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Primary Health Care Service Needs Assessment Final Report

Kindersley

March 6th, 2015

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Executive Summary

Background

The Town of Kindersley, the Heartland Health Region and Saskatchewan Health contracted the services of Western Management Consultants to: conduct a review of demographic trends; inventory existing Primary Health Care (PHC) services available to residents in the Town and catchment area; identify current PHC services gaps and project future health service needs; and, identify areas for improvement and recommend enhancements. The process included a detailed analysis of available demographic and PHC utilization data as well as an extensive stakeholder consultation process.

Key Findings

- **Population Growth:** The Town of Kindersley is projected to grow substantially over the next 20 years, with an estimated population of 7,679 by the year 2037. Fluctuations in population growth due to economic conditions, a large number of transient workers in the oil industry, and increasing levels of immigration, provide significant challenges for maintaining sustainable primary health care services.

- **Kindersley Catchment Area**: The Kindersley primary health care catchment area includes 22 communities with an estimated total population of 11,097. In addition, a shadow population of people who work, but do not live in the area also access PHC Services. This shadow population is estimated at 10% of the permanent resident population. Thus the total estimated population for the Kindersley PHC catchment area is 12,207.

- **Demographics:** Key demographic characteristics of the Kindersley catchment area impacting PHC include:

    - A greater percentage of the population is over 65 years of age compared to the province;

    - Education levels are lower than the provincial average – 41% of the population aged 15 and over have a post-secondary certificate, diploma or degree, compared to 47% in Saskatchewan;

    - The Aboriginal population is lower – 2% compared to 16% for the province;

    - The number of new Canadians is lower - 2% versus 7% for the province; and

    - Mobility rates are higher - 43% versus 39% for the province

- **Health Indicators and Disease Burden:** In general, the population in the Kindersley catchment area is similar to the Canadian and Saskatchewan populations with respect to

disease burden and health indicators with the exception of the following: the catchment area population has a higher incidence of smoking, heavy drinking, obesity, arthritis, high blood pressure and lung cancer.

- **Access to Family Physicians:** Currently, in the Kindersley primary care catchment area there are 6 FTE family physicians providing services for a population of 12,207. Once the two planned additional physicians are recruited for Kindersley and Eston, there will be a total of 8 family physicians serving the Kindersley PHC catchment area. This will represent a physician to resident ratio of about 1 to 1526 which is quite close to the standard 1500 residents per family physician for a physician centric model. In addition, two nurse practitioners, one in Kerrobert and one in Eston, support primary care service delivery. It is important to note that the use of nurse practitioners and a collaborative PHC interdisciplinary team approach helps to increase the capacity and sustainability of PHC services.

- **Medical Arts Building:** The Medical Arts Building provides an important part of the infrastructure required to attract and retain physicians to the area. It also has the capacity to support co-location of other primary health care service providers on the site which would help facilitate the collaborative interdisciplinary team practice model.

- **Relationship Building:** Efforts are required to effectively engage key stakeholders in setting a clear vision, mandate and service priorities for PHC as a foundation upon which to build the required cooperation, trust and mutual support necessary for the provision of accessible quality services.

- **Service Enhancement Priorities:** The highest priority areas for PHC service improvements identified by stakeholders were: women's health and obstetrical services; mental health and addictions services; surgical services required to support obstetrics; chronic disease prevention and management; and therapy services (physiotherapy, occupational therapy and speech pathology).

- **PHC Service Plan:** Implementing a collaborative planning process that appropriately engages key stakeholders could be an effective vehicle for building commitment and support for a shared vision, mandate, priorities, service delivery model and accountability framework for PHC services.

- **Human Resources:** Similar to most rural areas in the country, the HHR experiences significant challenges recruiting physicians and other health care professionals. Comprehensive targeted recruitment and strategies are required that engage physicians, the HHR, the municipalities and the community.

- **Communications and Public Awareness:** Transparent, timely messages need to be delivered to the community regarding PHC services available, key roles and responsibilities for service delivery, PHC mandate and services provided, priorities, and progress being made on key PHC service initiatives.

Recommendations

1. **Primary Health Care Service Plan:** The HHR should lead the development of a comprehensive Primary Health Services Plan that builds on the work completed in the PHC Services Assessment Project. The planning process should effectively engage key stakeholders and be designed to reach agreement on a Primary Health Care vision, service mandate, service priorities, results to be achieved, related strategies, service delivery mechanisms and performance measures.

2. **Priority Service Enhancements:** Make targeted investments in selected high priority service areas including women's health, mental health and addictions services, therapy services, chronic disease prevention and management, and surgical services required to support obstetrical care, and chronic disease management.

3. **Establish and Affirm Governance, Decision-Making, and Accountability Structures:** The seamless delivery of primary health care services will require clarification of roles and responsibilities of PHC service delivery partners in the Kindersley catchment area. It will be important to reach agreement on the governance, decision-making and accountability strucutres in respect of primary health service delivery that respects the legitimate authorities and accountabilities of each of the partner organizations.

4. **Review Physician Compensation Model:** Supported by engagement of Kindersley and area physicians, review existing fee-for-service and alternate payment (FFS/APP) physician compensation models and provide recommendations on the direction for compensation that supports patient/family centred care and a collaborative interdisciplinary team approach to service delivery.

5. **Human Resources Recruitment / Retention Strategy:** Develop and implement a comprehensive human resources strategy designed to enhance the region's ability to attract and retain family physicians and other health care professionals required to deliver PHC services. Establish a clear physician recruitment process that ensures the roles and responsibilities of various partners are clearly articulated.

6. **Performance Measurement and Evaluation**: Develop and implement formal measures and mechanisms to evaluate the success of the primary health services delivery model in Kindersley and area.

7. **Stakeholder Engagement and Communications:** Develop and implement mechanisms and processes to effectively engage key internal and external stakeholders and maintain good communications with them.

Table of Contents

Title Page #

Introduction

Project Context and Background

The Heartland Health Region provides health care services to a population of 43,626 people over an area of 41,770 square kilometres. Its major boundary landmarks include the South Saskatchewan River to the south and the province of Alberta boundary to the west. There are 57 towns and villages, 44 rural municipalities and 20 Hutterite Colonies located in the region. The region's largest urban centre is Kindersley, with a population of 5,321. Other major centres include Rosetown (3,095); Unity (3,067); Biggar (3021); and Outlook (2,838). (Source: Ministry of Health. Covered Population, 2013)

The town of Kindersley, the largest urban centre within the Heartland Health Region (HHR), has experienced steady growth over the past five years. Analysis of Saskatchewan Health Covered Population data suggests an average continued population growth of approximately 1.5% annually. Assessing the capacity to provide primary health care services to residents in the municipality and surrounding service area is an important priority.

Accordingly, The Town of Kindersley, the Heartland Health Region and Saskatchewan Health contracted the services of Western Management Consultants to: conduct a review of demographic trends; inventory existing Primary Health Care services available to residents in the Town and catchment area; identify current health services gaps and project future health service needs; and identify areas for improvement.

Project Scope and Objectives

Scope: The purpose of the engagement is to complete an assessment of current and anticipated demand for primary health care services in the Kindersley service area. The Primary Health Care Needs Assessment was conducted within the context of, and was aligned with, Provincial Health Ministry's Primary Health Care Framework, the Provincial Health System Plan and the Heartland Health Region's Strategic Service Plan. The scope of the assessment will be limited to primary health care services as defined in the Provincial Primary Health Care Framework. This review does not include an assessment of acute care and long term care service requirements.

Objectives: The specific objectives of the project were to:

- Confirm the Kindersley catchment area for primary health care services;
- Inventory existing primary health care programs and services, activity levels and related supports;
- Determine day and night volumes of Emergency Department use for family practice, primary care sensitive conditions;

- Assess demographic data, identifying the current and projected population for the community and surrounding area;
- Identify the rate of disease burden for the current population and projected population;
- Identify strengths, weaknesses and major issues relating to access to primary health care services, including the attraction and retention of family physicians within Kindersley;
- Engage physicians, other health care providers, the public, the Foundation and other key stakeholders in identifying primary health care services issues to be addressed and potential solutions;
- Identify options and recommend strategies to improve the planning and delivery of primary health care services;
- Increase the understanding of the roles and responsibilities of the Heartland Health Region and local stakeholders including the municipality, the local health foundation and others; and,
- Make recommendations designed to improve communication and build trust among the Heartland Health Region and local stakeholders.

Work Plan

The work plan for this project included the following key tasks:

- **Task 1: Establish Steering Committee:** A project Steering Committee was established comprising of representatives from the HHR, the Town of Kindersley, as well as other key stakeholders to provide overall direction to the project.
- **Task 2: Confirm Project Objectives and Approach:** Initial meetings were held with the Project Steering Committee to confirm project objectives, scope, key deliverables, work plan and timelines. Responsibilities for internal and external communications were also established.
- **Task 3: Document Review:** Relevant documents and reports were reviewed to provide a context for the project including:
  - Demographic and statistical data for Kindersley and the surrounding catchment area;
  - PHC Framework, *Patient Centered Community Designed, Team Delivered: A Framework for Achieving a High Performing Primary Health Care System In Saskatchewan*;
  - The existing strategic, health service and business plans for the HHR;
  - Saskatchewan Health's strategic directions/health policy directions;

- Utilization data for primary health care and physician services; and,

- Customer feedback records – focused on primary health care.

- **Task 4: Interview Program:** Interviews were conducted with key representatives and decision-makers to help provide context, identify issues and help inform recommendations. Interviewees included:

  - The HHR CEO;
  - The VP Health Services;
  - VP Primary Health and Quality Services
  - Senior Medical Officer;
  - Selected municipal leaders;
  - Representatives from Saskatchewan Health;
  - Hospital Administrator;
  - Medical Clinic Physician and Administrative Leads;
  - Kindersley & District Health and Wellness Foundation;
  - Kindersley & District Medical Arts Clinic; and,
  - Others identified by the Steering Committee.

- **Task 5: Inventory Primary Health Care Services:** The Kindersley catchment area for primary health care services was established; and an inventory of the primary health care programs and services currently available in the Kindersley catchment area was created including:

  - The number of FTE physicians, nurses and allied health professionals working in primary health care, public health, mental health/addictions services and chronic disease management;

  - The volume of primary care services being provided; and,

  - After hours volumes of emergency department use for family practice primary care sensitive conditions (CTAS 4-5).

- **Task 6: Assess Current and Anticipated Demand:** Available utilization data and demographic data was collected and analyzed to provide historical background on growth rates and project population growth rates for the next ten years. This included establishing the primary health related disease burden for the Kindersley area, compared with provincial benchmarks.

- **Task 7: Stakeholder Focus Groups:** To broaden the base of input a number of stakeholder focus groups were conducted. These sessions provided an overview to the project, and engaged participants in a discussion of four or five key questions; e.g., strengths, weaknesses, issues to be addressed, best ideas for potential strategies, etc.

- **Task 8: Documentation of Findings:** The results from the preceding tasks were documented in the form of a draft report which was used as the database to support the development of the draft recommendations.

- **Task 9: Steering Committee Review of Findings and Potential Options:** A Steering Committee meeting was held at which the findings are reviewed; feedback on potential recommendations was solicited.

- **Task 10: Draft Report:** The consultants prepared a comprehensive draft report incorporating study objectives, approach, key findings and recommendations.

- **Task 11: Finalization of the Draft Report:** The consultants incorporated feedback from the review session into a Final Draft Report.

- **Task 12: Steering Committee Review:** The Draft Report was reviewed by the Steering Committee and any suggested modifications or enhancements noted.

- **Task 13: Final Report:** The report was finalized and submitted to the Steering Committee, the Heartland Health Region and the Ministry.

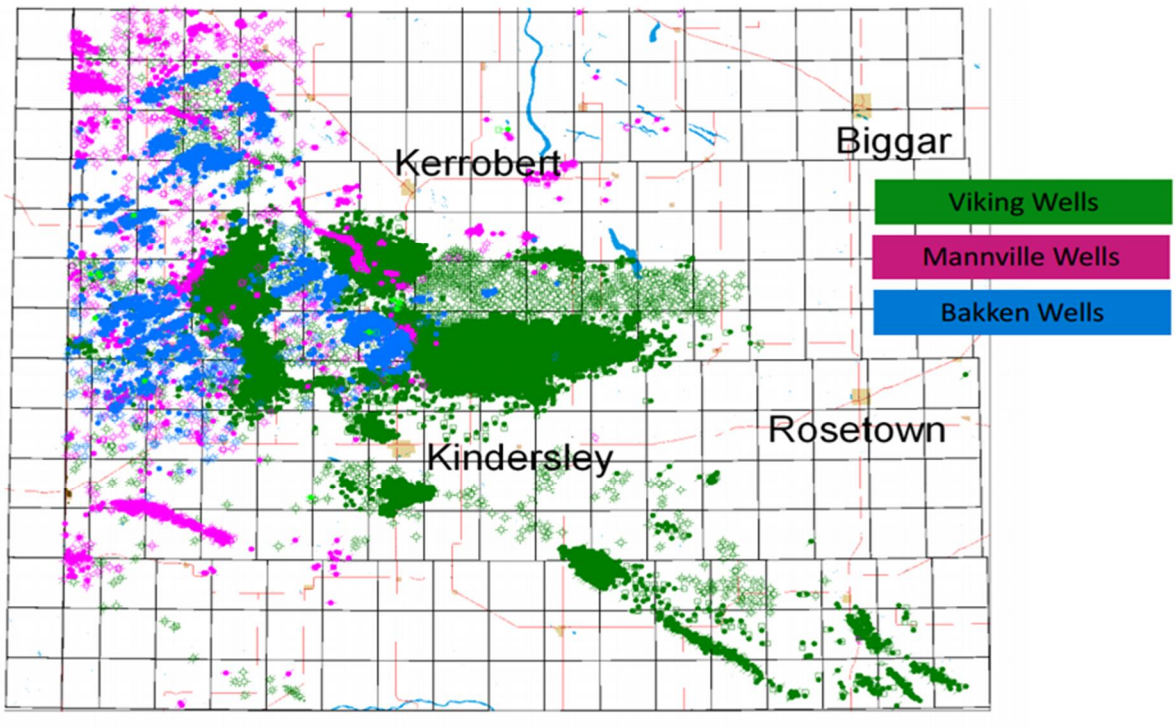
Major Findings

Economic Development

In order to contextualize the demographics in the town of Kindersley and its catchment area, it is important to look at economic development indicators. The environmental setting provides background information that supports the primary health care needs assessment.

Kindersley is located in a province with substantial resources. Saskatchewan is a major global producer of uranium and potash. It is also Canada's 2nd largest producer of oil and 3rd largest producer of natural gas. In 2011, oil and gas sales were $12.8 billion, and $4.5 billion was invested by industry. Furthermore, the oil and gas industry provided 33,200 direct and indirect jobs (Delaney, 2012).

The map included below highlights the major producing formations underlying the Kindersley area in Saskatchewan (Delaney, 2012). Not only is Kindersley located in a resource rich province, it is also strategically located next to the 3rd largest highway in Saskatchewan, with close proximity to both the U.S. and Alberta borders (Town of Kindersley, 2014).



The main economic drivers in Kindersley are oil and gas, agriculture and retail. There are over 380 businesses located in Kindersley. As a result, the unemployment rate in Kindersley has remained low, between 3.5%-5.4% from 2011 to present. Kindersley also benefits from a young labour pool, as the median age is 37.4, which is lower than both the provincial and national median (38.2 and 40.6 respectively). Median household total income in Kindersley is $60,873.

While the economy is thriving, the infrastructure has not kept pace. For instance, there is limited housing within Kindersley, and tenants therefore often accept or are forced to accept substandard accommodations. The Kindersley Public Health Inspection Summary Report indicates that more residential lot construction is scheduled for the 2014-2015 year.

The table below highlights the need for more affordable rental properties in Kindersley. In 2011, 51.8% of renters were spending more than 30% of their income on shelter costs. Housing prices and rental costs have risen substantially since the 2011 Census. Recent municipal data suggests that the cost of rent has doubled since 2011 making access to affordable housing an even larger problem.

2011	Kindersley Town	Saskatchewan
% Own	72	73
% Own spending 30% of income on shelter costs	14.3	12.9
% Rent	28	25

2011	Kindersley Town	Saskatchewan
% Rent spending 30% of income on shelter costs	51.8	41
Median monthly shelter costs for owned dwellings	$744	$751
Median monthly shelter costs for rented dwellings	$718	$793

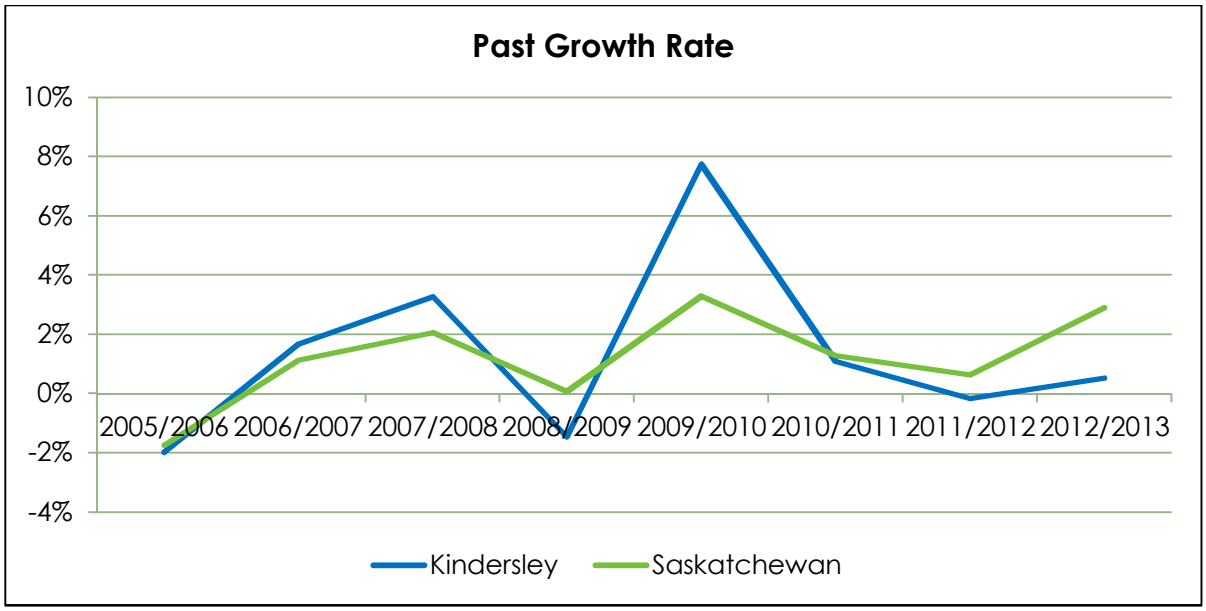
Demographic Trends

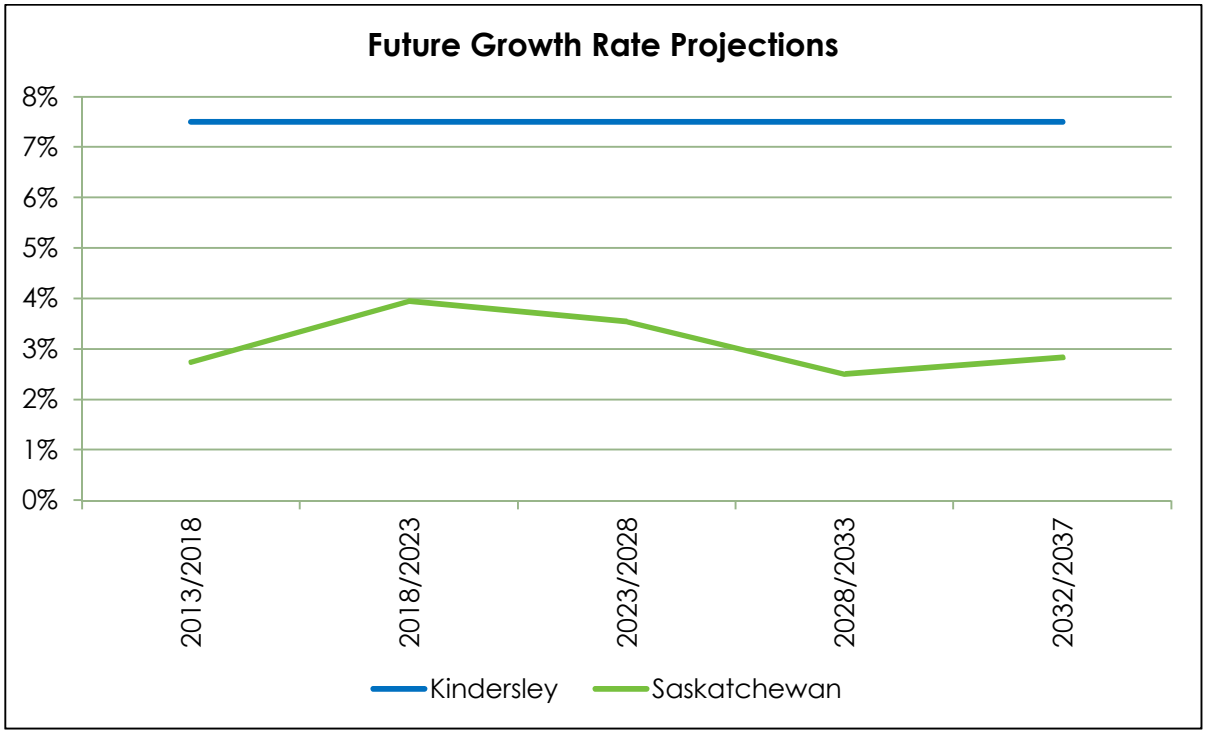
An understanding of the make-up of the population in the Kindersley primary health care catchment area and a study of growth patterns are important for effective planning. The data paints a vivid picture of a growing region that needs to provide a continuum of services, from prenatal to seniors. Furthermore, as growth fluctuates in relation to the oil and gas industry, due to employment, mobility and immigration, this variance impacts the planning and stability of the primary health care service delivery system.

Patterns of Population Growth

The growth in Kindersley has been well documented. Between 2008 and 2013, the population grew by 7.7% (Government of Saskatchewan, 2013), similar to the growth rate in Saskatchewan towns of 8% (Saskatchewan Bureau of Statistics, Ministry of Finance, 2012).

The following tables illustrate past growth based on the Saskatchewan Ministry of Health covered population data from 2005 to 2013. Future growth for the province has been based on Statistic Canada projections from 2013 (Statistics Canada, 2013). Projections for the Town of Kindersley are based on the average annual five year growth rate. Based on these projections, the Town of Kindersley is estimated to have a population of approximately 7,679 by the year 2037.

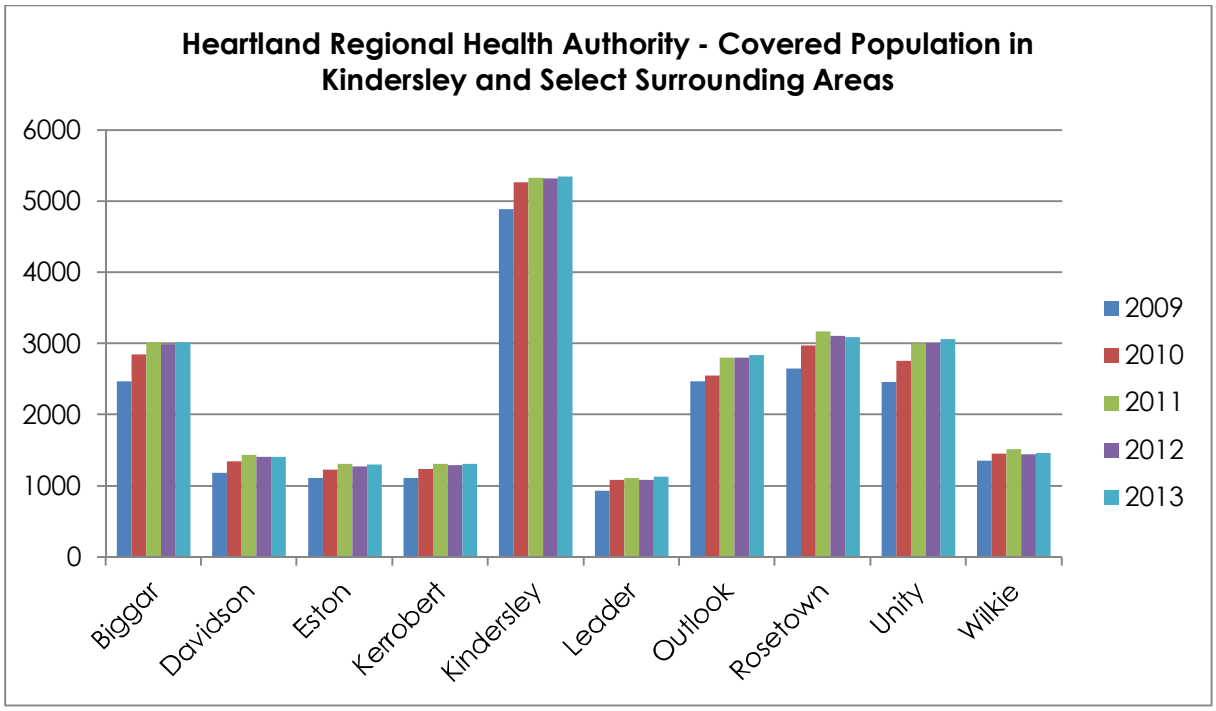




(Government of Saskatchewan, 2013)

The ebbs and flows of the population growth demonstrated above offer distinct challenges for maintaining sustainable primary health care services.

The surrounding areas near Kindersley within the Heartland Regional Health Authority also experienced similar patterns of growth from 2009 to 2013 as demonstrated in the chart below.



Kindersley Primary Health Care Catchment Area

To effectively analyze the resources needed for an effective and sustainable primary health care system for Kindersley, it is necessary to first define the area this system would serve. Based on an assessment of population numbers and already defined centres of medical service, the estimate of population to be served is outlined in the below table. A map and a detailed explanation of the area included in the catchment calculations are included in Appendix A and B of this report.

Population Projections for Kindersley Primary Health Care Catchment Area							
	2008	***2013***	***2018***	***2023***	***2028***	***2033***	***2038***
Town of Kindersley Population (7.5% every 5 years)	4,966	5,349	5,750.18	6,181.44	6,645.05	7,143.42	7,679.18
Kindersley RM Population (5% every 5 years)	710	480	504.00	529.20	555.66	583.44	612.62
***Surrounding Catchment Area (5% every 5 years)**	5,120	5,268	5,531.51	5,808.08	6,098.48	6,403.41	6,723.58

Population Projections for Kindersley Primary Health Care Catchment Area							
	2008	*2013*	*2018*	*2023*	*2028*	*2033*	*2038*
Kindersley Catchment Area Population	**10,796**	**11,097**	**11,786**	**12,519**	**13,299**	**14,130**	**15,015**

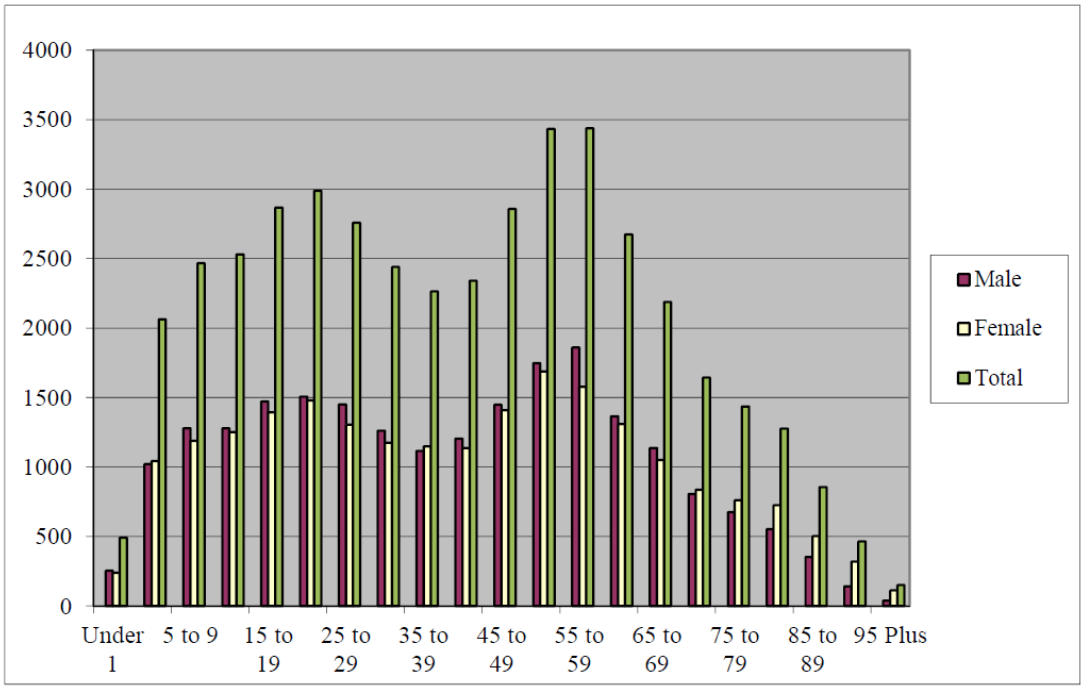
Data Sources:
Saskatchewan Ministry of Health Covered Population (2008 to 2013 five year annual average)
**See Appendix A for more details.*

Characteristics of Resident Population

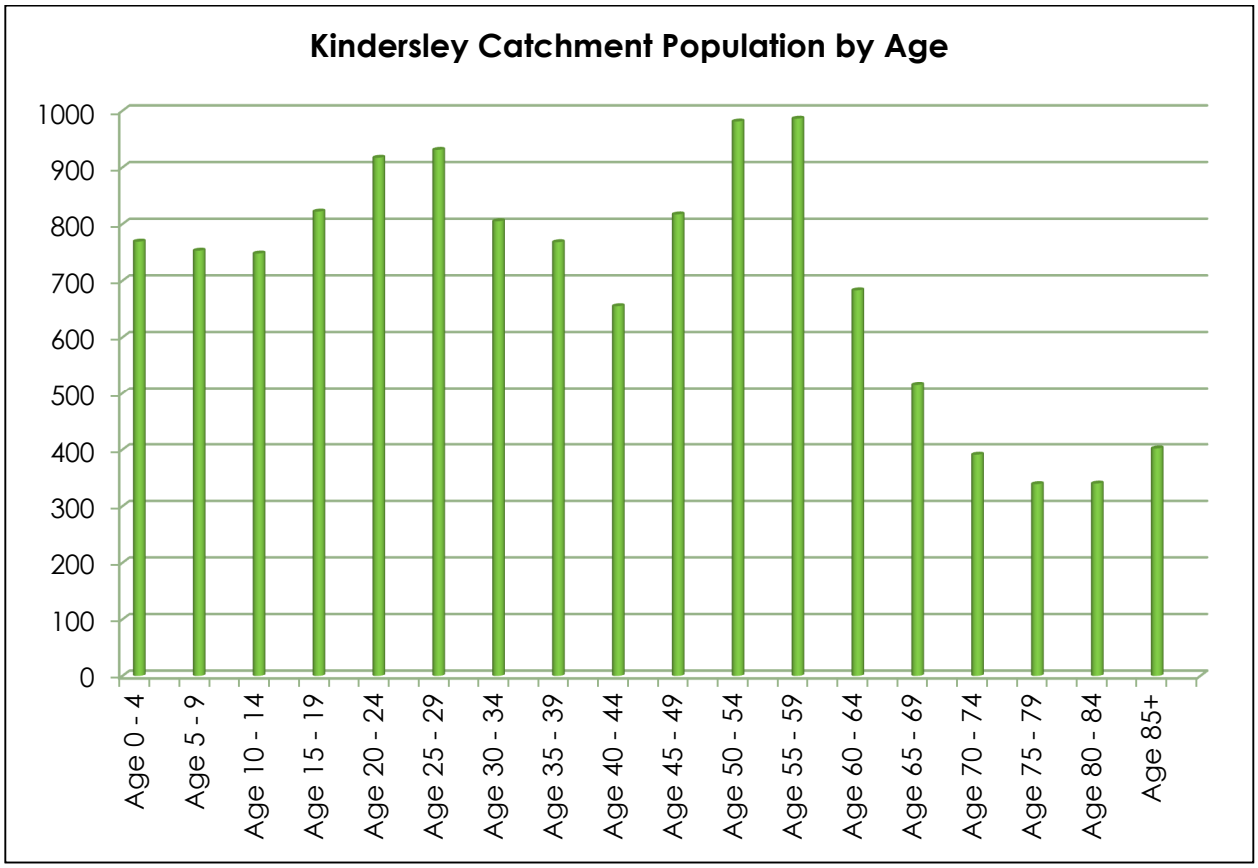
The age distribution of the Kindersley primary health care catchment area population is generally older than that of the province, with 16% being over the age of 65, versus 14% in Saskatchewan (Government of Saskatchewan, 2013). The median age is 40.78, which is also slightly older than the province at 38.2.

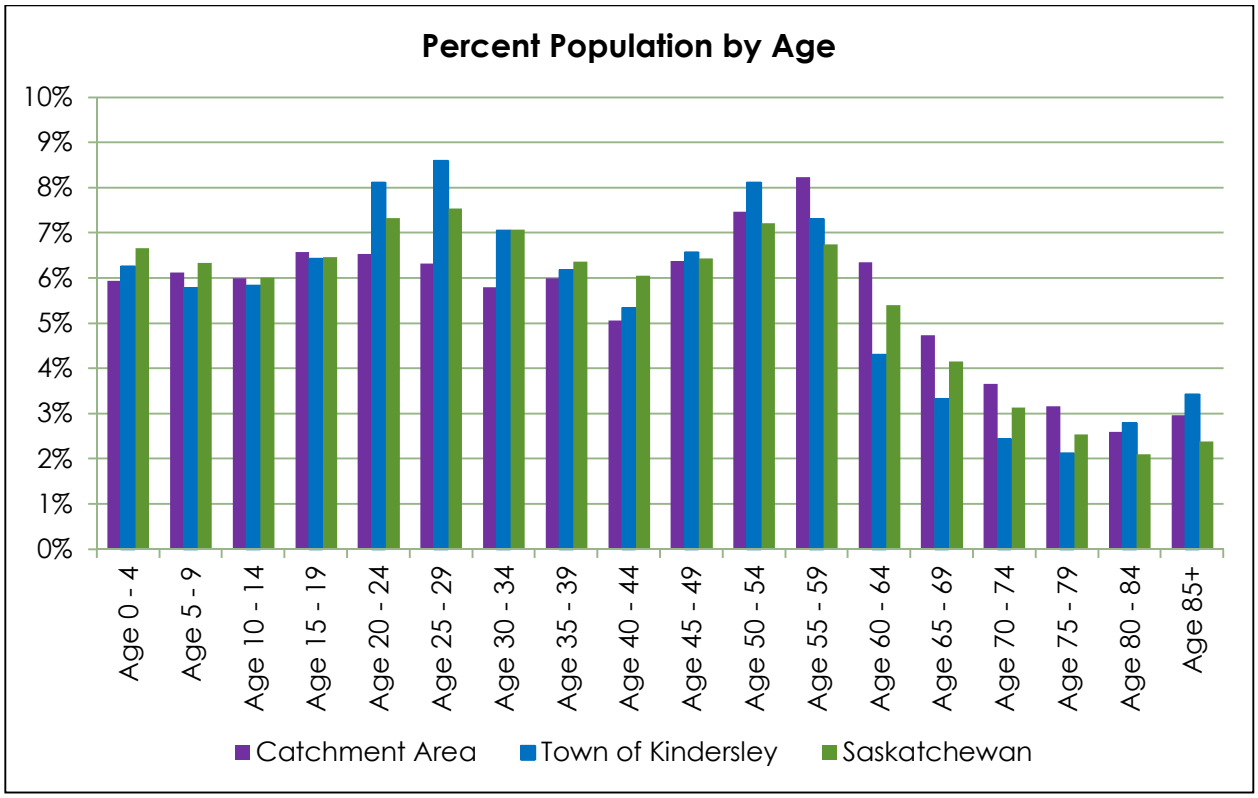
The Heartland Health Region has a higher concentration of individuals aged 15-19 and 45-49, and men outnumber women in more age ranges, apart from those 70 years and over (Heartland Health Region, 2007-2010). This spread is also slightly represented in the Kindersley primary care catchment area but skewed to the right, with marginally more people aged 20-29 and 50-59. Gender is equally divided in the Kindersley catchment area with 50% of the population being male, and 50% female.

The below graphs depict: the Heartland Health Region population in 2012 by age and gender; the 2013 Kindersley catchment area by age; and, the surrounding catchment area percent by age compared to the Town of Kindersley and the province.



(Heartland Health Region, 2013)



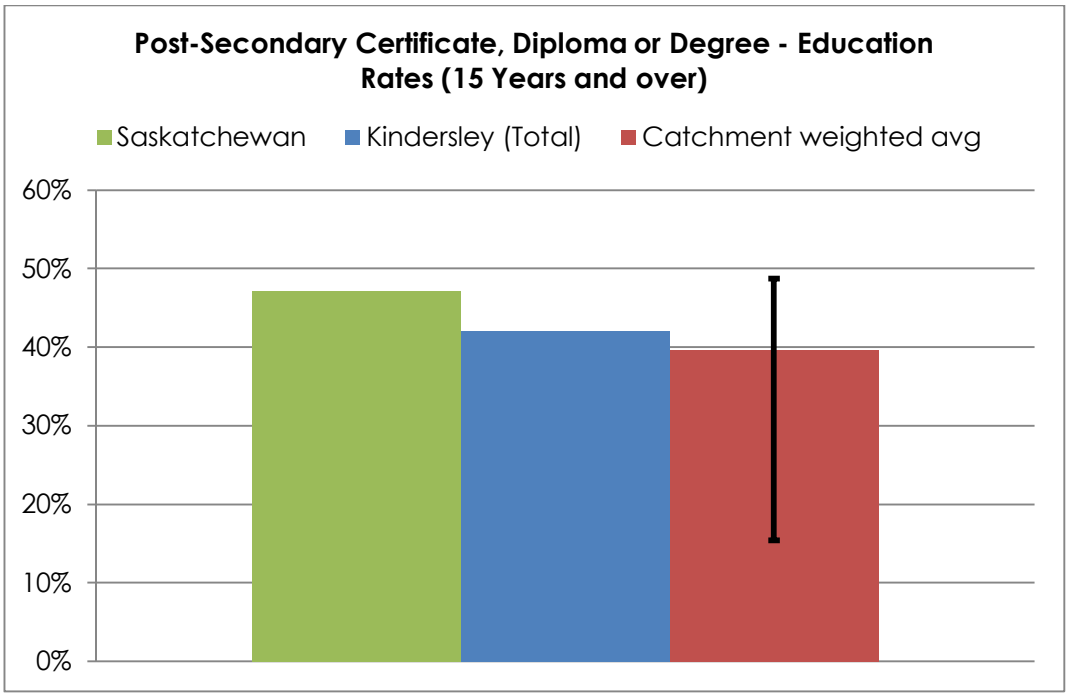


Evidenced by the above graph, there are some significant differences between the town of Kindersley and its surrounding catchment area relative to the province. The catchment area skews the demographics towards the older age groups, while the town of Kindersley itself is much younger. For instance, 9% of the town is between the ages of 25-29, while only 6% of the catchment area falls within the same age group (Government of Saskatchewan, 2013). The Town of Kindersley has a median age of 37.4, which is younger than that of the province (Statistics Canada, 2011).

