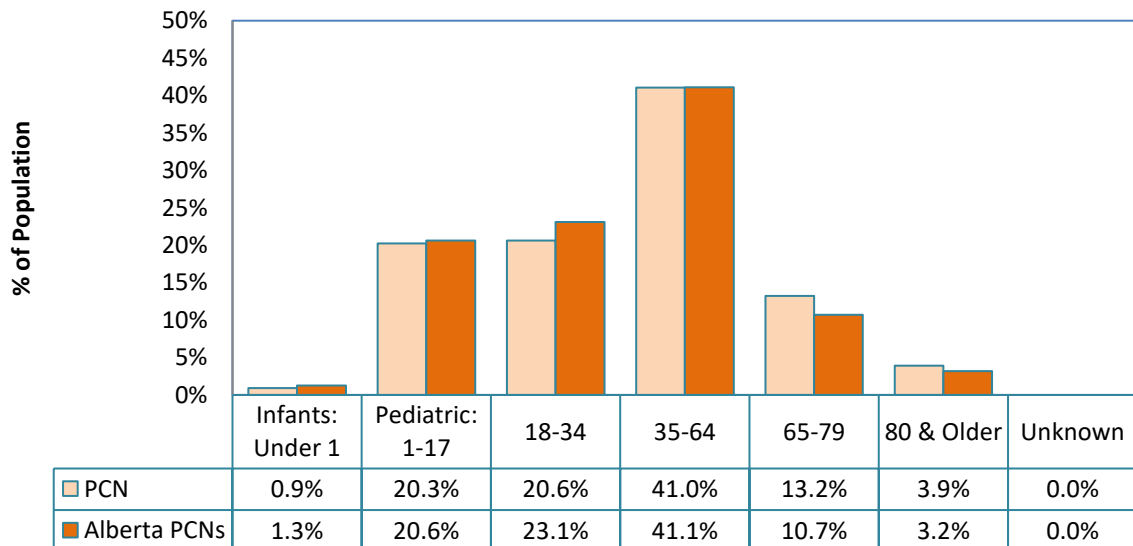
Table 1.1 shows the population distribution of the Primary Care Network (PCN) patient panel broken down by age group and gender, for the most recent fiscal year available. Specific age groups have been identified. Children under the age of one were defined as infants, while the pediatric age group includes 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, 2019

Primary Care Network Panel Population			
Age Group	Female	Male	Total
Infants: Under 1	137	148	285
Pediatric: 1-17	3,038	3,323	6,361
18-34	2,975	3,508	6,483
35-64	5,864	7,022	12,886
65-79	1,954	2,197	4,151
80 & Older	685	547	1,232
Unknown	0	0	0
<b>Total</b>	<b>14,653</b>	<b>16,745</b>	<b>31,398</b>

