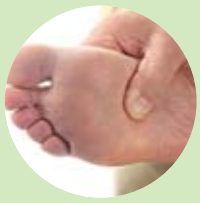
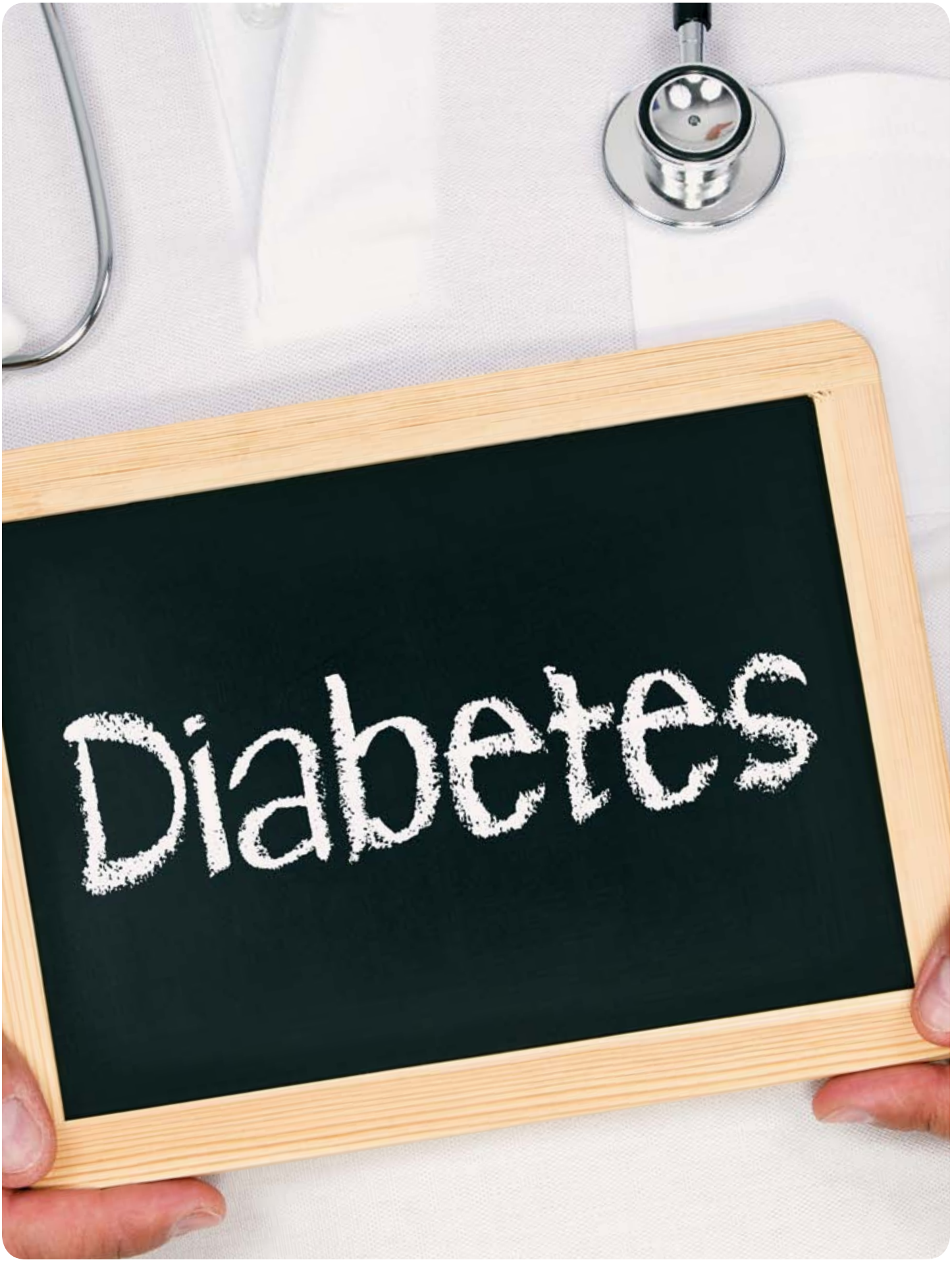
Evaluation of the Effectiveness of Diabetes Education Centres

ACROSS THE PROVINCE OF NEW BRUNSWICK


New Brunswick Health Council
Engage. Evaluate. Inform. Recommend.


Diabetes

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Acknowledgements and Author Details

The New Brunswick Health Council mandate

New Brunswickers have a right to be aware of the decisions being made, to be part of the decision-making process, and to be aware of the outcomes delivered by the health system and its cost. The New Brunswick Health Council will foster this transparency, engagement, and accountability by:

- Engaging citizens in a meaningful dialogue.
- Measuring, monitoring, and evaluating population health and health service quality.
- Informing citizens on health system's performance.
- Recommending improvements to the Minister of Health.

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Foreword

In June 2012 the New Brunswick Health Council (NBHC) began a project to assess the delivery of services for patients with diabetes in New Brunswick. This work falls under the legislated mandate of the NBHC to promote the improvement of health service quality in the Province by:

- **engaging** citizens in a meaningful dialogue,
- **measuring, monitoring, and evaluating** population health and health service quality,
- **informing** citizens on health system's performance,
- **recommending** improvements to health system partners.

The NBHC seeks to foster transparency, engagement and accountability in order to ensure that New Brunswickers can exercise their right to be:

- aware of the decisions being made,
- part of the decision-making process,
- aware of the outcomes delivered by the health system and its cost.

The main objective of the project was to evaluate the effectiveness of diabetes education centres and clinics in New Brunswick, in order to help inform the Department of Health's (DH) and the Regional Health Authorities' (RHA) efforts to improve the quality of diabetes related health services in the province of New Brunswick. As such, the project was carried out with the collaboration of the Department of Health and both Regional Health Authorities in New Brunswick. This collaboration included, in the preliminary phase, a Privacy Impact Assessment completed to establish the parameters for data sharing and provide the basis for the agreements between the NBHC and the DH as well as between the NBHC and the RHAs.

This document is the report of the NBHC's Evaluation of the Effectiveness of Diabetes Education Centres Across the Province of New Brunswick based on the context of the services and the input of resources. The report is intended to support further planning by enhancing the information that Regional Health Authorities already collect in their performance management systems, by describing the equity in distribution of services and, in light of the Diabetes Strategy, by indicating which models of care and types of service achieve the best outcomes. It aims to:

1. Describe the geographic distribution of the types of service and their context,
2. Describe the extent to which diabetes services respect the expanded chronic care model,
3. Determine if diabetes services improve the health outcomes of people with diabetes,
4. Identify models and practices that produce the better outcomes.
5. Quantify the human resource costs of diabetes care in the 8 largest diabetes centres in the Province.

Key Messages, Findings and Recommendations

Messages:

- People with diabetes in New Brunswick who are attending diabetes education clinics or centres are often individuals with complex problems who require enhanced or specialized diabetes care.
- Degree of patient-centredness and alignment with the chronic care model seem to influence health outcomes that diabetes services achieve.
- The actions common to those diabetes services that efficiently use human resources and achieve good health outcomes include:

1. Using a holistic approach in developing a good relationship with patients,
2. Sharing power and responsibility with the patient for disease management,
3. Ensuring flexibility in the offering of services to encourage patients to use them,
4. Establishing and maintaining strong links with other health services and community resources,
5. Organizational and cultural environment that enables staff to be person centred in the way they work.

Findings:

- Zone 4 (Madawaska/North-West Area) Zone 6 (Bathurst/Acadian Peninsula Area) have the highest proportion of diabetes patients reaching A1c target levels. This holds true after adjusting for age in the population.
- Patients with diabetes attending clinics achieve larger reductions in A1c levels within a 2 year time period compared to those who do not attend clinics.
- Case managers, Community Health Centres and clinics in Small Hospitals have the highest proportion of patients with A1c levels of 6 to 8%. This holds true after adjusting for age and for the A1c level at the start of receiving service.
- Large Clinics, Case managers, Community Health Centres and clinics in Small Hospitals achieve similar reductions in A1c levels among their patients. Health Centres show the smallest reduction levels.
- In terms of hospital admissions for diabetes related conditions, Large Clinics, clinics in Small Hospitals and Community Health Centres achieve significant reductions.
- Among the 8 large clinics in the Province, personnel costs ranged from $30 to $160 per visit. Higher costs were not related to better health outcomes.

Recommendations:

- Identify role of each location that offers diabetes services and its relationship to other diabetes services. In doing so, consider also the relationship to other health services. Inform patients, family physicians, primary care services and other relevant health services of this role.
- Implement in all locations, systematic quality improvement programs that target population health outcomes and evidence-based practice. Major indicators of quality would include the proportion of people with diabetes whose A1c levels are within the target ranges, the proportion screened appropriately for complications, the proportion who attend for appropriate follow-up visits, and the proportion hospitalised for diabetes and diabetes associated conditions. This would require locations to develop and implement adequate information systems.
- Ensure that diabetes clinic staff are adequately trained and accredited to provide the services expected of them. Equally, ensure that staff pursue appropriate continuing education.
- Identify a diabetes team leader in each location. This leader would be responsible for ensuring that the elements of the chronic care model are in place, including program evaluation, clinical audit, adequate staff training and access to the resources.
- Assess adequacy and acceptability of services for First Nations individuals while assessing and responding to the communities' needs.
- Implement systems that enhance formal and informal communication between diabetes team members, including the patient and family, as well as with the wider community and with surrounding health services. Consider the use of electronic health records (EMR) as a method of communication between professionals.
- Implement systems that remind patients and professionals of required interventions and actions and when they are due. This would include call and recall systems for follow-up and referrals for screening for complications.
- Ensure that diabetes services dovetail with services for other chronic illnesses to reduce duplication of effort for patients and services.

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Introduction

Diabetes is a serious and costly disease that affects 69,387 New Brunswickers as of 2011, or 9.2% of the New Brunswick population according to data from the New Brunswick Diabetes Registry[1].The economic burden of diabetes in New Brunswick was estimated at $298 million in 2010[2]. In Canada and in New Brunswick the prevalence of diabetes is increasing in recent decades. This increase is particularly noticeable in the younger, working age groups.[3] Because of increasing rates of diabetes and its risk factors, diabetes care is becoming a priority for health systems.

About 90 to 95% of people with diabetes have type 2, which usually occurs in adults over age 45 but is increasingly occurring in younger age groups. Many cases of type 2 diabetes could be prevented or delayed by population-wide improvements in diet and exercise. The incidence of type 2 diabetes rises with age, as does the incidence of many other chronic diseases. This means that a high proportion of people with diabetes have other chronic diseases as well. Type 1 diabetes is usually diagnosed in young people, although it can occur in older people.

Type 1 and 2 diabetes represent the two ends of a spectrum and develop because there is a problem with regulating or managing blood sugars related to insulin. Simply stated, the cells in the human body need blood sugar. Food is digested and then absorbed into the blood stream to create 'blood sugar'. The blood moves the sugar to all the cells in the body. However, to enter the cell, the sugar requires insulin. Insulin is like a key and unlocks the cell. With Type 1 diabetes the pancreas does not produce any insulin. That is why people with Type 1 diabetes must take insulin. With Type 2 diabetes, the insulin is not produced in sufficient quantity because the cells have become resistant to insulin. In other words, the key no longer opens the door. This causes blood sugar to rise. Very high blood sugar can cause coma and death; chronically high sugar levels are at the root of the complications of diabetes. Low blood sugar, a complication of treatment, can cause permanent brain damage and death.

Although the treatment of diabetes can have a significant impact on patients and families, the main burden of diabetes is caused by its long-term complications, which include cardiovascular disease, vision loss, kidney failure, nerve damage, and lower-extremity amputations. The occurrence of these complications can be reduced by good control of blood sugar levels using a combination of lifestyle improvements and medications. High quality management of diabetes and its complications can reduce rates of disability, health care service use, days lost from work and school, and premature mortality as well as increase the quality of life.

[1] NB Diabetes Registry identifies diabetes on the basis of the Canadian Chronic Disease Surveillance System (CCDSS) and A1c laboratory data.

[2] The New Brunswick Diabetes Cost Model was created for the Association by the Centre for Spatial Economics based on the Canadian Diabetes Cost Model developed by Informetrica Limited and made possible by an unrestricted educational grant provided by Novo Nordisk Canada Inc. The two main sources of data used for the estimate and forecasts come from the National Diabetes Surveillance System (NDSS) and Health Canada's study titled the Economic Burden of Illness in Canada (EBIC). The Model aimed to integrate the administrative prevalence and incidence estimates from NDSS with the economic cost estimates from EBIC. The Model supports analysis of the sensitivity of the prevalence and cost estimates to changes in demographic data, incidence and mortality rates by age and sex, and the average annual number of net general practitioner and specialist visits by people with diabetes. Assumptions made in this model are conservative and may understate the prevalence and cost of diabetes in the future, rather than overstate it.

[3] Public Health Agency of Canada. Diabetes in Canada : Facts and figures from a public health perspective. 2011. http://www.phac-aspc.gc.ca/cd-mc/publications/diabetes-diabete/facts-figures-faits-chiffres-2011/index-eng.php

Comprehensive Integrated Care for Diabetes

Effective diabetes care must be centred around the person, assisting them in practicing and encouraging positive self management. This includes enabling those behaviours that support glycemic or sugar control, blood pressure control, lipid management and smoking cessation in order to lower the risk of developing serious complications. As yet there is no cure; in order to achieve good control of blood sugar patients must integrate diabetes management into their everyday lives. The main management tools for diabetes are physical exercise, balanced nutrition, sugar lowering drugs and insulin. People with type 2 diabetes may be able to achieve acceptable blood sugar levels through exercise and diet alone, most require some drug therapy and many eventually require insulin. Exercise and good nutrition are essential for all patients with diabetes, not only for their effect on blood sugar levels, but also for their protective effect on the cardiovascular system. Although forms of insulin which do not require injection are being explored, currently patients requiring insulin must take it by injection, often several times a day, or by an insulin pump.

What is Best Practice for Diabetes Care

The goals of a diabetes care program are to help the patient attain acceptable glucose, blood pressure and lipid control levels and to ensure that the patient has access to appropriate follow-up in order to detect and manage complications. Care focused on whole patient health outcomes is likely to be both effective and efficient.[4] The model of choice for provision of such care is the Expanded Chronic Care Model, already adopted in New Brunswick in its strategic plan for diabetes.[5] The Canadian Diabetes Association also recommends this model.[6] The literature shows that programs that adhere to this model are likely to produce better health outcomes than programs that do not.[7] Diabetes care programs and services should implement as many of the elements of the chronic care model as possible in order to optimize health outcomes. Strategies that have the best evidence for improved outcomes are: the promotion of self-management, the provision of interprofessional team-based care and case management and the provision of care that is structured, evidence-based and supported by a clinical information system that can support a registry, clinician reminders, decision support, audit and feedback. While not explicit in the model, the Canadian Diabetes Association highlights the importance of care that is built around patient needs.

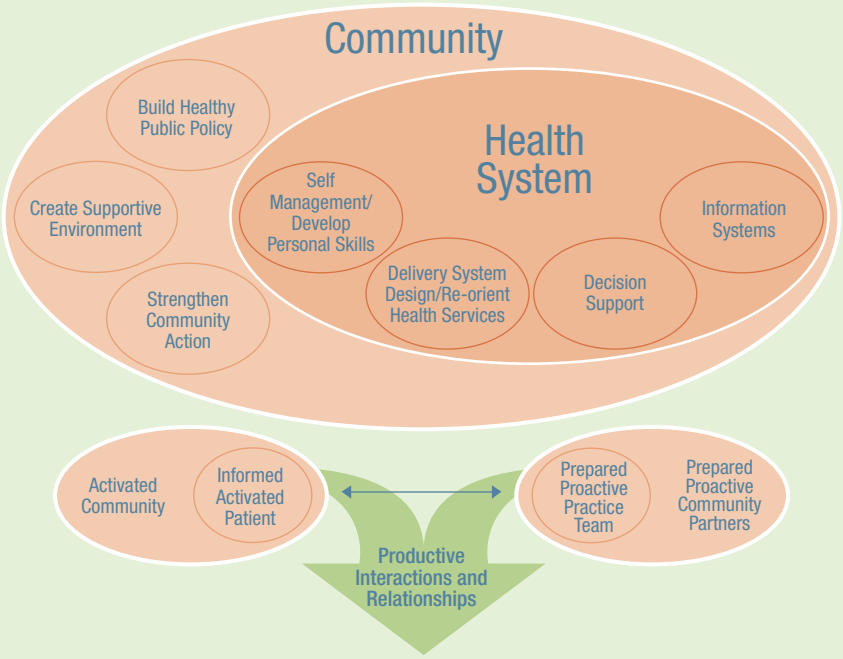
[4] Simenerio et al. Implementing the Chronic Care Model for Improvements in Diabetes Practice and Outcomes in Primary Care: The University of Pittsburgh Medical Center Experience. Volume 22, Number 2, 2004 • CLINICAL DIABETES

[5] New Brunswick Department of Health Comprehensive diabetes strategy for New Brunswickers 2011 – 2015. https://www.gnb.ca/0053/phc/diabetes-e.asp

[6] Canadian Diabetes Association Clinical Practice Guidelines Expert Committee. Canadian Diabetes Association 2013 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. Canadian Journal of Diabetes 2013; 37 (suppl 1): S1-S212. Available at http://guidelines.diabetes.ca/ accessed October 2013.

[7] Clement M, Harvey B, Rabi DM, et al. Canadian Diabetes Association Clinical Practice Guidelines for the Prevention an Management of Diabetes in Canada : Organization of Diabetes Care. Canadian Journal of Diabetes. 2013; 37 (suppl 1): S20 – S25.

Figure 1. The Expanded Chronic Care Model:



The expanded chronic care model presents six interrelated elements for effective care of chronic diseases:

1. the health system–culture, organizations, and mechanisms to promote safe, high-quality care
2. delivery system design–for clinical care and self-management support, including team care
3. decision support–based on evidence and patients' preferences
4. clinical information systems– to organize patient and population data
5. self-management support–to enable patients to manage their health and health care
6. community involvement–to mobilize patient resources

In addition, it situates clinical services in the context of the wider health services, communities and environments.

Created by: Victoria Barr, Sylvia Robinson, Brenda Marin-Link, Lisa Underhill, Anita Dotts & Dariana Ravanadale (2002) Adapted from Glasgow, R., Orleans, C., Wagner, E. Curry, S., Solberg, L. (2001). Does the Chronic Care Model also serve as a template for improving prevention? The Milbank Quarterly, 79 (4), and World Health Organization, Health and Welfare Canada and Canadian Public Health Association, (1986). Ottawa Charter of Health Promotion.

Building Care Around the Patient[8]

1. Getting to know the patient or client as a person:

   This focuses on building a ***relationship*** between the clinician and the patient/client and carers. Health professionals need to get to know the person beyond their diagnosis.

2. Sharing of power and responsibility:

   This focuses on ***respecting*** preferences. It includes treating patients/clients as partners when setting goals, planning care and making decisions about care, treatment or outcomes.

3. Accessibility and flexibility:

   This focuses on ***meeting patients and clients individual needs*** by being sensitive to values, preference and expressed needs. It also focuses on giving the patient/client choice by giving timely, complete and accurate information in a manner they can understand so they can make choices about their care.

4. Coordination and integration:

   This is about ***teamwork.*** It includes working together to minimize duplication and providing each patient/client with a key contact at the health agency. It also involves service providers and systems working "seamlessly" behind the scenes to maximize patient outcomes and provide them with a positive experience.

5. Environments:

   The environment refers to both the physical and the organisational/cultural environment. This is focused on having an environment that enables staff to be person centred in the way they work.

[8] Person Centered Practice: Guide to implementing person-centered practice in your health service (2008). Retrieved Sept. 7, 2012 from http://www.health.vic.gov.au

2

How the findings were arrived at

Information for the project came from 2 major sources. The first was routine data sources, including diabetes registry, hospital admissions, laboratories and physician billing information (Appendix B). The second was a series of interviews conducted with professionals and patients in each clinic (Appendix C for questionnaires).

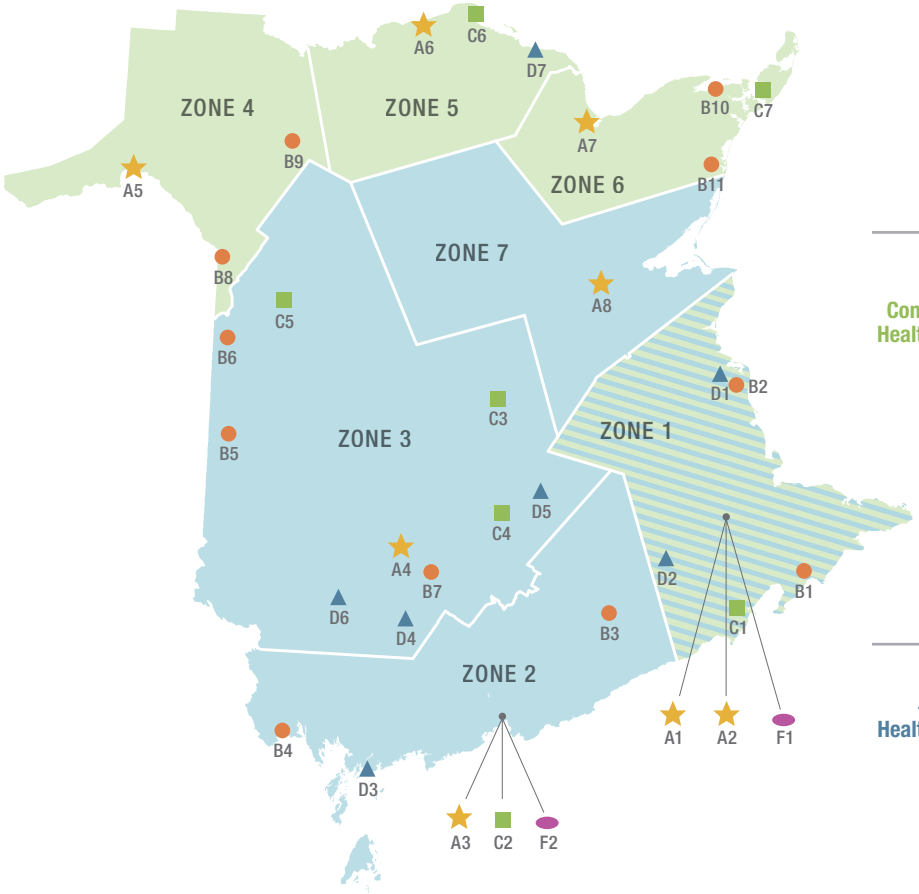
In using the main data source, people with diabetes were defined as people on the diabetes registry in 2011. Using the medicare card number, these patients' records were linked across the routine data sources used. This gave a longitudinal picture of service use and outcomes. A1c levels (a test of the effectiveness of blood glucose control), hospital admissions, and clinic visits were the main variables studied. Results were adjusted to remove the effects of age, length of time since detection of diabetes and A1c differences between the groups of patients being compared **(Appendix B for sources and methodology).**

The clinic interviews were conducted using a list of discussion themes developed from a literature search conducted in fall 2012. Themes for discussion included the clinic's role in self-management, the use of a team approach, how patient education is provided, clinic accessibility and quality of care. It is recognized that chronic disease management generally consists of three elements: electronic medical records or other ways of tracking patients, disease education activities and a team approach. However, in order to ensure that all clinics providing enhanced diabetes care and education were captured, clinics were defined as any location in which a patient accessed diabetes care. This included hospitals, community health centres and health centres. The two outreach case managers were each identified as "a diabetes clinic". Three trained interviewers conducted the interviews in English or French at the clinics between the months of February and June in 2013, after which the summaries of the interviews were submitted to the clinics for validation.

Where Enhanced Diabetes Care and Education is Provided

Defining a diabetes clinic as where patient accessed enhanced care, 37 clinics were identified. Each of the 7 health zones[9] had at least one large clinic and a number of smaller ones. These clinics were the focus of this report **(Figure 2)**.

Figure 2.



RHA

- Horizon/Vitalité
- Horizon
- Vitalité

Large Clinic

- **A1** The Moncton Hospital
- **A2** Dr. Georges-L.-Dumont University Hospital Centre Diabetes Clinic and Endocrinology Clinic (Moncton)
- **A3** Saint John Regional Adult Diabetes Clinic
- **A4** Fredericton Diabetes Resource Centre
- **A5** Clinic – Edmundston Regional Hospital
- **A6** E.L. Murray Medical Clinic (Campbellton)
- **A7** Chaleur Regional Hospital – Joslin (Bathurst)
- **A8** Regional Diabetes Program (Miramichi)

Small Hospital

- **B1** Sackville Memorial Hospital
- **B2** Stella-Maris-de-Kent Hospital (Sainte-Anne-de-Kent)
- **B3** Sussex Health Centre
- **B4** Charlotte County Hospital (St. Stephen)
- **B5** Upper River Valley Hospital (Waterville)
- **B6** Hotel-Dieu of St. Joseph Hospital (Perth-Andover)
- **B7** Oromocto Public Hospital
- **B8** Grand Falls General Hospital
- **B9** Hôtel-Dieu Saint-Joseph de Saint-Quentin
- **B10** Enfant-Jésus RHSJ † Hospital (Caraquet)
- **B11** Tracadie-Sheila Hospital

Community Health Centre

- **C1** Albert County Health & Wellness Centre (Riverside-Albert)
- **C2** Diabetes Clinic St. Joseph's Hospital (Saint John)
- **C3** Central Miramichi Health Centre (Doaktown)
- **C4** Queens North Community Health Centre (Minto)
- **C5** Tobique Valley Community Health Centre (Plaster Rock)
- **C6** St. Joseph Community Health Centre (Dalhousie)
- **C7** Lamèque Hospital and Community Health Centre

Health Centre

- **D1** Rexton Health Centre
- **D2** Petitcodiac Health Centre
- **D3** Fundy Health Centre (Black's Harbour)
- **D4** Fredericton Junction Health Centre
- **D5** Chipman Health Centre
- **D6** Harvey Health Centre
- **D7** Jacquet River Health Center

Pediatric Clinic

- **F1** The Moncton Hospital – Pediatric Clinic
- **F2** Saint John Regional Hospital – Pediatric Clinic

Outreach Case Manager

* Not on map

- **E1** Outreach Diabetes Case Manager (Southeast NB)
- **E2** Outreach Diabetes Case Manager (Southeast NB)

[9] See glossary in Appendix A for Zone definition and boundaries.

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Care provision
in New Brunswick, main findings

37 clinics were categorized into 6 different types
(tables pages 18-45):

- **8 large clinics**
  (associated with the main hospital within a health zone)
- **11 clinics associated with small hospitals**
- **7 community health centres**
- **7 health centres**
- **2 outreach case managers**
- **2 pediatric clinics**

For simplicity all points of services will be referred to as "clinics" in the remainder of the report, unless making reference to specific categories.

Clinics associated with large and small hospitals tend to be specifically for patients with diabetes. They generally have a wider range of professions within the team and can provide access to a wider range of other services. Community health centres and health centres provide diabetes education services alongside other health services and often do not differentiate between services for diabetes and those for other conditions. Outreach case managers offer services from a number of different locations in their catchment area including family physicians' offices and health centres.

About half of the 69,387 New Brunswickers on the diabetes registry obtained services from at least one of these clinics during the study period. It was also noted that about 27% of people who obtained clinic services were not on the diabetes registry. It is likely that these include people with pre-diabetes and gestational diabetes (a type of diabetes that occurs during pregnancy).

Large Clinics

Location		Moncton Hospital	Dr. Georges-L.-Dumont UHC	Saint John Regional
General Clinic Information	Clinic Type	Large Clinic	Large Clinic (In hospital)	Large Clinic
	Years in Existence	Close to 30 years	At least 22 years	38 years
People Served	# of clients	2,000 plus 400 in community	More than 1,500 patients.	1,200
	Visits Per Month			350
	Calls Made/Returned Per Month	300		250 - 350
	Geography Served	South east New Brunswick	The Greater Moncton area	Greater Saint John to Sussex
	Frequency of Typical Patient Visit	3 - 6 months		3 - 6 months
	Average Age of Client	60+		45 - 59
	Other Demographic Factors	Seeing more in their 30s and 40s	High level of unemployed working-aged adults, lower socio-economic profiles.	
Contact Methods (for follow-ups)	In Person	Significant	Significant	Significant
	By Phone	Significant	Significant	Significant
	By Email	Some	Little or None	Some
	Other			
Internal Team	Endocrinologist			
	Other Specialist (Internist, Pediatrician)			●
	Psychologist			
	Family Physician	●		
	Pharmacist	●		
	Nurse Practitioner			
	Nurse (CDE)	●		●
	Nurse		●	●
	Dietitian	●	●	●
	Foot Care	●		
	Social Worker	●		
	Admin/Receptionist	●	●	
External Team	Endocrinologist		●	●
	Other Specialist (Internist/Ophthalmologist)	●		
	Psychologist			
	Family Physician			●
	Pharmacist			
	Nurse VON			
	Nurse Practitioner			
	Foot Care			
	Social Worker			
	Admin/Receptionist		●	
	Child Life Specialist			
	Health Coach			●
	Physiotherapist/OT	●		●
	Phlebotomy - On site			
	Overlap in Team Roles	Yes		

Fredericton	Edmundston	Campbellton	Bathurst	Miramichi
Large Clinic (Not in hospital)	Large Clinic (In hospital)	Large Clinic	Large Clinic/Joslin	Large Clinic
28 years	24 years		7 years	At least 15 years
5,392	Well above 1,000 patient cases	1,500		Not able to provide an exact count, but noted 3,130 total patient visits
400 - 500	90			
40 - 60				
Fredericton area including several surrounding rural communities; offers distant services through an Outreach Case Manager mostly to rural regions.	North-West New Brunswick and sometimes from Québec.	North of the province (Dalhousie & Jacquet River)	Area surrounding Acadie-Bathurst	Serves a very large rural geographical region, and offers mobile distant services for the more distant communities of Rogersville & Blackville.
Depends on patient's needs they can be seen in 1 week, 1 month, 3 months, 6 months, annually.	Vary		6 months	
Patients of different age groups.	Patients of different age groups.			
Demographically diverse. Care and education to international students and immigrants. Sizeable First Nations community.	Most patients are of lower socio-economic profiles, with very limited financial resources and poor diets	Lower-socio economic. A good number of aboriginal (First Nations' members)	Many have low economic status. Many degrees of health, numeracy and math illiteracy. Many seasonal workers.	There is an important fishing industry in certain regions like Bay Saint-Anne, and patients from fishing communities.
Significant	Significant	Significant	Significant	Significant
Significant	Some	Some	Some	Significant
Some	Little or None	Little or None	Some	Some
			●	
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Large Clinics

Location		Moncton Hospital	Dr. Georges-L.-Dumont UHC	Saint John Regional
Communications Internal Team	Informal	Discussions and email	Lack of communication	Email
	Formal	Electronic charting. Ask each other's advice.	Lack of communication	Electronic and paper files, case reviews
Communications External Team	Informal		Lack of communication	
	Formal	Referrals, notes	Lack of communication	Referrals
Communication with Client	Methods	In person, email and phone	In person and phone	In person, email and phone
Levels of Prevention	Primary	Some	Some	Very little
	Secondary	Some	Very little	Some
	Tertiary	Significant	Significant	Significant
Quality Assurance	How Is Access Ensured?		Recommendation	
	How Is Patient Follow-up Ensured?		Patient-driven, booked during patient visit	Clinic-driven, phone
Self-Management	Role of Patient	Patient takes an active role	Understand how/when to call for more information, for insulin adjustments, or for a follow-up consultation.	Self-management
	Role of Professional	Coach, helper, facilitator	Provide patients with good information and tools on how to manage their diabetes to reduce diabetes-related health complications.	Encourage
	% Self-Managed	Difficult to estimate	Unknown	Uncomfortable giving an estimate.
	Management of Co-morbidities	Three quarters of patients	Most	50% +
Patient Education	Goal	Help accomplish their goals		Assist with self-management
	Guidelines	CDA	CDA and Health Canada	CDA
	Types Offered	One on one and classroom	Classroom	One on one and classroom
	Themes	Living with diabetes, nutrition, exercise and monitoring.	Diabetes basics, definition, risk factors, conversational maps. Complications, prevention, self-management.	Basics of diabetes, foot care and exercise. Insulin adjustment & carb. count.
	Teaching Methods	Interactive and conversation maps.		Interactive with conversation maps. Cards.
	Family Involvement	Encouraged	Appreciated	
Clinic Capacity	Able to Meet Demand	Yes	Demand too high	Yes
Wait Times	New Patient Triage	Yes	Yes	Yes
	First Visit - Urgent	Every Friday	2 weeks or told to go to the emergency	Seen right away
	First Visit - Non-urgent	4 - 6 weeks	3 or 4 months	2 - 5 weeks
	Follow-up Visit	3 months	Few weeks	
	Available Hours	8 - 4, Monday to Friday	8:30 - 4:30, each day	7:30 - 3:30, Monday to Friday
	Extended Hours		No	No
No Shows	Extent of No Shows		Good number	10%
	How They Are Minimized		No strategies	No strategies

Fredericton	Edmundston	Campbellton	Bathurst	Miramichi
Meet in hallways, talk/collaborate	Discussion	Discussion, phone and email	Discussion, phone and email	Discussion and email
Electronic charting	Discuss patient care, share information/ideas/thoughts on processes & coordination of care.		Team meeting	Paper Discuss patient care.
Phone or email	Phone	Discussion		
Referrals and reports	Meet every 3 months	Letter		Faxes and letters, referrals
In person, email and phone	In person and phone.	In person and phone.	In person, email and phone	In person, email and phone
Very little	Some	Some	Some	Very little
Very little	Very little	Very little	Very little	Some
Significant	Significant	Significant	Significant	Significant
Referrals are made as needed	Recommendation			Recommendation
Patient-driven, booked during patient visit	Clinic-driven, phone	Patient-driven, phone		Clinic-driven, phone
Patient is empowered as much as possible, care is patient-driven.	Set achievable goals & working towards them to become self-sufficient and rely less on others for self-management.	Become comfortable with diabetes, and become equipped with the tools to properly manage.	Patient sets goals they wish to achieve. A contract is then signed.	Patients expected to be directly involved in setting their own goals and take ownership of mgmt.
Provide credible patient-level information to help them make informed decisions on how they want to manage their health.	Focus on providing basic education so patients can understand their disease to better manage it.	Number one priority is to be accessible first, and educate second.	The staff can determine what the patient's needs are.	Provide patients with the tools and educate them little by little, at the patient's rate, on how to get there.
Unknown	Unknown	Unknown		Unknown
Most have co-morbidities.	Yes	Majority	40%	Majority
		Self-management and increase knowledge regarding diabetes	Provide patients with tools and evidence-based education.	Prevent complications of diabetes through education.
		CDA's Care Mat Plan		CDA
One on one and group	Group	One on one	One on one, phone, in home, classroom	One on one and classroom
A broad range of client-driven topics/ Class content is tailored to the group.	Nutrition and exercise, then medication.	Individualized to the patient's needs.	Goal setting, problem solving, nutrition, foot care and medication	Teaching patients how to self-adjust their insulin levels.
		Brochures, handbook, manuals		Conversation map tool, flip charts
Encouraged	Encouraged	Encouraged	Encouraged	Encouraged
Yes	Yes	No	Yes	Demand too high
Yes	Yes	Yes	No	Yes
Same day	1 week	Same day		2 to 3 months
3 weeks	10 weeks	Within a week		1 year for outside clinics
Based on patient needs: 1 week, 1, 3, 6 months or annually.	18 weeks	8 months	6 months	1 - 3 months
8 - 4, Monday to Friday, closed from 12:30 - 1:15	Weekdays until 6 pm	8 - 4, Monday to Friday	8 - 4, Monday to Friday	8 - 4, Monday to Friday
No	Yes	Yes	No	No
Very little	Good number	22%	13%	The no-show rate is about 15%
No strategies	Reminder call	Change the triage system	Reminder call and letter	Reminder call

Large Clinics

Location		Moncton Hospital	Dr. Georges-L.-Dumont UHC	Saint John Regional
Other Accessibility	Distance Service	Yes through Shelly (Outreach Case Manager)	No	No
	Insulin Pump Teaching	Yes	No	Yes
	Client-Borne Expenses	Strips and equipment	Paid parking	Strips, insulin
	Travel Distance: *Farthest*		90 km	
	Travel Distance: *Average*	30 - 45 minutes		
	Transportation	Somewhat of an issue	Somewhat of an issue	Somewhat of an issue
Patient Perceptions	Convenience: Location	Convenient	Yes	Convenient
	Hours of Service	Adequate	Mostly Adequate	Adequate
	Accommodation of Special Needs		Wheel chair accessible	
	Travel Distance	Acceptable	Acceptable	Acceptable
	Accommodating		Yes	
	Most Important Service		Structured education classes and spends a considerable amount of individual time with patients who request/ require help.	Education for newly diagnosed so they know what they are dealing with.

Fredericton	Edmundston	Campbellton	Bathurst	Miramichi
None	Yes: taxi slips for those in need (within city limits)	No	No	Accommodate patients according to transit schedule.
Yes	Yes	Yes	Yes	Yes
Paid parking and travel	Medication and foot care services	Medication and insulin	Paid parking, medication, travel	
60 - 70 km	1 hour	2 hours		1 hour, or 60 - 70 km
10 minutes	10 minutes	15 - 30 minutes		15 minutes
Somewhat of an issue		Somewhat of an issue	Somewhat of an issue	Somewhat of an issue
Yes	Yes		Yes	Yes
Adequate	Adequate	Adequate	Adequate	Adequate
Wheelchair accessible, longer appointments, visual tools, & more explanation and, mostly, individualized sessions based on patients' needs/feedback.	Wheelchair accessible/ Parking is accessible for patients in wheelchairs or mobility issues.	Wheelchair accessible and hearing or visual impairments accommodated.	Individualized sessions, from books with pictures, low literacy documentation, models and plates for meal planning. Refer visual impairment to CNIB.	Wheelchair accessible
Acceptable	Acceptable	Acceptable	Acceptable	Acceptable
Yes	Yes	Yes	Yes	
	They place an emphasis on nutrition & diet.	Help children in Northern NB managed their diabetes.		The clinic focuses on helping patients improve their sugars, and being personable.

Small Hospitals

Location		Sackville	Sainte-Anne-de-Kent	Sussex	St. Stephen	Waterville
General Clinic Information	Clinic Type	Small Hospital	Small Hospital	Small Hospital	Small Hospital	Small Hospital
	Years in Existence	30+ years	4 years	15 + years	15+ years	6 years
People Served	# of clients	390 active and 350 old charts	50 - 11 consultations, 100 - 120 follow-ups	2,000 +	500	2,000 - 3,000
	Visits Per Month	80		150	120 - 150	400
	Calls Made/Returned Per Month	80		20 - 25	50 - 60	40 - 50
	Geography Served	Sackville, Dorchester, Memramcook, Port Elgin	Mostly from Richibucto to Rexton. Up to 35 km radius served.	Mostly Sussex and other areas between Saint John & Moncton	All of Charlotte County, St George, the Islands	Woodstock, Hartland, Florenceville-Bristol
	Frequency of Typical Patient Visit		6 months	3 months	3 months	6 months
	Average Age of Client	50 - 79		Unsure	Older	50 - 70
	Other Demographic Factors	Most have type 2 diabetes	Low education/low income profiles and no insurance coverage for things like test strips. Seasonal employment.	Rural population, lower socio-economic group. Working poor.	Mostly type 2, and older, on fixed and or low income, with financial burdens. A handful of patients are illiterate.	More gestational diabetes in younger women
Contact Methods (for follow-ups)	In Person	Significant	Significant	Significant	Significant	Significant
	By Phone	Significant	Significant	Significant	Significant	Some
	By Email	Some	Little or None	Little or None	Some	Little or None
	Other				Group/Classes	
Internal Team	Endocrinologist					
	Other Specialist (Internist, Pediatrician)					
	Psychologist					
	Family Physician	●				
	Pharmacist					
	Nurse Practitioner					
	Nurse (CDE)	●	●	●		●
	Nurse				●	
	Dietitian	●	●	●	●	●
	Foot Care					
	Social Worker					
	Admin/Receptionist			●	●	●
External Team	Endocrinologist	●		●		
	Other Specialist (Internist/Ophthalmologist)	●		●		●
	Psychologist					●
	Family Physician		●			●
	Pharmacist					
	Nurse VON					
	Nurse Practitioner					
	Foot Care					
	Social Worker					●
	Admin/Receptionist		●			
	Child Life Specialist					
	Health Coach					●
	Physiotherapist/OT			●		●
	Phlebotomy - On site				Not asked	
	Overlap in Team Roles	Yes		Not raised as an issue	No issue mentioned	Some

Perth-Andover	Oromocto	Grand Falls	Saint-Quentin	Caraquet	Tracadie-Sheila
Small Hospital	Small Hospital	Small Hospital (In hospital)	Small Hospital	Small Hospital	Small Hospital
30+ years	10+ years	10 or more years	25 years		At least 8 years
2,000+ charts, 200 active	200	252 active, about 30 on wait list for education	383	300 - 310	516
20+	25 - 30			52	150 - +175
20	None	36		90+	15
Grand Falls, Woodstock, Plaster Rock, Nictau, and surrounding area.	Oromocto and surrounding area	Most from St-André, Drummond and Grand-Falls. Up to 40 km radius from St. Leonard to Perth-Andover.	Rural region - some as far as 40 km's away in Saint-Jean-Baptiste (Quebec).	Across the Acadian Peninsula	40 km radius from as far as Caraquet. Most from the regions of Tracadie, Rivière du portage, Brantville.
3 months	6 months	Vary	3 - 4 months		4 - 6 months
Middle age	50 - 80	Older (50+) adults	Children and 55+	Different age groups	50+
Type 2, low literacy, average family income and education level. Possible increase in gestational diabetes.	Mostly type 2 and pre-diabetes. Working class, shift workers and a few First Nations.	Lower socio-economic profiles and unemployed. Most are inactive, sedentary, with obesity a common issue		Most patients are of lower socio-economic profiles, with very limited financial resources.	
Significant	Significant	Significant	Significant	Significant	Significant
Significant	Little or None	Significant	Significant	Significant	Significant
Some	Little or None	Little or None	Little or None	Little or None	Little or None
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Not asked	Not asked				
No issue mentioned	No issue mentioned				

Small Hospitals

Location		Sackville	Sainte-Anne-de-Kent	Sussex	St. Stephen	Waterville
Communications Internal Team	Informal	Discussions and email	Lack of communication	Meetings and email	Meetings and email	Discussions and email
	Formal	Electronic files and communication book	Lack of communication	Electronic charting, notes from GP and focus notes	Electronic charting, notes from GP and focus notes.	Electronic files
Communications External Team	Informal	Phone and email	Phone		Meetings and email	Discussions and email
	Formal	Referrals	Fax		Focus notes, referrals and charts	Focus notes and referrals
Communication with Client	Methods	In person, phone and email	In person and phone	In person, email, and phone	In person, email, phone and classes	In person, phone and letter
Levels of Prevention	Primary	Some	Some	Very little	None	Some
	Secondary	Some	Some	Significant	Significant	Significant
	Tertiary	Significant	Significant	Very little	Significant	Significant
Quality Assurance	How Is Access Ensured?		Referrals are made as needed	Follow-up conversation with patient and physician	Referrals to Saint John	
	How Is Patient Follow-up Ensured?	Clinic letter	Patient-driven, phone	Clinic-driven, phone	Clinic-driven, booked during patient visit	Patient-driven, must call-in
Self-Management	Role of Patient	Set goals and self-management	Patient is charged with the management of their disease. Responsibility for deciding what services he/she wishes to receive.	Main Driver/ contributor	Follow advice and track progress	Take ownership of own care
	Role of Professional	Helper and coach	Help patients achieve self-management	Act as guides	Provide one-stop diabetic care.	Coach and guidance
	% Self-Managed	50%	Unknown	Unknown	–	50%
	Management of Co-morbidities	Aware of, and send team communication to doctor.	95%	90%	Many have co-morbidities	Aware of, but don't deal with.
Patient Education	Goal	Reinforce self-management.		Provide a good understanding of what diabetes is.	Accommodate people so they live the best possible quality of life with diabetes.	Put learning into practice.
	Guidelines	CDA	CDA	Horizon Health	Horizon NB Mandate and Mission	CDA
	Types Offered	One on one and classroom	One on one and group	One on one and groups	One on one, classroom, print, phone and email	One on one and classroom
	Themes	Living with diabetes, diet and exercise and foot care.	Pre-diabetic patients (theme: prevention). For diabetic patients, education focuses on self-management.	Healthy eating, exercise, blood sugars, insulin and disease management	Healthy eating, exercise, blood sugars, insulin and disease management.	Meal planning, label reading, what is diabetes and managing blood sugars.
	Teaching Methods	Class, interactive and conversation maps.	Conversational maps, information packages as well as other resources such as the Canadian Food Guide	Diagrams and models	Brochures and print material	Conversation maps, models, plates, posters and flip charts.
	Family Involvement	Encouraged	Encouraged	Encouraged	Encouraged	Encouraged
Clinic Capacity	Able to Meet Demand	No	Demand too high	No	No	No

Perth-Andover	Oromocto	Grand Falls	Saint-Quentin	Caraquet	Tracadie-Sheila
Meetings and email		Discussions and phone	Discussion		Discussions and phone
Electronic charting, notes from GP and focus notes.					
Meetings and email		Phone			Phone
Electronic charting, notes from GP and focus notes.		Fax and inter-office mail	Meeting		Meditek: comments and information
In person, email, and phone.	In person	In person and phone.	In person and phone.	In person and phone.	In person and phone.
Significant	Significant	Very little	Very little	Very little	Very little
None	Some	None	None	Some	Some
Very little	Very little	Significant	Significant	Significant	Significant
Have standing orders with specialists (OT)	Not sure- Nurse takes care of this.	Referrals are made as needed	Referrals are made as needed	Referrals are made as needed	
Patient-driven, booked during patient visit	Clinic-driven, booked during patient visit	Clinic-driven, booked during patient visit	Clinic-driven, booked during patient visit	Patient-driven, booked during patient visit	Clinic-driven
Patients guide where they want treatment to go.	Use the tools they are given. Be active in the management of their diabetes.	The patient is responsible for controlling and managing their diabetes.	To be careful and understand that if they are not, they can suffer serious complications.	Responsible for making the right decisions using the tools and information provided.	To adapt nutrition, monitor health and regularly exercise in order to manage the disease.
To customize care so patient can follow it.	Provide tools to manage patients' disease.	Put patients in charge of their own health through education and empowering them with self-responsibility.	Make them realize the impact of their actions and provide all the tools and information to help them achieve control.	Guide the patient, provide them with tools/ information needed to progress, and oversee control & self-management	Encourage and support the patients and provide information and advice.
	Depends on patient motivation and means	50%			50%
80%	80%	Most	Yes	Many patients have co-morbidities	Many patients have co-morbidities
To meet their needs.	Give them tools and resources to live with diabetes.	Inform patients about the basics of diabetes, and its impact.		Prevention	Help patients better understand diabetes.
Not stated	Not sure - nurse takes care of this.	CDA and Health Canada.			CDA
One on one, group, phone and email	One on one	One on one and group	One on one, group and classroom	3 sessions of 5-6 patients at a time	One on one and group
Healthy eating, exercise, blood sugars, insulin and disease management.	Healthy eating, exercise, blood sugars, insulin and disease management.	Diabetes basics, complications and follow-up and answers to questions.	Diabetes basics	Diabetes basics, overview of nutrition and overview of medications and exercising.	Nutrition, such as label reading. Types of diabetes, treatment and stress management.
3D Models, that patients can touch	Charts and models	Tools and resources often come from pharmaceutical reps and some from the hospital themselves.		Conversation Maps	Brochure/Guide
Encouraged	Encouraged	Encouraged	Encouraged		Encouraged
Wait time is 1 month	No	Demand to high	Yes	Yes	

Small Hospitals

Location		Sackville	Sainte-Anne-de-Kent	Sussex	St. Stephen	Waterville
Wait Times	New Patient Triage	Yes	Yes	Yes	Yes	Yes
	First Visit - Urgent	Less than a month	2 weeks	Less than a month		1 - 2 days
	First Visit - Non-urgent	2 - 3 months		About 1 month	1 - 2 months	1 month
	Follow-up Visit	3 - 6 months	4 months	3 - 6 months	Scheduled (1-2 months) Non-scheduled: triage/same as new patient	6 months or less
	Available Hours	8 - 4, Monday to Thursday	Open Monday to Friday: Visits Tues/Thurs 9 - 4	8 - 4, Monday to Friday	8 - 4, Tuesday to Thursday	8:30 - 4:30, Monday to Friday
	Extended Hours	Yes: cell phone for new insulin patient	No	No	No	Yes: Hospital ER, cell for new insulin starts
No Shows	Extent of No Shows	10 - 15%	Some	5%	10 per month	Minimal - 7%
	How They Are Minimized	Reminder calls	No strategies	Only those who ask get a reminder call.	Reminder call and appointment cards	No reminder letters are sent
Other Accessibility	Distance Service	Yes	No	Some outreach programs	No	No
	Insulin Pump Teaching	No	No	No	No	Yes
	Client-Borne Expenses	Test strips	Medication	Test strips and other meds	Test strips	Test strips and insulin
	Travel Distance: *Farthest*		45 minutes	60 minutes	45 minutes	100 km
	Travel Distance: *Average*	10 - 20 km	15 - 20 minutes	20 minutes	30 minutes	20 - 30 km
	Transportation	Not an issue	Somewhat significant	Somewhat of an issue	An important issue	Somewhat of an issue
Patient Perceptions	Convenience: Location	Yes	Yes	Yes	Yes	Yes
	Hours of Service	Adequate	Mostly Adequate	Adequate	Adequate	Adequate
	Accommodation of Special Needs	Always cognizant of literacy. And meeting the patient's special needs.	Flexible. No issues noted in accommodating special needs patients to-date.	Accessibility chairs, glucose-meter for those without sight, move chairs in office for wheelchair	Wheelchair accessible, will meet clients with special needs	Translators
	Travel Distance	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable
	Accommodating	Yes	Yes	Very	Very	Yes
	Most Important Service			People. One on one appointments and classes.	Personal service and personal relationship. They ask how you have been, always cordial.	

Perth-Andover	Oromocto	Grand Falls	Saint-Quentin	Caraquet	Tracadie-Sheila
Yes	Yes	Yes	Yes	Yes	Yes
1 - 2 weeks	6 - 7 weeks	1 month	Within a week	Within a week	1 - 2 days
1 month	7 months	3 - 4 months	3 months	4 weeks	
3 months	Scheduled (3 - 6 months)	6 months	3 - 4 months	3-month, 6-month or 1-year intervals, depending on the patient's needs.	4 - 6 months
7 - 4, Monday to Friday	8:30 - 4:30, Monday	8 - 4, only 3 days per week	8 - 4, Monday to Thursday	8 - 4, Monday to Friday	8 - 4, Monday to Friday
Yes: Weekend and evening (if needed)	No	Yes: Work beyond scheduled hours	No		No
About 5%	About 30 - 40%	Some (2 per month)	Not many	A significant proportion of patients	40%
Letters are mailed with invites to set appt. times	Reminder calls	Reminder calls	Reminder calls	Follow-up appointments are now patient driven.	Sends reminder letters
No	No	No	No	No	Yes: delivers supplies to 2 seniors complexes
No	No	No	Yes	No	No
Medical supplies	Test strips	Test strips, healthy food and fitness	Medication, insulin or test strips	Gas, travel	
40 minutes	30 minutes	20 - 25 minutes	40 minutes	45 minutes, or about 40 km	40 minutes, or 40 - 45 km
15 minutes	15 minutes	15 minutes	15 - 20 minutes	20 km or 15 minutes	10 minutes
Somewhat of an issue	Somewhat of an issue	Somewhat of an issue	Somewhat of an issue	Somewhat of an issue	An important issue
No		Yes	Yes	Yes	Yes
Adequate	Adequate	Mostly Inadequate	Adequate	Adequate	Completely Adequate
Wheelchair accessible	Wheelchair accessible	Wheelchair accessible and pictures	Wheelchair accessible	Wheelchair accessible	Wheelchair accessible
Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable
Yes	Very little	Yes	Yes		Yes
They seem to really care, make you feel special enough, someone who listens, and are not judgmental.	Rapport and personalized approach.	The clinic focuses on patient follow-up and believes patients need to be refreshed from time to time, regardless of status.	The clinic focuses on education about all things related including activity, nutrition, self-measurement of blood-pressure and sugars.		The clinic focuses on following up with patients and providing support.