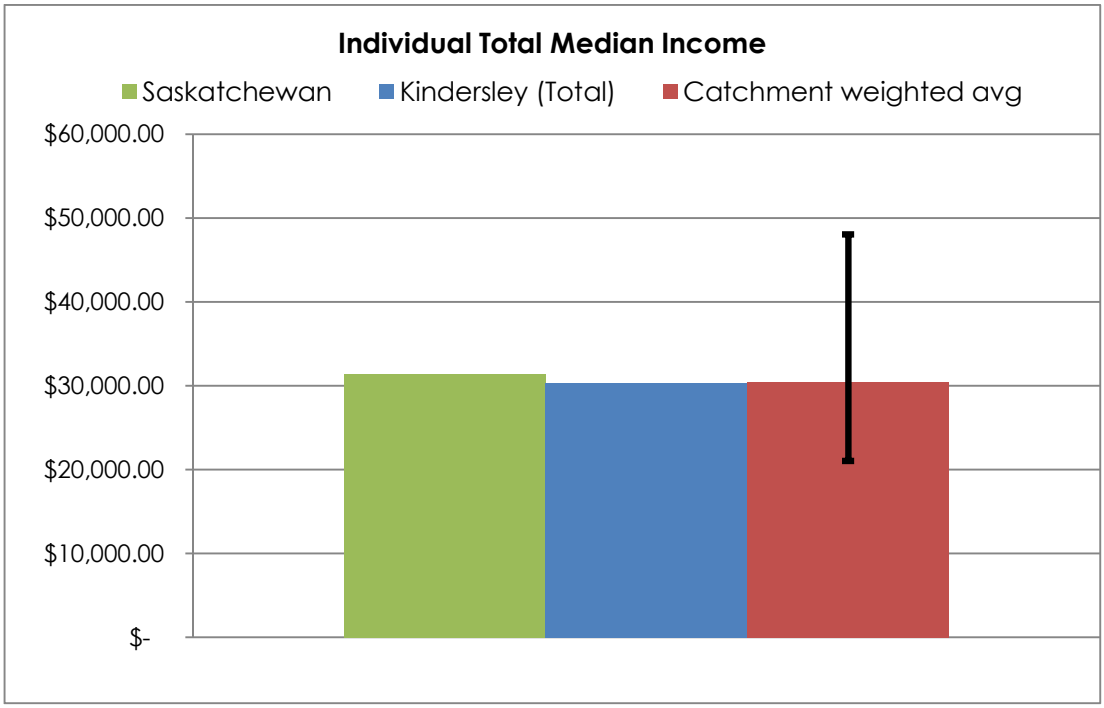
The Heartland Health Region's Strategic Plan emphasizes that social and economic factors impact 50% of the population's health status. For instance, higher income and education levels are correlated to lower rates of disease and higher rates of life expectancy (Heartland Health Region, 2007-2010).

Note: The above demographic analysis of age and gender utilizes the Saskatchewan Ministry of Health's 2013 covered population data as it is the most precise and current data available; however, for the following analysis of education, income, Aboriginal population and mobility utilizes the Statistics Canada's 2011 census data as this information is not covered by the Ministry. As these statistics reflect percentages within the population and not raw counts, it provides a representative picture of the social and economic factors present in the area.

Education levels are lower in the Kindersley catchment area when contrasted with the province. In the Kindersley catchment area, 41% of the population aged 15 and over have a post-secondary certificate, diploma or degree, compared to 47% in Saskatchewan.



Total individual median income is slightly lower in the Kindersley catchment area compared to the province by 3%. However, only 10.6% of households in the Town of Kindersley are low income, compared to 14.9% in Saskatchewan.



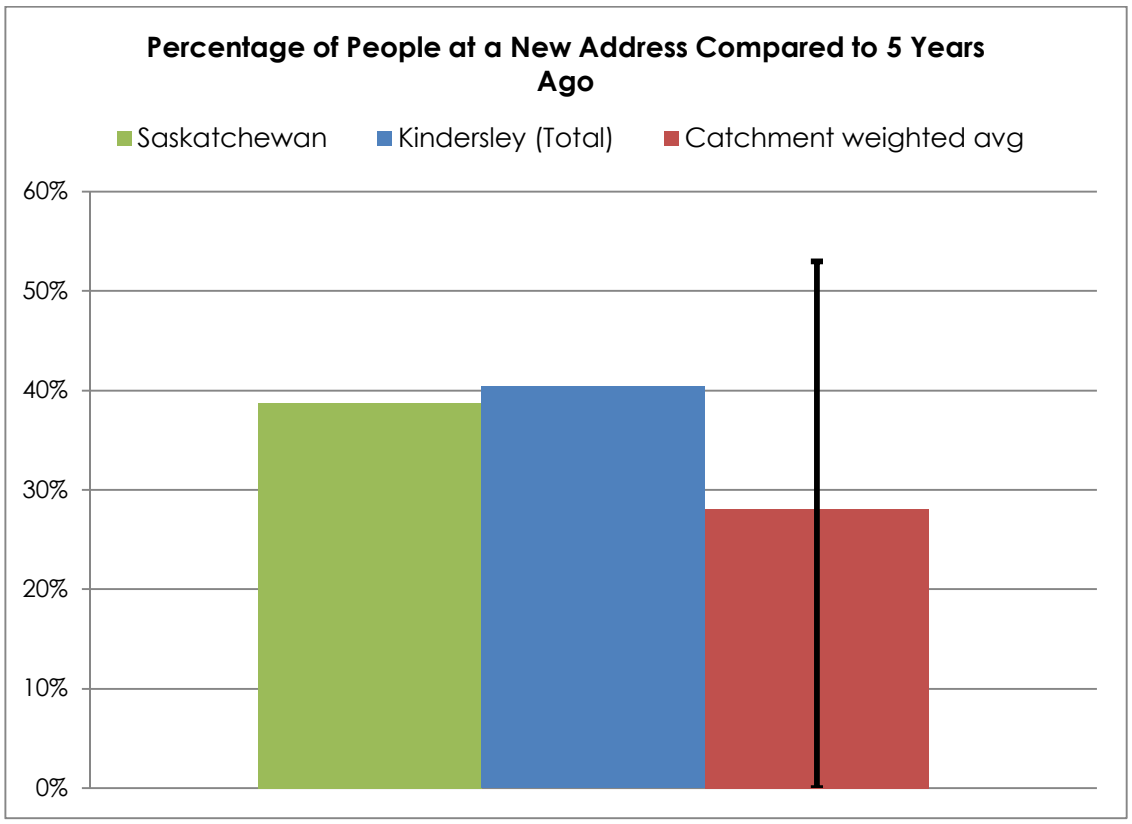
Percentage of Aboriginal Population

The Aboriginal population in the Kindersley region is significantly less than the province, 2% compared to 16%. The Heartland Health Region also demonstrates a low percentage of Aboriginal, visible minority and immigrant residents; however, there is a relatively large Hutterite population residing in Heartland (Heartland Health Region, 2007-2010).

In 2011, the Kindersley region also demonstrated a lower percent of immigrants compared to the province (2% versus 7%). However, in the town of Kindersley, 84% of residents are third generation and the number of new Canadians has demonstrated some relatively recent growth (e.g. immigrants from the Philippines continue to settle in Kindersley at higher rates).

The Shadow Population

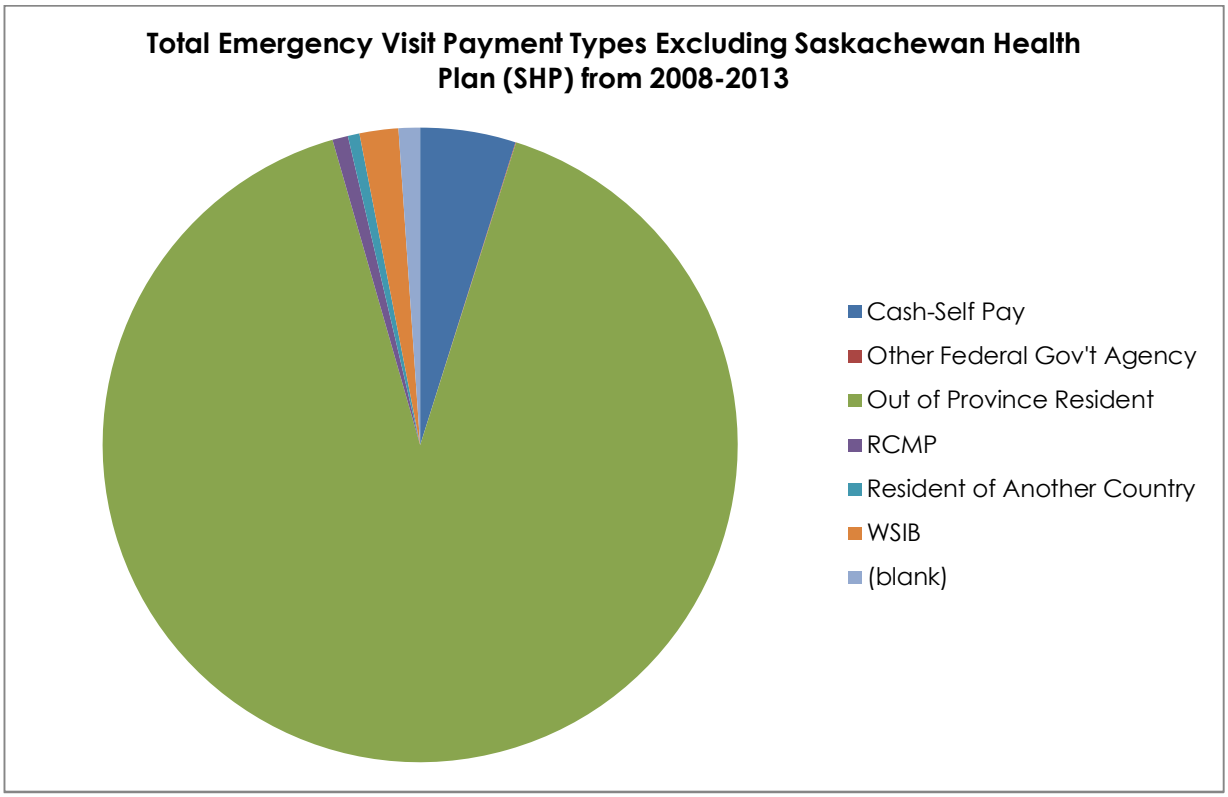
The shadow population of an economic centre like Kindersley includes workers and business visitors who do not live in Kindersley, but who may spend part of their work year in the area.



The above graph indicates that there is slightly greater mobility in Kindersley, compared to its catchment area and the province overall. Kindersley's emergency department data also indicates the presence of a small shadow population in the area.

For instance, the percent of emergency visits from patients with SHP (Supplementary Health Program, Saskatchewan Health) has remained approximately stable at 90% from 2008 to 2013.

The following pie chart represents the additional payment types used for the remaining 10%. Out of province residents represent 9% of total visits to the Kindersley Hospital Emergency Department.



Therefore, for the purposes of this study, the shadow population will be estimated at 10% of the Covered Population, based on emergency visit trends and future projections. Appendix C demonstrates where clinic, medical and surgical patients are coming from. This additional data also supports the estimate of a shadow population of approximately 10%. Work camp employee data was not used to estimate the shadow population as it does not represent a reliable estimate of the number of workers who actual utilize primary health care services in the Kindersley area.

The Hutterite community, high mobility and increasing migration not only impact the number of patients, but also represents unique health and service delivery needs as this segment of the population may lack social networks and continuity of care.

Population Health Status

Health Status indicators

Health status indicators are increasingly valued as a reliable tool for predicting the demand on medical services of all types. The table below provides a detailed overview of recently released

data drawn from Statistics Canada pertaining to Canada, Saskatchewan and the Heartland Regional Health Authority in which the Kindersley region is located.

Health Status Indicators (2013)	Canada	Saskatchewan	HHR
Well-being			
Perceived health; very good or excellent (%)	59.9	56.9	60.3
Perceived mental health; very good or excellent (%)	72.2	67.7	66.1
Perceived life stress (%)	23.2	19	19.6
Health Conditions			
Overweight or obese (%)	52.3	59.5	57.4
Overweight (%)	34	35.8	29.3
Obese (%)	18.3	23.7	28.1
Arthritis (%)	16.2	18.4	20.1
Diabetes (%)	6.3	6.2	6.2
Asthma (%)	8.3	9.2	7.5
High blood pressure (%)	17.5	18.5	19.4
Mood disorder (%)	7.1	7.9	9.1
Pain or discomfort; moderate or severe (%)	14.1	13.6	14.6
Pain or discomfort that prevents activities (%)	14.7	14	13.1
Low birth weight (% of live births)	6	5.6	4.8
Chronic obstructive pulmonary disease (COPD) (%)	4.1	4.6	…
Injuries within the past 12 months causing limitation of normal activities (%)	…	…	…
Injuries in the past 12 months; sought medical attention (%)	…	…	…
Hospitalized stroke event rate (per 100000 population)	121	126	108
Hospitalized acute myocardial infarction event rate (per 100000 population)	205	200	174
Injury hospitalization (per 100000 population)	516	789	731
Cancer incidence (per 100000 population)	404.9	396.8	444.1
Colon cancer incidence (per 100000 population)	49.9	50.2	54.3
Lung cancer incidence (per 100000 population)	56.9	54.1	67.6
Breast cancer incidence (per 100000 population)	…	…	…
Prostate cancer incidence (per 100000 population)	…	…	…
Health Behaviors			
Current smoker; daily or occasional (%)	20.1	21.9	26.9
Current smoker; daily (%)	15.3	16.8	20.3
Heavy drinking (%)	18.2	19.8	21.6
Leisure-time physical activity; moderately active or active (%)	53.8	53.1	50.1
Fruit and vegetable consumption; 5 times or more per day (%)	40.5	35.3	39.2
Bike helmet use (%)	…	…	…

Health Status Indicators (2013)	Canada	Saskatchewan	HHR
Human Function			
Participation and activity limitation; sometimes or often (%)	…	…	…
Functional health; good to full (%)	…	…	…
Accessibility			
Influenza immunization (%)	29.6	31.2	33.5
Mammography (%)	…	…	…
Pap smear (%)	…	…	…
Regular medical doctor (%)	84.9	81.4	77.7
Wait time for hip fracture surgery (Proportion with surgery within 48 hours) (proportion)	81.1	81.3	…
Appropriateness			
Caesarean section (proportion)	27.1	23.1	25.6
Patients with repeat hospitalizations for mental illness (%)	10.9	10.7	9.5
Effectiveness			
Ambulatory care sensitive conditions (per 100000 population)	290	454	431
30-day acute myocardial infarction (AMI) in-hospital mortality (rate)	7.3	7.7	6.4
30-day stroke in-hospital mortality (rate)	15	16.2	13.3
Self-injury hospitalizations (per 100000 population)	67	81	79
30-day obstetric readmission rate (%)	2	2.2	…
30-day readmission - patients age 19 and younger (%)	6.5	6.8	4.8
30-day surgical readmission rate (%) **	6.6	7.7	9.8
30-day medical readmission rate (%)	13.4	14.7	16.5
Potentially avoidable mortality (per 100000 population)	182.5	218.5	207.7
Avoidable mortality from preventable causes (per 100000 population)	117.9	142.2	137.8
Avoidable mortality from treatable causes (per 100000 population)	64.6	76.3	69.9
Continuity			
30-day readmission rate for mental illness (%)	11.6	10.8	14.1
Safety			
Hospitalized hip fracture event rate (per 100000 population)	435	521	514
Environmental Factors			
Second-hand smoke; exposure at home (%)	5.1	5.4	4.7
Second-hand smoke; exposure in vehicles and/or public places (%)	16.7	13.9	12.6

Health Status Indicators (2013)	Canada	Saskatchewan	HHR
Deaths			
Infant mortality (per 1000 live births)	5	6.3	5.7
Life expectancy at birth (years)	81.1	79.6	79.4
Life expectancy at age 65 (years)	20.2	19.7	18.4
Total; all causes of death (per 100000 population)	542.3	582.7	641
All cancers; deaths (per 100000 population)	166.4	161.4	200.4
Colorectal cancer; deaths (per 100000 population)	17.9	16.4	21.8
Lung cancer; deaths (per 100000 population)	45.4	40.5	50.1
Breast cancer; deaths (per 100000 population)	11.9	11.4	15.3
Prostate cancer; deaths (per 100000 population)	8.3	11.8	18.5
Circulatory diseases; deaths (per 100000 population)	157.3	176.4	209.5
Ischaemic heart diseases; deaths (per 100000 population)	84.6	91.3	111.9
Cerebrovascular diseases; deaths (per 100000 population)	30.8	32.5	41.2
All other circulatory diseases; deaths (per 100000 population)	41.9	52.5	56.5
Respiratory diseases; deaths (per 100000 population)	45	47.4	48.8
Pneumonia and influenza; deaths (per 100000 population)	11.7	14.1	16.2
Bronchitis; emphysema and asthma; deaths (per 100000 population)	2.4	3.5	5.4
All other respiratory diseases; deaths (per 100000 population)	30.8	29.8	27.2
Unintentional injuries; deaths (per 100000 population)	25.1	33.7	31.2
Suicides and self-inflicted injuries; deaths (per 100000 population)	10.2	11.2	…
Human immunodeficiency virus [HIV] disease; deaths (per 100000 population)	1.2	0.6	…
Premature mortality (per 100000 population)	251.7	299.7	283
Personal Resources			
Sense of community belonging (%)	65.4	73	79.1
Life satisfaction; satisfied or very satisfied (%)	92.3	92.6	95.2
Living and Working			
High school graduates aged 25 to 29 (%)	88.4	84.5	82.5
Post-secondary graduates aged 25 to 54 (%)	66.5	58.8	53.3
Unemployment (%)	7.5	5	3.1
Youth unemployment; aged 15 to 24 (%)	14.2	10.5	…
Long-term unemployment (%)	4.3	3	2.4
Low income (%)	14.8	11.3	8.5
Children aged 17 and under living in low income families (%)	16.1	14.1	10.6

Health Status Indicators (2013)	Canada	Saskatchewan	HHR
Community			
Total population (%)	100	100	100
Large urban population centre population (%)	60	40.1	0
Medium population centre population (%)	8.7	6.7	0
Small population centre population (%)	12.4	19.9	39.3
Rural area population (%)	18.9	33.2	60.7
Population density (persons per km²)	3.73	1.76	1.04
Dependency ratio (%)	57.4	65.8	68.9
Youth; under 20 years; as a proportion of total population (%)	23.5	26.6	26.6
Seniors; 65 years and over; as a proportion of total population (%)	12.9	13.1	14.2
Aboriginal population (%)	4.3	15.6	3.2
Immigrant population (%)	20.6	6.8	3.5
1 year internal migrants (%)	4.2	4.9	5.3
5 year internal migrants (%)	13.9	16.2	17.8
Population living within a Metropolitan Influenced Zone (%)	86.7	63.7	1
Lone-parent families (%)	16.3	16.4	9.2
Visible minority population (%)	19.1	6.3	2
Health System			
Contact with a medical doctor in the past 12 months (%)	…	…	…
Coronary artery bypass graft (per 100000 population)	62	69	93
Percutaneous coronary intervention (per 100000 population)	172	202	207
Cardiac revascularization (per 100000 population)	233	269	297
Hip replacement (per 100000 population)	105	128	142
Knee replacement (per 100000 population)	169	213	206
Hysterectomy (per 100000 population)	320	469	422
Inflow/outflow ratio - Overall (ratio)			0.5
Mental illness hospitalization rate (per 100000 population)	489	609	598
Mental illness patient days (per 10000 population)	707	770	595

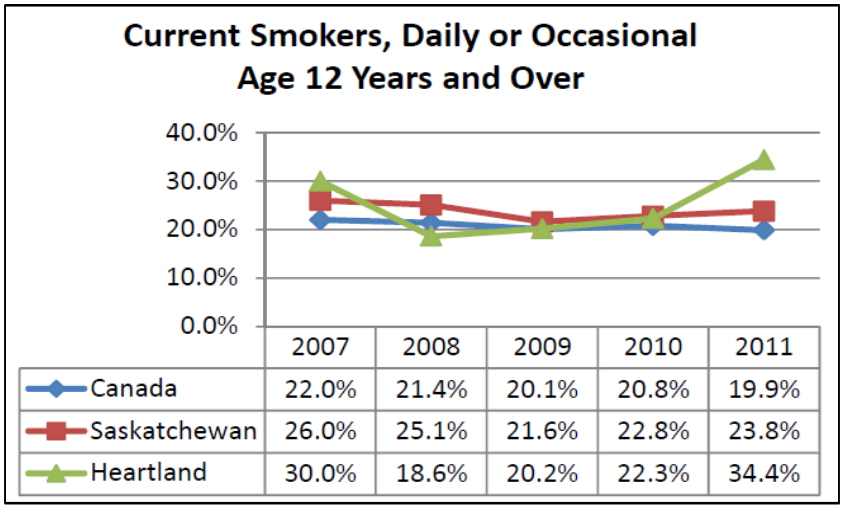
(Statistics Canada, 2013)

'…'refers to data that was not available or reliable for the associated Statistics Canada Health Profile.

*** …clients admitted back to the HHR post-operative for convalescent care from tertiary are included*

Evidenced from the table above, residents of the Heartland Health Region demonstrate the following characteristics which, if left unchecked, will have serious impacts on health care delivery.

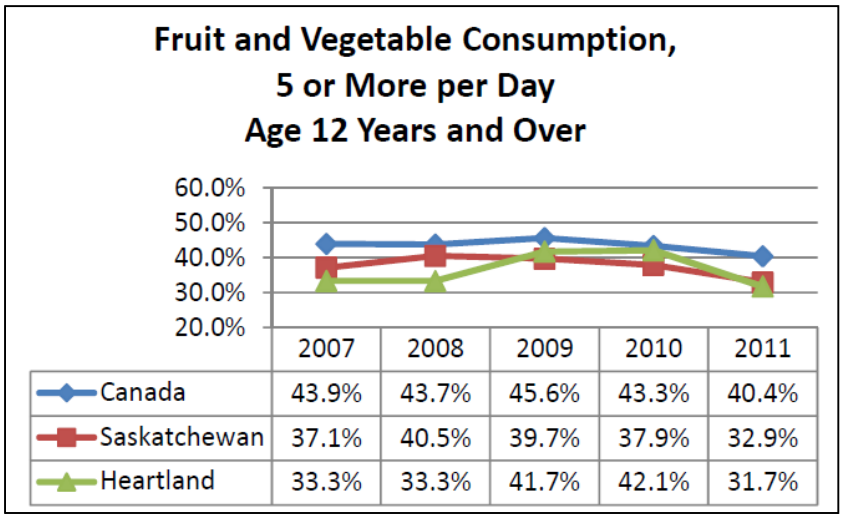
- Fewer people describe themselves as being active or moderately active in their leisure time. In addition, there is a higher incidence of smoking daily and occasionally, as well as heavy drinking. As there is a great percent of alcohol abuse in Kindersley; there is also a higher percent of addictions counsellors to assist with treatment.



	2007	2008	2009	2010	2011
Canada	22.0%	21.4%	20.1%	20.8%	19.9%
Saskatchewan	26.0%	25.1%	21.6%	22.8%	23.8%
Heartland	30.0%	18.6%	20.2%	22.3%	34.4%

(Heartland Health Region, 2013)

- An important aspect of a healthy diet is suitable consumption of fruits and vegetables on a daily basis. In HHR, the percentage of people who consume 5 or more fruits and vegetables per day is 39.2%, which is an improvement from 31.7% in 2011; however, this represents a significant drop from over 40% in 2009 and 2010 (Heartland Health Region, 2013). While the 2013 results are still not ideal, they are in-line with the provincial and national numbers.



	2007	2008	2009	2010	2011
Canada	43.9%	43.7%	45.6%	43.3%	40.4%
Saskatchewan	37.1%	40.5%	39.7%	37.9%	32.9%
Heartland	33.3%	33.3%	41.7%	42.1%	31.7%

(Heartland Health Region, 2013)

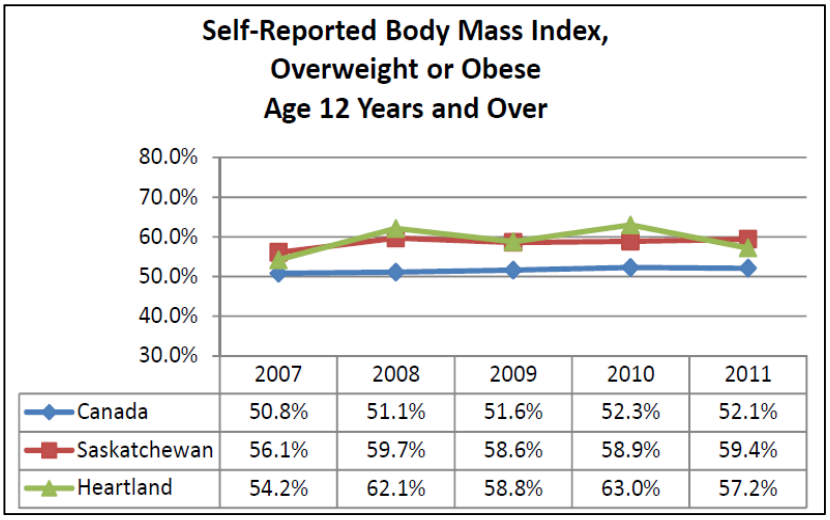
- Perceived health is greater than the provincial and national averages; however, perceived mental health is somewhat lower, which may be a result of slightly higher stress levels compared to Saskatchewan.

The HHR has recognized that the aging population has an overwhelming preference to utilize the health and social services provided in the area which provides them with a greater level of independence (Heartland Health Region, 2013). This has resulted in a higher percentage of people aged 65 and over residing in their private homes (92% in the Kindersley catchment area compared to 90% in the province).

Health Scores Lower than Provincial Averages

There are instances where the Kindersley region health status scores are significantly lower than comparable province-wide and nation-wide numbers.

- Certain health conditions are also more prevalent in the HHR. For instance 28.1% of the population in obese, compared to 23.7% in Saskatchewan and 18.3% in Canada. Arthritis is also more dominant, 20.1% compared to 18.4% and 16.2% respectively.

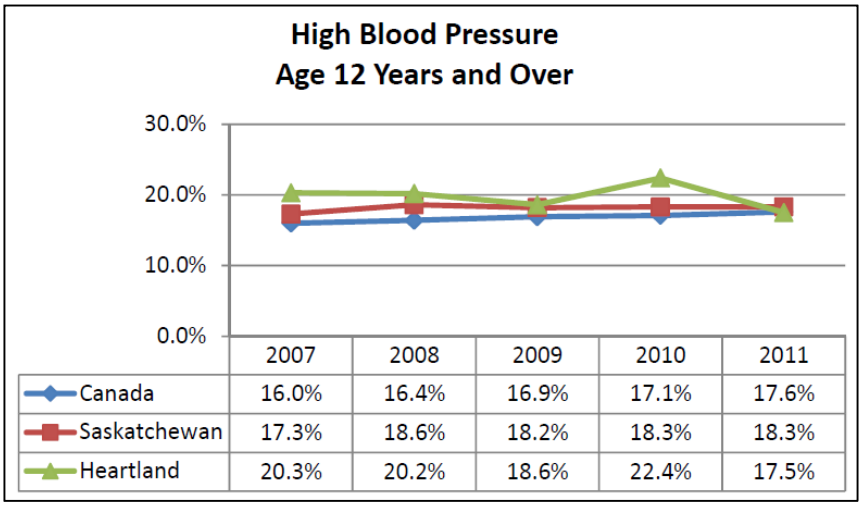


	2007	2008	2009	2010	2011
Canada	50.8%	51.1%	51.6%	52.3%	52.1%
Saskatchewan	56.1%	59.7%	58.6%	58.9%	59.4%
Heartland	54.2%	62.1%	58.8%	63.0%	57.2%

(Heartland Health Region, 2013)

- For almost all causes of death, the number of deaths per 100,000 population is higher than both the national and provincial numbers. For instance, all types of cancer are more prevalent in the HHR at 641 per 100,000, compared to 582.7 for Saskatchewan and 542.3 for Canada. Lung cancer is particularly widespread.

- High blood pressure is another area for improvement previously identified by the Heartland Health Region's 2013 Annual Report. Historically, 20% of the HHR population has reported high blood pressure, with this year being no exception (19.4% compared to 18.5% in the province and 17.5% in Canada).



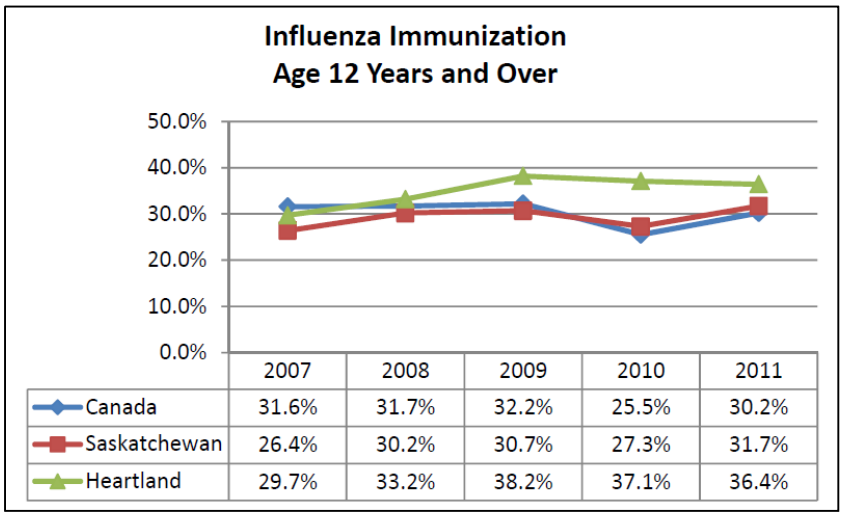
	2007	2008	2009	2010	2011
Canada	16.0%	16.4%	16.9%	17.1%	17.6%
Saskatchewan	17.3%	18.6%	18.2%	18.3%	18.3%
Heartland	20.3%	20.2%	18.6%	22.4%	17.5%

(Heartland Health Region, 2013)

Readmission rates are also higher in the HHR. For surgical services, the readmission rate is 9.8% versus 6.6% in Canada, and 16.5% versus 13.4% for medical procedures respectively. It should be noted that clients admitted back to the HHR post-operative for convalescent care from tertiary are included in HHR regional readmission rates.

Lower Participation Rates for Preventative Health Practices

Although a greater percent of the HHR residents reported being vaccinated against influenza than provincially or nationally (33.3%, compared to 31.2% and 29.6% respectively), the HHR's 2013 Annual report emphasizes that this number has not changed in several years which suggests it is an area for improvement (Heartland Health Region, 2013).

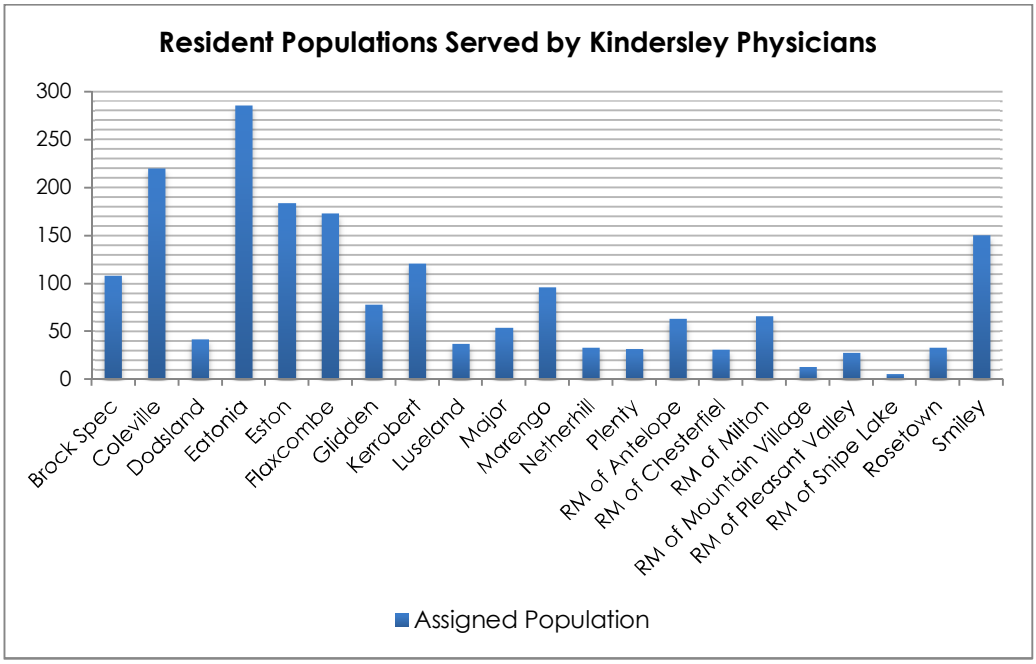


	2007	2008	2009	2010	2011
Canada	31.6%	31.7%	32.2%	25.5%	30.2%
Saskatchewan	26.4%	30.2%	30.7%	27.3%	31.7%
Heartland	29.7%	33.2%	38.2%	37.1%	36.4%

(Heartland Health Region, 2013)

Health Utilization Data and Service Capacity

The following bar chart demonstrates the resident populations served by Kindersley physicians. The total assigned population to Kindersley physicians is 6,220 (Saskatchewan Ministry of Health, 2012-2013). The Kindersley assigned population is 4,367, representing 70% of the total assigned population. The largest resident populations, other than Kindersley, are Eatonia, Coleville and Eston.



Furthermore, the following table lists the percent of the population in 2012 from various towns accessing physician services in Kindersley. On a percent basis, Netherhill, Flaxcombe and Eston are the largest resident populations, other than Kindersley, retrieving the area's services. This represents 1,364 residents from outside of Kindersley, and 5,726 in total.

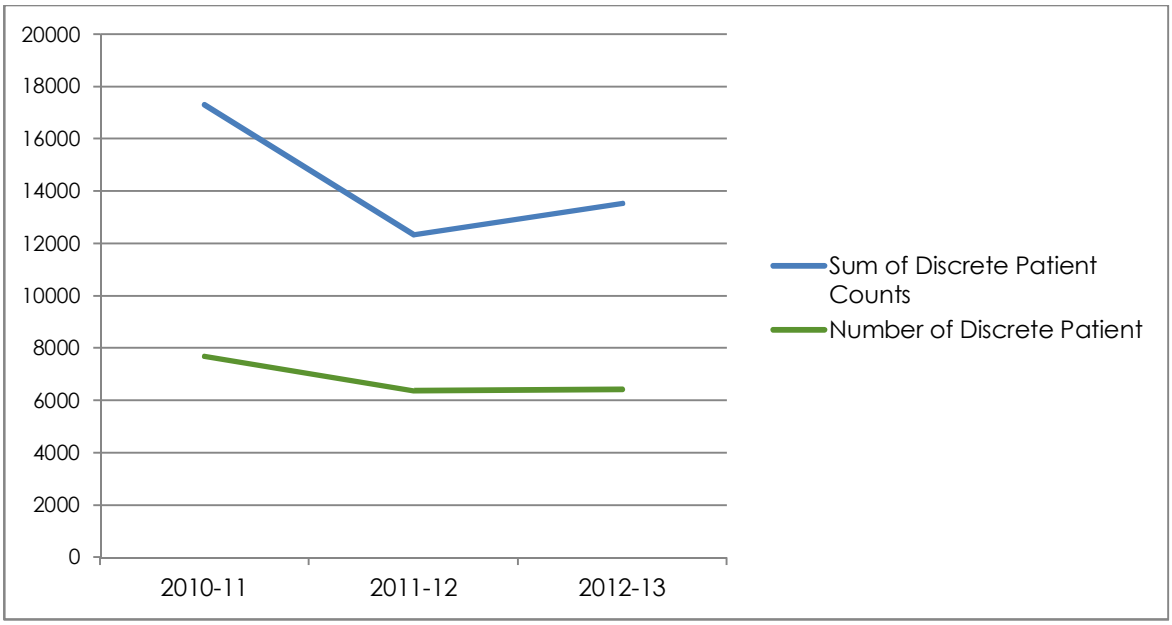
2012 Pattern of Care	
Town	**% of Population Accessing Kindersley Physician Services**
Brock	41%
Coleville	55%
Dodsland	60%
Eatonia	50%
Eston	62%
Flaxcombe	66%
Glidden	60%
Kindersley	77%
Madison	40%

2012 Pattern of Care	
Town	**% of Population Accessing Kindersley Physician Services**
Marengo	54%
Netherhill	72%

(Saskatchewan Ministry of Health, 2011-2012)

Since 2010, the number of *discrete patients has declined, but appears to be reaching a plateau. In 2012-2013, the number of discrete patients was 6,420.