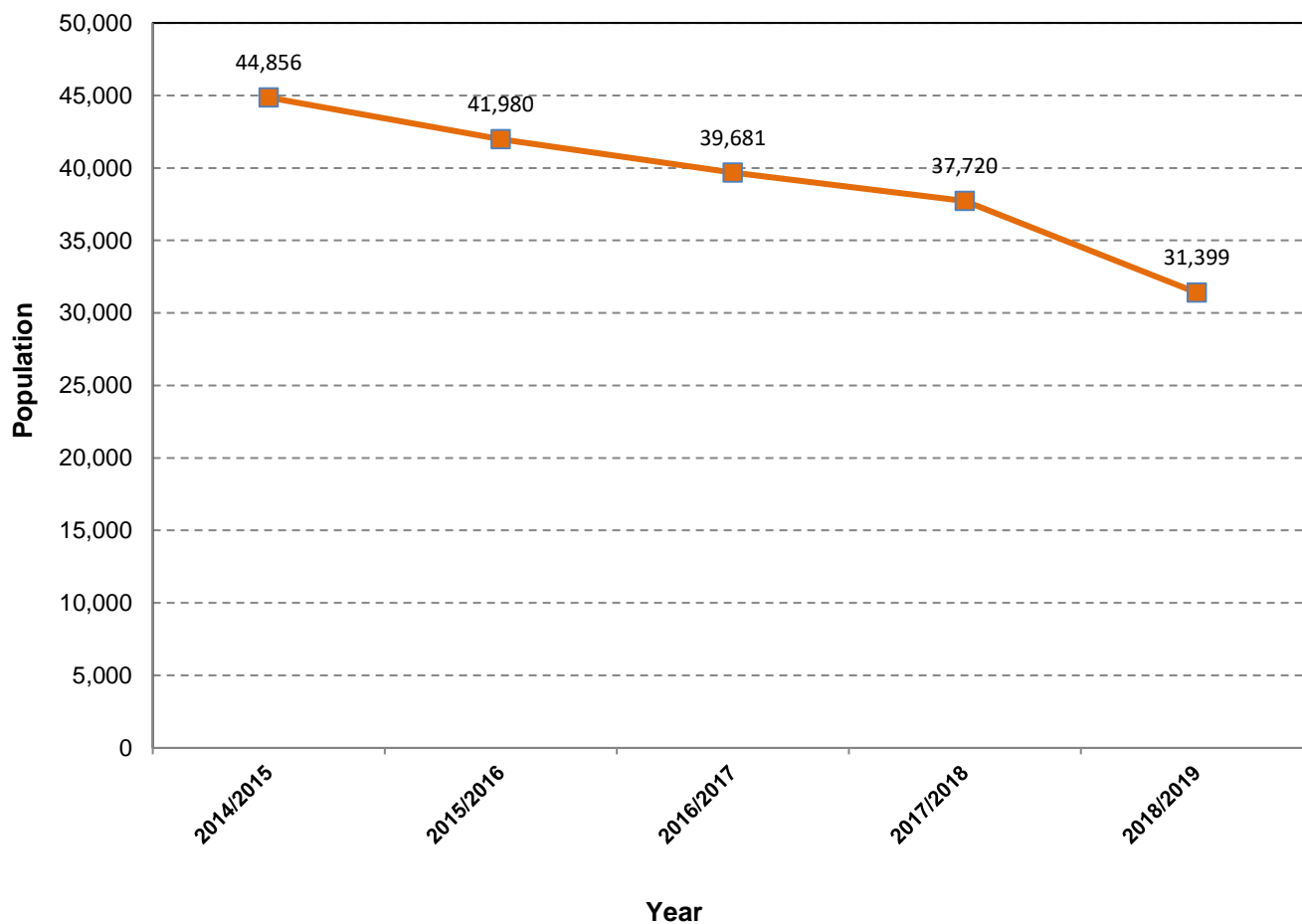
Figure 1.1 profiles the panel population distribution by age group for both the PCN and all PCNs in Alberta, for the most recent fiscal year available.

**FIGURE 1.1** Percentage Distribution of the PCN Panel versus All Alberta PCNs Population  
 By Age Group as at March 31, 2019



The population counts for each year between 2015 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 2014/2015 - 2018/2019



The population of Alberta Heartland PCN decreased by 30.0% between 2015 and 2019. A lowest of 31,399 individuals was reported in 2019 and a peak of 44,856 people was reported in 2015.

**Sources:**

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

**Notes:**

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

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

## Primary Care Network: Alberta Heartland PCN

### SOCIO-DETERMINANTS OF HEALTH INDICATORS

Table 2.1 present information regarding First Nation and Inuit populations for both the PCN panel and all PCNs in Alberta. This information is presented as percentages.

**TABLE 2.1** Population Percentage of First Nations with Treaty Status<sup>1</sup> and Inuit as at March 31, 2019

First Nations with Treaty Status and Inuit Population		
	Alberta Heartland PCN	Alberta PCNs
Percent of Population that is First Nations or Inuit	1.4%	2.5%

**Sources:**

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

**Notes:**

<sup>1</sup> See Appendix A for definition.