Community Health Centres

Location		Riverside-Albert	St. Joseph's, Saint John	Doaktown
General Clinic Information	Clinic Type	Community Health Centre	Community Health Centre	Community Health Centre
	Years in Existence	10 or more years		9 years
People Served	# of clients	2,038, 32 with diabetes	10,000 to 12,000, 800 with diabetes	100+
	Visits Per Month		1,000	Hard to say
	Calls Made/Returned Per Month			A couple per month
	Geography Served	Riverside-Albert as far as Alma or Hillsborough	Greater Saint John area	Doaktown, Storytown, Hazleton, Blissfield, Weaversiding, Boiestown, Blackville
	Frequency of Typical Patient Visit	3 months		1 year
	Average Age of Client	Senior	55+	Seniors
	Other Demographic Factors	Limited income. Most over age 55. Seasonal workers.	Half have BMI over 25.	Rural, a lot of seniors, a few type 1 (3 in the whole area), a lot of unemployment, and social assistance (low income)
Contact Methods (for follow-ups)	In Person	Significant	Significant	Significant
	By Phone	Some	Some	Some
	By Email	Little or None	Some	Little or None
	Other			
Internal Team	Endocrinologist			
	Other Specialist (Internist, Pediatrician)			●
	Psychologist			
	Family Physician	●	●	●
	Pharmacist		●	
	Nurse Practitioner	●	●	●
	Nurse (CDE)			●
	Nurse	●	●	●
	Dietitian	●	●	●
	Foot Care			
	Social Worker		●	●
	Admin/Receptionist			●
External Team	Endocrinologist	●		
	Other Specialist (Internist/Ophthalmologist)	●		
	Psychologist			
	Family Physician			
	Pharmacist	●		
	Nurse VON			
	Nurse Practitioner			
	Foot Care	●		
	Social Worker			
	Admin/Receptionist			
	Child Life Specialist			
	Health Coach	●		
	Physiotherapist/OT			
	Phlebotomy - On site			
	Overlap in Team Roles			Not raised as an issue

Minto	Plaster Rock	Dalhousie	Lamèque
Community Health Centre	Community Health Centre	Community Health Centre	Community Health Centre
12 years	5 years	11 years	
7,500 and 165 with diabetes	268	2011: Dalhousie was 379	300
6,500	30	60	
		24 - 30	86
Chipman, Fredericton to half way to Doaktown	Area surrounding Plaster Rock (Riley Brook, Grand Falls or Perth Andover)	Dalhousie	
3 months	3 months		Depends on the patient
65 - 70	Senior	The clinic sees children	
Low income area	Mostly low economic status.	Patients are rather split between Anglophone and Francophone.	The population is this area is of lower economic standing.
Significant	Significant	Significant	Significant
Some	Some	Significant	Significant
None	Little or None	Little or None	Little or None
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Community Health Centres

Location		Riverside-Albert	St. Joseph's, Saint John	Doaktown
Communications Internal Team	Informal	One on one, discussions and email		Meetings and email
	Formal	Internal electronic charting system.		Electronic charting, notes from GP and focus notes
Communications External Team	Informal			Meetings and email
	Formal	Referrals	Referrals	Electronic charting, notes from GP and focus notes
Communication with Client	Methods	In person and phone	In person, phone and email	In person, phone
Levels of Prevention	Primary	Significant	Some	Some
	Secondary	Some	Some	Some
	Tertiary	Significant	Significant	Very little
Quality Assurance	How Is Access Ensured?	Referrals are made as needed		Conversation with patients and referral notes
	How Is Patient Follow-up Ensured?	Clinic-driven, phone	Clinic-driven, book visits	Clinic-driven, phone
Self-Management	Role of Patient	Be inquisitive, learn, ask for help when needed, and work towards good disease management.	Teamwork and partnership.	Patients have to actually "do" the management
	Role of Professional	Work with patients on an individualized basis. Address questions and concerns as requested by patient.	Educate, support and facilitate.	Educate and offer solutions.
	% Self-Managed	Unknown	Most	Depends on the patient.
	Management of Co-morbidities	Most patients of the diabetes clinic have co-morbidities.	Assessed as part of normal visits	40%
Patient Education	Goal		Increase awareness among patients	Educate on how to continue to live healthy productive lives
	Guidelines		CDA and Chronic Disease Quality Improvement plan from Alberta	The Horizon health binder
	Types Offered	One on one	Group classes	One on one
	Themes	Foot care, physical activities and management of diabetes.	Lifestyle management and living with diabetes.	Healthy eating, exercise, blood sugars, insulin and disease management
	Teaching Methods		Interactive with models and conversation maps	Not answered
	Family Involvement	Encouraged	Encouraged	Encouraged
Clinic Capacity	Able to Meet Demand	Yes	No	No
Wait Times	New Patient Triage	Yes	Yes	Yes
	First Visit - Urgent	Within a few days at the most	Same day	Same or next day
	First Visit - Non-urgent	Within a few weeks	Depends on provider	9 months
	Follow-up Visit	3 months	Depends on provider	3 - 6 months
	Available Hours	7 - 6, Monday to Friday	9 - 5, Monday to Friday	8 - 8, Mon. – Thurs., 8 - 4, on Friday, Tele-Care
	Extended Hours	No	No	Yes : 8am – 8pm
No Shows	Extent of No Shows		2 - 4 per day (including non-diabetes)	Few
	How They Are Minimized		Only therapeutic patients get reminder calls	Coordinate visit with other appointments

Minto	Plaster Rock	Dalhousie	Lamèque
Discussions, email and phone	Meetings, discussions and email	Phone and email	One on one and phone
Electronic records	Meeting	Meeting	
Phone		Phone	Phone
Focus notes and referrals, Electronic charting.		Notes	Notes
In person and phone	In person, phone and email	In person and phone	In person and phone
Significant	Some	Some	Some
Some	Some	Some	Very little
Some	Significant	Significant	Significant
			Referrals are made as needed
Patient-driven, must call-in	Patient-driven, must call-in	Patient-driven, must call-in	Clinic-driven, phone
Take ownership.	Setting their own goals and take ownership of their management.	Learn and understand the effects of medication they are taking, what 'normal' stats should be, and learn assess his/her own stats and results.	Patients are responsible for wanting to help themselves
Coach and guidance.	Provide the tools.	Encourage patient self-management.	
Unknown	Depends on the patient	Unknown	Most see a considerable change after 1 year.
Part of normal visit	Most	Yes	
Set goals and manage health	Prevent complications of diabetes through education	Teach patients how to control their diabetes, prevent complications.	
CDA guidelines	CDA guidelines and resources for patient education and foot care	3 teaching guides: "Diabetes teaching guide" has general diabetes information; "Insulin teaching guide" and "Pre-diabetes teaching guide".	
One on one and group classes	Classroom, peer support group, community program	One on one and group	Education session
What is diabetes? Complications, medical management, diet and exercise.	A broad range of client-driven topics	How to prevent/minimize complications, how to keep stable and controlled.	Testing yourself and medication, including insulin and injections.
Interactive with models and conversation maps		Brochure/book	
	Encouraged	Encouraged	
Yes	No	Demand too high	Yes
	Yes	Yes	Yes
Same day	Same day to 2 weeks	1 month	2 days
5 days	2 weeks	2 months	
3 months	3 months	6 - 8 months	Vary
	8 - 8, Monday to Friday	8 - 4, 3 days a week	
	Yes: Evening once a month	Yes: To accommodate patient	
	Very little	22%	
	No strategies	Change the triage system. Call before appointment	

Community Health Centres

Location		Riverside-Albert	St. Joseph's, Saint John	Doaktown
Other Accessibility	Distance Service	No	No	No
	Insulin Pump Teaching	No	No	No
	Client-Borne Expenses		Strips, food and travel	Test strips and other meds, gas, parking
	Travel Distance: *Farthest*	30 minutes		45 minutes
	Travel Distance: *Average*			20 minutes
	Transportation	Somewhat of an issue		An important issue
Patient Perceptions	Convenience: Location	Yes	Yes	Yes
	Hours of Service	Adequate	Adequate	Adequate
	Accommodation of Special Needs	Wheelchair accessible. Can accommodate hearing impairments with hearing devices if needed.	Access to translator	Wheelchair accessible
	Travel Distance	Adequate	Adequate	Acceptable
	Accommodating	Yes		Very
	Most Important Service	Clinic is the connector between the patient and services required.		The people are really knowledgeable and helpful

Minto	Plaster Rock	Dalhousie	Lamèque
No	The clinic delivers supplies (no medical services) and provides education sessions to 2 seniors complexes.	No	
No	No	Yes	No
Test strips	Test strips, fruits and vegetables	Medication	
90 minutes	45 minutes	45 minutes	
30 minutes	15 minutes	15 minutes	
Somewhat of an issue	An important issue	Somewhat of an issue	
Yes		Yes	Yes
Adequate	Adequate	Mostly Inadequate	Adequate
	The clinic is wheelchair accessible.	Pictures and visual contact.	
Adequate	Adequate	Adequate	Adequate
	Yes	Yes	
Supporting the patient.	Full range of service (one-stop)		

Health Centres

Location		Rexton	Petitcodiac	Black's Harbour
General Clinic Information	Clinic Type	Health Centre	Health Centre	Health Centre
	Years in Existence	5 years	5 - 6 years	6 years
People Served	# of clients	Records with physician	400 with diabetes	400+
	Visits Per Month	3,000		240
	Calls Made/Returned Per Month	300		5 - 20
	Geography Served	Harcourt, Rexton, Bouctouche, Richibucto	Petitcodiac, Sussex, Havelock and Elgin	Charlotte County & Fundy Isles
	Frequency of Typical Patient Visit	1 month		3 months
	Average Age of Client		60+	Hard to tell
	Other Demographic Factors		Rural	Rural, low income/education, blue collar. Rely on Extra-Mural, ferry transportation. Travel through U.S. required for Campobello patients.
Contact Methods (for follow-ups)	In Person	Significant	Significant	Significant
	By Phone	None	Little	Some
	By Email	None	Little or None	Some
	Other			
Internal Team	Endocrinologist			
	Other Specialist (Internist, Pediatrician)			
	Psychologist			
	Family Physician		•	
	Pharmacist	•		
	Nurse Practitioner	•		•
	Nurse (CDE)			
	Nurse	•	•	
	Dietitian		•	
	Foot Care			
	Social Worker			
	Admin/Receptionist	•		
External Team	Endocrinologist			•
	Other Specialist (Internist/Ophthalmologist)			•
	Psychologist			•
	Family Physician			
	Pharmacist			
	Nurse VON			
	Nurse Practitioner			
	Foot Care		•	
	Social Worker			
	Admin/Receptionist			
	Nurse CDE or Dietitian	•	•	•
	Health Coach			
	Physiotherapist/OT			
	Phlebotomy - On site			
	Overlap in Team Roles	Not raised as an issue	Not raised as an issue	Not raised as an issue

Fredericton Junction	Chipman	Harvey Station	Jacquet River
Health Centre	Health Centre	Health Centre	Health Centre
14 + years	38 years	Unknown	33 years
210	Count not separated : 250+ guessed	Unable to determine, counts combined	2011: 104 for Jacquet River
32		Unknown	20
20	0		8 - 12
Fredericton Junction, Tracey, Traceyville, Beaverdam, Geary, Oromocto	Chipman, Minto, Grand Lake areas	Harvey Village, Manners Sutton and area	Belledune
6 months	4 months	No way of knowing	
50 - 60	Not sure	42	
Older population, a rural area, lower income generally, lower education	Some don't have a Senior's plan or work health plan and can't afford to buy strips.	Rural, very spread out, average age is 42, just under $50K per year, Most Anglophone, many highly educated, 73% are 3rd generation diabetes	In Jacquet River, patients tend to be Anglophone, and tend to be of weaker economic profiles.
Significant	Significant	Significant	Significant
Significant	Some	Significant	Significant
Little or None	None	Little or None	Little or None
•	•	•	
•		•	
•			
	•	•	•
•	•	•	
		•	•
		•	
	•	•	
			•
		•	
Not raised as an issue		Not raised as an issue	

Health Centres

Location		Rexton	Petitcodiac	Black's Harbour
Communications Internal Team	Informal	Discussions and email	Discussions	Meetings and email
	Formal	Paper files	Paper and some electronic charts	Referrals, Electronic charting, notes from GP and focus notes
Communications External Team	Informal			Meetings and email
	Formal	Referrals	Referrals	Electronic charting, notes from GP and focus notes
Communication with Client	Methods	In person and phone	In person and phone	In person, email and phone
Levels of Prevention	Primary	Significant	Some	Some
	Secondary	Some	Some	Some
	Tertiary	Significant	Significant	Very little
Quality Assurance	How Is Access Ensured?			Keep a copy of referral, and ask patient, and test results.
	How Is Patient Follow-up Ensured?	As needed/ specified by physician	Patient-driven, must call-in	Clinic-driven, phone
Self-Management	Role of Patient	Collaboration from client	Take responsibility for own care	To seek information, be on top of results, keep appointments (blood work etc)
	Role of Professional	Educate and inform	Education and advice	Motivation, be a resource
	% Self-Managed	Unknown	60 - 65%	50%
	Management of Co-morbidities	Part of normal visit	Part of normal visit	100%
Patient Education	Goal	Refer to Shelly Jones Nurse CDE	Refer to Shelly Jones Nurse CDE, Outreach	Accept diagnosis, able to take imitative to make changes
	Guidelines	Refer to Shelly Jones Nurse CDE	Refer to Nurse CDE	Horizon's Health Classes
	Types Offered	Refer to Shelly Jones Nurse CDE	Refer to Nurse CDE	One on one, group, phone and email
	Themes	Refer to Shelly Jones Nurse CDE	Refer to Nurse CDE	Insulin start and disease management
	Teaching Methods	Refer to Shelly Jones Nurse CDE	Refer to Nurse CDE	Answer their questions
	Family Involvement	Refer to Shelly	Refer to Nurse CDE	Encouraged
Clinic Capacity	Able to Meet Demand	Yes	Yes	Sort of.
Wait Times	New Patient Triage		Yes	Yes
	First Visit - Urgent	Same day	1 - 2 days	4 weeks
	First Visit - Non-urgent	Average 6.5 days	1 - 2 weeks with Shelly	3 months
	Follow-up Visit			3 - 6 months
	Available Hours	7:30 - 4 pm every day	8:30 to 4:30 everyday	8:30 - 4:30, Monday to Friday
	Extended Hours	No	No	No
No Shows	Extent of No Shows	23 - 25 per month	More of an issue with dietitian	Many seasonal no shows (December & summer months)
	How They Are Minimized	Reminder calls	Reminder calls	Reminder calls

Fredericton Junction	Chipman	Harvey Station	Jacquet River
Meetings and email	Meetings and email	Meetings and email	Phone and email
Electronic charting, notes from GP and focus notes	Electronic charting, notes from GP, and focus notes.	Electronic charting, notes from GP, and focus notes, referrals	Meeting
Meetings and email	Meetings and email	Meetings and email	Phone
Electronic charting, notes from GP and focus notes	Electronic charting, notes from GP, and focus notes.	Electronic charting, notes from GP and focus notes	Note
In person, phone and classes	In person and phone	In person, phone and groups	In person and phone
Some	Some	Very little	Some
Significant	Significant	Some	Some
None	Very little	Very little	Significant
It's not	Try our best	Referrals are made as needed	
Clinic-driven, phone	Patient-driven, must call-in	Clinic-driven, phone	Patient-driven, must call-in
Reach goals they set	To put all the measures in place.	Access the service and take what they need	Learn effects of medication, what 'normal' stats should be, assess his/her own stats and results.
Help them become competent	Make service accessible and available.	Provide education and support. Be a resource.	Encourage patient self-management.
All to some extent	Depends on the patient	Low percentage.	
95%	Most	Aware, but do not deal with them	Yes
Prevent complications and help patients have a longer/healthier life	For patient to have knowledge to manage their disease.	Access the knowledge and tools they need to live a good life	Teach how to control diabetes and prevent complications.
Horizon NB Mandate and Mission	CDA guidelines	Horizon Health	
One on one, classroom, group, phone	One on one and group	Phone, group, one on one, DOH tools, Printed material	One on one and groups
Healthy eating, exercise, blood sugars, insulin and disease management	Disease management.	Healthy eating, exercise, blood sugars, insulin and disease management	How to prevent and minimize complications and how to keep stabilized and controlled.
One on one, classroom, group, print visual ids, drawings, presentation and websites.		Tools from Horizon Health Website	Brochure and book
Encouraged	Encouraged	Encouraged	Encouraged
Yes	Yes	Yes	Demand too high
Yes	No	Yes	Yes
Within a week/Same day		Immediately/Same day	1 month
4 months	A few weeks	6 months	2 months
3 - 6 months	4 months	3 - 6 months	6 - 8 months
Mon. & Wed 9 - 9, Tues. 8 - 5, Thurs. 8 - 4, and Friday 9 - 5	8 - 4, Monday to Friday	7 - 7, Monday to Friday, Tele Care, 911	8 - 4, Wednesday
Yes : Access to 911 and ER	No	Yes : 7am – 7pm	Yes : to accommodate patient
12.5%	2 - 4 per day (including non-diabetes)	Low numbers	22%
No reminder calls	Only therapeutic patients get reminder calls	Reminder calls and appointment cards.	Change the triage system. Call before appointment

Health Centres

Location		Rexton	Petitcodiac	Black's Harbour
Other Accessibility	Distance Service	No (except that flu shots are give in special care homes)	No	No
	Insulin Pump Teaching	No	Yes through Shelly	Yes
	Client-Borne Expenses	Test strips	Not a big issue	Medical supplies
	Travel Distance: *Farthest*		50 - 60 km	60 minutes
	Travel Distance: *Average*	50 km/30 minutes	20 - 30 km, 30 - 40 mins	20 minutes
	Transportation	Not an issue	Not an issue	An important issue
Patient Perceptions	Convenience: Location	Yes	Yes	Yes
	Hours of Service	Adequate	Adequate	Adequate
	Accommodation of Special Needs	Wheelchair accessible		No comment offered
	Travel Distance	Acceptable	Acceptable	Acceptable
	Accommodating	Yes		Very
	Most Important Service			No waiting around, appointments on time and I can call her directly.

Fredericton Junction	Chipman	Harvey Station	Jacquet River
No	No	Extra-mural	No
No	No	No	Yes
Test strips	Medication needs	Test strips	Medication
45 minutes	60 minutes	30 minutes	45 minutes
15 minutes	10 - 15 minutes	30 minutes	15 minutes
An important issue	An important issue	Somewhat of an issue	Somewhat of an issue
Yes	Yes		Yes
Adequate	Adequate	Adequate	Mostly Inadequate
Usual, one illiterate patient, so use a phone consult	The clinic is wheelchair accessible.	Wheelchair accessible, High-low table to help patients get up/down.	Hearing impairment most common: use pictures and focus on good visual contact.
Acceptable	Adequate	Acceptable	Acceptable
Very convenient	Yes	Very	Very
The people working there. Educating people on self-management.	Helped with finances and getting strips and insulin.	Will always find someone to help. Access to full-service health care.	

Outreach Case Manager Clinics

Location		Vitalité (Southeast NB)	Horizon (Southeast NB)
General Clinic Information	Clinic Type	Outreach Case Manager	Outreach Case Manager
	Years in Existence		9 years
People Served	# of clients	200 and 250 patients (in the last 3 month)	Unknown
	Visits Per Month	75	Around 50 - 60
	Calls Made/Returned Per Month		
	Geography Served	Travels to visit patients in Moncton, Dieppe, St-Louis and Shediac.	Communities in the South-East (Greater Moncton, Petitcodiac, Rexton)
	Frequency of Typical Patient Visit	3 months	Every 3 months, 6 months or once a year.
	Average Age of Client		Vary from communities
	Other Demographic Factors	Certain areas have a higher percentage of patients without insurance. Shediac & St-Louis patients tend to be older and seasonal workers.	Mostly type 2 diabetes and many are from rural areas. First Nations people commonly choose to visit the clinic rather than their health centre and visit with Shelley for diabetes education.
Contact Methods (for follow-ups)	In Person	Significant	Significant
	By Phone	Significant	Some
	By Email	Little or None	Some
	Other		
Internal Team	Endocrinologist		
	Other Specialist (Internist, Pediatrician)		
	Psychologist		
	Family Physician		●
	Pharmacist		
	Nurse Practitioner		●
	Nurse (CDE)	●	
	Nurse		
	Dietitian		
	Foot Care		
	Social Worker		
	Admin/Receptionist		●
External Team	Endocrinologist		
	Other Specialist (Internist/Ophthalmologist)		
	Psychologist	●	
	Family Physician		
	Pharmacist		●
	Nurse VON	●	
	Nurse Practitioner		
	Foot Care		
	Social Worker		
	Admin/Receptionist		
	Child Life Specialist		●
	Health Coach		
	Physiotherapist/OT		
	Phlebotomy - On site		
	Overlap in Team Roles		

Location		Vitalité (Southeast NB)	Horizon (Southeast NB)
Communications Internal Team	Informal	N/A	Discussions, meetings
	Formal	N/A	Patient notes written down in the patient's chart (at MD's office, electronically) and recorded in the Case Manager's files.
Communications External Team	Informal	Discussion, phone	
	Formal	Notes	
Communication with Client	Methods	In person, and phone,	In person, email, and phone,
Levels of Prevention	Primary	Some	Very little
	Secondary	Very little	Some
	Tertiary	Significant	Significant
Quality Assurance	How Is Access Ensured?		
	How Is Patient Follow-up Ensured?	Patient-driven, booked during patient visit	As needed/specified by physician
Self-Management	Role of Patient	Patient needs to take responsibility and learn how to live with and control their diabetes. Patients have to take their medicine, check their feet and keep their doctor's appointments	Patient is taught and expected to take control and take ownership of his/her diabetes and managing the disease.
	Role of Professional	Nurse is there to help	Provide the tools
	% Self-Managed		Unknown
	Management of Co-morbidities	30% - 40%	Yes
Patient Education	Goal		Empower patients with individualized information, resources and tools to facilitate self-management.
	Guidelines		
	Types Offered	During appointment	One on one, group, classroom
	Themes	Prevention, meal planning and exercise	CDA's 'Living with diabetes' Map and "Healthy Eating" map
	Teaching Methods		
	Family Involvement	Often there. Limit of 1 or 2 members	Encouraged
Clinic Capacity	Able to Meet Demand	The need seems to exceed what can be handled at this time.	No
Wait Times	New Patient Triage	No	
	First Visit - Urgent		
	First Visit - Non-urgent		
	Follow-up Visit	3 months	Every 3 months, 6 months, once a year (depending on need).
	Available Hours	Vary	
	Extended Hours	No	
No Shows	Extent of No Shows	5% - 10%	Very little
	How They Are Minimized	No strategies	No strategies
Other Accessibility	Distance Service	She goes to their doctor's offices	No
	Insulin Pump Teaching	No	No
	Client-Borne Expenses	Vary	
	Travel Distance: *Farthest*	Vary	Vary
	Travel Distance: *Average*	Vary	Vary
	Transportation	Vary	Not an issue

Pediatric Clinics

Location		Saint John Pediatric	Moncton Pediatric
General Clinic Information	Clinic Type	Pediatric	Pediatric
	Years in Existence	30 years	12 years
People Served	# of clients	147	60 - 80
	Visits Per Month	35	20
	Calls Made/Returned Per Month	10 - 15 (per day)	
	Geography Served	Saint John Area of the Horizon Health Network with additional referrals for follow-up from across NB.	School district 2 English, Port Elgin to Richibucto to Riverside Albert
	Frequency of Typical Patient Visit	4 months	3 - 4 months
	Average Age of Client	Under 18	Under 16
	Other Demographic Factors	Urban and rural split is about half and half. Patients and the families represent all socio-economic classes.	
Contact Methods (for follow-ups)	In Person	Significant	Significant
	By Phone	Significant	Significant
	By Email	Significant	Significant
	Other	Family quite involved	Family quite involved
Internal Team	Endocrinologist	●	
	Other Specialist (Internist, Pediatrician)	●	●
	Psychologist		
	Family Physician		
	Pharmacist		
	Nurse Practitioner		
	Nurse (CDE)	●	●
	Nurse		●
	Dietitian	●	●
	Foot Care		
	Social Worker		
	Admin/Receptionist	●	
External Team	Endocrinologist		
	Other Specialist (Internist/Ophthalmologist)		
	Psychologist	●	●
	Family Physician	●	
	Pharmacist		●
	Nurse VON		
	Nurse Practitioner		
	Foot Care		
	Social Worker	●	●
	Admin/Receptionist	●	
	Child Life Specialist	●	●
	Health Coach		
	Physiotherapist/OT		
	Phlebotomy - On site		
	Overlap in Team Roles	None	
Communications Internal Team	Informal	Discussions, email, phone, fax	
	Formal	Team meetings, email	Meet once/week as team, paper records

Location		Saint John Pediatric	Moncton Pediatric
Communications External Team	Informal	Phone, email	
	Formal	Referrals and reports	
Communication with Client	Methods	In person, phone, email	In person, phone, email. Patient and family meets whole team at once.
Levels of Prevention	Primary	None	Very little
	Secondary	None	Very little
	Tertiary	Significant	Significant
Quality Assurance	How Is Access Ensured?		
	How Is Patient Follow-up Ensured?	Clinic-driven, phone	Clinic-driven, letter sent
Self-Management	Role of Patient	Family and child day to day manager of diabetes.	Empowered to manage health.
	Role of Professional	Facilitate management of Type 1 Diabetes by the patient and parents and to support them as they become independent.	Educate family for child's care
	% Self-Managed	Variable depending on child's age and stage of development, family's problem solving skills and support. Families encouraged to develop self-management skills.	More than half
	Management of Co-morbidities		Active: referrals by clinic team
Patient Education	Goal	Patient to look after themselves	Self-management
	Guidelines	CDA guidelines	CDA and international standards.
	Types Offered	One on one	Classroom
	Themes	Self-management of Type 1 diabetes; Healthy eating and carbohydrate counting; Active living; Insulin injection techniques; Insulin adjustment; Blood sugar monitoring; Diabetic Ketoacidosis (DKA) prevention; Sick Day Management; Hypoglycemia Management; Insulin pump training and management; Age appropriate topics such as leaving home, driving & alcohol.	7 - 8 modules, what is diabetes, insulin, nutrition, exercise, diabetes and school
	Teaching Methods	Materials from: Canadian Diabetes Association, BC Children's Hospital, Toronto Hospital for Sick Children, IWK Hospital & self-developed materials.	Conversation maps
	Family Involvement	Mandatory	Mandatory
Clinic Capacity	Able to Meet Demand	Yes	Yes
Wait Times	New Patient Triage	In hospital	In hospital
	First Visit - Urgent	Same day	Same day
	First Visit - Non-urgent	Within a month	2 weeks
	Follow-up Visit	Scheduled (3 - 6 months)	4 months
	Available Hours	8:30 - 4:30, Monday to Thursday	8 - 4, Monday to Friday
	Extended Hours	Yes: Pediatrician on call	Yes: Pediatrician and RN 24/7 by pager
No Shows	Extent of No Shows	20 - 25%. Most will call to inform us they are not able to come	Minimal
	How They Are Minimized	Reminder calls	Send reminder letters
Other Accessibility	Distance Service	We correspond with patient and families via telephone, fax and email. Used videoconferencing with some families at a distance, through their local health care facility. Blood work can be arranged near people's homes.	Education in school
	Insulin Pump Teaching	Yes	Yes
	Client-Borne Expenses	Parents missing time from work – usually unpaid. Travelling costs. Overnight accommodation for some out of town families. Insulin, blood glucose monitoring, special diets etc.	Test strips
	Travel Distance: *Farthest*	4 - 5 hour drive	100 km
	Travel Distance: *Average*	½ hr - 1 ½ hr drive	
	Transportation	Somewhat of an issue	Not an issue

Alignment with the Chronic Care Model

Health Systems – culture, organizations, and mechanisms to promote safe, high-quality care

Most clinics see their role as encouraging patient autonomy. Some act as the hub of diabetes services for their region. A few play a large role in the prevention and early detection of diabetes. In general, family physicians are viewed as important allies for the team although some mention obstacles in fully integrating family physicians. This may be due to their traditional ways of practice and remuneration systems but further study is required to understand these issues.

Within clinics, communication between team members is mainly ad hoc, carried out in "corridors" and with the aid of paper or electronic records. Only one clinic mentioned regular team meetings to discuss patients, exchange information and decide policy. Communication with professionals outside the team is generally seen positively, although some mention that communication with family physicians can be difficult. One clinic appears to have very little internal or external communication.

Only one clinic mentioned a systematic quality improvement program. Most, when asked about outcomes, mentioned individual patients, but were unable to define outcomes in terms of their patient population. The smaller community clinics in which diabetes care is integrated into general care were not able to provide information on the number of patients who attend for diabetes services. Even those clinics with electronic information systems did not use them for audit and quality control.

Delivery Systems Design – for clinical care and self-management support, including team care

Interprofessional teams range from two to seven people. Most commonly, clinics count 3 people as making up the diabetes care team, including almost always a nurse and a dietitian. At the time of the interviews, a number of teams had no members with current certification in diabetes education. A small number of health centre teams include a family physician as a team member. In one of these cases, it was noted that the other family physicians may be unwilling to refer patients to the team.

The line of management for the professionals that make up the teams is often split, with nurses and dietitians reporting to different organisations. This is seen as acceptable because the internal structure of teams is generally flat. However, because of this flat structure, many teams cannot identify a team leader responsible for service provision and team function.

In terms of integration into the wider health system, some clinics have developed strong links with other resources, communicating well and sharing information. In the case of 3 clinics, the health centres share clinic staff. In some cases, clinic staff provides services to inpatients. In other cases the clinic has developed links with the extra-mural services to improve services for housebound patients. These links allow for a certain coordination, continuity and uniformity of approach throughout the region and a reduction in duplication. Most clinics maintain communication with the patient's family physician. This is most obvious in clinics where there is no physician associated with the team. No clinic mentioned the concept of shared care although this may be happening in an informal way.

A number of clinics, in particular two large clinics in the southeastern part of the province, employ case managers who visit family physicians' offices to support the physician and to educate patients. This can be a way of reaching patients who are unwilling or unable to visit a diabetes clinic. It also provides support for family physicians. One case manager also works out of community clinics. In this way the parent clinic becomes a hub for these smaller clinics and patients may visit the parent clinic for some of the more specialized services.

Most clinics accept referrals from a number of different sources as well as self-referrals. Wait times for a first appointment vary, but many employ a triage system so that patients needing immediate support can be seen within a few days.

In relation to follow-up, most clinics negotiate intervals with the patients and book the next visit before the patient leaves. Some impose a fairly rigid follow-up schedule. However many allow walk-ins and invite patients to telephone if necessary. About half the clinics

have a reminder system to remind the patient of the next appointment a short time before it is due. Some will attempt to contact the patient if he or she does not attend for the appointment. Some simply notify the patient's family physician if the patient has missed the appointment. A small number of clinics ask the patient to telephone for an appointment at the appropriate time.

Self-Management Support – to enable patients to manage their health and health care

All diabetes clinics aim to improve patient self-management. This is generally done using a mix of one-to-one and group sessions. A few use structured methods for initiating discussion with patients. Most provide more frequent support for patients starting insulin and new patients and most encourage patients to contact the clinic for help resolving problems. The larger clinics are able to provide regular classes on topics related to diabetes and its management. Some of the smaller clinics refer patients to one of the larger clinics for some educational activities. Education on insulin pumps and services for children with diabetes are generally only available in the larger clinics.

Most clinics also see their role specifically for patients at critical points in the development of their disease, such as those who are not in control and those starting insulin, and many make a point of trying to reach patients who find it difficult to attend for follow-up. One clinic complains of the fact that only patients who are difficult to manage are referred to the clinic.

Specific problems that clinics encounter in providing support include illiteracy and poverty. Some need to search to find education tools for use with illiterate patients. Many clinics note that the price of test strips is a barrier to patient self-management.

Some clinics mention that First Nations patients prefer to leave their communities to access diabetes care. Although services are available within their communities, these patients feel stigmatised by their condition.

Decision Support – based on evidence and patients' preferences

Diabetes educators are required to keep their certification up-to-date with regular training. Some clinics have continuing education days for professionals, but few seem to have regular team education days. Most mention that Canadian Diabetes Association Guidelines are followed, some mention other evidence-based guidelines, but the processes of diffusion and adoption were unclear.

No clinic mentioned the use of office reminder systems or algorithms other than patient charts to support professionals.

Clinical Information Systems – to organize patient and population data

A small majority of clinics have electronic medical record systems. These clinics often mention that electronic medical records are useful for sharing information on individual patients and following patients' progress. Only one clinic seems to use information systems for practice audit. One clinic, on the border between the Vitalité and Horizon health networks, mentions that while it is accessing records of patients in their own health network, it has no access to patient records in the other health network.

Community Involvement – to mobilize patient resources

Community health clinics mention community links via their outreach work and via the general mandate of the health centre, which can include community development workers and strategies. Many of the clinics within health centres also play a role in raising community awareness and promoting preventive habits. These will do regular outreach work including screening for diabetes and pre-diabetes. Some clinics also visit schools to educate teachers of children with diabetes and a few clinics will visit other types of establishments to educate carers of patients in long-term care.

4

Diabetes outcomes in New Brunswick

according to service characteristics

In order to determine clinical effectiveness, two outcome measures were used for the analysis.

The first was glycated haemoglobin (A1c); a blood test that provides an indication of how well the blood sugar has been controlled in the two or three months prior to the test and can indicate the likelihood of developing some of the complications associated with diabetes. In patients with diabetes, a target level of less than 7% is generally recommended, although, in some cases, an A1c of up to 8% is acceptable. Pre-diabetes is diagnosed if the A1c is between 6 and 6.4%; diabetes is diagnosed when the A1c is above 6.5%.[10] For the report, the analysis was carried out using two different indicators of good control; an A1c of less than 7% and an A1c level between 6 to 8%. The latter level eliminates people that may not have diabetes, but have attended for diabetes services or have been erroneously entered into the diabetes registry. It also allows the inclusion of cases whose control is acceptable albeit not perfect and those whose target level is above 7%. The second measure was hospital admissions for a diabetes related event. These two health outcome measures were used to measure differences between:

1. Geographic (7 Health zones[11]) to determine geographic differences in quality of diabetes care.
2. Patients with diabetes who attended for diabetes education compared to patients with diabetes who did not attend.
3. Different clinic types.

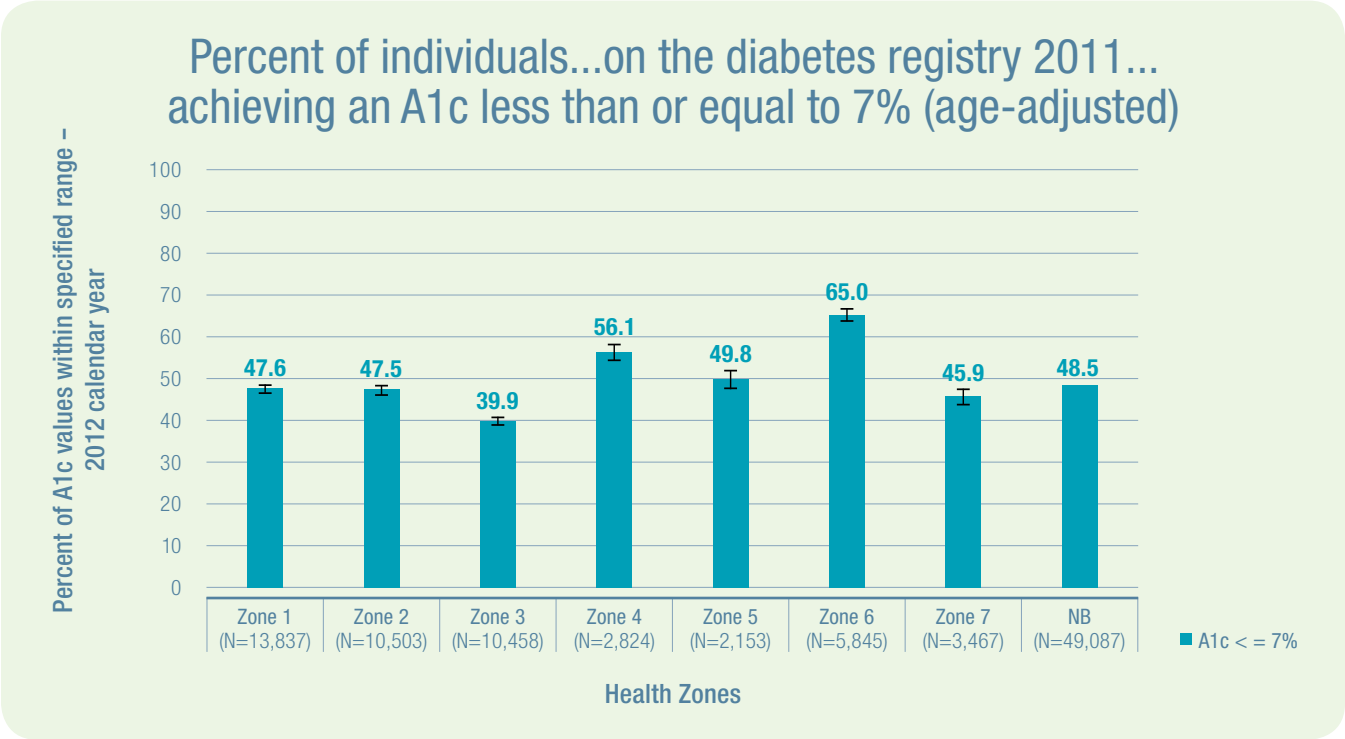
1. Geographic Differences in A1c Levels

Identifying geographic differences in performance is a way of highlighting inequalities in service that can generate inequities in health. The information in this section may enhance information already gathered by Health Authorities to inform quality improvement activities at a Regional level. It may also help to identify high performing zones so that analysis of their context and processes can lead to identification of good practice.

[10] Goldenberg R, Punthakee Z. Definition, Canadian Diabetes Association 2013 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada: Classification and Diagnosis of Diabetes, Prediabetes and Metabolic Syndrome. Canadian Journal of Diabetes 2013; 37(suppl 1): S8-S11.

[11] See Glossary for complete description of Health Zones.

Figure 3.

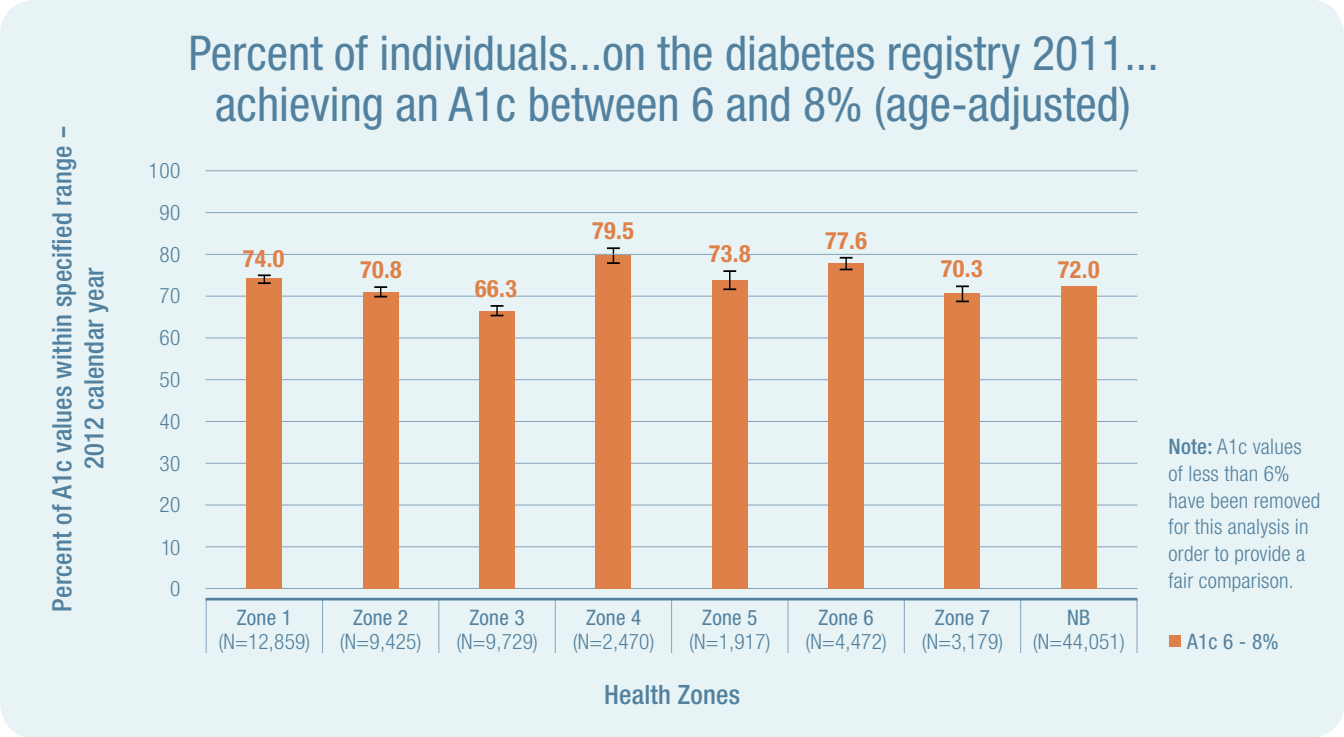


Of adults with diabetes who underwent at least one A1c test in 2012, slightly more than half had a level higher than 7%, the target recommended by the 2013 Canadian Diabetes Association Practice Guidelines **(Figure 3)**. The proportion meeting the target rose with age. The gap between the 20 to 34 age group and the 65 years of age and older was as much as 20% **(Figure 5)**. This result must be interpreted with caution, however, as the proportion of subjects who had at least one A1c test during the study period also rose with age. The proportion of 20 to 34 year olds who had had a test was half that of the other age groups. The subset of younger people tested may represent a sicker population.

The proportion of people with diabetes achieving recommended targets varied by Health zones. Zones 4 and 6 had a significantly higher proportion of patients with an A1c level of ≤ 7% **(Figure 3)**. This difference holds true after adjusting for age. It is important to note that patients were allocated to a particular zone based on the location of the lab where the patient received their A1c test.

In this analysis, the total number of diabetes patients was 49,087 due to the fact that 28% of the patients in the registry did not have an A1c test performed in 2012 and patients 19 years of age or less were removed from the analysis. We used confidence intervals, displayed as error bars on top of each column in the graph, to show to what extent random fluctuations in testing are likely to affect the results. The error bars display the 95% confidence interval and show the range in which the true figure lies 19 times out of 20.

Figure 4.



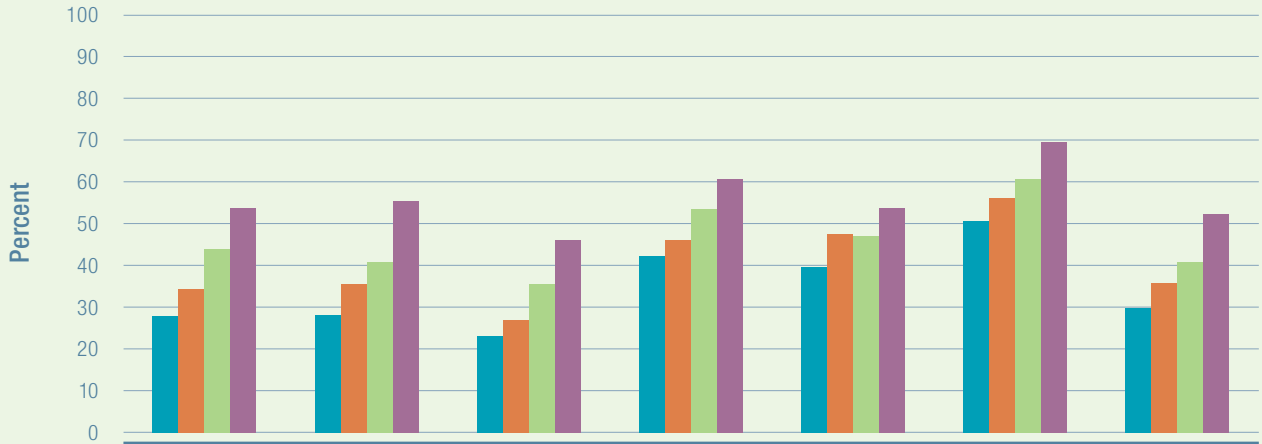
In **Figure 4**, we repeated the analysis by zones but this time we chose to identify the proportion of patients achieving an A1c between 6 and 8% among patients with diabetes in 2011. People with diabetes are advised against reducing their A1c to below 6% because of the risk of episodes of dangerously low blood sugar. So people on the registry with an A1c of less than 6% may be there for several reasons including because they had a screening test that was slightly above the recommended level, or because they were entered in error. People with diabetes who keep their A1c level between 6 and 8% have a reduced risk of microvascular and macrovascular complications compared to those who have higher levels.[12, 13]

Therefore we reanalyzed outcomes by zone using A1c between 6 and 8% as the target and eliminated people with an A1c level of less than 6% from the analysis (N=44,051). This comparison shows that it is possible to get 80% of diabetes patients achieving an A1c level between 6 and 8% and that this might be a realistic benchmark of good performance. Again, Zones 4 and 6 had the highest proportion of people with diabetes within this target range.

[12] Danielle C. Colayco, Fang Niu, Jeffrey S. McCombs, T. Craig Cheetham. A1c and Cardiovascular Outcomes in Type 2 Diabetes: A nested case-control study. Diabetes Care. 2011 January; 34(1): 77–83. Published online 2010 October 11. doi: 10.2337/dc10-1318

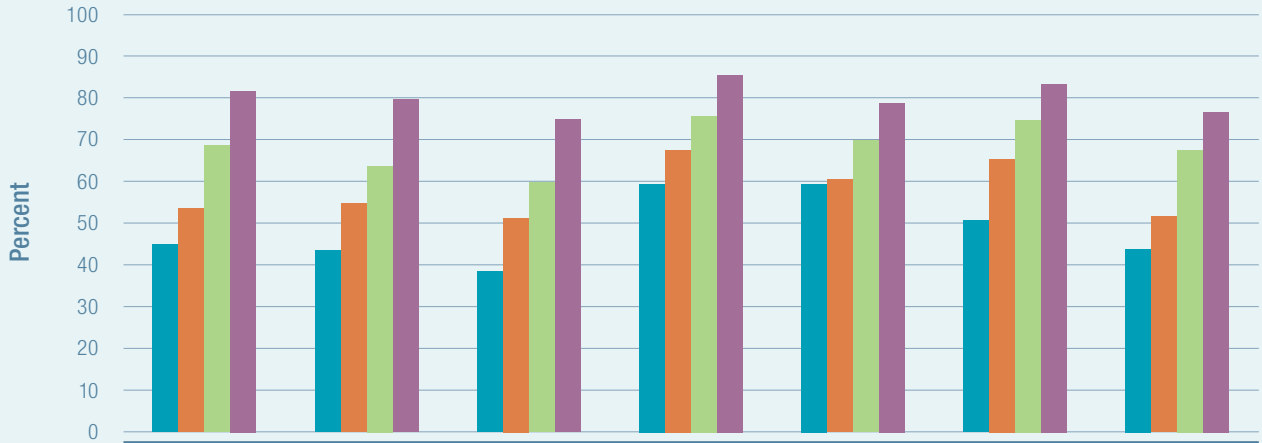
[13] Ali Imran, S., Rabasca-Lhoret, R. & Ross, S. Targets for Glycemic Control. Canadian Journal of Diabetes. 37 (2013) S31-34.

Figure 5.



	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7
20 - 34	27.8	28.0	23.0	42.0	39.4	50.5	29.7
35 - 44	34.1	35.6	26.9	46.0	47.3	56.0	35.7
45 - 64	43.9	40.9	35.5	53.3	47.0	60.6	40.9
65+	53.6	55.4	46.0	60.6	53.6	69.4	52.2

Figure 6.



	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7
20 - 34	44.9	43.4	38.4	59.1	59.3	50.6	43.6
35 - 44	53.5	54.8	51.1	67.6	60.4	65.3	51.6
45 - 64	68.6	63.8	60.8	75.7	69.8	74.8	67.5
65+	81.6	79.7	74.9	85.4	78.8	83.1	76.4

Note: A1c values of less than 6% have been removed for this analysis in order to provide a fair comparison.

Table 1.

Health zone characteristics for select behaviours, socioeconomic status, utilization and health outcome

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	NB
Fruit and vegetable consumption, 5 times or more per day (%)†	32.9	30.2	31.8	38.5	36.5	*45.3	33.9	33.9
Physical activity during leisure-time, moderately active or active (%)†	*56.1	52.5	50.1	42.1	49.8	49.1	52.2	51.8
Current smoker, daily or occasional†	23.3	24.9	21.1	27	23.6	*17.2	21	22.7
Proportion of patients in diabetes registry visiting a diabetes education clinic in 2007-2011 (%)	41.7	34.5	50.5	62.0	52.8	49.5	56.0	45.5
Low income (%)‡	14.7	17	16.4	20.2	25.3	21.4	16.7	17.2
Life Expectancy								
(at birth)								
CANSIM Table 102-4307	81.4	79.5	79.6	79.3	78.6	81.3	79.7	80.2

* statistically better than provincial average

Sources:

†Statistics Canada, Canadian Community Health Survey 2011-12, CANSIM Table 105-0502

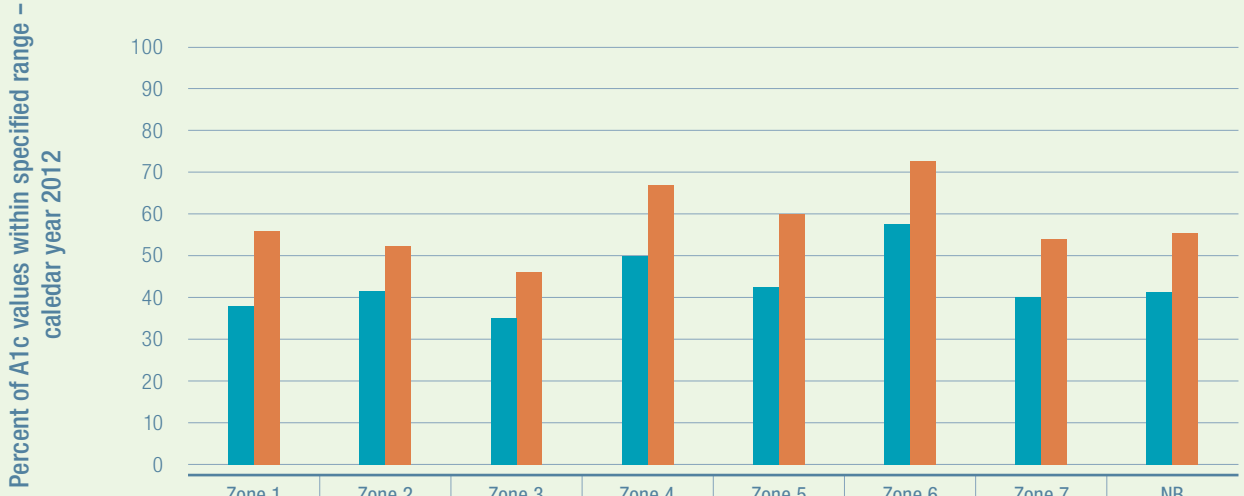
‡Statistics Canada; 2011 National Household Survey. In-house calculation.

"The percentage of private households in low income in 2010 based on after-tax low-income measure (LIM-AT)" out of "total private households in private households for income status"

Table 1 presents some key determinants of health which are likely to influence the incidence of diabetes and the outcomes of diabetes care. In particular low income can determine access to healthy foods which may be important in development and management of diabetes. It also influences the patient's ability to pay for diabetes supplies that may be required such as medications, glucose test strips and other items such as needles and insulin pump supplies necessary for those who need insulin. In many communities, the provision of health care for diabetes needs to be supported by a community-wide approach that aims at health promotion, illness prevention and support for those with chronic disease. New Brunswickers must broaden the way they think about health and, beyond thinking about treatment of illness, they could take action on how to promote and maintain it.

Figure 7.

Comparison of individuals from Diabetes Registry receiving or not receiving enhanced diabetes care (2007-2011) (age-adjusted)

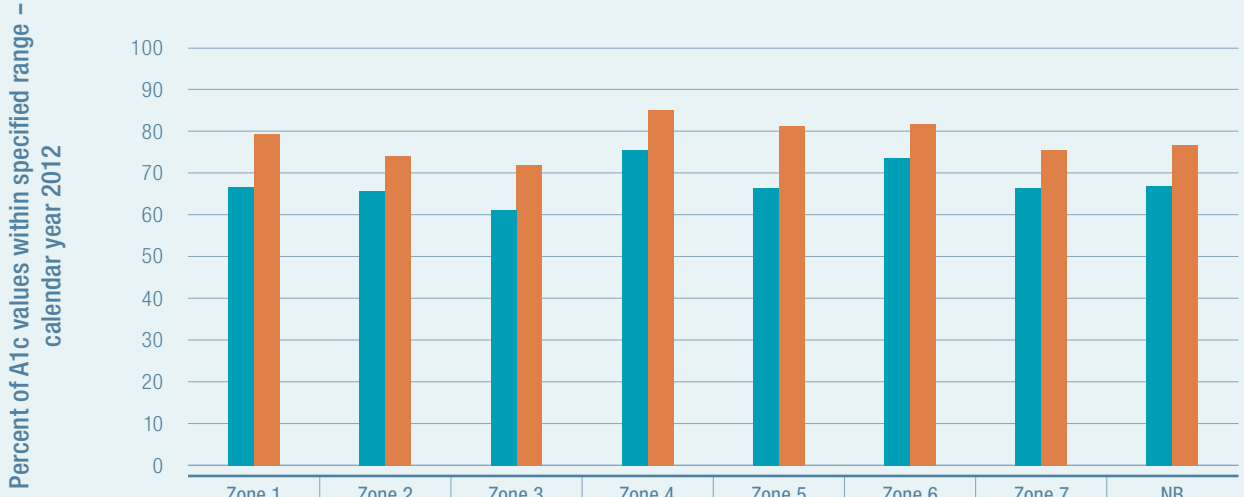


	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	NB
Clinic visit (A1c<=7%)	37.5	40.7	34.2	49.3	41.8	56.8	40.0	41.0
No clinic visit (A1c<=7%)	55.1	51.7	45.5	66.3	59.0	71.8	53.1	54.8

Note: Clinic visit: N= 22,357 / No clinic visit: N= 26,730

Figure 8.

Comparison of individuals from Diabetes Registry receiving or not receiving enhanced diabetes care (2007-2011) (age-adjusted)



	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	NB
Clinic visit (A1c 6-8%)	66.5	65.6	61.2	75.5	66.4	73.6	66.4	66.6
No clinic visit (A1c 6-8%)	79.1	74.0	71.9	85.0	81.0	81.6	75.4	76.8

Note: Clinic visit: N= 20,665 / No clinic visit: N= 23,386
A1c values of less than 6% have been removed for this analysis in order to provide a fair comparison.

Figure 9.

Median A1c value for Clinic Visit and No Clinic Visit Groups of Diabetes patients after 2 years among newly diagnosed patients in 2007-2011

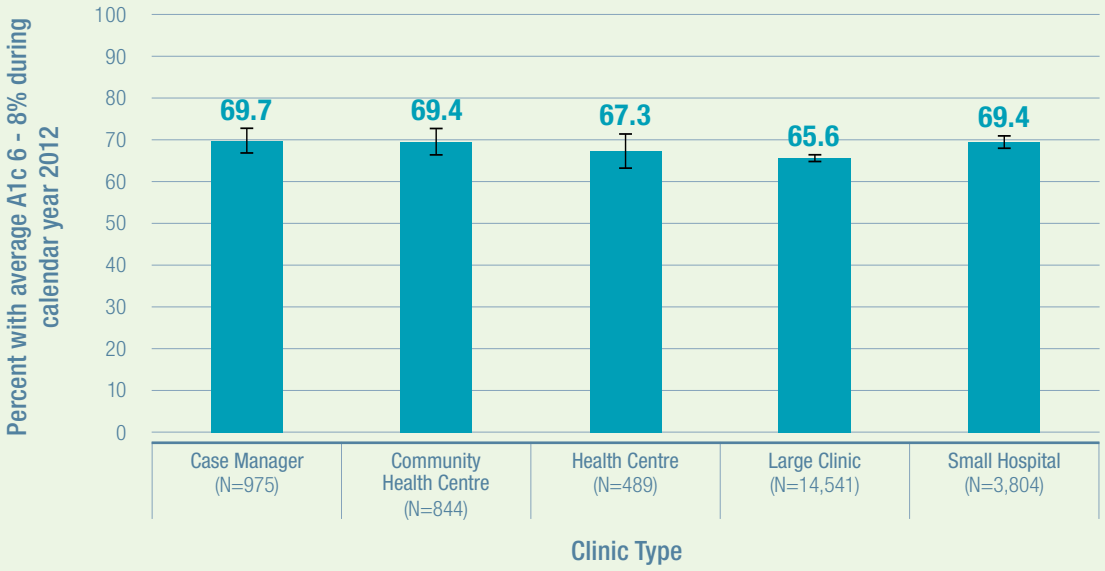
Note: Clinic visit: N= 2,418
No clinic visit: N= 4,751

2. Comparing Individuals Receiving or Not Receiving Enhanced Diabetes Care

Given the increasing prevalence and the associated cost burden of diabetes, it is important that the best use is made of available resources. Chronic disease management programs have been delivered throughout the province for a number of years but the clinical effectiveness of these programs has not been evaluated to date. In this section we compare individuals from the diabetes registry who had received enhanced diabetes care with those who did not receive enhanced diabetes care in the province in 2007-2011. The overall results by zone comparing those visiting a clinic versus not visiting a clinic produce similar patterns by zones **(Figures 7 & 8)**. It appears that patients who do not attend clinics are more likely than those who attend to attain A1c levels within the target range, even after adjusting for age. However, this may be explained because traditionally clinics were developed to treat complex diabetes patients or those diabetes patients who were having difficulty in managing their diabetes: those patients who are less likely to achieve A1c targets. To test for this, we selected only the newly diagnosed patients on the diabetes registry from 2007-2011. We then compared those who attended a clinic (N=2,418) to those who did not (N= 4,751). We found that both groups achieved statistically significant reductions in A1c levels ($p < 0.001$), but that those who attend clinics start with higher A1c levels and achieve larger reductions sooner than those who do not **(Figure 9)**. Additionally, when we matched the clinic and no clinic group by categories of A1c levels at the start of the 2 year period (<6%), (6-8%), (>8 and <=9%) and (>9%); the clinics appear to achieve larger reductions in blood sugar levels in the lower A1c categories and in the highest A1c level category (>9%). In the 8 to 9% category, they appear to show similar reductions. As the long term effects of diabetes are associated with higher blood sugar levels over longer time periods, this effect of clinic attendance may be important in reducing the burden of diabetes.

Figure 10.

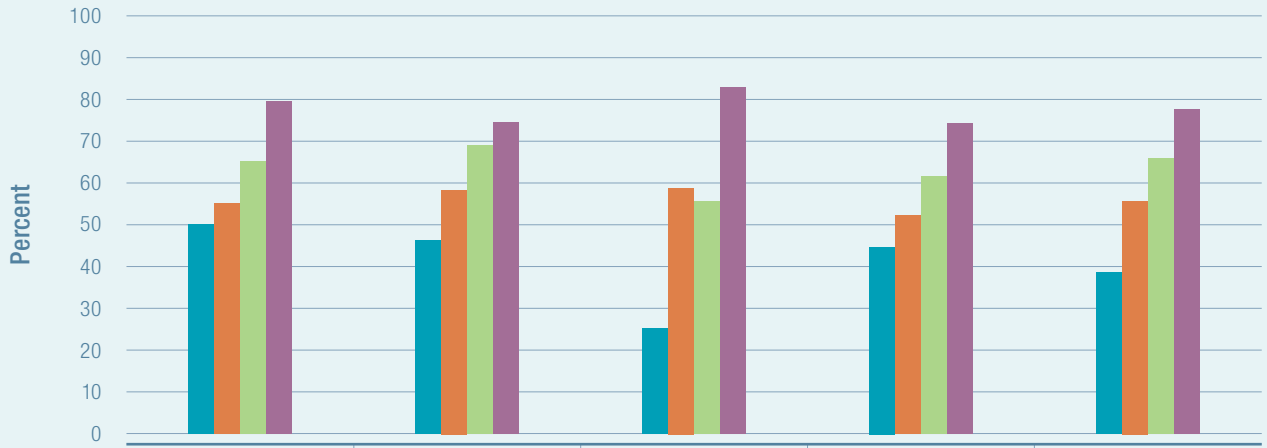
Percent of individuals achieving an A1c between 6 and 8 % from the diabetes registry, 2011 and at least 1 clinic visit in 2007-2011 (age-adjusted)



Note: A1c values of less than 6% have been removed for this analysis in order to provide a fair comparison.

Figure 11.

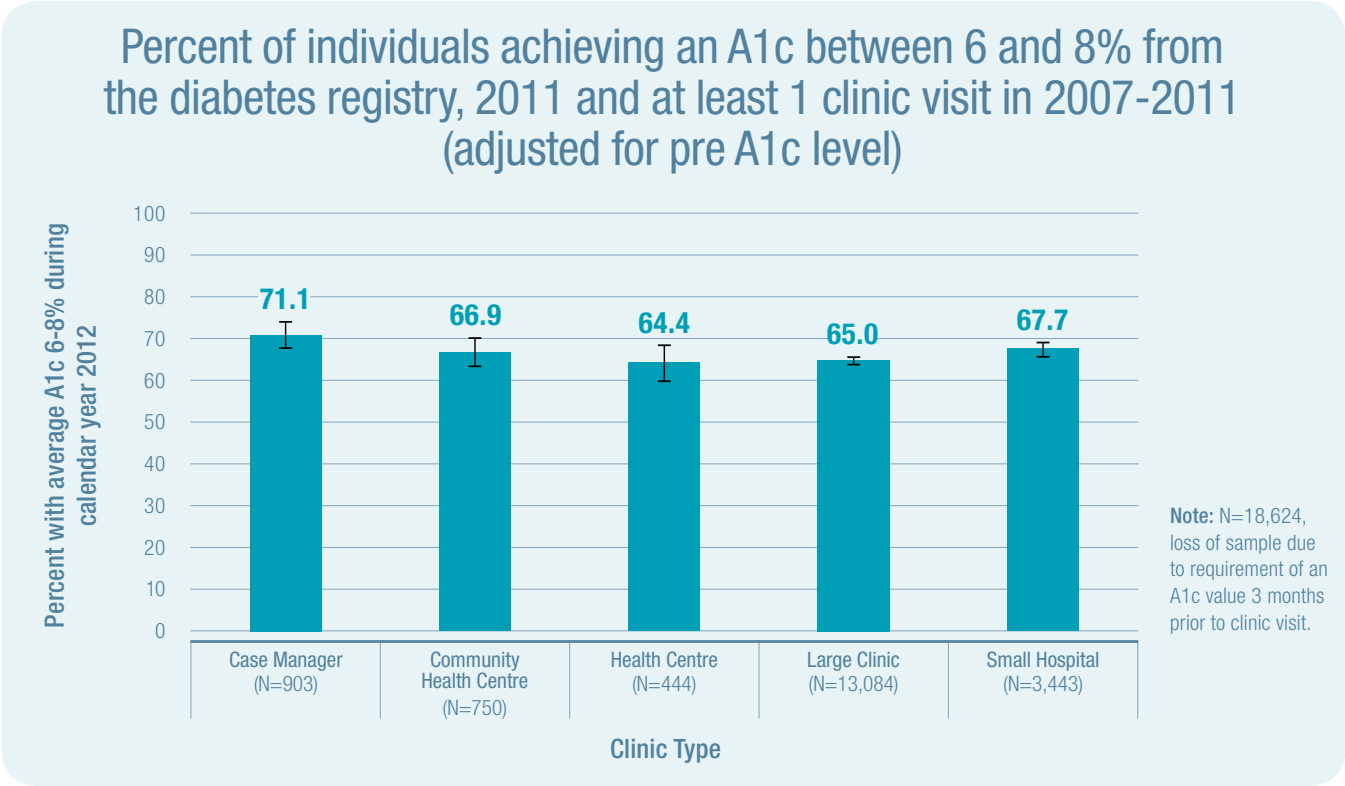
Percent of individuals achieving an A1c between 6 and 8% by age category



	Case Manager	Community Health Centre	Health Centre	Large Clinic	Small Hospital
20 - 34	50.0	46.2	25.0	44.7	38.4
35 - 44	55.0	58.1	58.8	52.1	55.6
45 - 64	65.0	69.0	55.6	61.4	65.9
65+	79.4	74.3	82.9	74.1	77.7

Note: A1c values of less than 6% have been removed for this analysis in order to provide a fair comparison.

Figure 12.



3. Outcomes According to Type of Clinic

Outcomes were analyzed according to type of clinic to provide some guidance on which type of clinic may provide better quality of care. The results of this analysis may contribute to planning and decision-making. It is important to note that pediatric patients and the Pediatric Clinic type were excluded from this analysis.

We used 3 outcome measures to compare the performance of the 5 types of clinics: proportion of people with diabetes who had at least one clinic visit and whose A1c level is between 6 and 8%, the mean and median differences in A1c levels in the 3 months prior to their first clinic visit and in the year after that visit, and the difference in hospital visits of patients in the year preceding the first clinic visit and in the subsequent year.

Figure 10 shows that there is very little variation in the proportion of clinic patients whose A1c was between 6 and 8%. The proportions are age-adjusted to eliminate the effect of differences in the age structure of people attending **(Table 2)**. Case managers appear to have the best results, and large clinics the worst. However it may be that each clinic attracts a different type of patient, with large clinics attracting the more complicated cases. Note that, patients who visited more than one clinic during the study period were allocated to a particular type of clinic based on their most recent visit.

Large clinics had the lowest proportion of patients achieving an A1c between 6 and 8% and this holds true even after adjusting for both year of detection and age **(Table 3 and Figure 10)**. Once we adjusted for the A1c level at the start of receiving service, the proportion of patients achieving clinical target declined for the Health Centre clinic type **(Figure 12)**.

Table 2.

Patient profiles and clinical characteristics according to clinic type (2007-2011)

(N= 20,653)		Large Clinics	Small Hospitals	Community Health Centres	Health Centres	Case Managers
Age Category (%)						
	20-34	3.8	1.9	1.5	0.8	0.6
	35-44	7.5	6.3	5.1	3.5	4.1
	45-64	48.1	49.4	45.9	44.2	44.0
	65 +	40.5	42.4	47.5	51.5	51.3
Gender (%)						
	Female	48.3	49.4	48	46.6	45.2
	Male	51.7	50.6	52	53.4	54.8
Year of Diabetes Detection (%)						
	1996 or earlier	17.5	15.5	17.7	13.3	14.9
	1997 - 2001	23.8	21.4	22.7	29.0	23.1
	2002 - 2006	26.1	29.5	27.4	24.7	27.0
	2007 - 2011	32.6	33.6	32.2	32.9	35.1
Category of average A1c prior to first clinic visit (%)						
	less than 6%	3.0	3.1	6.7	6.3	1.1
	6% to less than 8%	53.2	56.6	55.8	61.1	58.9
	8% to less than 9%	18.1	17.4	15.6	16.2	21.9
	9% or higher	25.8	23.0	22.0	16.6	18.2
Average number of medical visits per patient in 2011		8.8	8.2	7.5	8.1	8.8
Average number of clinic visits per patient in 2011		2.4	2.6	1.8	1.9	1.9

Level of attainment: Low - Medium - High

Elements of Person Centred Practice	Large Clinics	Small Hospitals	Community Health Centres	Health Centres	Case Managers
Getting to know the patient as a person	low-high	medium-high	high	medium-high	high
Sharing of power and responsibility	low-high	medium-high	medium-high	medium-high	high
Accessibility and flexibility	low-high	low-high	medium-high	low-high	high
Coordination and integration	low-high	medium-high	high	medium-high	high
Environments	low-high	low-high	medium-high	medium-high	low-high

The frequency of hospitalization visits for diabetes specific ambulatory care sensitive conditions (ACSC) **(Appendix B)** were calculated for each clinic type for the period of one year before and after the first clinic visit. The findings revealed decreases for Large Clinics, Small Hospitals and Community Health Centres. For both the Health Centres and Case Managers the data was too unreliable to report due to very small case numbers **(Table 3)**. These findings are in line with a systematic review by Gruen et al[14] who found that specialist outreach, as part of more complex multifaceted interventions involving collaboration with primary care, education or other services, is associated with less use of inpatient services. The authors would like to note that caution must be exercised with these findings as hospitalizations for diabetes specific ambulatory care sensitive conditions can be influenced

Table 3.