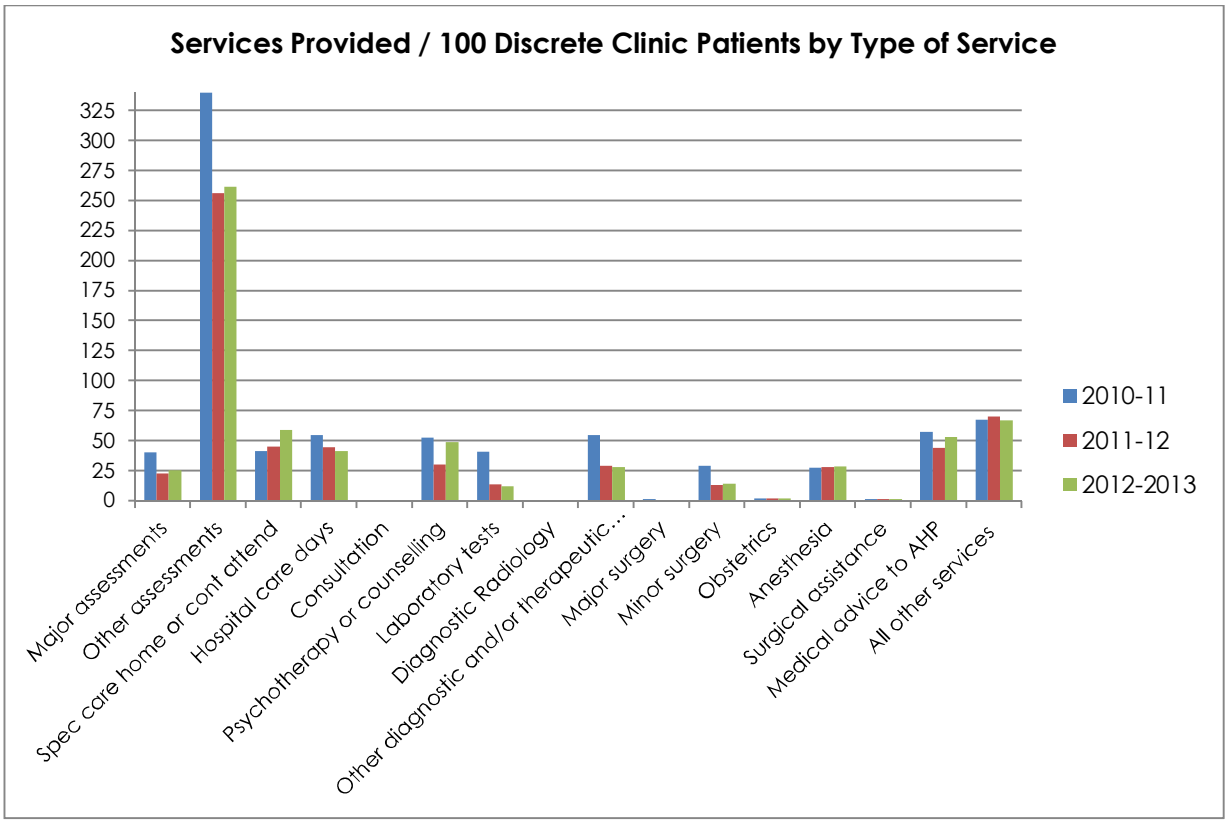
The **sum of discrete patients is rising, because the number of patients seeing multiple doctors is increasing; however, on a percent basis, the number of patients seeing multiple doctors has been declining annually.



A count of persons for whose services this clinic had approved amounts, by number of clinic doctors seen -- one person counted once.

***The sum of each doctor's discrete patient counts (one person counted once per doctor).*

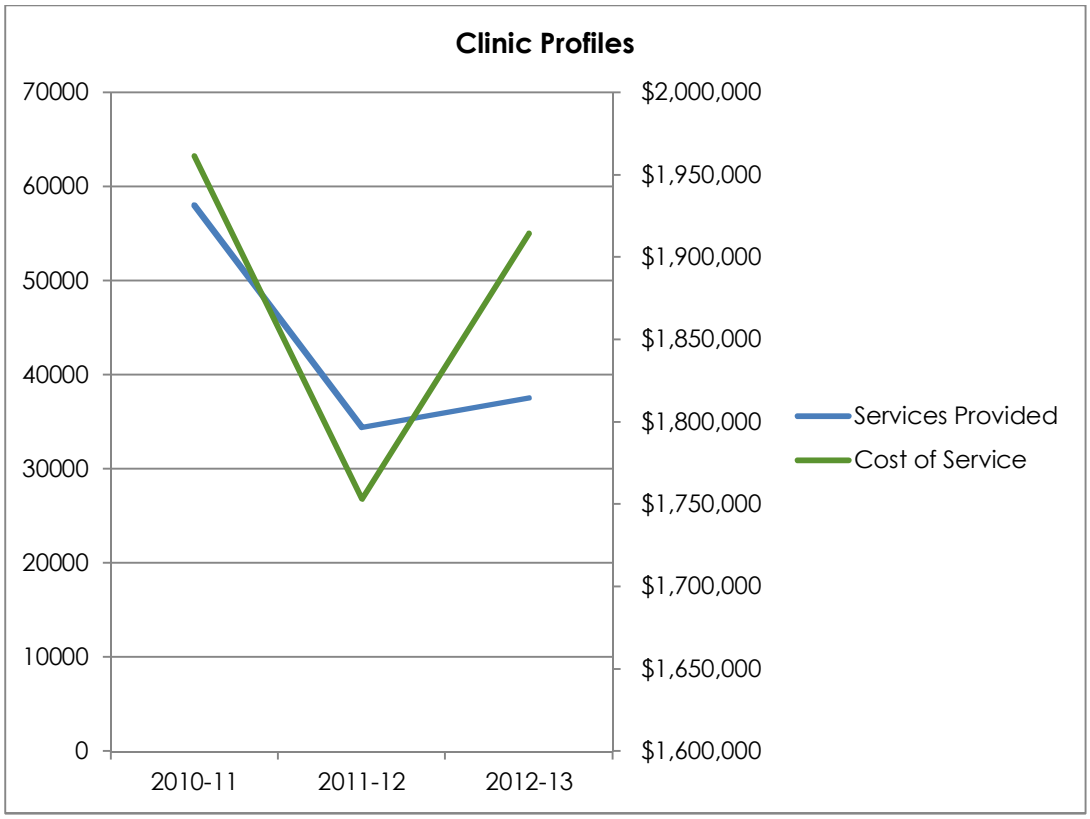
The below bar chart lists the number of *services provided annually by type, for the sum of discrete patients.

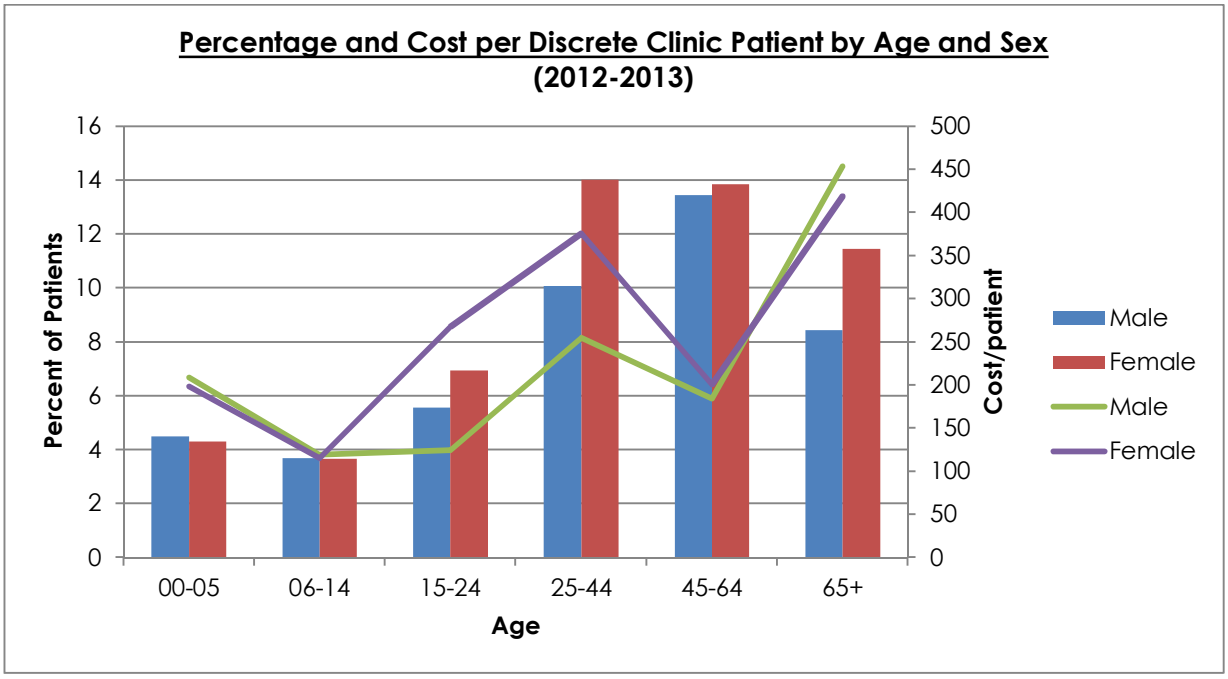


**The paid services for which the clinic's doctors received an approved amount broken down into categories multiplied by 100, and divided by the total clinic discrete patients. The categories are based upon a National Grouping of services.*

On average, only 0.83 services provided / 100 discrete clinic patients were referrals from within the clinic or outside the clinic.

As evidenced by the graph below, although the number of patients is not drastically increasing, the number and cost of services are going up.

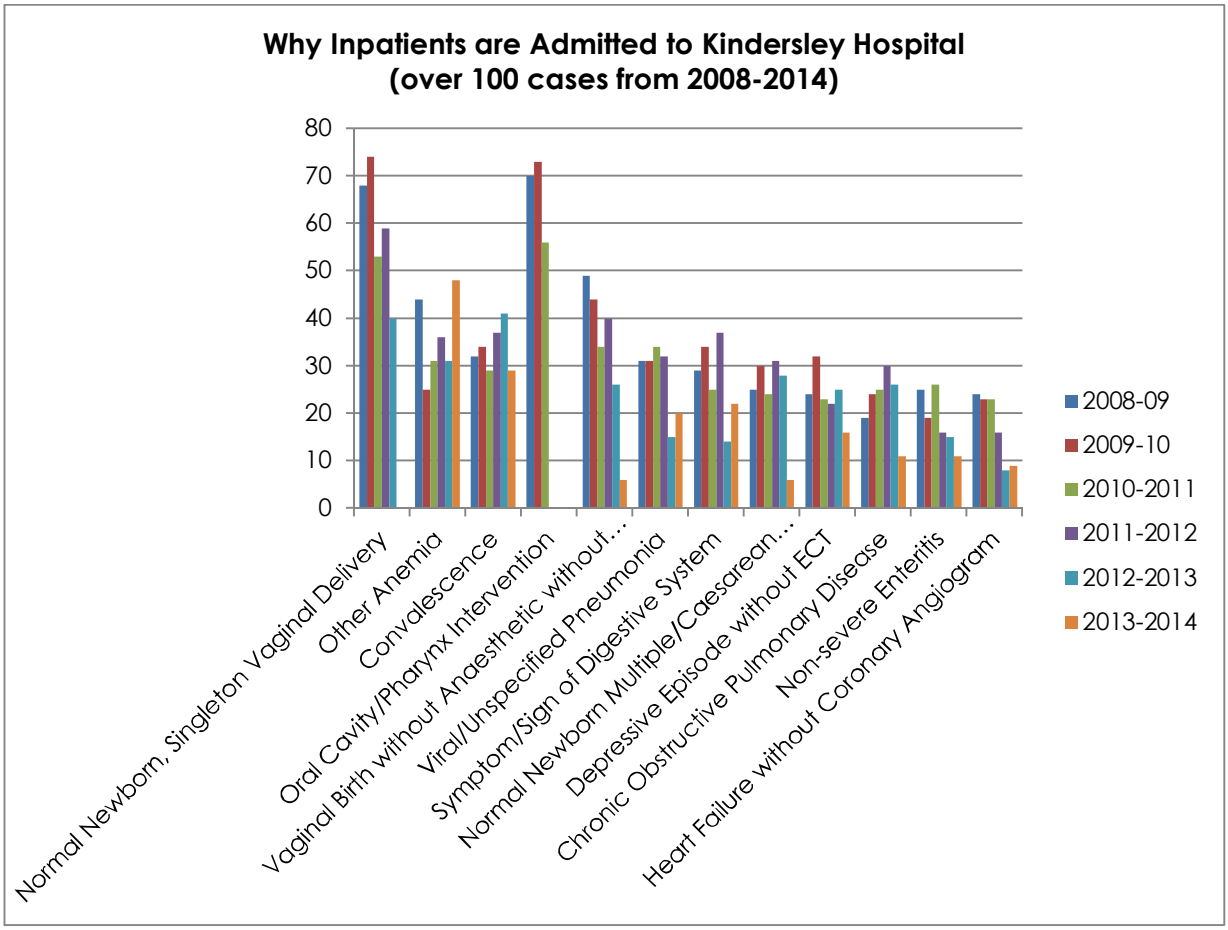




The above graph indicates that the majority of patients are women between the ages of 25-44. This fact could indicate a need for greater focus on women and child health services. In addition, patients between the ages of 25-44, and those over 65 years of age have a higher cost associated with their visits.

Hospital and Surgical Services

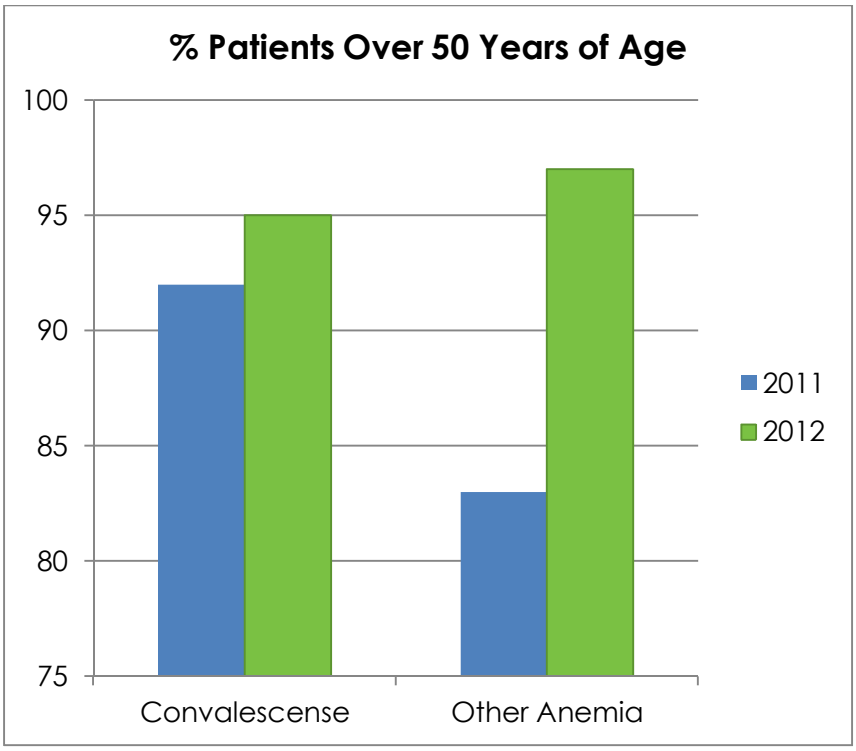
The below chart demonstrates the top reasons why patients are admitted to the Kindersley hospital. While acute care is not part of the scope of this assessment, this data helps form a picture of the health needs that are present in the Kindersley catchment area. Medical admissions are most common, as opposed to surgical admissions, and relate to the age demographics of the population. As depressive episodes are in the top 10 reasons for admissions, this would indicate additional preventative health measures and mental health supports/services are required. For additional hospital and surgical data, please refer to Appendix D.



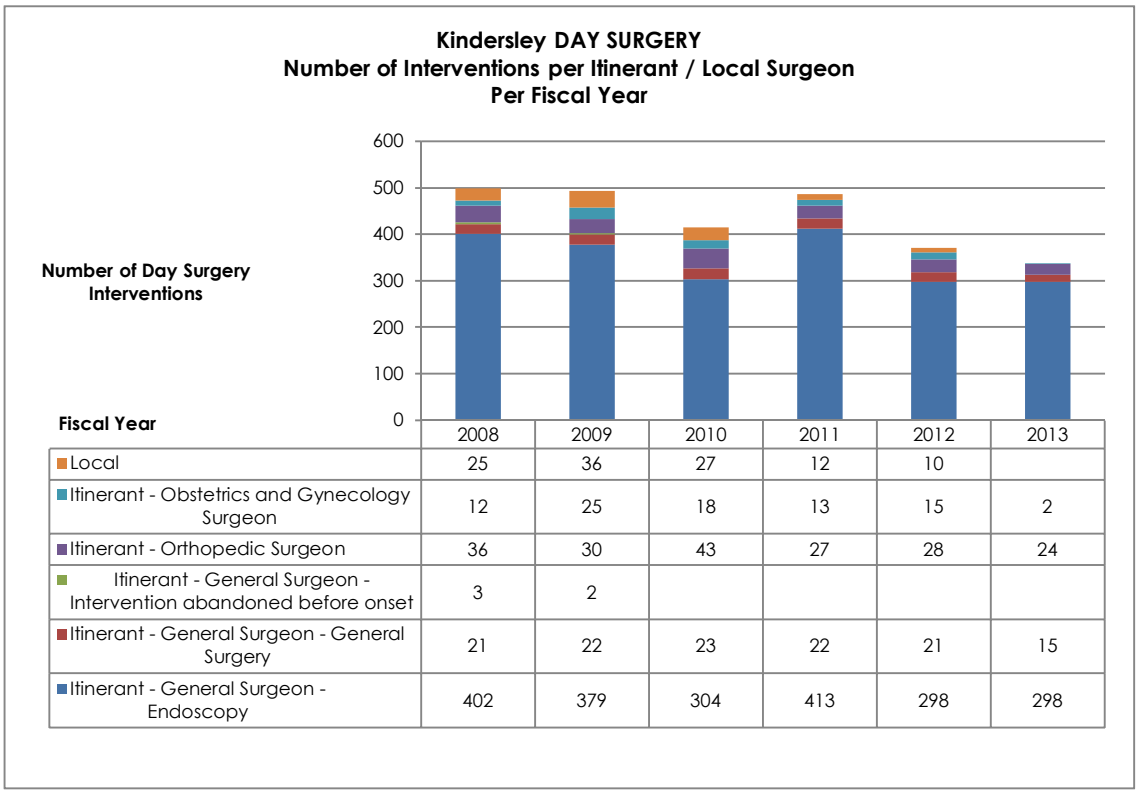
The top case mix groups (CMGs) in 2013-2014 have been included below. CMGs are a classification system for patients with similar characteristics. The number in brackets indicates the number of cases in the past year. A similar pattern is evident, as medical cases are more predominant. If newborns are removed from the CMG 2012-2013 data, non-severe enteritis and general symptoms become a part of the top 10 most common cases in that year.

Top 10 CMGs for 2013-2014	Top 10 CMGs for 2012-2013
1. Other anemia (53) 2. Convalescence (46) 3. System / sign of digestive system (28) 4. Viral unspecific pneumonia (27) 5. General system / sign (19) 6. Depressive episode without ECT (18) 7. Lower urinary tract infection (17) 8. Non-severe enteritis (15) 9. Diabetes (15) 10. Chronic Obstructive Pulmonary Disease (14)	1. Convalescence (41) 2. Normal newborn, singleton vaginal delivery (40) 3. Other anemia (31) 4. Normal Newborn Multiple/Caesarean Delivery (28) 5. Chronic Obstructive Pulmonary Disease (26) 6. Vaginal Birth without Anesthetic without Non-Major Obstetric/Gynecologic Intervention (26) 7. Depressive Episode without ECT (25) 8. Non-Complex Hernia Repair (22) 9. Primary Caesarean Section, no induction (19) 10. Vaginal Birth without Anesthetic with Non-Major Obstetric/Gynecologic Intervention (19) 11. Diabetes (17)

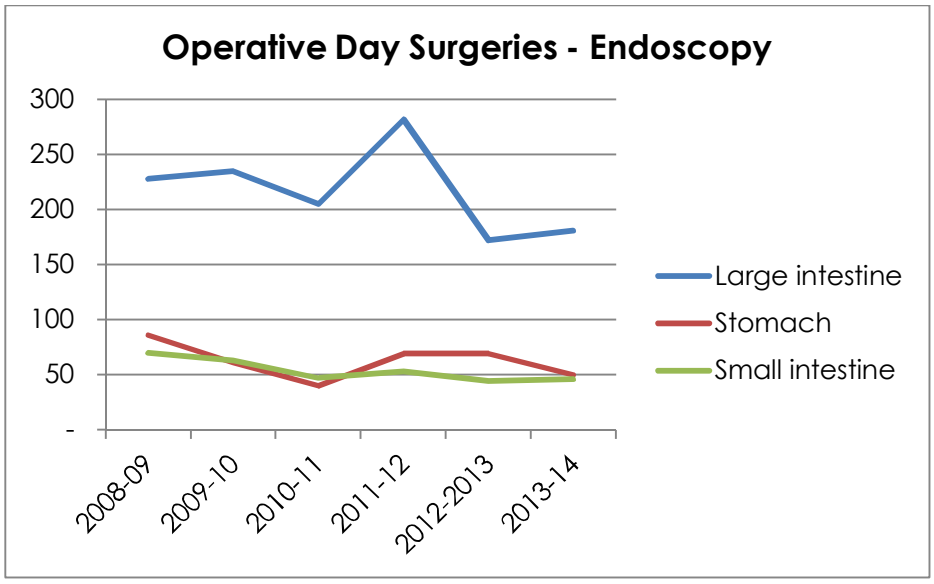
The top three cases in 2012-2013 reflect the demographics of the population: convalescence, normal newborn, singleton vaginal delivery and other anemia. Newborn delivery was second, which reflects the above finding that the majority of patients are women between the ages of 25-44. Other than newborns, the remaining top two 2012-2013 CMGs were more common among people over 50 years of age (between 87%-97%) as per the chart below.



While the below diagram also focuses on surgery, the fact that the majority of day surgeries are endoscopies, and that the number of procedures has remained relatively constant, relates to primary health care needs in terms of diagnosing patients and investigating symptoms.



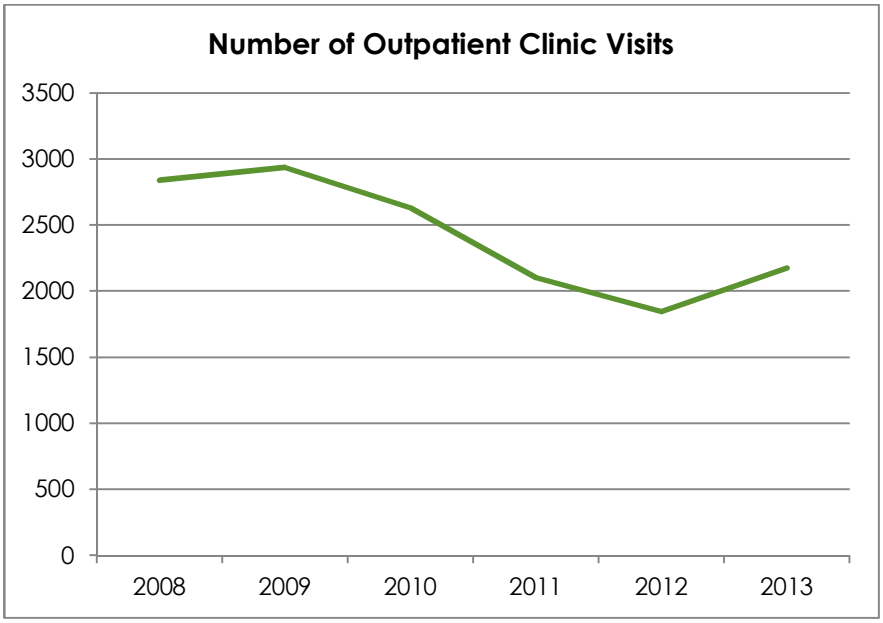
Fiscal Year	2008	2009	2010	2011	2012	2013
Local	25	36	27	12	10	
Itinerant - Obstetrics and Gynecology Surgeon	12	25	18	13	15	2
Itinerant - Orthopedic Surgeon	36	30	43	27	28	24
Itinerant - General Surgeon - Intervention abandoned before onset	3	2				
Itinerant - General Surgeon - General Surgery	21	22	23	22	21	15
Itinerant - General Surgeon - Endoscopy	402	379	304	413	298	298



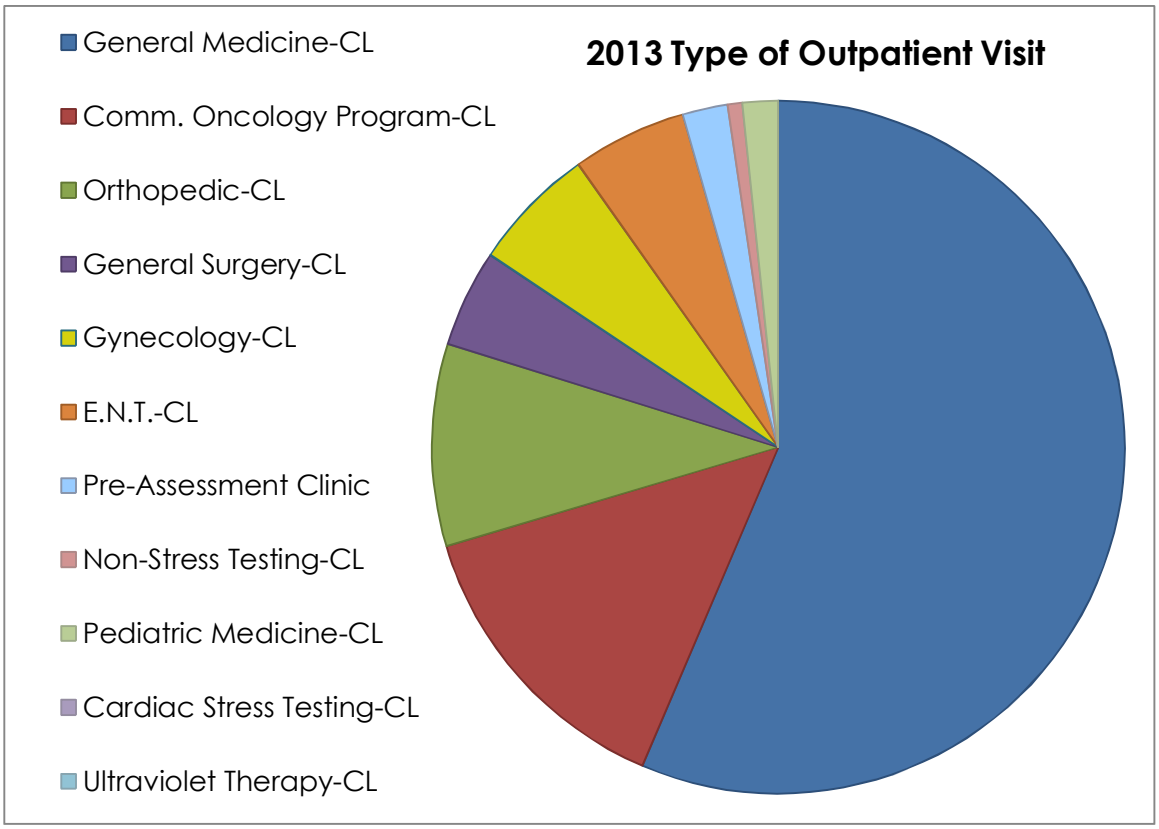
Outpatient Clinics

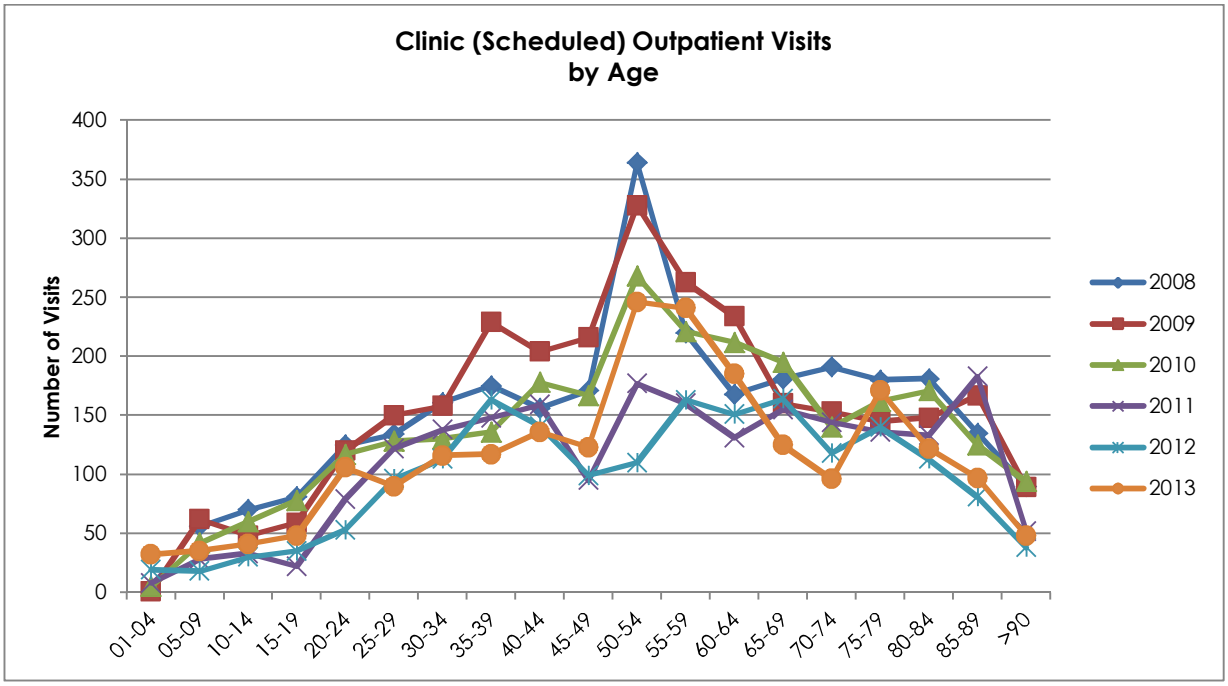
The following data relates specifically to outpatients. Although the number of visits has been declining, we believe this is more a function of decreased manpower than demand / services requirements.

Recently, Kindersley physicians have made positive changes to their practice as they have decided to offer more clinic hours, on evenings and weekends, as opposed to hospital hours. This improvement was made at the physicians own accord, despite monetary incentives to treat patients within the hospital. Physicians recognize the long-term benefits of this system and that using the hospital is not the best use of resources.



As per the two graphs below, again, the bulk of outpatient visits are medical. The most common age group is 50-54, a similar pattern previously seen with hospital admissions.

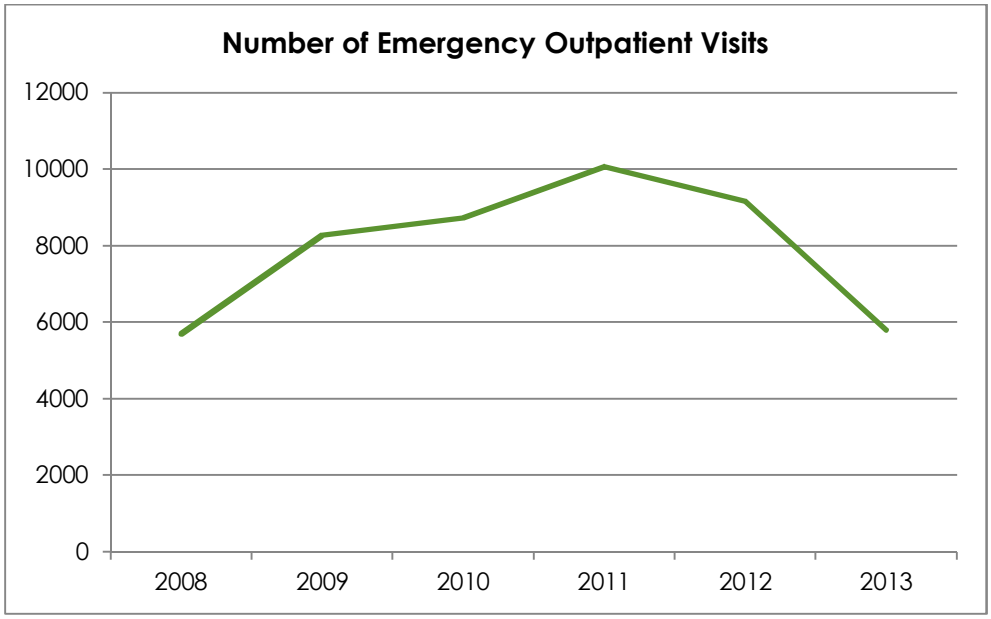


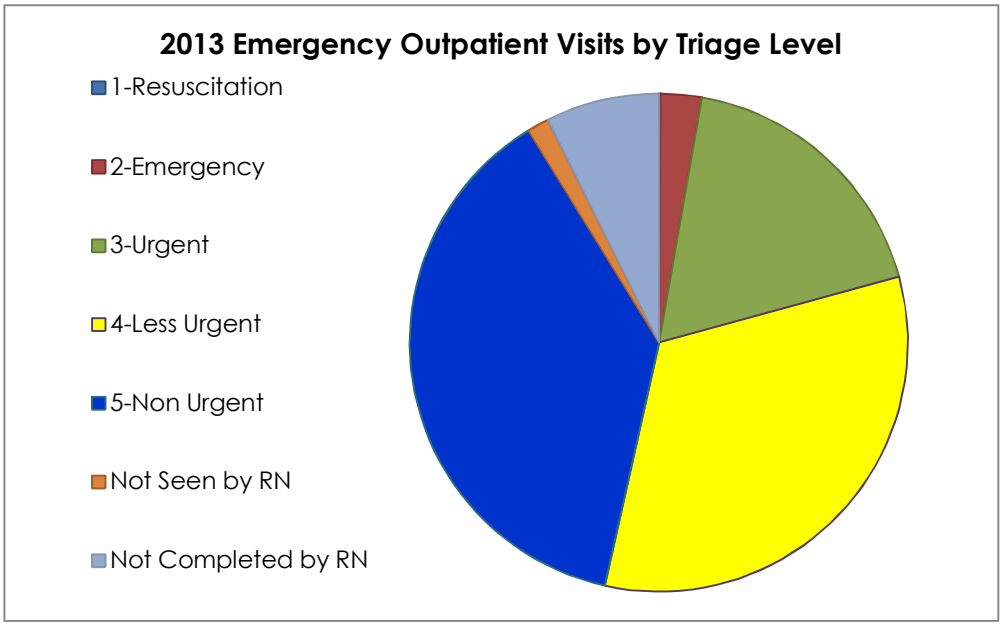


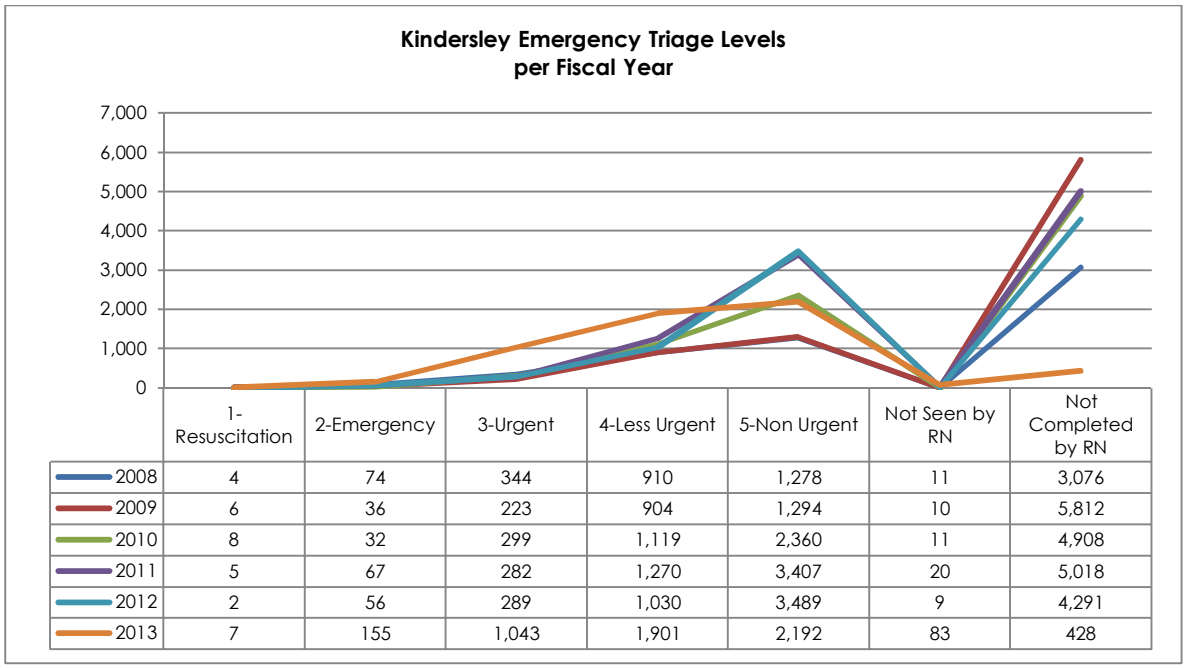
Emergency Services

It is important to note the performance of a health system in terms of accessibility, patient satisfaction and other key indicators. Perhaps the most telling statistic in assessing the accessibility and responsiveness of the system is that of the emergency department.

The graphs which follow depict the number of visits and triage levels. The high percent of less urgent and non-urgent outpatient visits is telling as it indicates a need for, or enhanced citizen education / awareness around primary health care services. It is also indicative of the fact that during the peak periods there was a shortage of family physicians so that the emergency department was the only access to a physician.