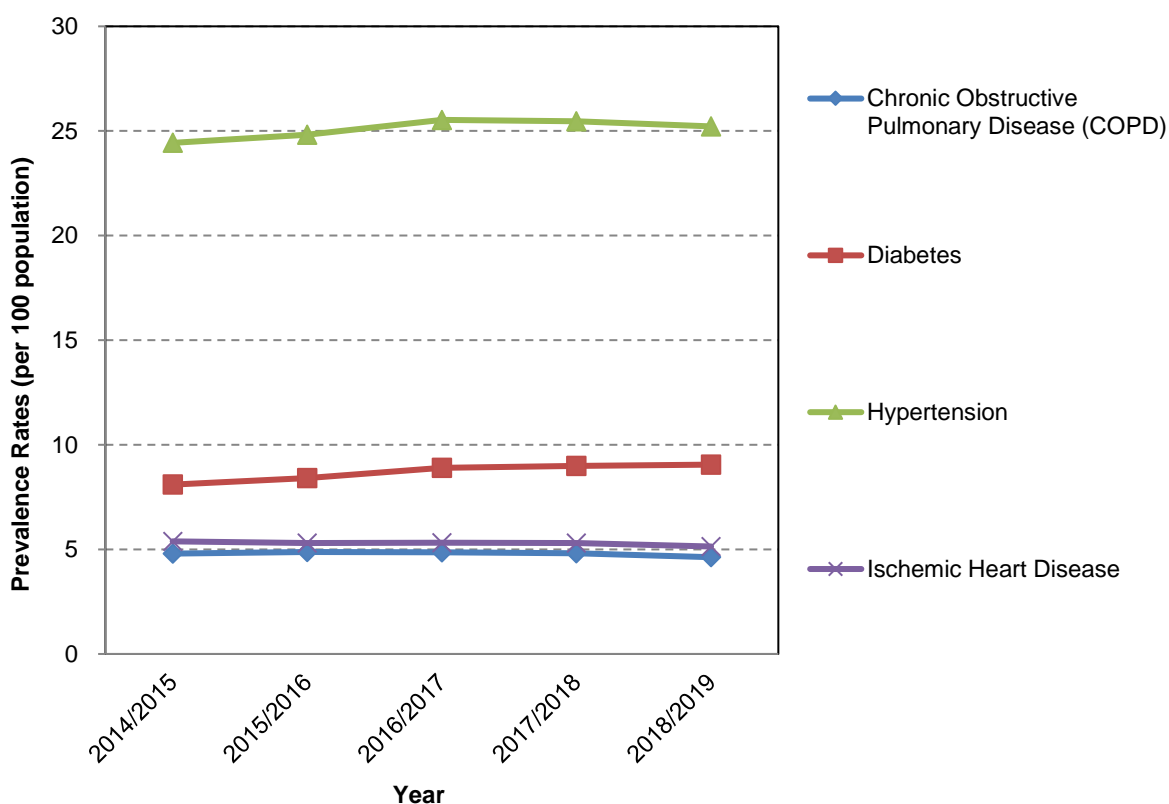
<sup>2</sup> Patient panel derived based on four-cut methodology. See Appendix A for details.

## Primary Care Network: Alberta Heartland PCN

### 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.

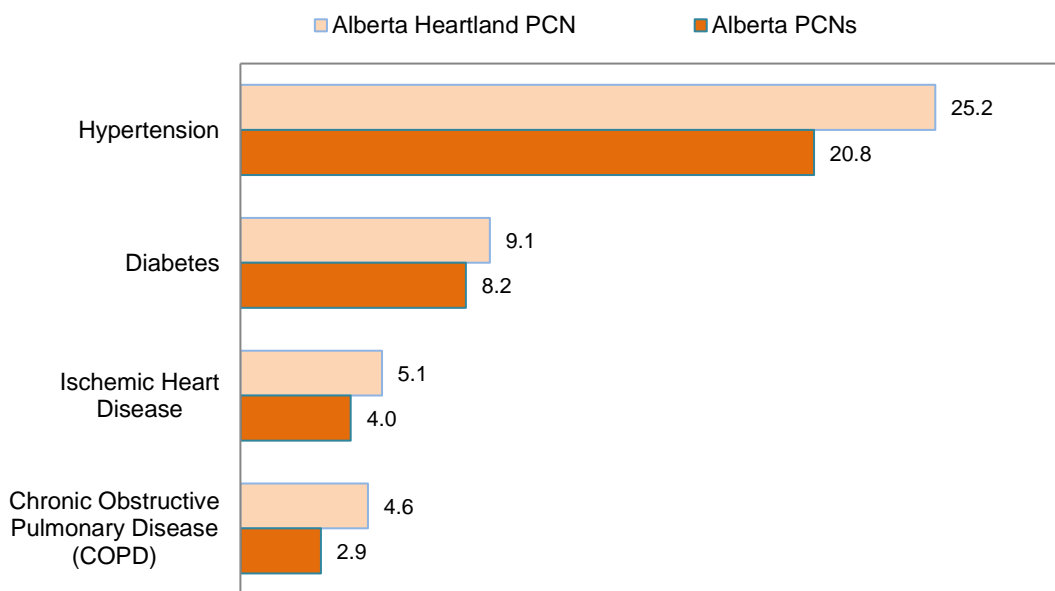
**FIGURE 3.1** PCN Panel Age-Standardized Chronic Disease Prevalence Rates<sup>1,2,3</sup> (per 100 population) 2014/2015 - 2018/2019