Clinical outcomes	Large Clinics	Small Hospitals	Community Health Centres	Health Centres	Case Managers
% with A1c between 6% and 8% (unadjusted) N= 20,653	65.19	69.72	70.62	69.53	71.9
% with A1c between 6% and 8% (adjusted for both years of detection and age) N= 20,653	65.81	68.94	68.92	67.19	69.14
% with A1c between 6% and 8% (adjusted for pre A1c levels) N= 18,624	65.03	67.68	66.94	64.36	71.06
Median difference between [average A1c within 3 months prior to first clinic visit] and [average A1c 1 year after first clinic visit] (unadjusted) N= 9,611	↓0.30	↓0.40	↓0.33	↓0.10	↓0.40
Median difference between [average A1c within 3 months prior to first clinic visit] and [average A1c 1 year after first clinic visit] (adjusted for pre A1c) N= 9,611	↓0.30	↓0.40	↓0.40	↓0.15	↓0.40
Mean difference between [average A1c within 3 months prior to first clinic visit] and [average A1c 1 year after first clinic visit] (unadjusted) N= 9,611	↓0.72	↓0.74	↓0.75	↓0.24	↓0.70
Mean difference between [average A1c within 3 months prior to first clinic visit] and [average A1c 1 year after first clinic visit] (adjusted for pre A1c) N= 9,611	↓0.68	↓0.80	↓0.75	↓0.45	↓0.82
% change in hospital admission rate based on per 1,000 patient months, 1 year pre and post first clinic visit N= 10,846	Pre: 3.43	Pre: 2.34	Pre: 4.02	F	F
	Post: 1.56	Post: 1.79	Post: 1.20		
	↓54.7%	↓23.4%	↓70.0%		

Note: F Too unreliable to be reported (fewer than 5 cases per cell).

by a number of factors such as access and availability of hospital beds, population lifestyle/socioeconomic status, physician practice behaviors, population tendency to use health care resources, and disease prevalence[15]. In addition, given the time frame which was used to assess the percent change in hospital admissions and the factors which can contribute to ACSC hospitalization rates, further research is required to examine the results for this outcome on a much longer term basis.

Cost of Care

The cost comparison between the 8 large clinics was based on Management Information Systems data on the cost of their human resources and data on the number of clinic visits. Among the other 29 of the 37 clinics, data specific to diabetes visits and costs is not routinely recorded in a standardised manner so it could not be used for comparisons. Administrative data from the 8 large clinics was used to validate the Management Information Systems data. The cleanest data available was for all the large clinics using the Management Information Systems data.

The human resource costs in the 8 large clinics ranged from $33 to $158 per visit in 2012. These costs are unrelated to quality as assessed by health outcomes. For example, the clinic with the lowest cost per visit had the highest proportion of patients with an A1c level between 6 and 8%.

[14] Gruen RL, Weeramanthri TS, Knight SS, Bailie RS (2003). 'Specialist outreach clinics in primary care and rural hospital settings (Cochrane Review)'. Cochrane Database of Systematic Reviews, issue 4, article CD003798. DOI: 10.1002/14651858.CD003798.pub2.

[15] Md Monir Hossain, James Laditka. Using hospitalization for ambulatory care sensitive conditions to measure access to primary health care: an application of spatial structural equation modeling. International Journal of Health Geographics, 2009, Volume 8, Number 1, Page 51.

5

What do the more effective clinics look like in New Brunswick

The effectiveness of diabetes education clinics was measured by two health outcome measures: the proportion of patients with an A1c level between 6 and 8% and the proportion of patients hospitalised with a diabetes related illness. Clinics were then graded according to their alignment with the Expanded Chronic Care Model and their degree of patient-centredness and whole patient approach, according to the results of interviews with clinic staff.

In the literature, these attributes of clinic organisation are related to good patient health outcomes. Cost information on the 8 largest clinics was used to indicate efficiency.

The clinic most effective in achieving A1c targets was highly patient-centred, had the lowest costs and also had a whole patient approach, had a high level of internal and external team coordination and a high level of accessibility and flexibility to meet patient needs. The same clinic is closely involved with diabetes education in its zone and networking within the zone seemed to be very strong: all their clinics, including hospitals and primary care providers share best practices, processes, guidelines and diabetes education tools.

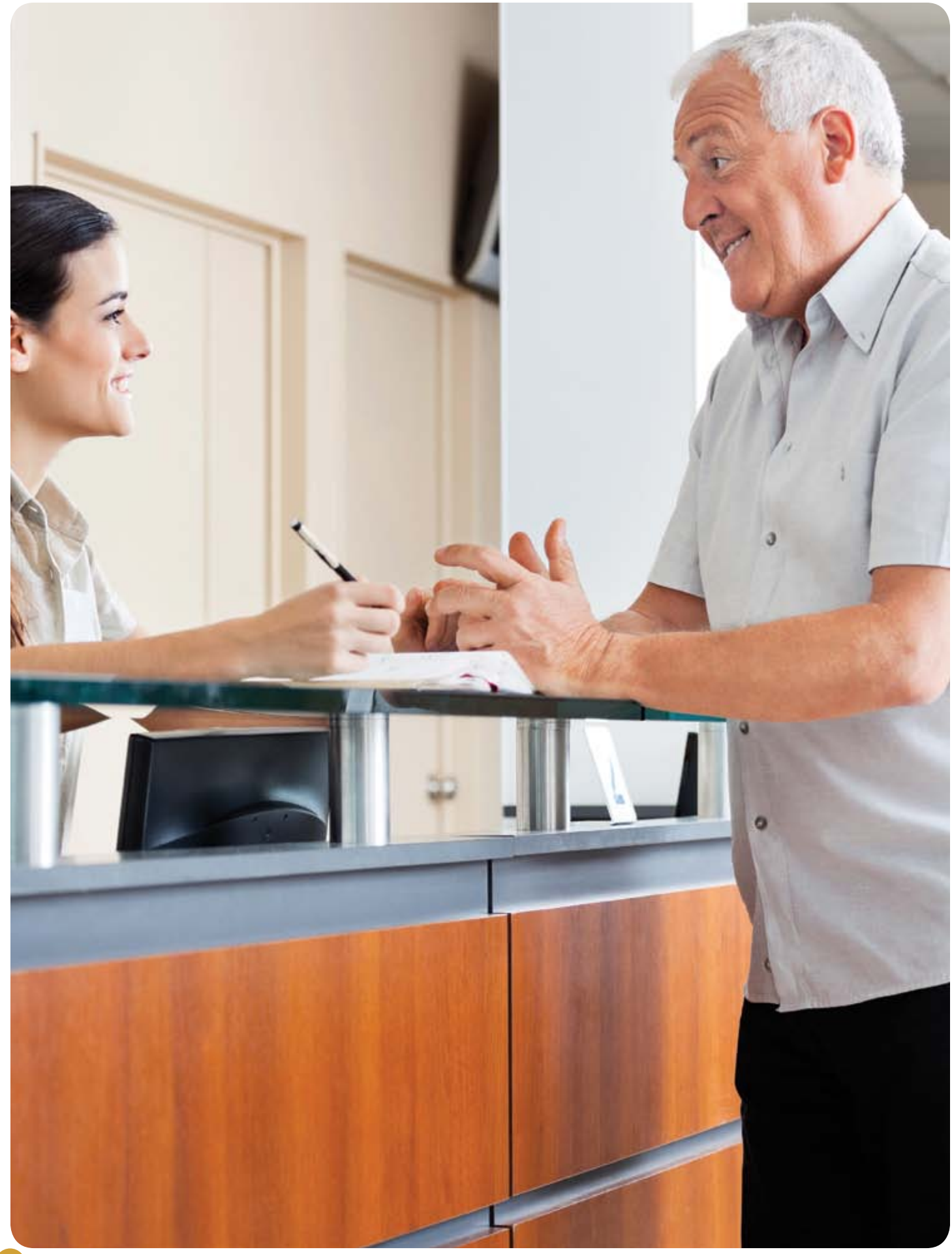
In the Zone with the second best A1c level results, two of the main centres where patients with diabetes receive care have formal quality assurance programs. One of these is a large medical centre that uses its EMR system to generate data for quality assurance activities. The other is the main hospital clinic that has the accreditation of an outside body. To achieve accreditation, the clinic must implement a number of processes designed to improve the quality of care including the use of their EMR system in the regular evaluation of outcomes and quality assurance activities.

The clinic with the highest cost per visit had the second lowest proportion of patients with an A1c level between 6 and 8%, with a medium level of patient-centred practice. Although they have a high level of internal team coordination and integration, coordination and integration with external team members is lower. Accessibility, flexibility and addressing issues faced by patients related to the social determinants of health appear to be more of a challenge.

The better performing zones had at least one or two diabetes education clinics achieving better outcomes and all clinics within these zones exhibited high or medium levels of the following elements:

- A strong *relationship* between the clinician and the patient and carers, getting to know the person behind the diagnosis.
- A team focus on *meeting patients and clients' individual needs* by being sensitive to values, preference and expressed needs. This includes a focus on giving timely, complete and accurate information in a manner that enables patients to make informed choices about their care. The organisational and cultural model fosters patient focus.
- Good *accessibility and flexibility* in offering services. This includes opening hours that suit patients, adapting hours to specific patients when necessary, encouraging patients to contact the clinic between scheduled appointments if necessary by telephone or email, allowing walk-in consultations. Ensuring matching the right service or service provider with the patient.
- Good *coordination and integration* of internal team members as well as with external team members. Every patient has a key contact or case manager who works with the patient and other team members to minimize duplication, maximize outcomes and provide a positive patient experience. Team members see themselves as part of a larger care environment and work with other service providers and systems to provide "seamless" care.

Overall the community health centres and case managers demonstrated the better outcomes and in the majority of both these service types, the elements of patient-centred practice were being demonstrated at high levels. In both these service types, the family physician tends to be better integrated as an external team member and is responsible for the major management decisions, including referrals and diabetes medication adjustments.



Appendix A:
Glossary

Glossary of Terms

A1c:

Glycosylated hemoglobin - Blood test that reflects average blood sugar level for the past two to three months. The test measures percentage of hemoglobin coated with sugar.

Achievement of Recommended Targets:

glycated haemoglobin within 1% of the upper limit of the normal range defined as between 6-8% A1c.[16, 17, 18]

Community Health Centres (CHC):

provides primary health care services, illness/injury prevention, chronic disease management and community development services, using a population health promotion approach in a multidisciplinary team of health providers.

Health Service Centre:

provides nursing and administrative support to fee for service physicians in an office practice setting.

Health Equity:

refers to the study of differences in the quality of health and health care across different populations[19]. These difference may include differences in the "presence of disease, health outcomes, or access to health care" across racial, ethnic, sexual orientation and socioeconomic groups. Similarly, the term 'disparities' may be used instead of 'differences' to indicate a moral valuation.

New Brunswick Diabetes Registry:

Identifies diabetes on the basis of the Canadian Chronic Disease Surveillance System (CCDSS) and A1c laboratory data. CCDSS uses administrative data that meets one or both of the following two conditions:

1. with Medicare data, two claims within a 2 year period that specify diabetes as the reason for the visit, or
2. a hospital admission (DAD data) with a diagnosis of diabetes (e.g. ICD9 code 250.x), whether or not it was the primary reason for admission.

Zones (Health Zone):

New Brunswick has seven zone boundaries (health regions) as defined by Statistics Canada and these zones are currently used for higher level statistical reporting for the population. Health facilities in zone 2 (Fundy Shore/Saint John area), zone 3 (Fredericton/River Valley area) and zone 7 (Miramichi area) are managed by Horizon Health Network. Health facilities in zone 4 (Madawaska/North-West area), zone 5 (Restigouche area) and zone 6 (Bathurst/Acadian Peninsula area) are managed by Vitalité Health Network. Health facilities in zone 1 (Moncton/South-East area) are managed by either Horizon Health Network or Vitalité Health Network.

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[16] Cheung NW, Yue DK, Kotowicz MA, Jones PA, Flack JR. A comparison of diabetes clinics with different emphasis on routine care, complications assessment and shared care. Diabet Med. 2008 Aug;25(8):974-8

[17] Ali Imran, S., Rabasca-Lhoret, R. & Ross, S. Targets for Glycemic Control. Canadian Journal of Diabetes. 37 (2013) S31-34.

[18] Danielle C. Colayco, Fang Niu, Jeffrey S. McCombs, T. Craig Cheetham. A1c and Cardiovascular Outcomes in Type 2 Diabetes: A nested case-control study. Diabetes Care. 2011 January; 34(1): 77–83. Published online 2010 October 11. doi: 10.2337/dc10-1318

[19] "Glossary of a Few Key Public Health Terms". Office of Health Disparities, Colorado Department of Public Health and Environment. Retrieved 13 January 2014.

Zone 1: Moncton/South-East Area

Carleton, Acadieville, Saint-Louis, Saint-Louis-de-Kent, Saint-Charles, Richibucto, Indian Island, Rexton, Elsipogtog, Weldford, Huskisson, Hartcourt, Saint-Paul, Saint Mary, Saint-Antoine, Dundas, Buctouche, Bouctouche, Wellington, Salisbury, Petitcodiac, Moncton, Coverdale, Riverview, Dieppe, Shediac, Memramcook, Dorchester, Beaubassin East/Beaubassin-Est, Sackville, Westmorland, Port Elgin, Botsford, Cap-Pelé, Fort Folly, Hillsborough, Elgin, Hopewell, Riverside-Albert, Harvey, Alma
(Zone 1 : Région de Moncton/Sud-Est)

Zone 2: Fundy Shore/Saint John Area

Brunswick, Havelock, Cardwell, Sussex Corner, Sussex, Studholm, Waterford, Hammond, Saint Martins, Upham, Norton, Hampton, Springfield, Johnston, Wickham, Hampstead, Kars, Petersville, Greenwich, Kingston, Quispamsis, Rothesay, Simonds, Grand Bay-Westfield, Westfield, Saint John, Musquash, Lepreau, Pennfield, Clarendon, Blacks Harbour, Grand Manan, Campobello, West Isles, Saint George, Saint Andrews, Saint Patrick, Saint Croix, Dumbarton, Saint James, Dufferin, Saint Stephen
(Zone 2 : Région de Fundy/Saint John)

Zone 3: Fredericton/River Valley Area

Blissfield, Ludlow, Doaktown, Maugerville, Northfield, Minto, Chipman, Waterborough, Sheffield, Canning, Cambridge, Cambridge-Narrows, Gagetown, Lincoln, Oromocto, Burton, Fredericton Junction, Tracy, Gladstone, Blissville, McAdam, Manners Sutton, Harvey, Canterbury, North Lake, Dumfries, Prince William, Kingsclear, New Maryland, Fredericton, Saint Mary's, Queensbury, Nackawic, Southampton, Medictic, Millville, Bright, Devon, Douglas, Stanley, Richmond, Woodstock, Northampton, Wakefield, Hartland, Brighton, Peel, Simonds, Wilmot, Florenceville, Centreville, Wicklow, Bath, Bristol, Aberdeen, Kent, Andover, Aroostook, Tobique, Perth, Plaster Rock, Gordon, Denmark, Lorne
(Zone 3 : Région de Fredericton et la vallée)

Zone 4: Madawaska/North-West Area

Saint-François, Saint-François de Madawaska, Clair, Lac Baker, Baker Brook, Saint-Hilaire, Edmundston, Saint-Basile, Saint-Jacques, Saint-Joseph, Rivière-Verte, Madawaska, Sainte-Anne, Saint-Anne-de-Madawaska, Notre-Dame-de-Lourdes, Saint-Léonard, Saint-André, Drummond, Grand Falls/Grand-Sault, Saint-Quentin, Grimmer, Kedgwick, Madawaska
(Zone 4 : Région de Madawaska/Nord-Ouest)

Zone 5: Restigouche Area

Eldon, Addington, Atholville, Balmoral, Tide Head, Campbellton, Dalhousie, Indian Ranch, Eel River, Charlo, Eel River Crossing, Colborne, Durham, Belledune, Eel River Bar
(Zone 5 : Région de Restigouche)

Zone 6: Bathurst/Acadian Peninsula Area

Pointe-Verte, Petit Rocher, Nigadoo, Beresford, Bathurst, Pabineau, New Brandon, Bertrand, Paquetville, Saint-Léolin, Grande-Anse, Maisonnette, Allardville, Saumarez, Tracadie-Sheila, Saint-Isidore, Inkerman, Caraquet, Bas-Caraquet, Le Goulet, Shippagan, Sainte-Marie-Saint-Raphaël, Lamèque
(Zone 6 : Région de Bathurst/Péninsule acadienne)

Zone 7: Miramichi Area

Northesk, Big Hole, Red Bank, Southesk, Newcastle, Miramichi, Alnwick, Chatham, Burnt Church, Neguac, Tabusintac, Hardwicke, Glenelg, Eel Ground, Nelson, Derby, Rogersville, Blackville, Metepenagiag
(Zone 7 : Région de Miramichi)

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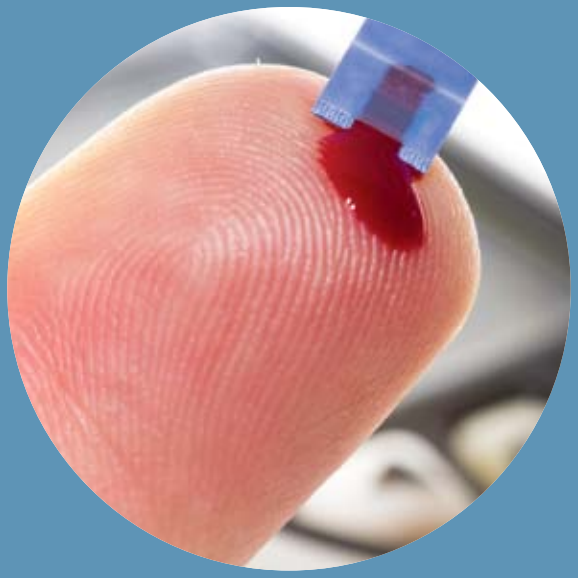


Appendix B:
Methodology

In order to determine clinical effectiveness, two outcome measures were used for the analysis.

The first was glycated haemoglobin (A1c); a blood test that provides an indication of how well the blood sugar has been controlled in the three months prior to the test and can indicate the likelihood of developing certain complications associated with diabetes. The second measure was hospitalizations for diabetes specific ambulatory care sensitive conditions. These two health outcome measures were used to measure differences between:

1. Geographic (7 Health zones[20])
2. Patients receiving or not receiving enhanced diabetes care
3. Types of clinics.

Data Sources:

The main source of data for this report is the New Brunswick Diabetes Registry. It identifies diabetes on the basis of the Canadian Chronic Disease Surveillance System (CCDSS) and A1c laboratory data.

CCDSS uses administrative data that meets one or both of the following two conditions:

1. with Medicare data, two claims within a 2 year period that specify diabetes as the reason for the visit, or
2. a hospital admission (DAD data) with a diagnosis of diabetes (e.g. ICD9 code 250.x), whether or not it was the primary reason for admission.

Data Source 1.
Administrative Data from Regional Health Authorities

This data source includes the list of patients that have attended a Diabetes Education Clinic or Centre from 2007-2011 from Regional Health Authorities. It includes all patients who were allocated to a functional centre dedicated to patients visiting Diabetes Clinic or Education Centres from calendar years 2007-2011 collected from the Admitting Module interface of each facility in the province. Data fields included: code for clinic functional centre, Medicare number (for linking purposes only), date of visit, reason for visit. Business owners in each of the zones would do the validation of the accuracy of the information and sign off to release the information. There were 5 points of service out of the 37 where some data were missing but these accounted for less than 1% of the clinic visits.

Data Source 2.
Laboratory Data Repository

The Department of Health maintains a repository of routine laboratory tests from all labs in the province of New Brunswick. This data source was used to link specific A1c measurements with all patients in the registry as well as patients who went to clinics. Patients who went to clinics and were not in the registry were able to have a linked A1c measurement. This data source was also used to allocate patients to a geographic health zone. This repository contained data from January 2001 until December 2012.

[20] See Glossary for complete description of Health Zones.

Data Source 3.
The DAD (Discharge Abstract Database)

The DAD (Discharge Abstract Database) contains hospital services data. This database was used to link the Diabetes Patients with hospital visits. The Medicare number was used to link to every hospital visit per patient from 2007-2011. Data fields included patient Medicare number (for linking purposes only), date of birth and gender (to validate matching), date of admission, length of stay, reason for visit, resource intensity weight and most responsible diagnosis code. Classification for a diabetes related admission was defined by using CIHI's diabetes specific codes for ambulatory care sensitive conditions[21].

Data Source 4.
Medicare Resident Registry (MDSS)

The MDSS includes information required by the Department of Health in order to reimburse physicians for insured health services. It includes patient identification, location of service and billing codes for services that were provided. Patient data, which was cross-matched with the diabetes registry from 2007-2012, was used to link visit information to respective patients for evaluation purposes. The Medicare number was used to link visit information to individual diabetes patient based on the analysis required. Data identifying physicians was not collected for the purposes of this project. Data fields included patient Medicare number (for linking purposes only), date of birth and gender (to validate matching), date of visit, reason for visit.

ICD-10-CA Codes	ICD-10-CA Description	ICD-10-CA Codes	ICD-10-CA Description
250.0	DM without mention of complication	E10.0^^	Type 1 DM with coma
250.1	Diabetes with ketoacidosis	E10.1^^	Type 1 DM with acidosis
250.2	Diabetes with hyperosmolarity	E10.63	Type 1 DM with hypoglycaemia
250.8	Diabetes with other specified manifestations	E10.9^^	Type 1 DM without (mention of) complication
		E11.0^^	Type 2 DM with coma
		E11.1^^	Type 2 DM with acidosis
		E11.63	Type 2 DM with hypoglycaemia
		E11.9^^	Type 2 DM without (mention of) complication
		E13.0^^	Other specified DM with coma
		E13.1^^	Other specified DM with acidosis
		E13.63	Other specified DM with hypoglycaemia
		E13.9^^	Other specified DM without (mention of) complication
		E14.0^^	Unspecified DM with coma
		E14.1^^	Unspecified DM with acidosis
		E14.63	Unspecified DM with hypoglycaemia
		E14.9^^	Unspecified DM without (mention of) complication

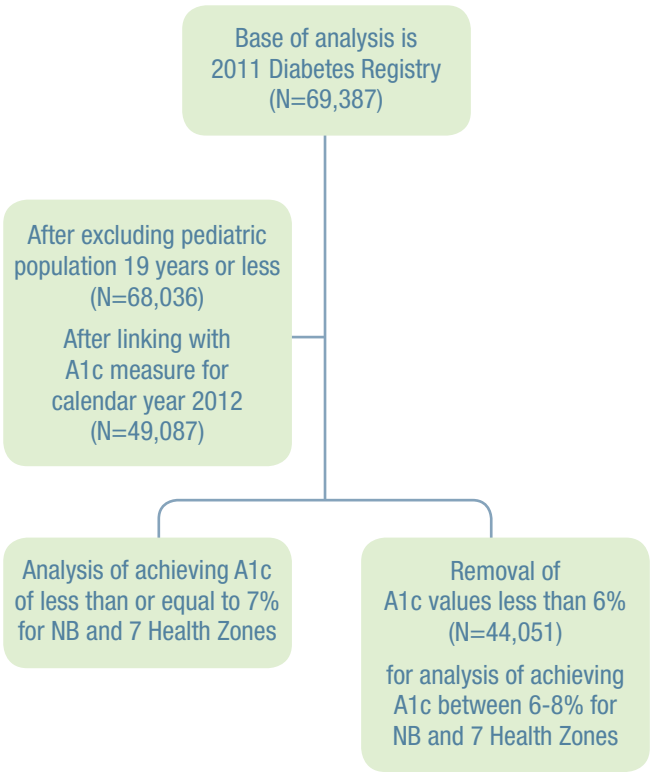
[21] 1. Canadian Institute for Health Information. Technical note: ambulatory care sensitive conditions (ACSC). Ottawa (ON): The Institute; 2010; Available: www.cihi.ca/CIHI-extportal/pdf/internet/DEFINITIONS_052010_EN (accessed 2012 Jan. 15)

Data Source 5.
Financial Data

The Management Information System (MIS) used in both Regional Health Authorities (RHAs) was the source used to identify the costs associated with each clinic location. The location code for each of the 37 points of contact was supplied to the utilization management group to map all relevant costs to the respective locations for the latest year relevant to the study period. In order to assess the validity and reliability of the information for use, it was requested that if each location had clinic visits associated to each of the cost centres, that they be included. In the review of the costing data, a number of clinics did not have a clear mapping associated to the costs. The only types of clinics that had relevant clinic visits which matched our dataset for clinic visits were the large clinics. The financial data did provide a breakdown by compensation, medical and surgical supplies, drugs, other supplies and services and equipment and physical plant. In order to compare clinical efficiency among the 8 large clinics, the cost per visit using compensation expenses was calculated and used in the "cost of care" analysis.

Data Flow and Analytical Procedures:

1. Performance by Health Zones

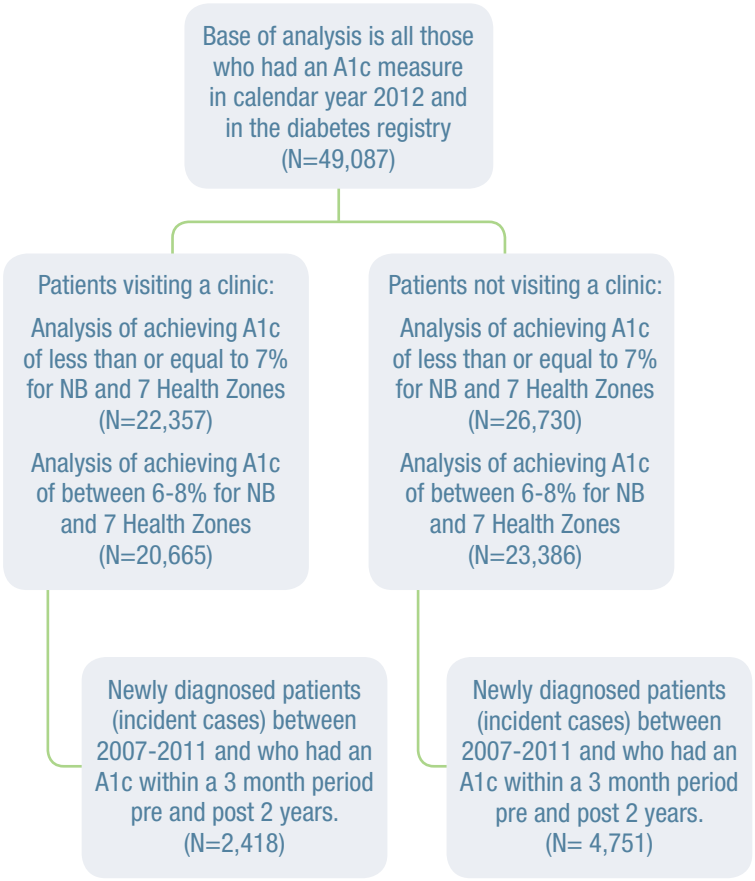


Note: An ANCOVA Model was used to adjust for age as a covariate and perform post hoc tests to determine differences between groups (Zones) and produce confidence intervals. A 95% confidence interval was used around the estimate reflecting a significance level of 0.05.

Patients were assigned to geographic health zones based on location of laboratory which performed the A1c test. In a very small number of cases (1-2%), patients may have had testing in 2 zones whereby a decision rule was created to assign the patient to the zone that processed the most recent test.

Proportion of patients visiting a diabetes education clinic within a respective zone was produced using: the population who had an A1c test in 2012 providing a zone allocation and cross matching this data set with the clinic visit data set.

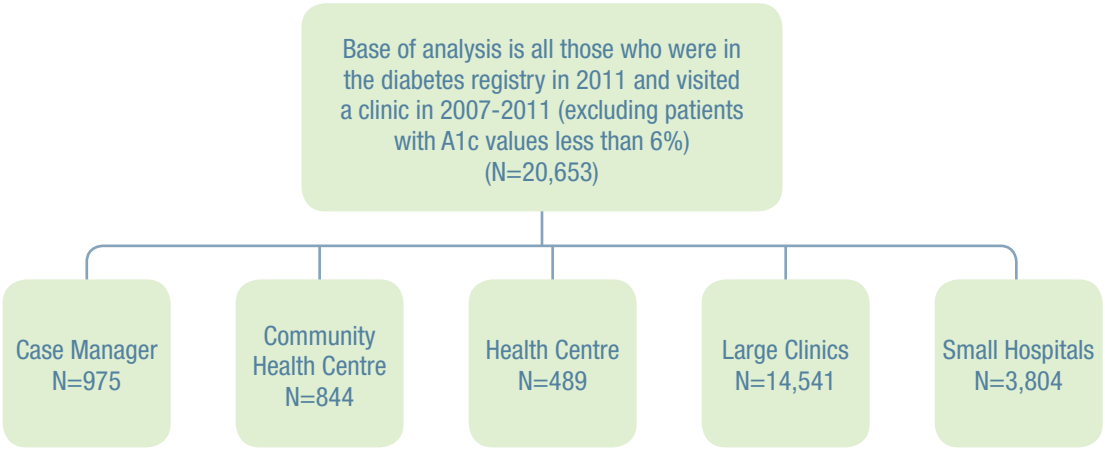
2. Comparing Individuals Receiving or Not Receiving Enhanced Diabetes Care



Note: In order to compare patients visiting a clinic and not visiting a clinic, only those patients that were newly diagnosed from 2007-2011 were chosen for the analysis to provide a similar starting point for the intervention. In the case of the clinic, the newly diagnosed patient groups were selected based on going to clinics within 3 months of entry into the diabetes registry. For newly diagnosed patients who did not attend clinics, the care was assumed as routine diabetes care by a primary care provider at the time of entry into the diabetes registry. It was also important to display results both unadjusted and adjusted for pre A1c values as it has been noted in the literature that patients being referred to a comprehensive diabetes program tend to be more complex. Independent t-test was used to compare differences between clinic and non-clinic patients. Paired t-tests were used to compare pre and post 2 year time period.

Patients were assigned to geographic health zones based on location of laboratory which performed the A1c test. In a very small number of cases, patients may have had testing in 2 zones whereby a decision rule was created to assign the patient to the zone that processed the most recent test.

3. Outcomes According to Type of Clinic



Note: An ANCOVA Model was used to adjust for age, year of detection and pre A1c as covariates in the model. Post hoc tests were performed to determine differences between groups (clinic type) and produce confidence intervals with age and pre A1c adjusted models. A 95% confidence interval was used around the estimate reflecting a significance level of 0.05.

Mean and Median differences testing between [average A1c within 3 months prior to first clinic visit] and [average A1c 1 year after first clinic visit] was performed with each clinic type unadjusted and adjusted for pre A1c level.

Percent change in hospital admission rate based on per 1,000 patient months, 1 year pre and post first clinic visit required linking the current base of patients with all hospital admissions for diabetes specific ambulatory care sensitive conditions. Only patients which had hospital admissions 1 year pre and post a clinic visit were entered into the analysis. This reduced the eligibility for analysis to N=10,846 and reduced samples for each clinic type by almost 50%.

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Appendix C:
Questionnaires

Diabetes Clinic Questionnaire

Date:

Name of clinic:

Section 1: General Information About Clinic

Let's start with some general information about the clinic. Can you tell me some general information about how long it has been in existence, how many people work here and what their various roles are:

- How long has the clinic been in existence? (IN YEARS):
- Respondent:
- Role:
- Have there been major changes to the clinic (either since it started or in the past 5 years or so). Briefly what have they been?
- What is the clinic's mandate? How and to what extent does it realize that mandate? Which services are provided?
- What is the clinic's reporting structure?

Theme 1: Meeting Population Needs

Could you tell me about the people that you serve?

- Where do they come from geographically?
- Number of clients (validate our info): - Clients
  - Visits
  - Calls that are received
- How many clients does the clinic have?
- Any characteristics that stand out? Demography (age, rural/urban, socio-economic group…)
- Other characteristics?
- How many visits per client?
- Does this include contacts other than direct face-to-face e.g. telephone, group meetings? How many clients have co-morbidities (other health conditions)?

What are the main services that you provide to clients? What would happen to a new referral to your clinic?

- Does the clinic offer insulin pump teaching? Y/N
- Does the clinic offer pre-diabetes education/screening? Y/N

Services for each level of prevention

- To what extent does the clinic provide services relating to each level of prevention? (see explanation at bottom of questionnaire)

  - Primary
  - Secondary
  - Tertiary

- How are services for each level of prevention provided to this population or clientele?

  - Primary
  - Secondary
  - Tertiary

- How does the clinic ensure that its population has access to the full range of required services** including community services and specialist health services? (e.g. Referral to specific specialists, liaison with community services or individuals) Are these services provided within the clinic or by liaison with other organisations/individuals?
- How is follow-up ensured?
- Which regular sources of specialist care are used? What formal lines of communication (describe the lines of communications for each that apply) NOTE: Start by dealing with these individually, but if respondent combines them into one topic, that is okay.

  - Endocrinologist
  - Ophthalmologist
  - Neurologist
  - Podiatrist
  - Surgeon
  - Other

- How does the clinic provide for patients with co-morbidities?

Theme 2: Self-Management

- What is the role of the patient in disease management? What is the role of the professional in disease management?
- How is the professional/patient relationship viewed?
- Who is responsible for defining patients' problems and their solutions?

Patient Education:

- Types offered?
- Themes addressed?
- Methods used?

- What are the goals of patient education?
- Who is involved in patient education?
- Tell me about patients' level/degree of self-management overall?
- How is self-management supported? Availability of team to advise, including out of hours? Tools used?
- Written patient contracts?
- How does the team support self-management of conditions other than diabetes?
- To what extent is self-management supported? Give reasons for the answer; details on why it is believed that self-management is actually achieved.

Theme 3: Team Approach

- Can you tell me who you consider to be the team members within the clinic and outside the clinic?
- Clinic Team Members:
- External Team Members:
- Record Above: Can you tell me about professional qualifications for these people and further training they might have? Do you have a mechanism for training?
- What kinds of educational materials and activities do team members use to keep up to date? Is there organizational support for educational activities?
- How are the roles defined?
- What is the overlap between the roles of the team members?
- Who is the team coordinator?
- Team coordinator: What is his or her role? How does he or she execute it? What tools are used?
- Who is the team leader? How does he or she execute his or her role?
- Describe the role of community resources in relation to the team. How is the community invited to participate in care?
- Describe the role of hospital resources in relation to the team?
- What is the implication of the team in the care of hospitalized patients?
- What support does the team have from the organization's leaders?
- Describe the means of informal communication between team members (including with those outside the clinic). Describe their effectiveness.
- Describe the means of formal communication between team members (including with those outside the clinic). Describe their effectiveness.

Now let's talk about your interactions with the client and the outcomes from those interactions.

- How are the interventions of the team members guided? Do the members use common evidence-based guidelines, protocols, flow sheets or other tools? How is it decided which tools are used? How are tool updates integrated into team practice?
- How is communication between team members maintained, how is communication between the team coordinator, the team leader and the team members maintained?
- How are patient care processes and outcomes evaluated? What happens to the results of these evaluations?
- How is quality of care ensured?

What are the main services that you provide that you feel really makes a difference to the lives of your clients?

Is there anything missing? Is there something that you would like to be doing that you are not able to do?

Theme 4: Access

Availability:

- What would you say is the availability of the service? i.e. the volume of services offered in relation to the demand?
- How long is the wait for first service?
- How long is the wait for follow-up visits?
- Are services offered via telephone or indirect contact?

Accessibility:

- What is the journey length for the most distant clientele of the service?
- What is the average journey length of the clientele?
- Approximately what proportion of the served population would be able to access the services using public transport?
- How do clients get to the clinic? What kind of help is offered to those who find it difficult to get to the clinic?
- Does the clinic offer distant services? Does the clinic's clientele benefit from distant services (from other service providers)?
- How do patients communicate with the clinic?
- Of patients with scheduled appointments, how many do not turn up for the appointment?
- What reasons are given for not turning up?
- What efforts are made to increase the attendance at scheduled appointments?
- How are first appointments scheduled? How are follow-up appointments scheduled? How are appointments confirmed or how are patients reminded of their appointments?

Accommodation:

- What are the clinic's opening hours?
- What kinds of consultations are available (scheduled, unscheduled, in person, by telephone or email)?
- What is the wait time in the clinic for an unscheduled consultation?
- What is the wait time for a scheduled consultation?
- How does the clinic accommodate patients with special needs, e.g. visual impairment, mobility impairment, parents with children…?

Affordability:

- What other expenses do patient bear in order to get appropriate care (travel, parking, accommodation, dietary requirements, exercise facilities etc.)

Acceptability:

- How do you know that you are meeting the needs of the client/what do you do to ensure that you are meeting the needs of clients? How is the satisfaction of clients and their families measured?
- If there have been complaints about clinic services, in what areas are they and what has been done to address them?
- How does the clinic deal with different cultures and languages?
- How does it deal with literacy problems?

Definitions:

*** Levels of Prevention:**

- **Primary:** Prevents disease occurrence – health promotion, disease prevention
- **Secondary:** Screening and early diagnosis), pre-diabetes
- **Tertiary:** Management of disease and complications)

*** Team:**

A group of diverse clinicians who communicate with each other regularly about the care of a defined group of patients and participate in their care.

****Services Generally Required:**

- Diabetes self-management education
- Dietary education
- Medical nutrition therapy
- Behaviour modification
- Fitness centres
- Smoking cessation
- Endocrinology
- Cardiology
- Ophthalmology
- Podiatry
- Obstetrics/Family planning
- Dentistry
- Mental health
- Pharmacology
- Social work
- Nephrology
- Neurology

Client Diabetes Clinic Questionnaire

Date:

Name of clinic:

CLIENT VERSION:

Section 1: General Information About Clinic

Let's start with some general information about Your visits to the clinic. Can you tell me how long you have been coming and who you tend to see on a typical visit?

- How long have you been coming to the clinic? (IN YEARS):
- Who is seen in a typical visit?
- Role:
- I would like you to rate the care you receive at the clinic on a 10 – point scale where 1 is very poor and 10 is excellent.
- What are the main reasons you feel that way?

Self-Management

- Could you describe for me what you see as your role in managing your diabetes and what the role of the people here in the clinic is?
- Patient:
- Clinic

Most Helpful Thing:

- Who is responsible for defining patients' problems and their solutions?
- If you need an appointment with a specialist or other care giver outside of the clinic, does the clinic make that appointment or help in any way to get it? Do they do anything to ensure that the appointment happens and that any necessary follow-up is done?
- What kinds of education are available to you?

Patient Education:

- Types offered?
- Themes addressed?
- Methods used?

- What do the people in the clinic do to ensure that you are getting quality care?

What are the main services that they provide that you feel really makes a difference to your life?

Is there anything missing? Is there something that you would like to have that you do not have access to?

Access

Availability:

- Can you get an appointment in a reasonable time if you need one? What if there is something more urgent?
- How long is the wait for first service?
- How long is the wait for follow-up visits?
- Are services offered via telephone or indirect contact?

Accessibility:

- Is the location of the clinic convenient for you? Any difficulties getting here or difficulties when you get to the clinic? What is the average journey length of the clientele?
- How are first appointments scheduled? How are follow-up appointments scheduled? How are appointments confirmed or how are patients reminded of their appointments?

Accommodation:

- What is the wait time in the clinic for an unscheduled consultation?
- What is the wait time for a scheduled consultation?
- How does the clinic accommodate patients with special needs, e.g. visual impairment, mobility impairment, parents with children…? If you do see someone with special needs, does the clinic seem to accommodate them?

Affordability:

- What other expenses do patient bear in order to get appropriate care (travel, parking, accommodation, dietary requirements, exercise facilities etc.)

Acceptability:

- How or what is the clinic doing to make sure that your needs are met? How is the satisfaction of clients and their families measured?
- If you had a complaint or an issue, would you know where to go with that concern? Do you think it would be addressed?
- How does the clinic deal with different cultures and languages?
- How does it deal with literacy problems?

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Appendix D:
Clinic Profiles

- Large Clinic
- Small Hospital
- Community Health Centre
- Health Centre
- Case Manager
- Pediatric

The Moncton Hospital

135 MacBeath Avenue
Moncton, NB
E1C 6Z8
T: 506.857.5111

Clinic Type:

Large Clinic

Clinic Profile

The Moncton Diabetes Clinic is located in the Moncton Hospital at 135 MacBeath Ave. The Moncton Hospital is a critical care and Level 2 trauma centre and a referral destination for acute and trauma cases, covering New Brunswick, Prince Edward Island and northern Nova Scotia. As well, the hospital provides family practice, medical and surgical sub-specialties including neurosurgery, medical oncology, interventional radiology, and women and children's services (including neonatal intensive care).

The clinic has been located in the Moncton Hospital for three years and prior to that was located in the downtown area of Moncton. Clinic staff includes two full-time registered dietitians, three full-time registered nurses, and a pharmacist (part-time). There are four certified diabetes educators and two more will be certified shortly. The clinic also has access to social workers, physiotherapists, two endocrinologists and a medical bio chemist.

The clinic primarily services approximately 100 general practitioners in the south east region of New Brunswick who refer diabetes patients to the clinic.

Clinic Mandate

The overall mandate of the clinic is to help people self manage their diabetes and have a better quality of life.

Meeting Population Needs

There are approximately 2,000 patients who are seen at the clinic and 350 to 400 who are seen in the community by a diabetes nurse who visits physician offices. Patients are referred to the clinic and the first step is a triage assessment (as indicated by national diabetes standards) to decide if the person first goes to a class or straight to a one on one appointment with a nurse. Most go to the class, but if the A1C is high, they would go to the nurse.

The classes cover basic nutrition, what it means to live with diabetes, monitoring and medication, what diabetes is, nutrition and exercise. Classes used to run every day for four days, but they found they were overwhelming patients with information. Now they offer the healthy eating class once a week, the "live it up" class once a month and the exercise class is every two months. The classes are more interactive than previously and they use tools such as conversation maps.

Classes include:

- Healthy eating and keeping active.
- Learn to exercise: instructed by a physiotherapist.
- Live it up: heart healthy nutrition, alcohol and preventing complications.
- Best foot forward: foot care and foot exam, physical activity, medications and blood pressure checks.

Most patients have type 2 diabetes and are 60 years old or older. They are seeing more patients in their 30s and 40s. Once they are finished the healthy eating class, they are given a 3 month appointment and will see (as recommended) the pharmacist, dietitian or nurse. At the 3 month appointment, the patient is triaged again to determine which health care professionals they need to see and how frequently. In addition to the visits to the clinic, the patient will also see their general practitioner.

Services are available in person and by phone and through email. The clinic would answer approximately 300 calls per month (lasting 5 minutes or more or they are not counted). These calls are often used to make insulin adjustments. They also take calls (approx. 800 a year) from other health professionals and offer seminars to other health care professionals. Public talks and corporate talks that last 1 to 1.5 hours are also given when requested. There is also an email address that all staff have access to. A few have also given home or cell phone numbers to patients, generally if they are newly on insulin.

Insulin Pump Training:	Insulin pump training is offered.
Pre-diabetes Education/ Screening:	Classes are offered at the YMCA and there is a grocery store tour at Sobeys.

Levels of Prevention

Primary (disease prevention, health promotion):	They offer a grocery store tour that focuses on nutrition. They give public talks and also talks for other health care professionals that would have an impact on primary prevention.
Secondary (screening and early diagnosis):	There is a pre-diabetes class that was at the YMCA and now will be moving back to the clinic setting. It is offered once a month.
Tertiary:	Most of the people visiting the clinic are diagnosed with diabetes so most of the clinic's work is at this level.

Clinic Team

There are three physicians on staff. The patient's general practitioner is an integral part of the team that exists at the clinic and is ultimately responsible for the care provided. The diabetes clinic can and does suggest care, but can't directly refer to specialists unless it is one of the endocrinologists or the medical biochemist. Referrals to the dietitians and the social workers are given by the registered nurses. *"We all need to know the basics and can talk about diabetes." "We all have our strengths, but we all overlap a little."*

Internal Team Members:	Clinic staff includes four certified diabetes educators and two more who will write the certification exam shortly. There are also three full-time registered nurses, two dietitians and a pharmacist (part time). The clinic also has access to social workers, physiotherapists, two endocrinologists and a medical biochemist and these are all considered part of the internal team. They provide resources (one registered nurse) to the Wound Clinic.
External Team Members:	The external team includes the following health providers; ophthalmologist, cardiology, nephrology, neurology, psychiatrists and respirologists.
Team Structure:	They do not operate with a single team lead, but consider each patient's needs. *"It depends on what their problem is at the time. If it is a diet issue, you put them to the person who is the expert at the time."*
Team Qualifications and Education:	In addition to their own professional qualifications, they consider themselves fortunate that the Canadian Diabetes Association has an educator's section and local chapter and regular meetings. They have to re-qualify as Certified Diabetes Educators every five years. There is a provincial annual conference that they can attend, but it is more difficult to get permission to attend the national conference. They have access to journals and once a week, there are industry lunch and learn sessions. Some team members are also finishing degrees.

Guidelines: The clinic follows the standards of the Canadian Diabetes Association.

Communication: They have electronic charting and all team members can access a patient's chart, which includes notes made by any team member. Informally, the staff will refer a patient and just pop in and tell each other what their concerns are. They are working in close proximity so they are bouncing ideas off each other. It is common to ask each other's advice all the time.

Co-Morbidities: Three quarters of the patients are estimated to have co-morbidities. They monitor blood pressure, lipid levels and their cardio-vascular health.

Self-Management

Role of the Patient: The role of the patient is evolving and taking a more active role. *"The reality is they (the patient) are the driving force."*

Role of the Clinic: The professional's role is to coach and be a helper, a facilitator and a cheerleader. *"Our role is to help them accomplish their goals. We are always there when they are ready."* Hopefully they are motivated to make positive changes.

Patient Education: The classes cover basic nutrition, what it means to live with diabetes, monitoring and medication, what diabetes is nutrition and exercise.

Key Services Offered: They feel that a key strength is having a pharmacist. The structure of the classes with considerable interaction between participants is also a strength; *"there is an exchange that happens between participants and that carries a lot of weight."*

Proportion of Patients Controlled: The clinic tries to set goals and results recognizing the individual rather than a hard and fast guideline that applies to everyone. They have difficulty estimating how many people are reasonably well controlled. *"One minute they are there at 100% and then they have something happen like losing a loved one."* However, they do agree that people are actually more involved in their own care than people were in the past. They cite a part of the class where they deal with myths about diabetes and find that more people are able to separate the myths from the facts. Also, the two physicians who runs the wound clinic (also a registered nurse on staff) is saying that he is seeing improvement in the healing of wounds. At the 3 month follow-up 75% are improved.

Availability and Meeting Demand

A new Type 1 diabetes patient would be seen right away. Someone with gestational diabetes is seen that week compared to a guideline that says two weeks. They meet CDA standards.

Missing Services: They would add more staff so that there would be more coverage for the patient. They question why the facility is closed on weekends. There is more demand so they could extend hours if there were more resources. They note the issues of the working poor and their difficulty affording supplies, particularly the test strips. *"We have good relationships with the (pharmaceutical) reps, but it is becoming more of a struggle. The industry doesn't have as much."* A travelling dietitian to work with the CDE who visits physicians' offices would be a benefit.

Hospital: Registered nurses in the clinic do see patients "up on the floor." They provide education and determine any needs and sometimes start insulin. *"Used to have to stay in hospital for a week and now we teach them in the clinic in an hour."* They are also expected to provide educational in-services for hospital staff.

Wait Times: Patients can be scheduled into a class within a month and an individual appointment with a dietitian would take 4-6 weeks. Appointment times are kept open every Friday afternoon to deal with emergencies.

Methods of Offering Service: In person first and then by phone and by email for follow-up.

Distances: Most patients are in Moncton or travelling 30 to 45 minutes by car to get to the clinic. Public transportation is available in Moncton. Physicians are seeing people from as far away as PEI and Amherst.

Expenses: Note again the expense of strips and other equipment such as meters. *"If you don't have insurance, you are limited in what you can do."* Travel expenses are an issue for some patients.

Satisfying Patient Needs

They do survey patients and note that the electronic filing system helps them to see if patients are getting results because everyone can see the notes that are made. The patient's general practitioner is also a check on quality in that all of the information is going back to that person. They continually evaluate and challenge their classes and practices, not in a formal way, but in staff meetings and discussions.

Each staff member has an annual review and part of that process solicits feedback from co-workers.

Satisfaction Levels: Patient surveys are completed at two points during the year.

Dealing with Cultural Differences and Literacy: They have interpreters for deaf and hearing impaired people and translators if people do not speak French or English. They note that the Muslim community is growing and this is resulting in more one on one sessions because this is preferred culturally.

Patient Feedback

Visiting Clinic: Both patients have been seen at the clinic for a long time; over 15 years in both cases.

Rating of Service: Both gave a 10.

Role of Patient and Clinic: They consider the doctor and other staff as advisors and that it is really up to the patient to act. They note that the staff speaks to them in layman's terms so that they understand.

Accessibility: They both prefer the hospital location over the previous downtown one as they find it easier to get to and have more parking available. They also see their doctor on each visit. They consider the wait times for appointments reasonable and felt they would be able to make an appointment within a week to a week and a half. In addition to personal visits, staff can be reached by phone/cell.

Satisfaction and Complaints: Both rated these very high and were impressed with the service received.

Dr. Georges-L.-Dumont University Hospital Centre Diabetes Clinic and Endocrinology Clinic

330 Avenue de l'Université
Moncton, NB
E1C 2Z3
T: 506.862.4203

Clinic Type:

Large Clinic (in Hospital)

Clinic Profile

The Dr. Georges-L.-Dumont clinic is located on the second floor of the Dr. Georges-L.-Dumont University Hospital Centre. The hospital's diabetes clinic staff and diabetes space serve both the patients of the clinic, patients of the staff endocrinologist, Dr. Menasria, and, once per week, Dre. Babin's diabetes patients. The region served is urban and most patients are from the Greater Moncton area although from time to time, a patient from an outside community may visit. The clinic has seen an influx of gestational diabetes recently and a continued growth in demand for their services generally. The clinic has been in existence for at least 22 years although clinic staff is relatively new at the clinic.

Clinic Mandate

The clinic's mandate is to reduce complications from diabetes, and to make a positive impact in patients' quality of life.

Meeting Population Needs

The clinic could not provide an exact count on the number of patients it serves. The number is growing. They definitely feel they see more than 1,500 patients. The Health Department's 2011 count is approximately 1200 for 2011. *"On en a au moins 780 avec Dr. Babin." ("There are at least 780 just with Dre. Babin".)*

The clinic is seeing a greater number of gestational diabetes patients than previously. More screening is being done with pregnant women than had been the case historically. There is also a large number of unemployed working-aged adults among the clinic's patients, and many with a lower socio-economic profile. The clinic sees a good number of walk-in patients who come to the clinic for test strips, insulin or information about diabetes.

The clinic gets its new referrals from multiple sources. Patients can be referred to the clinic from physicians and family doctors/nurse practitioners in the region (outside the hospital), can be self-referred, can be referred by the staff endocrinologist, or can be referred from within the hospital from admitted or ER patients. Within the hospital, however, there is this pre-conceived notion that only those who need to start insulin for the first time are to be referred to the clinic. *"C'est ça que les gens se dissent"*. The clinic is referred a good number of non-compliant cases' from external physicians. *"Ils donnent le monde qu'ils ne sont capable de rien faire avec. C'est comme du dumping". ("They send us the ones that they can't do anything with. It's like dummping".)*

For education classes as well as individual consultations, the clinic schedules a date and sends a letter with a date to patients, or a phone call is made. No follow-up reminders are done. The nurse will spend a considerable amount of time each week (about half a day) re-scheduling patients and shuffling things so that more urgent patients can be seen sooner than 4 months.

Follow-up appointments are scheduled as needed after a patient has attended the education sessions. More urgent visits (such as insulin starts) can be accommodated sooner, within a few weeks. Follow-up visits to the education classes are not automatic. Only patients who request one on one follow-ups or who are evidently out of control are scheduled. When patients visit the clinic for a follow-up, they will be scheduled with one clinic staff, either the nurse or the dietitian. Patients who need to see both the nurse and dietitian don't always get this chance. They must return for a second visit on occasion due to limited schedules and because staff members are rarely replaced when absent (sick, etc).. *"Parfois ils n'ont pas de choix de venir 2 fois. On ne peut pas les voir en même temps." "C'est un deuxième rendez-vous pour rien." ("Sometimes they don't have the choice but to come back for a 2nd appointment. We can't see them at the same time". "It's a 2nd appointment for nothing".)* Follow-ups are lacking, and the continuity of information is lacking. Staff does not always have access to patient history, prescriptions or treatments when newly referred.

The clinic 'puts out fires' and deals with short-term coordination and management of schedules with very little time available for the development of resources, tools and look at the big picture when it comes to quality of services.

The clinic does not directly offer insulin pump teaching, but they do have patients on the pump. These patients are seen by an external representative that comes into the clinic for insulin pump starts only. The clinic does not see pediatric patients since there's a pediatric diabetes clinic in the region that already serves that population.

The clinic's services are separate from the services of the local diabetes case manager. The clinic is referred patients by local physicians who do not work with the local diabetes case manager. *"On ne voit pas les même patients que Chantal Morrisset.Pas de rapport." ("We do not see the same patients that Chantal Morrisset does. There isn't a link".)*

Levels of Prevention

Primary (disease prevention, health promotion):

The clinic does not offer primary diabetes prevention among the general public, but does teach prevention to pre-diabetes population in-class (see secondary, below).

Secondary (screening and early diagnosis):

The clinic does work with a good number of pre-diabetes patients, who are referred to the clinic for education classes by physicians from the community.

Tertiary (self-management):

This is the most important level of service for the clinic as a whole. Approximately 90% of clinic hours are composed of diabetes patient education and medical follow-ups (insulin adjustments, insulin starts, etc.)

Ensuring Follow-up:

When it comes to first appointments, new patients starting insulin are the priority. They will be seen as soon as possible, within a few weeks. Patient follow-up is patient-driven. The clinic will only follow-up with a patient if they would like to be seen again, or if their physician requests a follow-up. Patients are provided with a contact number to schedule follow-up. Not everyone receives a one on one consult, but everyone else is scheduled into a one-class session (though some might not show). Only those who request a follow-up or those who evidently need to be seen again are scheduled for a follow-up. A considerable amount of time is spent by the nurse following up with patients over the phone for insulin adjustments.

Clinic Team

Internal Team Members:

The clinic has four part-time and full-time staff. These include two half-time diabetes nurses (together forming one full-time position), one full-time nurse manager (the nurse manager supervises over 20 clinics. She offers support and 4 hours per week of administration time to nurses), and one part time dietitian (2.5 days/week). Team members work independently from one another when teaching. *"Avant il n'y avait qu'une Infirmière qui s'occupait de la clinique. Maintenant on est deux, mais on ne fait pas plus d'heures." ("There was only one nurse that took care of the clinic before. Now we are two, but it doesn't mean any additional hours".)* At the time of the interview, the dietitian was a certified diabetes educator (with CDE), having renewed her certification three years prior.

External Team Members:

External members include physicians located adjacent to the clinic including endocrinologist Dr. Menasria and his administrative assistant. Dr. Menasria works closely with one of the clinic's diabetes nurses, two half-days per week (mornings). The specialist sends his patients to the diabetes clinic for education sessions. The clinic does not set up patient referrals for specialists. They will make the recommendation to the physician if they see a need.

Team Structure:

The dietitian supervisor is part of the hospital staff (head dietitian) but is not part of the clinic's team. One of the part-time diabetes nurses also works collaboratively with Dr Menasria regarding his patients two mornings per week or when needed. Staff mostly work independently from one another.

Co-Morbidities:

Most patients have other chronic conditions. *"C'est rare qu'il n'y a rien d'autre". (It's rare that this isn't the case".)* The clinic is not always provided with patient history when referred a patient, especially internal patients that are referred by on call doctors on hospital floors.

Communication:

There is a lack of communication, or lack of effective communication between referral sources and the clinic. Diabetes nurses often have little to no information about their patients. Key elements like patient history or medications are often unknown. There is an obvious disconnect with the clinic. Patients are sent to the clinic, recommendations made, but not necessarily followed. The clinic has patient history forms for doctors to fill (in reference to patient history), which are often not being used, especially when it comes to in-hospital referrals. There is a lack of consistent and efficient communication between external referral sources and the clinic. *"Souvent, on n'a même pas l'ordonnance, on ne sait même pas ce que le médecin va leur prescrire". "Parfois, les médecins ne répondent pas à notre questionnaire ou ils changent le tout quand les patients vont les voir à nouveau". ("Often we don't even have the prescription. We don't know what the doctor intends to prescribe for them". "Sometimes the doctors don't answer our questionnaire or they change everything when the patient eturns to see them".)*

Self-Management

Role of the Patient:

The clinic's mandate is to provide patients with good information and tools on how to manage their diabetes, and to reduce diabetes-related health complications. The patient's role is to understand how and when to call for more information, for insulin adjustments, or for a follow-up consultation.

The clinic deals with a good number of 'no-shows'. The diabetes nurse spends a considerable amount of time re-scheduling and juggling schedules to accommodate patients and to fill the schedule. There is no formal strategy in place to reduce no-shows. Reasons for not showing or for cancelling include the need to pay for parking, and patient non compliancy.

Professional/Patient Relationship:

The professional/patient relationship is stagnant, with little continuity or evolution. Patients see the clinic as a source of information and help, particularly for those who need insulin adjustments or who have questions about insulin. As such, patients who are either not on insulin or without complications may not recognize the benefit in continuous follow-ups at the clinic.

Patient Education:

The clinic holds education classes on the basics of diabetes. Many patients in these classes are newly diagnosed with diabetes, pre-diabetes patients, or long-term patients who need a refresher. The education program used to be split between two half-day classes, but has recently been altered to one half-day class. Themes addressed include diabetes basics, definition, risk factors, complications, prevention, self-management, nutrition, foot care, lifestyle, etc.

Patient education is not considered a primary role of the clinic. Less than 40% of the clinic's time is dedicated to this. Most hours are medical follow-ups, for

example insulin adjustments. The clinic does not visit in-patients (hospital patients) for diabetes education due to the perceived 'lack of time' and lack of staff of the clinic to do so. Floor nurses are the ones who are in charge of doing diabetes education and insulin start. One on one education is also provided once the patient is discharged. Tools used were developed and assembled by the clinic's previous team. These tools stem from multiple sources including pharmaceutical companies, the CDA, Health Canada or other. Material is bilingual.

Key Services Offered:

The clinic offers structured education classes (one half-day session), and spends a considerable amount of individual time with patients who request or require the additional help.

Proportion of Patients Controlled:

Clinic staff are new to the clinic and were not able to assess what proportion of patients are controlled or doing well. They measure quality of care by examining patient test results during follow-up visits and by phone calls, on an individual basis.

Availability and Meeting Demand

The diabetes clinic is open 8:30 – 4:30 each day. However, the nurse is unavailable every second Friday as she spends time at the Shediac medical clinic for half-day classes and/or individual consultation with patients living in Shediac and the surrounding area, in coordination with the dietitian.

Missing Services:

Clinic staff feels strained and spread out very thinly when it comes to the supply of services relative to the demand, and expressed a lack of resources. Wait times are long and the backlog is getting longer and longer. *"On repousse et repousse à toutes les semaines." ("We put off and put off appointments every week".)* Staff feels they lack presence on hospital floors, to ensure consistency between the first visit (with a floor nurse) and follow-up visits at the clinic. The clinic feels it is lacking dietitian services and administrative assistant services. The endocrinologist's administrative assistant will sometimes help with the backlog if calls need to be made. *"Au moins une diétitienne full-time, pi une réceptionniste, ou quelqu'un pour boucher un trou, faire le paperwork et céduler les classes." ("At least a full-time dietitian, and a receptionist, or someone to fill-in, do paperwork and schedule classes".)* Specifically, the clinic feels they need help to organize and coordinate services for patients.