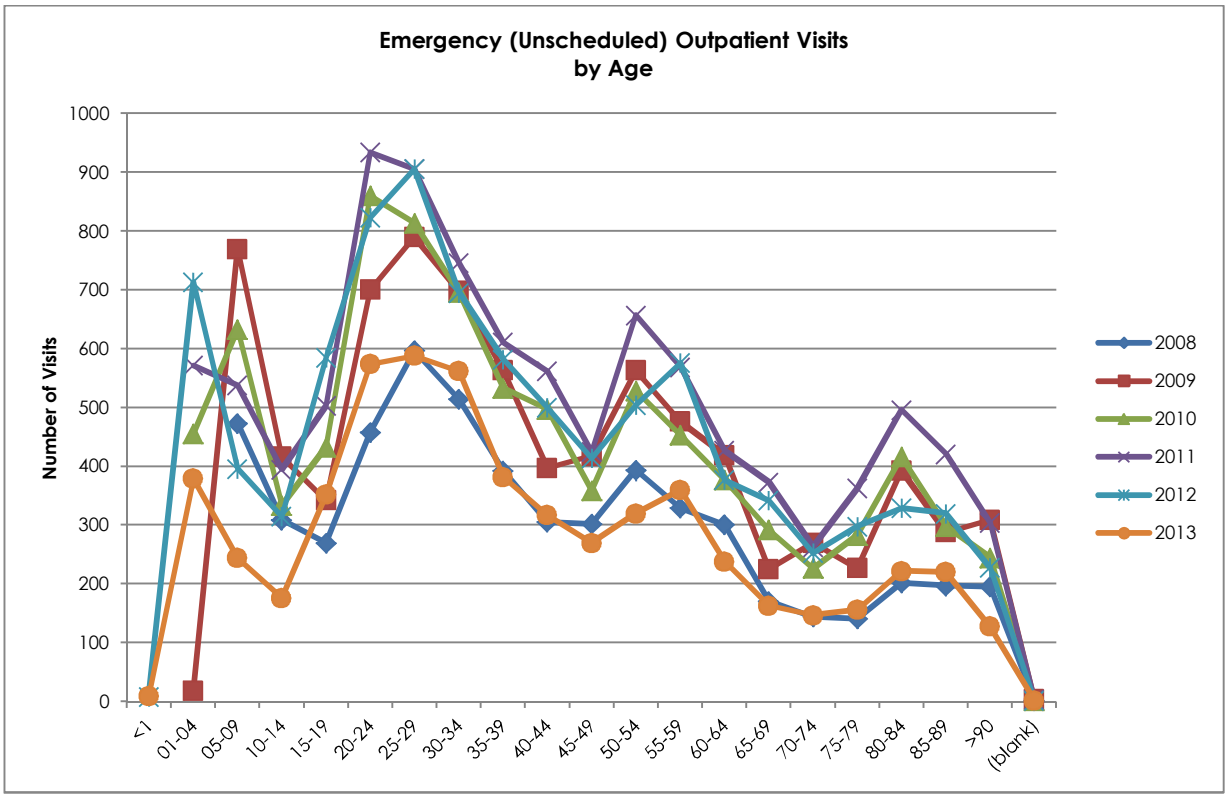






	1-Resuscitation	2-Emergency	3-Urgent	4-Less Urgent	5-Non Urgent	Not Seen by RN	Not Completed by RN
2008	4	74	344	910	1,278	11	3,076
2009	6	36	223	904	1,294	10	5,812
2010	8	32	299	1,119	2,360	11	4,908
2011	5	67	282	1,270	3,407	20	5,018
2012	2	56	289	1,030	3,489	9	4,291
2013	7	155	1,043	1,901	2,192	83	428

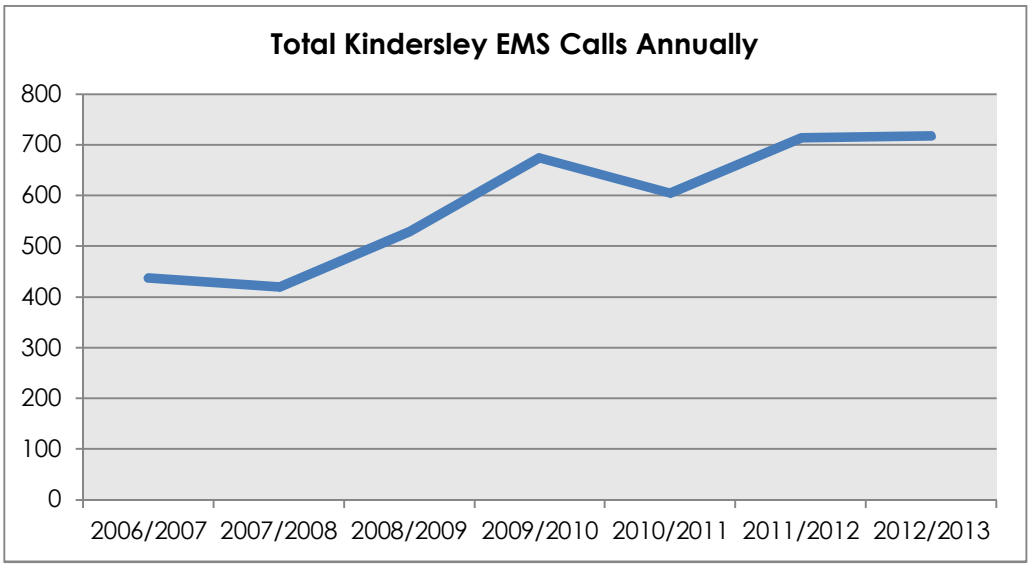
The age of emergency outpatients is younger than seen in other areas. The most common age group is 20-29. This could be a reflection of the shadow population and young labour force working in the area in the oil and gas industry. These individuals may not be Saskatchewan Health members, and do not access primary health care services on a regular basis.



The table and graph below demonstrate EMS calls in the Heartland Health Region, as well as annual EMS calls in Kindersley specifically. The number of calls has been steady in recent years; however, the long-term trend shows a slight increase.

Site	2011-2012 EMS Calls	2012-2013 EMS Calls	Increase/Decrease
Beechy	74	66	-8
Biggar	374	429	55
Davidson	297	359	62
Dinsmore	44	55	11
Dodsland	36	23	-13
Eatonia	55	71	16
Elrose	41	20	-21
Eston	162	102	-60
Kerrobert	164	177	13
Kindersley	713	707	-6
Kyle	81	71	-10
Luseland	61	59	-2
Macklin	99	79	-20
Outlook	295	393	98
Rosetown	477	435	-42
Unity	329	323	-6
Wilkie	148	139	-9
Regional Total	**3450**	**3508**	**58**

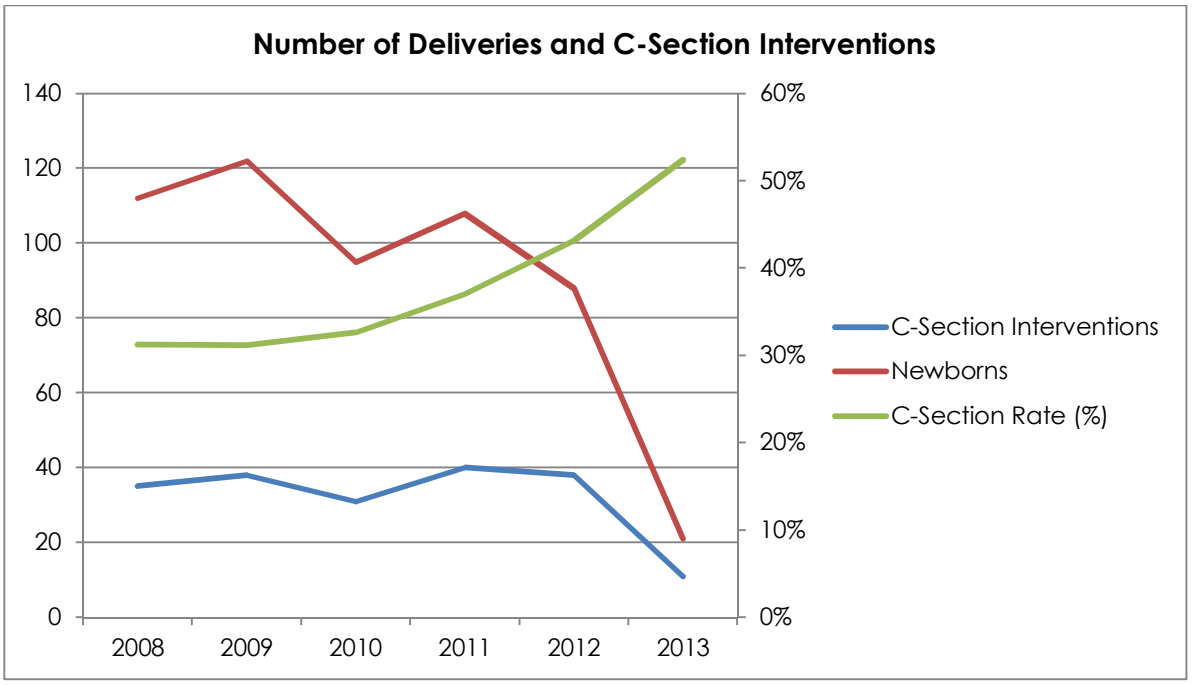
(Heartland Health Region, 2013)

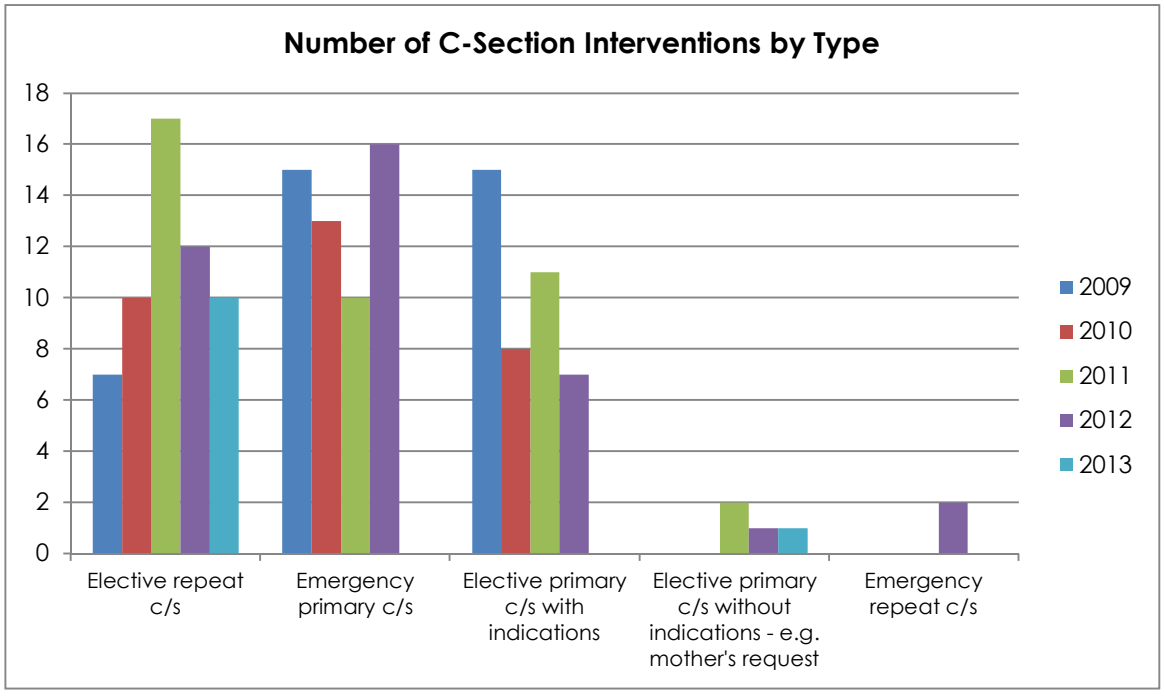


Kindersley	2010-2011	2011-2012	2012-2013
TOTAL CALLS	605	713	717
Primary Assessment Code			
Major Trauma	114	127	144
Minor Trauma	64	79	67
Altered LOC	82	103	74
OD/Poisons	6	16	11
Cardiac	52	62	65
Respiratory	38	50	58
GI/GU	62	57	61
OBS/GYN	10	12	6
Miscellaneous	105	133	139
Major Illness	15	10	10
Sub-Total	**548**	**649**	**635**
Sex			
Male	288	380	346
Female	270	283	301
Sub-Total	**558**	**663**	647
Age *(years)*			
0-20	53	56	54
21-40	79	102	101
41-64	111	121	154
65+	316	384	338
Sub-Total	**559**	**663**	**647**

Women and Children's Health

As evidenced by the CMG data, there is a need for women and children's health services (including newborn, neonatal and pediatric). However, the number of births has been rapidly declining, in part due to manpower issues; specifically the lack of physicians trained in or prepared to support an obstetrics practice and/or anesthetic training. The high C-section rate is primarily because C-sections are the only type of planned deliveries that physicians are doing…all others have been referred out of region if time permits.



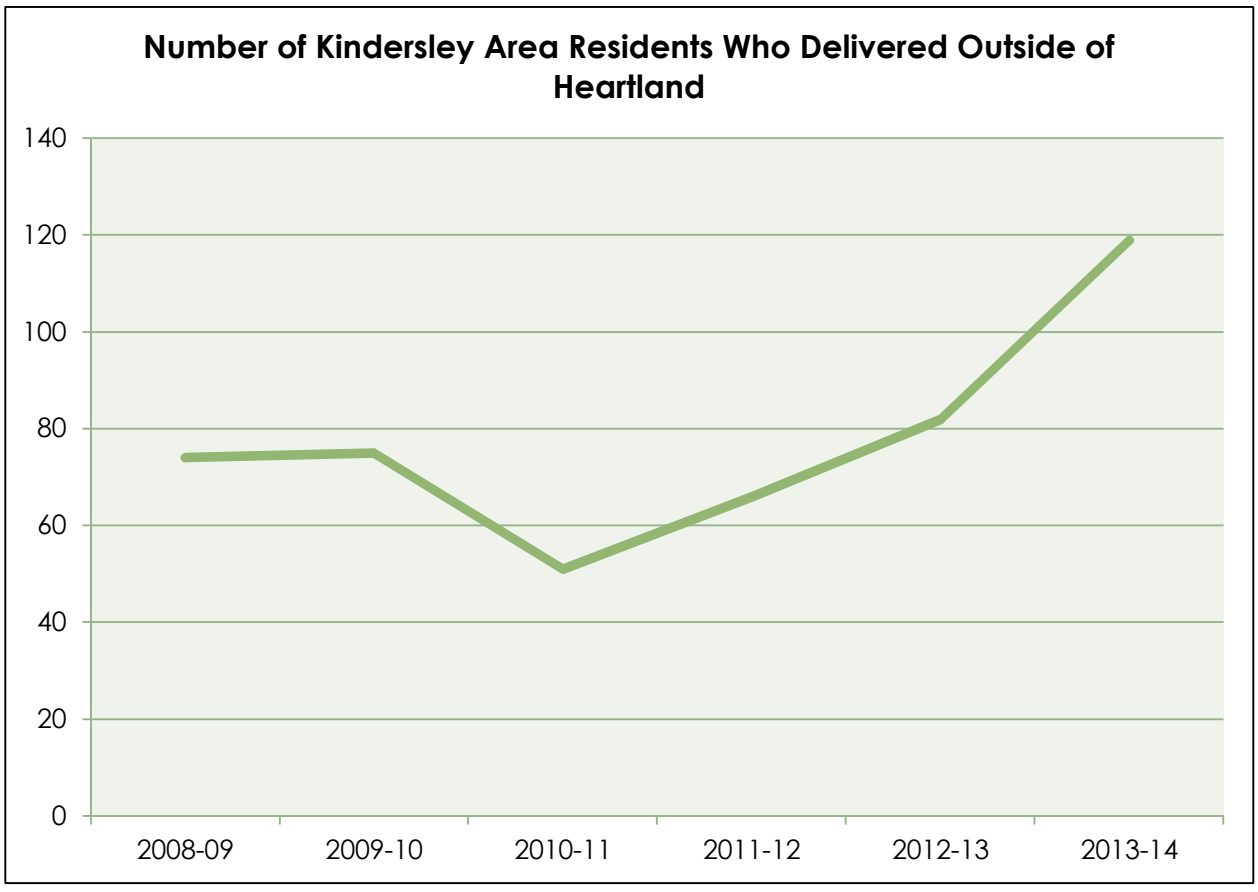


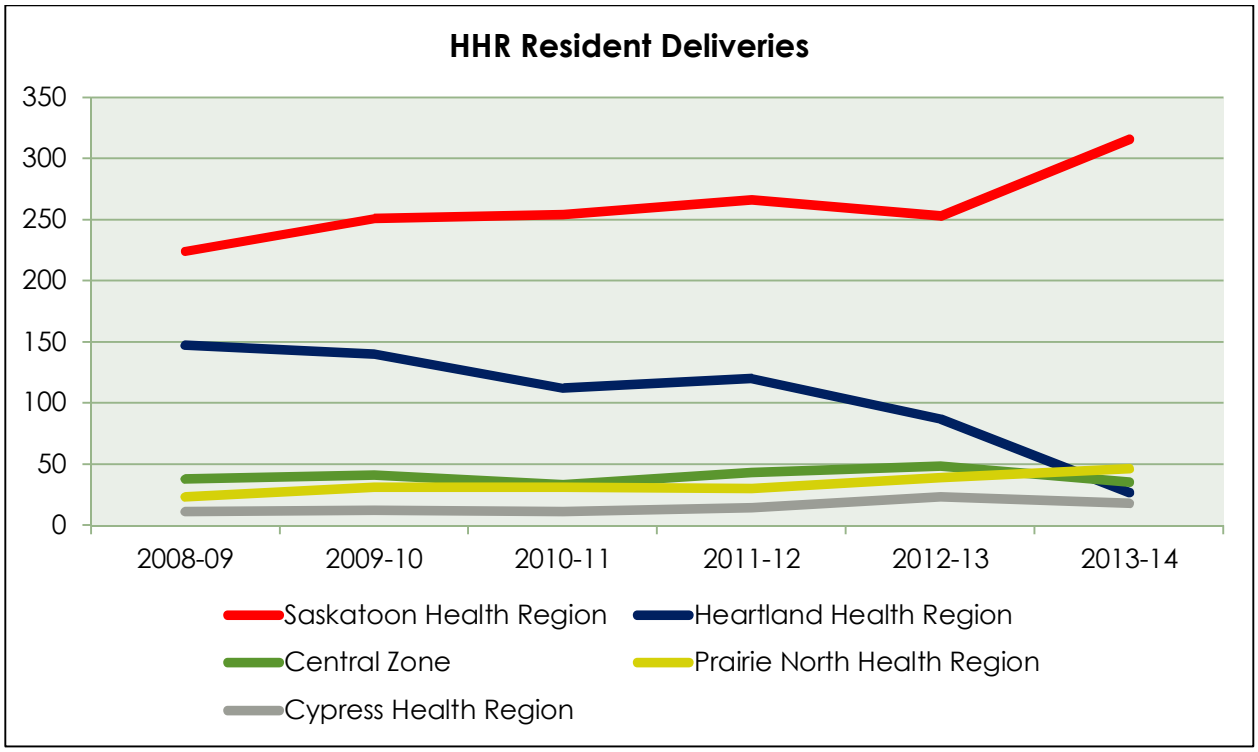
Patients who are delivering in the Kindersley hospital are coming mainly from Kindersley, Eston, Luseland, Winslow and more recently Oakdale.

Currently, the below services and clinics are offered in Kindersley, Eston and Eatonia. Kerrobert is not covered by Kindersley PHNs as there is one FTE position in Kerrobert which provides maternal/child services to families living within the Unity Primary Health Service Area.

- 135 Child Health Clinics
- 834 appointments
- 292 immunization appointments
- 89 postnatal referrals
- 138 home visits
- 22 referrals to other Health Care Professionals
- 5 Car Seat Clinics in Kindersley, Eston and Eatonia
- 3 Prenatal classes in Kindersley per year (20-30 clients each)
- 3 Breastfeeding classes in Kindersley per year as well

As demonstrated by the graph and table below, the number of Kindersley residents delivering outside the area has substantially increased since 2008. The majority of these births are taking place in the Saskatoon Health Region. From 2008 to 2013, the Heartland Health Region was second to the Saskatoon Health Region in terms of number of deliveries; however, in 2014, the Heartland Health Region was surpassed by both Prairie North Health Region and the Alberta Central Zone with only 27 deliveries compared to 46 and 35 respectively.





Kindersley Resident Deliveries outside of the HHR	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Total	74	75	51	66	82	119
Saskatoon Health Region	57	66	45	58	58	102
Central Zone	5	0	0	0	6	5
Other Regions with less than 5 cases	12	9	6	8	3	7
Prairie North Health Region	0	0	0	0	8	0
Cypress Health Region	0	0	0	0	7	5

Figures 1 and 2 highlight where Heartland Health Region and Kindersley residents specifically are giving birth.

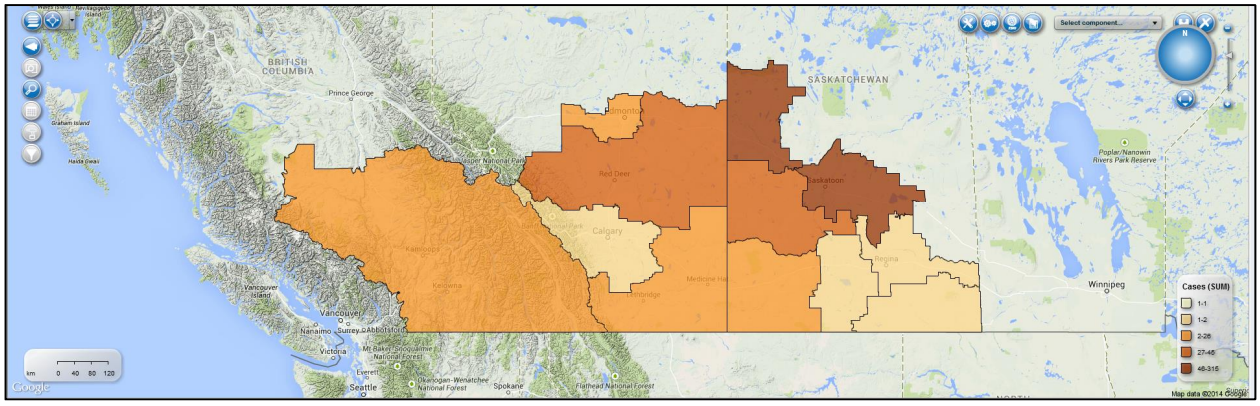


Figure 1: Location of all Heartland Health Region Resident Deliveries in 2013-2014

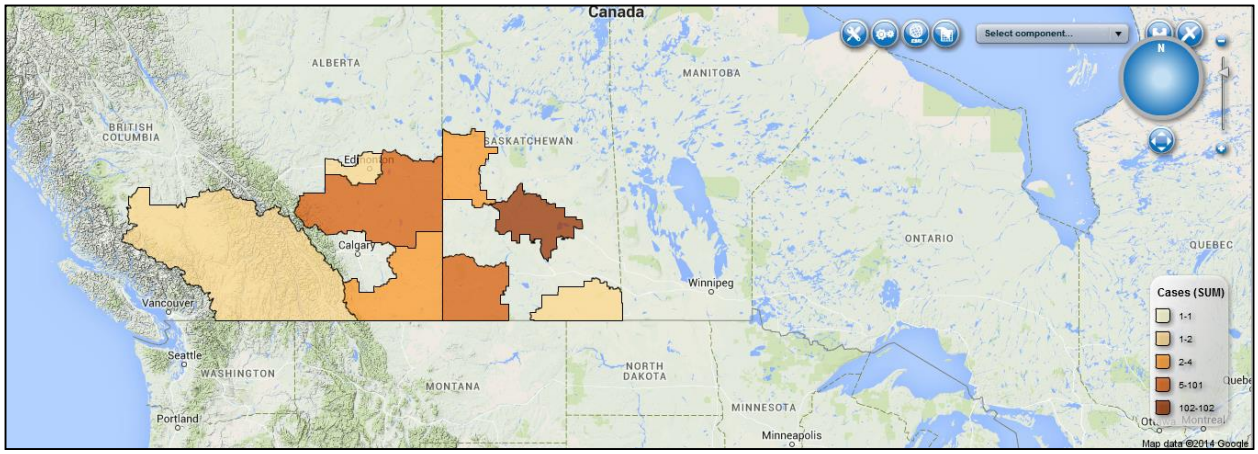
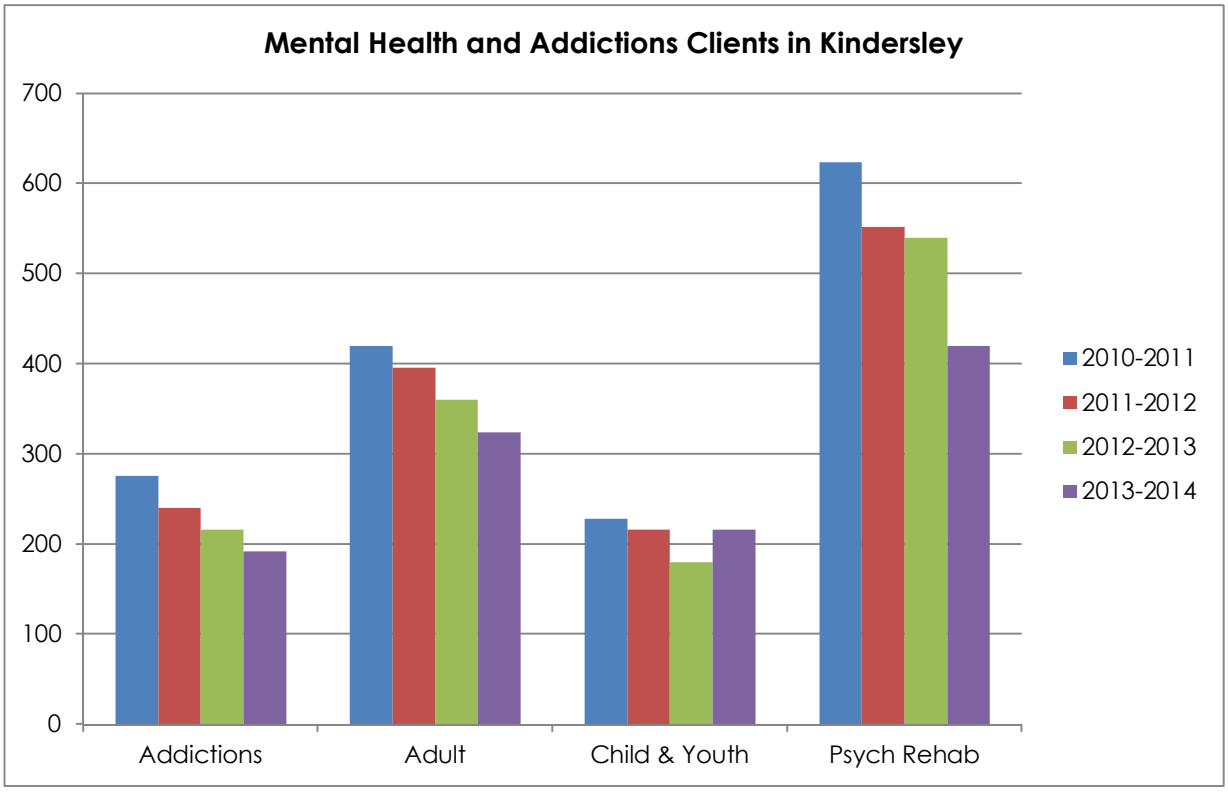


Figure 2: Kindersley Area Residents – Deliveries outside Heartland Health Region in 2013-2014

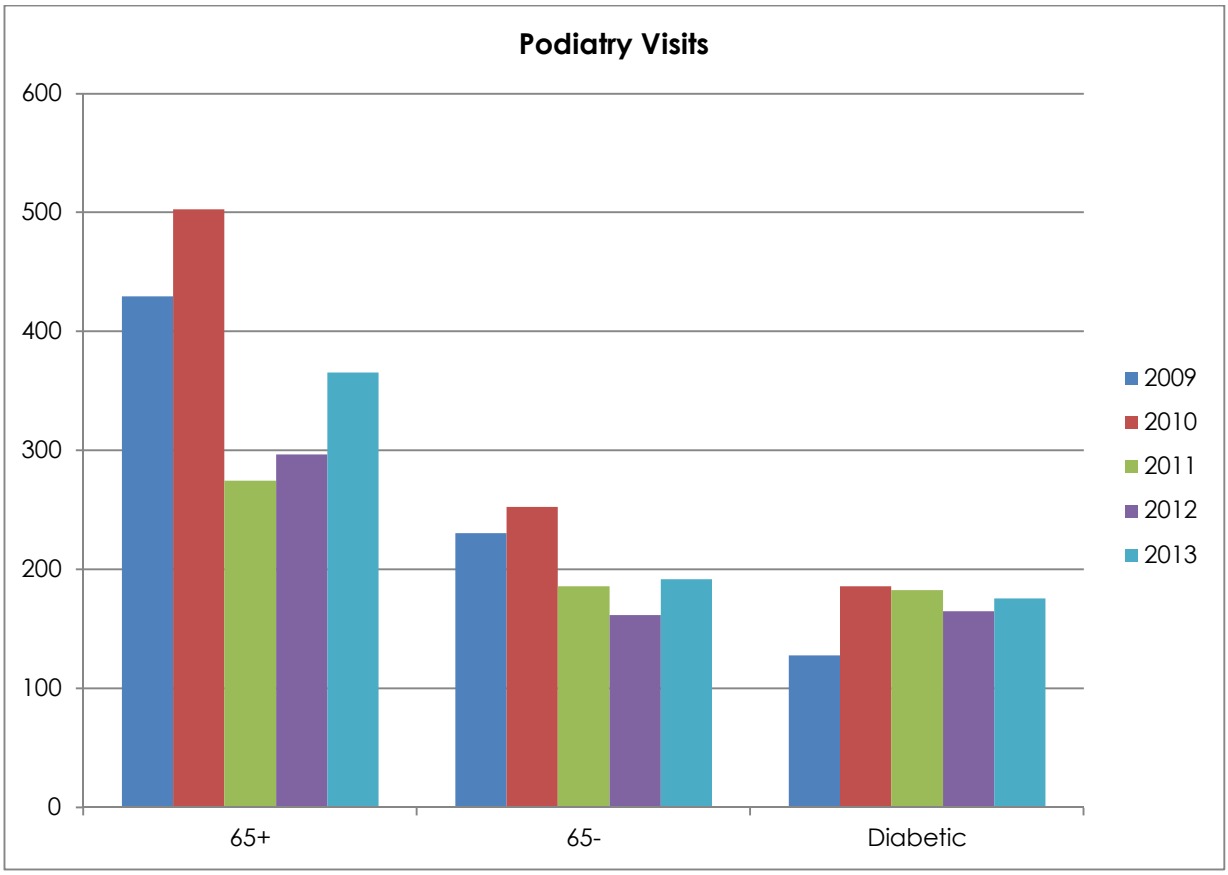
Mental Health and Addictions

As previously discussed, depressive episodes are among the top ten reasons for admissions to the Kindersley hospital. Furthermore, the prevalence of alcohol abuse is higher in the HHR and Kindersley specifically when compared to the province and nation. The five year average for mental health and addictions clients in Kindersley is 1,380. The below chart represents an annual decline in patients; however, it is important understand these declines have been driven primarily by a shortage of physician and mental health counsellor resources rather than decreased demand for these services in the community.



Population Health

Podiatry is part of chronic disease management. The chart depicts the load requirements for the Kindersley area.



Home Care Services

The below time frames are for fiscal years April 1st to March 31st for the past five years. Across the three areas: nursing, wellness clinics and home support, the annual trend for both hours and client numbers appear to be constant with small variability and a slight general increase from 2009 to 2014.

Total Client Care Coordinator (CCC) hours from November 1st, 2013 to September 30, 2014 are 1,224 hours. All home support clients go through a single entry point CCC; therefore, the number of home support clients would be relatively similar to the number of clients for assessment services.

Date	Nursing Hours provided by RN's	Client Count
09/10	2342.50	219
10/11	2963.76	239
11/12	2609.75	226
12/13	2342.00	221

Date	Nursing Hours provided by RN's	Client Count
13/14	2459.75	226

Date	Wellness Clinic Hours (RN)	Client Count
09/10	108.75	111
10/11	133.25	135
11/12	162.75	137
12/13	148.75	130
13/14	127.25	119

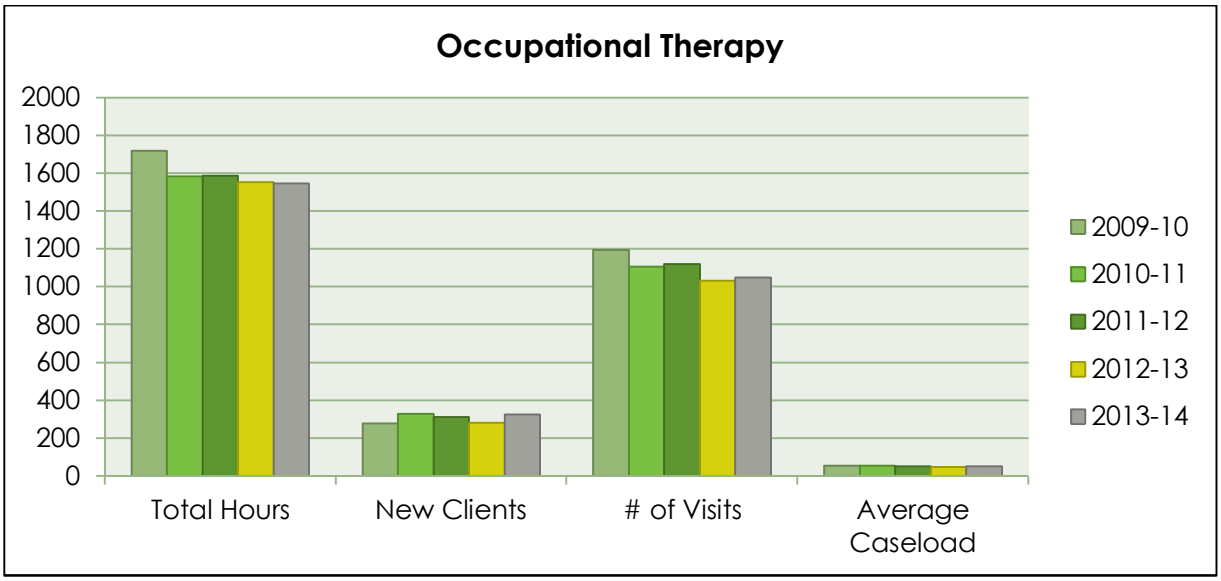
Date	Home Support Hours provided by CCA's	Client Count
09/10	11,643.25	111
10/11	11,808.75	117
11/12	12.989.00	125
12/13	11,564.25	130
13/14	12,193.75	128

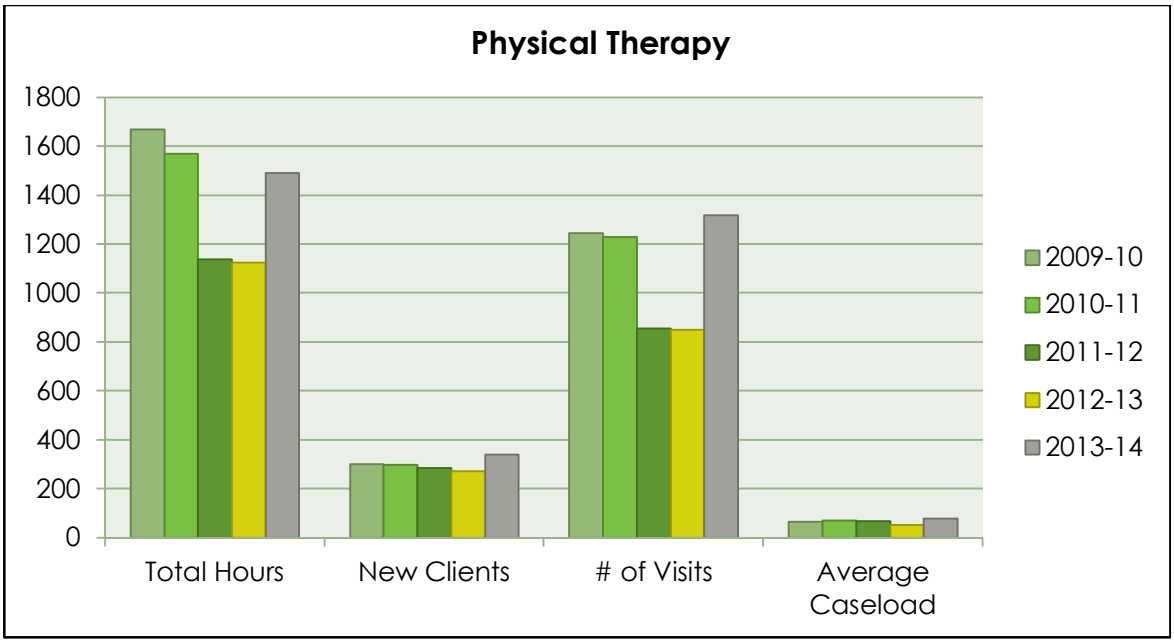
Community Therapy

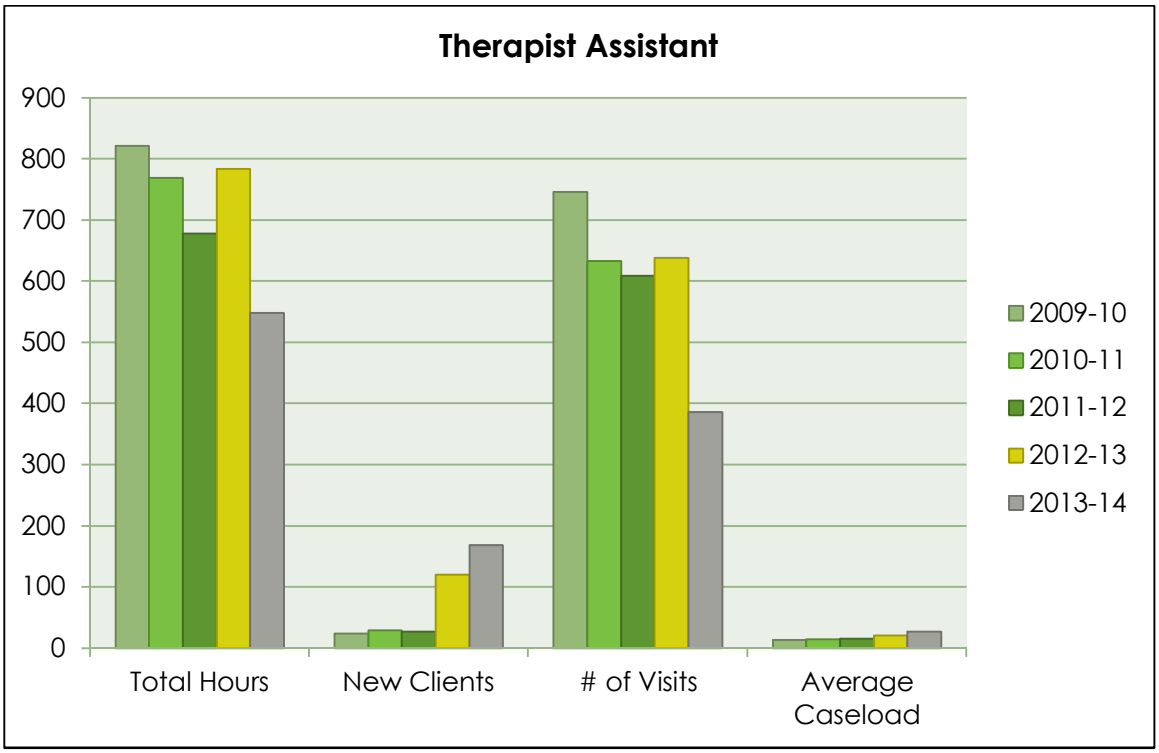
The following table outlines client visits for community therapies for the past year. The below demonstrates the annual trend in each area. Physical therapy and therapy assistant are peaking in terms of the number of new clients.