On average, the condition with the highest chronic disease prevalence rate reported for Alberta Heartland PCN during 2014/2015 to 2018/2019 was hypertension. In 2018/2019, Alberta Heartland PCN ranked number 3 in hypertension, number 9 in diabetes, number 9 in ischemic heart disease and number 4 in COPD among prevalence rates reported for the 41 Primary Care Networks.

Figure 3.2 depicts the 2018/2019 age-standardized prevalence rate for select major chronic diseases, per 100 population, for both the PCN panel and all Alberta PCNs.

**FIGURE 3.2** PCN Panel versus Alberta PCNs Age-Standardized Chronic Disease Prevalence Rates (per 100 population), 2018/2019



**Age-Standardized Prevalence Rates (per 100 population)**

In 2018/2019, the Alberta Heartland PCN prevalence rate for hypertension per 100 population was 1.2 times higher than the corresponding rate reported for the provincial PCNs (25.2 vs. 20.8 AB PCNs). In addition, Alberta Heartland PCN showed prevalence rates higher than the provincial PCN rates for 4 out of the 4 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>1</sup> Age-standardized prevalence rates are adjusted using the direct method of standardization, with weights from Statistics Canada's 2011 census population.
- <sup>2</sup> Patient panel derived based on four-cut methodology. See Appendix A for details.
- <sup>3</sup> Population might be missing during early years due to some PCNs being established later on. See Appendix A for details.

## Primary Care Network: Alberta Heartland PCN

### 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 all 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	Alberta Heartland PCN	Alberta PCNs
Number of Births	2016/2017 - 2018/2019	1,072	146,135
Percent Low Birth Weights (of Live Births) <sup>1</sup> , less than 2500 gm		6.4%	6.9%
Percent High Birth Weights (of Live Births) <sup>1</sup> , greater than 4000 gm		9.7%	8.3%
Birth Rate (per 1,000 population) <sup>1</sup>		20.8	22.9
Fertility Rate (per 1,000 Women 15 to 49 Years) <sup>1</sup>		47.2	46.5
Teen Birth Rate (per 1,000 Women 15 to 19 Years)		8.0	8.0
Percent of Deliveries with Maternal Prenatal Smoking		15.5%	10.2%

During 2016/2017 to 2018/2019, Alberta Heartland PCN 's birth rate of 20.8 per 1,000 women was similar to the provincial PCN rate, and the teen birth rate of 8.0 per 1,000 was similar to Alberta's PCN teen birth rate base on qualifier method. In addition, a higher proportion of prenatal smoking cases were reported compared to the province (15.5% vs. 10.2% 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>1</sup> See Appendix A for definition.
- <sup>2</sup> Patient panel derived based on four-cut methodology. See Appendix A for details.
- <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.