On occasion, limited hours make it impossible for a patient to be seen by both the nurse and dietitian during the same appointment. In these cases, appointments need to be scheduled on different days, a perceived unnecessary burden for the patient. During classes, team members alternate their time, with one-half of the session being done with the nurse, and the other half with the dietitian. Educational tools are seen as lacking. The clinic feels they don't have enough information or resources to meet the needs. They recognize a lack of follow-up with patients. They also point to a lack of physical space for classes. Ideally, the clinic feels they would require an administrative assistant/coordinator, 2 dietitians, 2 full-time nurses and a community nurse (case manager) to better respond to patient needs. Also, the dietitian is rarely replaced when on vacation or during sick days.

Wait Times:

Wait times are long and growing. At the time of the interview, the wait time for first appointments at the clinic was 3 or 4 months. Insulin starts could be accommodated within 2 weeks, and wait times for diabetes classes were 2 months. Patients who need urgent assistance are often sent to the emergency room.

Patients calling in with urgent complications occur once or twice each week, and are referred to the emergency room. *"J'en ai eu un hier. Signes de complications et la panique. Je lui ai dit d'aller à l'urgence." ("I got one last night. Signs of complications and in a panic. I told him to go to the emergency department".)*

> *"It's a really long time between appointments, a big issue. Going back not till October. I was there 3 to 4 weeks ago, but I still have questions so it would be awful nice place with a form or to get some information on what you should do." (Patient)*

Methods of Offering Service:

Nurses do a large number of follow-up visits by phone. This takes up significant time each week. Often the reason for phone follow-ups is because of the paid parking and patients' resitance to visits in-person. Patients have direct access to the nurse's phone number at the diabetes clinic. Nurses will accommodate phone calls particularly for patients newly on insulin either because they cannot make it to the clinic or because of their overcharged schedules and lack of space to meet.

Distances:

Most patients are within the Greater Moncton Area. From time to time a patient may travel as far as Rogersville (90 km). There is bus service in the area, as well as taxi services (for local patients). Nonetheless, parking fees is a common complaint among patients. The clinic does not offer distant services. Because of the structure of the clinic and limited hours, patients often have multiple visits for different clinic staff.

Satisfying Patient Needs

Satisfaction Levels:

No formal means of feedback is implemented. The clinic was unable to describe whether they were making a difference or having an impact on patients' self-management because of the limited time they have been with the clinic. *"C'est difficile à dire, ca fait pas longtemps qu'on est ici". (It's hard to judge. We haven't been here very long".)*

What Makes the Clinic Special:

The clinic has a big focus on nutrition and ensures all its patients visit with the dietitian. However, the dietitian is not full-time at the clinic and services are limited. The clinic feels the one-on one consultation they have with patients have the most positive impact on the management of their diabetes.

Family Encouraged:

Patients sometimes bring a spouse, partner or nursing home staff with them to the clinic. Although this is not directly encouraged by the clinic, it is appreciated because these friends/family members often play an important role in disease management.

Dealing with Special Needs:

The clinic, being in a hospital, is wheelchair accessible. Patients in wheelchairs need to take the elevator. A few special needs patients were noted including hearing impaired patients who bring along an interpreter. Staff also noted that, for the most part, patients with special needs are accompanied by a helper. The clinic accommodates on an as-needed basis without the need for formal steps or tools at the moment. *"On en n'a pas beaucoup. D'habitude ils viennent avec quelqu'un." ("There aren't many. Usually they are accompanied".)*

Dealing with Cultural Differences and Literacy:

The clinic is bilingual, and offers services in both French and English. Classes are offered in both French and English.

Endocrinologist Clinic:

Dr. Menasria shared some thoughts and concerns regarding the Dr-Georges-L. Dumont Diabetes Clinic. Dr. Menasria does not feel the clinic adequately fits the profile of a University Hospital Centre. The team suffers from a lack of space and resources, which consequently goes against patients' best interests. He feels the clinic, as part of a University Hospital Centre, could be more efficient and effective if it had more resources including more nursing and dietitian hours, and a broader team. Ideally, the clinic, should serve as a model clinic for the province. As it stands, the clinic and its team cannot accommodate the demand and patient follow-ups are neither effective nor efficient. At the minimum, he feels the clinic should have access to full-time nurses and dietitians rather than part-time resources. He believes a psychologist should also be on board for new patient education. Ideally, the clinic's team should be composed of a nurse administrator, a full-time nurse, a full-time dietitian, a social worker, a team physician and a pharmacist.

Patient Feedback

Visiting Clinic:

One has been visiting the clinic for 6 years and one for 5 to 6 years.

Rating of Service:

One patient gave a score of 10 and the other 7 out of 10. *"Things aren't explained enough… just everything in general."*

Role of Patient and Clinic:

"Mine is to make sure I'm testing, not eating things I shouldn't be, good balanced diet, good food, monitoring." "A eux de me dire ce que je fais de mal, moi à suivre leurs conseils." ("They need to tell me what I'm doing wrong, I have to follow their advice".)

Patient Education:

Neither has attended a group class.

Accessibility:

Both patients felt that there was a long wait time to get an appointment (particularly the case for a follow-up appointment.) However both mentioned being able to get advice over the phone if needed. The patients have to pay for parking.

Saint John Regional Adult Diabetes Clinic

400 University Avenue,
Saint John, NB
E2L 4L4
T: 506.648.6000

Clinic Type:

Large Clinic

Clinic Profile

The adult diabetes clinic is located in the Saint John Regional Hospital, which is the largest tertiary care hospital in New Brunswick and is the primary health care referral centre for all New Brunswickers for major trauma and cardiac care.

The New Brunswick Trauma Program and the New Brunswick Heart Centre are located within the hospital. It is also the center of Dalhousie Medicine New Brunswick's distributed medical education program. The hospital is located at 400 University Avenue in Saint John.

The clinic has been in existence since 1975. It offers diabetes education and medical care. The education has changed from 3 intensive 7 hour days classes to shorter classes with more optional classes. This deliberate attempt to spread the sessions out was designed to help with retention of the information and to give people time to practice between classes.

Clinic Mandate

Help the patient deal with their diabetes and learn self-management. *"We give them support to do that.A place to call if they have a problem or a concern."* They know they have achieved some success when the patient realizes they need help. Over time, the clinic has migrated to more individual targets rather than having everyone trying to reach an ideal target.

Meeting Population Needs

There are approximately 1,200 clients and 3,500 to 4,200 visits per year. In addition, there are 250 to 350 phone calls per month and each of these is over 5 minutes before they are recorded. They are noticing younger patients with the majority being 45 to 59 year old.

New referrals are triaged and get a one on one care with a nurse and/or a dietitian. People with higher A1C levels are brought in for an appointment in a week or two and they get a one on one care with a nurse before going to the classes. Everybody is seen 3 to 6 months after the program. They also have a review class for people who have diabetes for a number of years; a refresher class. That class is different every time depending on what they need and it includes 7 to 10 people. Attendance at this class is not particularly high with approximately half of those booked actually attending.

The clinic has 2 full-time registered nurses, three part-time registered nurses, 2 part-time dietitians and a secretary. The classroom for the clinic is located at St. Josephs and so, classes are held at that location.

The clinic does offer insulin pump training.

Pre-diabetes education/screening: The clinic offers a pre-diabetes class that is held once or twice a month depending on demand. They do not do screening but physicians do.

Levels of Prevention

Primary (disease prevention, health promotion):	The dietitians offer healthy eating classes that are available to anyone interested in diabetes prevention and not just diabetes patients.
Secondary (screening and early diagnosis):	They have a pre-diabetes class and feel that this is an important service and that most people do attend once scheduled. They give them a lot of community resources and offer them one on one appointments with the dietitian, but very few take advantage of that. They find that more doctors are referring people to this class.
Tertiary:	Most of the people visiting the clinic are diagnosed with diabetes so most of the clinic's work is at this level.

Clinic Team

The patient's general practitioner usually makes a referral to the clinic and continues to be the patient's caregiver and directs the care in the long-term. It is the general practitioner who refers to necessary specialists. The diabetes clinic can and does suggest care and works with the patient and the physician.

Internal Team: Members include nurses, dietitians, a physiotherapist (an hour per week) and a podiatrist (an hour per month). There is also an outreach CDE nurse who goes to doctors' offices.

Team Structure: They operate as a team even though the dietitians report to one manager and the nurses to another.

External Team: Includes a new health coach in the community and a pharmacist who teaches 2 hours a month. They also refer to ophthalmologists (if the original referring physician ticks a box on the referral slip that this is wanted) and other eye care specialists as well as to an endocrinologist.

Community Resources: They use Sobeys for a class on label reading. There is a new health coach in the community. A group of dietitians offer a program called Craving Change. They also refer people to My Choice My Health. Physiotherapy has classes outside the clinic once a week and a church in the community provides an exercise group.

Team Qualifications and Education: All internal team members are certified diabetes educators. If they are not when they are hired they have to become certified in a certain period of time. They are also certified insulin adjusters. Training tends to be on their own time. Dietitians get 4 education days a year, but they have trouble getting funding to go to conferences. Some floors have bake sales to be able to send people on education conferences. Drug reps also might offer a stipend to be allowed to bring in a speaker or they might sponsor someone to a conference. They have a monthly diabetes meeting that includes practitioners in other centres; they are trying to bring all the various diabetes people together to improve communication and education.

Guidelines: The clinic follows the general practice guidelines of the Canadian Diabetes Association.

Communication: The clinic has both electronic and paper files. They also do regular case reviews as a well a group review for more difficult cases. Emails are used with patients and at times results are faxed to the clinic.

Co-Morbidities: The whole purpose of teaching is to avoid long-term complications. There is a program called Access that their IT department can access to provide details on the health of the patient. The co-morbidities are included in the system. It is estimated that over 50% have co-morbidities, but this is an estimate.

Self-Management

Role of the Patient: The role of the patient is self-management.

Role of the Clinic: They encourage, but can't make people come.

Patient Education: Education is offered in classes and one on one. It covers the basics of diabetes, foot care and exercise. It also covers carbohydrate counting and insulin adjustment. They try to make classes interactive and use conversation maps to encourage patients to participate and ask questions. They also use cards with true or false questions to encourage conversation.

Key Services Offered: Education for those who are newly diagnosed so they know what they are dealing with. Follow-up is available at the patient's request. Gestational clinic have kept women out of the hospital until delivery. Insulin self-management skills are taught.

Proportion of Patients Controlled: They are uncomfortable giving an estimate.

Availability and Meeting Demand

Service and demand are well matched. If there is an emergency an appointment can be made right away. However, they believe there are more people in the community they could be seeing; "*I think we are only seeing 25% of the people we could see.*"

Missing Services: They would like access to a social worker and psychologist to help those patients who are depressed and discouraged. They would also like to spend more time in the community; a day a week in Quispamsis and in Hampton. They feel the hospital setting is a barrier with the cost of parking and the travel time to get here.

Hospital: The clinic does do inpatient consults where the assess knowledge and give them a meter and teach how to give and adjust insulin if new to this process.

Wait Times: An urgent case will be dealt with faster, but the first appointment will take between 2 and 5 weeks. If someone is in the emergency department they are seen that day. If someone is not urgent it could be 2 to 5 weeks. If a patient's control is compromised they could have an appointment in 2 to 3 weeks. Out of 310 patients in the past month, they had 10% no shows, which is normal for the clinic. People often miss appointments because they can't get time off work, they can't afford to go or are looking after others. No shows are called and offered another appointment and referral is sent back to the doctor if they decline. They don't call to remind people of appointments.

Methods of Offering Service: The clinic is open from 7:30 to 3:30 five days a week and if there are concerns outside that time people can go to emergency. Service is offered in person and by phone. Cases are managed so patients have a contact.

Distances: Furthest is an hour away. Cases of gestational diabetes in Campobello Island are followed by email or fax. Blood work is then done in their own community. Travel cost is an issue for some patients.

Expenses: Comments on working poor patients and their inability to afford things were more prevalent in Saint John. *"Strips are not affordable for a lot of people and insulin costs are high." "Sometimes they choose between food and pills."* They estimate that they see a person a day who can't afford insulin.

Satisfying Patient Needs

Quality of Care: The clinic doesn't have anything measurable that specifically looks at the quality of care, but they do ask patients when they return to appointments following their education module if they feel they have met their goals. They also look at lab results.

Satisfaction Levels: They have participant complete evaluations at the end of each class. The dietitians do a survey twice a year and ambulatory care is doing a survey in all clinics.

Dealing with Cultural Differences and Literacy: They have a folder for multiculturalism on their computer drive. The dietitians have a document on readability so that they can make any materials simple and more readable. Also, on any referral, they can tick off whether there are any learning problems or visual problems and decide if the person is better suited to a class setting or one on one.

Patient Feedback

Visiting Clinic: Both patients have been seen at the clinic for a long time; one has been visiting the clinic for over 10 years and one for 15 years.

Rating of Service: Both gave a 10. *"There's always someone I can call anytime if I have a questions."*

Role of Patient and Clinic: Both agree that it is their role to watch their diet and to take care of themselves and that it is the clinic's role to help and advise patients. *"They are like teachers."*

Patient Education: Both patients agree that the clinic is very knowledgeable and will educate you on numerous topics concerning diabetes (what it is, how it works, signs of diabetes, medication, diet, exercises, etc.).

Accessibility: Both patients feel that they can call and get an appointment quickly if they need it. Also, they are able to get advice over the phone. Neither have any issues with getting to the clinic.

Expenses: An additional expense for the patients is the cost of parking.

Satisfaction and Complaints: Both rated the clinic very high and did not have any complaints.

Fredericton Diabetes Resource Centre

1015 Regent Street
Fredericton, NB
E3B 6H5
T: 506.452.5037

Clinic Type:

Large Clinic (Not in Hospital)

Clinic Profile

The Fredericton Diabetes Resource Centre is the largest clinic in the province in terms of patient numbers. It is located in the Regent Street Medical Clinic, and only 400 metres from the Dr. Everett Chalmers Regional Hospital. The clinic serves a very large geographical region, including several rural communities, and through an Outreach case manager (linked with the clinic) offers distant services mostly to rural regions. While most patients served are located within a 10 to 20 km radius, the clinic provides services to people from throughout Zone 3. Because of the location (on the main floor by the main entrance), the clinic receives a large number of walk-in patients. The clinic has been in existence for 28 years.

Clinic Mandate

The clinic's mandate is to improve the lives of people with diabetes by empowering patients with the tools and information they need to manage their own disease.

Meeting Population Needs

The clinic has patient visit statistics for the past 15 years. Average number of scheduled patient visits for the past 3 years was 5,392 per year, typically between 400 to 500 appointments per month. In addition to face-to-face visits the clinic provides follow-up care via telephone visits. Around 40 to 60 telephone calls are received each day and there are approximately 70 to 100 walk-ins each month. The Department of Health's count for 2011 for individual patients receiving care in the Fredericton clinic was 2,200. The clinic sees approximately 22 to 25 patients per day, and will do 'phone visits' with just as many. The number of telephone follow-ups over the past 5 years has been on the rise.

Demographically, patients are diverse. The clinic provides care and education to international students and immigrants. The region also has a sizeable First Nations community who access services from the clinic. Otherwise, there are no other distinct demographic patterns, patients range in age and gender.

The clinic receives referrals from physicians of the region, health care professionals and patient self-referrals. *"Doctors sometimes just say: go see the girls at the clinic."* Several doctors have their offices on floors above the Diabetes Clinic, making the clinic easily accessible for those patients. New patients are triaged to determine if their first visit will be a class or an individual session.

The clinic will make 3 attempts at reaching a patient that's been referred, after which point a letter is sent. If no response still, the doctor is advised and attempts to reach the patient cease.

The case manager visits doctors' offices in the region to help broaden accessibility of services. This service increases accessibility of care to those patients who do not have transportation or who have difficulty accessing the clinic.

The clinic provides insulin pump teaching, pre and post insulin pump starts. Pump starts are done by an independent pump educator. The clinic also serves pediatric patients. Pediatric clinics are provided by clinic staff at the Dr. Everett Chalmers Hospital (approx 400 meters from the clinic). Outreach Pediatric Diabetes Clinics are regularly provided in Upper River valley. School visits are offered throughout Zone 3. The clinic serves approximately 110 pediatric patients, at least half of which are on insulin pumps, and serves approximately 150 pump patients in total.

Levels of Prevention

Primary (disease prevention, health promotion):

Limited primary prevention. The clinic is involved in the community primarily for secondary screening and education.

Secondary (screening and early diagnosis):

The clinic currently provides limited screening and early diagnosis work in the community. They rely on physicians.

Tertiary:

This is the most important level of service for the clinic as a whole. The clinic provides care and services to diabetes patients and their significant others to help them manage their disease and prevent complications through education. Provision of care is not limited to the clinic. Education to health care students and health care providers at other facilities is routinely provided (i.e. DVA, rehab, special care homes, nursing homes, etc).

Ensuring Follow-up:

Using a patient-driven model of care, follow-ups are discussed with patient/family members. Patients determine the need and frequency of follow-up in the clinic. Patients are never discharged. Charts (paper files) are physically stored in a triage system within the walls of the clinic, with patients who have not visited in more than 1 year moved to a separate filing location (still easily accessible) and more current patients within the administrative desk's reach. *"They decide when they don't need us." "We don't have standardized first appointment, and then 2 weeks come, and then 3 months… we ask them if they feel they would like to come for follow-up and when."*

Clinic Team

Internal Team Members:

No physician is directly tied with the clinic, with office space or regularly scheduled hours. Currently, the clinic has four diabetes nurses: one full-time BN with CDE, one part-time BN without her CDE, one full-time outreach case manager with CDE and a new part-time BN without CDE. The clinic also has 4 dietitians, all with the CDE certification, two on a part-time and two on a full-time schedule. The clinic's 8th member is a full-time administrative assistant.

External Team Members:

The clinic's services extend to a number of other clinics visited by the outreach case manager, and a wide range of family physicians in the communities served. *"Our external team includes all the general practitioners, we have a very good relationship with them."* Specifically, the clinic regularly works alongside the community pharmacists, psychologists (pediatrics and adults), social workers, endocrinologists (including Dr. Pelkey in Waterville and Dr. McGibbon in Fredericton in particular), pediatricians, obstetricians, internists, cardiologists and family physicians throughout Zone 3. They refer patients to ophthalmologists, but do not have much contact/communication with them.

Team Structure:

Coordination and management of the clinic is shared between a dietitian and a nurse. The structure of the team is such that clinicians report to both managers. The team structure is considered relatively flat. *"We all work together for the same goal; it's a team, all equal parts."*

Co-Morbidities:

Most type 2 patients have co-morbidities. The clinic does an extensive patient assessment upon the first visit to assess not just health history and co-morbidities but also to determine barriers, social factors and economic factors that will have an impact on self-management.

Both patients and clinic staff have close ties with external team members and other health care professionals (i.e. pharmacists, EMP, addiction services, mental health, etc). Collaboration of care for patients co-morbidities and other health-related issues (directly or indirectly related to diabetes) is typically a phone call away. The clinic does not directly refer patients to specialists, but their close ties with physicians and specialists helps strengthen and expedite the process. On occasion, if an immediate concern presents itself, they do phone for appointments with family doctors.

The clinic has very strong links with community services such as the YMCA, dietitians working in the community, VON, social workers, the food bank, etc… The clinic's reach is very broad outside the walls of the clinic. In fact, the clinic is also linked with a Canadian Diabetes Association Diabetes Support Group, established in 1985 in Fredericton, and presumably the only one of its kind in the province. The clinic will link patients with these external services by providing them phone numbers or other information when needed. For any referrals and outside services, for most patients the onus is on them to make the steps and reach out. *"We believe as much as possible in empowering people instead of doing things for them."*

Communication:

Internally, communication is both informal and formal. Informally, team members will meet in hallways, talk and collaborate as a team. The work is very much shared across team members. *"We're not territorial, very flexible. If I'm with a person and have a question, I get up and find someone else, pull them in if I need to."* Formally, all patient information is charted through a standardized process so that information is available for the entire team. *"When we go back and read a person's notes we can check and pick up where that person left off."* The clinic works in a very collaborative manner, with everything being circulated and shared across team members.

Although charting is standardized, scheduling is not. Scheduling is done on paper, with an agenda-type folio for each of the team members, which sits at the front desk for all to access and assess availability of each member when needed.

Communication with external members is a little more formal, with referrals from physicians and patient reports formally transmitted either by mail or fax. Informally, the clinic regularly speaks with outside team members over the phone or email to collaborate and share information (which goes both ways). *"Physicians are extremely accessible to us. Even the endocrinologist, cardiologist or ophthalmology…"*

Communication with patients is done in person, by phone or, for some, by email. The clinic receives a number of patient calls, which are filtered through the reception. If the patient has a question the receptionist cannot answer, she will forward the call to an available educator or take a message. Messages are attended to promptly; urgent calls are dealt with at the time of the call. Someone is always available to answer the phone, within clinic hours.

Self-Management

Role of the Patient:

The clinic empowers the patient as much as possible, care is patient-driven. *"We don't have an agenda. We provide care on what patients need and the patient directs and is responsible."* The clinic provides care in the context of the Chronic Disease model of care. The patients are made aware the clinic is there to help, inform and provide assistance, but the patient has the ultimate final decision. The clinic's role is to provide credible information at a level appropriate for the patient so as to help them make informed decisions about how they want to manage their health.

The clinic does not have issues with no-shows, which is associated to the patient-driven model of care. *"We don't have a lot of no-shows because patients decide their own follow-ups."* Nothing specific is being done to reduce the number of no-shows, other than a few reminder calls to patients who are prone to forgetting or who specifically ask for a reminder call (a handful).

Professional/Patient Relationship:

The professional/patient relationship is very open and personal. A 'clean-sheet' method is used, where patients feel they won't be frowned-upon for not doing or respecting certain things. *"They know they can call anytime, an open-door policy. They come here knowing we're going to start with a clean sheet every time they come."* Patients get to know and work with each member of the team at one point or another, with no discernible difference between a diabetes nurse and a dietitian; all are diabetes educators. The clinic also has very strong relationships with physicians in the region and is highly-respected by the medical community. The clinic is there as a friendly provider of information and as a patient advocate. They are seen as *"doing everything possible in providing them information or just telling them where to go for resources they need to better manage their health".*

Patient Education:

The clinic provides non-structured, patient-driven individual education. Themes addressed can range from social issues (how to make the best choices under certain circumstances), to diet & nutrition and everything in between. There is no structured education program, and the clinic uses multiple tools and information is individualized to the patient's concerns and needs. The clinic also has group classes for basic information to newly diagnosed patients (or as a refresher for someone that has not visited the clinic in a long time). Regular type 2 classes are weekly, 2 hours in length, and facilitated by a nurse and dietitian. These addressed include the basics of diabetes, changes over time, and mentions of insulin and required diet. Groups are typically held with 5 to 6 patients (because of limited space). Pre-diabetes classes are also held weekly. They are shorter in length (about 1 hour) and average 4 patients per class. Inpatient diabetes classes are provided weekly. Class content is tailored to the group.

Key Services Offered:

The clinic has an open-door policy which is very clearly communicated with patients that they can call or drop-in any time. They promote and focus on non-judgemental communication with patients, ensuring everyone feels comfortable asking questions and sharing their history. The clinic provides individualized care ensuring patient needs and concerns are met. No structured follow-up schedule or scheduled education 'curriculum' is used, with the exception of group sessions. When required clinic staff advocate on behalf of patients. In addition to patient education, the clinic regularly provides education and training related to diabetes for health professionals.

> *"I count more on her than I count on my doctor, and the doctor knows that." (Patient)*

Proportion of Patients Controlled:

The clinic does not have an official measure of patients' self-management level, but reports that patients are very engaged in their care. Patients report greater confidence, self-management skills and diabetes control as a result of clinic interventions.

Availability and Meeting Demand

The diabetes clinic deals with a large number of patients from multiple sources, and manages the demand for services efficiently due to fine-tuned processes, space-saving ideas and a holistic team approach.

The clinic's hours are 8 to 4, Monday to Friday, closing for lunch between 12:30 and 1:15. It does not routinely have extended hours of service.

> *"The only thing is the hours… When visiting you have to take time off." (Patient)*

Missing Services:

One of the clinic's key constraints is lack of space. A tour of the facility shows how small storage areas have been transformed into patient rooms, and how the clinic shares space with the after-hours clinic and shares a boardroom with the rest of the medical clinic for teaching purposes. The boardroom cannot accommodate more than 5 to 6 patients at one time. Other than space, the clinic reports a dire need for foot assessment services and foot-care education. Also lacking is psychology and social work services. Often the clinic fills the role of counselling for things they feel they can handle. *"We can make referrals… but it's a long wait!"*

Wait Times:

The wait time for a first appointment is typically quite fast, within 2 to 3 weeks on average and sooner for more urgent patients, sometimes on the same day. The clinic's mandate is a maximum wait time of 3 weeks for first appointments/ visits. *"There are always urgent spots. They call us for emergencies."* Follow-up appointments in the clinic are patient-driven, depending on the patient's needs they can be seen in 1 week, 1 month, 3 months, 6 months or annually.

Methods of Offering Service:

Services are offered mostly in person and by phone. Follow-up telephone appointments have been growing, and are particularly important during the winter season when distant patients are reluctant to travel. Some follow-up appointments will be done by email, with patients sending their sugar levels and a follow-up discussion emailed. The clinic also visits the pediatric unit at the hospital (out-patients) once per week (Wednesday afternoons). The staff also visits in-patients on a regular basis.

> *"They are always available, any time of day, by phone, email. I call and I can count on them anytime." (Patient)*

Distances:

The region served is very large, and patients can travel as far as an hour to get to the clinic, or 60 to 70 km. The average travel time is 10 minutes. There is a transit (bus) service in the region, with a bus driving by the clinic at regular intervals. Less than 10% use bus services. Parking is a cost to patients ($3 fee) and taxi services are also available.

Other Barriers:

Economic factors are often important barriers to patient care and self-management. *"Big issue is people that can't afford medicine and testing supplies, we see that a lot and we try to help."* This impacts the ability to control and manage the disease, especially if someone doesn't have access to medications or the tools to test their blood sugars.

Satisfying Patient Needs

Satisfaction Levels:

The clinic administers a client survey and has a box in the office for comments and patient feedback. Results from this show very strong satisfaction levels. *"The feedback from patients and physicians is overwhelmingly positive. Feedback from surveys is good."*

What Makes the Clinic Special:

The clinic starts each patient visit with a 'clean sheet', and empowers the patient in the care process. The patient is part of the team and guides care and services provided. The clinic also serves a very large geographical community, rural and urban in nature. The clinic works holistically as a team, each collaborating with each other, sharing and overlapping roles. *"We all have the same philosophy that our care is based on patient need, patient driven."* The clinic also reaches out to patients that might not otherwise be able to access the clinic through the case manager, mostly travelling to physician's clinics in rural communities outside the city. *"The same as an educator in the clinic, just in a different location."*

Dealing with Special Needs:

The clinic is wheelchair accessible. The clinic accommodates patients by responding to their needs on an individual basis.

Dealing with Cultural Differences and Literacy:

The area does have a significant First Nations population, multicultural communities and seniors with lower literacy levels. To accommodate, the clinic will allow for longer appointments, more visual tools, and more explanation and, mostly, individualized sessions based on patients' needs/feedback. Most patients are Anglophones, and 2 nurses and 1 dietitian are bilingual to accommodate French patients when the need arises.

Family Encouraged:

Spouses and family are encouraged to attend clinic visits and they often do.

Clinic – Edmundston Regional Hospital

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Edmundston, NB
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T: 506.739.2459

Clinic Type:

Large Clinic (in Hospital)

Clinic Profile

The clinic in the Edmundston Regional Hospital serves a large number of patients from the northwest region of New Brunswick and sometimes from Québec. Patients travel from as far as 40 km away, or from as far south as Saint-Leonard. Pump patients will tend to travel farther distances (100 km).The Edmundston clinic has been in existence for 24 years, with most staff having been there for many years.

Clinic Mandate

The clinic serves all pump patients in the northwest (Vitalié) region of the province. The clinic focuses also on providing basic education so that patients can understand their disease in order to better manage it. The clinic aims at being accessible and accommodating patients as much as possible.

Meeting Population Needs

The clinic has a wait list of patients each month that are waiting to get into the diabetes clinic for their first visit. The count is about 90 patients waiting each month, a number that's growing. More and more pre-diabetes patients are seen and referred to the clinic by physicians. They will form a good portion of the 'wait' because they are not priority. The back-log is largely driven by a lack of dietitian hours. "Elle fournit pas, il y a beaucoup d'attente." ("She can't keep up, there's too much demand".) There is also an increase in the number of gestational diabetes cases; a lot more pregnant mothers are being screened than before. "Les normes sont plus sévères dans les derniers 4 ans." ("Criteria has become much stricter over the past 4 years".)The clinic gets strong support from the medical community. Doctors trust them and believe in the services and are more and more prone to refer patients to the diabetes clinic.

The clinic didn't have an exact count on how many patients it sees, but estimated approximately 500 new patients per year and well above 1,000 patient cases. The Department of Health's count for 2011 was 1,065 patients. The demand is increasing. The clinic sees children and pump patients.

The clinic serves both Type 1 and Type 2 diabetes patients. Most patients are of lower socio-economic profiles, with very limited financial resources and poor diets. Most patients are sedentary and don't have the means for or access to fitness facilities. Patients are of different age groups. Most older patients have co-morbidities.

New patients are mostly referred to the clinic by the region's physicians. The clinic receives about 16 new referrals each month, up from 3 or 4 referrals per month historically. Other sources of referral include Extra-Mural nurses or dietitians, dietitians from other hospital departments, or, on occasion, patients themselves (self-referred). The first appointment consists of a 'collection of information' to create the patient's file. The patient will spend one hour with the nurse and another hour with the dietitian during this initial consultation. In-patients (on the floors) may also be referred to the clinic for new insulin start-up or pump start-ups. The clinic will also do floor consults for diabetes education from time to time. Wait times for first appointments go by a triage system. New insulin starts will be a priority. *"Ca presse donc on va essayer de faire un trou." ("It's urgent so we will find a way".)* This initial visit for insulin starts will sometimes only be with the diabetes nurse (not the dietitian) because of the dietitians' limited availability. However, they will be scheduled for a dietitian visit if felt required.

If the patient is a good candidate for group sessions, he/she will then be called in for a 105-minute group session (within 3 months of the first visit) which will be facilitated by a nurse, pharmacist and dietitian. A second group session is scheduled one week later, and facilitated this time by a nurse, dietitian and psychologist. The third group session is scheduled three-months later, and acts rather as a follow-up and to address questions and/or concerns.

At this time, follow-ups for individual appointments are assessed, depending on how well the patient is doing. The interval for follow-up appointments could be weeks, months or a year. Everyone is followed up at least once yearly unless they refuse or don't show. Those who are not as well-managed (less stable) are scheduled at 3-month intervals, those who are 'quite stable' will wait 6 months, and those who either no longer need medication and or who are doing really well in controlling their diabetes are seen once per year.

The clinic does offer insulin pump teaching.

Levels of Prevention

Primary (disease prevention, health promotion):

The clinic does not do any disease prevention or health promotion work in the community, with the exception of school visits in the fall to educate teaching staff regarding children with diabetes.

Secondary (screening and early diagnosis):

Screening and early diagnosis is not the responsibility of the clinic. They rely on doctors for this.

Tertiary:

This is the most important level of service for the clinic as a whole. The clinic follows-up with diabetes patients to help them manage their disease and prevent complications through education (mostly one on one consults with dietitian and CDE).

Ensuring Follow-up:

The clinic is very focused on patient follow-ups. The clinic will call patients and motivate them and request them to visit for a follow-up. The clinic has a triage system to determine the wait time before follow-ups. *Si il est stable, 3 ou 4 mois…. On fait certain que le patient est cédulé avant qu'il parte". ("If they are stable, about 3 or 4 months… We make sure that the patient has scheduled an appointment before he or she leaves".)*

Clinic Team

Internal Team Members:

The clinic is composed of several team members including one full-time diabetes nurse, one part-time nurse, and two backup nurses (one from Ambulatory Care and one retired nurse to cover sick days/vacations); and two part-time dietitians who together are there full-time hours. One person was preparing to write her CDE exam at the time of the interview. No one was certified at the time of the interview.

External Team Members:

The clinic has an Endocrinologist as part of the team (Dr. Pelke) who provides distant services from the Grand Falls hospital when he visits. He does not visit the Edmundston hospital. The clinic also has access to the receptionist of the Ambulatory Care department. In fact space is shared with Ambulatory Care. Other team members include a pharmacist and a psychologist who are part of the team for group sessions. The clinic also has direct access to a number of physicians, a foot-care nurse to refer patients to and a social worker. These health care professionals can also be called-upon if needed.

For other specialized care, the clinic's nurse will make recommendations to the family doctors but will not make the reference herself (ex: ophthalmologist).

The clinic had recently met a 'motivational coach' for diabetes patients who they can access and/or refer patients to, but had not yet made use of the service at the time of the interview.

Team Structure:

The team really works together and does not necessarily consider any one person as 'boss' or person in charge. Two key nurses and one dietitian seem to be in charge of the services of the clinic, with Denise being the most experienced clinic resource and seen as the lead and expert. However, each of these 3 team members report to different people. The nurses report to the head nurse of the hospital's Ambulatory Care department, whereas the dietitian reports to the region's chief dietitian. They work with Grand Falls and Saint-Quentin's diabetes teams for information sharing purposes.

Internally, the clinic really has two teams. A Tuesday/Wednesday/Thursday team, and a Monday/Friday team. Teams are composed of a nurse and dietitian. It is done this way to ensure consistency for patients, who are always assigned to the same team unless an urgent situation presents itself.

Co-Morbidities:

Most patients have co-morbidities. No exact detail was provided.

Communication:

Communication is mostly informal within the clinic. The team works closely together, and no decision is made unless the key dietitian and two key diabetes nurses all agree with eachother. Outside the clinic, the Edmundston diabetes clinic is linked with the Saint-Quentin and Grand Falls clinic, and together they meet every 3 months to discuss patient care, share information and share ideas and thoughts on processes and coordination of care.

Diabetes nurses will telephone external team members (physicians, the foot nurse) to call upon their help when needed. They feel very respected by local physicians in their role, and, as such, have a good relationship with local doctors. *"Si Denise appelle un médecin, il écoute. Ils ont plein confiance.." ("If Denise calls a doctor, they listen. They have full confidence in her.")*

Self-Management

Role of the Patient:

The patient is responsible for setting achieveable goals and working towards those goals in order to become self-sufficient and rely less and less on the clinic and medical help to self-manage their diabetes. *"Je leur demande leur but pour chaque rendez-vous. Faut pas juste leur dire, ça marche pas." ("I ask them to set a goal at each appointment. It isn't good enough to just tell them things aren't working.")*

The clinic does deal with a good number of 'no-shows' (exact percentage not provided). The clinic works really hard at reducing these no shows and rescheduling them. The Ambulatory Care receptionist calls patients the day before their appointment as a reminder. If they cancel or if they do not show, the diabetes nurse will examine the patient's file and test results and call them and re-schedule them or try to convince them to come, particularly if the results of their tests merit a visit. Key reasons for not showing include apathy (not interested), or lack of transportation.

Professional/Patient Relationship:

Patients rely on the clinic and/or physicians to tell them what to do and do things for them. The clinic works hard at empowering patients and teaching them that they are in charge and responsible for their own self-management. The patient/professional relationship is very friendly and comfortable, and family-like. The diabetes nurses build strong relationships with their patients as well as members of the household. They will not hesitate to call someone when test results come in, and/or encourage them or refer them to outside resources.

Patient Education:

All patients are scheduled for a series of 3 group sessions, unless they refuse to be in a group or are deemed not appropriate for group settings. The first session is set within 3 months of the patient's initial visit to the clinic (Team: dietitian, nurse, pharmacist), the second one week after (team: dietitian, nurse, psychologist), and the 3rd, for follow-up, is scheduled 3-months thereafter. Themes addressed include nutrition and exercise, then medication.

Key Services Offered:

Timely access to services is what the clinic aims for. And this is the key struggle. *"De les rencontrer le plus vite possible… c'est avec ça qu'on a plus de misère." ("To meet with them as quickly as possible...that's our biggest difficulty".)* One of the nurses is trained with insulin pumps and will consult with patients both at the clinic and in their homes. Nurses will also visit the Grand Falls hospital for patients with insulin pumps. Follow-up patient visits, including class sessions, are always done as a team, unless for an urgent matter where the dietitian might not be available. This places an emphasis on nutrition & diet.

Proportion of Patients Controlled:

The clinic does not have an accurate measure of how many patients have attained control of their diabetes. Not everyone is able to reach this because of the effects of poverty and mental health conditions. However, a good number of patients are under control, which is more easily attainable among younger patients. *"Plus ils sont jeunes, plus c'est facile." ("The younger they are the easier it is.") "Si ils n'ont pas d'éducation de base ou pas beaucoup d'argent, c'est difficile." ("If they have little education or are of modest means, it's difficult.")* The clinic spends a lot of time reviewing and examining test results and blood work. This serves as their most important indicator of patients' control levels. *"Avant qu'ils entrent pour leur rendez-vous, on va voir les résultats de laboratoire. Cela donne un gros indice." ("Before they come in for their appointment, we'll go over their lab results. These are a good indicators.")*

Availability and Meeting Demand

The diabetes clinic is open weekdays until 6pm to accommodate the working patients. They accommodate patients the best they can and are very flexible in their arrangements.

"Des fois… elle m'appelle à 6h30!" ("She'll sometimes call me at 6:30 a.m.!") (Patient)

Missing Services:

The clinic definitely feels it is spread very thinly with regards to resources, particularly dietitian resources (two part-time at the moment). It also suggests that foot care should be part of the clinic given that patients who are not covered by insurance cannot afford foot care services. The clinic would also benefit from a clinic supervisor/manager to oversee procedures and rules, including updating current manuals and documentation. The clinic also feels that hospital floors do not get to fully benefit from diabetes education services, that nurses on floors should better coordinate care with the clinic, or become more informed themselves on how to provide adequate diabetes care for their patients. The clinic 'borrows' time from the floor's reception and feels they could use a dedicated administrative resource to conduct follow-up calls or to screen incoming calls from patients. Also, the clinic lacks a dedicated room for patient education. They must share space (boardroom) which puts additional pressure on scheduling coordination, a barrier to availability.

Wait Times:

Urgent cases are seen within a week (typically by the diabetes nurse only). Pre-diabetes patients who are waiting to visit with the dietitian will normally wait about 4 weeks for a first visit. Patients are scheduled for group sessions, when they can, to reduce wait times. Otherwise, for individual appointments the wait time can be about 10 weeks, or 18 weeks with the dietitian for follow-ups.

WAIT TIMES:	Urgent	Non-Urgent
Dietitian:	4 weeks	18 weeks
Group:	10 weeks	13 weeks
Dietitian + Nurse	1 week	10 weeks

Methods of Offering Service:

The clinic reaches out to patients in whatever way they can. They spend lots of time in group sessions, as well as individual visits. Nurses also spend many hours on the phone following up with patients. Although patients are told to call the clinic to discuss their results, most do not and the nurses take it upon themselves to call patients at home, and schedule them for a face-to-face visit if intervention is deemed necessary. The nurse who does pump teaching even visits patients at home or at the Grand Falls hospital, bringing knowledge and instructions to the patient rather than the other way around.

> *"Elle est toujours disponible au téléphone, soit tout de suite ou le lendemain." ("She is always available by phone, either right away or by the next day," (Patient)*

Distances:

The travel time for the most distant patient is about 1 hour, and a good number of patients come from Claire and other northwestern communities about 30 minutes away. For most, the average travel time is 10 minutes. There are no buses in the area, but taxi service is available. The clinic provides taxi slips for those who cannot cover the taxi fee (within city limits). This is the extent of the clinic's distant services.

Parking:

Parking at the hospital is free of charge. Patients sometimes complain that parking is too far from the main doors when they have to park at the end of the parking lot when the hospital is busy.

Other Barriers:

Low income is a barrier to care/services in the region. Patients who do not have insurance coverage can apply for compassionate care, but this requires a lot of paperwork (forms). Low income is often accompanied by low literacy levels, which makes it difficult to access or even be familiar with compassionate care programs. Test strips are not covered for patients on Social Assistance who do not require insulin. Test strips are often an unbearable expense, and the clinic helps out whenever it can but it is becoming increasingly difficult to do so as they are getting fewer supplies from pharmaceutical companies. *"On en donne des fois mais pas supposé. Avant les représentants envoyaient des bandelettes mais moins maintenant. Va venir impossible de leur donner quoi que ce soit." ("We sometimes hand them out, but we aren't supposed to. Before representatives would supply test strips, but it's less frequent now. It will soon become impossible to offer anything".)*

Satisfying Patient Needs

Satisfaction Levels:

Patients can fill a survey/questionnaire about their services when they visit the hospital. This is the hospital's way to measure services, which extends to the Diabetes Clinic's services. No issues or concerns have been reported to the clinic from the results of these questionnaires. The clinic believes its patients are satisfied and appreciate their services.

What Makes the Clinic Special:

The clinic focuses on the team approach, and although dietitian services are split, they have been able to work around that by creating two teams (one team M/F with one dietitian and the other team T/W/TH with the other). Their approach is completely hands-on and they try hard to bring in the patient (buy-in), provide continuous follow-up and be as accessible and as flexible as possible for patients so they have no reason to not show, or be interested in services. *"On a une belle équipe, on travaille bien ensemble". ("We have a great team. We work well together".)* The clinic feels the most important element they bring to patients is education on the complications of diabetes, and making patients realize they need to take ownership of their disease and control it.

> *"Ça la, la diabète, faut que tu apprennes à la contrôler. Si non, la diabète va prendre le contrôle sur toi." ("Oh that diabetes, you have to learn to control it. If not, it will take control of you".) (Patient)*
>
> *"Le sucrage… mmmm…. J'en viens l'eau à la bouche mais ils m'ont fait comprendre et expliqué comment grave que c'est!" ("Mmmm sweets… my mouth waters, but they helped me understand and explained how serious this is!") (Patient)*

Dealing with Special Needs:

The clinic is wheelchair accessible and is on the first floor of the hospital so physical accessibility is not an issue. Parking is accessible for patients in wheelchairs or mobility issues. The clinic does deal with a deaf/mute patient and they accommodate and communicate with her through basic signs and written notes. *"On se débrouille. Pas besoin d'interprète." ("We manage well. No need for an interpreter".)*

Dealing with Cultural Differences and Literacy:

The majority of the population in the area is French (10% Anglophone), and there is a substantial First Nations community. Language and culture is not an issue as everyone speaks French (including First Nations residents), and staff can speak English functionally if required. The biggest challenge is low literacy levels among patients, estimated at about one-third being below grade school abilities. The clinic uses visual aids and lots of pictures, similar to what would be used with younger children.

Family Encouraged:

Family members/spouses are encouraged to visit with patients, but not everyone will bring them. *"On leur demande, surtout les conjoints, mais pas tout le monde qui le fait." ("We ask this, particularly for spouses, but not everyone does it.")*

RÉSEAU DE SANTÉ vitalité HEALTH NETWORK

E.L. Murray Medical Clinic

3 Stanley Street
Campbellton, NB
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T: 506.789.5312

Clinic Type:

Large Clinic

Clinic Profile

The Campbellton diabetes clinic is located in the basement of the E.L. Murray Medical Clinic, in Campbellton. The clinic is easily accessible with lots of parking spaces at the back and front of the building, and wheelchair ramps. It is the main clinic out of 3 that serve the North of the province (Dalhousie & Jacquet River). The clinic serves pediatric patients and pumps.

Clinic Mandate

The clinic's mandate extends both to current patients as well as to the population at large. The clinic defines its mandate as one of education both for general public including adults and children as well as patients. *"Accroitre les connaissances du diabète dans la population générale, non seulement avec le client afin que notre communauté puisse s'entraider avec la gestion du diabète et la prévention des complications". ("Increase awareness of diabetes in the general population, not only with the client but so that our community can help each other with diabetes management and prevention of complications".)* This includes education on heath promotion to prevent diabetes, teaching prevention strategies, education about the risk factors and diabetes management according to the CDA clinical practice guidelines.

Meeting Population Needs

The clinic provided an approximate count of 1,500 patients specific to the Campbellton clinic (not including Jacquet River or Dalhousie), a number which includes 33 pediatric patients. This patient count is far larger than the 491 reported by the Department of Health for 2011.

The clinic serves both Type 1 and Type 2 diabetes patients, as well as a large number of gestational diabetes patients. A good number of patients are from the Quebec side of the border, given the proximity. Patients come from as far as Eel River and Restigouche. A good number of aboriginal (First Nations' members) patients also choose to visit the Campbellton clinic rather than the clinics on their reserve. First Nations members often feel more comfortable because of perceived better confidentiality. *"C'est une petite reserve, ils veulent avoir la confidentialité." ("It is a small reserve, they want condifentiality.")* Most patients are of lower-socio economic profiles *"pauvre et peu éduqué." ("poor and with little formal education.")* The clinic also deals with 2 to 3 patient phone calls per day, typically patients with high-blood sugars looking for advice. The clinic reserves 'emergency' time on Fridays for patients with immediate needs. The clinic's Nurse Educators travel to hospital to see in-patients when requested which would be an average of twice a week.

New patients (about 20 to 25 per month) are mostly referred to the clinic by the region's physicians and nurse practitioners. Other sources of referral include the Cardiology Rehabilitation Centre, and in-patients at the hospital.

New referrals are booked according to a triage system. This system was in the process of development at the time of the interview, to make it even more efficient in saving time and better response to patients' needs. At the time of the interview, the triage system had 3 levels. The first code is 'urgent' patients, who will be seen within a week. Follow-ups are the second priority, followed by pre-diabetes patients. The clinic's triage system applies to new urgent patients, pre-existing urgent patients and follow-ups by assessing A1C and glucose levels. They will be flexible and accommodate these patients within a few days, some the same day. There are a good number of urgent/immediate needs patients.

Appointments are booked through the central scheduling system in Campbellton. Appointment requests are sent there by the diabetes nurse (and/or receptionist in the case of Jacquet River). Central booking sends a letter 3 weeks prior to appointments. As far as children go, appointments are scheduled through the receptionist rather than central booking since many patients often travel long distances. The dietitian's appointments are scheduled separately from the diabetes nurse, as in not at the same time and not through the same process. The dietitians' Clinical Nutrition Services has someone (assistant/receptionist) call client's before sending the request to central booking to confirm client's interest in the appointment (they say this has reduced no-shows).

Patients are seen on an individual basis. No group sessions are offered but this is projected for the future. The clinic's nurse educators meet pre-diabetes patients on an individual basis but want to change this process and collaborate with dietitian educators to offer group sessions for this population. The dietitians see pre-diabetes patients in groups but these sessions are offered in Dalhousie only. The clinic finds it difficult to develop the tools and coordinate the sessions respecting access to care and client's needs due to limited resources. During the patient visit, the patient will sometimes see both the diabetes nurse and the dietitian at the same time. This is particularly the case for pediatric and type 1 patients. Normally, however, the patient will visit with either the diabetes nurse or dietitian on an individual basis separately but all documentation can be found in the same chart. The team would like to implement "case management time" and develop care plans for clients to help guide the client according to their needs, motivation and interest in regards to achieving diabetes self-management. This is another future project.

The clinic has non-scheduled walk-in patients from time to time. Walk-ins and self-referrals are not seen without a doctor's referral but will be given the necessary details to get needed help. An appointment will usually be scheduled and the patient will be told to get a referral from his/her physician. Clients already followed at the clinic often (average of 2 per day) stop in for financial help, looking for access to test-strips, or insulin, or consultation about blood sugars or other diabetes-related concerns.

The clinic does offer insulin pump teaching and will see pediatric patients.

Levels of Prevention

Primary (disease prevention, health promotion):

The clinic has a mandate to teach disease prevention and health promotion in the community. However, at the time of the interview, very little time was allocated to primary prevention. This mandate was still in development. *"En développement tout de suite. Pas encore de programme pour aller en communauté." ("In development right now. There are no programs yet to go into the community".)*

Secondary (screening and early diagnosis):

Similar to primary prevention, the clinic does not currently allocate much time towards screening and early diagnosis. This is part of the clinic's mandate and the clinic is working at developing processes and tools to become more involved in the community. Screening is the responsibility of physicians at the moment. Since December 2013, there is a diabetes case manager that has been going in physician's offices within the community (*Campbellton and Dalhousie; if accepted by physician) to help with screening, early diagnosis and diabetes management of clients with A1C above 9%.

Tertiary:

This is the most important level of service for the clinic as a whole. The clinic follows-up with diabetes patients to help them manage their disease and prevent complications through education (mostly one on one consults with dietitian and CDE).

Ensuring Follow-up:

The clinic is very focused on patient follow-ups. *"on ne les laisse pas glisser." ("we don't let them slide").* The clinic was developing a triage system to better manage patient follow-up scheduling. For the most part, patients are asked what they feel an appropriate follow-up would be, taking in consideration the overall diabetes self-management (if A1C elevated, hypoglycemia, or new insulin titration). Client will be booked according to educator's judgement and booking availabilities. The clinic ensures follow-up by booking everyone through central booking for a follow-up appointment. Phone calls to book follow-ups are done for children and Type 1. The dietitian has a secretary who will call patients for new referral appointments only in regards to client interest to reduce no-shows then the request goes to central booking. All follow-ups go through Central Booking.

Clinic Team

Internal Team Members:

The clinic is composed of several team members including one full-time diabetes nurse and clinic coordinator (Jennifer Belliveau), one part-time nurse (0.6), one full-time dietitian and one administrative assistant. At the time of the interview, the dietitian had achieved her CDE, and both nurses were preparing to write their certification in May 2013. Addendum 31/08/2013: All Nurses have achieved their CDE status.

External Team Members:

The Jacquet River and Dalhousie clinics are an extension of the Campbellton clinic. However, because most clients served are different and the physical space is different, staff of these two clinics is noted as external clinic members. The diabetes nurse who works at the Dalhousie and Jacquet River clinics works closely with Jennifer and her team, and together they meet and work every Thursday.

The clinic has ready access to an endocrinologist and pediatrician up one floor from them. These two physicians are considered part of the team. The clinic has a visiting nurse practitioner as part of the team. She visits once per week on Thursdays. A meeting had been organised with community family physician's in regards to their expectations of the diabetes clinic to enhance collaboration including introducing the possible utilisation of the nurse practitioner. The diabetes nurse and dietitians will call or write to local physicians (within the 2 communities) if patients require immediate assistance such as prescriptions or referrals to specialist care. The clinic does not always get a reply. A new multidisciplinary message sheet and policy is being worked on to ensure messages are reaching physicians.

For other specialist care, the clinic's nurses will make recommendations to the family doctors but will not make the reference themselves (ex: foot care). The clinic does not have access to a podiatrist or neurovascular specialist. They will refer to ophthalmologists, blood pressure clinic, social worker and smoking cessation or foot care clinic (foot care clinic inactive at time of interview).

Team Structure:

Clinic staff all technically report to Jennifer, the clinic's nurse coordinator. However, the structure of the clinic is rather flat, with each team member working collaboratively with one another and consulting each other on a regular basis on patient care. The dietitian working in Campbellton and the dietitian working in Dalhousie report to the clinical nutrition manager, who works in collaboration with the clinic coordinator.

Co-Morbidities:

The majority of the clinic's type 2 patients have co-morbidities. It is noted that even some of the Type 1 clients have co-morbidities. Education is adapted as such, and will include all health issues. Education is based on the Diabetes Association's clinical practice guidelines for diabetes management. The family physician manages global care and the clinic only offers recommendations.

Communication:

Communication methods depend on the situation and the team members involved. Internally, communication is mostly informal with team members communicating with each other in-person or by phone. Email is also important, particularly with the diabetes nurse in charge of the Dalhousie and Jacquet River clinics. Formal communication with outside team members and physicians is done by phone (if urgent) or on paper. *"Notre documentation est encore sur papier. Un peu plus difficile." ("Our documentation is still paper-based. A little harder".)* Informally, the

clinic will reach doctors by phone if they feel the need, or send a letter to the physicians. The diabetes clinic works in close collaboration with the medical clinic's two specialists: (Dr. Jamil, endocrinologist, and Dr. Matthews, pediatrician). Communication with these specialists is both formal and informal, depending on the situation (by paper/letter and face-to-face). Having the doctors/specialists close by brings the key advantage of timely communication and timely patient services.

Self-Management

Role of the Patient:

The patient's role is to learn to become comfortable with diabetes, and become equipped with the tools to properly manage his/her condition. Their role is to continue to ask questions, continue to want to learn, and transfer this knowledge to close members of the family. *"Le plus de personnes que t'as au courant de quelque chose, le plus large que ça devient, le plus de support qu'il a et le mieux outillé qu'il sera pour la gestion de son diabète." ("The more people you have who are aware of something, the larger it gets, the more support there is, the better equipped they are to manage their diabetes".)*

The clinic does not deal with a high number of 'no-shows' (no group sessions offered in Campbellton; 22% for individual appointments with nurses and 11% for individual appointments with dietitians). In order to reduce no-shows the clinic is attempting to change the triage system. The dietitians have already changed their process by having someone call the client before booking an appointment to see their interest in regards to consultation. Clients can refuse services before an appointment is made.

Professional/Patient Relationship:

Patients are empowered with the self-management of their disease. The clinic encourages patients to make their own decisions and to develop their own management plans, with the help and guidance of the CDE. Accessibility is key at the E.L. Murray Diabetes Clinic. It is one of the clinic's priorities; education is also at the top of that list. As such, patients view the clinic as friendly and practical.

> *"I can call her anytime at all, if I have questions with the pump. More down to earth, more practical (than doctor)." (Patient)*

Patient Education:

The clinic has a number of tools they use for patient education. Patient education goals are to empower self-management of their disease as well as increase knowledge regarding diabetes care and on going management to prevent complications. The clinic uses the CDA's resources, Care Map Plan, among other tools, as an education tool. They use both "essentials" and "advanced" reference manuals. They also use education materials provided by pharmaceutical companies, particularly those with visual elements that use pictures, and other brochures that patients can bring with them. The clinic has developed 3 teaching guides to give to clients; the "Diabetes teaching guide" has general diabetes information, second is the "Insulin teaching guide" and third is a "Pre-diabetes teaching guide". These 3 handbook manuals are currently being reviewed at the time of the interview and a new guide for children and type 1 diabetes is currently being developed by the team. The clinic's plan is to develop teaching and education tools to be used by all team members to allow for consistency and to better serve the needs of its patients. These can also be used in the hospital setting by front line professionals when diabetes clients are hospitalised.

Patient education is one on one and individualized to the patients' needs, condition, motivation, interest and learning capabilities. Education is very basic with children, and for new patients, the focus is on how to prevent and minimize complications. For other more complicated patients, the focus is on teaching them how to keep stable and controlled.

Key Services Offered:

The clinic prides itself in its team and qualifications. They believe a key service they offer is professional, qualified service to help children in Northern NB manage their diabetes and, often, their insulin pumps. Another key service is accessibility of service, and always trying to accommodate immediate/urgent needs. Having access to patient files and history from the physicians' clinic upstairs (external) is also a benefit for the team and those doctors' patients. The clinic focuses on individualized education, according to patients' needs and ability to learn.

Proportion of Patients Controlled:

The clinic does not have a specific measure of how many patients have attained control of their diabetes. Self-management is not measured by hard statistics, but rather by looking at latest blood test results (when available), glucose monitoring results (in glucometer) and client's feedback. The clinic wants to introduce benchmarking with quantitative and qualitative measurements in the future. This is one more project and change to come.

Availability and Meeting Demand

The diabetes clinic is open until 4pm but is willing to accommodate the working patients by staying later or changing mealtimes. The clinic does not have sufficient time and resources to meet the demand. *"Elles travaillent des relais de surplus pour qu'on puisse rencontrer nos besoins". ("They work additional hours in order to meet our needs.")* The demand is growing, with 20 to 25 new patient referrals each month. The clinic sees 3 new patients each day, on average. The demand for services is increasing.

Missing Services:

The clinic feels psychiatric services and social services resources specifically qualified in chronic disease diabetes care would make a big difference. There is no mental health professional currently as part of the team.

Wait Times:

The clinic wants to significantly reduce the wait times with the new processes and triage system. At the time of the interview (urgent) patients may possibly be seen on the same day. Depending on the patient and situation, Code 1 patients will be seen within one (goal) or two days (sometimes only within the week). There is a problem with follow-up appointments. The clinic will aim for maximum wait times of 6 months, which can extend up to 8 months for some of the more controlled patients. A new triage system is in process of development at the time of the interview, to help assess wait times and ensure priority clients are being seen.

Methods of Offering Service:

The clinic focuses in individualized services, according to patient needs. Most visits are individual visits. Type 1 diabetes and the pediatric clients are seen in a collaborative team approach with nurse and dietitian. Group sessions are offered for pre-diabetes clients by the clinical nutrition service. Nurses also spend many hours on the phone following up with patients. The clinic is putting the onus on the patient to call-in with their results, rather than the other way around.

Distances:

The travel time for the most distant patients is about 2 hour, and a good number of "pediatric patients" come from the Peninsula (Bathurst, Caraquet and Tracadie region). The travel time for most adult clients is 15 to 30 minutes since there are clinics located in Dalhousie and Jacquet River. There are no buses in the area, but taxi service is available. Most patients drive themselves to the clinic or rely on friends/family.

Parking:

It is to be noted that the diabetes clinic is not located at the Hospital but within the basement of a building called the EL Murray Clinic affiliated with the Hospital. Parking at the hospital and EL Murray Clinic is free of charge. Patients feel the clinic is readily accessible, but not necessarily visible.

> *"I wouldn't have come knocking at the door if I hadn't been referred. Maybe (other patients) don't know the clinic is here." (Patient)*

Other Barriers:

Low income is a barrier to care/services in the region. Patients who do not have insurance coverage are not always able to acquire the medication and insulin they need. Pride can also be a barrier to patient care, when they are ashamed or resistant to apply for help such as compassionate care.

Satisfying Patient Needs

Satisfaction Levels:

The clinic does not have any formal means of assessing patient satisfaction, except a client suggestion box located at the entrance of the diabetes clinic, but was something they were planning on developing at the time of the interview.

What Makes the Clinic Special:

Having access to an endocrinologist and pediatrician inside the building is beneficial to patients. When the diabetes nurse is reviewing a patient's file and has questions or recommendations, she can easily call the doctor and expedite services for patients. This leads to more of a collaborative team approach. *"Meilleur suivi parce qu'ils sont là." ("Better follow-up as they are there.")* The clinic also focuses on being accessible and flexible. *"Accessibilité c'est numéro 1, en deuxième c'est l'éducation, éducation à l'autogestion." ("Accessibility is number 1, then education, education on self-management.")*

Dealing with Special Needs:

The clinic is wheelchair accessible and is on the bottom (basement) floor of an older facility, which was the former premises for the region's Addiction Services program (prior to 2006). It appears the facility was built with accessibility in mind with ramps and wide doors and plenty of space. With regards to other special needs such as hearing or visual impairments, the clinic adapts its learning tools accordingly, on a case-by-case basis.

Dealing with Cultural Differences and Literacy:

Many patients have low literacy levels. This has a big impact on how the clinic delivers services. They determine patient abilities during the first interview and then services are individualized according to the patient's needs. *"Vraiment important d'individualiser les soins selon les connaissances de base du client." ("Really important to individualize care based on the knowledge base of each client".)* Depending on the literacy level, different tools will be used such as pictures and visual elements for those with difficulty reading.

Family Encouraged:

Family, spouses or caregivers are usually involved in the patient's care and, as such, family members are encouraged to visit with patients.

Patient Feedback

Visiting Clinic:	Both patients have been visiting the clinic for a long time; one for 36 years.
Rating of Service:	Both gave a 10. *"I can't think of anything else they could have done that would be better."*
Role of Patient and Clinic:	Both patients believe that they are responsible for their diabetes. *"My role has to be to take ownership of it. I can't expect someone else to look after it. And to come here to have them look at the data and analyze it." "C'est à nous autre de se prendre soin. Pas se fier sur la clinique. Prendre nos médicaments, faire nos tests quand c'est le temps." ("It is up to us to take care of ourselves. Not rely on the clinic. Take our medicine, do our tests when it is time".)*
Accessibility:	Both patients find the location of the clinics convenient. *"Don't live too far away. Parking is fine. Lots of room."*
Satisfaction and Complaints:	Both rated the clinic very high and would recommend the clinic to others.