2013-2014	Occupational Therapist	Physical Therapist	Therapist Assistant
Total Hours	1548.5	1492	548
New Clients	326	340	169
***Average Caseload**	51	78	27

**Average Caseload per month*



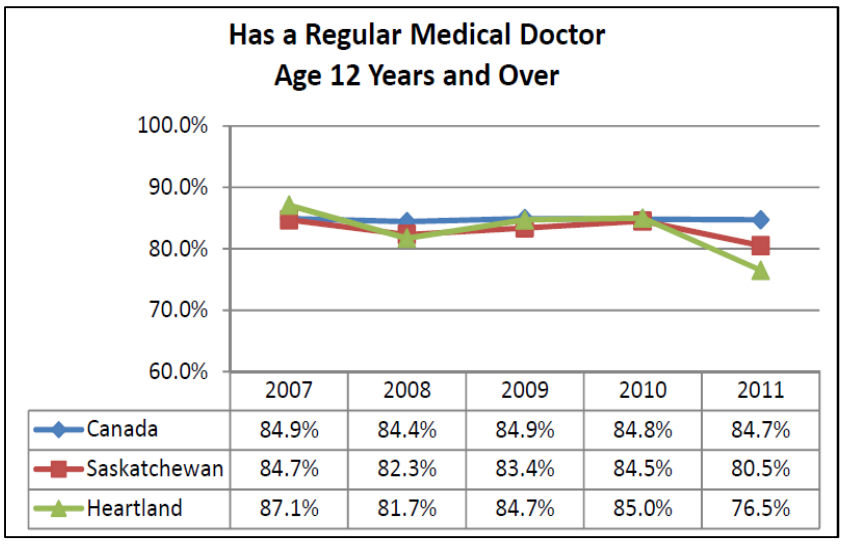

Physical Therapy
1800
1600
1400
1200
1000
800
600
400
200
0
Total Hours
New Clients
# of Visits
Average Caseload
2009-10
2010-11
2011-12
2012-13
2013-14


Therapist Assistant
900
800
700
600
500
400
300
200
100
0
Total Hours
New Clients
# of Visits
Average Caseload
2009-10
2010-11
2011-12
2012-13
2013-14

Physician Numbers and Utilization

A growing population places demands on the health care system to respond to the changing needs of the community. Of special interest to this study is the number of family physicians available to meet the needs of the residents of the Kindersley catchment area.

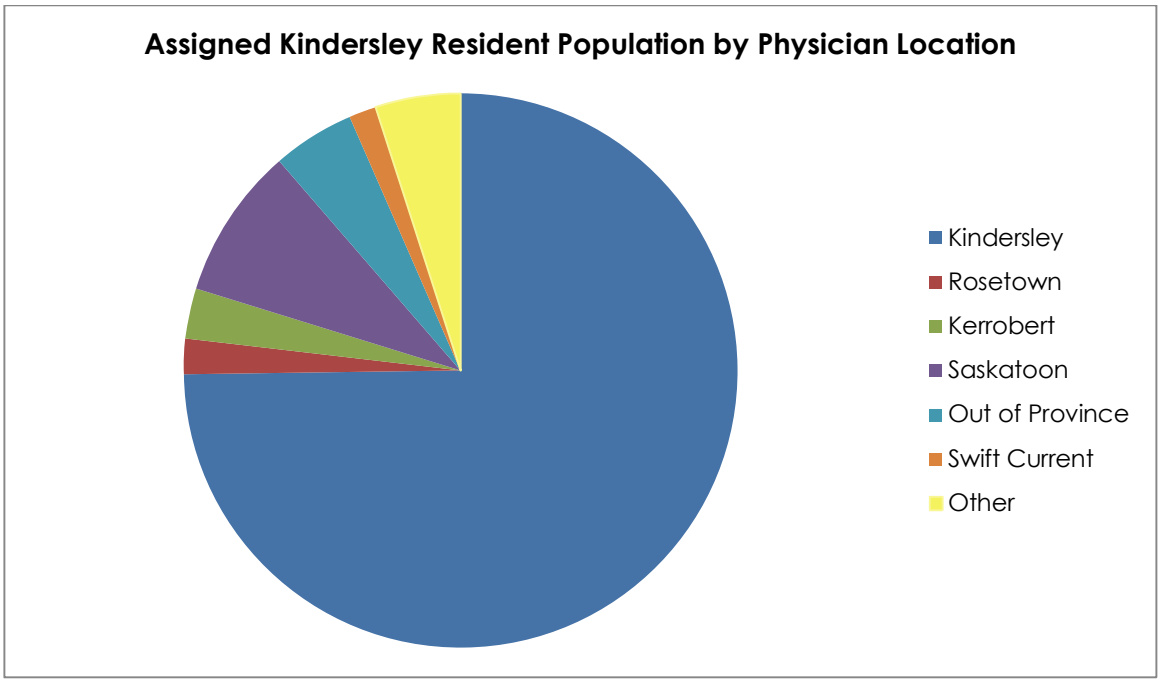
Only 77.7% of HHR residents report having a regular medical doctor compared to 81.4% in Saskatchewan and 84.9% in Canada (Statistics Canada, 2013). Furthermore, this number has been declining over time, which may indicate a change in access in the area or a population shift (Heartland Health Region, 2013). With recently improved physician manpower levels in Kindersley, it is suggested that the percentage of residents reporting lack of access to regular medical doctor would be similar if not significantly lower for the same time period.



	2007	2008	2009	2010	2011
Canada	84.9%	84.4%	84.9%	84.8%	84.7%
Saskatchewan	84.7%	82.3%	83.4%	84.5%	80.5%
Heartland	87.1%	81.7%	84.7%	85.0%	76.5%

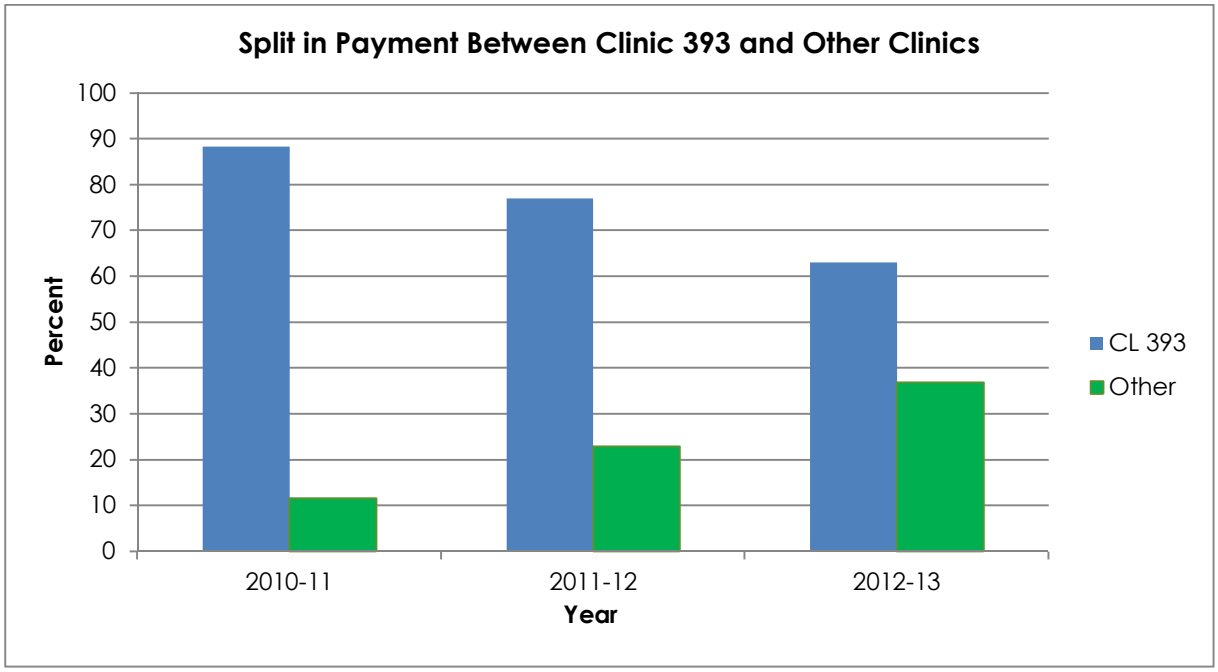
(Heartland Health Region, 2013)

The graph below represents the location of the physicians that serve the Kindersley resident population. The majority of the population, 75% of residents, is served by doctors from Kindersley.



**Assigned Population: An adjusted value which reflects the services for 100% of the population. The formula for deriving this value is # of assigned full-time patient count / (# discrete patients / total population).*

As the number and cost of services are increasing, the percent of payments to physicians from other clinics is also rising, from 11.6% in 2010 to 36.9% in 2013.



**Each breakdown category is shown as a percentage of the total cost of services provided by doctors plus any amounts paid to doctors who may also practice in other clinics.*

Physician Requirements for the Kindersley Primary Health Care Catchment Area

The table below, based on a best estimate of the resident population size for a Kindersley primary health care catchment area, demonstrates the challenges ahead in recruiting and retaining an adequate number of physicians to meet current and anticipated demands.

Physician Requirements for the Kindersley Primary Health Care Catchment Area							
	2008	***2013***	***2018***	***2023***	***2028***	***2033***	***2038***
Estimate of the Resident Population Size	10,796	11,097	11,786	12,519	13,299	14,130	15,015
***% Increase**	3%	6%	6%	6%	6%	6%	
Shadow Population (10%)	1079.635	1109.71	1178.568	1251.87184	1329.91902	1413.028	1501.538
Total Population	11,876	12,207	12,964	13,771	14,629	15,543	16,517
Physicians Needed – Residents (1 physician: 1,500 population)	8	8	9	9	10	10	11

**The number of physicians needed is based on the current physician centric model and does not take into account the two Nurse Practitioners currently working at Kerrobert and Eston.*
**This growth rate represents the blended weighted average growth rate of the Town of Kindersley (7.5%) and the RM and surrounding catchment area (5%).*

Comparative Physician Numbers

The 2013 Statistics Canada Health Profile contains information that allows comparison of the number of family physicians s in the HHR compared to provincial and national norms. The data suggested that the Heartland Health Region currently has a smaller number of family practitioners compared to Canadian and provincial norms.

Comparative Physician Numbers	Canada	Saskatchewan	HHR
Doctors Rate – General/Family Physicians (per 100,000 population)	106	100	55

The Kindersley primary health catchment area currently has 6 FTE family physicians (5 in Kindersley, 1 in Kerrobert) providing services to a population of about 12,207. Once the two planned additional physicians are recruited (one for Kindersley and one for Eston, there will be a total of 8 family physicians serving the Kindersley primary care catchment area. In addition two Nurse Practitioners, one in Kerrobert and one in Eston support primary care service delivery. This will represent a physician to resident ratio of about 1 to 1526, which when combined with 2 Nurse Practitioners, represents a reasonable family physician complement. As the population grows, additional physicians may be required. In addition, planned recruitment to ensure physician success planning will need to be a continued focus.

Other Primary Health Care Service Providers

Primary health care represents the first point of contact people have with the health care system. It is where people have their everyday health care needs met usually by family physicians, nurses, mental health professionals, dieticians, pharmacists and other health care professionals.

In the Kindersley area a range of services are offered that could be categorized as primary health care. These include family physician services; home care services, chronic disease management, population and public health, and mental health and addictions services among others. These services are delivered not only by family physicians, but also nurse practitioners and registered nurses, home care coordinators and assistants, and many other clinic and PHC service providers.

It is noteworthy that many of these PHC service providers are regional positions that serve a much larger geographic area than the Kindersley catchment area. While this service delivery model is quite typical in areas with a relatively small population dispersed over a larger geographic area, it carries with it some risks associated with access, recruitment challenges, time lost to travel, and sustainability of the service.

The data suggests that the capacity to deliver some required PHC services such as chronic disease prevention and management, mental health and additions, therapies (PT, OT, and Speech) and women's health are already limited. For example:

- Chronic disease management services are currently delivered through a variety of regional programs and provides. Such providers include a chronic disease nurse who is based in Rosetown but provides service for the entire region, and therefore is only able to provide minimal service to Kindersley. It should be noted that there are other providers working with chronic disease clients, including dieticians and diabetes nurse educators.

- Speech language pathology is a regional program with 1 FTE postion based in Rosetown; therefore, approximately 25% of his/her time is provided to the Kindersley catchment area.

As the populations of these communities continue to grow, capacity and access issues will be exacerbated.

A table containing a complete overview of the full time equivalent health care professionals providing primary care services in the Kindersley area has been included in Appendix E. It provides a current "snapshot" of other PHC professional staffing levels for the HHR and the Kindersley catchment area and some insights into areas where there could be potential access challenges.

Key Themes Emerging from Stakeholder Consultations

The study methodology included an extensive stakeholder consultation process. Input from more than 75 stakeholder representatives was obtained through a combination of activities including:

- Facility Tours
- Ministry of Health – Written response
- HHR Representatives – Key Informant Interviews
- Mayor of Kindersley – Interview
- Kindersley Physicians – Focus Groups and Key Informant Interviews
- Kindersley Municipal Medical Arts Group / Foundation – Focus Group
- Acute Direct Care Staff – Focus Group
- Community Direct Care Staff – Focus Group
- Community Service Agencies – Focus Group
- Community Engagement Session (25 participants)

The key themes emerging from the consultation process are documented in the next sections of this report under the appropriate headings.

Primary Health Care – Strengths, Challenges and Service Gaps

There was a high degree of convergence with respect to perceived strengths, challenges and priority primary health care service gaps that needed to be addressed.

Primary Health Care – Current Strengths

Stakeholder representatives identified the following as strengths of the current primary health care service in the Kindersley area.

- ***Access to Family Physicians:*** There is currently good access for Kindersley residents to a family doctor. Patients are seen promptly and there are very few unattached residents. For example, community representatives noted that they are able to get an appointment within 24 hours. Physician recruitment efforts have been quite successful. Physicians noted that current workload was reasonable with a 1 in 5 call schedule, and with the planned recruitment of a sixth family physician there should be no unattached patients and their practices should be sustainable from a financial perspective. As local access to PHC services increase and the population continues to grow additional physician resources will be required.

- ***Good Working Relationships****:* Primary health care employees are skilled, dedicated and work well together and with physicians and acute care staff. There is generally positive staff morale among front line staff working in primary care.

- ***Diverse Skill Sets:*** There is a good mix of male and female doctors with a reasonably diverse skill set among the current physician group; although, it was noted that it would be beneficial to have more physicians interested and skilled in doing obstetrics.

- ***Medical Arts Building:*** The new Medical Arts building provides an important part of the infrastructure required to attract and retain physicians to the region. This facility was developed and maintained through a partnership among the municipalities in the Kindersley catchment area.

- ***Extended Clinic Hours:*** The physician group provides some extended clinic hours which reduces the pressure on the Emergency Department.

- ***Specialist Referrals:*** Physicians have reasonable access to specialists outside of the region to whom to refer patients when required**.**

- ***Specific Program Strengths:*** Specific primary health care programs / services identified by stakeholder representatives as working well included:

    - *Nurse Practitioners:* The availability of Nurse Practitioners in Eston and Kerrobert has taken some of the pressure off family physicians.

    - *Home Care Services:* Access to home care services helps reduce hospitalizations rates and lengths of stay.

    - *Specialty Clinics:* Residents have some access to specialty clinics such as the diabetic clinic, joint clinic, etc.

Primary Health Care – Current Weaknesses

The most commonly identified areas where stakeholders felt effectiveness could be improved included the following:

- ***Trust Issues:*** All stakeholders identified a lack of trust among some of the key players (the Health Region, the Foundation, and Clinic owners) as a serious impediment to effective collaboration and progress. A strong ongoing relationship among the Health Region, primary health care service providers, and community leadership is needed to ensure a clear understanding of community needs and what can be reasonably sustained within the primary care model.

- ***Collaborative Planning:*** Most stakeholders noted that better collaborative planning that engages the Heartland Health Region, Saskatchewan Health, the Medical Clinic and other community agencies is required. This could help to establish clear priorities, results to be achieved and related strategic initiatives.

- ***Interdisciplinary primary Care Team Development:*** Increasing efforts to improve continuity and coordination of care by developing and utilizing an interdisciplinary team approach to primary care service delivery was also identified as a priority. This should include increased utilization of Nurse Practitioners.

- ***Women's Health and Obstetrical Services:*** Most stakeholders identified the lack of access to obstetrical services as a major service gap in the women's health program. Given the large population cohort in the child bearing age groups, the number of births in the area, and the availability of adequate hospital infrastructure to run the program, there was strong support for increasing local access to low risk deliveries.

- ***Chronic Disease:*** There is a high chromic disease load in the service area. And while chronic disease prevention and management is a priority for physicians and the Health Region, it was noted that increased investments in this area – resources, educational programs, screening, monitoring, etc. would pay huge dividends in terms of reduced use of acute care facilities and quality of life for patients.

- ***Mental Health:*** Access to mental health services could be improved significantly, particularly crisis intervention and management services, suicide risk assessment, maternal mental health services and addictions services.

- ***Extended Clinic Access:*** Some extended clinic hours / access is provided; however, this access could be increased further to accommodate itinerant workers who cannot access the clinic during the work day. This would further improve utilization of the Emergency Department.

- ***Pediatric Services:*** Access to Pediatric Services is very limited. Areas of concern identified included therapy services (Occupational Therapy, Physical Therapy and Speech Language Pathology services) and children's mental health.

- ***Clinic Operating Deficit:*** The Medical Arts Clinic was developed to accommodate 13 physicians. The current complement of 5 physicians and the sublease arrangements do not generate adequate revenues to cover the operating costs of the facility. This results in the need for the nine participating municipalities to subsidize the operation. There is strong interest on the part of the municipalities to utilize the facility fully with a view to at least cover operating costs.

- ***Other Issues and Concerns:*** Other less frequently noted areas of concern included:

    - Health education could be enhanced;

    - Increased focus is required on disease and injury prevention;

    - There is a need to ensure health care staff have access to the training and support they need to maintain their professional skills;

- Increased public awareness is required regarding the scope of primary health care services available in the Kindersley area;
- Access to surgical services could be improved;
- A fee schedule for physicians is required that would allow a primary health care centre model to operated effectively using collaborative interdisciplinary teams that included Nurse practitioners;
- Improved coordinating between acute and community health care services is required;
- A medical social work support resources is required;
- Increased access to some diagnostic imaging modalities was identified by some as a priority: e.g.: CT and MRI; and,
- An EHR / EMR to support effective data sharing and service coordination is lacking.

Highest Priority Primary Health Care Service Gaps / Priorities

Study participants identified the following as the most significant primary care service gaps / priorities within the Kindersley catchment area:

- ***Women's Health and Obstetrical Services****:* Better access to obstetrical services for the Kindersley area is required and delivered within the context for a more comprehensive women's health program.
- ***Sustainable Family Physician Services***: There is a need to ensure the sustainability of family physician services including effective succession planning.
- ***Mental Health Services:*** Improved mental health services are required; i.e.: a mental health counsellor to provide on call crisis management services should be a priority.
- ***Chronic Disease Prevention and Management:*** Chronic disease prevention and management needs to continue to be a major focus; investment in this area will yield good results in terms of quality of life, prevention and more effective use of scarce resources.
- ***Therapy Services****:* Improved access to supporting therapy services is required – physiotherapy, occupational therapy and speech language pathology.

Barriers to PHC Access

Study participants identified the following as the most significant barriers to accessing PHC services in the Kindersley area:

- Lack of a common vision and plan for primary health care services for the Kindersley area.
- Challenges attracting and retaining the required physicians and other health care professionals with the expertise to offer the required services: e.g.: physicians with skills to support obstetrics: C-section backup, therapists, EMS staff, mental health expertise, and pediatrics expertise.
- The large geographic service area increases the need to travel to access services.
- Recruitment challenges as a result of inability to access suitable and affordable housing.(It was noted that a new subdivision is currently under construction and 12 new units will be ready for occupation prior to Christmas which should help to relive some of the housing pressure.)
- Challenges retaining health care professionals as a result of quality of community life limitations impacting their families.
- Limited hours of access and need for extended clinic hours.
- Limited public knowledge about what services are available and how to access these services.

Vision for Primary Care

Study participants identified the following as key elements of their vision or "preferred future" for primary health care service delivery in the Kindersley area:

- **Patient-Centred Services:** Patients and their families are at the centre of primary health care services.
- **Evidence-based:** Programs and services are based on demonstrated community needs.
- **Service Continuity:** A continuum of services is provided for people throughout the life cycle. This is supported by a "one-stop" navigation service that enables people to see the "right service provider at the right time at the right location".
- **PHC Centre:** A "PHC / Wellness Centre" facilitates access to primary health care services 7 days / week with extended access hours for a variety of services including "regular" physician services, NP services, therapies, as well as alternate care services.
- **Collaborative Interdisciplinary Teams:** Effective use is made of collaborative interdisciplinary teams working to their full scope of practice to support service delivery.
- **Human Resource Expertise:** An adequate complement of appropriately skilled physicians and other health workers are in place to support effective program / service delivery. Clear

succession planning structures for physicians and other key primary health care personnel ensure ongoing sustainability.

- **Sustainable Physician Practices:** The physician complement is matched appropriately to demand for services to ensure practices are sustainable from a workload and financial perspective. The compensation model accommodates both fee for service and alternate payment plans for physicians.

- **Collaborative Service Planning:** A collaborative planning process is used that engages physicians, front-line staff, management and other health care stakeholders in setting primary health care services priorities.

- **Information Systems:** An EMR / EHR information system supports primary care delivery and integration with other parts of the system.

- **Public Awareness:** The public understands what primary health care is and are knowledgeable about the services available and where to best access these services.

- **Performance Measures:** The effectiveness of primary health care services are monitored against established performance metrics with the results used to continuously improve service quality and effectiveness.

Primary Health Care (PHC) Service Planning

Current State

The HHR has organized the delivery of primary health care services around four primary health care service areas including:

- Rosetown Service Area which includes Rosetown, Biggar, Elrose and Kyle;
- Outlook Service Area which includes Outlook, Beechy, Davidson, Dinsmore and Lucky Lake;
- Kindersley Service Area which includes Kindersley, Eston and Eatonia; and
- Unity Service Area which includes Unity, Kerrobert, Macklin and Wilkie.

A detailed map of the primary health service areas is included in Appendix F.

Many participants had limited knowledge about the current processes used to establish PHC service priorities for the Kindersley area. Most noted they were not aware of the existence of a formal written plan for the delivery of PHC services in the Kindersley catchment area. Other observations and comments relating to the planning process included:

- There is very limited engagement and collaboration among the key stakeholders.

- There is a lack of trust among key players resulting in a lack of commitment to action.

- Clarity is lacking regarding who had accountability to resolve issues or make decisions.

- The roles and responsibilities of the Foundation, the Health Authority, the physicians and the Medical Arts clinic management are not clear (for example, lack of clarity regarding who is accountable for ensuring physicians with the required skill sets are recruited, and issues relating to understanding and acceptance of the legitimate authority of the HHR).

Suggested Enhancements

Study participants identified the following as potential enhancements to the PHC service planning process:

- Ensure that there is a clearly defined PHC Service planning process in place and that this is communicated to key stakeholders and the community.

- Increase the level of involvement of family physicians and front line staff in the PHC service planning process.

- Ensure that physician recruitment is a key component of the PHC service planning process and target recruitment of physicians to ensure the skills required to better support obstetrical services.

- Ensure the plan is aligned with the Provincial PH Policy Framework.

- Ensure the plan is informed by evidence, i.e.: high quality data regarding demographic trends, service utilization levels, population health status, impacts of shadow population, and other unique community needs.

- Engage business and industry partners, particularly oil based companies that have staff in the Kindersley area.

- Consolidate some services to create adequate volumes of activity to be able to offer the service safely and cost effectively, i.e.: service hubs for lower volume services.

- Include a strong focus on health education and injury and disease prevention.

- Apply LEAN principles to streamline work processes and improve operational efficiency.

- Establish clear priorities, strategies and performance measures.

Recommended PHC Service Planning Principles

Session participants suggested the following planning principles be used to inform primary care program/service decisions:

- Patients and families will be at the centre of accessible, appropriate and seamlessly delivered primary health care services.
- Appropriate access to safe, quality programs and services that are responsive to demonstrated and projected community needs will be a fundamental consideration.
- Services will be integrated and coordinated across disciplines and sectors.
- Primary Health Care Services will be aligned with the provincial PHC Framework.
- Programs will be planned and implemented with due regard to sustainability and feasibility with regard to program / service quality, required human resources, economic impacts and service demand.
- An adequate critical mass of activity must be maintained to deliver the service safely, effectively and efficiently.
- Removal of barriers to effective and efficient service delivery will be a high priority.
- Consideration will be given to best practice research and innovative or alternate service delivery models, including partnerships with other regions and agencies.
- The program must be supported by adequate human resources and the required program delivery infrastructure.
- Services will be provided at the right time, place and by the right service provider.
- Program performance will be monitored against established performance measures and relevant benchmarks and include feedback from residents and key stakeholders.

Innovative PHC Models

Study participants identified a range of innovative practices and models with potential to enhance PHC services including:

- Establish interdisciplinary teams working to their full scope of practice.
- Enhance outreach programs to improve access.
- Implement remote monitoring technology for chronic disease patients.
- Provide effective incentives to attract and retain staff.
- Study and learn from PHC service delivery models in rural / remote BC, NWT, and existing Saskatchewan models.
- Adopt the Meadow Lake primary health care centre model.

- Expand educational rounds.

Performance Measures

The Health Region collects and tracks data on service PHC service utilization levels and population health status which provides some insights into the effectiveness of PHC services. Some of this data is summarized earlier in this report.
Study participants were asked to identify what they felt would be useful metrics to monitor the success of PHC services in the catchment area. Suggested performance measures included:

- Tracking the number of unattached patients over time, i.e.: patients without a family physician.
- Wait times for PHC services.
- Evidence of monitoring and follow-up with patients with chronic diseases, such as diabetes, COPD, cardiovascular health, etc.
- Tracking utilization patterns such as CTAS 4s and 5s at the Emergency department and after hour clinic utilization levels.
- Levels of patient satisfaction with access to and quality of services.
- Levels of staff satisfaction with working environment, including ability to meet the needs of residents.
- Patient feedback or experience interview / surveys.
- Patterns of care seeking data.
- Levels of chronic disease and admissions for ambulatory care sensitive conditions.
- Physicians providing comprehensive care.
- Recruitment and retention of physicians and other health care professionals.
- Population health status data tracked longitudinally.
- Caseloads of health care professionals.

Health Care Professionals - Recruitment and Retention

Kindersley, like many rural areas of the province has challenges attracting and retaining the family physicians, specialists and other health care service providers they need.

Historically, the primary responsibility for family physician recruitment has rested with the physician group supported by the Health Foundation and the municipalities. The construction of the new Medical Arts Building, which provides the infrastructure physicians require to easily set up a practice, has been a major asset in supporting physician recruitment. Efforts on the part of the physician group supported by the Foundation and the community have resulted in a current physician group of five with plans to recruit one additional physician for Kindersley.

While residents currently do have reasonable access to family physicians, ensuring retention and sustainability is an ongoing challenge. In addition, ensuring the physicians that are recruited have the requisite skills to be able to support PHC service priorities (for example, obstetrics) is difficult in the absence of a coordinated physician recruitment strategy that includes the Health Region and the physician group supported by the community.

Similar recruitment challenges exist across the spectrum of primary health care professionals, with mental health professionals, nurse practitioners, and physiotherapists, being identified as particularly difficult to recruit.

Suggestions from stakeholder representatives was sought on how to improve the ability to attract and retain the complement of physicians and other health care workers required to meet the needs of area residents. Key observations and suggestions included:

- To attract and retain physicians and other health care professionals the community needs to do a lot more – housing shortages and quality of community life issues for families need to be addressed; family supports are really important; e.g., social needs, facilities and programs to support active lifestyles and cultural interests. Family will always force you to move if the community services are not there.

- A more coordinated approach to physician recruitment that involves the Health Region, the physician group and a range of community resources is required. There needs to be a formal recruitment plan for physicians and allied staff with recruitment targets matched to PHC service plan priorities.

- Do a better job of identifying the skills that are needed given the population demographics; and be more intentional about going after those skills.

- Clear recruitment priorities need to be established based upon demonstrated needs and PHC service priorities. Specific priorities for recruitment identified included: physicians that can provide anesthesiology and general surgery services to support C-Sections; a medical social worker; nurse practitioners; physical therapist; and mental health crisis worker(s).

- During the recruitment process individuals need to be honest about what Kindersley can provide and what living in the community is like. Physicians and other health care professionals often leave the community because their families are not happy with the quality of life and amenities. There is a tendency to over promise during the recruitment process and then under deliver.

- Ensure the recruitment efforts focus on the both the prospective employees as well as what their families need to find it attractive to live in the community.

- Physicians are looking for an interesting scope of practice; reasonable workloads with good supports from other disciplines; and a sustainable financial model. The Meadow Lake Model may work well in Kindersley. (Note: Attachment G provides a brief overview of the Meadow Lake PHC Model for information.)

- The lack of quality affordable housing is a major issue that impedes recruitment and retention.

- Critical factors in physician retention are family supports and services, financial rewards, quality of family life, job satisfaction; scope of practice.

Summary of Major Findings and Conclusions

- **Economic Context:** Kindersley is located in a resource rich province. The oil and gas industry provides a low unemployment rate and pulls a young labour force into the area. The median age in Kindersley is 37.4 versus 38.2 in the province and 40.6 in Canada. Median household total income is $60,873. However, infrastructure in the area has not kept pace with recent growth and housing conditions have become a concern; therefore, residential construction is projected to be on the rise in coming years.

- **Population Projections:** The Town of Kindersley is projected to grow substantially over the next couple of decades, with a population of approximately 7,679 by the year 2037. The fluctuation of the population growth in the past, due to job availability and mobility as well as migration, provides diverse challenges for maintaining sustainable primary health care services.

- **Kindersley Catchment Area:** The Kindersley primary health care system does not only serve the town, but a larger catchment area. Using a one hour diving radius as a starting point, the Kindersley catchment area includes 22 communities and is estimated at 11,097. In addition, a shadow population of people who work, but do not live in the area must also be incorporated. In order to determine the size of the shadow population, emergency department visits were analyzed. As 10% of ED visits were from patients outside of the HHR, this percentage was used to calculate the shadow population; therefore, the total catchment area is 12,207.

- **Demographics:** Key demographic characteristics of the Kindersley catchment area include:

  - A greater percentage of the population is over 65 years of age compared to the province.

  - The median age is 40.78 (versus 38.2 in Saskatchewan).

- The town of Kindersley is younger than the catchment area with more residents between the ages of 25-29. The catchment area also has a greater percentage of people aged 60 years and over.

- In the Kindersley catchment area, 41% of the population aged 15 and over have a post-secondary certificate, diploma or degree, compared to 47% in Saskatchewan.

- The Aboriginal population in the Kindersley catchment area is significantly less than the province, 2% compared to 16%.

- There is a relatively large Hutterite population in the HHR.

- The Kindersley region also demonstrates a lower percent of new Canadians compared to the province (2% versus 7%).

- Mobility in the Town of Kindersley is higher than the catchment area and Saskatchewan regarding place of residence (43% versus 35% and 39% respectively).

- **Health Indicators:** In terms or health indicators, the main reason patients are admitted to the Kindersley hospital is for medical, not surgical reasons. The majority of these patients are over the age of 50, which reflects the demographics in the catchment area. Deliveries are also included in the top ten CMGs which reflect the needs for women and children's health services. When looking at day surgeries specifically, the majority are endoscopies. In addition, depression is one of the top ten reasons patients are admitted. These factors indicate that more primary health care services are needed in terms of diagnosing patients and investigating symptoms. Furthermore, over 50% of the emergency department visits are categorized as less urgent and non-urgent, which indicates a need for more education around and services related to primary health care.

- **Community Characteristics:** Economic, demographic and utilization data that have potential positive and negative implications for PHC services and population health are detailed in the below chart.

Positive	Negative
▪ Strong robust economy ▪ Low unemployment rates ▪ Robust population growth ▪ Young and affluent population ▪ High self-assessed(perceived) health rates	▪ Lower post-secondary education levels ▪ Fewer people describe themselves as being active or moderately active in their leisure time than in the province or country ▪ Higher incidences of smoking and heavy drinking ▪ Obesity, arthritis and high blood pressure are more dominant

Positive	Negative
▪ Health promotion and education opportunities provided in the community ▪ High levels of influenza immunization compared to provincial averages ▪ Levels of fruit and vegetable consumption is on the rise after a drop in 2011	▪ The number of deaths per 100,000 population is higher for almost all causes of death ▪ Lung cancer is particularly widespread ▪ Medical and surgical readmission rates are higher in the HHR than Saskatchewan and Canada** ▪ Less residents report having a regular medical doctor ▪ Large percent of CTAS 4-5 presenting in the ED

*** Surgical readmission rates include clients admitted back to the HHR post-operative for convalescent care from tertiary settings.*

- **Access to Family Physicians:** Currently, in the Kindersley primary care catchment area there are 6 FTE family physicians (5 in Kindersley and 1 in Kerrobert) providing services for a population of 12,207. Once the two planned additional physicians are recruited for Kindersley and Eston, there will be a total of 8 family physicians serving the Kindersley primary care catchment area. In addition, two nurse practitioners, one in Kerrobert and one in Eston, support primary care service delivery. This will represent a physician to resident ratio of about 1 to 1526 which is quite close to the standard 1500 residents per family physician for a physician centric model. It is important to note that the use of nurse practitioners and a collaborative PHC interdisciplinary team approach helps to increase the capacity and sustainability of PHC services.

- **Medical Arts Building:** The Medical Arts Building provides an important part of the infrastructure required to attract and retain physicians to the Region. It also has the capacity to support co-location of other primary health care service providers on the site which would help facilitate the collaborative interdisciplinary team practice model.

- **Relationship Building:** Effective planning and delivery of PHC services has been impacted negatively by a lack of trust among some of the key stakeholders – the HHR, the Health Foundation, The Medical Arts Building Management and other community leaders. Efforts are required to effectively engage key stakeholders in setting a clear vision, mandate and service priorities for PHC as a foundation upon which to build the required cooperation, trust and mutual support necessary for the provision of accessible quality services.

- **Service Enhancement Priorities:** The highest priority areas for PHC service improvements identified by stakeholders were: Women's Health and Obstetrical Services; Mental Health and Addictions Services; Day Surgery and Surgical services required to support Obstetrics; Chronic Disease Prevention and Management; Therapies (PT, OT and SP).

- **PHC Service Plan:** There does not appear to be a clearly articulated service plan for the delivery of PHC in the Kindersley catchment area. Implementing a collaborative planning

process that appropriately engages key stakeholders could be an effective vehicle for building commitment and support for a shared vision, mandate, priorities, service delivery model and accountability framework.

- **Collaborative Interdisciplinary Teams:** The development and use of collaborative interdisciplinary PHC teams is strongly supported by the Ministry, the literature and key stakeholders. This should be a priority for the region.

- **Human Resources:** Similar to most rural areas in the country, the HHR experiences significant challenges recruiting physicians and other health care professionals. Comprehensive targeted recruitment and strategies are required that engage physicians, the HHR, the municipalities and the community.

- **Communications and Public Awareness:** Transparent, timely messages need to be delivered to the community regarding PHC services available, key roles and responsibilities for service delivery, PHC mandate and services provided, priorities, and progress being made on key PHC service initiatives.

Recommendations and Implementation Considerations

1. **Primary Health Care Service Plan:** The HHR should lead the development of a comprehensive Primary Health Services Plan that builds on the work completed in the PHC Services Assessment Project. The planning process should effectively engage key stakeholders and be designed to reach agreement on a Primary Health Care vision, service mandate, service priorities, results to be achieved, related strategies, service delivery mechanisms and performance measures.

   To support the planning process, the HHR should establish a PHC Services planning team with representation from HHR management and staff, the physician group, the Medical Arts Building Management, community leaders, and other key stakeholders. The planning team would function in an advisory capacity to the CEO and Board of the HHR.

   The planning team would be responsible for working with the Project Manager to develop and recommend the key elements of the proposed PHC Service Plan. These key elements would include:

   1.1 PHC Vision and PHC Framework: Build upon the input received during the PHC Needs Assessment study to establish a shared vision, service mandate, delivery model, and accountability framework for comprehensive primary health care for Kindersley and area.

   Comments: There was general agreement among all stakeholders participating in the study that the primary health care vision and service delivery model should be informed by the following key principles:

   - ***Family / Patient Centred*:** Patients and families should be viewed as essential allies and treated as true partners at the centre of accessible, appropriate and seamlessly delivered primary health care services. This relates both to affirming a vision for primary care and participation in health management and service delivery.

   - ***Collaborative Interdisciplinary Teams:*** Family physicians and other health care workers should function as collaborative interdisciplinary teams working to their full scope of practices to deliver accessible comprehensive primary care services.

   - ***Key Linkages:*** The PHC program must be effectively linked to the acute care system, emergency department, specialist / itinerant physicians, the continuing care program, diagnostic services and other community-based primary health care service providers. In addition, effective linkages with municipal programs, community agencies, educational institutions and the business community are essential.

   - ***Community Engagement:*** Much as patients and their families need to be engaged in developing the planning process, community engagement is essential to building trust

and the relationships required to successfully develop, implement, sustain and evaluate primary health services in the Kindersley catchment area.

- ***Optimization of Physician Resources*:** Physicians should be seeing patients with higher acuity needs and using other members of the multidisciplinary team to effectively triage and manage the larger caseloads. The effective use of Nurse Practitioners can take pressure off physicians and help improve access to services for residents.

- ***Co-location / Coordination of Services:*** Co-location / coordination of a larger range of primary health professionals and services should be a priority. This will improve interdisciplinary collaboration, continuity of care and access to services.