## Primary Care Network: Alberta Heartland PCN

### 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.

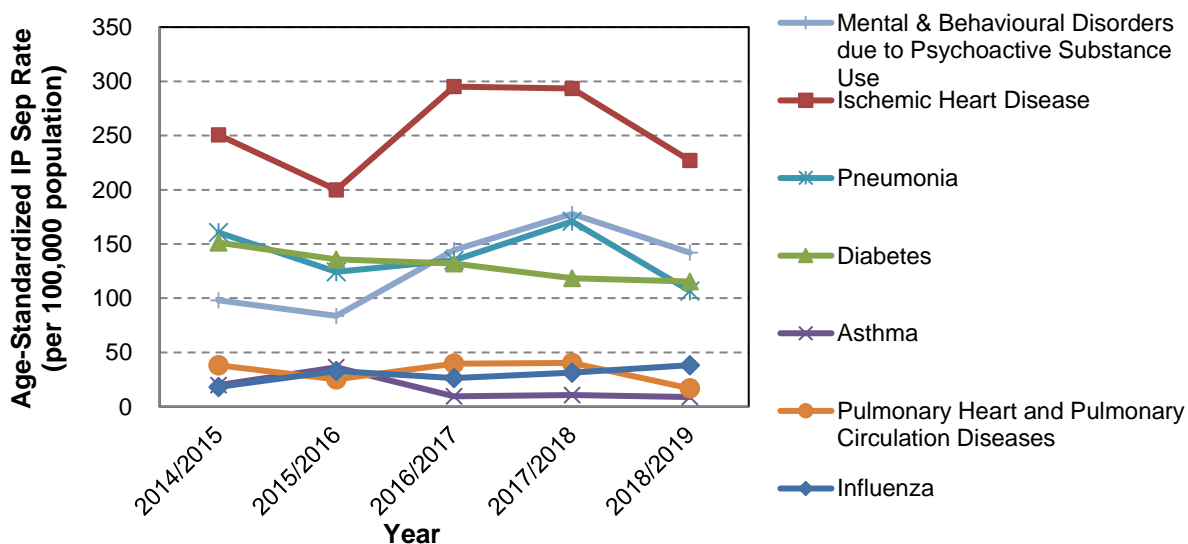
**TABLE 5.1** Inpatient Separation Rates (per 1,000 population) for the PCN Panel<sup>2</sup> vs. Alberta PCNs Panel 2016/2017 - 2018/2019

Inpatient Separation Rates (per 1,000 population) <sup>3</sup>		
Fiscal Years	Alberta Heartland PCN	Alberta PCNs
2016/2017	88.8	91.5
2017/2018	93.6	89.4
2018/2019	89.7	86.5

Alberta Heartland PCN 's inpatient separation rate for panel patients in this PCN varied between 88.8 in 2016/2017 and 93.6 in 2017/2018. In addition, in 2018/2019, the inpatient separation rate for patients in the Alberta Heartland PCN panel was similar to the provincial PCN rate (89.7 vs. 86.5 AB PCNs).

Figure 5.1 presents inpatient separation PCN panel rates for select health conditions (per 100,000 population), for the fiscal years 2014/2015 through 2018/2019. The rates have been standardized by age.

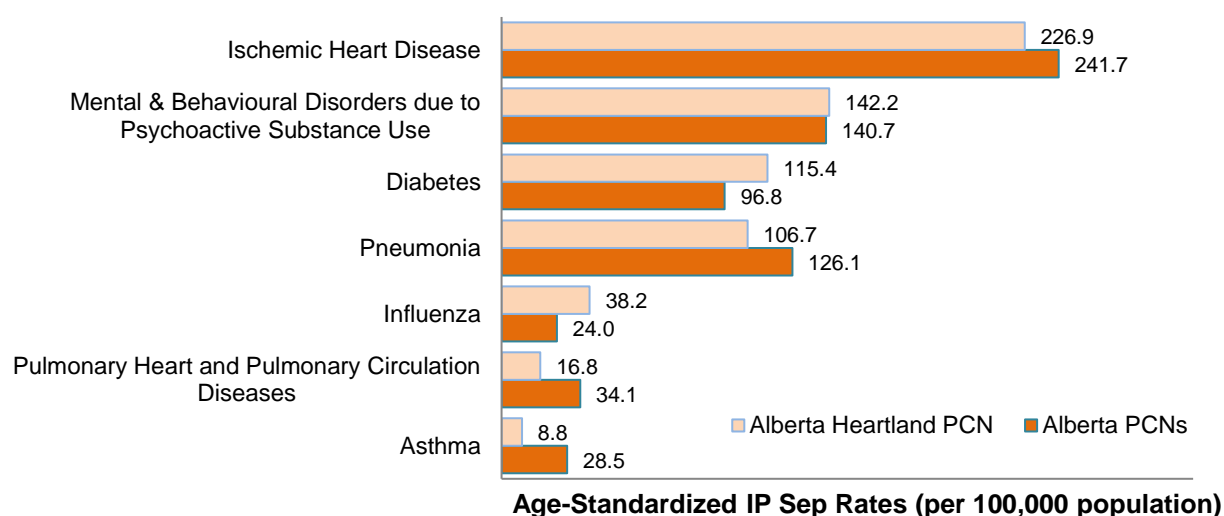
**FIGURE 5.1** PCN Panel Age-Standardized<sup>3,4</sup> Inpatient Separation (IP Sep) Rates (per 100,000 population) For Selected Conditions, 2014/2015 - 2018/2019