Chaleur Regional Hospital

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Clinic Type:

Large Clinic (in Hospital)
Joslin Diabetes Center

Clinic Profile

The Bathurst Clinic is located on the ground floor of the hospital. This clinic is actually a "Joslin Diabetes Center Education Affiliate", which is based on an American model. It has been following the Joslin model since 2006, although the clinic has been in existence since 1991. They abide by a contract, with 10 minimum requirements, to be accredited as a Joslin Clinic. They follow this accreditation process every year in September. The clinic serves a wide bilingual community.

Clinic Mandate

The clinic provides the most recent up to date diabetes education. Its mandate is to *"prevent complications of the disease so the patients can live healthy happy lives"*. They provide the patients with tools and evidence-based diabetes education. They provide top of line educational info to patients in French and English. The focus is on high standards.

Meeting Population Needs

Many patients are of low economic status and degrees of health, numeracy and math literacy vary greatly. Many work seasonally. Many patients have at least one co-morbidity.

When the clinic receives a new referral, the secretary calls the patient to determine if the patient needs to be seen individually or will be ok in a class setting. Those seen individually will be given an appointment as soon as one is available. They will meet with the nurse and dietitian. If the patient wants to see the physician, they must get a referral from their doctor. This eliminates multiple trips for the patient. Those seen in a class attend a program called *"Diabetes Today"*, held over 3 separate classes, usually held 2 months apart. Both the dietitian and nurse participate in these classes.

The clinic also sees 'drop-ins' who do not have a physician's referral, though if they want to see the physician a referral is required. They try to accommodate everyone who requests help. Patients who wish to be seen by either the diabetes nurse or dietitian do not need a referral so essentially they can self-refer.

> *"We have drop-ins all the time. For blood sugar and blood pressure checks, patients requiring insulin or just to get weighed… we never refuse anyone."*

The clinic is able to do pump starts but at this time, there is only one certified pump trainer. Pump starts are few and far between so it is hard to keep up the expertise. The staff has basic pump education.

Levels of Prevention

Primary (disease prevention, health promotion):

The clinic offers pre-diabetes classes for patients referred by physicians. These classes are held once enough patients are registered. The patients are then seen once a year.

The clinic staff also organizes community health clinics and diabetes expos especially during the month of November, which is Diabetes month. Although very time consuming, they feel there is a desperate need for education in the community (long term care facilities, schools) on basic diabetes information.

Secondary (screening and early diagnosis):

Drop-ins often come into the clinic and want to be tested. The professionals at the clinic can do this and detect symptoms of pre-diabetes as well as early diabetes. The staff feels the clinic is not getting as many referrals as they should as there are many in the community that have diabetes or pre-diabetes that are not aware of it. Family physicians have too many patients to look after and patients *"fall through the cracks"*. By the time they are seen they already have type 2 diabetes.

Tertiary:

This is a very important level of service for the clinic as a whole. The clinic follows-up with diabetes patients to help them manage their disease and prevent complications through education. They also help patients to adjust their insulin according to blood sugar levels. The staff is certified to adjust insulin having successfully passed the N.B. Insulin Adjustment Certification course.

Ensuring Follow-up:

The goal of follow-up care is to build on what the patients have learned during their clinic visits. They work on things they've determined they need help with. One behavioral goal must be set for each patient and a contract is signed by the patient. Once a goal has been achieved, a new one is chosen. Follow-up is always about the health indicators and is allotted a 30 minute time slot. Some follow-ups are also done by phone, especially for insulin adjustments. Once a patient is deemed controlled, the average patient will return every 6 months. Those with complications can come back every 3 months and those very well controlled, only once a year. Patients are under no obligation to attend the clinic but most feel motivated by their follow-up visits.

Clinic Team

Internal Team Members:

The clinic is composed of two diabetes nurses; one is the full-time education coordinator and the other also is full-time (also CDE certified) but works with both the diabetes and bariatric program. There is a part-time dietitian (also with CDE) who does bariatric as well as diabetes. The clinic has a medical general practitioner as part of the team who sees patients at the clinic on Wednesdays only. The clinic also has one full-time administrative support that looks after the needs of both the diabetes and bariatric programs and helps organize and coordinate both clinics. There is also one full-time licensed practical nurse that runs the diabetes foot clinic in the Ambulatory Care Unit.

The drawback of this structure is that because there is no endocrinologist associated with the team, the clinic receives a perceived low level of referrals, as general practitioners often see this as one general practitioner referring patients to another general practitioner. The hospitals only endocrinologist left the city in 2010 and has yet to be replaced.

The clinic is always open and there is always at least one educator there at all times. The only time that the clinic is closed is in April when the educators attend the Annual N.B. Diabetes Educators Conference in Fredericton.

External Team Members:

In 2006, the clinic started offering foot care services to a select group of patients twice a week. In 2007, the high demand resulted in the clinic being expanded to a full-time foot clinic for diabetes patients. The clinic has a set of policies and procedures which governs its mandate. Patients that do not qualify for the foot clinic are referred to community foot care nurses or to the VON where they will be charged a fee. The clinic has access to psychology and social work services for referrals as needed but wait times are a detriment.

Team Structure:

The Joslin Diabetes Center has a centre administrator which is the nurse manager of the Ambulatory Care Unit (Carole Beaudet) as the diabetes clinic falls under her direction. The education coordinator comes next, and reports to Carole for matters related to the clinic's administration. The education coordinator oversees all aspects of the clinic. She is responsible for developing all new education programs,

policies and procedures, all work related to the Joslin program (stats, business and marketing plans, chart audits, SWOT analysis, CQI projects, population surveys) as well as overseeing the work of the other nurse educator, dietitian and the foot care program. The education coordinator is also responsible for conducting yearly staff evaluations for the diabetes clinic staff. The medical doctor works with all of the clinic staff and education coordinator (internally, collaboratively). At the present time, the Joslin clinic must accommodate the bariatric program in the same physical space and also share the human resources. There is work being done to move the bariatric program elsewhere in the hospital so that each program can have its own dedicated space and staff.

Co-Morbidities:

40% of the clinic's patients have a co-morbidity such as arthritis, obesity, asthma, mental illnesses, hypertension and more.

Communication:

Communication is mostly informal. Team members use email, telephone and face-to-face discussions. Structured team meetings are held quarterly.

Self-management

Role of the Patient:

Every new patient is sent the Diabetes Self-Management Questionnaire. Once this is filled out and brought back to the clinic, the staff can determine what the patient's needs are. They meet with the patient and determine what goals they wish to achieve. A contract is then signed. *"It gives them ownership of doing something about it."*

At the time of the interview, the 'no-show' rate was 13% over the past 2 months. The staff seemed pleased with that number but worked very hard to keep this rate low. Patients are sent a letter by mail and are phoned by the secretary the day before the appointment. Certain period of the year seem to result in increased 'no-shows', mostly in winter. Research was done and indicated 4 main reasons for this; transportation issues, conflicts with other appointments, job and childcare responsibilities as well as hours of the clinic. Classes are not offered in the summer to avoid having a high number of 'no-shows'. Some patients will however attend a 30 minute session instead.

Professional/Patient Relationship:

The professional/patient relationship is very personable. The team is very passionate about what they do at the clinic. They try to impress upon the patients the importance of regular follow-up care to prevent complications of the disease. *"Patients are very comfortable with us. They do not come here to be judged'."*

Patient Education:

The clinic's goal is to prevent complications from diabetes through education. Give patients the option to attend groups that cover a broad range of client-driven topics. Classes are held every 2 months. By using the *"Diabetes Today"* education program, the clinic is able to see many more patients that would otherwise be on a waiting list.

Key Services Offered:

The clinic offers pattern management, continuous glucose monitoring, and point of care AIC, insulin pump therapy, foot care, nutrition management, insulin starts and insulin adjustments. Patients can be referred to community mental health, VON and community foot care for patients who do not fall under criteria for the foot care program. One nurse (licensed practical nurse) is available for foot care (although not

in same physical area) however only diabetes patients can be referred. Patients that are followed regularly by their physicians, diabetes case manager or the diabetes clinic can be referred to the diabetes foot care program. They will be assessed by the foot care nurse. The clinic follows approximately 400 patients at this time. There are no plans to expand this clinic although physicians have asked that it be opened up to other patients that do not have diabetes.

With the clinic situated at the hospital, there is easy access for patients to get lab work done and see other specialists (i.e.: ophthalmologist) on the same day (but only on the days that the clinic physician is there). The main entrance of the hospital is very closely situated to the diabetes clinic. Patients with extremely high blood sugars can be sent to the ER right away. The hospital also offers a program for smokers through the (Respiratory Education Clinic) who wish to have some information on smoking cessation.

Proportion of Patients Controlled:

The Clinic has rigorous processes for keeping track of patients' health indicators (in reference to diabetes). They regularly administer questionnaires that measure the environment and behaviour of the patient in addition to the indicators of health such as specific lab work, blood pressure, date of the last eye exams and medications. The clinic has a rigorous focus on administration, record-keeping and tracking for all this patient information. There is an emphasis placed on benchmarking with other education affiliates. This is part of the accreditation process for the clinic. The 60 chart, 2012 JCAT (Joslin Clinic Audit Tool) demonstrated clinical excellence.

Availability and Meeting Demand

The staff feels the needs of the population it actually sees is being met. This does not include however the diabetes or pre-diabetes population in the community that has not been seen or never gets referred. There are still physicians that do not inform their diabetes patients about the clinic. The diabetes clinic is available 8 to 4, Monday to Friday. There seems to be a feeling that this is not enough. There may be a need for an evening or weekend clinic but due to lack of funds this is not possible at this time.

Missing Services:

Clinic staff feels they do lack the expertise in certain areas such as exercise. It would be of great benefit to have an exercise specialist/physiotherapist on the team as well as psychologist and pharmacist. Staff at times want to refer a patient to a specialist themselves however this can only be done by the physician. The suggestion must be sent to the family physician and the staff feel only half will follow-up on that suggestion.

Wait Times:

A new patient will be seen within one month of being referred. Type 1 patients, children, patients that are having problems with severe hypoglycemia or hyperglycemia and gestational diabetes patients are seen very quickly. It takes longer to see the dietitian as there is no replacement if she is not there (vacation or sick time) and she has other duties besides the diabetes clinic. Bariatric patients have a much longer waiting time than the diabetes patients do. With over a thousand patients on the list to be seen for the first time, the waiting time is about 4 years. Only one day per week is dedicated to the Bariatric program at this time which results in these unacceptable wait times. There are only 2 locations that offer Bariatric surgery in the province, Bathurst and Moncton.

Methods of Offering Service:

Services are offered mostly in person. Many insulin adjustments are done over the phone. In a few circumstances, the education coordinator has gone to the home of some patients to help them give their first insulin injection. Also, patients that have no means of transport have been picked up and driven back home by the staff.

Distances:

The clinic mostly serves the Acadie-Bathurst region. There are patients from the Peninsula that prefer to travel to the clinic in Bathurst instead of being looked after in their own communities. There are also patients that come from the Miramichi to be followed in Bathurst.

Parking:

Paid parking is an issue for some patients. Many patients are obese and cannot walk from the parking lot to the building. The clinic did inquire about parking passes for their patients but were denied by the hospital.

Other Barriers:

Peculiar to this area, many patients are seasonal workers and cannot have time off in order to attend appointments. This would lead to loss of salary. There is also no public transportation and taxi services are expensive. Many patients do not have any private health insurance and depend on the clinic for insulin, supplies and some medications. The clinic has access to many compassionate programs for low income patients and does its best to help patients in this way.

Satisfying Patient Needs

Satisfaction Levels:

There is a patient satisfaction survey that is done every year. The results show high patient satisfaction year after year. Patient feedback included the development of a support group (there was already a support group put in place but it folded due to poor attendance), cooking classes and the start of a walking group.

What Makes the Clinic Special:

The clinic is actually the only Canadian Affiliate of the Joslin Diabetes Center which is an American institution headquartered in Boston. The Joslin Clinic has been in existence for over 100 years and is the global leader in diabetes research, education and care. Because Spanish is the second language in the US, there is no material available in French so any Joslin material that the clinic wants to give out to the patients must be translated, which costs a lot. When they first became an affiliate in 2006, they had received a grant from Official Languages to translate some documentation to French. The staff got to choose what they wanted translated. Due to contractual stipulations, only the Bathurst area and the Peninsula have the right to use any branded Joslin material. The clinic is limited to using only Joslin, CDA or Diabetes Quebec material. The cost of the affiliation is $45 000 per year and there are physicians who question the spending of this kind of money for an American model instead of a Canadian one. The clinic is not able to apply for CDA certification because there is already a model in place. Should the contract not be renewed in 2015, the clinic will apply for CDA Certification at that time.

Dealing with Special Needs:

The clinic is seeing more and more patients with severe mental illness (major depression, anxiety disorders, bi-polar and schizophrenia) and they do not feel equipped to deal with these very complex cases. At times, the staff at the clinic must refer them to psychologists or mental health specialists. The waiting list is especially long for those who cannot afford private care. There have been occurrences where a staff member has brought a patient directly to the psychiatric unit or to the ER.

Most patients with special needs have to have individualized sessions, from books with pictures, low literacy documentation, models and plates for meal planning. Deaf patients have brought interpreters with them and blind patients have been referred to CNIB. The staff feels there is always a way to communicate with their patients. *"I've done visits with not one word spoken. I wrote everything down."*

Family Encouraged:

Family members and caregivers are highly encouraged to attend any and all clinic visits (individual or classes). The clinic is highly flexible and will do whatever it takes to accommodate patients so that they will be seen in a timely fashion.

Patient Feedback

Visiting Clinic:

Both patients have been long-term patients of the clinic; one for 5 years.

Rating of Service:

Both gave a 10. *"All the times I come here, I get good service. On time. Very friendly."*

Role of Patient and Clinic:

The clinic provides a role of support and encouragement. Patients feel comfortable with staff, and feel that the clinic truly cares about their health.

"Their role is to tell me what to do. Give me a lot of advice. My role to listen to them, call and tell them what's going on." "My role is to watch what I eat no matter how much I like it. With the clinic, I get a lot of encouragement."

Patient Education:

Patients noted that much of the education is one on one as they attend their regular appointments.

Accessibility:

Both patients felt they could call and get an appointment quickly if needed. Neither had any issues with getting to the clinic. However one patient noted that there are not enough parking spaces available for handicap patients.

Satisfaction and Complaints:

Both rated very high and were impressed with the service received. *"I'd call here. I wouldn't talk to anybody else." "They always ask if they can help with anything else."*

Regional Diabetes Program

10 Hotel Dieu Street
Miramichi, NB
E1N 3X7
T: 506.628.7522
506.628.7500

Clinic Type:

Large Clinic (not in hospital)

Clinic Profile

The Miramichi diabetes clinic is located in a stand-alone facility in the Chatham District of the city, about 7 km from the Miramichi Regional Hospital. The clinic serves a very large rural geographical region, and offers distant services for the more distant communities of Rogersville, Blackville and other communities through mobile distant services. The clinic serves health centres located within Zone 7, and 2 aboriginal health centres. Patients who visit the clinic live as far as 50 to 60 km (or more) from the facility, and a case manager, based out of the A.C. Blanchard Medical clinic, also visits patients at physicians' offices as an extension of the clinic's services. Through distant services, the clinic reaches patients who are as far as 116 km or more from the clinic. The region served includes two First Nations communities (Burnt Church and Eel Ground) and Francophone patients. The clinic has been in existence for at least 15 years.

Clinic Mandate

The clinic's mandate is to raise diabetes awareness and to increase patient knowledge of diabetes and diabetes self-management, all in the goal of reducing diabetes-related health complications.

Meeting Population Needs

The clinic was not able to provide a count of the number of patients served, but it was able to share the number of total patient visits of 3,130 patients between April 1st 2012 and March 31st, 2013. The Department of Health recorded 1,467 individual patients for 2011. The clinic deals with an increasing number of referrals, which would suggest patient count has been increasing. The clinic sees 8 to 10 patients per day per practitioner on average.

Most patients have co-morbidities. There is an important fishing industry in certain regions like Bay Saint-Anne. During the fishing season, visits from/to patients from these communities decreases dramatically. *"During fishing time, they can't miss any time."*

The clinic gets its new referrals from multiple sources. The clinic gets referrals from physicians serving Zone 7, or Northumberland County. Patients from outside communities may choose to visit the clinic in Miramichi or be seen at their local Health Centre (mobile/distant services). The clinic, usually a team of two, travels to other health-centres of 4 outlying communities an average of once per week (each once per month). *"We are the only clinic that goes to other health centres."* At the A.C. Blanchard Clinic, diabetes patients may self-refer at any time, without the need for a referral from their health care professional.

The clinic also serves in-patients at the Miramichi Regional Hospital. A team of two (typically the nurse and dietitian) travels to the hospital for in-patient visits. The nurse and the dietitian will visit the patient typically on the same day, but through separate sessions.

At the end of the patient's visit, follow-up appointments are then booked by the clinic's administrative staff, who are in charge of all booking and scheduling, based on triage needs.

New patients (at any location) are typically seen by both a nurse and a dietitian for the first visit. While follow-up visits used to proceed in a similar manner, due to the higher demand for services relative to resources, patients for follow-up visits now see either the diabetes nurse or the dietitian. *"We did overlap, but we're short staff now."* New patients visiting for the first time will typically spend 45 minutes with each the diabetes nurse and dietitian. Follow-up visits are typically 30 minutes with the CDE (nurse or dietitian). Longer appointments will be scheduled for someone starting insulin for the first time, or based on need.

The case manager visits doctors' offices in the region to help broaden accessibility of services, particularly for harder-to-manage patients. She uses the diabetes clinic facility to store patient files and or do patient follow-ups from time to time. Her patients are affiliated with the Miramichi diabetes clinic, in the sense that any member of the team may consult with the patient at the clinic (rather than at his/her physician's office) between visits. The case manager has only been in this role since September 2012, and is seen as a great benefit in both reaching harder to

reach patients during their doctor's visit. Physicians identify the patients that are to be seen by the case manager during her visit. These may or may not be already patients of the clinic. These diabetes patients typically have A1C results of 7 or higher, and could be new patients, non-compliant patients or other. Because the role is so new, the case manager can also inform physicians in the region about the clinic's role and services and, as such, helps generate support for the services.

The clinic focuses on helping patients manage their blood sugars, first and foremost, and patient-led management of diabetes.

The clinic does insulin pump teaching and training. They see pump and pediatric patients. They visit the pediatric clinic about once per month for training and education. There is no phlebotomy lab on site, but the clinic/physician will make the blood-work recommendation and send patients for blood tests as required.

Levels of Prevention

Primary (disease prevention, health promotion): Limited primary prevention. The clinic is involved in the community mostly for secondary (screening) services.

Secondary (screening and early diagnosis): The clinic does very little screening and early diagnosis work in the community lately, but has done so in the past. They participated in an aboriginal screening program and serviced the communities of Burnt Church and Eel Ground.

Tertiary: This is the most important level of service for the clinic as a whole. The clinic follows-up with diabetes patients to help them manage their disease and prevent complications through education (mostly one on one consults with dietitian and CDE).

Ensuring Follow-up: All patients are scheduled for follow-ups. Depending on the patient's status, the first follow-up is scheduled within 3-months, or one month for patients who are not doing so well. After this point, follow-ups will be scheduled every 3 months for the harder-to-control patients. For others who are doing well and are stable, follow-up appointment are every 6 months or 12 months depending on the patient's self-management level. If a patient cancels an appointment or doesn't show, a reminder letter is sent out to ensure a follow-up. The clinic will try and follow-up with patients who do not show (no visit/no response) for no longer than a period of 3-years, after which point a patient's files will be removed from the clinic (and sent to health-records at the hospital).

Clinic Team

Internal Team Members: The clinic has an Internist as part of the team (Dr. Binedell) who visits the office once per week. The doctor's role is to see patients that have been referred to him, or the more difficult/challenging patients of the clinic (more advanced or harder to control). The internal team also includes: two full-time diabetes nurses (one being the clinic coordinator), one part-time dietitian (.5) on Tuesday, Fridays and every other Thursday, and one full-time administrative support clerk, as well as the case manager. There was a vacant position for a dietitian at the time of the interview. Three team members had achieved their CDE at the time of the interview (the dietitian, case manager and diabetes nurse coordinator), and three team members were also certified for insulin adjustments (two diabetes nurses and the registered dietitian).

External Team Members:

The clinic's services extend to a number of other health centres, including Blackville, Neguac, Rogersville and Baie-Ste-Anne, and two First Nations Communities (Burnt Church and Eel Ground). The clinic also has access to a physiotherapist who is part of education classes for pre-diabetes patients. The physiotherapist visits approximately 3 times per year. The clinic does not offer foot care but the physician may prescribe foot care services for someone, offered through community foot care nurses (for a fee, or covered through insurance).

Team Structure:

The clinic coordinator oversees the entire team, and reports to the executive director of Miramichi Area, Horizon Health Network. She coordinates services, schedules, and all administrative work involved for the Miramichi clinic as well as for clinics travelled-to. The clinic's Registered dietitian reports to nurse coordinator.

Co-Morbidities:

Most type 2 patients have co-morbidities. The clinic collects information about patients and their disease through an initial assessment, where things like health status, social assessment, diabetes management and nutrition are collected in order to more adequately screen the patient and provide the best individualized services. This is a detailed 4-page assessment form. Any patient referrals to other specialists' care are done through the clinic's physician, or through external physicians as recommended by members of the team. Dr. Binedell will refer patients to ophthalmology, stress tests or other specialized care including foot care through community foot care nurses. The clinic does refer patients to other outside services such as social workers, psychologists and other community services when they see the need.

Communication:

The clinic does not have an electronic system for charting, all is done on paper. Communication within the team is mostly informal. Team members use email, face-to-face discussions to discuss patient care. Communication with outside team members, including physicians, is more formal and will include faxes and letters. The clinic receives patient referrals from the hospital through an internal order entry which generates a fax from the hospital to the clinic. The clinic, through a triplect form, will send written document to doctors with updates and recommendations on behalf of patients (a copy remains with the clinic, a second to the physician, and a third with health records).

Self-Management

Role of the Patient:

The clinic empowers the patient as much as possible with taking their disease into their own hands. Insulin patients' role is to learn how to manage their own adjustments. Patients are expected to be directly involved in setting their own goals and take ownership of their management. The clinic is there to provide patients with the tools and educate them little by little, at the patient's rate, on how to get there

The clinic deals with a good number of no shows, particularly for group sessions at the Sobeys room. Altogether, the no-show rate is about 15%, which seems to be even higher for the distant clinics that are visited. Reasons for no-show are unclear. The clinic now places reminder calls (as of summer 2013) to patients the day before their appointments in an effort to reduce no shows.

> *"They have an education program out there, but a lot don't show. There is no interest, I don't understand." (Patient).*

Professional/Patient Relationship:

The professional/patient relationship is very open and personable. Patients know where the clinic is and feel like the clinic cares and is there to help.

Patient Education:

The clinic's goal is to prevent complications of diabetes through education. For patients on insulin, the educator focuses on teaching patients how to self-adjust their insulin levels. The clinic offers a 3-hour class with a diabetes nurse and dietitian. The class is suggested for new diabetes patients, who are somewhat controlled, or as a refresher if it is felt the patient could benefit from it.

The clinic uses the CDA Conversation Map tool for patient education, but only in Miramichi. The map is not used in other communities due to lack of space. The clinic also often makes reference to flip charts provided by pharmaceutical companies. "These are good tools, and (they are) visual." Classes in Miramichi are larger and are done in the Sobeys community room, in English only. In other regions, the clinic will do more one on one teaching, use handouts, the food guide, provide website resources and cover the basics. Classes in other regions are either English or French, depending on the community, and tend to be much smaller.

Key Services Offered:

The clinic serves a very wide geographic region, and provides multiple points of access to services including in-patient visits at the Miramichi Regional Hospital, scheduled & non-scheduled visits at the Miramichi Clinic, Case Management services (visiting Physicans' offices) and distant services to health centres in outlying communities (Blackville, Rogersville, Neguac and Baie Ste-Anne). The clinic focuses on helping patients improve their sugars, and being personable. Although wait times for services are long, the clinic will accommodate patients who call or walk-in as best as they can.

The case manager's services help reach out to patients who are harder-to-manage, or who don't have interest in visiting the clinic. She has the benefit of having access to the clinic's physician, which is seen as a benefit for patients. *"She has access to the doctor and it's all done right there."* The clinic and the case manager work together in providing patient care. The case manager's patient files are stored at the clinic, accessible to clinic staff, and the case manager has access to clinic services including the dietitian if needed. *"When (the case manager) sees a patient and sees a need to see a dietitian, she'll book them in with me. It's the same chart."*

Proportion of Patients Controlled:

The clinic does not have a formal way of tracking patient results and health status. The proportion of patients that are self-managed was not clear, some are doing really well others not so much. The biggest factor on self-management is patient education levels. *"Education level determines how much they can self-manage."* The clinic does not track AIC's, but will look up a patient's status and results prior to their visit but if the patient does not visit the clinic does not asses or examine patient charts/stats. The clinic will question patients, teach them about the log book and put them in control by asking 'what do you think you should do?"

The clinic feels the case manager is having a positive impact on patients in helping them manage their diabetes, but this is not tracked.

Availability and Meeting Demand

The diabetes clinic deals with a large number of referrals from multiple sources, and finds this particularly challenging to manage/schedule. The wait times are long and increasing. The clinic was short-staffed, with an unstaffed dietitian position at the time of the interview, also causing bottlenecks, scheduling challenges, and difficulties meeting the demand particularly for outside communities. *"Just keeping up with all the referrals… hard to keep ahead."*

The clinic in Miramichi is technically open between 8am and 4pm, Monday-Friday, but is not accessible to patients throughout all of these hours. When staff is 'on the road' to other clinics, the clinic is staffed minimally (administrative personnel) and does not offer patient consultation. It was noted that a larger number of patients could be accommodated if they visited the clinic rather than having the clinic travel to them. On the other hand, distant services make the services accessible for those who may not be able to travel to Miramichi.

> *"The door was shut once… can't give insulin if no nurse or dietitian is here." (Patient)*

The clinic will accommodate a patient who cannot visit within the 8 to 4 hours as best as they can through extended hours, sometimes until 5 (as needed). *"If I know there's a patient that works, I might book it at 4:30 and stay until 5."*

The clinic is not meeting the demand for distant services. *"We are really behind in those clinics."* Nonetheless, the clinic focuses on seeing as many patients per day as possible during visits to these clinics. Each distant clinic is visited once per month, and the backlog is about 1 year in dealing with new referrals at those clinics.

Missing Services:

The clinic reported lacking foot-care services, which used to be available, or the availability of foot-care services in the community altogether, affordable recreational facilities and/or a kinesiologist, mental health services, a social worker and another full-time dietitian. Also mentioned was the need for another full-time diabetes nurse to help meet the increasing demand. Space is also lacking, making teaching with MAPS sometimes challenging. Online documentation is another item on the clinic's wish list in order to help improve efficiency and free-up physical space currently used for patient files.

Wait Times:

The wait time for a follow-up appointment is 1 to 3 months depending on the patient's status. Triage is based on blood sugar results and patient needs. Wait times for new patients is 2 to 3 months, also depending on status. The first visit to the clinic would be with an administrative clerk to collect history and patient information in order to properly triage the patient. If a patient's sugaris under control, the next step would be to send the patient to the Sobeys diabetes class. Wait times can be as long as 1 year for outside clinics, which are served on average only once per month.

> *"Sometimes you have to wait quite a bit. There's not enough staff, they're always on the go." (Patient)*

Methods of Offering Service:

Services are offered mostly in person, and through distance services. The nurse coordinator will do a good number of phone visits with insulin patients, helping them to learn how to adjust their insulin on their own (if capable). The nurse coordinator also receives calls at home, after hours, from patients with issues with the pump or questions about their insulin. A number of patients are followed-up by email, as well.

> *"Yes, I've emailed my sugars in. I was emailing constantly, they are very involved." (Patient)*

Distances:

The geographical region served is very large, and patients can travel as far as 1 hour to get to the clinic, or 60 to 70 km. The average travel time is 15 minutes. There is a bus services in the region, with a bus driving by the clinic every hour Monday to Saturday. However, this was not common knowledge among staff or patients during the interviews, and does not seem to be a common method of access. Taxi services are also available. Most patients, however, drive themselves to the clinic or take a taxi. The clinic accommodates patients' who take the bus (city transit) by matching their appointments according to the transit schedule.

Satisfying Patient Needs

Satisfaction Levels:

No formal means of feedback is available. The clinic relies on patient feedback and results from their sugar readings to determine the impact of their services on patient health. They also rely on patients telling them how they feel. *"A lot of them are glad to be here and want to learn more every visit."*

What Makes the Clinic Special:

The clinic has multiple points of access to services for patients, including distant services (mobile-clinic) for patients far away, a case manager to reach hard-to-manage patients, and a local clinic in Miramichi for face-to-face patient visits.

Dealing with Special Needs:

The clinic is wheelchair accessible. The clinic accommodates patients with special needs by requesting that patients' caregivers come to the appointment with them. The clinic may request to visit nursing homes so as to train the care giver about the patient's needs.

Dealing with Cultural Differences and Literacy:

The area does have a significant First Nations population, and the clinic extends its services to the reserves (Burnt Church and Eel Ground). The clinic has no issues with cultural differences. Literacy and little education are the most common barriers to services, which impact a patient's ability to self-manage. To accommodate, the clinic will allow for longer appointments, more visual tools, and more explanations. For First Nations members, the clinic has a First Nation's handbook, supplied by the CDA. The handbook is adapted to lower literacy levels and is specific to First Nations culture. In addition to this, the clinic deals with low literacy by using picture-based do's and dont's teaching tools. For hard of hearing, team members adjust by repeating, and by sending out a letter rather than a reminder phone call. The clinic also has access to a talking-meter for people who can't see so they can hear their results/blood sugar rather than read it.

Staff is bilingual and can accommodate both languages. Typically, classes are offered in only one language per community (in the most common language), and staff will offer one on one sessions for patients who wish to receive the information in another language.

Family Encouraged:

Patients are encouraged to bring family members. Extra room is available during classes and appointments for them. The clinic also requests care givers to come with patients to their appointments.

Sackville Memorial Hospital

8 Main Street
Sackville, NB
E4L 4A3
T: 506.356.6613

Clinic Type:

Small Hospital

Clinic Profile

The clinic is located in the Sackville Memorial Hospital, which is a community hospital located in the town of Sackville, New Brunswick. The hospital and clinic primarily service the populations of Sackville, Dorchester, Port Elgin and surrounding areas. Sackville Memorial Hospital provides 24/7 emergency services, 21 family practice beds and offers ambulatory care; dietitian and diabetes education; diagnostic imaging; family medicine; laboratory; palliative care; rehabilitation; speech language pathology; physiotherapy; occupational therapy; and a day surgery program.

The clinic started in the 1980s. In 2005 it was operating two days a week, but increased to three and now four days a week to meet increasing need for services. It is open from 8 to 4 Monday to Thursday. The clinic primarily services Sackville, Dorchester, Memramcook and Port Elgin as well as a small number from Amherst, Nova Scotia. It was noted that more people are on insulin and the cases are more complicated than they used to be. Also noted that physicians are more aggressive about early screening.

Clinic Mandate

Assess the individual and then educate them, advocate on their behalf and then support them so they can live healthier lives.

Meeting Population Needs

The clinic has had 390 active charts and 10-13 new referrals per month. There are also 70 charts in Port Elgin that are seen at this clinic. In addition, there are 350 older charts/patients and these people may also come to the clinic again when they need to. Last year there were 925 visits and a similar number of phone consultations (971).

Phone consultations can be categorized into three main areas:

1. Support and direction for the clients (usually those on insulin).
2. Triage and booking appointments.
3. Consultations with other professionals.

Most of their patients have type 2 diabetes. Anecdotally: the majority of their patients would be consistent with the provincial demographics of 50 to 79 years of age. However they do see all ages from 18 to 90+. They do not keep this data at the clinic, but believe it would be available in the province.

The clinic follows the Canadian Diabetes Association Practice Guidelines and the guidelines in the Diabetes Educators Guidelines. A new patient is typically first seen in a group session. They use conversation and lots of discussion during the sessions. There are usually three classes and then they see people one on one to reinforce classes. The diabetes group sessions use conversation map tools to engage individuals in meaningful conversations to learn about their diabetes and hopefully be empowered to take charge of their diabetes.

The classes are:

1. Living with and Understanding Diabetes (week 1).
2. Healthy eating and Physical activity (week 2).
3. Foot care and review from the first two classes. Held three months after the original 2 classes

Insulin classes are on an as-needed basis.

Insulin Pump Training: Insulin pump training is not offered, but they do support individuals who are preparing for a pump in collaboration with the diabetes nurse educators and the dietitians in Moncton.

Pre-diabetes Education/Screening: Education is provided for pre-diabetes education.

Levels of Prevention

Primary (disease prevention, health promotion):

Public talks are offered whenever they are requested, which happens usually 2 to 6 times a year

Secondary (screening and early diagnosis):

Pre-diabetes classes are offered as needed based on referrals. If numbers don't warrant a class, consultations are provided on a one on one basis. These are mostly done by the dietitian, but can and have been offered by the registered nurses.

Tertiary:

Most of the people visiting the clinic are diagnosed with diabetes so most of the clinic's work is at this level.

Clinic Team

The patient's general practitioner is the focal point of the care and it is the general practitioner who refers to necessary specialists. The diabetes clinic can and does suggest care, but can't directly refer.

Internal Team Members:

A small team of three people: a coordinator for the diabetes clinic and a registered nurse and a certified diabetes educator who reports to Beth Kennedy (the clinic manager in the Moncton Hospital). Two nurses who are almost full-time (.8) and a dietitian at .05. In reality, they have more access to the dietitian that is suggested by the .05 level. They have had approval for more resources on two different occasions, but each time these have been put on hold. The two nurses work closely with each other, consulting and sharing information, (often outside the regular work hours) but there is no budget allocated for replacement if one of them is sick or on vacation. Both nurses are certified diabetes educators. They also both offer some of the education that the dietitian offers.

They have a physician liaison and are dealing mostly with local physicians. The physicians are the ones who refer patients to other specialists although clinic staff will write suggestions to physicians.

External Team Members:

There are no doctors attached to the clinic and any outside referrals are made by physicians to the various specialists needed. As noted, suggestions will be made to physicians in line with the CDA guidelines. The clinic does access Dr. Gallant and Dr. McSween as needed (both Endocrinologists, in Moncton).

Team Structure:

Carol is the team coordinator and is considered the team lead. Carol reports to the facility manager, but has considerable autonomy and responsibility relative to the diabetes clinic. The dietitian reports to a clinical nutrition director in Moncton.

Team Qualifications and Education:

The two nurses are certified diabetes educators. Team Coordinator has just rewritten certification and has written and passed the insulin adjustment certification exam. The two diabetes educators have been to most of the recent CDA national conferences and also the provincial ones. They participate in all available education opportunities offered by Horizon Health Network, CDA and industry (pharmaceutical and meter companies).

Guidelines: The clinic follows the general practice guidelines of the Canadian Diabetes Association Clinical Practice Guidelines.

Co-Morbidities: Aware of other conditions, but not responsible to deal with them. They do send team communications to the physicians.

Communication: They have electronic files and chart online and all team members can access these files. The two nurses give personal time to communicate with each other about the clinic and tend to contact each other at home when necessary. They keep a communication book that includes all updates

Self-Management

Role of the Patient: Self-management is the goal and patients are encouraged to set their own goals. No shows and cancellations run at 10 to 15% in total, with a fairly even split between no shows and cancellations. New referrals get a letter unless spoken to personally or given a call. Everyone gets a call reminding them of appointments a day or two before.

Role of the Clinic: *"We used to say what people needed to do, but now find that that people react better to something they understand". "I explain the benefit of being right on target".* A helper and a coach.

Patient Education: Group education classes are run each month. This is a series of three classes and includes lifestyle education and living with diabetes. Classes are set up to have patients interacting and helping one another. They use the conversation maps and have tools to demonstrate different concepts. The classroom education is then reinforced with one on one sessions as part of the ongoing treatment. They also do an exercise class on resistance band exercises.

Key Services Offered: Patients are supported and respected. They are not judged and the clinic tries to support their decisions.

Proportion of Patients Controlled: *"We need some kind of tracking and don't have it."* Using clinical practice guidelines, at least 50% are at targets that are appropriate for them. Note that people who are reasonably well controlled are not necessarily seen unless they identify they want to. Cellphone number will be given to a patient who is newly on insulin.

Availability and Meeting Demand

Missing Services: They do not have a social worker, which is challenging because a there's high percentage of patients who are socially disadvantaged. They would also like to have more dietitian hours and more access to a physiotherapist or an exercise specialist.

Hospital: They do see patients in hospital and offer whatever services they need. Follow-up is also offered following release from hospital.

Wait Times: Patients can be scheduled into an introductory class within a month. If a person is not urgent it will take 2 to 3 months to get an initial appointment, but if urgent, they will accommodate and get them in sooner. They like to triage a new patient (using electronic medical records) and so they do not have the clerical staff book these appointments.

Methods of Offering Service: Mostly in person and by phone. Cell phone numbers are given for after-hours contact when people are newly on insulin. One nurse is in Port Elgin two days a month offering service that includes diabetes patients.

Distances: The communities served by the clinic would all be within 10 to 20 km of Sackville. When people have different appointments with multiple health care providers, an effort is made to coordinate all of their appointments so they can be made in one visit.

Expenses: Testing strips are the expense that is most commonly mentioned when it comes to difficulty affording certain aspects of diabetes. If expense is a serious issue, they encourage testing for a few days and learning from that.

Satisfying Patient Needs

Satisfaction Levels: The clinic questions patients during their visits as a check-in. Otherwise, the clinic does not have a tracking system to ensure quality. They used to survey people following classes until a year ago; this was to measure satisfaction with the class itself. Survey results were consistently positive.

Dealing with Cultural Differences and Literacy: They are always cognizant of literacy. Culturally, issues are relatively minor and might focus on food and always meeting the patient where they are at. They have not had any linguistic complaints or concerns. If someone wants service in French, it can be arranged through the Dr-Georges-L Dumont hospital in Moncton.

Patient Feedback

Visiting Clinic: One has been visiting the clinic for 4 years and one for 6 years.

Rating of Service: One 10 and one 9 to 10 out of 10. *"Good information and down to earth; not pushy, but good and helpful."*

Role of Patient and Clinic: They agree that the clinic is there to coach, but that ultimately it is up to the patient.

Patient Education: Patients noted that much of the education is one on one as they attend their regular appointments.

Accessibility: Both patients felt they could call and get an appointment quickly if needed. They also both referred to being able to get advice over the phone if needed. Neither had any issues with getting to the clinic.

Satisfaction and Complaints: There is clearly a strong relationship between patients and those in the clinic. Both noted that all patients are treated the same.

Stella-Maris-de-Kent Hospital

7714 Route 134
Sainte-Anne-de-Kent, NB
E4S 1H5
T: 506.743.7894

Clinic Type:

Small Hospital

Clinic Profile

The diabetes clinic in Sainte-Anne-de-Kent is located inside the Stella-Maris-de-Kent Hospital. Geographically, the community is located between the communities of Bouctouche and Rexton, and only 14 km away from Rexton's diabetes clinic (see Rexton's profile for details). It serves a wide rural community, and patients can travel from as far as 65 km from regions like Pointe Sapin. Although the clinic falls under the Vitalité Health Network umbrella, because of location, the clinic serves patients of both Horizon Health and Vitalité Health networks. The clinic has been in existence for 4 years. Prior to this, a nurse from the diabetes clinic in Moncton would travel to the hospital once or twice per month

Clinic Mandate

The clinic is there to provide new patients access to information and teach them about diabetes with the objective of helping them become empowered in the management of their disease. It also offers help to patients with uncontrolled diabetes by helping and supporting them in achieving better control, which will prevent complications and improve their quality of life

Meeting Population Needs

The clinic offers services to the adult population presenting themselves with pre diabetes, gestational diabetes and diabetes type 1 and 2. Approximately 50 to 110 new consultations were realized (new diabetes or uncontrolled diabetes) and 100 to 120 follow-ups. The clinic estimates it has approximately 850 non-active patients. Non-active patients are those who are not being regularly followed but who can call anytime as needed for questions or to schedule an appointment.

Many patients and general residents of the region are self-sufficient with regards to food. It is not uncommon for patients to be growing their own vegetables or have access to fresh vegetables because of the number of farmers in the region. Many patients served in that area have low education profiles, low income and no insurance coverage for things like test strips and needed medication. Employment is mostly seasonal in the region. As such, during the fishing season or peak times at the fish plant, many patients are not available to attend the diabetes clinic.

The clinic gets its new patient referrals from the physicians in the community/region as well as self referrals. No physician is directly linked with the clinic as part of the internal team. The clinic serves diabetes patients of approximately 15 physicians, where 8 to 10 will use the services more frequently than others. From time to time, the clinic is called upon for internal consults (in-patients) at the hospital. Although infrequent, internal consultations seem to be growing. The clinic also gets a good number of referrals from Horizon Health Network physicians, especially francophone patients or uncontrolled diabetes needing more help with informed management decisions specific to insulin adjustments, medication, lifestyle issues, problem-solving, goal-setting and active participation in decision-making.

Follow-up appointments are scheduled according to a triage system. Due to the high demand for services, the clinic organizes group sessions in order to maximize the number of patients that can be seen each week. It was noted that the triage system and the balance between individual and group appointments in response to the demand is challenging. Candidates for individual sessions are patients who have uncontrolled diabetes, patients starting insulin for the first time, patients with learning disabilities or follow-ups. Candidates for group sessions are typically newly diagnosed diabetes patients. However, changes were recently implemented so that patients with uncontrolled diabetes having never received education in the past (which applies to most patients) are now added to group sessions. These patients, if willing, will later be seen for follow-ups on an individual basis until diabetes control is achieved.

Follow-up appointments are booked before the patient leaves the clinic. Patients may call-in at anytime to book an appointment if they require one. They are told to call when they have questions, if things change or if they need

any help at all with their management. The diabetes nurse takes care of scheduling the patients in her chart, and the department's receptionist will enter the appointment in the Meditec electronic scheduling system. No letters of confirmation are sent. Patients that are stable after receiving education are not followed-up unless they want to pursue. Patients becoming unstable can be referred by physicians or self referred.

The clinic focuses on empowering the patients with the management of their disease through information and education. The clinic also focuses on patient self-management of insulin adjustments for patients that are capable of learning this. *"C'est important, ça peut limiter les complications, je ne veux pas enlever ce temps la." ("It's important, as it can minimize complications. I don't want to eliminate that time".)*

The clinic does not offer insulin pump teaching because there are no physicians in the area to assist with this. Patients in the area that are on insulin pumps or newly started on pumps by an endocrinologist will receive education and follow-up concerning pump in Moncton.

Levels of Prevention

Primary (disease prevention, health promotion):

The nurse from the clinic is a member of a committee organising a wellness day, once per year, focusing on disease prevention and promotion of health in the community. (Presenting 3 conferences and an information kiosk).

Secondary (screening and early diagnosis):

The clinic holds screening sessions in the community approximately each quarter. They will set-up in a local grocery store or shopping centre to check blood pressure, blood sugars and offer advice. Once per month, the clinic holds screening sessions for blood pressure, glycemic check and a questionnaire to screen daily lifestyle affecting people's health. Advice and information brochures are given.

Tertiary:

This is the most important level of service for the clinic as a whole. The clinic follows-up with diabetes patients to help them manage their disease and prevent complications through education (group session and one on one consults with dietitian and CDE).

Ensuring Follow-up:

Patients are followed-up as long as they want to pursue. Wait times for follow-up visits for individual appointments range from approximately 2 weeks to 4 months. The patient will see both the nurse and the dietitian during their first initial two visits, and will visit with the diabetes nurse only for further follow-ups, and the dietitian as needed.

Clinic Team

Internal Team Members:

The clinic has two key internal team members: A full-time diabetes nurse, who is also a certified diabetes educator (CDE) and a part-time dietitian (1.5 days/week) who was studying to become a CDE at the time of the interview. The dietitian also serves the Shediac clinic 1 day per 2 weeks. The CDE nurse was soon to pass her Insulin Adjustment Certification at the time of the interview. Each diabetes professional has an office, and the clinic has access to a shared boardroom for group sessions.

External Team Members:

External team members include the patient`s physician, the Department's receptionist, who will help by taking phone calls from patients, schedule appointments for new patient consultation and enter follow-up scheduling information (scheduled by the diabetes nurse) into the electronic scheduling

system (Meditec). Referrals to outside specialized services are made through patients' physicians. The diabetes nurse will make recommendations to physicians on behalf of patients for services with psychologists, podiatrists or others when felt they are needed, but does not make the referral herself.

Team Structure:

This team of two falls under two different hierarchical structures. The diabetes nurse reports to the hospital's nursing manager (currently on leave), whereas the dietitian reports to the region's Manager of Nutrition Services (at the Dr. Georges-L.-Dumont University Hospital Centre). Both work with the same patients but individually. Only the more challenging patients will be seen by both professionals at the same time during a visit. As such, there sometimes exists some overlapping of effort between the two. With regards to decisions related to the diabetes clinic, the diabetes nurse is in charge.

Co-Morbidities:

The clinic focuses not only on diabetes but also co-morbidities. 95% of diabetes patients already have existing co-morbidities such as elevated blood pressure, coronary artery disease, obesity, etc. For group sessions, co-morbidities are discussed in general and advice is provided. For patients who are individually seen, an assessment is made and their co-morbidities are addressed.

Communication:

Communication with physicians can be over the phone but is mostly by fax. With Horizon Health Network, charting is not accessible to the diabetes clinic. More screening and profiling of the patient is required in order to assess health and history and triage the patient into a group or individual session accordingly. Some doctors will fax over patient records and test/blood sugar results, but not all. *"Quand j'ai pas accès au médecin, ça rend les choses plus compliquées, ça prends plus de temps". ("When I don't have access to the doctor it complicates things, it take more time".)* Internally, some communication inefficiencies were noted. This is a result of a lack of internal charting/communication system available to the CDE nurse. All is done manually, on paper. As such, there is often duplication of work between both the CDE and dietitian. Electronic charting for the nurse will soon be implemented. The dietitian presently has internal electronic charting.

Self-Management

Role of the Patient:

The patient is put in charge of the next step. They are advised to call the clinic for any help and are taught that they need to be empowered with the management of their disease. *"On est là pour les aider mais ils doivent faire leur parti aussi." ("We are there to help but they must do their part as well".) The patient is given the responsibility of deciding when to consult the clinic.*

The clinic does deal with a number of no-shows. When this happens, physicians are advised. Patients are taught and expected to take responsibility for their disease and do their part. Due to the high demand for services, the clinic puts minimal effort into chasing no-shows or chasing insulin follow-ups. After 2 weeks of a patient not showing for an appointment, the clinic will send a note to the physician. They are asked to inform their patient to call the clinic for services. Physicians can also send another request for consultation and an appointment will be arranged by the clinic. Recently, in an effort to reduce no shows, patients that were scheduled for more than two weeks ahead of time were reminded of their appointment by phone. Files are considered 'inactive' if they do not call within 2 weeks but all patients may call for advice or book an appointment at any time.

Professional/Patient Relationship:

The professional/patient relationship focuses on making services as accessible as possible, accommodating patients as much as possible and understanding long travel distances often required for patients to visit the clinic.

Patient Education:

The type of education offered to patients depends on their needs and management levels. Typically, new patients are scheduled for two 2-hour individual sessions (1 hour each with the dietitian and the nurse and follow-up as needed). New insulin starts will have longer sessions (2.5 hours). The clinic uses tools offered by the Canadian Diabetes Association for education purposes. Conversational maps are used for education. Patients are provided with information packages to bring home. The dietitian also used tools from the CDA (Beyond the Basics), as well as other resources such as the Canadian Food Guide, resources from the Province of Ontario and will bring in tools such as utritional information labels and food models. Classes are formed with groups of 6 to 8 patients plus a family member or a friend.

More and more, because of the increased number of patients, the clinic will schedule patients in group classes: two group sessions for diabetes patients and one separate group session for pre-diabetes patients (theme: prevention). For diabetes patients, education focuses on self-management.

Key Services Offered:

The clinic's mandate is to help patients achieve self-management. *"Rendre nos patients plus capable de gérer leur diabète". ("Make our patients better able to manage their diabetes".)* Specifically, the clinic will help and support patients and help them elaborate an action plan. The clinic has seen an increase in their overall responsibility regarding diabetes. The classic educator role has evolved into a more hands-on role such as doing insulin adjustments, and follow-ups with patients. *"Au fil des années, les médecins se fient beaucoup plus sur les infirmières pour ajuster l'insuline, et les suivis". ("Over time, doctors have come to rely on nurses to adjust insulin levels and ensure follow-ups".)*

Proportion of Patients Controlled:

Because not all patients pursue follow-up visits with the clinic, the clinic does not have an easy way of determining how many are doing well in the management of their disease. For patients that do visit for appointments and follow-ups, the nurse will track their numbers in the electronic system (Meditec) to gauge how well they are doing. This includes A1C's, and average blood sugar results. For Horizon Health Network patients, this information is faxed to the clinic (not in the Vitalité Health Network system).

Availability and Meeting Demand

The diabetes clinic is open Monday to Friday but sees patients only on Tuesdays and Thursdays between 9 and 4 or 4:30. Others days are used for telephone follow-ups for glycemic and insulin adjustments and administrative tasks such as reports and request for medical orders to doctors, as well as inventory and supply orders. If patients require help or have urgent needs outside these hours, they would be required to see their physician, call Tele-Care or visit the ER. Many patients, particularly during the fishing season, are not available during these hours.

There is a long wait list for the clinic's services (57 people on the waiting list at the time of the interview). Services are not always meeting the demand.

Missing Services:

Administrative duties can be time consuming and, as such, the clinic feels they could use administrative help to assist with scheduling, coordinating and communicating information to physicians. Educational material is also scarce. *"J'ai déjà fait une demande, mais je n'ai pas eu de fonds pour" ("I've already made a request, but didn't receive the funds for more visual aides to help with education.*

On foot care for example, drawings explaining complications...") The clinic also sees a need for having a physician or licensed practical nurse as part of the team. This would help speed up services, in particular for case review and medication adjustments. This would also help reduce the amount of time spent writing notes and memos to physicians. There is also a need for increased dietitian resources/ hours and a foot care clinic.

Wait Times:

Wait times for follow-up appointments are approximately 4 months, depending on patients' status. This is from the moment the patient calls in for an appointment and not necessarily wait times in between appointments. Priority is placed on gestational diabetes and insulin patients. In these cases, the clinic will try to accommodate patients within 2 weeks. The clinic has flexibility on administration and telephone follow-up days to squeeze-in these priority patients as needed. *"On trouvera du temps!" ("We'll find the time!")* Wait times are heightened by the dietitian's limited availability (1.5 days).

Methods of Offering Service:

Telephone appointments for insulin follow-ups and adjustment consults are just as important if not more than face-to-face visits. Telephone appointments are important for those who are new on insulin in helping them adjust their levels of insulin and helping them learn to self-manage.

Distances:

The travel time for the furthest patients is about 45 minutes. On average, patients will travel 15 to 20 minutes and will be coming anywhere from St-Louis (to the North) to Bouctouche (to the South). There is no public transportation in the area. Many patients rely on someone to drive them. In terms of physical access, the clinic has ample free parking and is in a familiar location (hospital).

The clinic does not offer distant services.

Satisfying Patient Needs

Satisfaction Levels:

No formal means of feedback is available. However, the clinic is planning to administer a patient survey in order to evaluate services.

What Makes the Clinic Special:

The clinic focuses on being accessible and flexible for patients. They provide flexible solutions and suggestions according to patients' culture and individual needs. The motivational interview (with patients) is thought to be very helpful in making a difference for patients.

Dealing with Special Needs:

The clinic is flexible and has not had issues accommodating special needs patients to-date. If a patient is from the Vitalité Health Network, any special needs are previously noted in the system and the clinic can prepare. Such is not always the case for Horizon Health Network patients.

Dealing with Cultural Differences and Literacy:

The clinic's location draws on a number of different communities including Francophone, First Nations (Elsipogtog) and Anglophone. Elsipogtog members who visit the clinic often choose to visit this particular location rather than their own clinic and/or dietitian. The clinic uses visual tools and material on a case-by-case basis when dealing with lower literacy levels. *"On essaie de rendre les choses autant simple qu'on peut." ("We try to communicate things as simply as possible".)*

Family Encouraged:

Spouses/family members or friends often accompany the patients, particularly wives. When patients are scheduled, they are invited to bring someone along with them.

Patient Feedback

Visiting Clinic:	The patient has visited the clinic for 2 to 3 years.
Rating of Service:	9 out of 10. *"Ils offrent le service en français". ("They offer services in French".)*
Role of Patient and Clinic:	The patient sees her role as trying her best to manage her diabetes. The clinic's role is to provide her with information and knowledge about her disease. *"Faire du mieux que tu peux, surveiller ce que tu manges, faire tes affaires. Des fois t'as besoin d'y aller plus souvent….. pour un refresher, ils m'encouragent. Des fois tu crois que ça va bien… …mais ça va pas…." ("Do the best that you can, watch what you eat, do your thing. Sometimes you have to go more often…for a refresher, they encourage me. Sometimes you think things are going well...but they're not...")*
Patient Education:	The patient has gone to two group classes where they talk about diabetes, nutrition and foot care.
Accessibility:	The patient has no difficulty getting to the clinic.
Expenses:	The patient does not have insurance and has to pay for her own medication. This a major expense for her.

Sussex Health Centre

75 Leonard Drive
Sussex, NB
E4E 2P7
T: 506.432.3100

Clinic Type:

Small Hospital

Clinic Profile

Diabetes Education at Sussex Health Centre is located at 75 Leonard Drive, Sussex NB. The clinic serves clients from Saint John, Moncton, the areas around Sussex and all areas in between. The clinic has been in existence for over 15 years and has been in its current format for 10 years. There have been quite a few changes over the last 5 years. Prior to that time, the clinic was in an area where a dietitian could not share office space. The diabetes nurse educator and the dietitian were situated in opposite ends of the facility and on different levels. The nurse and dietitian moved to adjacent offices when a larger space became available. The clinic has changed its lay-out several times to become more client focused and now has a designated waiting area which offers more privacy to clients. The format of the clinic's classes has also changed several times in an effort to do the same. Currently, education classes are offered for those with diabetes and their families three Friday mornings of each month. A pre-diabetes education class is held every other month for those screened at their physician's offices and who fall into this early category.

Clinic Mandate

The clinic's mandate is to assist patients who are newly diagnosed with Type 1 or Type 2 diabetes as well as those who have been living with diabetes and have not had teaching before or who require a refresher. It also offers ongoing private assessments and assistance with diabetes management.

Meeting Population Needs

The clinic currently has upwards of 2,000 active and inactive clients and sees about 150 clients each month. In addition, they conduct about 20 to 25 phone consultations monthly

The clinic serves a rural population. Many of their clients are people in a lower socio-economic bracket, who often don't have health coverage. As a result, many clients have financial concerns and difficulties with blood sugar testing, medications and insulin. The clinic tries to provide as much assistance as possible, but finds that it is getting harder because complimentary supplies are more difficult to obtain in the tougher economic environment.

90% of the clients have co-morbidities.

When the clinic receives a new referral, it conducts an acuity assessment. If the situation is urgent or the patient is marked as an "insulin start," an appointment is scheduled within one week, if possible. Non-urgent, newly diagnosed patients, as well as those newly referred, but not newly diagnosed, are invited to attend a set of classes within one month, followed by a one on one meeting with both the nurse and dietitian following completion of the three classes. If the classes are not an option for a particular client then they are booked for an individual meeting with the nurse and dietitian as soon as possible.

Patients who are just starting insulin are seen initially on an individual basis. Usually a one hour appointment is scheduled then a shorter weekly follow-up until their sugar levels are stabilized. Stable patients are then seen every three to six months.

The clinic provides individual insulin checks and adjustments, laboratory results review, blood glucose and blood pressure monitoring, medication recommendations and conducts classes on pre-diabetes and Type 2 diabetes. Foot exams are also completed on an annual basis for clients with diabetes. They also do community outreach education including: the signs and symptoms of diabetes risk factors, blood glucose testing, target blood sugar levels, hyper and hypoglycemia, medications and treatment options. One of the topics often discussed at these sorts of events is *"taking the fear out of insulin."*

The clinic does not provide insulin pump instruction, but does provide follow-up assistance.

Levels of Prevention

Primary (disease prevention, health promotion):

The clinic's main focus is on the treatment and management of pre-diabetes, Types1 diabetes and Type 2 diabetes. Primary prevention is something addressed through community outreach.

Secondary (screening and early diagnosis):

Most of the clinic's work is secondary prevention, which they do on a daily basis. The clinicians (nurse and dietitian) see approximately one patient every half hour and conducts classes every Friday morning.

Tertiary:

The nurse educator does see inpatients, but that is a small percentage of her overall workload. Ambulatory patients come to the clinic. Inpatients are seen in their rooms if necessary. However, because of the clinic patient load, it is difficult to see inpatients. Days are fully booked with outpatients on an ongoing basis. Inpatients are the main priority of the dietitian, who is mandated to see not only those with diabetes, but anyone with a nutrition concern.

Ensuring Follow-up:

Diabetes is a chronic illness, meaning at present there is no cure, and anyone diagnosed with diabetes will have to manage it for their entire lives. Due to this, patients referred to the Diabetes Education Clinic are not regularly discharged; but if they wish it follow-up may continue indefinitely. If a patient has not accessed the clinic services for one year a new physician's referral is required to reinstate follow-up.

Clinic Team

Clinic personnel work with family physicians as well as endocrinologists to assist the patients they see. They also have a close relationship with the Extra-Mural Program in Sussex.

Internal Team Members:

Under the Diabetes Education program there is a registered nurse and a part-time administrative assistant. The dietitian is not technically under the "Diabetes Education" program but under Clinical Nurtrition Therapy.

External Team Members:

A physiotherapist who participates in the classes and is available for consultation as needed.

Team Structure:

The Diabetes Education staff report to an administrator at the Diabetes Education Centre at Saint John Regional Hospital. The dietitian reports to an administrator at the Clinical Nutrition Therapy program at the Saint John Regional Hospital.

Co-Morbidities:

The team supports co-morbidities through education on the impact of blood sugar levels as well as goal setting and assisting with healthy lifestyle interventions. They review lab work and blood pressure and encourage patients to listen to their doctors' advice. Foot exams are performed on an annual basis to screen for poor circulation and loss of sensation in diabetes clients. The team meets periodically with an endocrinologist and sometimes accompanies patients to their appointments with that doctor. They also encourage their clients to see an optometrist or ophthalmologist regularly.

Self-Management

Role of the Patient:

The clinic views the patient as the major contributor. *"We are just guides. Without patient agreement, involvement and participation we can't get anywhere."* The nurse and dietitian consult with the patient and together they set a few goals for the patient to work on before the next appointment.

The no show rate at the clinic is approximately 5%. They will make reminder calls to patients who ask, but do not have enough personnel to call to remind every patient.

Professional/Patient Relationship:

The clinic gets a lot of positive feedback from clients. They do patient satisfaction questionnaires periodically and have had overwhelming positive feedback.

Patient Education:

The clinic aims to establish a good baseline about what diabetes is and how it affects the body so patients can understand why they make the recommendations they do. After trying different teaching techniques, they determined that they get the best participation and response with lecture-style classes. In addition to the nurse educator and dietitian, a physiotherapist comes to classes to show clients how to incorporate exercise into their lives pleasantly and easily, without a lot of equipment.

Key Services Offered:

The clinic offers one on one appointments and classes and encourages patients to contact them if they have any concerns. Telephone interviews are arranged for those who find it difficult to attend in person.

Proportion of Patients Controlled:

Control is defined as healthy blood sugar levels and a low complication risk. There is no fixed method for determining the percentage of patients who fall into this category. This is assessed on an individual basis.

Availability and Meeting Demand

The clinic is open from 8 to 4 Monday to Friday. There is no formal setup for after hours. It is not an emergency service, but there is an ER department at the hospital.

Missing Services:

The clinic may need to get more staff to deal with increasing demand for services. With new referrals every day, the current staff finds it difficult to keep up with paperwork, surveys and statistics. Also, the client population would benefit from the services of a social worker and psychologist.

Wait Times:

For first-time patients, the wait for an appointment is usually about 1 month, unless the case is urgent. Patients who are referred in the middle of a month may need to wait for the next set of classes to start. Existing patients are generally seen every 3 to 6 months; sooner, if needed.