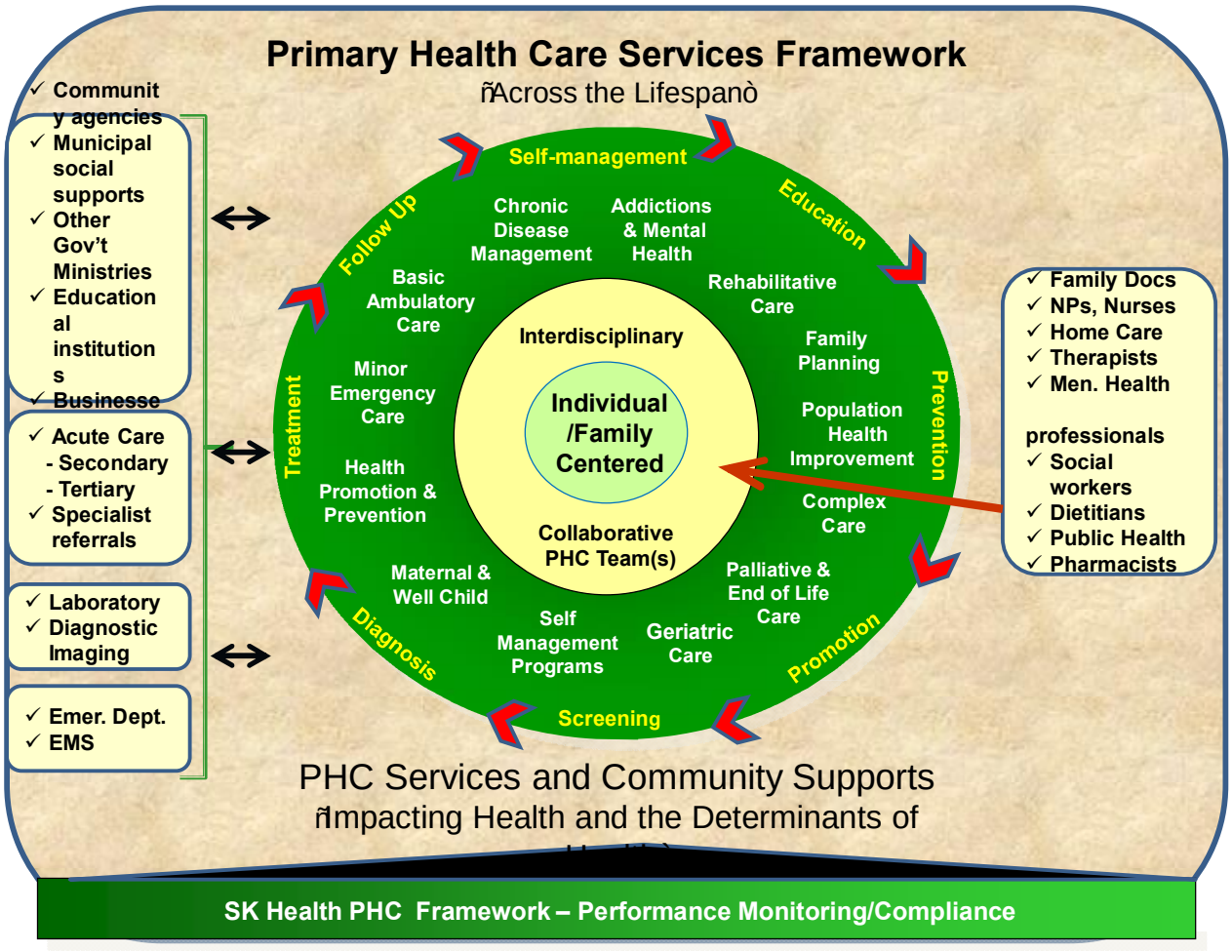
- ***Leadership:*** Leadership, planning and accountability structures and mechanisms should facilitate effective engagement of physicians and other key stakeholders.

- ***Data Management:*** Effective systems should be in place to manage and share data required to support high quality patient care (e.g.: electronic charting, electronic health records, data sharing protocols, etc.).

- ***Measuring Results***: The PHC vision, mandate and service delivery plan must be aligned with the provincial PHC Framework and include specific metrics that are to be used to track and evaluate results achieved.

The vision development process should build upon this initial agreement to create ownership for a shared vision, mandate and model, which will be an important part of the foundation for the PHC Service Plan.

The PHC Services Framework on the following page was developed by the consultants, based upon a review of best practices and input from study participants, to help initiate the process. The framework positons patients and families at the centre of care supported by a collaborative interdisciplinary team, comprising health professionals with diverse skill sets. The green circle depicts the range of primary health care services considered to be part of comprehensive primary health care. The red arrows reference the key steps in the primary health care delivery cycle: screening, diagnosis, treatment, follow-up, self-management, education, prevention and promotion. The boxes to the left emphasize the key linkages to other health services and community supports impacting health and the determinants of health, and the base of the diagram depicts the fact that the model is driven by Saskatchewan Health's PHC Framework and related performance expectations.



1.2 Establish Operating Principles: Reach agreement on fundamental operating principles that are to set the parameters for the development and ongoing implementation of the PHC Service Plan. While these would be finalized by the Planning Team they could include the following types of parameters:

- The importance of a strong partnership among family physicians, the HHR and other community stakeholders is recognized as critical to providing effective primary health care services for our residents.
- The respective contributions that various disciplines make to the provision of quality primary health care services are recognized and respected.
- Decision-making is transparent, collaborative and evidence-based.
- Members / partners demonstrate mutual respect and high degrees of professionalism.
- Roles and responsibilities, and accountabilities are clearly articulated, understood and accepted.

- Ongoing transparent communications are essential to continued successful relationship building between physicians, HHR, local government and Saskatchewan Health.

- Partners recognize the importance of balancing individual / organizational interests with common interests.

Comments: Establishing clear operating principles helps to clarify working relationships and expectations, and helps create a transparent environment where trust can be developed and maintained. This is particularly important given issues and concerns raised by stakeholders during the study process.

1.3 Provincial PHC Directions: Review Saskatchewan Health's PHC Framework to ensure HHR / Kindersley PHC priorities are aligned with the provincial strategic directions. The key strategic goals of the provincial plan are:

- Everyone in Saskatchewan – regardless of location, ethnicity, or 'underserved' status, has an identifiable primary health care team they can access in a convenient and timely fashion.

- A model of patient and family-centred care has been implemented to achieve the best possible patient and family experience.

- The primary health care system has contributed to achieving an exceptionally healthy population with individuals supported and empowered to take responsibility for their own good health.

- We are achieving reliable, predictable and sustainable delivery of primary health care.

1.4 Establish Strategic Priorities / Goals: Establish PHC Strategic Priorities / Goals for the Kindersley catchment area. Utilize the provincial strategic directions reference above and the results from the PHC Needs Assessment to help inform the development of the strategic priorities / goals that will become the pillars on which the PHC Service Plan is built.

Comments: While the strategic goals would be developed by the Planning Team, based upon provincial strategic directions and results from the Needs Assessment Study, potential PHC strategic priorities / goals could include:

- **Accessible Sustainable PHC Services:** Ensure the long-term sustainability of primary health care service delivery in the Kindersley catchment area: e.g.: physician and other health care professionals' recruitment and retention; access to required expertise; adequate volumes to support delivery; the right service delivery model; etc.

- **PHC Interdisciplinary Teams:** Facilitate the greater use of collaborative interdisciplinary teams to provide comprehensive primary health care including development of the Primary Health Care centre concept.

    - Interdisciplinary PHC teams should be dynamic rather than static. Teams change and evolve to meet the needs of patients/clients in different environments. Primary health care teams may comprise combinations of family physicians, nurse practitioners, case coordinators, home care and public health nurses, mental health professionals, nutritionists, social workers and other health care professionals as appropriate. Co-locating team members in a primary health care centre helps facilitate collaboration and continuity of care.

- **Health Promotion:** Improve population health through increased focus on health promotion, and disease and injury prevention.

- **Priority Service Enhancements:** Enhance PHC services in selected high priority areas, specifically:

    - *Women's Health:* Enhance obstetrical services within the context of the full spectrum of Women's Health services.

    - *Mental Health and Addictions:* Improve access to mental health and addictions services, including crisis management and children's services.

    - *Therapies:* Improve access to physiotherapy, occupational therapy and speech pathology services.

    - *Chronic Disease Management*: Improve care of medically complex patients and patients with chronic disease.

    - *Day Surgery / C-section:* Maintain day surgery capacity and build capacity to do elective and emergency C-sections to support obstetrics. (Note: See recommendation #2 following for more details.)

- **Service Coordination**: Improve coordination of PHC services with community support services and other health care services including emergency department, secondary and tertiary acute and long-term care.

1.5 Key Results, Strategies and Performance Measures: For each of the strategic priorities / goals reach agreement on key results to be achieved, performance measures and strategies.

1.6 Finalize Plan: Finalize the plan, obtain required approvals, allocate supporting resources and establish implementation timelines and accountabilities.

2. **Priority Service Enhancements:** Make targeted investments in selected high priority service areas. Referenced in the comments section of recommendation#1 above are a number of specific programs / service areas that should be considered for targeted investments. Investment in these areas is supported by both the stakeholder input and analysis of demographic and utilization data.

   2.1 Women's Health: Invest in obstetrical services as part of a comprehensive Women's Health Program. Given the population demographics of Kindersley and area, it is evident that a case exists to re-establish a low-risk obstetrics service at the Kindersley Union Hospital. Facility condition was not determined to be a barrier in this regard, but efforts would have to be made to recruit appropriate health personnel or retrain existing staff to support a service. This would be anticipated to ultimately include an ability to perform both elective and emergency C-sections.

   2.2 Mental Health and Addiction Services: A broader array of mental health and addiction services is warranted given both the population demographics and distance to other required services (e.g.: transfer to Saskatoon). In particular, greater access or availability to perform crisis intervention, support and children's mental health services is supported based on current levels of demand / need, population demographics and disease burden.

   2.3 Therapies: Therapy services (e.g.: physiotherapy, occupational therapy, speech language pathology, and pharmacy) all are challenged to greater or lesser degrees by lack of overall capacity relating to often being one-staff or low-staffed departments. Considering a broader perspective for the Kindersley catchment areas (versus Kindersley alone) consideration should be given as to how to establish and maintain a steady and predictable level of services that promotes effective and consistent delivery of primary health care and chronic disease management services.

   2.4 Day Surgery and Surgical Services Required to Support Obstetrics: Surgical capacity to do C-sections is required to be able to deliver the proposed enhanced obstetrical services. In addition, the stabilization of low-risk surgery, day surgery and endoscopy improves the ability to recruit and sustain primary care physicians and other practitioners. Facility condition is not viewed as a barrier to the provision of these services. Rather investments in hospital staff skill development and appropriate recruitment efforts are the primary means of sustaining local programming of this nature.

   2.5 Chronic Disease Prevention and Management: Investments in chronic disease prevention and management offer great potential to reduce the disease burden in the region, improve the quality of health for patients, and reduce costs to the health care system. This is recognized by all stakeholders as a priority area.

3. **Establish and Affirm Governance, Decision-Making, and Accountability Structures:** The seamless delivery of primary health care services will require clarification of roles and responsibilities of PHC service delivery partners in the Kindersley catchment area. It will be important to reach agreement on the governance, decision-making and accountability

strucutres in respect of primary health service delivery that respects the legitimate authorities and accountabilities of each of the partner organizations.

It will also be important to establish mechanisms and processes to: annually update the service delivery plan for primary health services; ensure ongoing effective communications; support collaborative decsion-making; surface and resolve emerging issues and challenges; and, monitor and evaluate results being achieved.

4. **Review Physician Compensation Model(s):** Supported by engaegment of Kindersley and area physicians, review existing fee-for-service and alternate payment (FFS/APP) physician compensation models and provide recommendations on the direction for compensation that supports patient/family centred care and a collaborative interdisciplinary team approach to service delivery. Initial input received from family physicians during the study suggests they have a stong preference for flexibility in payment systems or opportunities. Most notably, they would support a payment system that could see fee-for-service and alternate payment plans co-exist dependent on physician preference. Regardless of system or systems used to compensate physicians, it is clear that appropriate incentives need to be agreed upon that would promote the fundamental principles identified in Recommendation #1. Most notably, any compensation system must promote patient / family centred care and a collaborative interdisciplinary team approach to service delivery.

5. **Human Resources Recruitment / Retention Strategy:** Develop and implement a human resources strategy designed to enhance the region's ability to attract and retain family physicians and other health care professionals required to deliver PHC services. The recruitment strategy should include the following key elements:

   5.1 Establish Recruitment Targets: Based on the current population and utilization data there is a strong case for recruiting three additional family physicians for the Kindersley catchment area. The number of physicians required could be reduced somewhat with the effective utilization of a collaborative interdisciplinary team that includes Nurse Practitioners, nursing staff and other allied health professionals. Recruitment targets should be reviewed and adjusted annually to take into account increasing service demands and succession planning.

   Recruitment targets for other allied professionals include adding capacity in the therapies, mental health and addictions and, social worker support.

   5.2 HHR and Community Engagement: The Health Region and the community need to create an environment that attracts and retains physicians and other health care professionals. The HHR, The Health Foundation, and municipal government partners should work in partnership with physicians to support physician recruitment and retention efforts. This could include:

   - Confirming physician skill sets required to service community health needs and ensuring recruitment efforts are targeted appropriately.

- Confirming the physician practice model, expectations and compensation systems.
- Developing and providing incentives to attract and retain physicians and other allied professionals.
- Making physicians, other health care professionals and their families feel welcome and valued in the community.
- Providing supporting infrastructure (e.g.: systems, relationships, and practices) to support collaborative interdisciplinary team practice.
- Increasing and supporting opportunities for families of physicians and health care practitioners to be productively engaged in the community.

5.3 Establish a Clear Physician Recruitment Process: Ensure the physician recruitment process and the roles and responsibilities of various partners are clearly articulated and consistent with College of Physicians and Surgeons of Saskatchewan requirements, Saskdocs' processes, and Saskatchewan International Physicians Practice Assessment (SIPPA) criteria for international candidates. The process should include:

- Establish clear leadership accountability for the physician recruitment process. This could include appointing a physician recruiter accountable for coordinating the process and the efforts of the key players (physicians, private clinics, HHR medical leadership, the municipality, the Health Foundation, etc.).
- Confirm the need and the skills required to support PHC services and PHC Plan priorities.
- Develop recruiting packages, including incentives based on an understanding of the key variables that impact ability to recruit physicians.
- Source potential candidates utilizing a variety of mechanisms including current physician and HHR networks.
- Conduct initial discussions with potential candidates.
- Determine the candidate's eligibility to practice in Saskatchewan.
- Obtain work permits for foreign candidates.
- Complete College of Physicians and Surgeons assessments.
- Offer the position and complete contract negotiations;
- Implement the recommended physician on-boarding strategy.

- Implement the family on-boarding strategy.

- Implement a retention strategy that includes:
  - Periodic and regular follow-up with all primary care physicians to identify and address emerging issues and concern in a timely and constructive fashion;

  - Public and community recognition of physicians for long service; and

  - Use of exit interviews with any physician leaving to understand the reasons and mitigate problems going forward.

Note: The recommended key steps in the physician recruitment process are detailed in the attached Physician Recruitment Flow Chart in Appendix H. A recommended Physician On-boarding process is also included in Appendix H.

6. **Performance Measurement and Evaluation**: Develop and implement formal measures and mechanisms to evaluate the success of the primary health services delivery model in Kindersley and area.

   Comment: There is a need to identify, agree upon and report on a range of qualitative and quantitiave measures of the performance of the primary health service delivery system. A robust set of measures, reported upon in a transparent and regular manner, will enhance confidence in both service delivery and with / between partners responsible for service delivery.

   A performance measurement and evaluation system should be aligned with the performance measures mandated by the Saskatchewan Health PHC Framework and include:

   - Agreed upon performance metrics that address areas of quality, access, satisfaction (e.g.: patient, family, and practitioners), and volume metrics.

   - Broad population health measures as well as the individual pateint care experience.

   - Regular results reporting to key stakeholders and the public to promote accountability, transparency and confidence in the primary heatlh services delivery system.

7. **Stakeholder Engagement and Communications:** Develop and implement mechanisms and processes to effectively engage key internal and external stakeholders and maintain good communications with them.

   Comment: There is a need for an ogoing and sustainable commitment to transparent, timely and high quality communications with key internal and external stakeholder groups, incuding: physicians, HHR employees, the municipalities, the business community, Saskatchewan Health, and the community at large (i.e.: Kindersley catchment area).

Emphasis needs to be placed on a two-way flow of information. In addtion to informing stakeholders and residents about strategic initatives, there needs to be opportunities to listen to their concerns and meaningfully engage them in setting strategic directions.

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Appendix A: Primary Care Catchment Area Methodology

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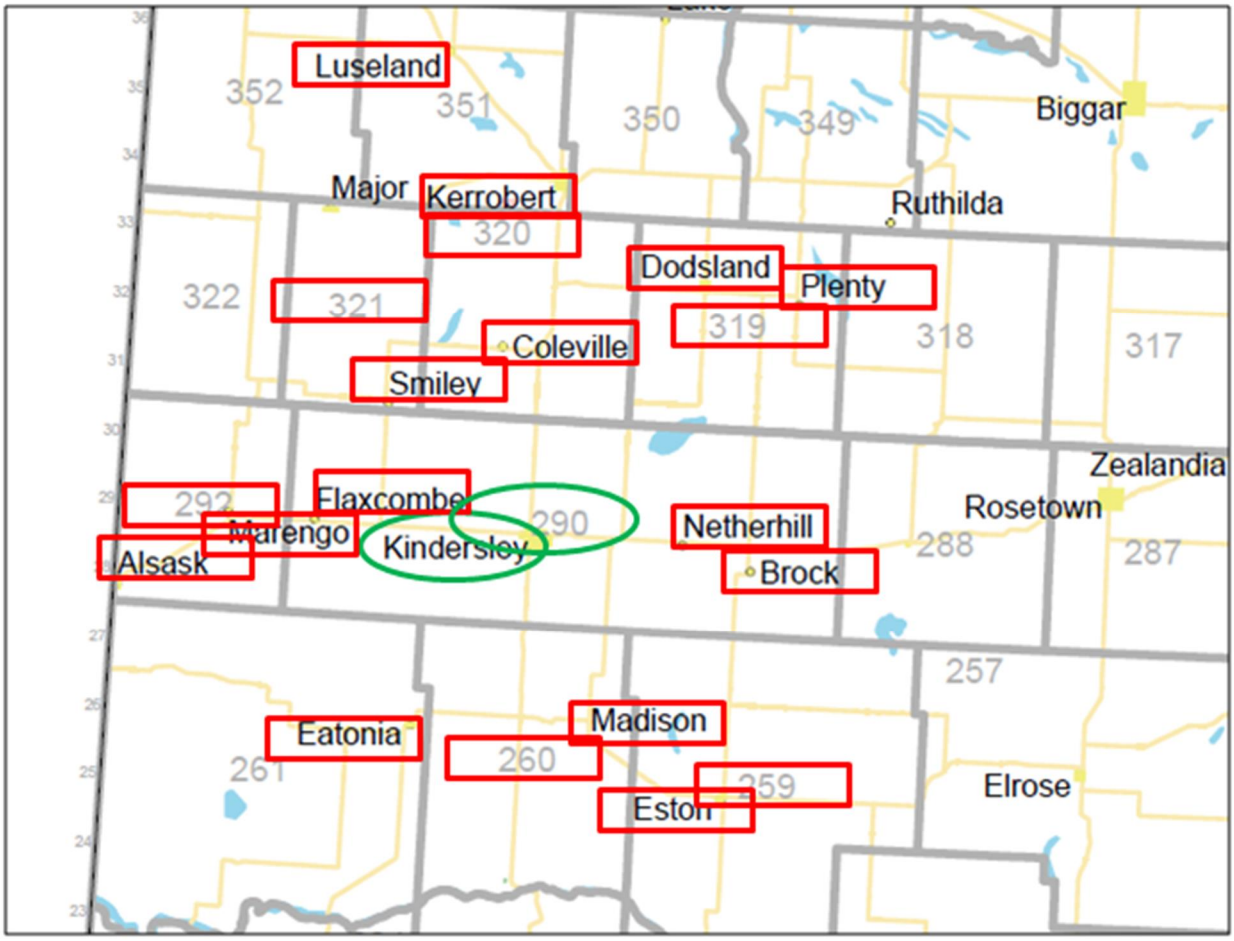


The catchment area includes the following areas:

Area	2013 Population	% Catchment Area	Catchment Area Population	Assumptions
Alsask	n/a	100%	n/a	Dissolved into the rural municipality of Milton in 2010
Brock	216	85%	183.6	May seek services in Rosetown due to proximity.
Coleville	388	100%	388	
Dodsland	371	60%	222.6	May seek services in the Unity Primary Health Service Area.
Eston	755	65%	490.75	PHSs are available in the area.
Eatonia	1,302	60%	781.2	PHSs are available in the area.
Flaxcombe	193	100%	193	

Area	2013 Population	% Catchment Area	Catchment Area Population	Assumptions
Kerrobert	1309	80%	1047.2	May seek services in the Unity Primary Health Service Area.
Kindersley RM		100%		
Kindersley Town		100%		
Luseland	774	85%	657.9	Will seek services in Kerrobert as well as northern health service areas due to proximity.
Madison	16	100%	16	
Marengo	112	100%	112	
Milton	249	100%	249	
Netherhill	41	100%	41	
Newcombe	120	100%	120	
Oakdale	86	100%	86	
Plenty	262	60%	157.2	Similar to Dodsland.
Prairedale	75	100%	75	
Smiley	180	100%	180	
Snipe Lake	221	65%	143.65	Similar patterns to Eston and Eatonia.
Winslow	124	100%	124	
Total	**12623**		**11097.1**	

In order to determine the catchment area, a 1 hour driving buffer was used as a starting point to guide development of the catchment area. There are Health Centres in Biggar, Outlook, Rosetown, Davidson, Unity and Wilkie; therefore they were excluded from the Kindersley primary care catchment area.

Other assumptions include:

- Leader has the Leader Union Hospital or would seek treatment in Medicine Hat.
- Oyen was removed from Primary Care area as they have family physicians.
  - Big Country Health Centre in Oyen.
- Cereal was excluded due to Cereal District Health Services.
- Chesterfield No. 261 is also closer to Eatonia and beyond the one hour buffer; therefore excluded.
- Mantonia is closer to Eatonia and therefore excluded.

- Newcombe No. 260 was included in Kindersley because it is right in between Eston and Kindersley. Newcombe is the corresponding census data for Glidden.

- Pleasant Valley No. 288 was excluded as they would seek treatment in Rosetown.

- The following would seek treatment in Oyen for primary care and was therefore excluded from the Kindersley catchment area:
  - Acadia No. 34
  - Special Area No. 3

Appendix B: Catchment Area Definition and Demographics

Appendix B: Catchment Area Definition and Demographics

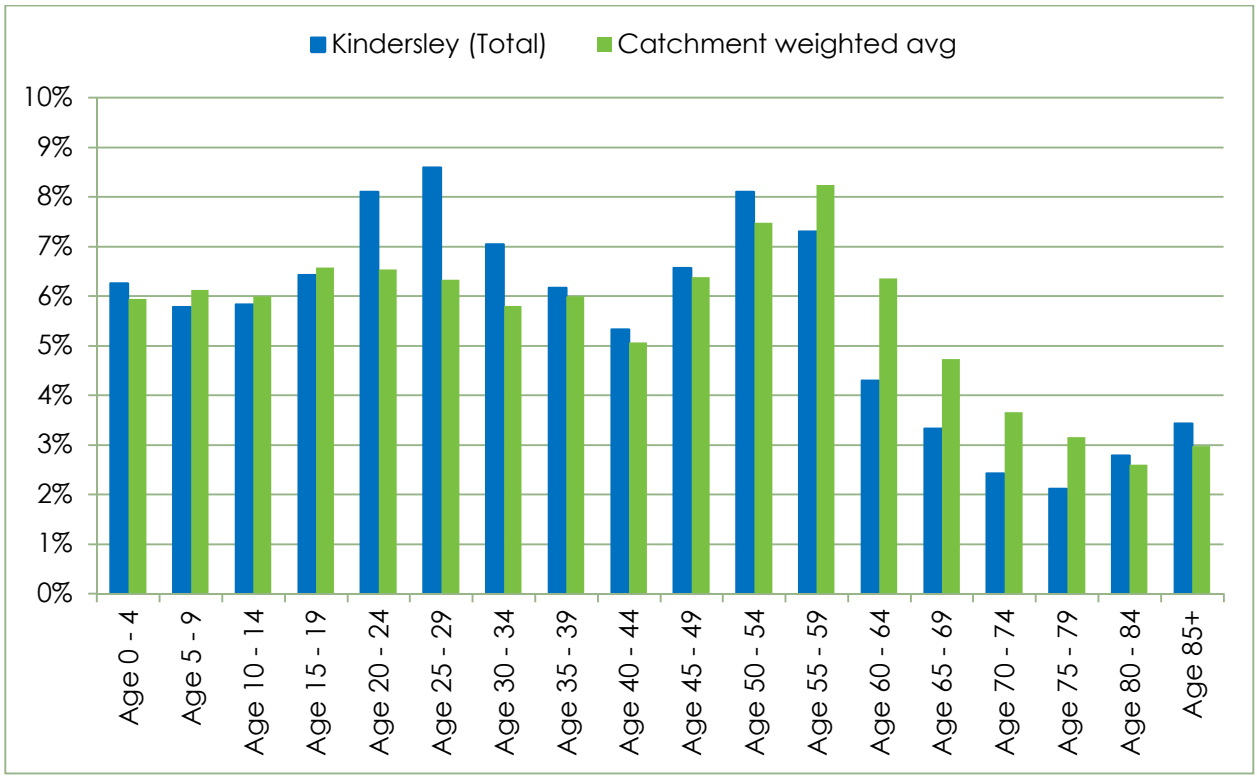
The following analysis conducted for the Kindersley catchment area compares the Town and RM of Kindersley with the surrounding catchment area and does not include Kindersley itself.

The weighted average was taken as a comparison so that all catchment census areas (especially those with small populations) are not treated equally; instead they are weighted using their population to ensure an accurate comparison.

For some indicators no information was released by Statistics Canada as the data was deemed unreliable or the census area population too small to ensure the confidentiality of the information. When data was not available, it was not included in the summarized weighted average of the catchment area. The black range bars on each chart refer to the maximum and minimum reflected in the catchment area for that specific indicator.

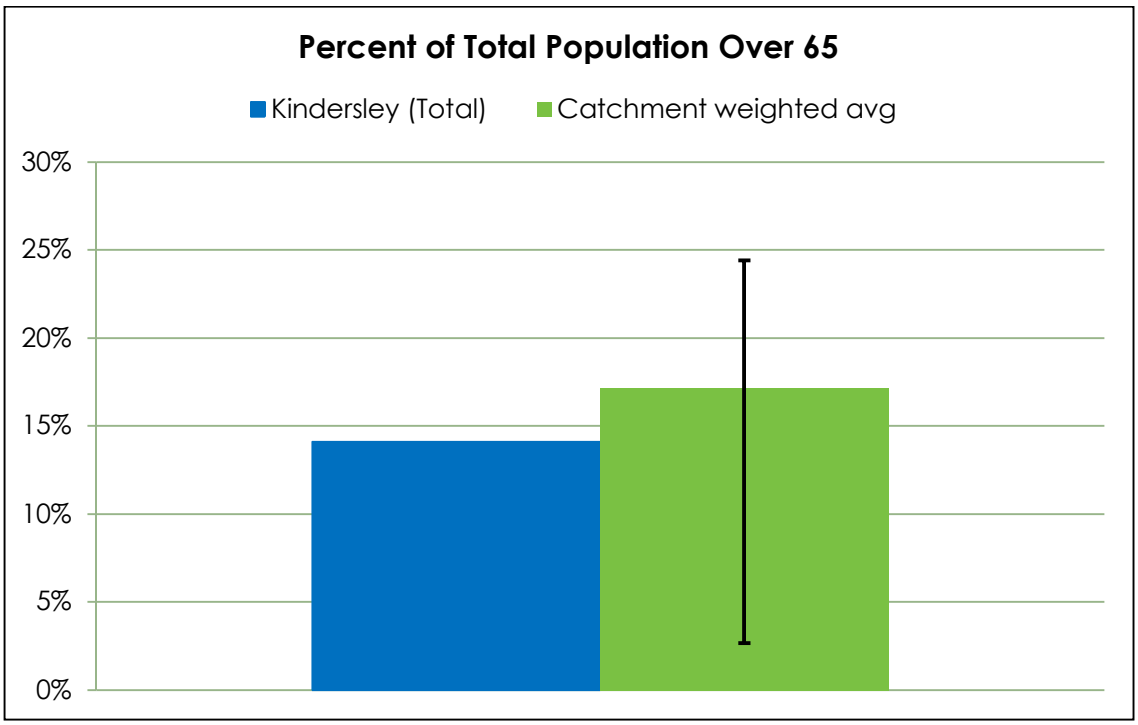
All data sourced from Saskatchewan Ministry of Health covered population data 2013, Statistics Canada 2011 Census and the Statistics Canada National Household Survey 2011.

Figure 1: Population Age



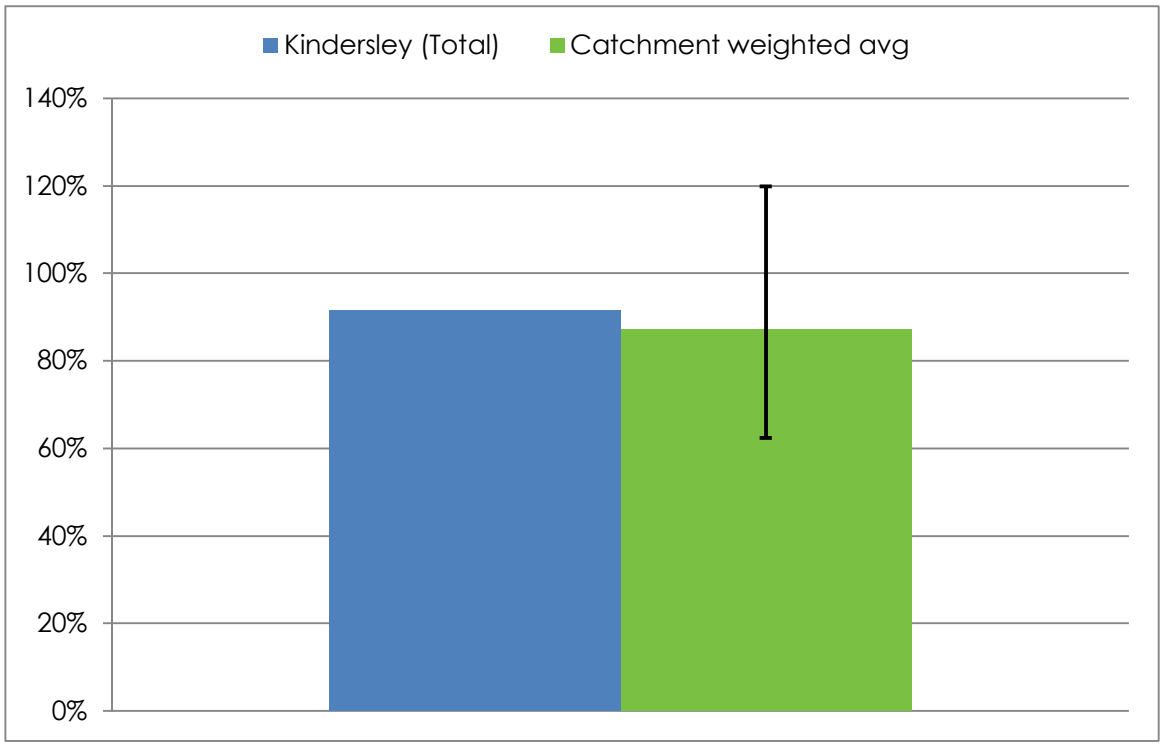
(Government of Saskatchewan, 2013)

Figure 2: Percentage of Total Population Over 65



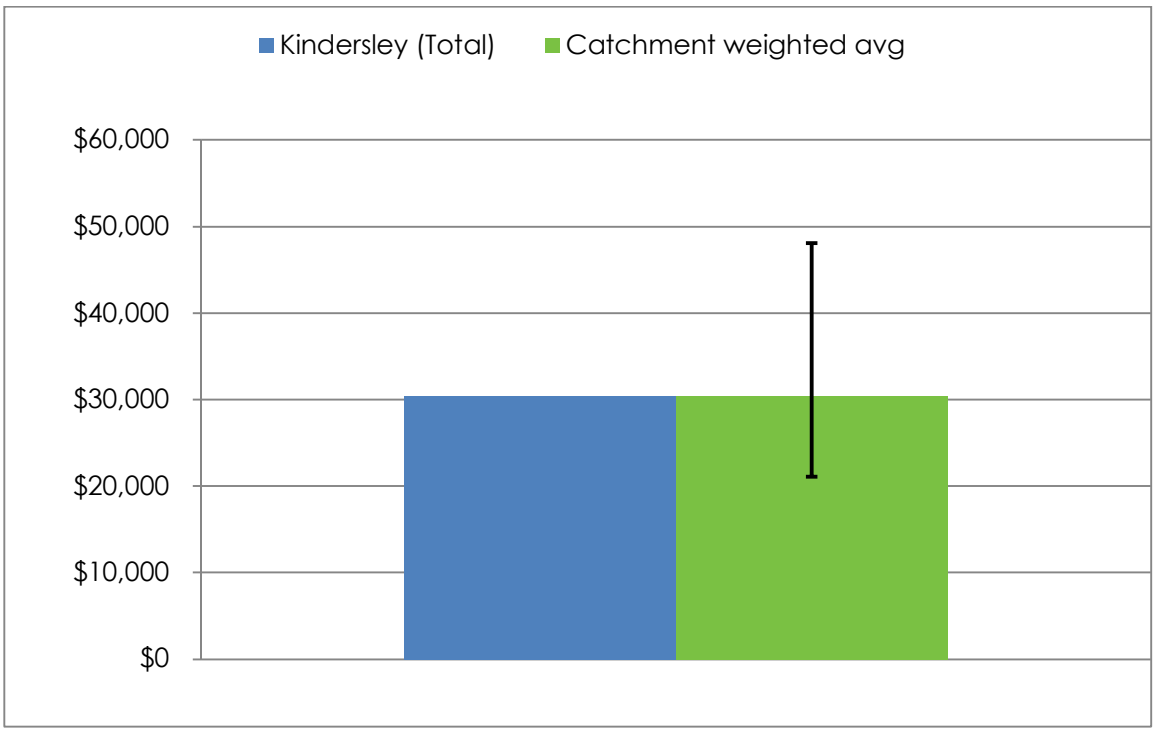
(Government of Saskatchewan, 2013)

Figure 3: Persons 65 Years and Over Residing in Private Households



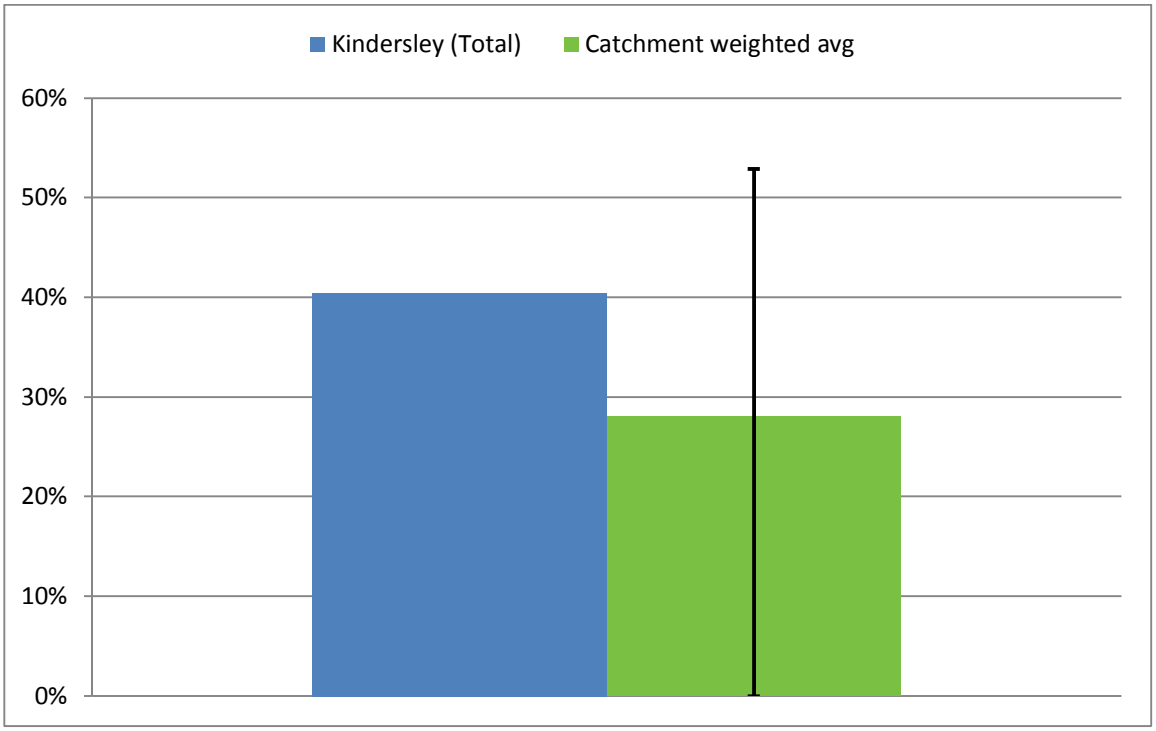
(Statistics Canada, 2011)

Figure 4: Individual Total Median Income



(Statistics Canada, 2011)

Figure 5: Percentage of People at a New Address Compared to 5 Years Ago



(Statistics Canada, 2011)