On average, the highest inpatient separation rates, among select health conditions, reported in Alberta Heartland PCN during 2014/2015 to 2018/2019 were due to ischemic heart diseases. These rates reached a high of 295.1 per 100,000 population in 2016/2017 and a low of 199.9 per 100,000 population in 2015/2016.

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, 2018/2019



In 2018/2019, the three highest inpatient separation rates were reported for ischemic heart disease, mental & behavioural disorders due to psychoactive substance use, and diabetes. The most common reason for inpatient separations in Alberta Heartland PCN panel was ischemic heart disease, which had a similar rate compared to the provincial PCN rate per 100,000 population (226.9 vs. 241.7 AB PCNs). Additionally, Alberta Heartland PCN 's inpatient separation rates were higher than the provincial rates for 3 of the 7 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

**Note.** <sup>1</sup> See Appendix A for definition.  
<sup>2</sup> Patient panel derived based on four-cut methodology. See Appendix A for details.  
<sup>3</sup> Population might be missing during early years due to some PCNs being established later on. See Appendix A for details.  
<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)

### Status First Nations

A status First Nation person refers to the legal status of a person who is registered under the *Indian Act*. Under the *Indian Act*, status First Nations persons, also known as a registered First Nation person, may be eligible for a range of benefits, programs and services offered by the federal and provincial/territorial governments. (Government of Canada (2020) "What is [First Nation] Status?" <https://www.sac-isc.gc.ca/eng/1100100032463/1572459644986> Retrieved October 15, 2020)

## Four Cut Methodology

The Four Cut Funding Methodology is a way of assigning patients to one Primary Health Care Provider (PHCP) in the province. All PCN patients who have visited a family physician (or pediatrician or nurse practitioner in select circumstances) are assigned to a patient list for that PHCP. 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 PHCPs.

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

1. Single PHCP - A patient visiting a single PHCP is assigned to that PHCP.
2. Most Visited PHCP – The remaining patients who have seen more than one PHCP are assigned to the PHCP they visited most frequently.
3. Physical Exam – If the remaining patients have seen two PHCPs the same number of times, then they are assigned to the PHCP who completed the last physical exam.
4. Last PHCP – If the remaining patients have seen two PHCPs the same number of times and have not received a physical exam, then they are assigned to the PHCP 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 runs 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 10 pounds or 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 (IP 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 2016, it is estimated that over 65,000 Inuit live in 51 communities in: Nunatsiavut (Northern Labrador); Nunavik (Northern 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. There are 2,500 Inuit people residing in Alberta. (Source: Statistics Canada, 2016 and Inuit Statistical Profile 2018)

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. (<http://www.health.ny.gov/diseases/chronic/basicstat.htm>)

## **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 PHCP.

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

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

In comparing indicators of a PCN compared to all Alberta (AB) PCNs, 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 the 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.

<b>Qualifier</b>	<b>Distance between values</b>
Much Lower	below $-1.5$ SD
Lower	$-1.5$ SD to $-0.25$ SD
Similar/Comparable	$-0.25$ SD to $+0.25$ 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