When patients arrive at the clinic for a scheduled appointment there is generally very little waiting time. Scheduled patients are usually seen within 10 to 15 minutes. Due to the workload patients are strongly urged to schedule appointments as it is difficult to see those who arrive unscheduled.

Methods of Offering Service:

Services are offered in person. For some people, particularly low-income patients, phone or email may be used to replace one on one meetings; however, face-to-face meetings are preferred so sugar levels and blood pressure can be checked, foot exams completed, problems addressed and questions answered.

Most patients are seen by appointment, but the team does its best to accommodate people who drop in or are coming to the hospital for some other reason.

Distances:

The travel time for the furthest patients is 1 hour; the average travel time is 20 minutes.

There is no public transportation in the area. Taxis are available, but many patients can't afford them. Many patients depend on family or neighbors for transportation, so the clinic tries to be flexible in terms of scheduling appointments.

The clinic has no distance services other than outreach programs.

Satisfying Patient Needs

Satisfaction Levels:

The clinic does client satisfaction questionnaires periodically and the results have been positive for the most part. When patients don't seem to be improving, they are asked if they are benefitting from the service or want to opt out; the choice to opt out is rare. The only complaint the clinic has had concerned space for classes; that issue has been addressed.

What Makes the Clinic Special:

The clinic believes what makes it special is the "small town" character of the facility and the service, which makes patients feel like they are part of the family and, as a result, a positive therapeutic environment is created. *"In our clinic we work together very well, and we all love what we do".*

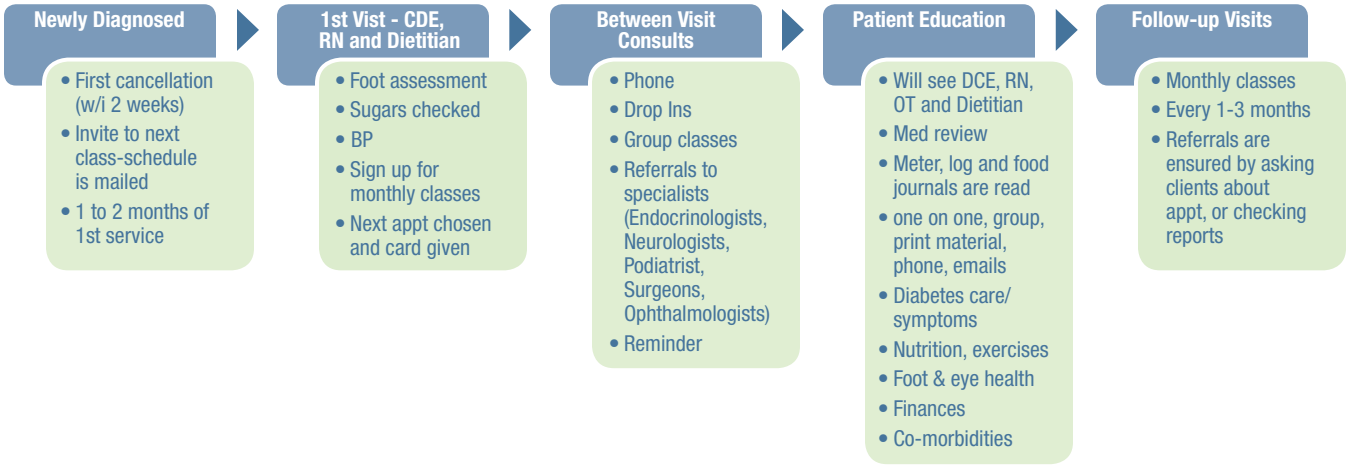
Dealing with Special Needs:

The clinic has two bariatric chairs and chairs without arms to increase patients' comfort and they have arranged furniture so there is space for a wheelchair. There is a variety of devices available to allow for different patient needs regarding blood sugar testing and/or insulin administration.

Dealing with Cultural Differences and Literacy:

There are large German and Dutch communities in the area, but the clinic finds that these patients usually bring English-speaking family members with them so the language issue has not been a problem to date. To deal with literacy problems, the team keeps things visual and uses pictures.

Patient Feedback



Visiting Clinic: The patient has visited the clinic for 2 ½ years.

Rating of Service: 10 out of 10. *"They are courteous and respectful…very comfortable environment there."*

Role of Patient and Clinic: The patient and clinic agree on their respective roles. *"My role is to follow instructions about what I should be doing, eating healthier, and exercising more. Their role is advising on my blood results and discussing with me what I should be doing."*

Patient Education: The patient is satisfied with the education the clinic has provided and reports there is a lot of literature available at the clinic. *"Information is number 1. If it wasn't for the stuff they tell me, my sugars wouldn't be as good and we are improving."*

Accessibility: The patient lives about 35 km away and finds the location of the clinic very convenient.

Expenses: The only additional expense mentioned by this patient was gas to get to the clinic.

Satisfaction and Complaints: The patient has no complaints about the clinic and seems highly satisfied. *"They really look out for me."* There is another clinic that might be closer, but the patient chooses to stay at Sussex: *"I like interacting with them."*

Charlotte County Hospital

4 Garden Street
St. Stephen, NB
E3L 2L9
T: 506.465.4444

Clinic Type:

Small Hospital

Clinic Profile

The Diabetes Education Clinic is in Charlotte County Hospital, which is located at 4 Garden Street in St. Stephen.

The clinic serves all of Charlotte County, St George, and the islands. The clinic has been in existence for over 15 years. Recent changes include a reduction in the clinic hours, from four days a week to three, and the elimination of a breast-health clinic.

Clinic Mandate

The clinic's mandate is to accommodate patients so they can live the best possible quality of life with diabetes.

Meeting Population Needs

The clinic currently has approximately 500 active patients and sees from 7 to 9 patients each day for one on one appointments, with perhaps 3 inpatients per day. The clinic receives 50 to 60 calls on a monthly basis from people who need to make insulin adjustments.

Most of the patients are older, on fixed or low income, and have financial burdens outside of diabetes. A handful of the clinic's patients are illiterate. Most patients are Type 2 diabetes, some are gestational and a few are Type 1. 95 to 100% have co-morbidities by the time they are seen.

New referrals attend introductory classes which cover Type 2 diabetes management, emotions and general questions. The classes are followed by a one on one meeting about one month later. Patients attend the foot clinic, have their blood sugars and blood pressure checked, update their records and discuss their financial situations.

After that, patients are generally seen once every 3 months, but new patients or patients who need insulin adjustments may be seen weekly.

While the clinic also offers drop in services and samples, it does not provide insulin pump training.

Levels of Prevention

Primary (disease prevention, health promotion):

The clinic does not provide pre-diabetes education or screening. *"This would be nice to do…by the time they get to us, they have diabetes."*

Secondary (screening and early diagnosis):

Most of the clinic's work is related to secondary prevention through one on one appointments, phone calls and monthly classes.

Tertiary:

The clinic is quite busy with this because it is located in a hospital and the clinician is often called on for consultations about everything related to diabetes, especially titration consults.

Ensuring Follow-up:

Every time a patient comes to the clinic they get a follow-up slip with the next appointment date and "homework". The clinic tries to ensure follow-up by reminding patients about their appointments. They make 3 attempts (2 calls and a letter). If the patient doesn't show up three times and doesn't respond, the clinic notifies their doctor that they are not complying.

Clinic Team

The clinic has a close relationship with the Extra–Mural Program to deal with patients who are housebound.

Internal Team Members: One clinician and a secretary.

External Team Members: The team works in partnership with a dietitian who is not part of the clinic.

Team Structure: The team reports to an administrator who is 1.5 hours away.

Co-Morbidities: *"We talk about it all, all co-morbidities because diabetes is affected by everything. We talk about kidney function, blood pressure, neuropathy, foot health and endocrinology."* The clinician tries to make referrals, but finds it is difficult for patients because of distance, cost and wait times.

Self-Management

Role of the Patient: The clinic's goal is for patients to take action on their insulin, do self-adjustments when ready and to make a change before the next visit. This is usually a small goal such as getting foot care done or eating one fruit or vegetable with each meal. The no-show rate is about 10 patients a month, depending on weather conditions. The clinic provides patients with next appointment slips at each visit and makes reminder calls.

The clinic finds that it's a struggle for patients to bring in their medications, meters, log books and/or food journals. Diabetes is so prominent in their population/ community that they may need to start discharging those who are noncompliant because services are in such high demand.

Professional/Patient Relationship: Due to the rural nature of the clinic, they find themselves in the role of *"a one stop shop for everything related to diabetes."* Its professional role as a diabetes management clinic is difficult to support because there are virtually no other resources available in the area: patients do not get the additional or specialist care they need, so they come to the clinic with issues that may not be considered part of diabetes management.

Patient Education: The clinic provides brochures, print material, phone calls and some email dealing with everything related to diabetes: nutrition, exercise, foot health, eye health, finances, etc. Because word-of-mouth is powerful in a small community, the clinician has developed a strong relationship with the pharmacy and the clinician has participated in meter demonstrations done at the pharmacy.

Key Services Offered: The clinic offers one on one appointments and monthly classes.

Proportion of Patients Controlled: A1C levels show that the clinic does a good job. *"I think patients do quite well, they do better if I stay on top of them."*

Availability and Meeting Demand

The clinic is open from 8 to 4 Tuesday to Thursday.

Missing Services:

The clinic feels restricted by the limited number of hours it is open and believes its patients don't have access to a full range of services because of the rural location. Patients who need to see an endocrinologist or ophthalmologist must go to Saint John. *"The wait list could be a year for endocrinologists…mental health referrals are desperately needed."*

Wait Times:

For first-time patients, the waiting time for a one on one appointment can be one to two months, unless their case is urgent or there is a cancellation. In terms of follow-up visits, patients can attend the class every month. Otherwise, given the resources restrictions, the wait is about 1 to 2 months for a one on one meeting. *"Ideally it would be more often but we just don't have the time; more clinic hours are needed."*

Methods of Offering Service:

Services are offered in person, by phone and sometimes via email. While scheduled, unscheduled, in person, telephone and email consultations are all available, unscheduled patients are hard to accommodate because the clinician sees patients every half hour.

Distances:

The travel time for the furthest patients is 45 minutes; the average travel time is 30 minutes. There are no buses in the area, so most people drive. Some take taxis. The clinic offers no distance services, but if a patient can't get to the clinic, the clinician will do a phone consultation.

Satisfying Patient Needs

Satisfaction Levels:

The clinic has never done a survey but believes that most patients are satisfied and that it does the best it can with the resources available. There has been one complaint in the last three years. *"Most want to be seen more often, which is not possible with only being open three days week. Most are pretty good and eventually realize they have to self-manage."*

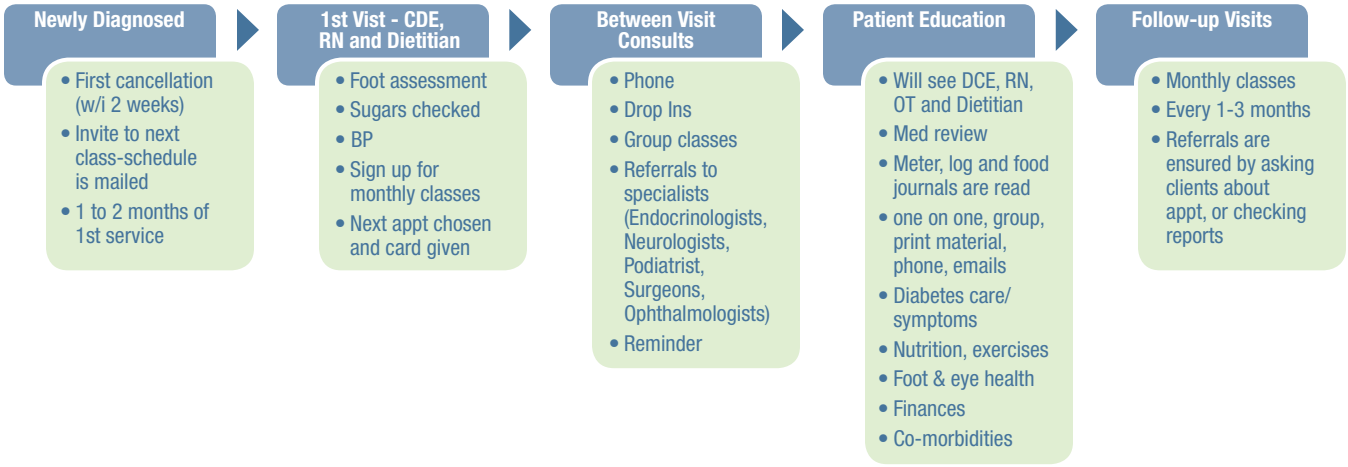
What Makes the Clinic Special:

Because the clinician is *"essentially the primary care giver for diabetes,"* she is familiar with each patient's issues, has a good rapport with them and provides individualized attention.

Dealing with Cultural Differences and Literacy:

Cultural differences are not usually an issue at the clinic. The clinic deals with literacy issues through phone calls, assistance of a spouse or the Extra–Mural Program.

Patient Feedback



Visiting Clinic: The patient has visited the clinic for 5 years.

Rating of Service: 9.5 out of 10. *"The girls wake me up and tell me to take care of myself, and they have a way about them."*

Role of Patient and Clinic: The patient believes that the main service the clinic provides is knowledge and agrees that she needs to take action herself. *"My job is to do what they tell me to do, monitor my sugars, get exercise, and stay away from the sweets. Their job is to check my numbers and educate me about potential risks if I don't do a better job."*

Patient Education: The patient attended a class on food groups and says she's learned a lot through phone consultations and one on one meetings with the clinician.

Accessibility: The patient is only 5 minutes from the hospital and feels confident of getting the attention she needs. *"They value their clients so much they will call you back right away, or schedule a phone call."*

Expenses: The biggest expense for this patient is strips and insulin. *"Strips are ridiculous, it's highway robbery."*

Satisfaction and Complaints: The patient has never had a complaint and is clearly pleased with her experience at the clinic. *"The clinic is definitely a good investment…when you leave you feel good about the visit and inspired to look after yourself."* While she thinks evening or early morning sessions would be a benefit, she understands the pressures of time and resources. *"They do as much as they can, as much as they are allowed to, with the amount of time they have."*

Upper River Valley Hospital

11300 Route 130,
Waterville, N.B.
E7P 0A4
T: 506.375.5900

Clinic Type:

Small Hospital

Clinic Profile

The clinic is located in the Upper River Valley Hospital which is located just off Highway 2 in Waterville. The clinic primarily services the towns of Woodstock, Hartland, Florenceville-Bristol as well as a number of small villages in the area. Overall, it includes a catchment population of approximately 45,000 people. It has been in existence for approximately 6 years and previously was in two hospital locations. The major changes that resulted from this amalgamation are more collaboration in care and more services in one location. The clinic benefits from the expertise of an endocrinologist.

The clinic is in a modern full-service hospital. It is the first full-service hospital in Canada to be recognized as a leader in energy and environmental design.

Clinic Mandate

In collaboration with the primary care physicians and other team members, the mandate is to help people with diabetes live well. *"It is a chronic disease so you and the patient are working together for a long time."*

Meeting Population Needs

The clinic has had 563 new patients this year and estimate that they see approximately 2,000 to 3,000 patients each year. People are seen at different intervals depending on need, but most are seen at least every six months. They estimate 4,000 to 5,000 visits per year plus 500 to 700 phone calls that would replace the need for a visit.

Notable demographics are that most of their clients are in their 50s or 60s. They also note an increase in younger women with gestational diabetes; at times seeing as many as 6 a week. They attribute this increase to tighter guidelines and an increase in referrals.

The typical path for a new patient is to first attend an introductory class that is structured as a conversational class. This class includes meal planning, label reading, what diabetes is and how to manage blood sugars. *"We are teaching basic survival skills".* Following that class, most follow-up is conducted in a one on one setting that is based on what they feel the patient needs.

They do offer insulin pump training and pre-diabetes education/screening.

Levels of Prevention

Primary (disease prevention, health promotion):

Most work at this clinic is at the tertiary and secondary levels, but there is some at the primary level. They assisted with screening and blood samples at the First Nations reserve in Woodstock that was designed to identify health issues. They do get referrals to a dietitian from people without diabetes and their healthy eating class is available to anyone. Members of the team do some volunteer work in the community with supermarkets. There is a new health coach in the community who is not directly involved with the clinic, but who shares general health tips with them. They feel the clientele for this health coach is increasing. The coach helps with goal setting and managing a healthier lifestyle.

Secondary (screening and early diagnosis):

Pre-diabetes classes and one on one appointments with patients with pre-diabetes. The general practitioners refer patients regularly. The clinic is diligent seeing patients with pre-diabetes so that it can be controlled as early as possible.

Tertiary:

Most of the people visiting the clinic are diagnosed with diabetes (approximately 90%) so most of the clinic's work is at this level.

Clinic Team

The patient's general practitioner usually makes a referral to the clinic and continues to be the patient's caregiver, directing the care in the long-term. It is the general practitioner who refers to necessary specialists. The diabetes clinic can and does suggest care and works with the patient and the physician.

Internal Team Members:

Members include: an endocrinologist, a full-time dietitian, two part-time nurses and an administration support person. The endocrinologist is a fee-for-service physician, but is easily accessed by the clinic and offers advice on clinical guidelines.

External Team Members:

Members include: social workers, occupational therapists, physiotherapists, psychologists and an ophthalmologist. As noted earlier, an indirect external team member is the health coach that has recently integrated the community.

Team Structure:

They operate as a team even though the dietitians report to one manager and the nurses to another. They work together and have regular meetings. They are also part of ambulatory care and do collaborate with other clinics in the hospital, but the only formal lines of communication are at the manager level.

Team Qualifications and Education:

There are two certified diabetes educators (and one who will certify shortly). This certification is required every five years. They all have their professional qualifications. One of the educators is certified in pump training. One of the nurses has written the provincial insulin adjustment certification. They benefit from regular webinars. There are provincial and national diabetes conferences. As with other clinics, the provincial ones are fairly easy to get permission to attend while the national one is more difficult.

Guidelines:

The clinic follows the general practice guidelines of the Canadian Diabetes Association.

Co-Morbidities:

Clinic staff is aware of other conditions, but not responsible to deal with them.

Communication:

They have electronic files and all team members can access these files. In fact, they can access any of the patients' records, which they feel is an advantage in getting a more complete picture of each patient. The endocrinologist will also send any notes that are requested, which are also entered into the file. Referrals from the general practitioner are included. Some physicians send a thorough referral and others are working to improve the detail in their referrals. They communicate through the electronic filing system. They do not do formal rounds, but speak directly with each other to communicate about their patients' needs and progress. They have focus notes which are shared with the endocrinologist and the general practitioner. If there is more urgency for the patient to have something done right away, they will ask the patient to ask the general practitioner specifically for an appointment and/or phone the general practitioner's office and speak to the doctor.

Self-Management

Role of the Patient: : Clinic staff expect the patient to take ownership of their own care. They do not automatically book people into appointments. They mail a letter to the patient and copy the physician and then the patient calls in and books an appointment. The no-show rate is approximately 7%. They do not do reminder calls the day before.

Role of the Clinic: They see their role as coach and a group offering guidance. There is a walk-in clinic every second week where there is an education topic about some aspect of diabetes care, with a blood pressure and blood sugar check performed on everyone who attends.

Patient Education: The goal is to have patients tell you what they have learned and be able to put it into practice. They offer classroom and one on one education. They have various teaching tools such as plates, models of blood cells, posters, flip charts and conversation maps. The education includes the patient and family members. General members of the community can be involved in education as well.

Key Services Offered: The personnel feels that the key thing they offer is support when the patient needs them.

Proportion of Patients Controlled: Estimate that only 5 to 10% of the patients are doing really well, but that about half are doing reasonably well. For the ones that don't come back, they are not sure if this is because they are doing well or doing poorly. One nurse is available out of hours and offers cell phone contact to people who are newly on insulin.

Availability and Meeting Demand

Missing Services: They would like to be able to have more time with the patients they have and more time for more patients. They describe themselves as "barely caught-up" when it comes to demand versus services offered.

Hospital: They do see patients in hospital before the patient goes home. There was some friction here in that the request from the hospital floor always seems to come urgently with the pressure that the patient is going home quickly. This makes it difficult for the diabetes clinic staff to see the patient from a scheduling perspective and they feel pressure because until they see the patient, they are potentially tying up a bed that could be used for someone else.

Wait Times: Patients can be scheduled into an introductory class within a month. An appointment with a dietitian might take 2 to 3 months. Urgent patients are accommodated however.

Methods of Offering Service: Mostly in person and by phone. Cell phone number is given for after hours contact when people are newly on insulin.

Distances: The clinic is in a community hospital. They service people who live as far away as approximately 100 km. There is no public transportation and a cab from Woodstock can cost $30. When appointments are being scheduled, they do try to take driving distances into consideration. They will try to schedule appointments around other appointments the patient might have and they try to schedule all of their appointments so they can be made in one visit.

Expenses: Testing strips are the expense that is most commonly mentioned when it comes to difficulty affording certain aspects of diabetes. The insulin itself is the next major item. They note that the drug companies have compassionate programs, which are good, but generally only available for six months.

Satisfying Patient Needs

Satisfaction Levels: Horizon Health Network surveys for general satisfaction levels and they have surveyed in the past specifically for diabetes, but have not for some time.

Dealing with Cultural Differences and Literacy: The clinic does have access to translators and cultural training. They will draw pictures if necessary. They will involve family members who can communicate with the patient (example of an elderly Vietnamese woman who brings her son or grandson to appointments).

Patient Feedback

Visiting Clinic: One patient has been visiting the clinic for 3 to 4 years and one for 6 months. They have been followed by their family doctor for several years.

Rating of Service: 9 and 8.5 out of 10. *"They do actually care". "I am feeling better".*

Role of Patient and Clinic: Agree with the clinic that the role of the patient is to be able to manage their own health. *"Guide me where I am wrong; educate me". "They advise me in an encouraging sense".*

Patient Education: Both confirmed the types of education offered. Noted that much of it was one on one and one patient offered that he would like to know more about what others are experiencing, what he would get in a classroom setting.

Accessibility: Neither patient has issues with getting to the clinic or being able to afford travel or costs. Both felt they could get an appointment within a day or two if they needed it. Both mentioned being able to phone in if there was something urgent.

Satisfaction and Complaints: There is clearly a strong relationship between patients and those in the clinic. Both noted that they are regularly asked how they are doing when they come to the clinic. Both felt they would say something to the staff if there was something they were concerned about.

Hotel-Dieu of St. Joseph Hospital

10 Woodland Hill
Perth-Andover, NB
E7H 5H5
T: 506.273.7100

Clinic Type:

Small Hospital

Clinic Profile

The Perth-Andover clinic is located within the Hotel-Dieu of St. Joseph hospital, 10 Woodland Hill, in Perth-Andover, NB. The clinic serves the Village of Perth-Andover, Tobique First Nation and its surrounding communities such as, Bath, Florenceville, Plaster Rock and has been in existence for over 30 years. There have been two major changes over the last 5 years: the clinic had to re-locate following a flood and it started its diabetes team clinic.

Clinic Mandate

The clinic has no formal mandate.

Meeting Population Needs

Before the flood, the clinic had about 2000 charts; now they are at about 200. The diabetes clinic has 60 patients on their caseload and sees them in a 3 to 4-month rotation. The clinic also receives about 5 phone calls a week for questions about blood sugars.

The clinic serves a population that is primarily middle aged with Type 2 diabetes. Patients have an average income and education level. The clinic also provides support for patients with Type 1 diabetes, but these pediatric patients start their treatment in Fredericton.

80% of clients have co-morbidities.

Every new referral sees the nurse and dietitian, has a foot assessment and is referred as needed. Patients who are just starting insulin are seen weekly until their sugar levels are stabilized. Patients who are doing well are then seen every three months.

The clinic provides complete foot assessments, blood sugar checks, whole lab profile, blood pressure checks and apnea and activity screening. If needed, they refer patients for smoking cessation via the respiratory therapist. They conduct a monthly diabetes support group.

The clinic does not provide insulin pump instruction.

Levels of Prevention

The clinic provides pre-diabetes education, primarily through its dietitian. Pre-diabetes screening is done by the patient's doctor.

Primary (disease prevention, health promotion):	The clinic runs a program throughout the year that's open to the whole community.
Secondary (screening and early diagnosis):	The clinic does not offer secondary levels of prevention.
Tertiary:	The clinic does see inpatient referrals.
Ensuring Follow-up:	The clinic follows up by speaking with the patient and receives reports when it has referred a patient. It has a few standing orders with doctors and the nurse can make referrals to an occupational therapist.

Clinic Team

Internal Team Members: A dietitian, a nurse and an occupational therapist.

External Team Members: The team consults with a physiotherapist, a social worker and a respiratory therapist.

Team Structure: The team records their consults separately, and faxes them to the patient's doctor; they also provide a summary every 3 months.

Self-Management

Role of the Patient: The clinic follows the guidance of the patients in terms of what they are willing to do and believes their job is to customize what the patients feel they need. Patients sometimes sign a contract, especially if they want to lose weight, but contracts are not done regularly.

The no show rate is low (5%).

Professional/Patient Relationship: The clinic has a "fairly good" reputation and patients appreciate the services because the clinic is accommodating and serves as a "one stop shop" in a rural area. *"I think it's friendly and relaxed, very supportive."*

Patient Education: The goal of patient education is to meet the patients' needs, whether reviewing new products, discussing substitutions or checking labels. The clinic incorporates visual education by using 3D models that patients can touch. They educate patients on carbs, label reading, different types of diabetes, how diabetes works, medications, diet and glucometers, etc...

Key Services Offered: Patient education and monitoring.

Proportion of Patients Controlled: Control is not where the clinic would like it to be, but they believe it may improve as patients become more involved in self-care.

Availability and Meeting Demand

The clinic is open from 7 to 4 Monday to Friday.

They have evening hours and early morning appointments and one of the clinicians provides her home and cell number so she is accessible on the weekend.

Wait Times:

While the wait time for new client appointments is about one month, the clinic schedules new diabetes clients sooner. For follow-ups, patients are scheduled regularly once every 3 months. Patients who have an issue that requires them to be seen sooner are generally seen within 2 weeks.

Patients who arrive at the clinic with appointments are usually seen on time; the maximum wait would be 10 minutes.

Patients who arrive without appointments are usually seen, even if it is a shorter visit.

Methods of Offering Service:

One on one consultations; monthly diabetes support program that is open to the community; phone consultations and email.

Distances:

The travel length for the most distant patients is 100 km; the average travel length is 25 km. There is no public transportation in the area. Patients drive themselves or get rides from friends or family. If distance is an issue, the clinic lets patients know if there are closer services and also works with Extra Mural.

Satisfying Patient Needs

Satisfaction Levels:

The clinic distributes surveys once a year; however, there are only a few closed end questions included. *"So we don't know if we are doing a good job, we don't measure, except for the verbal feedback we get. In a small community we hear one way or another, at the grocery store, from physicians, etc."*

What Makes the Clinic Special:

The clinic is special because of its access to the occupational therapist and the respiratory therapist and because it refers patients for actual treatment, not assessments. We deal with about 10 doctors and work well with them. Patients also appreciate the availability of early morning and evening appointments, as well as drop-in Wednesdays.

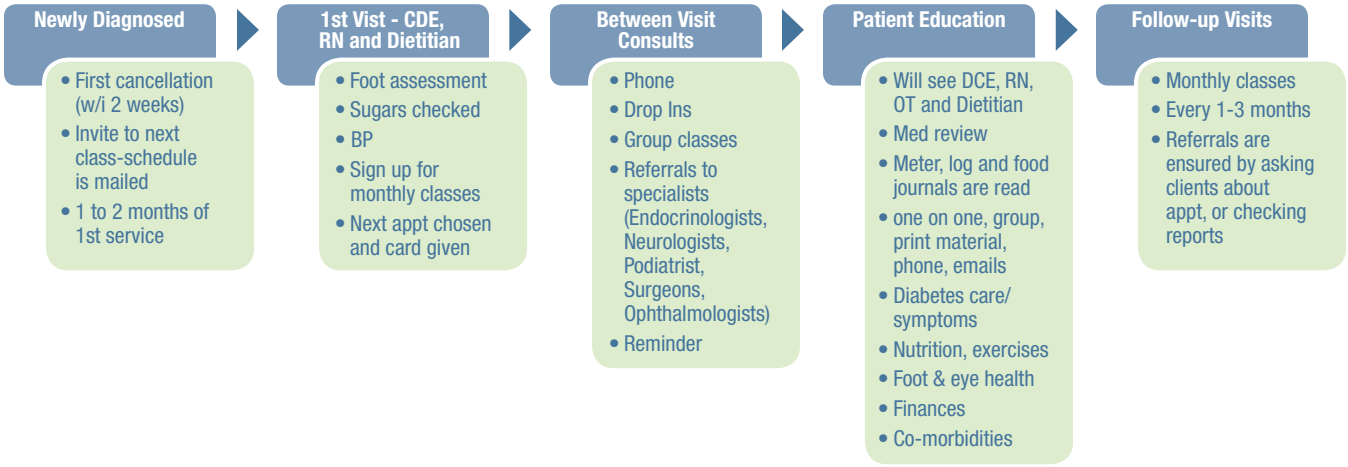
Dealing with Special Needs:

Most of the clinic's patients do not have too many mobility issues. For the visually impaired, the clinic has talking glucometers and uses larger print. Patients who are cognitively impaired usually come with a caregiver.

Dealing with Cultural Differences and Literacy:

The clinic staff is all English-speaking and the clinic does see Francophone patients. If a patient is unable to speak English, we have staff that are able to translate. There is an aboriginal population in the area which sometimes access our services as well as resources at Tobique Wellness Center located on Tobique First Nations.

Patient Feedback



Visiting Clinic: The patient has visited the clinic for 2 years.

Rating of Service: 10 out of 10. *"They are encouraging, motivating me to do what I do."*

Role of Patient and Clinic: The patient believes his role is to take his medication on time, exercise, and watch his diet. He describes the clinic as *"like walking into a pep rally, they really tell me how good I am doing, and looking, always encouraging."*

Patient Education: The patient is happy with all the education provided by the clinic. *"Pamphlets and books, one on one, and we can call anytime and get our answers right away."* While he has not attended any classes, he is aware of support groups and recipe exchanges.

Accessibility: The patient lives about 15 minutes away and finds the location of the clinic convenient.

Expenses: The only additional expense this patient has is about $6 to 7 for travel to appointments. His insurance card covers all medications.

Satisfaction and Complaints: *"They are concerned people; they genuinely want me to get better…the fact that I can reach them at any time."*

Oromocto Public Hospital

103 Winnebago Street
Oromocto, NB
E2V 1C6
T: 506.357.4700

Clinic Type:

Small Hospital

Clinic Profile

Oromocto Public Hospital is located at 103 Winnebago St. in Oromocto New Brunswick. The clinic serves Oromocto and the surrounding area and has been in existence for 10 or more years.

Clinic Mandate

The clinic is part of the hospital and sets aside one day a week to focus on diabetes.

Meeting Population Needs

The clinic has 200 patients and sees 6 to 8 patients on the day it devotes to diabetes.

The clinic's patients are all in their late 50s to 70s, and most are Type 2 or pre-diabetes. The clients are primarily working class and shift workers, with a few First Nations patients. About 80% have co-morbidities.

The clinic gets its new referrals from family doctors. Appointments are then made by mail through the hospital's central scheduling. New patients need to see both the nurse and the dietitian and are then usually seen two times a year.

The clinic's services are generally related to healthy eating, cholesterol education and blood pressure.

The clinic does not offer insulin pump teaching.

Levels of Prevention

Primary (disease prevention, health promotion): The clinic focuses mainly on primary care, with a nurse and dietitian providing pre-diabetes testing and education.

Secondary (screening and early diagnosis): The clinic does secondary prevention in terms of education about foot care, high blood pressure and cholesterol.

Tertiary: The diabetes clinic does not see inpatients, but on non-clinic days the dietitian does inpatient work.

Ensuring Follow-up: After a referral to a specialist, follow-up information is generally provided by the patient at the next appointment. Sometimes the doctor will call and sometimes the clinic receives a copy of the consult report.

Clinic Team

Internal Team Members: One nurse and one dietitian.

Team Structure: The team reports directly to the community doctors who made the initial referral.

Co-Morbidities: The clinic makes sure their patients understand the role all their conditions play in overall health and try to give them additional strategies beyond diabetes management.

Self-Management

Role of the Patient: The clinic expects patients to be active in the management of their diabetes; to see it as something serious, to try to make necessary changes, and to ask for help and support as needed. *"Our role is to give info and support but we cannot make them do it."*

On average, 30% of the patients are no-shows. Reminder calls are made by the hospital's central scheduling.

Professional/Patient Relationship: Usually the doctors indicate a few areas where the patient needs help and the nurse and dietitian may identify other areas while meeting with the patient. *"The patient can often tell where they can make changes in terms of lifestyle and they will often identify barriers."*

Patient Education: The clinic's goal is to give patients the tools and resources they need to cope with having diabetes and to show them the impact of activity and diet. For Type 2 diabetes, one on one sessions cover Type 2 guidelines, activity guidelines, portion control, healthy eating, cholesterol and high blood pressure education. They use food charts and food models to help with understanding.

Key Services Offered: The clinic offers one on one appointments.

Proportion of Patients Controlled: Results at the clinic vary depending on the patient's motivation and means. For patients with no drug coverage and low income, monitoring sugars is *"not something they can manage well."* For patients with food intolerances or allergies, increasing fiber is a challenge, which can interfere with their diabetes management.

Availability and Meeting Demand

The clinic is open from 8:30 to 4:30 on Monday, but patients are not scheduled past 3:30.

Missing Services: Being open only one day a week severely limits both the number of people who can be seen and the frequency of appointments. With 200 patients, it's a challenge to get patients into the clinic frequently enough. Some patients may only come in once a year. The dietitian aims to see patients with poor management or sensitive blood sugars once a month, but realistically may only be able to see those patients once or twice a year.

Wait Times: The wait list for new referrals is 6 to 7 weeks. Follow-up visits may be scheduled with a nurse once a month, but the clinic is presently 3 months behind. For the dietitian, the wait for follow-up appointments is about 6 months.

Patients who arrive at the clinic with an appointment are usually seen right on time. If patients arrive without an appointment, it is usually 30 minutes before the nurse or dietitian gets a moment for a short conversation.

Methods of Offering Service: Services are offered only in person.

Distances: The travel time for the furthest patients is 30 minutes; the average travel time is 15 minutes. There are no buses in the area, but taxi service is available.

The clinic refers patients to the Fredericton clinic for distant services.

Satisfying Patient Needs

Satisfaction Levels: The dietitian is required to conduct an annual patient satisfaction survey for her accreditation and scores 90% or higher.

What Makes the Clinic Special: The clinic tries to build a rapport with clients and personalize their approach to fit the needs of each client.

Dealing with Special Needs: The clinic is wheelchair accessible. Patients who are visually impaired or have other special needs bring family or caregivers with them to help.

Dealing with Cultural Differences and Literacy: Due to the area it serves, the clinic doesn't have issues with cultural or language differences. For literacy issues, they use food models and pictures as guides.

Grand Falls General Hospital

625 Boulevard Évérard H. Daigle
Grand-Sault, NB
E3Z 2R9
T: 506.473.7418

Clinic Type:

Small Hospital (in Hospital)

Clinic Profile

The Grand Falls Diabetes Clinic is located in the Grand Falls General Hospital, and is open to the public 3 days per week. The hospital serves a rural region, and geographically it serves approximately a 30 km radius. Patients visiting the clinic mostly travel from St-André, Drummond and Grand Falls, but may come from as far as St. Leonard, Perth-Andover or New Denmark (40 km). The clinic is associated with a regional diabetes case manager, and has been in existence for 10 or more years. With Perth-Andover and Plaster-Rock patients falling under the Horizon Health Network, the Grand Falls clinic sees a good number of cross patients.

Clinic Mandate

The clinic's mandate is to educate patients and, through information and knowledge, help reduce diabetes-related health complications. They believe most of their role/mandate is education (60%) and the rest (40%) is medical assistance.

Meeting Population Needs

The clinic feels the demand for its services has been growing over the past few years. They noted a growing number of "out of control" patients, complications and more advanced conditions. There is also an increase in the number of referrals and diabetes cases in general. There is a 2 to 3 month wait time for initial services at the clinic due to the large and increasing demand.

The clinic provided an estimate of 252 active patients, and about 30 on the waiting list for education. The department of health's count for 2011 was 263 patients. The demand is increasing.

The clinic's patients are often of lower socio-economic status and unemployed. They find most are inactive, sedentary, with obesity a common issue. Many are older adults over 50 years old. Low economic status impacts food choices, healthy eating and fitness levels, i.e. no gym access.

New patients are referred to the clinic by the region's physicians. Self-referrals are not seen as they must go through their doctors. The clinic also does in-patient visits - consulting with diabetes patients admitted to the hospital. Wait times for initial visits are 2 to 3 months, unless a patient is starting insulin, in which case the diabetes nurse will shuffle things and ensure the patient is seen within 1 month. Alternatively, the clinic will suggest patients visit the case manager in their physician's office. *"Ca va plus vite si on passe par Linda." ("It's faster if we go through Linda".)*

If the patient is a good candidate for group sessions, he/she will then be called in for a 3.5 hour group session within 3 months of the first visit; which will be facilitated by a nurse, social worker, pharmacist and dietitian. A second group session is scheduled one week later, and the third group session is scheduled three months later, more as a follow-up and to address questions and/or concerns.

Follow-up appointments once the 3 group sessions are finished are scheduled at 6 month intervals. The clinic schedules the next appointment for the patient before he/she leaves the clinic. If urgent needs, complications or questions surface in the meantime, patients are told to call the clinic. Diabetes nurses deal with a good number of call-ins and unscheduled visits from patients who want to discuss their blood sugars, or who require insulin adjustments. *"La plupart du temps on est on overtime… y'en a qui vont nous appeler, ou qui arrivent sans rendez-vous avec des copies de leur glycémie." ("Most of the time we are on overtime… some will call us, or they arrive without an appointment with copies of their blood sugar results".)*

The case manager visits doctors' offices in the Grand Falls region. She has solicited and is visiting most all doctors' offices in the region, and visits each office once per month. Her role is to extend the services of the clinic to non-compliant patients who refuse to visit the clinic but can be reached through their doctor's office. She consults with the patient and in collaboration with the doctor can influence timely services such as referrals or prescription changes.

The clinic does not offer insulin pump teaching or treat children with diabetes. Pump and pediatric patients visit the diabetes clinic at the Edmundston hospital.

Levels of Prevention

Primary (disease prevention, health promotion):

The clinic does not do any disease prevention or health promotion work into the community, with the exception for school visits in the fall to educate teaching staff in schools with children with diabetes.

Secondary (screening and early diagnosis):

Screening and early diagnosis is not the responsibility of the clinic. They rely on doctors for this. The dietitian does see pre-diabetes patients referred by their doctors, but not through the diabetes clinic.

Tertiary:

This is the most important level of service for the clinic as a whole. The clinic follows-up with diabetes patients to help them manage their disease and prevent complications through education.

Ensuring Follow-up:

The region does count a good number of non-compliant patients, which is where the case manager's role comes in to fill the gap. As for patients interested in managing the diabetes and who do attend the clinic, follow-ups are a key service of the clinic. All patients are followed-up at least twice per year, every 6 months, depending on their management levels. Telephone follow-ups for concerns or insulin adjustments are also very common.

Clinic Team

Internal Team Members:

The clinic's team is composed of a diabetes nurse, a second diabetes nurse in training, a case manager, who visits doctors' offices, and one dietitian. The case manager was preparing to write her CDE exam at the time of the interview. The clinic also has Dr. Pelkey, an endocrinologist, as part of the internal team, who visits the clinic and diabetes patients one day per month. Dr. Pelkey is stationed in Waterville.

External Team Members:

External team members include a pharmacist and a social worker, who work with the team during group sessions, and who can be called-upon if needed. The clinic may also provide patients access to foot-care nurses.

For other specialist care, such as mental health or ophthalmology, the clinic's nurses will make recommendations to the family doctors but will not make the reference themselves. They can provide patients with names and contact numbers of foot-care nurses if they see a need, but patients who do not have insurance are not always able to cover the fees. The clinic will help make the link with mental health, the New Brunswick Drug Plan, gyms, walking groups, etc. The clinic will refer patients to the Extra-Mural Program if they see a need for home care.

Team Structure:

The team works as one, with no one really assigned as the clinic's director. Linda, the diabetes nurse, functions as a leader most of the time, internally at the clinic. Beyond the clinic, as found in many hospitals, the hierarchical structure is split, with nurses reporting to the chronic diseases manager, though there is currently no one in this role, and the dietitian reports to the managing dietitian at the Edmundston hospital. The team works with the Edmundston and Saint-Quentin clinics in an information/learning-sharing capacity. They meet together once each quarter to discuss developments at their respective clinics and diabetes in general. *"On est tous sur la même page, pas de chef, ou de coordonnatrice". ("We are all on the same page, no boss or coordinator.")*

Co-Morbidities:

Most patients have co-morbidities, including Chronic obstructive pulmonary disease (COPD), high blood-pressure, and high cholesterol. *"C'est tout rattaché ensemble." ("It's all linked together".)*

Communication:

Communication between team members is mostly informal discussions and phone calls. Communication with Dr. Pelkey with regards to patients is done by fax and other doctors by inter-office mail, or phone calls if urgent. Regular mail is used to send information to doctors within the Horizon Health Network.

Self-Management

Role of the Patient:

The patient is responsible for controlling and managing their diabetes. They are expected to use the tools and information received and become independent in the management of their health. *"De venir aux rendez-vous, de se prendre en main, de prise en charge, d'utiliser leurs outils". ("To come to their appointments, to take responsibility for themselves, to take charge, to use their tools".)* The clinic's role is to put patients in charge of their own health through education and empowering them with self-responsibility.

The clinic deals with some no-shows for appointments, which is estimated at about 2 per month, particularly in the winter. No-shows are more common for group sessions because of the time commitment and many patients work. The clinic re-schedules no-shows. To minimize no-show rates, patients are called with a reminder 2 days prior, a task assumed by the ambulatory care receptionist.

Professional/Patient Relationship:

The clinic focuses on helping patients take charge of their own health. They help them become independent, particularly with insulin adjustments. *"C'est leur responsabilité d'apporter le contrôle. On leur donne des outils dans le fond". ("It's up to them to gain control. We simply provide the tools to do so".)*

Patient Education:

The goal of patient education is to inform patients about the basics of diabetes, and its impact. Education sessions are scheduled following the initial consult. Patients who are deemed good candidates for group sessions are scheduled for 3 sessions, and then follow-up visits. Group sessions occur each 2nd and 3rd Wednesdays at the clinic. The first session covers diabetes basics, the second discusses complications and the third is more of a follow-up and answers to questions. Group education is structured much in the same way it is at the Edmundston clinic, with the first two group sessions scheduled back-to-back, and the third one held 3 months later.

Tools and resources often come from pharmaceutical reps and some from the hospital itself. The clinic also relies on resources and information from the Canadian Diabetes Association and Health Canada

Key Services Offered:

Clinic staff goes beyond its mandate to help accommodate patients. They will work outside scheduled hours to provide more urgent/immediate services, and will act as a reference point for patients by suggesting and pointing to a number of services in the community that might be helpful for them. They focus on following-up with all patients, and many non-compliant patients are now being seen by a team case manager at doctors' offices in the region. They feel they make an impact on patients' lives by educating patients on the complications of diabetes. They use films and lots of visual materials.

Proportion of Patients Controlled:

The clinic believes maybe one-half or maybe less of their patients are actually in charge and have good control of their diabetes. It is the clinic's philosophy that patients should continue to follow-up with the clinic team, even if only once per year, for motivation and support and continuous control. *"On ne peut pas ne jamais les voir de nouveau. C'est une motivation que t'as besoin de continuer, de les encourager". ("We can't never see them again. It's a motivation that we need to keep providing, encouraging them".)* In assessing how well patients are doing, the clinic will use A1c levels as a basis.

Availability and Meeting Demand

The diabetes clinic is open 8 to 4, only 3 days per week, and has a significant backlog of new patients. Staff has made the request to the hospital for increased clinic hours but has not been granted them due to limited budgets. At the time of the interview, in May, 2013, the clinic was seeing patients referred back in November, which represents a 5 month wait. Staff, particularly the dietitian, works beyond their scheduled hours. *"Je les slide à gauche et à droite, je vais même les voir à la clinique de nutrition." ("I slide them in left and right, I even go see them at the Nutrition Clinic".)*

Missing Services:

Patients are sedentary, non-active and have little access to fitness facilities. The clinic feels this is a key missing element in disease management.

Wait Times:

Wait times for initial appointments are 3 to 4 months. Urgent cases will be seen more quickly, within one month. The case manager can help with the caseload by visiting patients at their doctor's office. Many follow-up appointments are done over the phone.

Methods of Offering Service:

The clinic does a large amount of telephone visits - 36 telephone visits during the month before the interview - in addition to the individual consults. They use group sessions to maximize the number of patients that can be seen each month.

Distances:

The maximum travel time for patients is 20 to 25 minutes, and the average travel time is approximately 15 minutes. There is no public transportation available, and many patients rely on friends or family to bring them.

Parking:

Parking at the hospital is free of charge. Access for patients who drive is not an issue. The hospital is centrally located and is familiar for most.

Other Barriers:

Low income is a barrier to care/services in the region. Patients who do not have insurance coverage can apply for compassionate care, but this required a lot of paperwork. Economic difficulties are a barrier to adequate amounts of test strips, healthy food and fitness.

Many residents of the Grand Falls region have unfavourable opinions about the Grand Falls hospital in general, which might explain the resistance by some to visit the clinic at the hospital.

Satisfying Patient Needs

Satisfaction Levels:

The clinic distributes evaluation questionnaires for group sessions and results show that patients are satisfied, feel more secure and are grateful for having a place to go to with questions and concerns. No other satisfaction measure is formally administered. For some patients, a key concern or cause for complaint is the wait time, but few express it.

What Makes the Clinic Special:	The clinic focuses on patient follow-up and believes patients need to be reminded from time to time, regardless of how they are doing.
Dealing with Special Needs & Low Literacy:	The clinic is wheelchair accessible. During the initial visit, the clinic staff will assess whether a patient is a good candidate for group sessions, or if he/she should be seen individually. If a patient has a learning difficulty, low literacy or other impairment, individual sessions will be scheduled instead. Staff will use pictures and accommodate on an as-needed basis. In terms of language, the region is quite bilingual, and the staff is able to accommodate both French and English without issues. No other cultural barriers were noted.
Family Encouraged:	Patients are told or encouraged to bring family members/spouses with them to their visits and a good number actually do. The clinic welcomes it.

Hôtel-Dieu Saint-Joseph de Saint-Quentin

21 Canada Street
Saint-Quentin, NB
E8A 2P6
T: 506.235.7109

Clinic Type:

Small Hospital

Clinic Profile

The Saint Quentin Diabetes Clinic is located in the Hôtel-Dieu Saint-Joseph de Saint-Quentin. It draws patients from a wide rural region, some as far as 40 km away in Saint-Jean-Baptiste. The communities served are Francophone, most coming from either Kedgwick or Saint Quentin. The region's physicians have their offices at the hospital, and so services are centralized. The clinic is open only on a part-time basis and is associated with the Edmundston and Grand Falls clinics. All function in similar ways and have similar processes. The clinic has been in existence for over 25 years, since 1988.

Clinic Mandate

The clinic helps patients acquire all information needed to successfully self-manage their condition without the clinic, when at home on their own. The clinic's ultimate goal is for on target patient results such as lab work, blood tests, blood pressure, A1c's, and cholesterol.

Meeting Population Needs

At the time of the interview, the clinic had 383 diabetes patient files. The Department of Health's count for 2011 was 332 patients.

The clinic serves both Type 1 and Type 2 diabetes patients, children and pump patients. Most type 2 patients are older adults over 55 years of age. The clinic also serves glucose-intolerant patients, pre-diabetes patients and gestational diabetes patients.

New patients are essentially referred to the clinic by the region's physicians. Many of these physicians have their offices at the Hôtel-Dieu Saint-Joseph de Saint-Quentin, unless they are based in another community. Wait times depend on the patient's situation. The diabetes nurse will shuffle patients around to ensure those with high blood-sugars are seen as quickly as possible. Patients see the nurse and the dietitian during their visit, one at a time, for an hour each. The initial visit is followed by group sessions for those interested, or individual follow-up visits for those uncomfortable or not deemed good candidates for group sessions. The clinic will also follow-up with pregnant women dealing with gestational diabetes when referred, typically through the Obstetric clinic.

The clinic will also do floor consults for diabetes education from time to time, but rarely.

Wait times for first appointments go by a triage system. New insulin starts will be a priority and the clinic tries to be as flexible as possible to accommodate priority patients and children. The dietitian in particular, who does not have a specific number of dedicated hours to the clinic, shows flexibility when called upon for unforeseen visits or urgent appointments. *"Souvent elle va être flexible pour le voir (le patient)." ("She'll often show flexibility in order to see a patient".)*

During their follow-up appointments, patients are seen by the nurse and dietitian, one at a time, with the exception for children where both will be present during the consultation. The clinic sets-up follow-up appointments for patients before they leave the clinic, and this is recorded in the central scheduling system. Patients will call central scheduling if they want to change their appointment, and are often just transferred to the clinic, as it typically takes care of the shuffling and coordinating of patients.

The clinic does offer services to children and does insulin pump teaching.

Levels of Prevention

Primary (disease prevention, health promotion):

The clinic does not do any disease prevention or health promotion work into the community, with the exception for school visits in the fall to educate teaching staff of schools with diabetes children. *"Non ce sont les infirmières en hygiène publique, je pense, qui font ça." ("No, I think it is the public health nurses that do this".)*

Secondary (screening and early diagnosis):

Screening and early diagnosis is not the responsibility of the clinic. They rely on doctors for this.

Tertiary:

This is the most important level of service for the clinic as a whole. The clinic follows-up with diabetes patients to help them manage their disease and prevent complications through education, offered mostly through one on one consults with the dietitian and nurse.

Ensuring Follow-up:

The clinic is very focused on patient follow-ups. The hospital's central scheduling services help with reminders and call patients one week ahead of time. The clinic sets-up the appointments with patients initially, and will also take care of re-scheduling when they need to make room for a more priority case

Clinic Team

Internal Team Members:

The clinic is composed of two internal team members, one part-time diabetes nurse (4 days per week) and one part-time dietitian. The dietitian is part-time at the hospital and works at the clinic on an as needed basis. Neither the nurse nor the dietitian has their CDE, nor were planning on writing it at the time of the interview. *"Non, je n'ai pas mon CDE (ÉAD), le diététiste non plus. Ça ne me tente pas, car les documents sont tous en anglais et je suis francophone. Je sais qu'il faut que je le passe". ("No, I don't have my CDE and neither does the dietitian. I'm not very motivated because all the documents are in English and I'm Francophone. I know I need to get it".)*

External Team Members:

The clinic does not have an endocrinologist as part of the team, but does refer to an internal medicine specialist and staff. The clinic does not have a pharmacist, social worker or psychologist on its team (internal or external).

For other specialists' care, the clinic's nurse will make recommendations to the family physicians. This helps speed up the process, particularly for ophthalmologist care, for which the waiting list is quite long as he only comes to the community once a month).

The clinic is well informed of related services in the community that might be helpful for patients such as free physical fitness classes.

Team Structure:

The team works together with no formal hierarchical structure. Individually, each of the two team members report to different heads, with the dietitian reporting to the region's manager of nutrition in Edmundston. *"On s'organise entre nous. On est là toutes les deux." ("We manage together. We are both involved".)*

Co-Morbidities:

Many patients have co-morbidities and other chronic health conditions, of which heart disease is a common one.

Communication:

Due to the small team, communication is quite informal within the clinic, and with local physicans. All professionals work at the same location and will meet informally and chat about a patient's situation and care. The clinic is linked with the Edmundston and Grand Falls clinics, and together they meet every 3 months to discuss patient care, share information and share ideas on processes and coordination of care. The clinic has good support from and good access to local physicians. *"Un bon support. Quand ça ne va pas, on va les voir, ils sont faciles d'accès, ils sont tous à l'hôpital." ("Good support. When something's not going well we go see them. Acces is easy as they are based at the hospital".)* The clinic also has easy access to other health professionals from other departments such as respiratory therapists, the blood-pressure clinic, etc.

Self-Management

Role of the Patient:

The patient is to be vigilant and understand that if they are not, they can suffer serious complications. The clinic tries to make them realize the impact of their actions and provide all the tools and information to help them achieve control.

The clinic does not deal with many no-shows and those who do not show are usually the same individuals who have a general lack of interest in managing their diabetes. The clinic does not give up and continues to follow-up, trying to set another appointment, either directly or through the physicians. *"Je leur dis : "Bon… vous n'êtes pas venu?" Je fais ça des fois, ça leur fait du bien". ("I'll say to them: "So... you didn't come?" I'll do this sometimes, it's good for them".)*

Professional/Patient Relationship:

The patients and the clinic work together towards improving patient health. They discuss what's going on and patients take the information and do their best in managing their disease. *"Ils savent que s'ils nous voient, ils doivent avoir des résultats qui vont être bons! Il savent que je vais comparer ces résultats aux précédents." ("They know that if they come see us, they should have good results! They know that I'll be comparing these to the previous ones".)*

Patient Education:

All new patients are scheduled for a series of 2 group sessions, unless they refuse to be in a group or are deemed not appropriate for group settings. *"Cela dépend des capacités d'apprentissage". ("Based on learning abilities".)* The first session is set within 3 months of their initial visit to the clinic and discusses the basics of diabetes (Team: dietitian and nurse). The second one is scheduled a week after to discuss complications (team: dietitian and nurse). Classes are scheduled the last two Wednesdays of each month. Classes are offered to anyone, not just new patients.

Key Services Offered:

The clinic focuses on education about all things related to diabetes including activity, nutrition, self-measurement of blood-pressure and sugars. Their goal is to help patients self-manage their disease.

Proportion of Patients Controlled:

The clinic feels it is having a rather positive impact on patients' overall health, judging by the low rate of diabetes-related hospital admittances. They closely monitor patient blood sugars, and a good gauge of how well a patient is doing is 3-month average trend. *"Quand le niveau est 10 et puis après 3 mois, il s'est amélioré, et puis 3 mois après encore, ça va bien. Je me fie beaucoup là-dessus." ("When the level is 10 and after three months it improves, then three months after that it's still going well. This holds a lot of store for me".)*

Availability and Meeting Demand

The diabetes clinic is open from 8 to 4 Monday to Thursday, and schedules patients on Tuesdays, Wednesdays or Thursdays. The clinic schedules working patients early mornings at 8 a.m. or later in the day for night shift workers. The clinic seems to adequately meet the demands and needs of its patients with the hours and resources available, with no waiting lists. It accommodates patients by coordinating appointments with other hospital physicians so patients only make one trip to the hospital.

Missing Services: The clinic feels the most important element that's lacking is more financial help and resources to accommodate low-income patients with things like insulin or test strips. Not being able to test the blood sugars is a barrier to control and self-management.

Wait Times: Urgent cases are accommodated as quickly as possible. Wait times between scheduled visits are typically 3 to 4 months, or every 6 months for patients who are not taking any medication and are doing well. Wait times for a new patient/initial appointment is approximately 3 months, unless the patient has really high blood sugars, in which case the clinic will move other non-priority appointments and find other ways to see the patient as soon as possible, within a week.

Methods of Offering Service: The clinic receives a number of phone calls from patients, and will also do phone follow-up with patients for insulin adjustments. Incoming calls from patients are for reasons such as insulin adjustments or requests for test strips. Patients are often provided with the clinic's phone number. The diabetes nurse also receives phone calls at home from time to time from patients with questions or concerns.

Distances: The travel time for the furthest patients is about 40 minutes, and the average travel time is about 15 to 20 minutes. Many patients drive themselves to the clinic, but just as many rely on friends or family for transportation.

Parking: Parking at the hospital is free of charge.

Satisfying Patient Needs

Satisfaction Levels: The clinic does not administer surveys or have any formal way of measuring patient satisfaction.

What Makes the Clinic Special: With the clinic being inside a small hospital, it has easy access to a number of services. The diabetes nurse will communicate face-to-face with physicians and other external team members to request services or ask questions, and as such, can ensure timely services for diabetes patients. Internally, hospital staff works hard at coordinating services for patients to minimize travel.

Dealing with Special Needs: The clinic is wheelchair accessible and does not have any patients with any special needs. The most important demographic challenge is low-economic profiles, with patients not having access to test strips and sometimes insulin. The clinic accommodates by providing samples, when available, and helping patients access compassionate care programs.

Family Encouraged: The clinic encourages families, spouses and caretakers to be involved in diabetes patients' health. It is particularly important for them to understand the impact of food/nutrition on diabetes patients' health.

Enfant-Jésus RHSJ † Hospital

1 Blvd. Saint Pierre Ouest
Caraquet, NB
E1W 1B6
T: 506.726.2338

Clinic Type:

Small Hospital

Clinic Profile

The Caraquet Diabetes Clinic is located on the second floor of the Enfant-Jésus RHSJ † Hospital in Caraquet, and is part of outpatient services. The clinic mainly serves diabetes patients from across the Acadian Penninsula. Patients travel as much as 40 km, but most are within a closer range. The Caraquet clinic has been in existence for approximately 7 years. Patients are mostly Francophone, with lower socio-economic profiles and difficulty with transportation and affordability of medication and test strips.

Clinic Mandate

The clinic's main role is to help patients understand what is diabetes and help them change their lifestyles so that they can achieve better control and minimize complications from the disease. Self-management is key. *"De changer leurs habitudes de vie pour le mieux". ("To change their habits for the better".)*

Meeting Population Needs

The clinic noted falling behind in the scheduling of follow-up appointments, with patients waiting longer than they normally would to visit the nurse, physician and/or dietitian. They are behind approximately 3 months for follow-up appointments. Priority is placed on new patients.

The clinic serves approximately 300 to 310 patients. Each week, the clinic schedules approximately 14 patient visits in addition to the education sessions and follow-up phone calls as well as visits with Dr. Pelletier's patients every other Wednesday (about 52 visits per month for Dr. Pelletier or about 20 each Wednesday that the doctor is in the office).

The clinic serves both Type 1 and Type 2 diabetes patients. Most patients are of lower socio-economic status, with very limited financial resources. This leads to mobility issues and difficulty acquiring test strips and medication. Patients fall in different age groups. *"La majorité de nos patients peuvent pas payer (pour des bandelettes). 70 %, c'est ca qu'ils nous disent.". ("The majority of our patients can't afford testing strips. This is what 70% of them tell us".)*

New patients are referred to the clinic by the region's physicians or nurse practitioners, or they can be Dr. Pelletier's patients. The clinic's patients are not necessarily Dr. Pelletier's patients as Dr. Pelletier is a family physician and not a specialist or endocrinologist. In fact a few physicians of the region do not actively support the services of the Diabetes clinic and will not refer their diabetes patients to it. The resistance is found mostly with older physicians. The clinic's team rarely does inpatient visits, as floor nurses have training on diabetes education. The clinic will be called upon only for more difficult situations.

On regular clinic days, two patients are scheduled for each available time slot. If both patients show, one patient starts the consultation with the diabetes nurse and the other with the dietitian. In the event of a no-show, both medical professionals will sit with the patient at the same time.

The scheduling of follow-up appointments is done by the clinic, at the time of visit. The clinic controls its own patient schedule. Central Booking helps by folding and physically sending out the letters but does not do any scheduling. If an appointment needs to be changed, calls are filtered directly to the clinic and re-scheduling is done from there. The clinic has a rigid schedule established for patient visits and follow-ups. New patients are scheduled in a certain time-slot, and so are follow-up appointments. 7 patients are scheduled each Monday and Thursday, and consultations with Dr. Pelletier's patients on Wednesday. In the interim, the clinic addresses insulin teaching and telephone follow-ups.

The clinic does not offer insulin pump teaching.

Levels of Prevention

Primary (disease prevention, health promotion):

The clinic does very little disease prevention or health promotion work in the community, with the exception for school visits in the fall to educate teaching staff with children with diabetes.

Secondary (screening and early diagnosis):

From time to time, clinic team members will take part in public screening sessions, in partnership with hypertension screening clinics. Together they visit public places such as shopping centres, or grocery stores. This does not happen on a regular basis.

Tertiary:

This is the most important level of service for the clinic as a whole. The clinic follows-up with diabetes patients to encourage them and help them manage their disease and prevent complications through education so that patients can have good control over day-to-day decisions and activities that have an impact on their health.