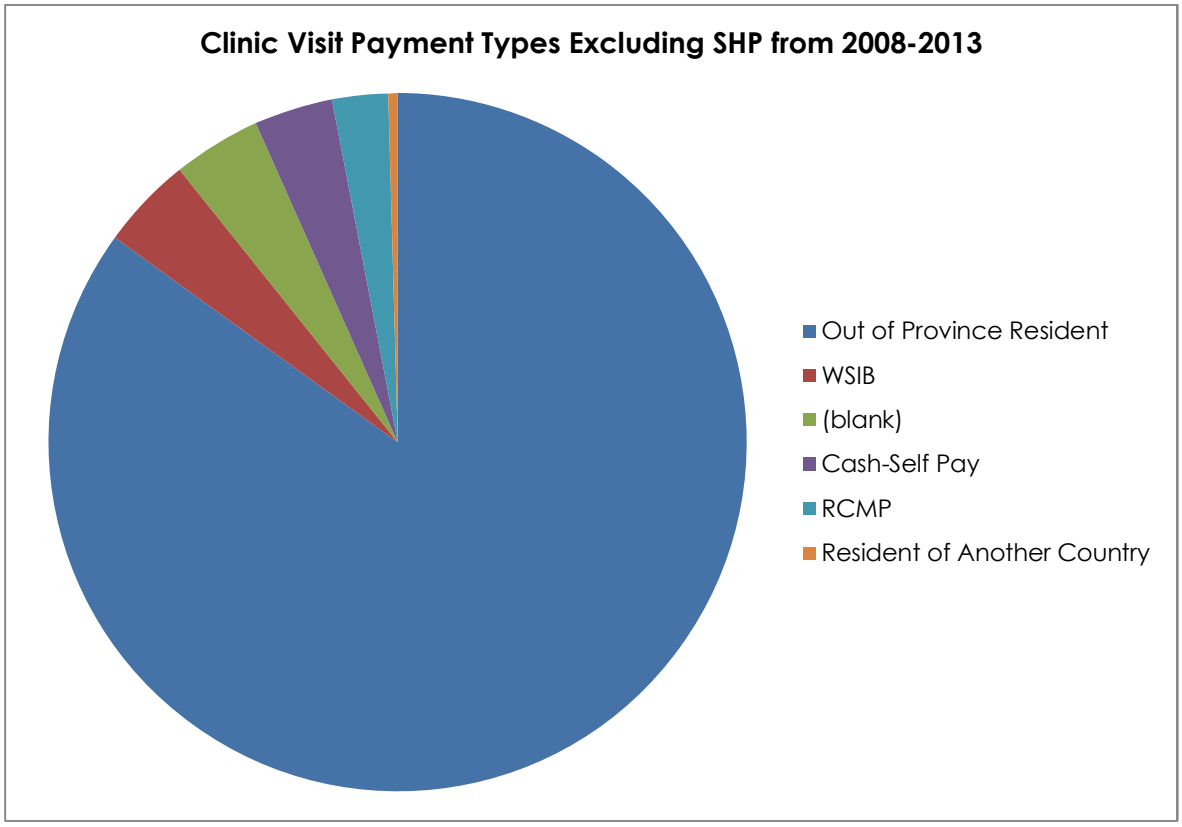
Figure 6: Post-Secondary Certificate, Diploma, or Degree - Education Rates (15 Years and Over)

(Statistics Canada, 2011)

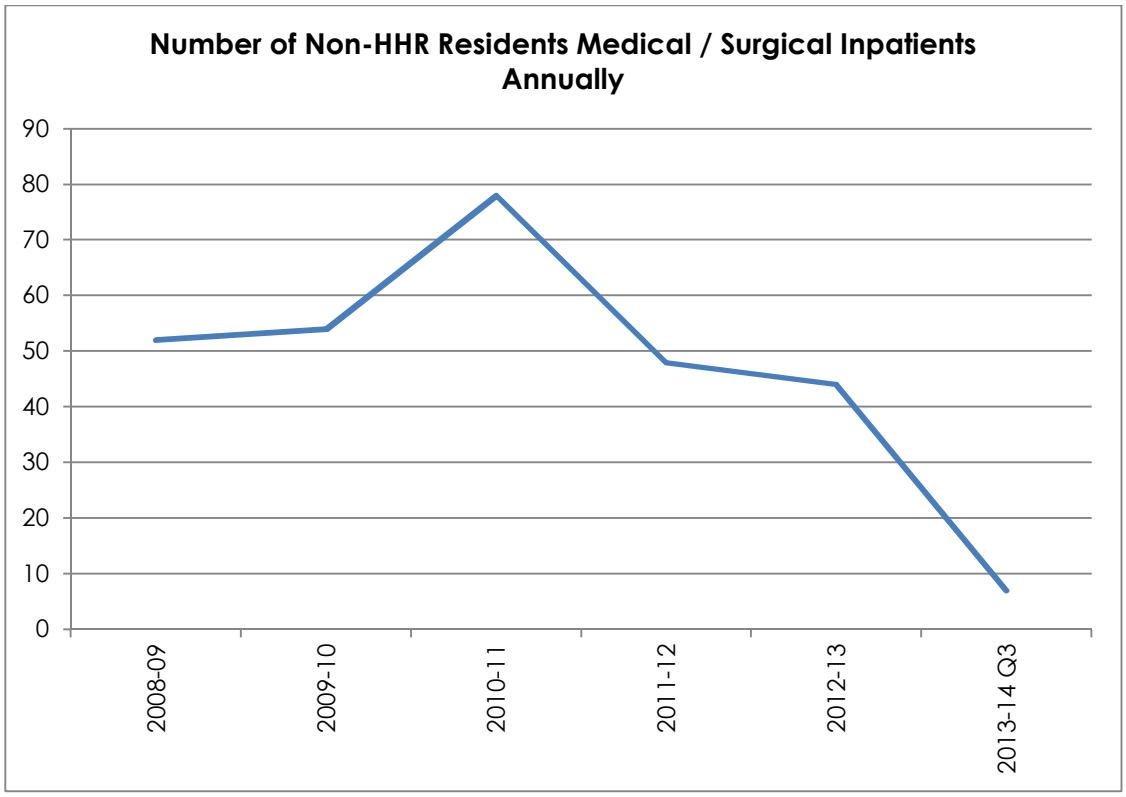
Appendix C:
Patient Visit Payment Types

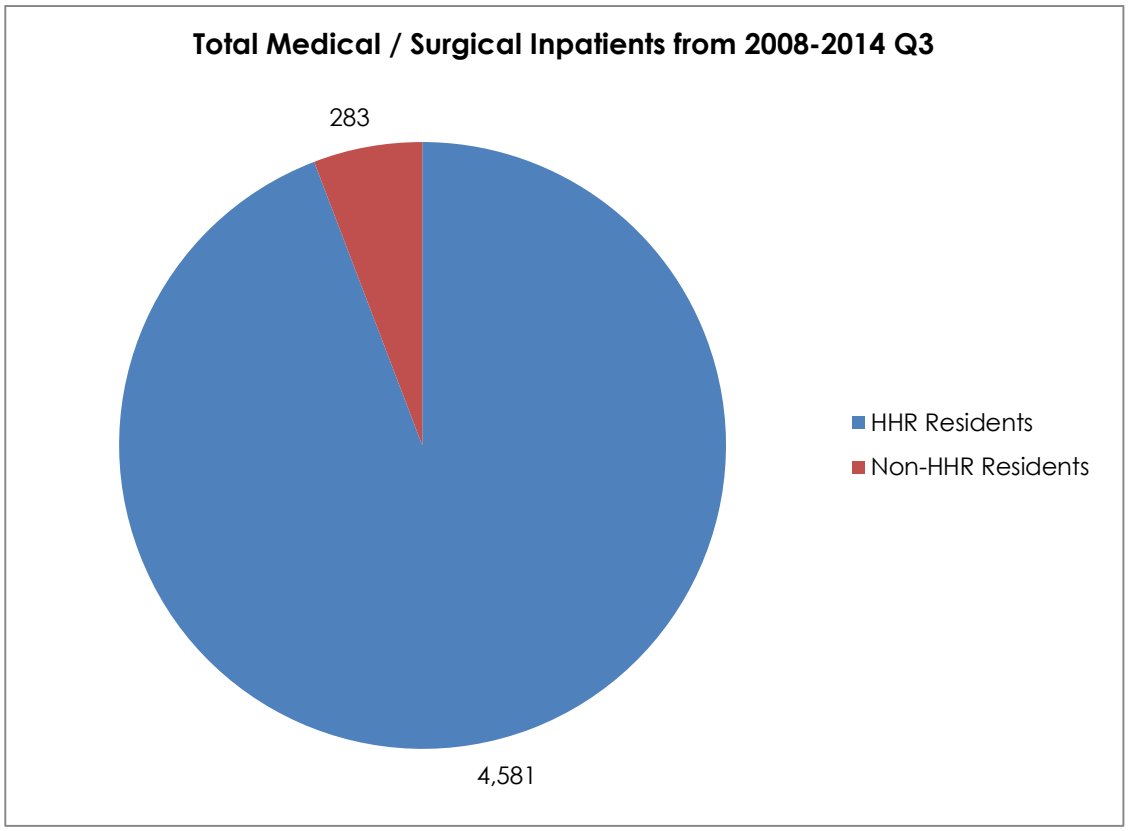
Appendix C: Patient Visit Payment Types

The percent of clinic visits from patients with Saskatchewan Health's Supplementary Health Program (SHP) has remained approximately stable as well at 97% from 2008 to 2013. The following pie chart represents that additional payment types used for the remaining 3%.

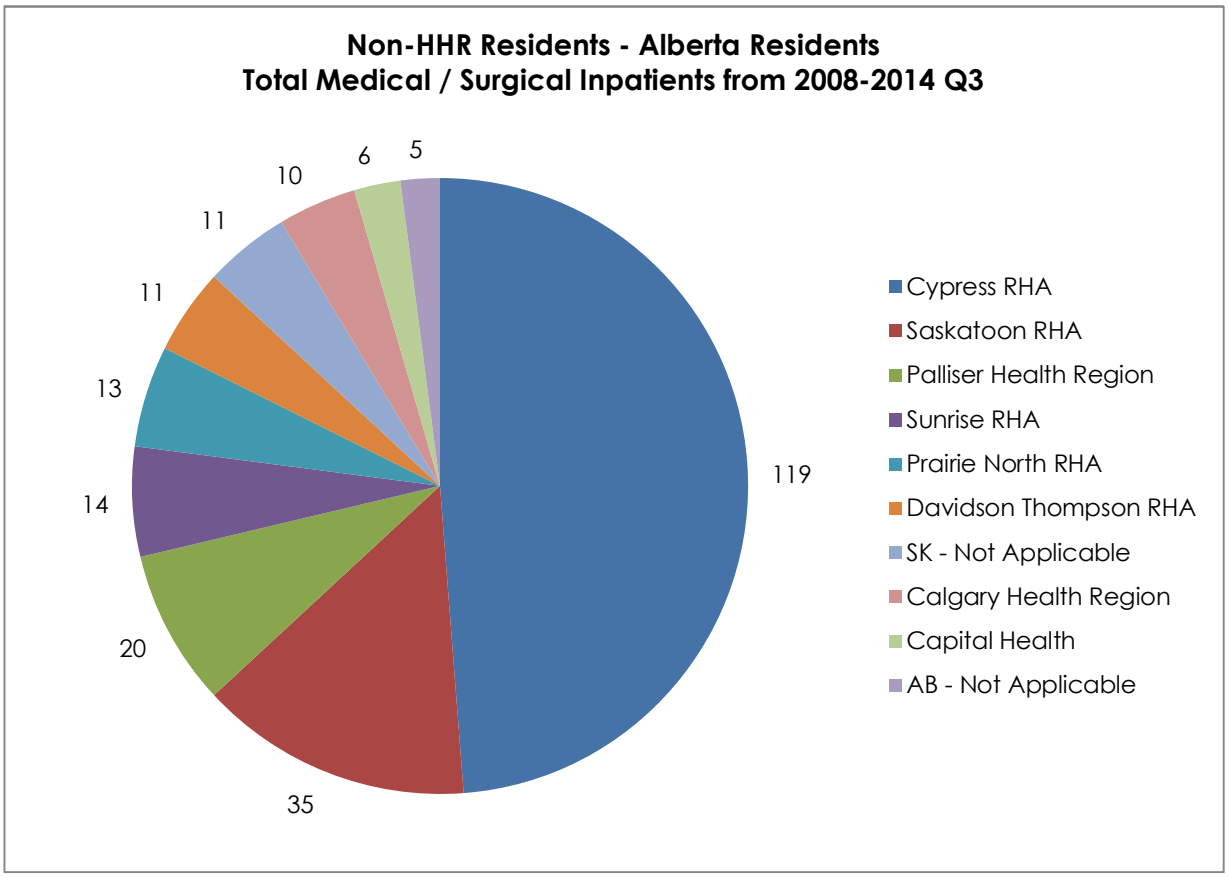


While the number of non-HHR resident medical / surgical inpatients has been declining over time (see graph below), the average percent per year has remained almost constant at 6%, except for the 2013-2014 Q3 periods, as 2014 data is not yet complete.

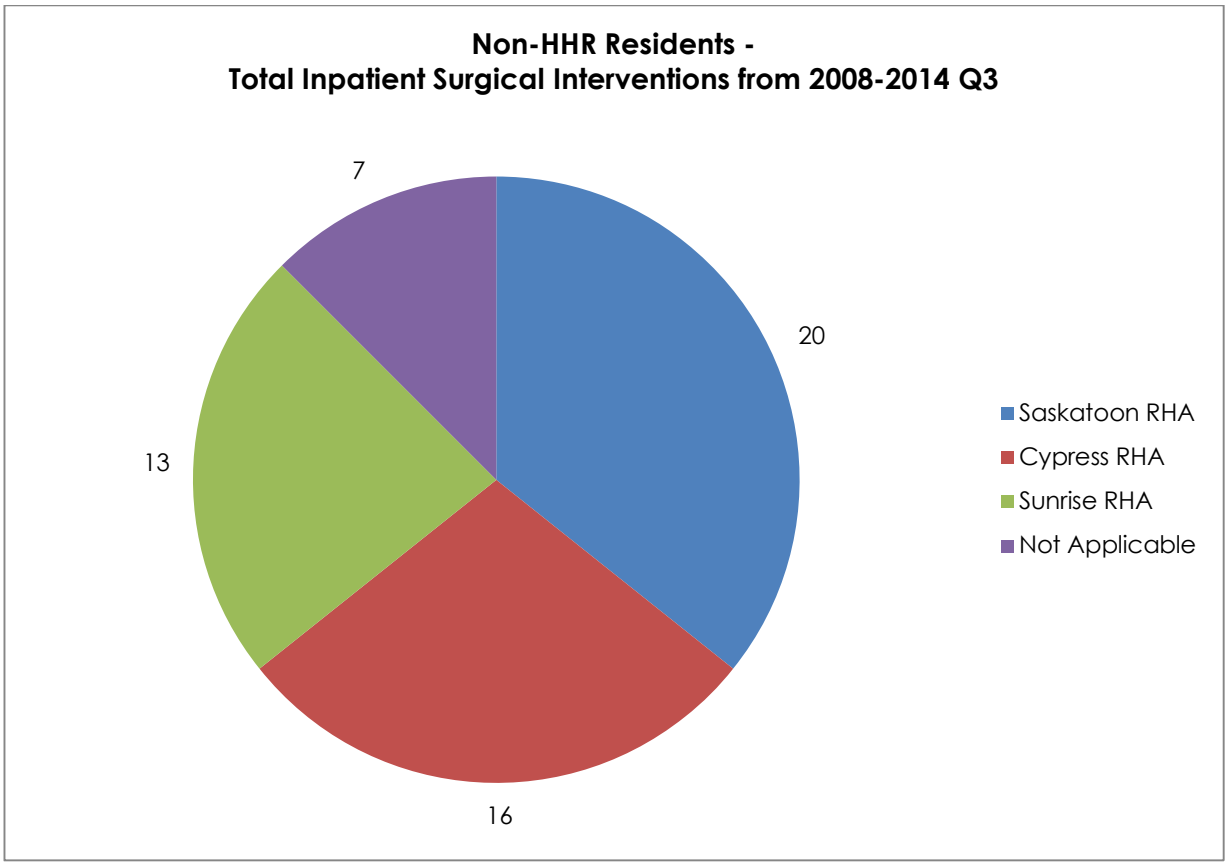

Number of Non-HHR Residents Medical / Surgical Inpatients Annually
90
80
70
60
50
40
30
20
10
0
2008-09
2009-10
2010-11
2011-12
2012-13
2013-14 Q3


Total Medical / Surgical Inpatients from 2008-2014 Q3
283
4,581
HHR Residents
Non-HHR Residents

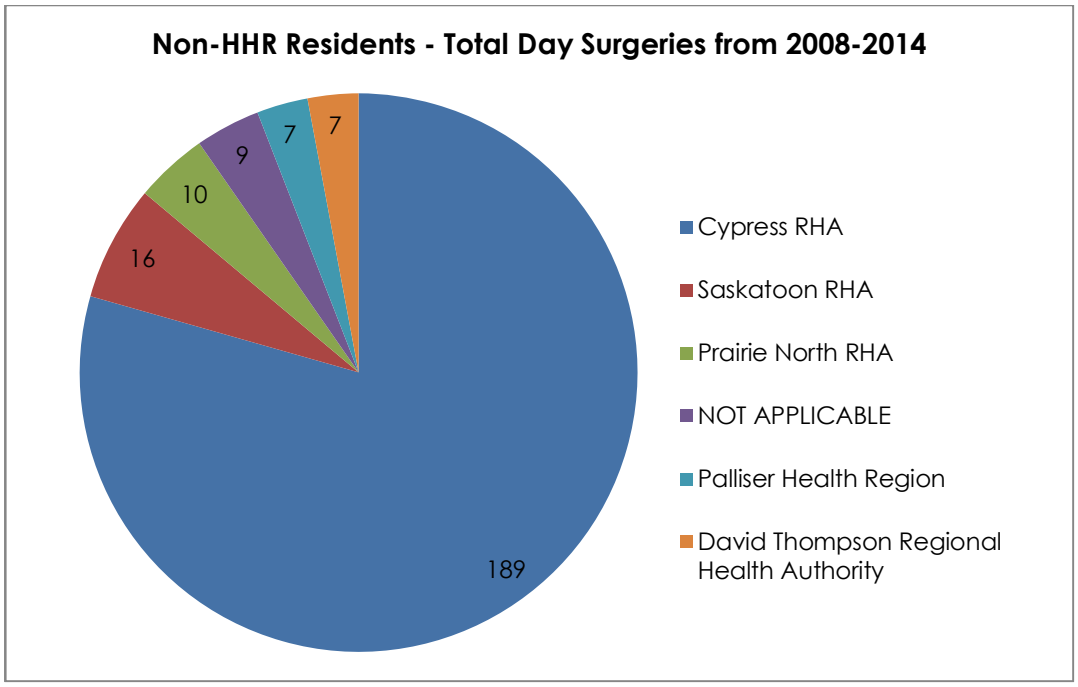
The breakdown of where these 283 inpatients came from is presented in the pie chart below.

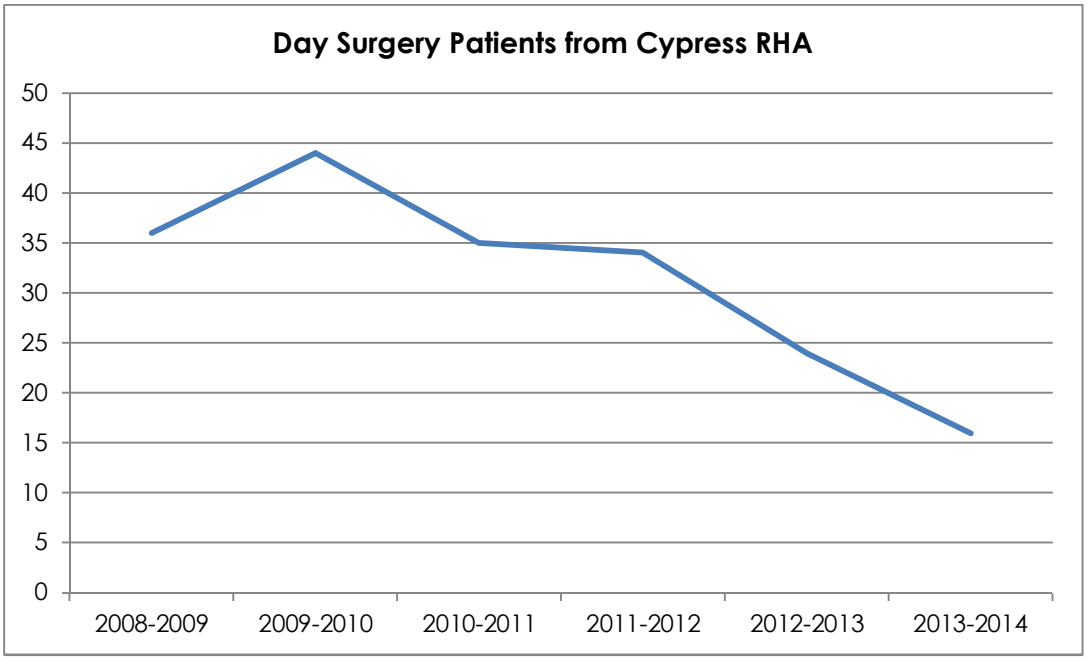


The number of non-resident inpatient surgical interventions has also been declining annually, and the percent per year of total inpatient surgical interventions has decreased from 14% in 2008 to 4% in both 2012 and 2013 to date.



The breakdown and annual trend for day surgeries is also included below. Similar to other visit types, Cypress is again another major draw area. However, the number and percent of patients from this area has also been declining over time from 7% in 2008-2009 to 5% in 2013-2014.





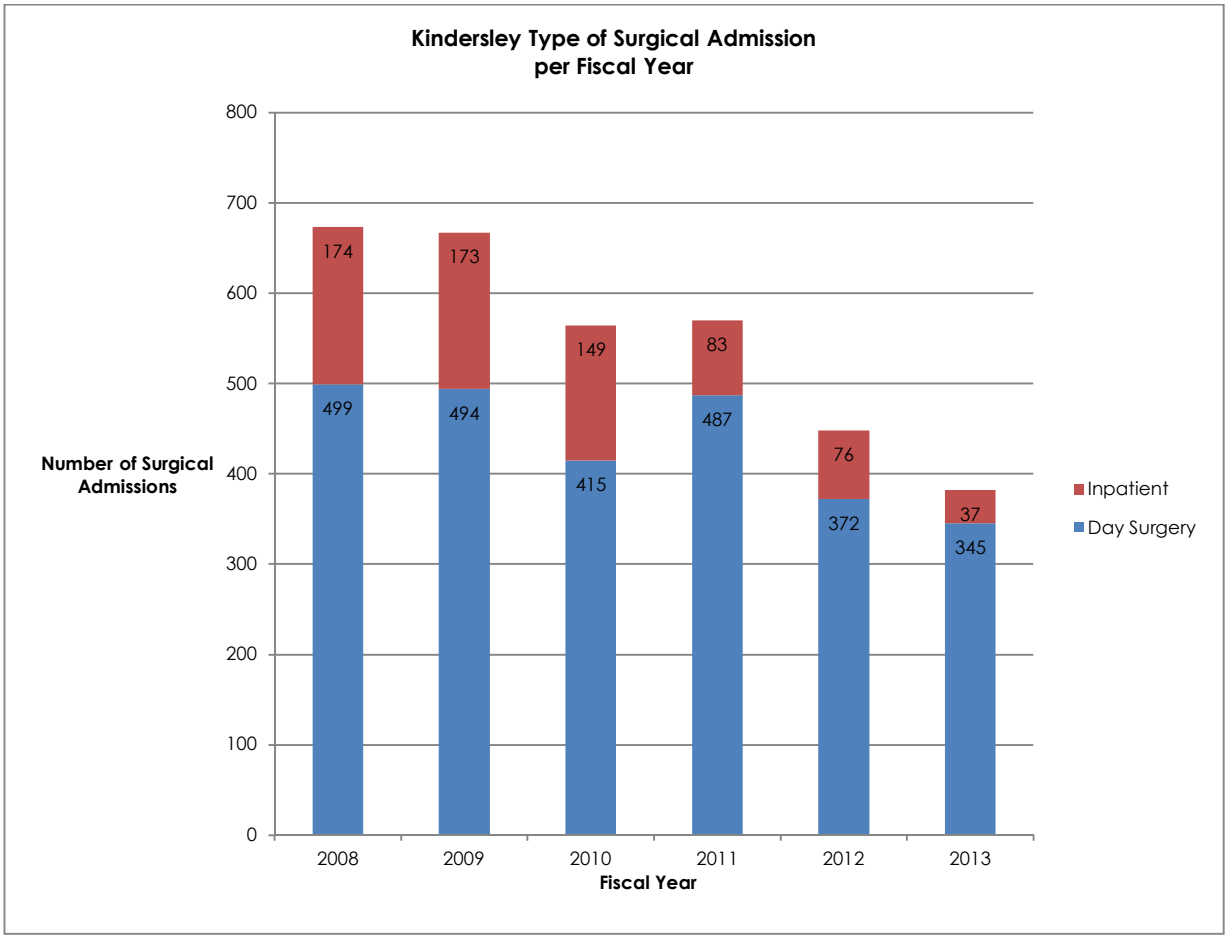
Therefore, given all of the above data, the shadow population in 2013 was approximately 835 patient visits, representing 9% of all visits. Therefore, for the purposes of this study, the shadow population was evaluated at 10%, based on the emergency visit trends and future projections previously reviewed.

2013	# of Non-HHR Patient Visits	# of Total Patient Visits	% of Total Patient Visits
Emergency Visits	691	5,809	13%
Clinic Visits	81	2,175	4%
Medical / Surgical Inpatients	44	765	6%
Surgical Interventions	3	76	4%
Day Surgery	16	325	5%
Total	835	9,150	9%

**Non-HHR includes out of province residents, resident of another country and WSIB.*

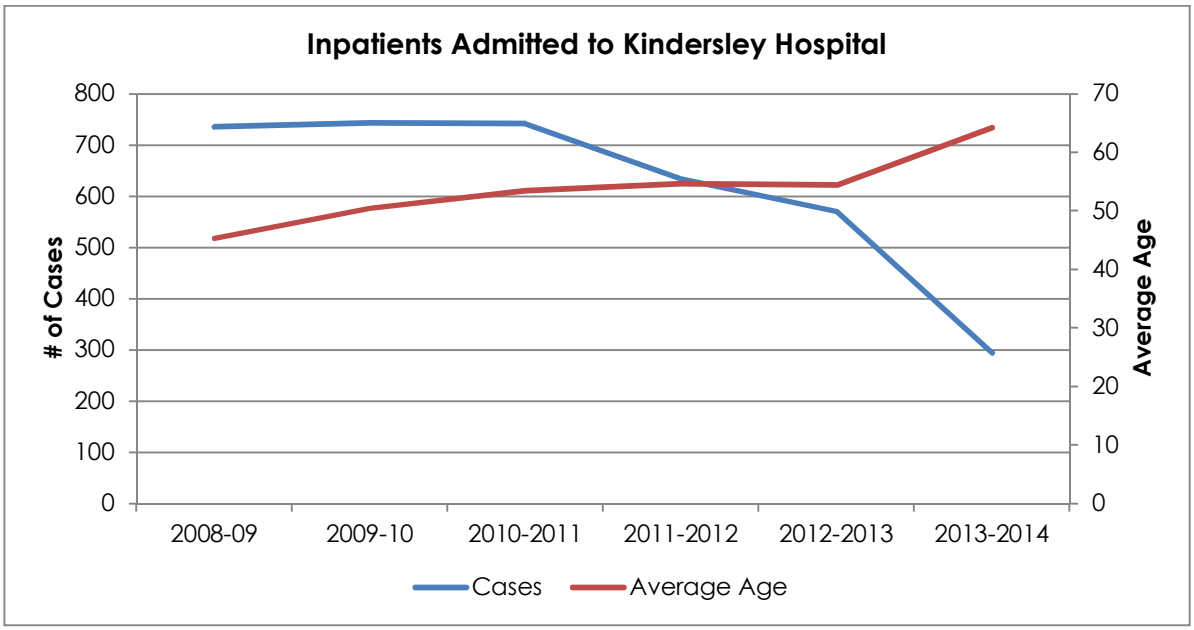
Appendix D: Hospital Data

Appendix D: Hospital Data

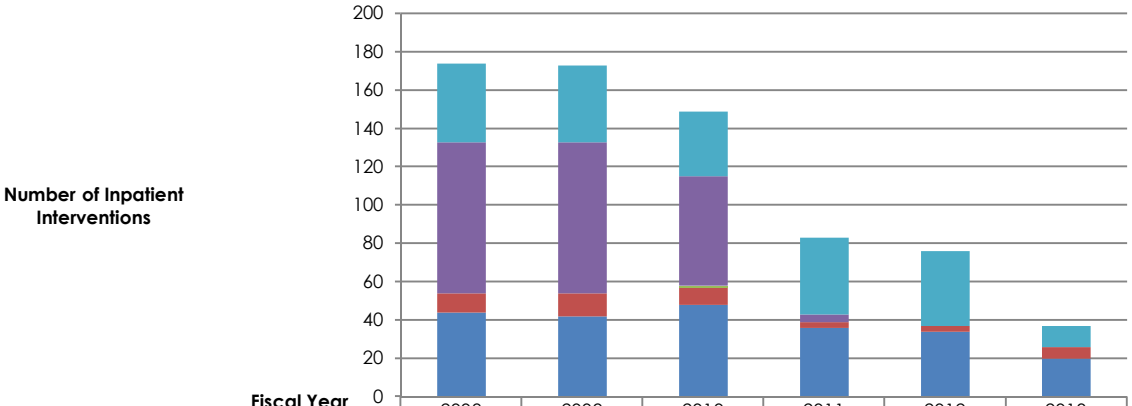


Kindersley 2013-2014 Count of Admission - Type	Column Labels					
	Day Surgery (Outpatient) Itinerant	Day Surgery (Outpatient) Total	Inpatient Itinerant	Local	Inpatient Total	Grand Total
Row Labels						
Endoscopies	309	309	5		5	**314**
COLONOSCOPY	227	227	5		5	232
GASTROSCOPY	77	77				77
SIGMOIDOSCOPY	5	5				5
Orthopedic	26	26				**26**
ARTHROSCOPY KNEE LEFT	2	2				2
ARTHROSCOPY KNEE RIGHT	1	1				1
EXCISION GANGLION (ORTHO)	1	1				1
RELEASE CARPAL TUNNEL LEFT	7	7				7
RELEASE CARPAL TUNNEL RIGHT	9	9				9
RELEASE TRIGGER FINGER	3	3				3

Kindersley 2013-2014 Count of Admission - Type	Column Labels					
	Day Surgery (Outpatient) Itinerant	Day Surgery (Outpatient) Total	Inpatient Itinerant	Local	Inpatient Total	Grand Total
Row Labels						
RIGHT						
REMOVAL HARDWARE	2	2				2
RELEASE TENDON RIGHT	1	1				1
General Surgery	2	2	19		19	**21**
EXCISION SKIN LESION	1	1				1
LAPAROSCOPIC CHOLECYSTECTOMY			9		9	9
REPAIR INGUINAL HERNIA/MESH			7		7	7
REPAIR UMBILICAL HERNIA			2		2	2
EXCISION PILONIDAL CYST	1	1	1		1	2
Obstetrics and Gynecology	3	3		9	9	**12**
C-SECTION				9	9	9
D & C, HYSTEROSCOPY	1	1				1
DIAGNOSTIC LAPAROSCOPY	1	1				1
LAPAROSCOPIC TUBAL/CLIPS	1	1				1
Grand Total	**340**	**340**	**24**	**9**	**33**	**373**

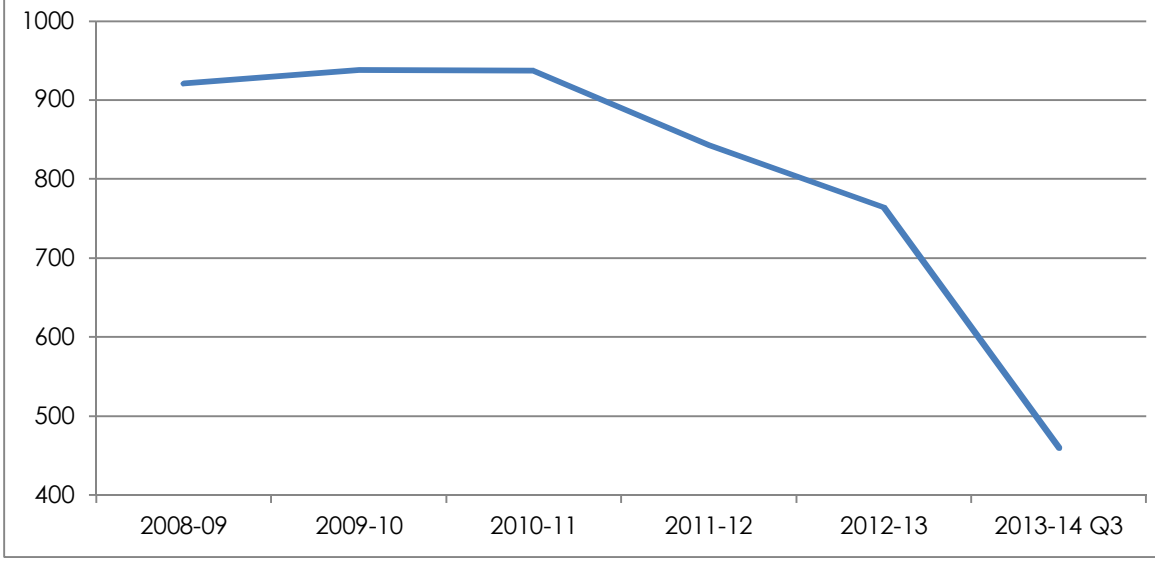


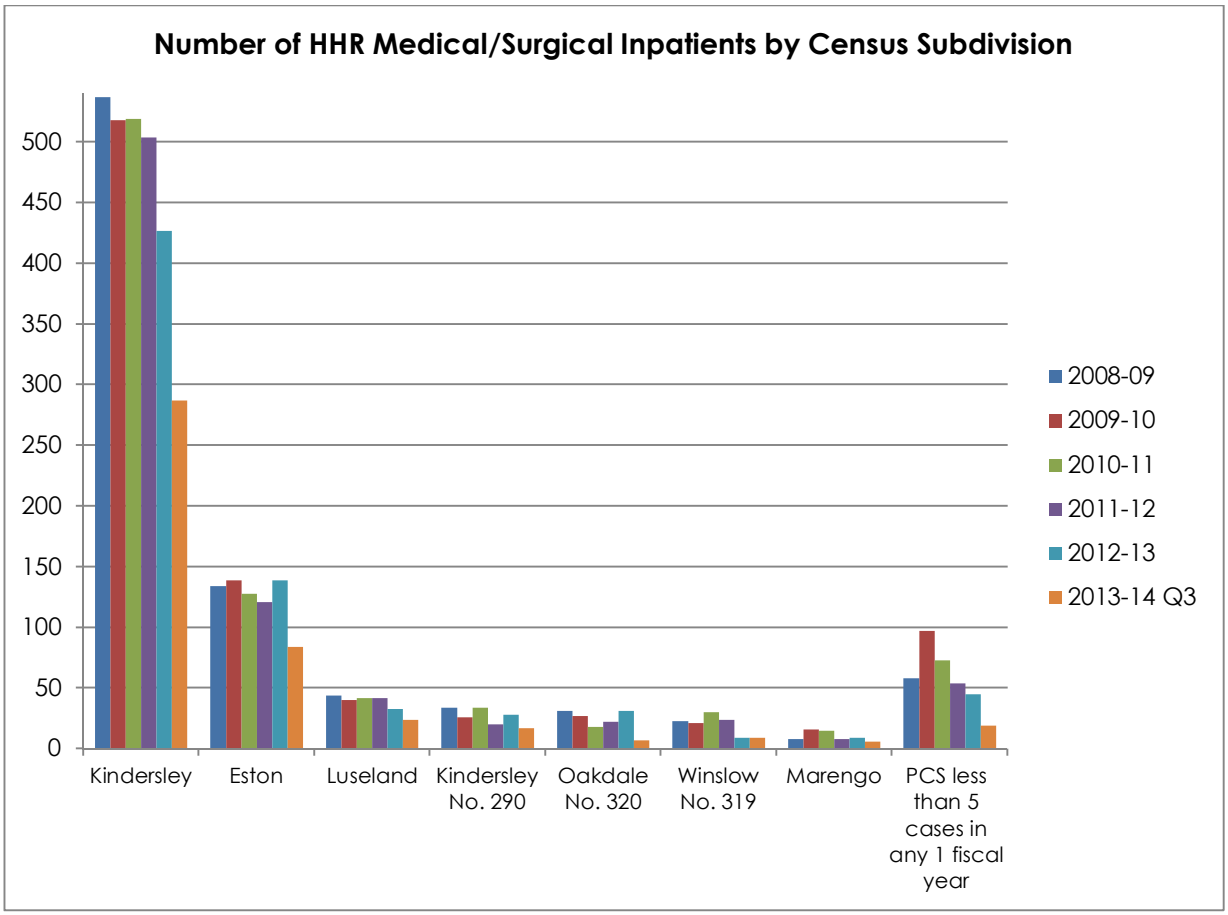
Kindersley INPATIENT
Number of Interventions per Itinerant / Local Surgeon per Fiscal Year