## Alberta Heartland PCN 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	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019
FORT SASKATCHEWAN	15,606 (33.6%)	15,375 (35.2%)	15,058 (36.3%)	14,738 (37.5%)	11,621 (35.5%)
EDMONTON	6,277 (13.5%)	5,968 (13.7%)	5,486 (13.2%)	4,862 (12.4%)	4,200 (12.8%)
GIBBONS	2,966 (6.4%)	2,642 (6.0%)	2,549 (6.1%)	2,500 (6.4%)	2,246 (6.9%)
REDWATER	2,437 (5.2%)	2,387 (5.5%)	2,352 (5.7%)	2,363 (6.0%)	2,221 (6.8%)
LAMONT	2,013 (4.3%)	1,950 (4.5%)	1,913 (4.6%)	1,862 (4.7%)	1,579 (4.8%)
SHERWOOD PARK	3,211 (6.9%)	2,209 (5.1%)	1,781 (4.3%)	1,487 (3.8%)	1,171 (3.6%)
BRUDERHEIM	1,196 (2.6%)	1,204 (2.8%)	1,160 (2.8%)	1,142 (2.9%)	891 (2.7%)
THORHILD	693 (1.5%)	677 (1.6%)	705 (1.7%)	684 (1.7%)	626 (1.9%)
BON ACCORD	848 (1.8%)	710 (1.6%)	679 (1.6%)	652 (1.7%)	586 (1.8%)
ARDROSSAN	914 (2.0%)	827 (1.9%)	733 (1.8%)	652 (1.7%)	543 (1.7%)
STURGEON COUNTY	536 (1.2%)	596 (1.4%)	604 (1.5%)	550 (1.4%)	457 (1.4%)
MUNDARE	599 (1.3%)	558 (1.3%)	539 (1.3%)	514 (1.3%)	392 (1.2%)
ANDREW	480 (1.0%)	481 (1.1%)	463 (1.1%)	452 (1.1%)	386 (1.2%)
VEGREVILLE	491 (1.1%)	468 (1.1%)	431 (1.0%)	441 (1.1%)	359 (1.1%)
FORT MCMURRAY	457 (1.0%)	443 (1.0%)	434 (1.0%)	419 (1.1%)	315 (1.0%)
ST. ALBERT	337 (0.7%)	313 (0.7%)	267 (0.6%)	286 (0.7%)	305 (0.9%)
WASKATENAU	287 (0.6%)	286 (0.7%)	302 (0.7%)	295 (0.8%)	279 (0.9%)
CHIPMAN	344 (0.7%)	338 (0.8%)	341 (0.8%)	340 (0.9%)	274 (0.8%)
RADWAY	301 (0.6%)	299 (0.7%)	284 (0.7%)	280 (0.7%)	261 (0.8%)

MUNICIPALITY	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019
MORINVILLE	420 (0.9%)	356 (0.8%)	319 (0.8%)	250 (0.6%)	241 (0.7%)
CALGARY	381 (0.8%)	375 (0.9%)	328 (0.8%)	277 (0.7%)	189 (0.6%)
TOFIELD	334 (0.7%)	289 (0.7%)	259 (0.6%)	225 (0.6%)	181 (0.6%)
ST MICHAEL	240 (0.5%)	244 (0.6%)	232 (0.6%)	227 (0.6%)	179 (0.5%)
SMOKY LAKE	173 (0.4%)	195 (0.4%)	214 (0.5%)	204 (0.5%)	163 (0.5%)
NEWBROOK	160 (0.3%)	149 (0.3%)	139 (0.3%)	147 (0.4%)	156 (0.5%)
LEGAL	230 (0.5%)	211 (0.5%)	178 (0.4%)	151 (0.4%)	119 (0.4%)
STAR	152 (0.3%)	142 (0.3%)	133 (0.3%)	133 (0.3%)	111 (0.3%)
SPRUCE GROVE	149 (0.3%)	152 (0.3%)	127 (0.3%)	133 (0.3%)	103 (0.3%)
WILLINGDON	139 (0.3%)	124 (0.3%)	129 (0.3%)	134 (0.3%)	94 (0.3%)
ALL OTHER MUNICIPALITIES	4,073 (8.8%)	3,702 (8.5%)	3,365 (8.1%)	2,907 (7.4%)	2,491 (7.6%)
0.00	NA	NA	NA	NA	NA
<b>TOTAL PCN POPULATION</b>	46,444 (100.0%)	43,670 (100.0%)	41,504 (100.0%)	39,307 (100.0%)	32,739 (100.0%)

**Notes:**

- Due to some missed and/or invalid PCN Patients' Postal Codes, the TOTAL PCN POPULATION in the table above may be slightly lower in the TABLE 1.1.

- Some of the figures in the above table may show a significant change in distribution between years. This may be due to an increase in new providers moving into the region and joining a PCN, providers joining a PCN and bringing their patients with them, or patients transferring to a new PCN.

**Sources:**

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