Ensuring Follow-up:

The clinic believes in following up with every patient, so long as they continue to be interested in visiting the clinic. Follow-up appointments are suggested to every patient, during their visit, and booked during that visit. Patients determine the frequency of their own visits, based on their needs and situation.

Clinic Team

Internal Team Members:

The clinic is composed of several team members including one full-time nurse administrator, two part-time (0.5) diabetes nurse with CDE, one part-time dietitian (2 days per week) with CDE and a full-time medical administrative assistant who is shared with the rest of outpatient services. The two part-time diabetes nurses share the clinic's hours by alternating Monday – Wednesday - Friday and Tuesday - Thursday shifts. A family doctor (Dr. Annick Pelletier) also works with the team two and a half days per month (every other Wednesday). This family doctor is the team physician, and consults with her own diabetes patients at the Caraquet clinic in collaboration with the diabetes team. Any other patient may be referred to Dr. Pelletier, but there is often resistance from other family practitioners to refer to another family physician.

External Team Members:

The clinic does not have an endocrinologist as part of the team, but the team physician may refer patients to one. Mentioned were the endocrinologists in Moncton, Dr. Menasria and Dr. Jamil in Campbellton. Also part of the external team are the health care professionals who help with diabetes education sessions, including a psychotherapist, pharmacist, and an external social worker to whom patients are referred to from time-to-time. The social worker is located in the hospital. There are also two other dietitians available to the clinic as replacements on occasions when the team's dietitian may be sick or on vacation.

For other specialist care, the clinic's physician may refer patients. In instances where patients are not in Dr. Pelletier's care, referrals are not made directly by nurses or the dietitian but they are suggested. The nurses tell the patients to discuss certain recommendations with their family physicians. A written follow-up and suggestions are also sent to the patient's physician.

Team Structure:

Officially, the team has two reporting structures: one for the nurses and one for the dietitian. The team's managing nurse reports to the outpatient nurse manager. The other two part-time nurses and the medical assistant report to the nurse manager. Dietitians report to the nutrition clinic manager (Gestionnaire des services thérapeutiques). Although team members recognize that they have managers to report to, as a team responsibilities are shared and not one member is seen as being the lead or coordinator. As such the team structure is rather flat with everyone sharing the responsibility of coordinating and leading patient care.

Co-Morbidities:

Many patients have co-morbidities. For patients who require specialists to help with these other conditions, the clinic's physician refers them or team members will advise patients to speak with their physicians about seeing a certain specialist. Team members do not directly refer patients to other specialists or services.

Self-Management

Role of the Patient:

The patient's is responsible for making the right decisions using the tools and information provided for the management of their disease. The clinic is there to help guide the patient, provide them with the information and tools they need to progress with the understanding of their disease, and oversee control and self-management. Not all patients follow this philosophy however. There are patients who rely on the physician to 'fix-them' rather than taking ownership of their situation. These are the more difficult-to-manage patients.

The clinic does deal with a significant proportion of patients who do not show for their appointment. For new appointments, when a patient does not show, his or her file is closed and a note is sent to the referring physician. For longer-term patients, their files are closed after the 2nd no-show. In times prior, the clinic used to call patients with a reminder call, and had considerably less no-shows. Currently patients no longer receive a reminder call, unless it is a special circumstance (illiterate or with vision impairment). In order to reduce no-shows, follow-up appointments are now patient driven. They decide when they would feel the need to return to the clinic. *"On établi avec le patient quand il veut revenir, et c'est mieux". ("We determine with the patient when he or she wishes to return, and that's better".)* An important reason for not showing includes transportation issues. Many cannot make it to the clinic because they cannot afford the gas, the car or the taxi ride. *"Même ceux qui se font rembourser, il faut qu'ils payent en premier". ("Even those that get the cost reimbursed have to spend the money in the first place".)*

Professional/Patient Relationship:

Patients are grateful to have a clinic in the region and professional help with the management of their diabetes. The clinic offers tools, advice and focuses on patient follow-up. The clinic feels patients have trust in them and benefit from a friendly and personal relationship with the clinic's team. *"Une bonne relation intime avec l'équipe, pour le positif. Ils ont confiance, ils ne sont pas un numéro". ("A close relationship with the team that's positive. They trust us, they aren't just a number".)*

Patient Education:

As of January 2013, the clinic has been using conversation maps for diabetes education. Two to three sessions had been completed as of the time of the interview. The sessions are mostly suggested to new patients, unless a longer-term patient expresses interest. All education sessions are organized into a series of 3 sessions of 5 to 6 patients at a time. The first session involves only a diabetes nurse and diabetes basics are discussed. The second session also includes

a dietitian, and an overview of nutrition. The third session includes the pharmacist and an overview of medications and exercising. Aside from the MAP sessions, the nurses and dietitian cover many important educational points with their patients, particularly during the very first assessment consultation. Together, team members inform patients about the basics of diabetes and they perform a physical evaluation including a foot assessment. The first assessment focuses on patient education and prevention. *"On ne fait pas de soins, mais on vérifie et on fait l'éducation. Tout ce qui est prévention". ("We don't offer care, but we check and offer education. Everything pertaining to prevention".)*

Key Services Offered:

The clinic is proud of having a fixed scheduling grid to help direct patient appointments. Each Monday and Thursday, the clinic scheduled 2 new patients for 8:30am, 2 follow-ups for 10:00, 2 new patients for 1:00 and one more follow-up for 2:30, for a total of 14 scheduled appointments per week (not including Dr Pelletier's patients every other Wednesday). Another key service offered is the ability to coordinate patient appointments with other appointments at the hospital, using Meditec as the scheduling tool. This helps accommodate patients and minimize no-shows.

Proportion of Patients Controlled:

The clinic feels it is having a positive impact on the health of patients who visit the clinic. Although an exact measure of progress or change in health status over time is not tracked, the clinic feels hospitalization as a result of complications from diabetes has significantly diminished as a result of their services. *"Il va toujours en avoir un peu, mais moins maintenant". ("There will always be some, but less frequently now".) Self*-management is particularly difficult among patients with lower socio-economic profiles who do not have the money or the tools or education to be able to follow-through and implement what they learn at the clinic. *"Ils n'ont pas les outils. Manque des outils pour appliquer ce qu'on demande de faire". ("They don't have the resources. Laquing the tools to put into action what we've asked them to do".)*

Nonetheless, the clinic feels that having a doctor as part of the team, at least for some patients. does have a significant positive impact. The doctor helps speed up the process through referrals or immediate insulin adjustments. The clinic feels nearly half of Dr. Pelletier's patients are well controlled. *"Ils sont mieux settés depuis Dr. Pelletier. On peut agir plus vite". ("They're better off since Dr. Pelletier. We can act more quickly".)*

Availability and Meeting Demand

The diabetes clinic is open Monday to Friday 8 until 4. Although the clinic can generally accommodate patients and schedule a timely appointment for follow-ups when needed (within a week or 2) and will accommodate new patients as fast as possible, the lack of dietitian hours makes it difficult to coordinate full-range of care.

Missing Services:

The clinic feels it is missing tools and criteria to help control the distribution of medication or test strips to patients. *"Le patient devrait avoir des qualifications financières". ("There should be financial criteria for the patients".)* They also feel that a big issue province-wide is the fact that test-strips are not supplied by the Province. It is their opinion this puts patients at risk, particularly low-income patients on insulin who cannot afford to buy the strips and test their sugars, and adjust their insulin intake accordingly. *"Si tu mets ces patients sur l'insuline, c'est presque dangereux parce qu'ils ne se sentent pas capable de se vérifier". ("If you start these patients on insulin it's almost dangerous because they don't*

feel able to check themselves".) In a related way, there aren't enough medication or test strips available free of charge to be able to help those who require assistance.

Space is also lacking. With more space, the clinic would be able to offer group sessions more frequently, ideally once per month. Coordination is also lacking in terms of bringing together health care professionals needed for the groups sessions. This involves a lot of time and coordination to bring people together at the same time.

Also missing is foot care. There is a clinic in Lamèque, but with long wait times as the clinic cannot keep up with the demand. Patients who can afford it or who have insurance are referred to private foot care services.

The clinic also feels the dietitian's hours - 2 days a week allocated to the clinic - are insufficient particularly since at the time of the interview one of the CDE's was studying for her Insulin Adjustment certification. This will lead to increased demand for services and insufficient dietitian hours to accommodate. The clinic also feels patients would benefit from the services of a psychologist, to help them accept their disease and understand that diabetes can be controlled.

Wait Times:

New patients are seen within 4 weeks depending on the urgency of their situation. Urgent cases can often be seen within a week. Follow-up appointments are scheduled typically at 3-month, 6-month or 1-year intervals, depending on the patient's needs. Wait time for group sessions are more difficult to assess. Coordination issues where the health professionals are concerned can sometimes cause delays. Patients are seen one-on-one in between sessions if necessary. Although this is the ideal scenario, the clinic is falling behind in scheduling follow-up appointments. They were three months behind at the time of the interview, largely because of the lack of dietitian hours to cover the need. *"Si on avait plus de temps de diététiste, on pourrait faire nos suivis à temps". ("If we had more hours for the dietitian we could ensure timely follow-ups".)*

Methods of Offering Service:

The clinic does not offer distant services, but for patients who qualify, the clinic will refer patients to the Extra–Mural Programme. The clinic deals with a singnificant number of phone calls and telephone follow-ups (at least 20 telephone follow-ups per week, or 90+ per month). Service for Dr. Pelletier's patients is a little different. They may already be seeing a physician or nurse practitioner at another clinic, and will visit the Caraquet diabetes clinic simply for a follow-up. Visits are shorter, and there is no strong focus on education. The clinic does not schedule Dr. Pelletier's appointments.

Distances:

Distance for the furthest patients is about 40 km, which takes approximately 45 minutes to cover. Most patients are within a 20 km radius of the clinic however, and may travel an average of 15 minutes to the clinic. While location of the clinic is not an issue, affordability of transportation is.

Parking:

Parking at the hospital is subject to a fee of one dollar. Patients often travel with others to the hospital, or rely on others for a ride. Many park in adjacent free parking lots - at Jean Coutu, for example) to avoid the fee. Patients have not expressed an issue with parking.

Other Barriers:

Low income is a barrier to care/services in the region. From both the clinic's and the patient's perspective, a lack of resources and tools can sometimes be a barrier to self-management. One patient expressed not initially receiving enough information on nutrition to help with simple and easy-to-understand meal plans. Similarly, the clinic feels a need for a more sophisticated program on self-management for the region's patients.

Satisfying Patient Needs

Satisfaction Levels:

Twice per year, the clinic administers a 1-month long patient survey they call a "Blitz". The nurse manager coordinates this. Patients are asked to fill out a questionnaire and drop their confidential responses in a box at the front of the clinic. Generally, patients are satisfied. Key issues over the years include dissatisfaction with wait times once they've arrived and are waiting to be seen, which can take up to 30 minutes, and lack of diabetes material for patients.

What Makes the Clinic Special:

The clinic recognizes the positive impact of timely follow-ups with patients. It can and will follow-up with patients within a few weeks, when needed. Alternatively, a follow-up at a doctor's office might take two or 3 months. The clinic also has a strong focus on self-management and although they feel a certain lack of tools or program to really help drive patient self-management, they recognize how important this is in the minimization of long-term complications for patients.

Dealing with Special Needs:

The hospital is wheelchair accessible. While the clinic is on the second floor, an elevator is available to accommodate patients with mobility issues or in wheelchairs. The clinic accommodates special needs patients based on the first-visit evaluation. During this evaluation, the team decides whether individual education (one on one) might be more appropriate, or if different tools should be used.

Dealing with Cultural Differences and Literacy:

Most of the population in the area is Francophone. The team is bilingual however and able to accommodate Anglophone patients when needed. These patients will receive one on one education since group sessions are in French. No other cultural differences were reported.

Patient Feedback

Visiting Clinic:

Both patients have been visiting the clinic for an extended period (5+ years).

Rating of Service:

One patient gave a score of 6 and the other 10 out of 10. *"Y'a des choses à améliorer: Surtout au niveau de la prévention. Ils devraient plus le faire au début". ("There are things that could improve. Particularly where prevention is concerned. They should focus on it more in the beginning".)*

Role of Patient and Clinic:

Both patients agree that the clinic is there to coach and to pass on their knowledge to the patient, but that ultimately it is up to the patient to take care of their health.

Patient Education:

Patients noted that much of the education is one on one, as they attend their regular appointments. One patient however mentioned attending a group session. *"Ils nous montrent des films et parlent du diabète et ce qu'il y a à faire. Y'a des gens qui posent des questions. Ça nous aide aussi. Toujours du monde moins gêné que d'autres". ("They show us films and talk about diabetes and what needs to be done. Some participants ask questions. That helps us as well. There's always some people less shy than others".)*

Accessibility:

Neither had any issues with getting to the clinic. The patients do have to pay for parking however.

Satisfaction and Complaints:

Both patients were satisfied with the clinic. *"Pas de plaintes… il n'y en a jamais eu … la seule chose que je trouve de mal c'est le manque de ressources". ("No complaints… there were never any… the only thing I would criticize is the lack of resources".)*

Tracadie-Sheila Hospital

400, rue des Hospitalières
C.P. 3180, succ. Bureau-chef
Tracadie-Sheila, NB
E1X 1G5
T: 506.394.3184

Clinic Type:

Small Hospital

Clinic Profile

Tracadie-Sheila's diabetes clinic is situated in the region's small hospital and serves a wide Francophone community. As of two years prior to the interview, the clinic has been in operation on a full-time basis with a full-time diabetes nurse and one part-time dietitian. The region served is rural and coastal, and patients can travel from as far as 40 km from regions like Lameque or Caraquet. Mostly, however, patients travel from within a 30 km radius and reside within the communities of Tracadie-Sheila, Rivière-du-Portage, Brantville, Poquemouche, Bois-Blanc and Tabusintac. The clinic has been in existence for at least 8 years.

Clinic Mandate

The clinic's mandate is to help patients better control their diabetes so as to minimize complications. The clinic focuses on prevention and patient education, a core part of each and every patient visit. *"On fait beaucoup de prévention et d'éducation. Très, très forte là dessus, chaque visite". ("We do a lot of prevention and education. Very, very insistent on this, each visit".)*

> *"C'est leur gentillesse, et efforts pour aider le patient. Ils font ce qu'ils peuvent pour m'encourager. Si ça va mal je vais les voir, ça me donne le gout de me prendre en main".*
>
> *("It's their kindness and effort to help patients. They do all they can to encourage me. If things aren't going well I go see them. It makes me want to get back on track".) (Patient)*

Meeting Population Needs

The clinic has become a full-time clinic as of 2 years ago, with 500 patient charts or so (516 according to the March 2013 count). The clinic schedules approximately 25 patients per week through hospital admissions (central scheduling), which does not include drop-ins. Many of these don't show. The clinic gets many referrals for new patients, suggesting an increase in demand.

Most patients are older adults, over the age of 50. Most have co-morbidities.

The clinic gets its new referrals from physicians in the region. Some also self-refer. The clinic may also see inpatients (admitted to the hospital), which can be a source of referral but rarely (1 or 2 per month on average). When visiting inpatients, clinic staff mostly focuses on education, particularly how to use a glucose meter, and, if required, insulin basics. Upon their release from the hospital, diabetes patients are booked for a follow-up appointment at the diabetes clinic as soon as possible (within one week).

First visits are triaged according to physicians' requests or patients' needs. If a patient is classified as a priority patient, they will be seen sooner: gestational diabetes patients, within a day or 2; new insulin starts are seen right away. Other non-priority cases will be typically scheduled and seen within 3 weeks.

Follow-up appointments are also based on physicians' requests or patient needs. Patients who are not classified as priority are followed-up based on their needs and health status. Patients who are adequately controlled will be scheduled for a follow-up visit within 4 to 6 months. The clinic feels the lapse of time between follow-up appointments should be no more than 4 months. *"Le patient est cédulé par rapport à nos observations. Si on guette une lacune en alimentation ou par vérification de la glycémie, je vais les voir plus souvent". ("The patient is scheduled based on our observations. If we detect issues around nutrition or through blood sugartesting, I'll see them more often".)* Follow-up appointments are then made by the medical health professional (CDE or dietitian). New patients first visit with the nurse practitioner or the doctor, and will see the dietitian and nurse. Patients may be referred to a social worker if needed. During follow-up visits, a team approach is sometimes used, when possible, to eliminate patient travel requirements. Typically, however, the patient will visit either with the nurse or dietitian (if ready), and other team members as needed. Drop-ins account for an important number of follow-up appointments. Many patients (57 in the month of March, and between 53 tot75 on average) dropped into the clinic without an appointment for help with issues such as insulin or test strips.

The clinic focuses on the buy-in and helping patients accept their disease, first and foremost, and patient-led management of diabetes.

The clinic does not offer insulin pump teaching. Pump and pediatric patients typically visit the diabetes clinic in Bathurst.

Levels of Prevention

Primary (disease prevention, health promotion):

The clinic recognizes the importance of primary prevention, but does not have the opportunity to place emphasis on this. Each fall, staff will visit schools to inform teachers about diabetes.

Secondary (screening and early diagnosis):

The clinic gets involved in secondary prevention activities from time to time. An external hyper-tension clinic is organized in May of each year where members of the general public have the opportunity to get their blood pressure and blood sugars measured, and get pre-screened for diabetes and other health issues. The clinic is also involved in pre-screening events during the Diabetes Day.

Tertiary:

This is the most important level of service for the clinic as a whole. The clinic follows-up with diabetes patients to help them manage their disease and prevent complications through education (mostly one on one consults with dietitian and CDE). Services are often delivered as directed by physicians.

Ensuring Follow-up:

Patients are followed-up with as long as they continue to visit the clinic. Follow-ups are particularly important for those who have more difficulty managing their disease. Others, who seem to have better control, will be booked for a follow-up appointment after 4 to 6 months. Follow-up intervals are based on the clinic's suggestion to patients, based on their need. Patients who do not show will get the chance to re-book their appointment, but if they don't show for a second time, they will not be contacted unless re-referred.

Clinic Team

Internal Team Members:

The clinic is a small team of one full-time diabetes nurse (on temporary status at the time of the interview, without a CDE), and a part-time dietitian (1 day per week) as well as a medical administrative assistant (dedicated to the outpatient clinic) who coordinates group sessions and schedules appointments.

External Team Members:

At the time of the interview, the clinic did not have a doctor internally but had a solid relationship with physicians in the region. Since September, Dr. Alzan, endocrinologist in Bathurst, has returned to the clinic as an external team member. He visits the clinic once per month, during which time he sees 16 patients for follow-ups and consultations. *"On travail avec Dr. Alzan beaucoup, maintenant surtout par téléphone." ("We work a lot with Dr Alzan, mostly by telephone now".)* A physiotherapist is also part of the external team, who comes in for group sessions from time to time with new patients.

> *"Dr. Alzan, il est toujours available pour les aider. Dr. Alzan dépends sur ses gardes malades… je lui ai parlé, il m'a dit appeler à la clinique diabétique ils vont régler ça".*
>
> *("Dr Alzan, he's always available to help them. Dr Alzan counts on his nurses... I spoke to him, he told me to call the diabetes clinic and that they'd deal with it".) (Patient)*

Professional Development:

The team relies on CDA's guidelines *"c'est pas mal avec eux qu'on se tient au courant". ("it's pretty much through them that we stay up to date".)*. They regularly receive information from the CDA, as well as from pharmaceutical companies.

Team Structure:

Members of the team report to different units. The dietitian has a manager separate from the diabetes nurse who, along with the medical administrative assistant, reports to the nurse supervisor in charge of the outpatients unit. The team is a fairly new team, given the fairly recent full-time status of the clinic, and the short-term temporary nature of the current diabetes nurse's position. No one was referred to as the team lead. Because the dietitian is only there once per week, there is often an overlap in roles, particularly with regards to nutrition.

Referrals and Community Services:

In helping patients access a full range of services, the clinic mentioned referring patients to the Extra–Mural Program for foot care, and having access to health coaches, although this was not yet used at the time of the interview. Mostly, the clinic relies on family physicians to refer patients to other specialists, or they will tell the patient they need to discuss specialist care with their doctor, such as an ophthalmologist. The clinic works closely with the region's family physicians and will discuss such issues over the phone with them. *"Je vais dire au patient 'fait sure que tu vas à l'opto'." ("I'll tell patients, 'make sure that you see the optometrist'.")*

Co-Morbidities:

Many patients have co-morbidities, particularly heart disease. The clinic is aware of these and will follow-up with family health providers through progress reports.

Communication:

Communication with internal team members is face-to-face or by phone. With external team members such as other physicians, the clinic uses Meditek to track comments and information. They also rely on phone calls to discuss and relay information to physicians. Faxes and phone calls are particularly important for patients whose physician falls under the Horizon Health Network.

Self-Management

Role of the Patient:

The role of the patient is to adapt his/her nutrition, monitor his/her health and regularly exercise in order to manage the disease. *"C'est lui qui a le plus gros rôle". ("They have the most important role".)* The clinic's role is to encourage and support the patients and provide information and advice.

"No-Shows" are a serious issue at the diabetes clinic. Many, nearly half, of scheduled appointments typically do not show. In the month prior to the interview, of the 112 scheduled patients, 44 were no-shows (40%). The clinic's medical administrative assistant sends letters to patients to remind them of their appointment in the hopes to reduce the number of no-shows but the rate remain at about 40%. Reasons for not showing include inconvenience (had other plans/ other more important appointments), forgetting, or work, particularly during the fishing season. Age is an important factor, particularly with regards to forgetting and mobility issues. After 2 no-shows, the patient's chart is closed and a letter is sent to the referring doctor.

Professional/Patient Relationship:

Those who attend the follow-up appointments and visit the clinic as planned believe the clinic is a great help. The clinic helps identify the team members that can best help solve a patient's issues and bring this to the patient. A nutrition issue will involve a dietitian, whereas a financial or mental health crisis might involve calls or referrals to Social Services or other services through collaboration with the patient's physician. The clinic thoroughly evaluates patients' needs through a 14-step assessment that examines fundamental and financial needs, and will refer/direct patients to programs and services that can help, when the need is present.

> *"Dans les premières années, je n'étais pas trop connaissante dans ma maladie, ils ont toujours su comment me diriger dans la bonne direction."*
>
> *("When I was first diagnosed, I wasn't very well informed about diabetes. They've always been able to guide me in the right direction".) (Patient)*

Patient Education:

The clinic's goal is to help patients better understand diabetes. Often, because patients' questions concern nutrition, education will focus on nutrition issues such as label reading. The clinic has multiple sources and types of patient education depending on the type of patient.

The clinic has multiple sources and types of patient education depending on the type of patient:

- **Inpatients (at the hospital)** – *Patient Education Resource Kit* (PERK). From the CDA, in the form of brochures. They will be invited to a group session, and taught on how to use the glucose meter.
- **New patients:** first visit: Basic information, possible complications, food guide (about 1.5 hours, with the CDE nurse), and taught on how to use the glucose meter.
- **Group sessions:** three sessions are scheduled with patients who agree to come for a group session (1.5 to 2 hours in length, per session).
  - **Session 1:** What is diabetes/types of diabetes/treatment/reactions/phases, nutrition, food guide, restaurant choices, reading labels (nurse and dietitian)
  - **Session 2:** stress, stress management, effects of stress, importance of self-management, blood sugar levels, different tests, hypoglycemia, alcohol, travel, exercise. Dietitian is also involved.
  - **Session 3:** hyperglycemia, long-term complications, foot care, mouth care, skin, physiotherapy, and more about the importance of physical activity.

> *"Essayer de m'éduquer comment manger, les portions…. Après une couple de mois on oublie, on rentre dans la routine, on sait pu quoi faire. Ils ont toujours une solution. Une autre idée, des exercices."*
>
> *("They try to educate me on what to eat, portions... After a few months you forget, get back into the routine, not sure what to do. They always have answers. A new idea, exercise".) (Patient)*

Key Services Offered:

The clinic focuses on following up with patients and providing support. Extensive telephone follow-ups are a regular part of the clinic's routine. These phone calls typically address insulin adjustments and monitoring issues.

Proportion of Patients Controlled:

The clinic did not have hard quantitative figures on how many patients are controlled, but assumed it was about half-and-half. It was explained that those often not in control and who visit the clinic more regularly are often those who do not keep themselves in check or do not regularly check their sugars. Self-management is supported by questioning patients on what they eat, physical activities, and how often they verify their blood sugars, and by providing support and information. The clinic also measures / verifies cholesterol levels, blood pressure levels, weight and review lab results. Many, about 50%, are motivated and work hard at doing what they know they should. *"On fait l'évaluation des monofilaments, on s'assure qu'il est référé à l'ophtalmologiste, évaluation de pieds, et discussion des médicaments." ("We evaluate the monofilaments, we make sure that they are referred to the ophthalmologist, have their feet checked and discuss medications".)*

Availability and Meeting Demand

The diabetes clinic is open from 8 to 4, Monday to Friday, and feels the availability of services is adequate as no patient has complained or directly expressed dissatisfaction. No after-hours service was identified. The clinic does visit schools in the fall for education with teachers about diabetes, for schools with students with Type 1 or Type 2 diabetes.

> *"Ils peuvent me voir… quasiment immédiatement si quelque chose d'urgent."*
>
> *("They can see me... almost immediately if it's something urgent".) (Patient)*

Missing Services:

The clinic feels patients miss the services of an endocrinologist. Dr. Alzan, based in Bathurst, used to visit the Tracadie hospital from time to time but no longer visits. The reason for this is undetermined and the future of such service remains unknown. Patients travel to Bathurst to see the specialist. Foot clinic: The clinic wants to start a foot care clinic. At the time of the interview there was a list of names being complied. The service was going to be developed once the number of names was sufficient. The clinic's diabetes nurse feels the clinic would greatly benefit from having a full-time dietitian. She often teaches and provides nutrition advice and information when this is not her area of expertise. *"Moi je fais le mieux que je peux faire pour le suivi au niveau de l'alimentation." ("I do the best I can when it comes to monitoring nutrition".)* Also beneficial would be a physician as part of the internal team. Not necessarily a specialist, but someone there on an ongoing basis to be able to discuss patient issues with rather than having to deal with a larger number of physicians.

Wait Times:

Accessibility to the clinic's services is rather fast. Non-urgent follow-up appointments are seen within 4 to 6 months. If a complication or urgency arises, such as unbalanced or high sugars, the patient will be seen within a week. New patients deemed a priority, such as gestational diabetes patients and new insulin starts, are seen within 1 or 2 days. Some patients wait 2 to 3 months between visits when things aren't going as well. Access to the dietitian is a little more complicated given she is only there once per week. The clinic tries its best to schedule new patients with the dietitian on first visits.

> *"Si j'ai des problèmes entre temps, j'appelle. Ils sont toujours disponibles."*
>
> *("If I have complications between appointments, I call. They are always available".) (Patient)*

Methods of Offering Service:

Much of what the clinic does is driven by physicians. Telephone follow-ups will be done with patients when requested by the physician, or when the nurse feels it appropriate and necessary, particularly for newly diagnosed patients, or new insulin starts. The clinic does approximately 15 follow-up telephone calls each week for Dr. Alzan's patients. Many follow-up phone calls are made to discuss insulin adjustments, in particular, and discuss or provide information on medication. The clinic does receive some patient calls, but rarely (2 to 3 times per week). These often have to do with requests for information or advice or to discuss/revise sugar levels.

Group Sessions:

These are offered every Wednesday, with 2 to 4 weeks between sessions for patients. Session participation is based on interest. *"On les voit sur une base individuelle s'ils veulent pas participer mais on essaye de les encourager du mieux possible." ("We'll see them one on one if they don't want to participate, but we try to encourage them the best we can".)* As of recently, the clinic is back to scheduling 3 sessions per month, which reduces wait times between sessions. *"Il faut faire les sessions 2 et 3 rapidement pour garder l'intérêt". ("We need to hold sessions 2 and 3 quickly in order to keep their interest".)*

Distances:

The travel time for the furthest patients is about 40 minutes, or 40 to 45 km. The average travel time is 10 minutes. There is no public transportation in the area, but taxi service is available. Most patients, however, rely on someone to drive them or drive themselves to the clinic. Lack of transportation is often an issue. *"Des fois, y'en a qui peuvent pas se rendre parce qu'ils n'ont pas de ride." ("Sometimes some can't make it in because they don't have a ride".)*

In terms of distant services, the clinic delivers supplies, but not medical services, to both seniors complexes in the community. *"We take stuff to them including food. We can't deliver to everybody but we'll deliver to those 2 facilities".*

Satisfying Patient Needs

Satisfaction Levels:

No formal means of feedback is available. The clinic has expressed interest to the nurse manager in having a comment or feedback box for patients to provide feedback and help improve the delivery of services.

What Makes the Clinic Special:

The clinic has a good relationship and support from physicians in the region. There is good communication with the physicians. *"On a beaucoup de références, on est bien supportées." ("We get a lot of referrals. We are well supported".)*

Dealing with Special Needs:

The clinic is wheelchair accessible. A few patients have felt the clinic is located too far down the corridor, making it difficult for those with physical constraints. Otherwise, the clinic feels it is centrally located and able to accommodate all patients.

> *"Je penserais qu'ils sont capable d'accommoder tout le monde."*
>
> *("I would think that they are able to accommodate everyone".) (Patient)*

Dealing with Cultural Differences and Literacy:

The clinic's staff is bilingual. No issues are noted in dealing with cultural differences or literacy levels. No formal procedures or processes are in place to accommodate.

Family Encouraged:

Most patients bring along their spouse when they come for education sessions. This is encouraged.

Albert County Health & Wellness Centre

8 Forestdale Road
Riverside-Albert, NB
E4H 3Y7
T: 506.882.3100

Clinic Type:

Community Health Centre

Clinic Profile

The Albert County Health & Wellness Centre (ACHWC), located at 8 Forestdale Road, is in the village of Riverside-Albert. The community health centre was initially the Albert County Hospital and opened its doors in 1961. The year 2002 saw the facility transition into a rural community health centre that today offers a range of primary health care services including health promotion and education, illness and injury prevention, chronic disease management and community development. There are no acute care beds and no emergency department, though access to same day urgent appointments is available. These services are provided to citizens of rural Albert County residing from Stoney Creek to Fundy National Park in Alma, including all the outlying service districts. The centre itself is centrally located within this area, which spreads over an area of approximately 1,017 square kilometres. It also offers outreach programs to the residents of the Village of Alma and adolescents at Caledonia Regional High School through satellite offices. The team at the community health centre is comprised of three primary care providers (two salaried physicians and a nurse practitioner), a nursing staff, as well as a variety of other healthcare professionals. They offer a wide variety of services including x-rays, phlebotomy, physiotherapy, nutrition counselling and immunizations. They also house a satellite office for the Horizon Health Network Extra Mural Program.

Clinic Mandate

The facility is a community health centre, and not a diabetes education centre. It does not have certified diabetes educators on staff. Its mission is to provide innovative and evidence informed primary health care to individuals, families and communities. The focus is on safe and effective care, in an efficient and cost effective manner.

Meeting Population Needs

In the year 2011-2012, the community health centre had 2,038 clients, making 11,635 visits. The approximately 1,600 roster patients are followed by one of two physicians or the nurse practitioner. According to the Department of Health, the community health center saw 32 diabetes patients in 2011; a number the centre feels is under-represented. As the centre is not a diabetes education centre, it does not track the number of diabetes patients seen by the team. Statistics obtained from the electronic medical records system used by the centre (Purkinje) confirms that 258 patients have had a diagnosis of diabetes in their record since 2006, the year the electronic records began at the community health centre.

The area served by the ACHWC is primarily a tourism based economy, and as such many clients of the centre are seasonal workers or tend to be from lower socio-economic groups. Consequentially, patients have limited transportation means and are not easily able to travel to the Moncton Diabetes Education Centre (approximately 50 km away). The patients on the roster also tend to be older, with almost 40% of the population being over the age of 55, and approximately 25% being over the age of 65. The region served is primarily Anglophone.

Diabetes care is provided during regular visits with the primary healthcare providers and registered dietitian. Typically, a newly diagnosed patient will have blood work done, and then see either their physician or nurse practitioner for results and appropriate management. They may be referred to the registered dietitian or registered nurse for education and/or counseling. They may also be referred to the registered nurse to obtain glucometer readings for adjustment of therapy or assistance in obtaining financial assistance/compassionate care for medication. Diabetes patients are seen by a licensed practical nurse for diabetic foot assessments and screening, a visit they have yearly unless the service is felt to be needed more frequently. Patients with a new diagnosis of diabetes, insulin starts, complications from diabetes, or difficulty achieving good glycemic control can also be referred to the Diabetes Education Centre at the Moncton Hospital for education and/or further management.

Some services offered by the centre, such as phlebotomy and visit with the registered dietitian, are available to patients followed by external physicians upon referral. The administrative support staff is responsible for scheduling appointments. Follow-up appointments are suggested to the patient by the healthcare providers at the end of

each visit. The registered dietitian, the registered nurse and the licensed practical nurse can schedule their own follow-up appointments at the end of each visit. Patients are given appointment cards as their reminder.

> *"I set it before I leave, through the medical clinic's receptionist." (Patient)*

In light of the fact that the community health centre does not have a Certified Diabetes Educator, all insulin adjustments are made with the primary care providers. The centre does not offer insulin pump teaching, and does not have any patients currently on pumps. Patients interested in pumps are referred to the Moncton Diabetes Education Centre. Pediatric patients are referred to the Pediatric Diabetes Clinic, also in Moncton.

Levels of Prevention

Primary (disease prevention, health promotion):

Health promotion and illness prevention are part of the ACHWC's mandate. The centre offers various services such as the Ottawa Model for Smoking Cessation, blood pressure clinics, and a fluoride program for the local elementary school. They also address the determinants of health in other ways, such as offering a GED program in collaboration with the Southeast Regional Adult Learning Board, and a literacy program called The Dolly Parton Imagination Library in collaboration with the Bennett and Albert County Health Care Foundation Inc. The community health centre also offers education sessions to the community, which included a diabetes health fair in the fall of 2012.

Secondary (screening and early diagnosis):

The centre offers a well woman program. In the program, female patients aged 21 years and older are seen on a yearly basis for screening and early detection of various illnesses, including diabetes. Appropriate screening and early detection are also offered during routine visits with the primary care providers.

Tertiary (management):

The centre plays an important role in the management of diabetes. Most diabetes patients are followed and managed by their primary care providers. The registered dietitian is also frequently involved with their care. In addition, they may have telephone or face-to-face contact with the registered nurse every 2 to 4 weeks to review home glucose readings. The community health centre facilitates access to the Moncton Diabetes Education Centre or to an endocrinologist for more complex issues.

> *"I can phone (nurse) anytime. On the phone, if it's something that me and her can't figure out, she talks to the nurse practitioner and she calls me right back." (Patient)*

Ensuring Follow-up:

Follow-up visits with the primary care providers are usually a minimum of every 3 months, and some more frequently. Follow-up visits can be coordinated by any of the team members (physician, nurse practitioner, registered dietitian, registered nurse and licensed practical nurse). The registered dietitian, the registered nurse and the licensed practical nurse arrange their own follow-up visits. This is often done in collaboration with one another in an effort to coordinate visits to minimize the frequency of patient travel. There are no policies in place dictating whose responsibility it is to determine the need for follow-up, or the lapsed time between visits, but the primary care providers are always willing to provide guidance in this area.

Wait times between follow-up visits with allied healthcare team members such as the registered dietitian or the registered nurse are occasionally patient driven.

Clinic Team

The patient's primary care provider is the focal point of the care. The other members of the team can and do suggest care, but necessary referrals are made by the primary care provider.

Internal Team Members:

The internal team is comprised of staff from the community health centre. It does not focus exclusively on diabetes. The physicians, nurse practitioner, registered nurse and licensed practical nurse are full-time staff members at the centre; however the registered dietitian is part-time, working only one day per week at the centre.

External Team Members:

The Moncton Diabetes Education Centre often serves as a resource to the community health centre team. The registered nurse or the registered dietitian will call members of the Moncton Diabetes Education Centre with questions from time to time. It also relies on the Moncton Diabetes Education Centre for any specialized help or other services not available at the ACHWC. Other external team members include the pharmacists at two local pharmacies and foot care nursing services offered in the community, as well as pediatricians, endocrinologists and ophthalmologists in Moncton.

Team Structure:

The centre does have a dedicated diabetes team, and typically the primary care provider leads in terms of patient care. The community health centre operates with the understanding that all team members are valuable, and bring their own expertise and experience to patient care. *"We are all equal part of the team."* Diabetes patients are managed using an interdisciplinary approach.

Co-Morbidities:

Most diabetes patients of the community health centre have co-morbidities. The team provides holistic care, explaining the relationship between other conditions and diabetes, and managing these co-morbidities.

Communication:

Patient records at the centre are electronic and can be accessed by all team members. The software used (Purkinje) enables messages to be relayed to team members through the patient's electronic medical record. Communication is also facilitated through the use of email and face-to-face discussions.

Self-Management

Role of the Patient:

The patient's role is to be inquisitive, learn, ask for help when needed, and work towards good disease management. Plans of care are individualized and address questions and concerns raised by the patient.

Professional/Patient Relationship:

Patients are grateful for having the service in their area. The community team is personal and approachable.

> *"They took my license from me, and I'm only about 5 miles from the clinic. I'd really miss it if it weren't there." (Patient)*

Patient Education:

The registered dietitian offers nutrition and physical activity counseling. The licensed practical nurse reviews routine foot care and footwear with patients during her yearly assessment. The registered nurse offers education regarding signs and symptoms of hyper or hypoglycemia, appropriate management of hypoglycemia, home glucose monitoring and insulin administration. The 3 primary care providers also offer counselling/education during their routine diabetes follow-up visits. Because

the centre is not a diabetes education centre, it does not offer structured group sessions. Patient education is individualized and provided on a one on one basis.

Key Services Offered:

The ACHWC provides access to primary health care services, including diabetes management. Access to these services is driven by patient need or recommendation from a primary care provider. They offer the right support, by the right provider, at the right time. This can include access to a registered dietitian, a registered nurse or a licensed practical nurse for diabetes education, and access to a primary care provider for immediate medical management if needed. Other services are also available at the centre, including laboratory and phlebotomy, physiotherapy, medical imaging, ECG, and 24 hour Holter and blood pressure monitors. They also offer routine immunizations, including a yearly influenza vaccination clinic.

Proportion of Patients Controlled:

Because the services offered are not in the context of a formal diabetes education centre, the centre staff interviewed was not able to provide a reliable estimate on the number of patients who are effectively controlling their diabetes. In part, this is because all members of the centre team share access to patients' electronic medical records. Separate diabetes-specific records are not kept. In addition, well controlled diabetes patients are followed by their primary care providers. Access to other team members is based on individual patient need, such as those who tend to have poor glycemic control or poor scores on any other indicators of health.

Availability and Meeting Demand

The centre is open 7 to 6 Monday to Friday. Either one physician or the nurse practitioner is available daily to manage urgencies. The registered dietitian is available one day per week by appointment only. The registered nurse is available most days, and also offers telephone access to diabetes patients. There are no specific days or hours allocated to diabetes patients, appointments are given to patients based on availability and/or request. Nursing staff are present at the centre during all times.

Missing Services:

The centre feels it is lacking the services of a social worker and a pharmacist, not only for diabetes, but for the community as a whole. Nursing staff are often charged with counseling patients and for assisting them to navigate through the healthcare system. For example, the registered nurse facilitates access to compassionate care for patients of limited financial means in collaboration with the centre's primary care providers. She may assist patients with the application process for services through the Department of Social Development. The registered nurse also provides assistance to the primary care providers with respect to medication reconciliation and review.

Wait Times:

Patients may access the nursing staff at the community health centre at any time by telephone or in person. Either a physician or the nurse practitioner offers urgent patient care on a daily basis. Wait times for non-urgent visits with primary care providers fluctuate based on the seasonal nature of employment in the area. At most, wait times for non-urgent patients to see a primary care provider would be within a few weeks. Wait times are measured using the third next available appointment.

> *"I'd call (nurse), I'd probably be able to see her within a half-hour. She'd say just come right down." (Patient)*

Methods of Offering Service:

Services are offered mostly in person but some consultations are done by telephone. For example, the registered nurse will contact patients by telephone to obtain home glucose readings. Insulin adjustment orders will be given by the primary care providers based on this information and will be relayed to the patient by the registered nurse. This also provides an opportunity for the registered nurse to discuss issues and concerns with the patient, and assist them in finding acceptable solutions as needed.

Distances:

The travel time for the furthest patients is about 30 minutes. There is no public transportation and the area is economically depressed so travel to the centre can be a barrier for some patients. Patients often rely on family members and neighbours to bring them to the centre as many are elderly or low income and do not drive.

> *"Around here, there's always someone to drive you. I know about 10 people a phone call away." (Patient)*

Satisfying Patient Needs

Satisfaction Levels:

No formal means of feedback is available at this time. Patients are encouraged to bring up any issues or concerns to the facility administrator.

What Makes the Clinic Special:

The community health centre works hard at accommodating their patients and being flexible in meeting their needs.

Dealing with Special Needs:

In terms of accommodating patients with special needs, the centre feels it is very accessible. They are wheelchair accessible and can accommodate hearing impairments with hearing devices if they need them.

Dealing with Cultural Differences and Literacy:

The community health centre quite often will need to accommodate for low literacy levels. Because of the size of the centre, they are very familiar with patients who may require longer visits, discussions instead of documentation, or pictures. A spouse or family member is often present to help.

Family Encouraged:

Spouses/family members occasionally accompany patients to visits.

St. Joseph's Community Health Centre

116 Coburg Street
Saint John, NB
E2L 3K1
T: 506.632.5537

Clinic Type:

Community Health Centre

Clinic Profile

The centre is not a dedicated diabetes clinic and is instead a community health centre. It is a primary care facility with approximately 800 patients with diabetes. They have focused on these 800 people to see what additional services they can provide to help people better manage their diabetes.

Program Mandate

Respond to the needs of those with diabetes and help people better manage their diabetes. They use their electronic medical records system to identify gaps in service (who has not had an education class, who is smoking, who has not had a pneumococcal /flu vaccine, A1C levels not to target etc). They then devise an intervention and measure its impact.

Meeting Population Needs

The centre serves 10,000 to 12,000 people a year and 800 of them have diabetes. They serve the Greater Saint John area. The patients skew older with most being over 55. Half of them have a BMI over 25. Note that because they are a community health centre, people are not necessarily coming in for diabetes group appointments. They have 12 to 13 physicians or nurse practitioners in the clinic. Some of these practitioners would ask the nurse practitioner specializing in diabetes to manage a newly diagnosed patient until they are controlled. Service is offered in person mostly, but it is also offered by email and by telephone. A patient who is newly on insulin will have some contact by phone. Calls are generally scheduled for Friday afternoon (where possible) and there may be as many as 8 to 10 a week.

The nurse practitioner specializing in diabetes does outreach in two different clinics in the north end of the city. Both are in low income areas.

The centre follows the Canadian Diabetes Association Practice Guidelines. The Diabetes Education Centre attached to the Saint John Regional Hospital is physically located upstairs from this clinic. They note that they are not trying to duplicate the services offered by the education centre but instead compliment the service.

A patient would be invited to attend three group appointments. Approximately 30% of those with diabetes have attended the group appointments. The education topics are decided by those attending. The baseline information covered includes A1C levels, blood pressure and cholesterol targets, self-management action planning and goal setting provided. At the end of the program they are given a menu of available programs that they may select; weight management, exercise classes, program for emotional eating, smoking cessation etc.

Insulin pump training would be referred to the Education Centre.

Levels of Prevention

Primary (disease prevention, health promotion):	There are a number of programs that address primary health care issues: weight management program, emotional eating program, exercise program for seniors, self-esteem program, and food security program.
Secondary (screening and early diagnosis):	They can identify pre-diabetes patients through their electronic records system and again offer programs addressing weight management, lack of exercise and healthy eating.
Tertiary:	The program is a community health centre and so would see people with a range of conditions including diabetes.

Centre Teams

The Community Health Centre is divided into teams and each team has a number of health care providers (physician, nurse practitioner, occupational therapist, dietitian, nurse, social work and administrative support).

Diabetes Program Team:

It includes a nurse practitioner specializing in diabetes, a dietitian, a pharmacist, a social worker and a nurse. They operate as a team with different people leading different patients depending on the needs of the patient. The physician would refer the patient to any required specialists. The physicians and all team members chart to the electronic record management system. Diabetes Program-Bonnie McGraw chairs the planning meetings, the group works together collaboratively.

Team Qualifications and Education:

All are trained in their own professions. They note it is more difficult because of budget cuts to get approval for conferences, but one team member went to the provincial diabetes conference.

They used to do lunch and learn sessions with pharmaceutical reps, but stopped because of their inherent bias.

Guidelines:

The clinic follows the general practice guidelines of the Canadian Diabetes Association. They do not have patient contracts for diabetes patients. The group appointments evolved from a chronic disease quality improvement plan that was developed in Alberta.

Communication:

They have electronic files and chart online and all team members can access these files. They analyze the data they have to target people for different interventions all designed to improve their health. Examples given were education for diabetes patients or smoking cessation programs. They also have regular meetings to discuss more complex cases. Case management occurs at the larger team meetings of the Community Health Centre.

Co-Morbidities:

They deal with co-morbidities as part of their normal clinic duties.

Self-Management

Role of the Patient:

The hope here is teamwork and a sense of partnership. When the records were checked only 10% A1C's were over 7.

Role of the Clinic:

We educate and support. We facilitate. There is some (but not serious) frustration when people are not doing what they are supposed to do.

The no show rate at the clinic is 2 to 4 patients per day. Because of limited resources, the clinic only makes reminder calls for therapeutic department (dietitian) appointments.

Patient Education:

Group education classes are run each month with 6 to 15 people at a time. This is a series of three classes and includes lifestyle education and living with diabetes. Classes are set up to have patients interacting and helping one another. They use the conversation maps and have tools to demonstrate different concepts. The

classroom education is then reinforced with one on one appointments with their primary care provider as part of the ongoing treatment.

Education includes aspects of self-management: how to set goal, how to problem solve. There was a desire to increase awareness amongst patients of their own values (blood pressure and A1C) so they print them on the back of each person's name tag and then focus on what to do to get back on track. Patients have input to what is covered in subsequent classes and regular topics include; nutrition, foot care and medication.

Key Services Offered: The clinic strength is the analysis that they can do because of their electronic charting.

Availability and Meeting Demand

Missing Services: The nurse practitioner could be doing nothing but diabetes. However, other demands keep them from doing that. They note a high incidence of depression in their diabetes patients and would like to have access to a psychiatrist.

Wait Times: The clinic is open from 9 to 5, five days a week and has some evening education classes. Wait times would depend on each care provider, but there are generally appointments kept to give to urgent patients (diabetes or other issues).

Follow-up appointments are usually made at the time of the current appointment. If a patient needs to see more than one health care provider in a visit, these are scheduled for the same day. Two hours are allotted in the morning for patients that are walk-ins.

Methods of Offering Service: Mostly in person and some by phone. There is outreach through two clinics in the north end of the city and one clinic at the Salvation Army; all in lower socio-economic areas of the city.

Distances: The centre serves the greater Saint John Area so there is public transportation. Some patients do have difficulty affording the travel to the centre.

Expenses: Testing strips are the expense that is mentioned first and then food and travel. They do have a healthy food buying club. The Food Purchasing Club allows people to buy fruits and vegetables in bulk by buying it with other people.

Satisfying Patient Needs

Satisfaction Levels: They do have an annual survey for all patients. The clinic also uses evaluation questionnaires for group appointments.

Dealing with Cultural Differences and Literacy: They have access to translators, but have to book them in advance.

Patient Feedback

Visiting Clinic:	The patient has visited the clinic for 10 years.
Rating of Service:	10 out of 10.
Role of Patient and Clinic:	*"My responsibility is to keep on going, day to day. And their role is to make changes when I need them."*
Patient Education:	The patient took management classes that discussed how to live with diabetes. He also got to talk to a dietitian about nutrition and diet.
Accessibility:	The patient finds the location is convenient. *"There's a bus that will bring you to the clinic that passes every 30 minutes."*
Expenses:	The patient's biggest expenses are the cost of insulin, the needles and the strips.
Satisfaction and Complaints:	The patient is satisfied with the clinic. *"They are a good support."*

Central Miramichi Community Health Centre

11 Prospect Street
Doaktown, NB
E9C 1C3
T: 506.365.6100

Clinic Type:

Community Health Centre

Clinic Profile

The clinic is located at 11 Prospect Street, Doaktown N.B. The clinic serves 1,000 clients in the Doaktown catchment area, which includes Doaktown, Storytown, Hazleton, Blissfield, Weaversiding, Boiestown and Blackville. The clinic has been in existence for 9 years. A major change during the last 5 years was taking on a methadone clinic, which has changed the clinic's business and role.

Clinic Mandate

The clinic's mandate is to provide community care, health promotion and disease prevention through appointments and education.

Meeting Population Needs

The clinic treats 100+ patients. Because they don't do diabetes management per se, they do not have a separate count of diabetes patients. They do not see diabetes patients on a daily basis and these patients are often sent to Fredericton.

The clinic serves a rural community with a lot of unemployment. Many of their clients are on social assistance and they see a lot of seniors. They have one Type 1 diabetes patient and some with Type 2 and believe the sedentary lifestyle in the area is a contributing factor.

At least 40% of patients have co-morbidities.

New patients are referred for diabetes education by the clinic's doctor or nurse practitioner, who will send an e-referral. The clinic then sets up an appointment within the same week for diabetes education or insulin initiation. Following this, the patient may be referred to a dietitian or to Fredericton.

Following the educational visit to the clinic, if patients have concerns, they will see a nurse and perhaps a dietitian and will see a doctor or nurse regularly for medications and blood pressure. A life coach from the diabetes clinic comes to Doaktown once a month and sees about 6 patients. The clinic provides education and blood work but does not help with strips or supplies.

The clinic does not provide insulin pump teaching.

The clinic does diabetes screening for patients over 40. For patients under 40, diabetes blood work is done at the request of the clinic's doctor. In some cases, the clinic uses urine dips for young patients.

Levels of Prevention

Primary (disease prevention, health promotion):	The clinic provides a lot of printed information and community programs. Healthy Miramichi offers weekly education sessions, activities such as yoga and access to a local gym for $10 a year.
Secondary (screening and early diagnosis):	The clinic's nurse and doctor see diabetes patients regularly for blood sugar testing and review. The clinic also does an annual foot check with diabetes patients and keeps note of their last eye exams.
Tertiary:	The clinic does not see in-patients.
Ensuring Follow-up:	Depending on the services a patient is referred to, the clinic may follow-up with a phone call.

Clinic Team

Internal Team Members: Include 2.5 registered nurses, 1 full-time doctor, 2 nurse practitioners, a nurse manager and 3.5 secretaries, as well as part-time x-ray, physiotherapist, dietitian, respiratory therapist, and social worker.

Team Structure: The staff reports to the doctor and nurse practitioners regarding diabetes follow-up/orders.

Self-Management

Role of the Patient: The clinic believes that it's the responsibility of the patient to make changes: The clinic can educate and offer solutions, but the patient must take action. The clinic finds that a lot of their patients are good at monitoring, but not good at making changes. *"Not a lot of self-management in seniors, but with younger ages, they know what to do in the long term to live better."*

The no show rate at the clinic is low. The clinic does not make reminder calls.

Professional/Patient Relationship: The relationship between professional and patients at the clinic is one of respect.

Patient Education: The clinic's goal is to educate patients on their diseases and how they can continue to live healthy, productive lives. They follow the Horizon Health binder and conduct one on one consultations. Patient education is handled by the doctor, nurses, dietitian and whoever else the patient is referred to. The clinic also has community programs. They visit schools and conduct evening programs to promote healthy living and their dietitian is doing a program aimed at pre-school students and their parents.

Key Services Offered: Key services for diabetes patients are diagnosis, educational follow-up and a consultation with a dietitian. Clinic staff tries to ensure that patients understand the importance of self-management.

Proportion of Patients Controlled: How well a patient's diabetes is controlled depends on the patient. *"An 80-year-old who has been eating cookies their whole life may not take kindly to the suggestion to stop. Even the idea of taking insulin has to be eased into."*

Availability and Meeting Demand

The clinic is open from 8 to 8 Monday to Thursday and from 8 to 4 on Friday. Outside of regular hours, patients call Telehealth.

Missing Services:

There are no specialists who visit this clinic. Patients must go to Fredericton to see a specialist, which can cause problems in terms of transportation and time.

Wait Times:

Most times patients talk to a nurse the same day and see the doctor within a couple of days.

Unscheduled patients generally wait no longer than 15 minutes before seeing someone, usually the nurse. Scheduled patients do not generally wait, although occasionally there may be a 10 to 15 minute wait. Depending upon the arrival time of the physician and if there is an emergency the wait time may be 1 to 2 hours.

He is also the collaborating physician for the 2 nurse practitioners therefore this may also impede the appointment times/wait times.

Methods of Offering Service:

Services are offered in person and by phone; no email services.

Distances:

The travel time for the furthest patients is 45 minutes; the average travel time is 20 minutes. There is no public transportation, so patients must drive themselves, find a ride or hire someone to drive them.

The clinic does not provide distant services for diabetes clients, but does offer education in community schools.

Satisfying Patient Needs

Satisfaction Levels:

The clinic has done satisfaction surveys; their flu immunization clinic scored 500. Any complaints are directed to the manager; there have been no complaints related to diabetes patients.

What Makes the Clinic Special:

The clinic cites the large number of services they have available under one roof as something that makes them special, as well as a very short wait time for services.

Dealing with Special Needs:

The clinic is wheelchair accessible.

Dealing with Cultural Differences and Literacy:

The clinic does not experience any issues with cultural differences and rarely faces literacy problems.

Patient Feedback

Visiting Clinic:	The patient has visited the clinic for 12 or 13 years and also attends the Fredericton clinic.
Rating of Service:	10 out of 10. *"They have helped me immensely, they always have the answers that I need, and they are a friendly bunch there."*
Role of Patient and Clinic:	The patient sees the connection between patient and clinic as one of collaboration. *"I have to define the problems because I am the only one who knows what is going on. They can give me advice on what I should be doing. The doctor, nurses and I have to come up with solutions."*
Patient Education:	The patient has consulted with a dietitian about food, and the diabetes nurse has answered any concerns the patient has.
Accessibility:	The patient lives about 7/8 of a mile away and has no difficulty getting to the clinic.
Expenses:	When the patient visits the Fredericton clinic, expenses are $20 for gas and an additional expense for parking. The clinic in Fredericton used to help the patient get insulin, but the patient now has an NB health card which covers *"pretty much everything including strips."*
Satisfaction and Complaints:	The patient is extremely satisfied with the clinic and says they are very good with follow-up. *"They meet every need I have, they try and figure something out." The patient also mentions that the clinic could use another doctor because the clinics at Fredericton and New Castle are too far.*

Queens North Community Health Centre

Pleasant Drive
Minto, NB
E4B 3Y6
T: 506.327.7800

Clinic Type:

Community Health Centre

Clinic Profile

The Queens North Community Health Centre (QNCHC) is a facility that provides primary health care services, illness/injury prevention, chronic disease management and community development services, using a population health promotion approach. It is located at 1,100 Pleasant Drive in Minto and primarily services the Grand Lake area including Chipman and extending almost down to Fredericton and half way to Doaktown. It has been a community health centre since 2001, but was renovated in 2005. There are no acute care beds, but the centre offers a wide variety of other health care services including x-ray, walk-in clinics, physiotherapy, social workers and dietitians. The centre includes fee for service physicians and salaried physicians, nurse practitioners and a variety of other health care professionals. There are 165 diabetes patients included in the centre's roster of approximately 2,000 patients and rather than being a separate physical clinic, they have a diabetes management day each month which is used to focus on diabetes care. Diabetes care is provided during other regular visits as well.

Clinic Mandate

In collaboration with the primary care physician and other team members, the mandate is to decrease complications from diabetes and to get A1C and blood pressure levels to reasonable levels. Because of patient need, they focus on a foot clinic that is offered every six weeks.

Meeting Population Needs

The centre has 7,500 clients who make 80,000 visits each year. The approximately 2,000 roster patients are patients that are followed by a particular physician and there are 165 diabetes patients in that roster group. Of course, there may be additional diabetes patients in the 5,500 clients who visit the centre each year, but are not roster patients. Some contact is also made by phone.

The area served has been hit by industrial closures so as a consequence, people in the centre tend to be from lower socio-economic groups. They also tend older with the average age being 65-70.

The typical path for a newly diagnosed patient is to have blood work done and then see their physician to be put on medication. Physicians refer patients to the Diabetes Management Program and they are seen every three months (or more frequently if deemed necessary). They are encouraged to attend an interactive class that is held with 10 to 12 people and runs for four nights over a period of four weeks (one night a week). These are interactive classes based on materials from Prince Edward Island and the classes use conversation maps to facilitate discussion. one on one education would continue during regular physician visits and the one day a month that is scheduled for diabetes patients. They assess each patient to decide who they should see, from a social worker, a dietitian, a nurse for foot care or pharmacist.

They do not offer insulin pump training even though there are 5 clients with insulin pumps. These people are seen in Fredericton by a pediatrician.

The centre offers both pre-diabetes education and screening. Those with pre-diabetes would go through the same class that was just described.

Levels of Prevention

Primary (disease prevention, health promotion):

Health promotion is part of the centre's mandate and they offer blood pressure clinics, smoking cessation classes and visit schools to encourage non-smoking. They also offer programs to encourage people to be less sedentary.

Secondary (screening and early diagnosis): A letter is sent to people who are over 40 on their birthday month that encourages them to contact the centre for diabetes screening. Approximately 60% call for an appointment (of interest is that only 5% call for an appointment for colorectal screening).

Tertiary: The staff encourage people to set their own goals and the clinic/centre is there to support them. Of the 165, 20 to 30 people have significant complications from diabetes and the rest (approximately 80%) have no (serious) complications.

Clinic Team

The patient's general practitioner is the focal point of the care and it is the general practitioner who refers to necessary specialists. The diabetes clinic can and does suggest care, but can't directly refer. They follow the CDA guidelines and the nurse has a checklist that is used to determine which services are needed and then the physician refers.

Internal Team Members: The internal team is not one that focuses only on diabetes, but they do have a team of physicians, nurse practitioners, dietitians, social workers, nurses and a pharmacist.

External Team Members: Included here are a pharmacist, the diabetes clinic in Fredericton, pediatricians for the children followed at the centre and a diabetes educator resource nurse who travels to the offices of some of the fee for service physicians outside the centre. Finally, VON nurses will do basic foot care.

Team Structure: There is a clinic coordinator who is a registered nurse. The physician would be the lead in terms of patient care.

Team Qualifications and Education: All team members are professionally qualified. CDA offers education and they can go to the ones that are in the province fairly easily, but the out of the province ones are more difficult to get approval to attend. They don't send everybody; they send one and they come back and educate the others.

Guidelines: The clinic follows the general practice guidelines of the Canadian Diabetes Association. There are tools with those guidelines to use such as conversation maps.

Co-Morbidities: Co-morbidities are dealt with as normal parts of visits.They find that some of the conditions require the same general health education needed with diabetes and this is given.

Communication: They have electronic files and all team members can access these files. In fact, they can access any of the patients' records that are recorded in clinics in the hospital, which they feel is an advantage in getting a more complete picture of each patient. The endocrinologist will also send any notes that are requested, which are also entered into the file. Notes from the general practitioner are included if provided and they indicated that some are very good at this, while others are less thorough. They communicate through the electronic filing system. They do not do formal rounds, but use email and directly speaking to communicate about patients. They have focus notes which are shared with the endocrinologist and the general practitioner. When cases are more urgent or there is more urgency for the patient to have something done right away, they will ask the patient to ask the general practitioner specifically for an appointment and/or phone the general practitioner's office themselves.

Self-Management

Role of the Patient:	Staff expect the patient to take ownership of their own care.
Role of the Clinic:	They see their role as coach and a group offering guidance. Encourage them to set their own goals.
Patient Education:	The goal is to have patients learn how to set goals to manage their own health. Classes cover what is diabetes, complications, medical management, diet and exercise.
Key Services Offered:	They feel that the key thing they offer is support when the patient needs them.
Proportion of Patients Controlled:	The centre does not have an estimate of the proportion of patients who are reasonably controlled.
Hospital:	They do not see patients in hospital.