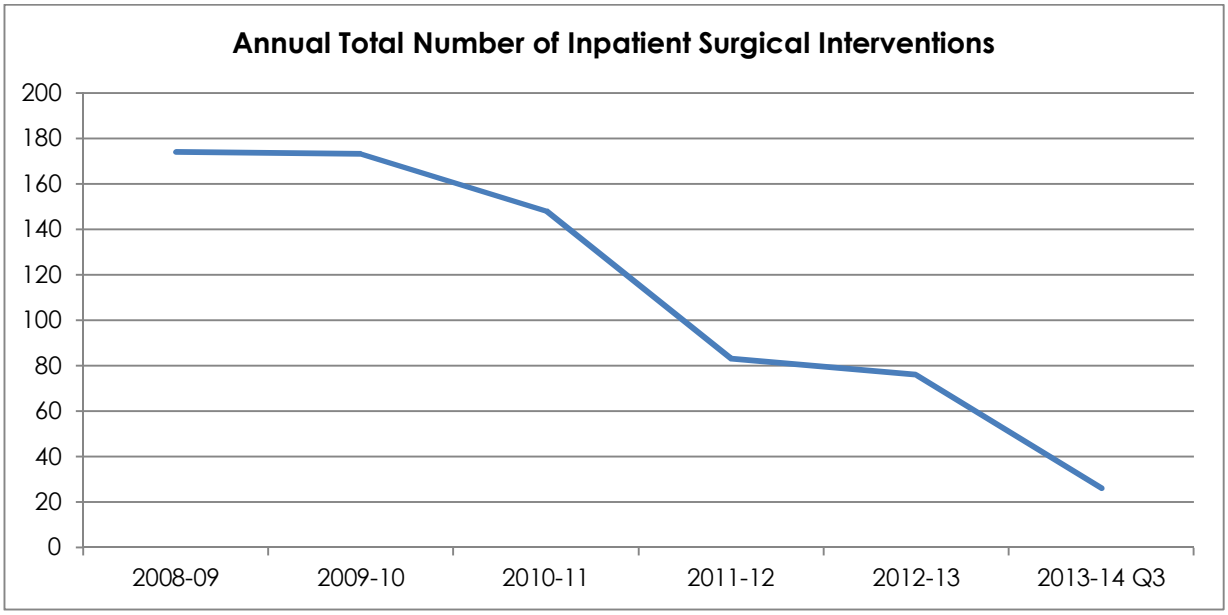


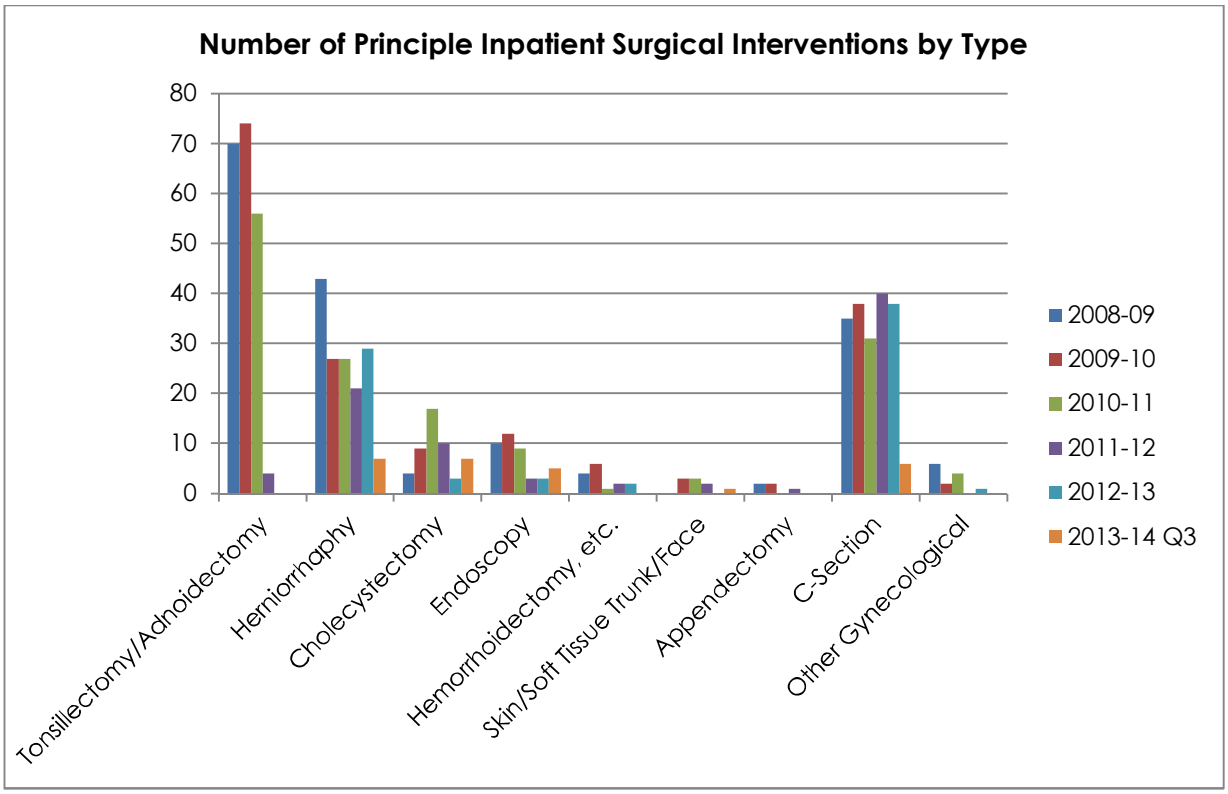
Fiscal Year	2008	2009	2010	2011	2012	2013
Local - Local Surgeon - Obstetrics and Gynecology	41	40	34	40	39	11
Local - Local Surgeon - General Surgery	79	79	57	4		
Itinerant - General Surgeon - Obstetrics and Gynecology			1			
Itinerant - General Surgeon - Endoscopy	10	12	9	3	3	6
Itinerant - General Surgeon - General Surgery	44	42	48	36	34	20

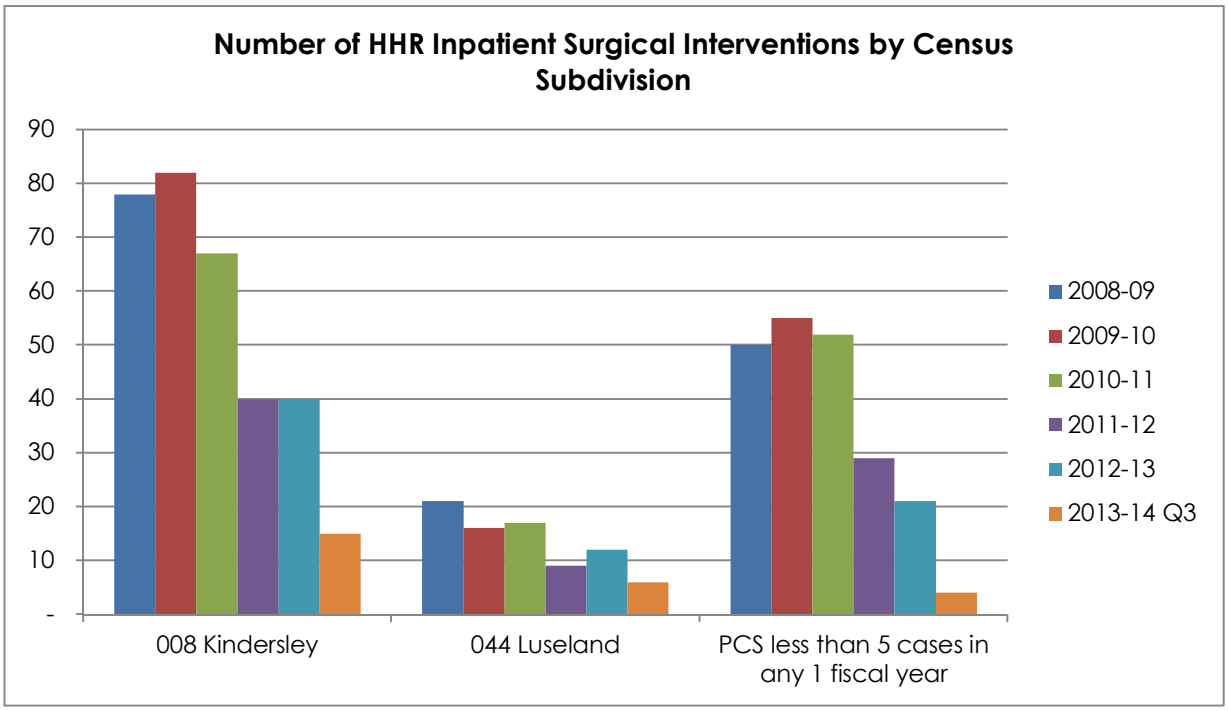
Annual Total Number of Medical / Sugical Inpatients

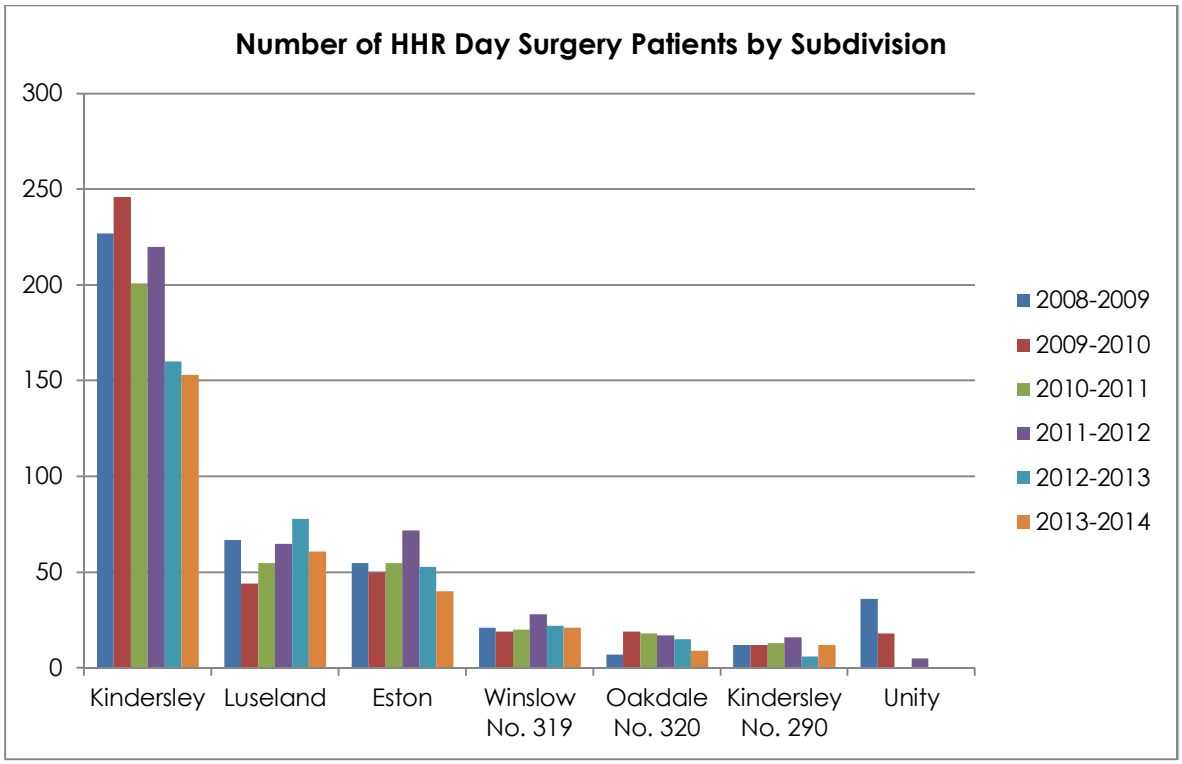


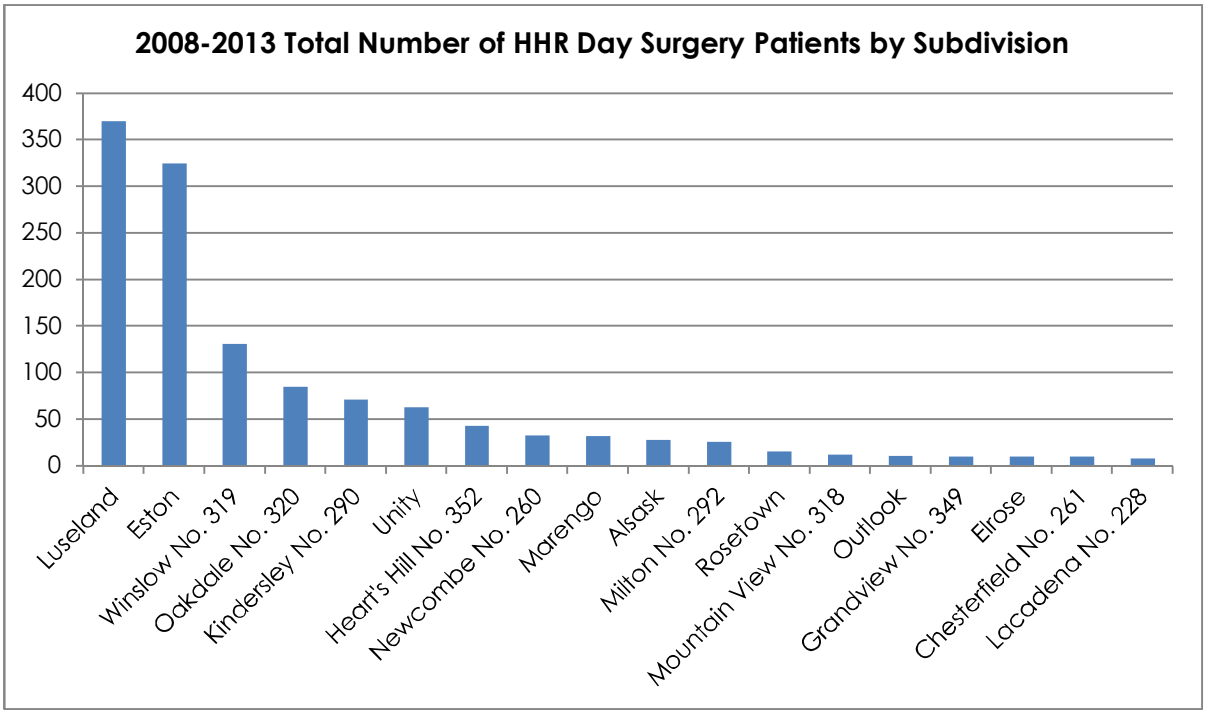

Number of HHR Medical/Surgical Inpatients by Census Subdivision
500
450
400
350
300
250
200
150
100
50
0
Kindersley
Eston
Luseland
Kindersley No. 290
Oakdale No. 320
Winslow No. 319
Marengo
PCS less than 5 cases in any 1 fiscal year
2008-09
2009-10
2010-11
2011-12
2012-13
2013-14 Q3


Annual Total Number of Inpatient Surgical Interventions
200
180
160
140
120
100
80
60
40
20
0
2008-09
2009-10
2010-11
2011-12
2012-13
2013-14 Q3


Number of Principle Inpatient Surgical Interventions by Type
80
70
60
50
40
30
20
10
0
Tonsillectomy/Adnoidectomy
Herniorrhaphy
Cholecystectomy
Endoscopy
Hemorrhoidectomy, etc.
Skin/Soft Tissue Trunk/Face
Appendectomy
C-Section
Other Gynecological
2008-09
2009-10
2010-11
2011-12
2012-13
2013-14 Q3


Number of HHR Inpatient Surgical Interventions by Census Subdivision
90
80
70
60
50
40
30
20
10
-
008 Kindersley
044 Luseland
PCS less than 5 cases in any 1 fiscal year
2008-09
2009-10
2010-11
2011-12
2012-13
2013-14 Q3


Number of HHR Day Surgery Patients by Subdivision
300
250
200
150
100
50
0
Kindersley
Luseland
Eston
Winslow No. 319
Oakdale No. 320
Kindersley No. 290
Unity
2008-2009
2009-2010
2010-2011
2011-2012
2012-2013
2013-2014


2008-2013 Total Number of HHR Day Surgery Patients by Subdivision
400
350
300
250
200
150
100
50
0
Luseland
Eston
Winslow No. 319
Oakdale No. 320
Kindersley No. 290
Unity
Heart's Hill No. 352
Newcombe No. 260
Marengo
Alsask
Milton No. 292
Rosetown
Mountain View No. 318
Outlook
Grandview No. 349
Elrose
Chesterfield No. 261
Lacadena No. 228

Appendix E: HHR Primary Health Care Professionals (FTEs)

Appendix E: Heartland Health Region Primary Health Care Professionals (FTEs)

Primary Health Care Professionals – Kindersley / Catchment Area		
Service Description	**Full-Time Equivalent (FTE) Professional**	**Comments**
Family Physician Services	6.0 FTE	▪ 5 in Kindersley (recruiting 1 more) ▪ 1 in Kerrobert ▪ 1 in Eston (expected by May 2015) ▪ Eatonia – Physician services from Leader
Nurse Practitioner Services	2.0 FTE	▪ 1 in Kerrobert; 1 in Eston; ▪ Eatonia – NP from Leader
Home Care Services		
Assessment and Case Management	1.6 FTE Client Care Coordinators 4.57 FTE Continuing Care Assistants	▪ Kindersley based ▪ Kindersley based ▪ Home support services
Home Nursing	2.2 FTE Registered Nurses	▪ Kindersley based ▪ Serve Alsask as well
Wellness Clinics	FTE Included in RN numbers	▪ Wellness Clinics are included in the RN workday. On average, there is one per week.
Chronic Disease Management (CDM)		▪ CDM provided by a team that works with several communities
Chronic Disease Nursing	1.0 FTE Regional ~25% Kindersley	▪ 1 Chronic Disease Nurse based in Rosetown – covers entire region
Diabetes Nurse Education	1.0 FTE ~50-75% Kindersley	▪ 1 Diabetes Nurse Educator based in Kindersley, provides service to communities on the west side of the region
Dietitian Services	1.0 FTE	▪ Based in Kindersley – provides services to Kindersley & area, including Eston
Exercise Therapy	0.6 FTE	▪ Part-time Exercise Therapist for entire region – provides support to Walking Programs and CDM team programs
Cardiovascular Heart Health	Part of CDM Team	▪ CDM Team provides support to Walking groups & consults/supports clients with heart health challenges
Asthma	Part of CDM Team	▪ CDM Team consult with/support asthma clients

Primary Health Care Professionals – Kindersley / Catchment Area		
Service Description	**Full-Time Equivalent (FTE) Professional**	**Comments**
COPD	Part of CDM Team	▪ CDM Team consult with/support COPD clients
Community Health Services		
Speech Language Pathology (children 0 – 5)	1.0 FTE Regional ~25% Kindersley	▪ This is a Regional position so the 1.0 FTE serves all of the communities in the Region including Kindersley. For the Kindersley area, for the April 2013/14 fiscal year there were 157 Preschool visits and 16 Partners in Communication visits ▪ 1 clinic per week in Kindersley
Speech Language Pathology (Adult)	Same as above	▪ The same SLP covers the Adult program and there were 36 visits for the 2013/14 Fiscal Year in Kindersley
Autism Services	3.0 FTE Regional ~25% Kindersley	▪ The Autism program is a Regional Program. It is staffed by 1.0 FTE Autism Consultant, 2.0 FTE Autism Support Workers, and several contracted service providers. ▪ Regional caseloads at present – ASD Consultant – 21 clients. Support workers – 15 clients, and contracted services (SLP) – 19 clients ▪ Services are provided based on demand and priority
Physiotherapy (PT)	1.0 FTE	▪ Based in Kindersley ▪ Physiotherapist serves Kindersley and Kerrobert
Occupational Therapy (OT)	1.0 FTE 0.5 FTE	▪ Based in Kindersley ▪ OT serves adult program in Kindersley and Eston ▪ OT/PT Assistant Aide
Occupational Therapy (Pediatric)	1.0 FTE Regional ~25% Kindersley	▪ Based in Unity ▪ The Pediatric OT is a Regional Program and is attached to the Autism program. At present the Pediatric OT's caseload is 18 clients

Primary Health Care Professionals – Kindersley / Catchment Area		
Service Description	**Full-Time Equivalent (FTE) Professional**	**Comments**
Podiatry	Contracted Podiatrist 3 days per month for the region ~3% FTE Kindersley ~25% FTE;	▪ The Podiatrist that is contracted by the Region attends in Kindersley 1 day per month. The number of patients seen in Kindersley from April -July 2014 was 191 ▪ The Advanced Foot Care Nurse is a regional program and provides services to clients who do not require the attention of the Podiatrist ▪ weekly clinics in Kindersley
Early Childhood Psychology	1.0 FTE Regional ~25% Kindersley	▪ The Early Childhood Therapist is a regional position based in Rosetown, providing service to the entire region ▪ Visiting Psychiatry Services
Public/Population Health Services		
Medical Health Officer	0.5 FTE Region ~25% Kindersley	▪ Contracted services at 0.5 FTE for the region.
Public Health Nursing	3.0 PHN FTE ~75% Kindersley	▪ Public Health Nurses based in Kindersley; also serve Eston and Eatonia
	0.5 FTE PHN Travel Position for west side of region Weekly travel clinics in Kindersley ~50-75% Kindersley	▪ .5 FTE PHN who does International Travel Clinics based in Kindersley – provides clinics in Unity as well
Communicable Disease Program	1.0 FTE Regional ~25% Kindersley	▪ Communicable Disease Coordinator based in Rosetown; provides clinical program oversight for the entire region
Public Health Inspection	1.0 FTE ~75% Kindersley	▪ Public Health Inspector - Based in Kindersley, covers all RMs and communities surrounding Kindersley as well as Eston and Eatonia
Population Health Promotion Coordinator	1.0 FTE Regional ~25% Kindersley	▪ Population Health Promotion Coordinator based in Rosetown ▪ Visiting services to Kindersley ▪ 1 person - program based in Rosetown that supports health promotion activities throughout the region

Primary Health Care Professionals – Kindersley / Catchment Area		
Service Description	**Full-Time Equivalent (FTE) Professional**	**Comments**
Nutritionist	1.0 FTE Regional ~25% Kindersley	▪ Based in Rosetown ▪ Program support, not direct patient care ▪ Supports regional breastfeeding program; community food and nutrition initiatives; and liaison with schools.
Dental Health Educator	1.0 FTE ~25% Kindersley	▪ Dental Health Education - Visiting services to Kindersley ▪ 1 person program based in Rosetown
Mental Health & Addiction Services		
Community Mental Health Nursing (CMHN)	1.0 CMHN FTE	▪ CMHNs based in Kindersley & provide services to Kindersley – no visiting services to other communities
Adult Counselors	1.0 FTE ~50-75% Kindersley	▪ Covers Kindersley, Eston and Kerrobert
Child &Youth Counselors	1.5 FTE ~50-75% Kindersley	▪ Covers Kindersley and Eston
Addictions Counselors	2.0 FTE ~50-75% Kindersley	▪ Covers Kindersley, Eston and Kerrobert
Community Liaison	1.0 FTE ~75% Kindersley	▪ Community Development Worker - Based in Kindersley ▪ Health educator/community developer
Pharmacy	1.0 FTEs 2.0 FTEs	▪ Kindersley Health Centre ▪ Pharmacist ▪ Pharmacy Technician ▪ Contract with retail Pharmacist for Long Term Care clients
Diagnostics (Lab/X-ray/ Ultrasound)	2.84 FTEs 2.43 FTEs 1.0 FTE	▪ Kindersley Health Centre ▪ Medical Laboratory Technologist (MLT) ▪ Combined Lab. and X-Ray Technologist ▪ Diagnostic Medical Sonographer

Appendix F: HHR Primary Health Service Areas

HEARTLAND HEALTH REGION

P.O. Box 2110, Rosetown, Saskatchewan S0L 2V0 ◆ Telephone (306) 882-4111 ◆ Facsimile (306) 882-1389

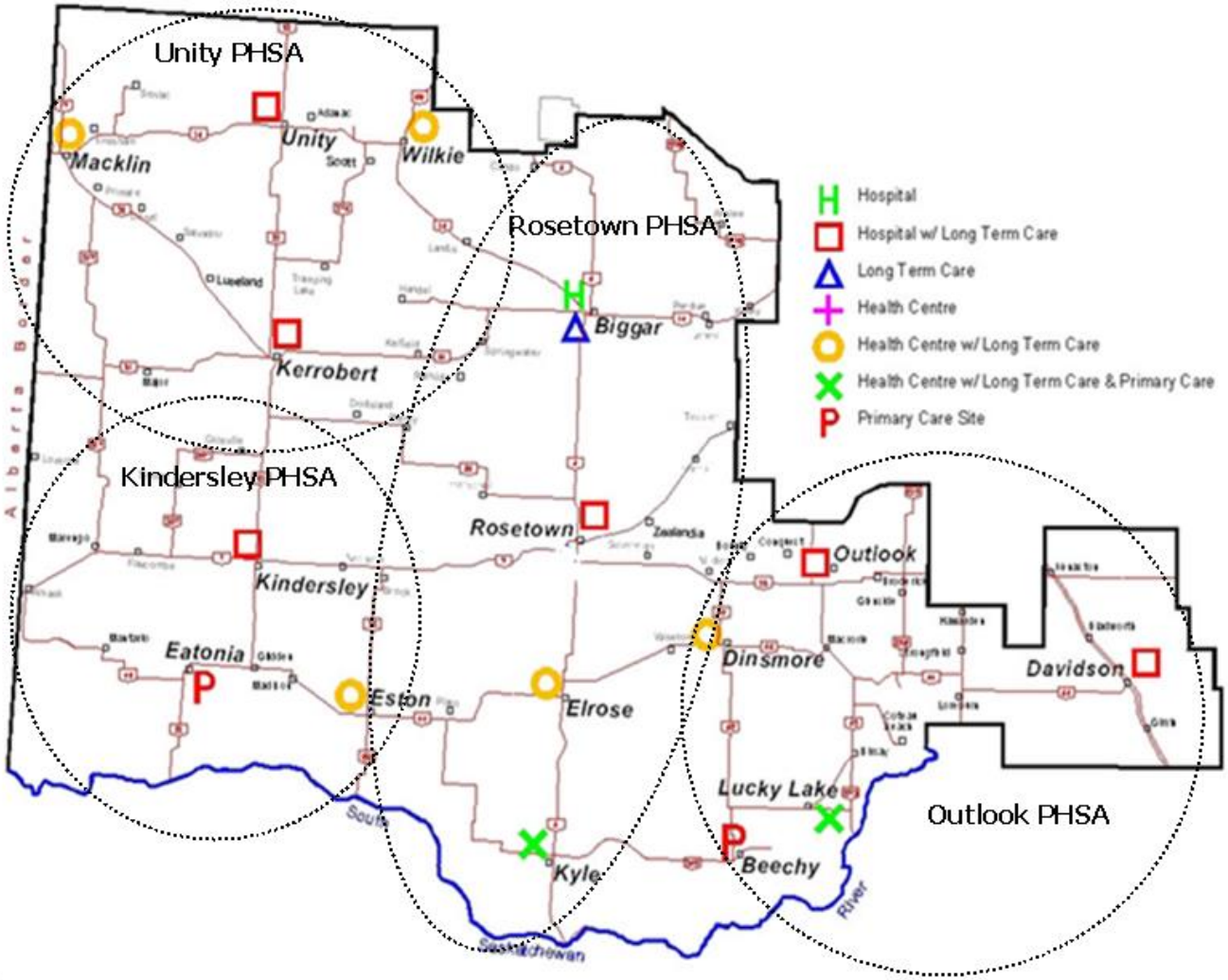
Our Vision: Healthy People, Health Communities and Service Excellence in an Enduring Health System

Mission

To be responsive and innovative in supporting people and communities in rural Saskatchewan in their pursuit of optimal health.

Our Values

- Respect—Recognizing that all people and their needs have value
- Excellence—Pursuing quality in all we do
- Collaboration—Nurturing and honoring relationships to better serve our communities
- Compassion—Reaching out and genuinely caring for others
- Stewardship—Demonstrating responsible use and care of the resources entrusted to us



HealthLine: 811 Toll-free Health Information 24 Hours a Day!

wmc
the intersection of can and do

Appendix G: Meadow Lake Primary Health Care Centre Description

Appendix G: Meadow Lake Primary Health Care Centre

The Meadow Lake Primary Health Care team includes physicians, nurse practitioners, registered nurses, RN/case managers, public health nurses, medical office assistants, mental health professionals, chronic disease educators, a dietitian, an exercise therapist, a pharmacist, and the clinic manager, all working together to provide seamless care to patients, based on their individual needs. This primary health model of care improves access to health care services by making the right services more readily available, and not necessarily delivered by a physician.

The Meadow Lake PHC Team has re-designed workflow to better support patient centered, team delivered care. Registered Nurse (RN) Case Managers are improving access, coordination of care and patient education. The team is working to better integrate primary mental health and addictions services by testing screening tools and brief interventions with the support of a PHC Councillor. Other team members, such as the chronic disease nurse educator, dietitian and pharmacist are co-located within the clinic or provide visiting services. Group medical visits have been established - practitioner-led visits with multiple patients who have the same chronic condition and can benefit from the input of the entire group. Smaller teams that include physicians, RN case manager and medical office assistant are also increasing connection and coordination of care.

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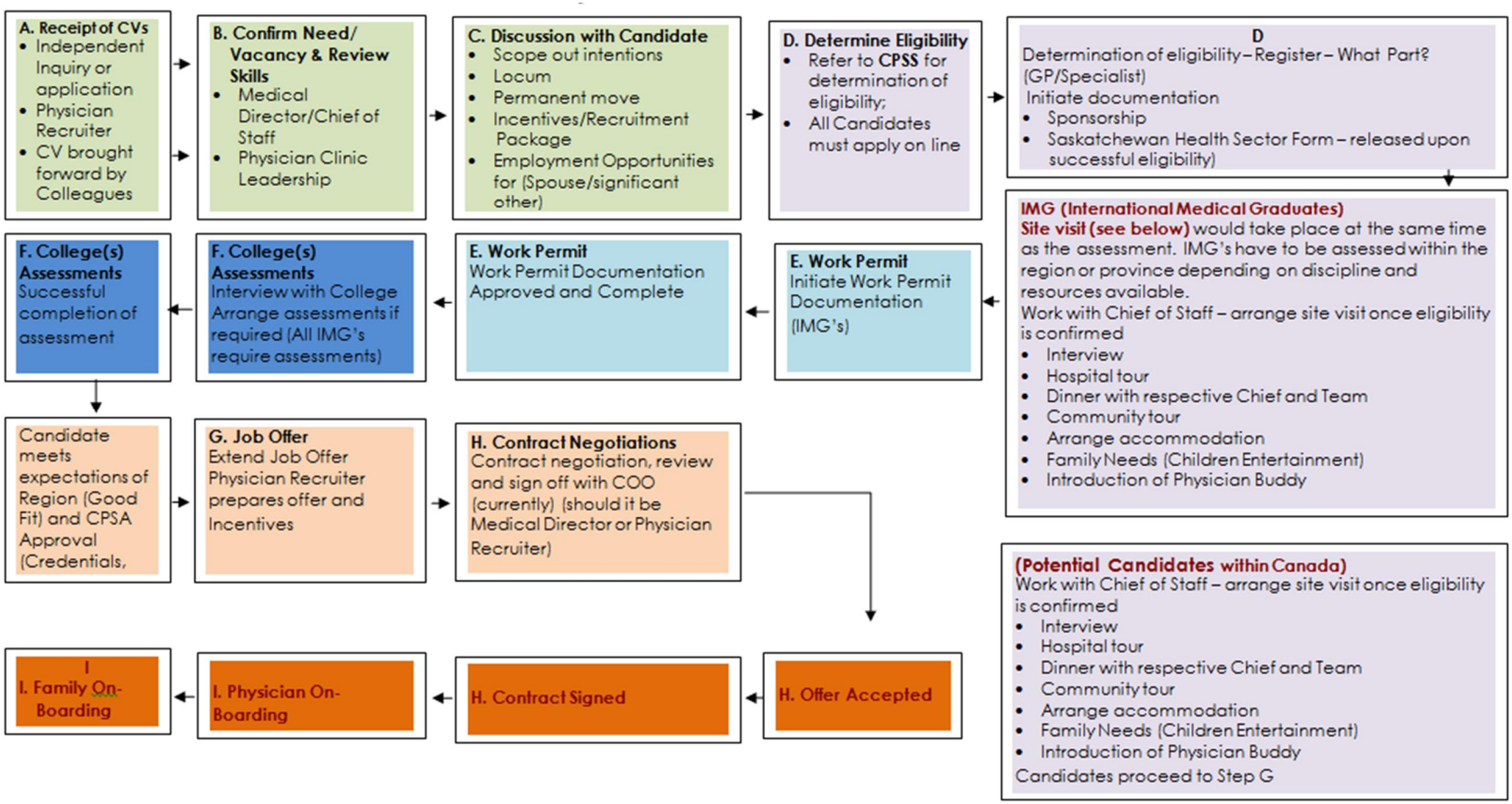
the intersection of can and do

Appendix H: Physician Recruitment and Onboarding Strategy

Appendix H: Physician Recruitment and Onboarding Strategy

Physician Recruitment Process



Site Visit

An appointed physician recruiter should be the point person to coordinate the on-boarding process. The site visit will be coordinated with the Physician Recruiter and the Chief of Staff in partnership with the recruiting family practice clinic or PHCC.

Develop Itinerary, Plan and Facilitate the Site Visit

Preparatory Work: The Physician Recruiter should have a discussion with the physician candidate concerning special points of interest while visiting the community (scope out needs of the family) and develop the itinerary accordingly. It is important to not only meet the needs of the candidate but the family as well, if applicable.

Recruitment Package: The Candidate should be provided a comprehensive recruitment package – (i.e. schools, social involvement, housing, recreation pursuits etc.) This should be prepared by the recruiter and be available to as required support physician recruitment efforts.

Site Visit Logistics: A site visit will usually last over a weekend period 2-3 days. Some candidates do appreciate the time alone with their family to scope out the community on their own once they have gained a certain comfort level. The Physician Recruiter will also be available to offer assistance if required. The following should be arranged:

- Travel arrangements
- Accommodations
- Interview
- Meetings with key staff
- Dinner with respective Senior Administration, Physicians, Directors and staff
- Introductions/meetings to Mayor or other City representatives
- Children entertainment if required
- Special points of interest
- Tour of health facility
- Tour of community
- Arrangements for pick up; and settling the Physician and family into accommodation when they arrive
- Arrange transportation details (may require car rental – depending on comfort level of the candidate traveling about in the community – Physician Recruiter will be available for assistance)

Site Visit Wrap-Up

When the site visit is complete the physician recruiter should meet with the Physician and with the family to discuss the visit. This provides the opportunity to receive feedback such as:

- Was the visit beneficial? Ask for details….
- What could we do better? Ask for details….

Note: It is important to provide a personal touch especially for physician's who have families. The site visit is a crucial part of the recruitment process – more importantly it is imperative that the candidate and their families have been provided with relevant and sufficient information to make their decision. A positive one……

Post Visit

- Send thank you letter to candidate and spouse
- Establish next steps, offer accepted? Positive confirmation
- Maintain contact with Physician and spouse prior to arrival
- Assist the Physician with office space (place of practice)
- Prepare for arrival

Arrival of Physician

The physician recruiter is ultimately responsible for coordination of the physician's arrival.

- Personally pick Physician and (Family)
- Settle the family into temporary accommodations
- Arrange Real Estate Services (*this may happen prior to arrival*)
- Proceed with **"Family On-Boarding"**

Job Specific On-Boarding

Work with the Physician in completing the following documentation, ensuring all paperwork is complete and filed accordingly.

Documents to be completed:

- Initiate Payment (incentives)
- Arrange for Real Estate Agency Services for Physician (if required)
- Obtain copy of License and Insurance
- Obtain copy of work permits and passport
- Confidentiality Forms
- Issue Temporary privileges (Signed off by Medical Director)
- Complete RPAP Forms
- Complete application for Associate Privileges
- Complete application for Medical Staff

- Obtain parking pass and Hospital ID
- Obtain Electronic Dictation with Health Records
- Refresher tour of facility

	Medical Director	Chief of Staff	Physician Recruiter	Physician Buddy
Greeting	√	√	√	√
Introduction to key staff including Management		√		√?
Contact Communication Internal and External, Media Communiqué			√	
Tour of Specific Department		√		
Office space and supplies (if applicable)		√		
Orientation EHR			√	
Laboratory Orientation			√	
Health Records Orientation			√	
Health Centre I.D Security Access			√	
Computer Access – Email Access		√		

Settling In

- Arrange for welcoming dinner Physician and Spouse with Medical Director, Chief of Staff, Board member, Physician Buddy community members

- Check in with Physician – (See how things are going?) It is important that the Chief of Staff, Physician Recruiter and Physician Buddy periodically – "Check In"

- Weekly follow up – provide ongoing assistance as required

Appendix I: Glossary of Terms

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- **Acute care:** "providing or concerned with short-term medical care especially for serious acute disease or trauma" (MedlinePlus, 2012).
- **Assigned population:** an adjusted value which reflects the services for 100% of the population. The formula for deriving this value is # of assigned full-time patient count / (# discrete patients / total population).
- **Census subdivision:** "area that is a municipality or an area that is deemed to be equivalent to a municipality for statistical reporting purposes" (Statistics Canada, 2011).
- **CMG:** case mix groups are a classification system for patients with similar characteristics.
- **Covered population:** covered population is based on eligibility for health insurance benefits in Saskatchewan. All residents of Saskatchewan are included except: (a) members of the Canadian Forces and inmates of federal prisons, all of whom are covered by the federal government; and (b) people not yet meeting the residency requirement (coverage begins on the first day of the third calendar month following their move to Saskatchewan). Saskatchewan residents moving elsewhere remain eligible for coverage for the same period, and anyone whose coverage extends through June (i.e. who left the province April 1st or later) is included in the report. In the case of death, people who had coverage any time in June are included. Coverage is available to people temporarily living outside the province (students, contract employees, etc.).
- **Discrete patients:** a count of persons for whose services this clinic had approved amounts, by number of clinic doctors seen -- one person counted once.
- **FTE:** a full-time equivalent is a unit used to measure the workload of one individual.
- **Inpatients:** "a hospital patient who receives lodging and food as well as treatment" (MedlinePlus, 2012).
- **Interdisciplinary teams:** interdisciplinary PHC teams should be dynamic rather than static. Teams change and evolve to meet the needs of patients/clients in different environments. Primary health care teams may comprise combinations of family physicians, nurse practitioners, case coordinators, home care and public health nurses, mental health professionals, nutritionists, social workers and other health care professionals as appropriate. Co-locating team members in a primary health care centre helps facilitate collaboration and continuity of care.
- **Low-income:** "one-half of the median adult-equivalent adjusted family income. A family's income is 'adult-equivalent adjusted' to account for differences in family size" (Statistics Canada, 2011).
- **Mobility:** "refers to the status of a person with regard to the place of residence on the reference day, in relation to the place of residence on the same date five years earlier" (Statistics Canada, 2011).

- **Outpatients:** "a patient who is not hospitalized overnight but who visits a hospital, clinic, or associated facility for diagnosis or treatment" (MedlinePlus, 2012).

- **Perceived health:** "refers to the perception of a person's health in general, either by the person themselves or, in the case of proxy response, by the person responding. Health means not only the absence of disease or injury but also physical, mental and social well-being" (Statistics Canada, 2011).

- **Primary Health Care:** primary health care represents the first point of contact people have with the health care system. It is where people have their everyday health care needs met usually by family physicians, nurses, mental health professionals, dieticians, pharmacists and other health care professionals.

- **Resident population:** total population excluding the shadow population.

- **Shadow population:** "temporary residents of a municipality who are employed by an industry or commercial establishment in the municipality for a minimum of 30 days" (AlbertaCanada, 2012).

- **SHP:** Saskatchewan Health's Supplementary Health Program.

- **Sum of discrete patients:** the sum of each doctor's discrete patient counts (one person counted once per doctor).