Availability and Meeting Demand

Missing Services:	Clinic staff would like to have a measure of how well patients understand diabetes because that is more of a reflection of how well they are doing. They would also like to have more time and resources to make sure that nobody falls through the cracks.
Wait Times:	Next available appointment is the same day at times. The third next available appointment is 5 days.
Methods of Offering Service:	Mostly in person, but some service/consultations are done by phone.
Distances:	There is no public transportation and the area is economically depressed so travel to the clinic is an issue for some people. Some patients will travel 30 to 90 minutes one way by car to get to the centre.
Expenses:	Testing strips are the expense that is most commonly mentioned when it comes to difficulty affording certain aspects of diabetes. Many of their patients are in lower socio-economic groups and some are struggling to even put enough food on their table.

Satisfying Patient Needs

Satisfaction Levels:	The centre does not have a way of knowing if they are meeting the needs of patients.
Dealing with Cultural Differences and Literacy:	They are using less paper than before and now they use more pictures and read things to people rather than have them read it themselves. They ask people to bring their medications to the clinic rather than relying on memory or possibly poor literacy skills.

Patient Feedback

Visiting Clinic:	The patient has visited the clinic for 2 years.
Rating of Service:	9 out of 10. *"I don't think they could get any better. They are thorough and competent. You think you know it all until you go there."*
Role of Patient and Clinic:	*"For me its diet, exercise, being aware of what's going on around you. The clinic reinforces what I should do or shouldn't and if you are left of center they tell you, and they tell you if you are on track, they will give you a pat on the back."*
Patient Education:	The patient has consulted one on one with a dietitian and has gone to group classes.
Accessibility:	The patient has no difficulty getting to the clinic.
Expenses:	When the patient visits the clinic, his travel expenses are very minimal as he lives close-by. The clinic offers free parking.

Tobique Valley Community Health Centre

120 Main Street
Plaster Rock, NB
E7G 2E5
T: 506.356.6613

Clinic Type:

Community Health Centre

Clinic Profile

The Tobique Valley Community Health Centre is located in the former Tobique Valley Hospital facility on Main Street in Plaster Rock. The region served is rural, and patients can travel from as far as 40 km from regions like Riley Brook, Grand Falls or Perth Andover. The clinic has been in existence for 5 years (prior to that the facility was a hospital since the 1950s).

Clinic Mandate

The clinic, with the help of dedicated staff and government grants, formed a Diabetes Management Program. With a wide range of tools, classes and professional resources, the clinic's goal is to *"Help patients help themselves and keeping patients as healthy as possible."*

Meeting Population Needs

The clinic saw 268 patients in 2012, and sees over 30 patients a month from what used to be 9 patients per month. The demand is increasing.

Most patients (70%) are seniors and are of low economic status. Few to no patients are First Nations, as they have their own community clinic. Most have co-morbidities.

The clinic gets its new referrals from the internal team of doctors, nurse practitioners, the external specialist and doctors from other regions (Grand Falls and Perth Andover in particular) as well as self-referrals. Working with Grand Falls doctors can be limiting in terms of access to information because they fall under the Vitalité Health Network. Outside doctors don't always manage their patients according to the clinic's Self-Management Program recommendations, such as blood tests every 3 months, so the clinic will adapt accordingly.

Follow-up appointments are then made by the medical health professional (CDE or dietitian). Reminder calls are made to the patients. New patients first visit with the nurse practitioner or the doctor, and will see the social worker/counsellor dietitian and nurse. During follow-up visits, a team approach is still used to eliminate patient travel requirements. During these visits, the patient will see the nurse practitioner or registered nurse, dietitian (if ready) and other team members as needed.

> *"I see them in the same appointment as much as possible. They work together so I don't have to travel so much." (Patient)*

The clinic focuses on the 'buy in' and helping patients accept their disease, first and foremost, and patient-led management of diabetes.

The clinic does not offer insulin pump teaching. Pump and pediatric patients typically visit the diabetes clinic at the Waterville hospital.

Levels of Prevention

Primary (disease prevention, health promotion):

A good amount of disease prevention work is done through the clinic's community developer. These community programs indirectly work at disease prevention and early detection, educating the general public and communicating the services available at the clinic.

Secondary (screening and early diagnosis):

Secondary services are very much driven by the region's endocrinologist (Dr. Mike Pelkey) and are often intertwined with primary-level services. Nonetheless, given that staff of the diabetes clinic also sees general patients of the Community Health Centre, these diabetes professionals are able to detect symptoms flag potential pre-diabetes patients and screen them early.

Tertiary: This is the most important level of service for the clinic as a whole. The clinic follows-up with diabetes patients to help them manage their disease and prevent complications through education (mostly one on one consults with dietitian and CDE).

Ensuring Follow-up: Patients are followed-up as long as they continue to visit the clinic. Follow-up visits are largely patient-driven, with a maximum of 3-months between visits. Patients who do not show will get the chance to re-book their appointment, but if they don't show for a second time, they will not be followed-up unless re-referred. Patients are referred by the internal team (nurse practitioner or doctor), doctors from other regions such as Grand Falls, and from physicians at Hotel Dieu of Saint Joseph Hospital, Perth Andover, or can self-refer themselves.

Clinic Team

Internal Team Members: Several team members: two doctors (general practitioners), one full-time at the centre and the other on a part-time basis (0.6 schedule), one social worker (part-time 0.4 but works 0.6), the centre facility manager, who has a coordinating and research role for the diabetes clinic, one part-time (0.6) dietitian, two nurse practitioners (both full-time), one registered nurse (not CDE certified) and one community developer.

External Team Members: The clinic has an endocrinologist as part of the team (Dr. Pelkey) who visits the clinic once every 6 to 8 weeks for full-day clinics (12 patients per day on average).

Team Structure: The team reports directly to Susan Kukurski, the facility manager. Everyone reports to Susan, who oversees and plans for resources. This structure is preferred over reporting to a manager in another community or hospital. *"It's very hard when working with managers that came from a hospital because they don't get the community part of it."* The registered nurse (not CDE) is seen as the team lead, informally, due to her expertise in diabetes and full-time status and therefore familiarity with all patients and the clinic.

Co-Morbidities: The clinic makes suggestions to patients and explains the relationship between other conditions and diabetes. Peer support groups are also provided on these topics including "Cholesterol and Diabetes" and "Medications and Diabetes". The clinic, working with the nurse practitioners, will make referrals on behalf of patients. The clinic will follow-up with family health providers or nurse practitioners to help with the process and influence rapidity of service if need be.

Communication: Communication is mostly informal. Team members use email, face-to-face discussions, including communication with internal doctors. *"We meet, talk in the hallway, emails, call, lots of informal."* Formally, the entire team and centre staff meets the third Thursday of each month.

Self-Management

Role of the Patient: The clinic has a management plan for their patients. On this plan, patients are expected to be directly involved in setting their own goals and take ownership of their management. Goals are typically small, achievable incremental objectives related to nutrition, fitness or other. The clinic and the patient will set an action plan and schedule follow-ups. Follow-up visits are largely driven by the patient who decides how often.

The clinic deals with very few 'no-shows'. As such, there are no formal strategies in place to reduce no-shows. The most important reasons for no-shows are financial or transportation related. High attendance is attributed to the team-visit because *"I have less no shows with patients with diabetes because they see both me and nurse."*

Professional/Patient Relationship:

The professional/patient relationship is very open and personable. A team approach is used to identify goals, follow-up and refer as needed. *"It's personal, in a good way. Patients here like the fact that they are cared for and someone cares for them." "When they come to classes, we know them. Little extra thing, feeling that someone cares."*

Patient Education:

The clinic's goal is to prevent complications of diabetes through education. They give patients the option to attend peer support groups that cover a broad range of client-driven topics. Classes are held once per month. The Diabetes Management Project is fairly new so measurable outcomes were not clear at the time of the interview. The clinic follows CDA guidelines and resources for patient education and foot care. They also use standards from the Fredericton DECRH (Doctor Everett Chalmers' Regional Hospital).

Key Services Offered:

The clinic does prevention work through community programs (ex: walking, healthy eating) and offers monthly peer support groups for diabetes patients. Group sessions complement one on one consultations. The clinic has a full range of services for patients including cooking classes. A $7,000 grant (issued in October 2012) was helpful in acquiring the tools and resources for these sustainable programs. *"Within hours, you have every assessment done. One stop shopping."*

With the family physicians and other services such as therapeutic services available right there at the clinic, coordination of care is common. The clinic works hard at coordinating patient appointments with their appointment with their family physician, physiotherapist, etc to accommodate the patients as best as possible.

Proportion of Patients Controlled:

Results depend on patient's motivation and frequency of visits. Given how new the program is (3 months into it) the impact of the program on self-management was not discernible at the time of the interview. Self-management is impacted by low-income situations. Test strips and fruits and vegetables are sometimes unbearable expenses for some patients. *"If there's no constant contact (with the clinic), they don't do as well. Regular basis makes a difference."*

Availability and Meeting Demand

The diabetes clinic is available 8 to 8. The Community Health Centre's walk-in clinic is open 8 to 8 Monday to Friday. The clinic is open 1 or 2 evenings per month to accommodate working patients. A nurse practitioner, who is also part of the diabetes team, is available until 6 each day.

Missing Services:

Clinic staff feels they've reached the limits of their capacity when it comes to demand for services. If growth continues, they feel more of the registered nurse's time would be required to accommodate the need. It is becoming increasingly difficult to schedule a team-based visit with a diabetes patient due to the dietitian's relatively limited schedule. *"Lindas's diabetes position needs to be full time and dietitian full time. All programs need nutrition aspect."* Another missing element is foot care. Although a broad range of services are available at the facility, including foot care education, actual foot care services are not available in the area.

Wait Times:

Nonetheless, accessibility to services is rather fast. Urgent patients or new referrals will be seen within 2 weeks, depending on the services required. Unless a dietitian is being seen, visits can be "pretty much same day". For the dietitian, access takes about 2 weeks on average. Follow-up wait times depend on the patient, and with a maximum of 3 months between visits.

Methods of Offering Service:

Services are offered mostly in person. There were rare mentions of 'phone appointments' with the exception of phone follow-ups for new insulin starts. Email lists and electronic communications, particularly for announcements of peer support sessions, are in development. *"Do try to establish email list, especially groups. We have a Facebook page too. The town and the schools have talk mail so we tap into that."*

Distances:

The travel time for the most distant patients is about 45 minutes, or 40 to 50 km. The average travel time is 15 minutes. There are no buses in the area, but recently taxi service is available. Most patients, however, rely on someone to drive them.

In terms of distant services, the clinic delivers supplies (no medical services) and also provides education sessions to both seniors complex in the community. *"We take stuff to them including food. Can't deliver to everybody but we do deliver to those 2 facilities."*

Satisfying Patient Needs

Satisfaction Levels:

No formal means of feedback is available. Patients are encouraged to bring up any issues or questions to the facility manager. Complaints made in the past have been related to a lack of access to a certain professional (CDE or dietitian) during their visit.

What Makes the Clinic Special:

The clinic focuses on building trust and relationship with the patient, and empowering them with their personal actionable self-management plan. *"Patients say it's different here because more personal and family approach with all of us. Feel they can just call us."*

> *"They teach about diabetes. I learned quite a bit, more than in Grand Falls. In Grand Falls, she would tell me what to do, here it's different. They care." (Patient)*
>
> *"They make you feel you can ask any question." (Patient)*

Dealing with Special Needs:

The clinic is wheelchair accessible. Few other special needs were noted with the exception for hearing impairments, where staff will talk "really loud" to accommodate. The most important challenge required to work with is low economic status. Staff will try to teach money management and be sensitive to the cost of food when suggesting diets and food.

Dealing with Cultural Differences and Literacy:

The area does have a significant First Nations population, but very few visit the clinic. Literacy issues are common as most patients are senior or have low education levels. To accommodate, the clinic will allow for longer appointments for those who need more explanation. *"We educate them. Verbally, slower, at grade-school levels."*

Family Encouraged:

Family members and caregivers are encouraged to attend with the patient both appointments and classes.

Jacquet River Health Center

Jacquet River Diabetes Clinic
41 Mack Street
Belledune, NB
E8G 2R3
T: 506.684.7323

Clinic Type:

Health Center

St. Joseph Community Health Centre

Dalhousie Diabetes Clinic
St. Joseph Community Health Centre
280 Victoria Street, Unit 1
Dalhousie, NB
E8C 2R6
T: 506.684.7323

Clinic Type:

Community Health Centre

Clinic Profile

These two clinics were combined in one profile despite the two different locations as they have the same diabetes nurse coordinating care at both locations, and both clinics are under the direction of the Campbellton Diabetes clinic. There are slight demographic differences between the two locations, but in terms of care, service and structure, theyare very similar. Locations are both rural and within 41 km of each other. The Jacquet River clinic has been in existence since 1979; 35 years. The Dalhousie clinic was a hospital before it was transformed into a Community Health Center in 2002. The Jacquet River clinic is open only one day each week, and the Dalhousie clinic 3 days. On the day that both clinics are closed, the diabetes nurse spends the day at the chief clinic, the E.L. Murray clinic in Campbellton. There have been continuous changes in the structure of all three diabetes clinics in recent years, including a significant reduction in dietitian hours (for example eliminating access to a dietitian in Jacquet River).

Clinic Mandate

The mandate of both clinics is to help patients learn how to control their diabetes and prevent complications. She teaches how to live life without feeling helpless to their condition. The key is patient education.

Meeting Population Needs

The clinic could not provide an estimate of the number of patients that are seen (for both clinics). The Department of health's count for 2011 for Dalhousie was 379 and 104 for Jacquet River. On average, in both locations, the clinic will see between 4 and 6 patients per day, with 5 typically scheduled on any given day. The clinic also deals with 2 to 3 patient phone calls per day, typically patients with high-blood sugars looking for advice. The clinic reserves 'emergency' time on Fridays for patients with immediate needs. On Tuesdays and Wednesdays, the dietitian also sees 5 to 6 patients each day in Dalhousie.

In Dalhousie and in Campbellton, the clinics see children and pump patients.

In Jacquet River, patients tend to be Anglophone, and tend to be of a lower economic status. In Dalhousie, patients are evenly split between Anglophone and Francophone.

New patients are mostly referred to the clinic by the region's physicians, this includes pre-diabetes patients.

New patients are scheduled depending on their condition. The Campbellton clinic has established an elaborate triage process depending on various health factors. The more critical patients are seen within one week of calling. The clinics focus on scheduling all new patients as soon as possible.

It is not uncommon to have walk-in patients visiting the clinic because they are located in the Community/Health Centre. Diabetes patients come in looking for access to test-strips, or insulin, or consultation about blood-sugars or other diabetes-related concerns. The clinic will accommodate this as well as possible such as filling-in a cancelled spot or taking time on Fridays (time reserved for emergencies).

Patients are seen on a one on one individual basis. Pre-diabetes patients, however, are seen in groups by the dietitian (in Dalhousie). Patients are seen by the nurse and in Dalhousie, also by the dietitian, separately. Only children and type 1 diabetes patients are seen by both professionals at the same time. Although group sessions are projected and on the 'wish list' for the future, none were offered or developed at the time of the interview.

The schedule for follow-up appointments is largely patient driven. They are the ones who decide how often they are comfortable visiting the clinic, regardless of whether the clinic feels they should come sooner at times. *"Un suivi par choix. Moi je trouve que c'est trop long, mais s'ils sont stables mieux un an que p'en toute." ("There is choice about following up. I think it is too long, but if they are stable, better to have been monitored once a year than no monitoring at all".)*

Appointments are booked through the central scheduling system in Campbellton. Appointment requests are sent there by the diabetes nurse or dietitian (and/or receptionist in the case of Jacquet River). Central booking sends a

letter 3 weeks prior to appointments. As far as children go, they're usually seen at the Campbellton Diabetes Clinic and appointments are scheduled through the receptionist rather than central booking since many patients often travel long distances. The dietitian's appointments are scheduled separately from the diabetes nurse, as in not at the same time and not through the same process. Appointments are scheduled by central booking for the dietitian, however a call is made to the patient prior to giving an appointment to verify if patients want an appointment. This and other strategies have decreased no-shows.

The statistic compiled for no shows include all 3 clinics for the Nurses which would be 22% for the year 2011-2012. As for the clinical nutrition, the no-show rate is approximately 7% for group sessions and 11% for individual appointments. The dietitians have already changed their process by having someone call the client before booking an appointment to gauge their interest in regards to consultation. Clients can refuse services before an appointment is made.

Levels of Prevention

Primary (disease prevention, health promotion):

The clinic is involved in all three-levels of prevention. The diabetes nurse will set up blood-pressure clinics at local festivals and events, and will test blood sugars for patients. Five events were coordinated last year. She will distribute information brochures and provide information to the general public at such events. This serves as both disease prevention and early diagnosis.

Secondary (screening and early diagnosis):

Screening clinics at local festivals, as described above. Since December 2013 there is a diabetes case manager that has been going in physician's offices within the community (*Campbellton and Dalhousie; if accepted by physician) to help with screening, early diagnosis and diabetes management of clients with A1C above 9%.

Tertiary:

This is the most important level of service for the clinic as a whole. The clinic follows-up with diabetes patients to help them manage their disease and prevent complications through education (mostly one on one).

Ensuring Follow-up:

The clinic ensures follow-up by booking everyone through central booking for a follow-up appointment. A letter is sent to patients 3 weeks prior to their appointment (booking is through the Campbellton hospital). Phone calls to book follow-ups are done for children and Type 1. The dietitian has a secretary who will call patients for new referral appointments only in regards to client interest to reduce no-shows then the request goes to central booking. All follow-ups go through Central Booking. Patient follow-up is driven by patient's request, ideally every 3 to 4 months (currently longer than that because of the high volume).

Clinic Team

Internal Team Members:

The Jacquet River and Dalhousie clinics fall under the direction of the Campbellton clinic, and coordinator Jennifer Belliveau. Louise Gallant, diabetes nurse, is the only diabetes specialist when working from the Jacquet River clinic, and relies on the help of the clinic's receptionist/administrative assistant for bookings and scheduling. When at the Dalhousie clinic, the diabetes nurse works in collaboration with a dietitian. The diabetes nurse is in Jacquet River on Wednesdays, in Dalhousie on Monday, Tuesday and Friday, and the dietitian is assigned to the Dalhousie diabetes clinic on Tuesdays and Thursday. As such, they work together only on Tuesdays. None of the nurses or the dietitian, at the time of the interview, had yet acquired their CDE certificate. Addendum 31/08/2013: the nurse has achieved her CDE status.

External Team Members:

Staff of the Cambellton clinic could be considered internal team members. However, given they do not work with patients or coordinate patient care, they are being considered external. Nonetheless, the diabetes nurse draws on these resources for external members and specialist referrals and for information sharing. The diabetes nurse will call upon local physicans (within the 2 communities) if patients require immediate assistance such as prescriptions or referrals to specialist care. The Diabetes nurse does not directly contact the two specialists at the Campbellton clinic unless dealing with one of their patients. She will rely on referrals from local physicans.

For other specialist care, the clinic's nurse will make recommendations to the family physicians but will not make the reference themselves (ex: ophthalmologist). The clinic can refer a patient to other clinics or other services such as food-clinics, blood-pressure clinics and social workers, as needed. Services are usually within the health-centre and easy to accommodate for.

Team Structure:

There have been lots of changes recently in the structure of the tri-clinics. It was explained that the new structure, under the management of Jennifer at the Cambellton clinic, is much more uniform and united as a team. However, tools and processes are still in development. *"Y'a beaucoup de choses qu'on a développées, ça va assez bien, mais il reste beaucoup de choses à faire."* Team members are relatively new, with the longest-standing team member across the 3 clinics having been there for only 1.5 years. There is daily communication between team members.

Co-Morbidities:

The clinic takes pride and looking at the holistic care and assessing the global picture. The majority of the clinic's type 2 patients have co-morbidities. It is noted that even some of the Type 1 clients have co-morbidities. Education is adapted as such, and will include all health issues. *"Enseignement va être différent, et inclure tout problème de santé."* Education is based on the Diabetes Association clinical practice guidelines for diabetes management. The family physician manages global care and the clinic only offers recommendations.

Communication:

Communication is constant across team members. Although separated by distance, the diabetes nurse is in daily communication with the Campbellton clinic, either by phone or email. The entire team meats, in Cambellton, every Thursday morning to discuss cases, share information and update each other. This is followed by the children visits. The local specialist (Dr. Matthews) is typically part of these knowledge-sharing team meetings. Jennifer meets with Dr. Jamil occasionally to inform and discuss important topics. The clinic does not have a medical director and communication with physicians and outside team members is done by phone (if urgent) or on paper. *"Notre documentation est encore sur papier. Un peu plus difficile."* Informally, the clinic will reach doctors by phone if they feel the need, or send a letter to the physicians. A new multidisciplinary message sheet and policy is being worked on to ensure messages are reaching physicians.

Self-Management

Role of the Patient:

It is the clinic's role to encourage patient self-management. Patients are expected to learn and understand the effects of medication that they are taking, know what a 'normal' stats should be, and learn to assess his/her own stats and results.

The clinic does deal with a good number of 'no-shows' (see patient needs above). This causes an issue with scheduling and time wasted, and frustration (particularly in light of the back-log for follow-up appointments). The clinic calls to re-schedule and ask for reasons. Common reasons include not having a ride, weather or work. The clinic does not yet have a strategy to reduce the number of no shows, but this is in development. If a patient has two consecutive no-shows for appointments, their file is sent back to the referring physician.

Professional/Patient Relationship:

Patients are empowered with the self-management of their disease. The clinic encourages to make their own decisions and to develop their own management plans, with the help and guidance of the CDE. Patients are highly appreciative of the service they receive from the clinic.

Patient Education:

The clinics' resources mostly come from the Canadian Diabetes Association (CDA). They use both "essentials" and "advanced" reference manuals. They also use education materials provided by pharmaceutical companies, particularly those with visual elements that use pictures, and other brochures that patients can bring with them. The clinic has developed 3 teaching guides to give to clients; the "Diabetes teaching guide" has general diabetes information, second is the "Insulin teaching guide" and third is a "Prediabete teaching guide." These 3 handbook manuals are currently being reviewed at the time of the interview and new guide for "Children and Type 1 Diabetes" is currently being developed by the team.

All patients go through a two-stage education session. The first education session is for newly-diagnosed patients. The second is for any diabetes patients. Patient education is one on one and individualized to the patient's needs, condition and learning capabilities. Education is very basic with children, and for new patients, the focus is on how to prevent and minimize complications. For other more complicated patients, the focus is on teaching them how to keep stable and controlled.

Key Services Offered:

Availability, in a rural region. Having access to services and coordination with Cambellton's larger clinic for more acute patients/children. The clinic focuses on individualized education, according to patients' needs and ability to learn.

Proportion of Patients Controlled:

The clinic could not provide an accurate measure of how many patients have their disease under control. They have no method of evaluation or assessment at this time. Some are doing really well and others not so much. *"Ça dépend de la motivation."*

Availability and Meeting Demand

There is a large demand for services relative to the resources available for Jacquet River and Dalhousie. With recent shifts in services (dietitian hours, in particular were shifted from Jacquet River to Dalhousie) and covering three different clinics in 3 different locations, the diabetes nurse feels her time is spread very thin. There is also a back-log of several months for non-priority patients. The diabetes nurse will be at the clinic between the hours of 8 and 4, on her respective clinic days. However, often she will be in the clinic longer than this to accommodate patients and catch up on administrative tasks.

Missing Services:

The Jacquet River clinic would benefit from dietitian services. The service was cancelled due to too many no-show appointments, following a 3-year assessment of services.*"Ya des patients qui manquent ça."*

Wait Times:

New patients are seen as quickly as possible, typically within one month. However, depending on the urgency of the situation, patients can sometimes wait up to 2 months. Patients with high blood sugars are accommodated as quickly as possible. "Quelqu'un avec des glycémies de 20 + va passer assez vite!" Follow-up appointments, however, will have much longer wait times. Patients can also be re-scheduled in order to accommodate a more urgent new patient visit. The clinic will aim for maximum wait times of 6 months, which can extend up to 8 months for some of the more controlled patients. A new triage system is in process of development at the time of the interview, to help assess wait times and ensure priority clients are being seen.

Methods of Offering Service:

The clinic does deal with a good number of telephone follow-ups. These are used to discuss concerns and made insulin adjustments as a result of patient's blood test results and sugar levels. The clinic is putting the onus on the patient to call-in with their results, rather than the other way around. The clinic would previously "chase" patients for these follow-up calls when the patient didn't call in, and no longer does this due to the time commitment required. Patients are told this is their responsibility.

Distances:

The travel time for the most distant patients is about 45 minutes, and on average, patients of either clinic will travel for approximately 15 minutes. Patients of Jacquet River are more likely than in Dalhousie to rely on family or friends to drive them as they do not drive or own a vehicle.

Parking:

Parking at the clinics is free of charge.

Other Barriers:

Low income is a barrier to care/services in the region, particularly in Jacquet River.

Satisfying Patient Needs

Satisfaction Levels: The clinic does not, at this time, provide means for patients to express their satisfaction with the clinic, or a way to register concerns or complaints with services.

What Makes the Clinic Special: It is common knowledge among patients in Dalhousie and Jacquet River of the multiple-locations served by the diabetes nurse, and her services are much appreciated. Although she is not physically available, the diabetes nurse is very accommodating to patients and encourages them to call with questions or concerns regardless of where she is.

Dealing with Special Needs: The clinic deals with special needs on an as needed basis, the most common being hearing impairments. In this case, the clinic uses pictures and focuses on good visual contact.

Dealing with Cultural Differences and Literacy: Low literacy is common among patients of both clinics. Jacquet River patients are also largely Anglophone while the rest of the team and patients of the two other clinics are largely Francophone. Language is not an issue as staff is all fluently bilingual. With patients of low literacy levels, the clinic accommodates them much in the same was as they would work with children: good visual contact, working with lots of visual aids and tools and repetition.

Family Encouraged: The clinic welcomes family members/spouses when they visit with patients. Sometimes nursing home staff also comes. This is not explicitly encouraged, but if considered helpful.

Patient Feedback

Visiting Clinic: Both patients interviewed for the two clinics have been long-term patients of the clinics: 7+ years for Jacquet River and 13+ years for Dalhousie.

Rating of Service: Both gave a 10.

Role of Patient and Clinic: Patients described clinic staff's role as guiding them when they have a problem and helping them do the things they should in regards to the management of their diabetes. They consider their own role to be doing what they are told to do and to taking care of their health.

Accessibility: Both patients find the location of the clinics convenient. However the Jacquet River patient noted that at the clinic (Jacquet River) not everything is ground level.

Satisfaction and Complaints: Both rated very high and were impressed with the service received.

RÉSEAU DE SANTÉ vitalité HEALTH NETWORK

Lamèque Hospital and Community Health Centre

29 Rue De L'Hopital
Lamèque NB
E8T 1C5
T: 506.344.2261

Clinic Type:

Community Health Centre

Clinic Profile

The diabetes clinic is based in a small rural community.

Clinic Mandate

In the past, the clinic's goal was to provide services to diabetes patients without having to see a physician. This enabled many more patients to receive care in a timely fashion. Although this is still important, the mandate has become more about control and self-regulation through disease prevention and promotion.

Meeting Population Needs

The staff sees about 300 patients per year.

Due to cuts in physical space and number of medical beds, doctors do not have any objections referring patients to the diabetes clinic. Although many patients refer themselves, a diabetes diagnosis is needed from a physician.

The population in this area is of lower economic standing. Many of them rely on employment insurance benefits and are under considerable stress. Eating well is not always a priority for them as they feel it is expensive to do so. Understanding and education is often difficult for the patients. This leads to many follow-ups in order to ensure patients understand the effects of diabetes and the implication of medication.

A patient who is non-compliant will receive information as to what may happen if they don't properly manage their disease. They are not followed, but the option to return remains theirs.

Because of lack of resources, the team does not offer help with insulin pump.

Levels of Prevention

Primary (disease prevention, health promotion):

Every month the clinic organizes a public session where local residents can come in and get their blood sugars and blood pressure tested. This is usually held somewhere in the community. Twice per year, the nurse will go into schools for information sessions with teachers. Once per year, they will go to the local factory and offer this service to workers. Information sessions are only available through the clinic and not elsewhere within the community health centre.

Secondary (screening and early diagnosis):

Drop-ins often visit the clinic. They will be seen if a physician has already diagnosed them with diabetes. Often times the staff feels the diagnosis was not done early enough and the physician referred them too late.

Tertiary:

This is a very important level of service for the clinic as a whole. The clinic follows-up with diabetes patients to help them manage their disease and prevent complications through education. Staff members want to ensure patients thoroughly understand the information provided to them. They also help patients adjust their insulin levels. It is important to note that diabetic comas are now very rare. The staff feels this is due to their work.

Ensuring Follow-up:

Many patients have follow-ups by telephone. In the month of February, 65 patients were telephoned. January showed even more patients at 86. These calls can last anywhere from 15 to 30 minutes, depending on the patient. The nurse might telephone some patients once a week while others only every second week. Patients are also seen every 4 months, 6 months or annually, depending how well they are controlled.

Clinic Team

Internal Team Members:

Being in such a small community, the team consists of only two members, a nurse and dietitian. The nurse, Anita, has been a full time staff for 14 years. Lise, the dietitian, is only part time. She has to dedicate some of her time to another part of the community health centre as well.

External Team Members:

It was noted that many partners are involved with the clinic. The nurse and dietitian can request the involvement of a physiotherapist, ergotherapist, social worker, pharmacist, even other doctors. They can also refer patients to an endocrinologist. The professionals will not participate in any group sessions but can be contacted by phone. A nurse who is partnered with the hospital handles the development of the clinic and the program. She is the link between the clinic and the community and can determine what the community needs. She also visits the Miscou health clinic and performs the same duties as the nurse from the Lameque clinic.

Team Structure:

The diabetes clinic itself falls under the direction of the "Centre de Santé de Lamèque"; however, the diabetes nurse handles the day to day functions.

Communication:

Communication is mostly informal between the team members. They use telephone and face-to-face discussions. When communicating with partners from outside the clinic they will sometimes use the telephone but mostly they use written communication. When clinic staff post notes on a patient's chart for physicians, most physicians will promptly respond, although not all.

Self-Management

Role of the Patient:

Patients are responsible for taking charge of their health and committing to helping themselves. Their role is to monitor their diets and control their medication intake. In most cases, the clinic notes that significant positive changes were detected in blood-sugar numbers after only one year.

Professional/Patient Relationship:

Patients feel much more comfortable coming to the clinic than visiting their physician. They do not hesitate to call.

Patient Education:

Education sessions are available for patients who are interested. Topics covered include how to adequately measure your blood sugars, the impact of medication including insulin and injections. Those are the most common topics covered in the sessions.

Key Services Offered:

Staff can offer basic foot care and refer patients with higher needs to a foot care nurse. It is noted that foot care services seem to proceed much faster for patients when referred by the clinic.

Proportion of Patients Controlled:

Most patients see a considerable improvement after one year. The exact proportion of patients who are controlled was not available.

Availability and Meeting Demand

Staff members feel they are very accessible and provide a great deal of follow-up with the patients. The clinic provides an environment where all members work as a team and are, as such, able to meet the demand of the community.

Missing Services:

Lack of resources is a big concern. When one is sick, there is no resource available to replace that team member. Patients have to wait. There is also an issue with having to replace members in other clinics. According to the staff, budget and management seemed to be the reason for the lack of resources.

The staff also mentioned they did not have access to a podiatrist in the community.

Wait Times:

Being a small community with a smaller number of patients seems to be the reason why wait times are shorter. A patient whose blood sugar levels are significantly high can be seen as quickly as in 2 days.

Methods of Offering Service:

Services are offered in person and over the phone. Many patients are contacted by phone to avoid travel time and expense.

Satisfying Patient Needs

Satisfaction Levels:

No formal means of feedback is available. However, the clinic notes that most patients seem very content and satisfied with the services offered. Staff feels they are transparent and have nothing to hide from the community.

What Makes the Clinic Special:

In 2009, a study was done with 600 pre-diabetes patients. A prevention program was given to this group as well as group sessions. The patients really got involved and many took advantage of the program. There was a high number of self-referred patients.

This clinic is able to provide free test strips as well as insulin and medicine through free samples for those in need. Staff does not feel there is any abuse.

Being a small community, many of the patients know each other as well as the staff. They are involved and are willing to participate in the program and support each other in order to be healthier and better manage their disease.

Patient Feedback

Visiting Clinic:

One has been visiting the clinic for 12 years and one for 15 years.

Rating of Service:

One 10 and one 8.5 to 9 out of 10. *“À chaque fois que je veux les contacter, il a toujours une possibilité. Accessibilité”. (“Every time I’ve needed to reach them there has always been a way. Accessibility”.)*

Role of Patient and Clinic:

Patients agree that the clinic is there to coach and to follow-up on the patient, but that ultimately it is up to the patient to take care of his or her health.

Patient Education:

Patients noted that much of the education is one on one, during the course of their regular appointments.

Accessibility:

Both patients felt they could call and get an appointment quickly if needed. They also both referred to being able to get advice over the phone if needed. Neither had any issues with getting (accessing) to the clinic. *“Chaque fois que j’ai besoin de quoi, je peux appeler. Même si pas là, laisse un message sur le répondeur et elle rappelle”. (“Any time I need somthing I can call. Even if they aren’t there, leave a message in voicemail and she calls back”.)*

Satisfaction and Complaints:

Both patients were satisfied with the clinic.

Rexton Health Centre

33 Main Street
Rexton, NB
E4W 0E5
T: 506.523.7940

Clinic Type:

Health Centre

Clinic Profile

The Rexton Health Centre is located at 33 Main Street in Rexton, New Brunswick and it provides a network of services and programs to lead the way in health promotion and education. The centre serves the communities of Harcourt, Point Sapin, Rexton, Bouctouche, St-Louis de Kent, Richibucto, Richibucto-Village, St. Anne, Elsipogtog and others. The centre employs a team of nurses and physicians, who house their private practices onsite.

The clinic has 5 physicians and each has their own secretary/receptionist. The clinic also has 2 nurses, 1 licenced practical nurse, 2 other receptionists and a lab assistant for blood work. The doctors offer their services on a fee for service basis.

Nobody specializes in diabetes. All of the physicians try to have a complete assessment yearly and the nurses are trained for that. *"We check everything head to toe."* Shelly Jones comes once a month; sometimes for group appointments and sometimes for one on one.

Clinic Mandate

Role of the clinic is to educate, inform and treat people. They have a special focus on general health promotion.

Meeting Population Needs

The center has over 37,000 patient visits a year, which includes visits to doctors and nurses. They are not sure what percentage of those people would have diabetes because the records would be kept by each physician. Telephone calls are only used to make appointments and not to offer treatment.

The center has moved in the past five years and now has more room. There is a focus on general health with a smoking cessation program and a chronic disease management program called My Choice, My Health. There is a health club that meets at the clinic every Friday afternoon and it focuses on the Canada Food Guide and healthy eating and exercise.

The actual care a diabetes patient would receive depends somewhat on their family doctor. However, most physicians would refer to the diabetes nurse, Shelly or the diabetes education centre in Sainte-Anne-de-Kent if the person preferred service in French. A typical patient visit would start in the morning with blood work before they see their doctor. If the patient has more than one appointment in a day, they try to coordinate both into one visit. The diabetes nurse is there once a month so there are visits where the patient is seeing a non-diabetes nurse or their doctor rather than the diabetes nurse. Once a year, the patient is given a thorough check-up that includes: weight, height, BMI, foot exam with monofilament, sugar check, home sugar consultation and an assessment regarding physical activity, smoking habits, alcohol consumption and diet. In that yearly assessment with the nurse, the patient is asked if they have seen an eye doctor, a podiatrist and if they have had various immunizations (Influenza, Pneumovax). Immunization is given when needed. At this point, the medication list is also revised. This is noted in a chart so the doctor can refer to the information. These referrals are usually to the diabetes clinic and hospital in Moncton.

Insulin Pump Training:	Insulin pump training is not offered.
Pre-diabetes Education/Screening:	Family history is noted in the patient's chart for reference.

Levels of Prevention

Primary (disease prevention, health promotion):	The focus of the centre is general health and they offer smoking cessation classes and healthy eating classes. These classes are for any patient and not only diabetes patients.

Secondary (screening and early diagnosis):	The family doctor typically does routine blood work, annually.
Tertiary:	The physician and the visiting diabetes nurse are the focal point of the patient's care in terms of diabetes. Any co-morbidities are dealt with during normal visits.

Clinic Team

The patient's general practitioner is the focal point of the care and it is the general practitioner who refers to necessary specialists. The diabetes nurse visits once a month.

Internal Team:	The clinic has 5 physicians and each has their own secretary/receptionist. Patients would see their own doctor. In addition, the centre has 2 nurses, 1 licenced practical nurse, 2 other receptionists and a lab assistant for blood work.
External Team:	Shelly Jones, a diabetes nurse, visits the centre once a month. Patients are also referred to specialists and the clinic in Moncton or in St. Anne as needed. They do not have much in the way of community resources, but there are plans by a local pharmacist to implement a hypertension day. They have a health club.
Team Structure:	The individual doctors are the co-ordinator for each patient.
Team Qualifications and Education:	All team members have their own professional qualifications and the diabetes nurse who visits once a month is a certified diabetes educator. Most other training is done by one of the physicians in the centre. It is, however, harder and harder to get to conferences.
Guidelines:	There are forms that are followed that were developed by Dr. Melanie Arsenault. The forms are more detailed than the ones used by the Province of N.B.
Communication:	Communication is handled by email or by discussions. They do not have electronic files, but can access the files in the centre if they need to.
Co-Morbidities:	These are dealt with in normal visits to the centre.

Self-Management

Role of the Patient:	They hope to get collaboration from the patient, but if the patient is not into managing their diabetes there is only so much that can be done. Usually the doctor sees a patient every three months. The patient is encouraged to bring their sugars results with them. Even with the existence of the My choice, My health program, it is hard to get people to take an interest in their health and the clinic has a hard time filling up their classes.
Role of the Clinic:	*"The more informed they are, the better they are."* The centre does some education on carbohydrates and how to check their sugar levels and their feet. The goal is to help the patient manage their own diabetes.
Key Services Offered:	Immunization is one of the important services offered by the centre.
Proportion of Patients Controlled:	It is very hard to say how many patients are actually managing their own diabetes because the physicians are set up in their own practices.

Availability and Meeting Demand

Missing Services: There is no foot care service other than what is offered by the nurses in the annual assessment and what is offered by the doctors and nurses, in normal visits.

Hospital: They do not see patients in hospital.

Wait Times: The centre is open from 7:30 to 4 every day. Wait times for an appointment depend on the doctor. Some doctors have wait times as long as two weeks and some doctors are able to accommodate the patient the same day. The average wait time is 6.5 days. No shows are not a big problem. There are maybe 23 to 25 no shows per month.

Methods of Offering Service: Appointments are in person. Appointments are scheduled by letters or by phone. The clinics try to give a reminder call the day before a patient's appointment. Some services like blood pressure check don't need an appointment.

Distances: Most patients are within a half hour drive of the centre. There is no public transportation in the area. They do not offer distance services except that flu shots are given in special care homes.

Expenses: Testing strips are the expense that is most commonly mentioned when it comes to difficulty affording diabetes. Parking is free at the centre.

Satisfying Patient Needs

Satisfaction Levels: They know if people are receiving good care as they come to their follow-up appointments and they know this by the patient's AIC level. They feel that patients would say something if they were not satisfied and they did do a patient satisfaction survey about a year ago.

Dealing with Cultural Differences and Literacy: They are wheel chair accessible.

Patient Feedback

Visiting Clinic: The patient has visited the clinic for over 11 years.

Rating of Service: 9 out of 10. *"They are super, very kind … they will do their best."*

Role of Patient and Clinic: The patient believes her role is to manage her diabetes *"It's my role to take care of it, it's all on me, but it is great to have the clinic support."* She describes the clinic as *"My therapist, they are my backbone. They understand and I don't know what I would do without them."*

Patient Education: The patient is happy with all the education provided by the clinic. *"They make time for you, they can book you 30 minutes before or after your appointment to answer any of your questions."*

Accessibility: The patient lives about 10 to 15 minutes away and finds the location of the clinic very convenient.

Expenses:	*"Diabetes is very expensive… my test-strips, my medication, my shows, are very costly."*
Satisfaction and Complaints:	The patient has no complaints about the clinic and seems highly satisfied. *"They listen and they are there for you."*

Petitcodiac Health Centre

32 Railway Avenue
Petitcodiac, NB
E4Z 6H4
T: 506.756.3400

Clinic Type:

Health Centre

Clinic Profile

The Petitcodiac Health Centre has 3 family physicians in private practice that see patients by appointment. One of the physicians takes obstetric referrals for those who choose to receive prenatal care in their own community. A diabetes educator (Shelly Jones) is at the clinic every Friday. Three are also dietitians who come from Moncton once a month to see patients. As in other centres, Petitcodiac sees patients with a variety of issues and not only those with diabetes.

The diabetes educator has been visiting the centre for the past 5 to 6 years. Before that people had to go to Moncton. New diabetes patients are now first seen in Moncton and then they see Shelly in classes. They are about to add video conference capabilities for classes.

Care is directed by the physician and the diabetes educator. Diabetes patients have routine blood work every three months. *"We do ask when did you last see an eye doctor, when did you last have your feet checked – little bit of a reminder and push."*

The centre is located at 32 Railway Avenue in Petitcodiac in N.B. and drop-in nursing services are available Monday to Friday from 8:30-4:30. It services the areas of Petitcodiac, Sussex, Havelock and Elgin with some patients coming from Moncton.

Clinic Mandate

Education is most important focusing on encouraging self-management.

Meeting Population Needs

The diabetes educator comes every Friday and sees 6 to 7 patients. If there is a need for more visits, the afternoon will be booked as well. There are approximately 400 clients with diabetes. Service is offered in person and some by phone. They were very complimentary about the diabetes educator and noted *"a whole different outlook from patients"* since she has been visiting.

Most of the patients are older and from rural areas because of the setting of the centre. Recently they noted seeing younger patients.

Insulin Pump Training: Insulin pump and diabetes education are offered, but through the diabetes educator. Patient would say yes that they do offer it.

Pre-diabetes Education/Screening: There isn't any pre-diabetes education or screening done at the clinic.

Levels of Prevention

Primary (disease prevention, health promotion): They do have 2 dietitians and doctors will refer to the dietitians, which might be considered primary care. Most work with tertiary. The clinic does have insulin on hand if people run out or don't have funds.

Secondary (screening and early diagnosis): They do offer this through the dietitians.

Tertiary: As with most clinics, most of their work is with people who are already diagnosed with diabetes. The physician and the visiting diabetes nurse are the focal point of the patient's care in terms of diabetes. Any co-morbidity is dealt with during normal visits.

Clinic Team

The patient's general practitioner is the focal point of the care and it is the general practitioner who refers to necessary specialists. The diabetes nurse visits once a week and is considered part of the internal team and actually considered the coordinator in terms of diabetes.

Internal Team Members: Three physicians and a nurse. A dietitian visits once a month and the diabetes educator visits once a week. They see 3 to 4 patients per visit. There is also a lab for blood work. There is little or no overlap in roles between the team members although, if a case is urgent and the person cannot wait for an appointment with the diabetes educator, they will be seen by the nurse and by a physician (if necessary) to help them while they wait for the appointment.

External Team Members: Shelly Jones, a diabetes nurse visits the centre once a week, but in this instance was noted a member of the internal team rather than the external team. Patients are referred to specialists by the physicians, but are sometimes prompted to do that by the diabetes educator or the nurse in the centre. They have a VON nurse who does foot care.

Team Structure: The individual doctors are really the co-ordinator for each patient although it is clear that the diabetes educator also provides an important role here.

Team Qualifications and Education: They are all professionally trained. There were no conferences or additional training, but the feeling was a request for additional training would be supported.

Guidelines: These would be materials and forms used by the diabetes educator.

Co-Morbidities: These are dealt with in normal visits to the centre.

Communication: They are all in the same building and so they discuss cases. If there are issues with a particular patient, they will recommend something appropriate - encourage them to see doctor more often, adjust medication. They all work off one paper chart. There is some electronic charting, but not all on one system

Self-Management

Role of the Patient: The clinic works in the hope that people will take responsibility for their care.

Role of Clinic: The role of the centre and Shelly's role (diabetes educator) are quite intertwined. Shelly offers healthy eating classes and exercise class. The centre itself offers healthy eating pamphlets, Canada food guide and exercise choices. If they need advice, if it is urgent, then the clinic nurse will sit down with them. If this can't fix it, they will be referred to the doctor while waiting for Shelly. There are no written patient contracts.

Key Services Offered: Services that can be offered in the community through the efforts of the diabetes educator and the dietitians. *"Travel to Moncton is bad and parking at the Moncton Hospital is difficult. If the educator or dietitian sees something that needs to be looked at, they are there with the doctor and can often get them in."*

Proportion of Patients Controlled: 60 to 65% are doing well in that they are really trying and giving their best effort and when they are seen, there is some improvement in them. They can tell when someone is doing well by their blood work and when there are few complications.

Availability and Meeting Demand

Missing Services: Respondents felt that Shelly could better answer this question.

Hospital: They do not see patients in hospital.

Wait Times: The centre is open from 8:30 to 4:30 every day. Wait times for appointments depends on the doctor, but an appointment can be made with Shelly in one to two weeks. There is more of an issue with no-shows with dietitian appointments and this may be related to the fact that these appointments are made on the patients behalf because the doctor wants the person to see the dietitian. Reminder calls are made the day before for appointments. Demand seems to match supply well in that the diabetes educator is fully booked, but there are not a lot of people waiting for appointments.

Methods of Offering Service: Appointments are generally in person.

Distances: Most people are within 30 to 40 minutes of the centre. There is no public transportation, but there is free parking.

Expenses: Affordability doesn't seem to be as big an issue and there are only a few people on a compassionate program.

Satisfying Patient Needs

Satisfaction Levels: They know if people are receiving good care when they come to their follow-up appointments. They also know this by the patient's AIC level. They look to see if there are few complications.

Dealing with Cultural Differences and Literacy: They do have bilingual staff and do not feel that literacy issues are common.

Patient Feedback

Visiting Clinic: The patient has been visiting the clinic for 10 years.

Rating of Service: 9 or 10 out of 10. *"I trust them and they care about me."*

Role of Patient and Clinic: The patient believes his role is to take control of his own health. The clinic's role is to monitor him and he considers the relationship between him and the clinic as a partnership.

Patient Education: The patient has gone to the Moncton clinic for group classes.

Expenses: The patient has a Medicare plan.

Accessibility: The patient lives about 7 to 10 minutes away and finds the location of the clinic convenient.

Satisfaction and Complaints: *"The clinic never had a survey (for me to answer) but I feel that if I had a problem I could let them know."*

Fundy Health Centre

34 Hospital Street
Black's Harbour, NB
E5H 1K2
T: 506.456.4200

Clinic Type:

Health Centre

Clinic Profile

The Fundy Health Centre is located at 34 Hospital Street in Black's Harbour. The clinic serves Charlotte County, the area between Saint John and Fundy Isles (Grand Manan, Deer Island and Campobello). The clinic has been in existence for 6 years. Over the past 5 years referral rates have increased, and the single nurse practitioner finds that doctors are sending all their diabetes patients to the centre for diabetes education, life style motivation, nutrition and exercise, medication review and prescription changes, insulin starts, referrals and foot exam clinics.

Clinic Mandate

The clinic does not have a mandate, but tries to offer as many services as possible because it is in a low-income rural area with no public transportation, and is located about 1 hour from a larger centre.

Meeting Population Needs

The clinic currently has 400+ patients and sees up to 12 patients per day; 3 to 5 of these patients attend the clinic for diabetes issues only. The clinic also conducts from 5 to 20 phone consultations each day.

The clinic serves a rural, low income, blue collar, population with a rudimentary education. The clinic partners with Extra Mural because it serves two islands, which requires patients to take a ferry ride to visit the clinic. Patients in Campobello have to drive through the US to get to the clinic.

All of the clinic's clients have co-morbidities.

New referrals come in by fax or mail and the patient is contacted to set up an appointment. Patients may also self-refer to the clinic. New diabetes patients are invited to an 8 hour class that includes a grocery store tour. Group classes are conducted every 3 months off-site because the clinic does not have a conference room.

After initial consultations, diabetes patients generally return to the clinic four times a year.

The nurse practitioner has recently begun offering insulin pump teaching and is working toward becoming certified so patients don't have to travel for as many follow-ups.

Levels of Prevention

The clinic's services for each level of prevention vary and are highly individualized.

Primary (disease prevention, health promotion):	The clinic provides pre-diabetes education to local family doctors who pre-screen their own patients. The clinic's nurse practitioner does diabetes and blood pressure screening at the pharmacy and local fish plants. Along with a dietitian, the nurse practitioner conducts a 12-week program on nutrition education and wellness; however, space restricts the number of attendees to 7.
Secondary (screening and early diagnosis):	The clinic provides blood pressure checks, foot exams, urine and thyroid testing, nutrition and exercise counselling, motivational depression assessments, insulin starts and pump starts, medical review, and referrals as needed. The nurse practitioner also does prescription starts and renewals.
Tertiary:	The clinic has no inpatients, but does see some Extra Mural patients.
Ensuring Follow-up:	When patients are given a referral, the clinic keeps in touch with them to be sure they get an appointment. The results are added to their charts, and the clinic follows up with patients at their next visit.

Clinic Team

Internal Team Members: One nurse practitioner who works full time; ½ practice is primary care and ½ practice is solely diabetes/chronic disease.

External Team Members: The team works in partnership with a satellite dietitian who comes in once a week, as well as a registered nurse who does foot care.

Team Structure: The clinic charts every patient that comes in and a secretary does a chart audit, which is given to the facility manager. The nurse practitioner treats patients who come in and sends a formal consultation to the family doctor. If patients don't have a family doctor, they usually become a patient of the nurse practitioner.

Co-Morbidities: The clinic provides referrals to specialists as needed, including endocrinologists, ophthalmologists, infection control specialists, and mental health practitioners.

Self-Management

Role of the Patient: The clinic believes the patient's role is to seek information, ask if they don't understand, be on top of having their blood work done, and exercising and eating healthily. The clinic's role is to motivate them, act as a resource in all health-related areas and make sure they get the help they need.

The clinic uses written or oral patient contracts sometimes, but it is getting so busy that the clinician now uses a script pad with exercise and nutrition "prescriptions" to demonstrate that exercise and nutrition are as important as medications.

The clinic has a lot of no shows during the month of December, on hot days and on holidays. The clinic does make reminder calls to patients.

Professional/Patient Relationship: The clinic looks at the professionals and patients as a team, believes that the relationships at the clinic are strong, and that patients are receptive to follow-up.

Patient Education: The clinic's educational goal is to help patients become educated so they can manage their diabetes. They also provide insulin starts and changes.

Key Services Offered: The clinic offers one on one appointments, group classes, outreach at some pharmacies, a health and wellness fair, and serves as resource for the community in all areas related to diabetes.

Proportion of Patients Controlled: The clinician has some *"great compliant patients, but others I can talk to until I am blue in the face and can't get through until something bad happens. I always refer those patients to see an endocrinologist because hearing the same advice from different health care professionals may help them realize their diabetes is serious."*

Availability and Meeting Demand

The clinic is open from 8:30 to 4:30 Monday to Friday.

Missing Services:

With limited resources, the demand for services exceeds the appointments available.

Wait Times:

First time patients wait 1 to 4 weeks except for urgent cases; follow-up within one week; scheduled appointments are on an as-needed basis; routine visits every 3 months with all clinic patients.

Walk-in patients are usually fit in before clinic hours, during the clinician's lunch hour or at the end of the day. The wait for scheduled patients averages 10 minutes; the longest wait is 30 minutes.

Methods of Offering Service:

Services are offered in person, by phone and via email.

Distances:

The travel time for the furthest patients is 60 minutes; the average travel time is 20 minutes. There is no public transportation, but the area does have dial-a-ride.

Satisfying Patient Needs

Satisfaction Levels:

Most patients are extremely satisfied with the diabetes clinic; the clinic has conducted evaluations which support this. There have only been two informal complaints.

What Makes the Clinic Special:

With the presence of a nurse practitioner, *"Things are done in timely fashion. I do not have to call and wait for orders from a family doctor. As a nurse practitioner I can change medications, order tests, write prescriptions and refer patients to specialists; family doctors rely on me as a diabetes expert/resource. Because I am a jack of all trades, I can get patients started in the way that they want to go. I work in close partnership with pharmacists and dietitians; we are a team even though we are not under one roof."*

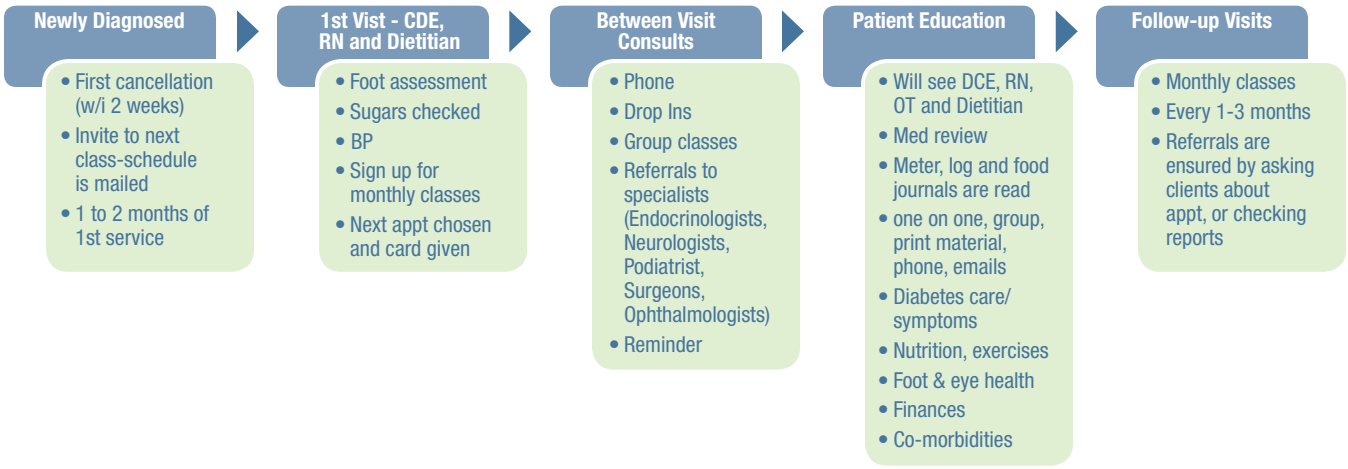
Dealing with Special Needs:

While the clinic is wheelchair accessible, the nurse practitioner must see patients in wheelchairs in clinic space because the nurse practitioner's office is small. There are handrails on all the walls. Clinic staff assists and escorts visually impaired patients, there are call bells in the clinician's office, and caregivers are welcome to come into the office.

Dealing with Cultural Differences and Literacy:

The clinic sees a lot of immigrants who work at the fish plant and speak no English at all. While the clinic has a computerized program to help with translation, the value is limited if the patient is not computer literate. The clinic has brochures printed in many languages and encourages patients to bring a translator. To deal with literacy issues, the clinic makes its material appropriate to the patients reading level and uses visual aids.

Patient Feedback



Visiting Clinic: The patient has been going to the clinic regularly for 8 years.

Rating of Service: 10 out of 10. *"When I go in they take me right away, go over everything and we talk about the next time. I just started to use my pump and we make adjustments. It is really good care."*

Role of Patient and Clinic: The patient sees his/her role as checking blood sugar regularly and calling the clinic every morning for instructions on adjusting the pump. The clinician's role is to make decisions about medications and guide the patient on using the pump.

Patient Education: The patient is being educated on using the pump and learned from the dietitian how to count carbs.

Accessibility: The patient is only a 20-minute drive from the clinic. The patient has great faith in the clinic's ability to answer any concerns in a timely manner. *"If I leave a message, she calls back as soon as she can. I have no concerns; I could get looked at that day for an urgent issue."*

Expenses: The patient has never had extra expenses other than a yearly appointment in Saint John.

Satisfaction and Complaints: The patient is clearly extremely satisfied with the services at the clinic. *"I know them and they know me and that makes it easier to talk to them. I hope they don't ever close that clinic in Black's Harbour."*

Fredericton Junction Health Centre

233 Sunbury Drive
Fredericton Junction, NB
E5L 1S1
T: 506.368.6501

Clinic Type:

Health Centre

Clinic Profile

The clinic is located at 233 Sunbury Drive, Fredericton Junction N.B. The clinic serves clients in Fredericton Junction, Tracy, Tracyville, Beaverdam, Geary, Hoyt, Wirral and Oromocto. The Health Centre has been in existence for 39 years. Over time it has transitioned from being a doctor's office to a health centre and wants to transition to a community health centre eventually. The diabetes clinic at the Health Center started about 14 years ago.

Clinic Mandate

The clinic follows the best practices outlined by Horizon Health Network.

Meeting Population Needs

The clinic has 210 patients on its recall list and had 7,000 patient visits in 2012. It sees about 8 diabetes patients a week and handles about 5 phone calls a week from diabetes patients.

The clinic serves a rural community with an older population that is generally lower-income and with lower education. The area has few stores and no local pharmacy, so transportation is an issue when patients need medications.

While the clinic follows a health centre model, they only have one doctor and the community still views the clinic as a doctor's office where they go only when sick. *"The community doesn't know what we do or can do."*

95% of the clinic's patients have co-morbidities.

New referrals come in the mail from other doctors' offices. An appointment is then booked for the patient to see a registered nurse and a dietitian for about 1 hour each. If HBA1C levels are at target, patients are seen about twice a year and more frequently as needed.

The clinic's services for diabetes patients include one on one education, classes, and community sessions on diet and exercise. All of the clinic's diabetes patients are Type 2. Patients with Type 1 and gestational diabetes are referred elsewhere.

The clinic does not provide insulin pump teaching.

Levels of Prevention

Pre-diabetes screening is done yearly on the month of the clients' birthday.

Primary (disease prevention, health promotion):	The clinic offers screening, health promotion and educational programs.
Secondary (screening and early diagnosis):	The clinic provides glucose checks, dressing changes, blood pressure classes, foot assessments, and education on osteoporosis, smoking cessation, healthy eating, and healthy activity.
Tertiary:	The clinic does not see in-patients.
Ensuring Follow-up:	When patients are referred to a specialist, the results are incorporated into the patient's chart. As Fredericton Junction is a rural area the nearest specialists are in Fredericton or Saint John.

Clinic Team

Internal Team Members:

One doctor, two registered nurses, a dietitian (2 times a month) and a nurse practitioner (once a month). The nurse meets with the Regional Diabetes Committee every other month.

Team Structure:

The staff members report to the doctor for medical issues and nurse manager for management/program issues.

Self-Management

Role of the Patient:

The clinic is currently shifting its focus to self-management by working with patients to set goals. *"We are here to help, but they are in charge."*

Approximately 1/8 of the clinic's appointments are no shows. The clinic does not make reminder calls.

Professional/Patient Relationship:

The patients feel very comfortable with the staff at the clinic. *"I think it's a good relationship, but sometimes they depend on us more than they need to. I think they depend on us because they don't feel as competent as they could."*

Patient Education:

The clinic's goal with diabetes patients is to prevent complications and help them have a longer and healthier life. The clinic uses a combination of direct consultations, print material and classes and utilizes visual aids such as drawing and PowerPoint slides. Patients who are computer literate may be directed to relevant websites. Clinic staff members do ongoing community outreach such as speaking at the local TOPs, Legion, and school.

Key Services Offered:

Key services for diabetes patients are sugar level testing, diabetes management, education regarding insulin, meters, medications, healthy lifestyle, and consultation with a dietitian, nurse or doctor.

Proportion of Patients Controlled:

The clinic has no hard data, but believes that many patients reach their goals at the beginning and then veer off. *"They set goals because we ask them to, but they don't do it on their own yet. They know enough to come in when something is off, but not enough to make changes to insulin without contacting us."*

Availability and Meeting Demand

The Health Center is open from 9 to 9 Monday, 8 to 5 Tuesday, 9 to 9 Wednesday, 8 to 4 Thursday, and 9 to 5 Friday.
After hours, patients have access to 911 and ER.

Wait Times:

The waiting time for a first visit with the registered nurse is less than two weeks; for a visit with the dietitian, the wait is about one month. For subsequent visits, if a diabetes patient has a high sugar level they can be seen the same day. For non-urgent appointments, the maximum wait is two weeks.

Unscheduled patients may wait anywhere from 5 to 60 minutes to be seen. There is generally no wait for a scheduled appointment to see the nurse. The patient survey indicates that there can be a wait to see the doctor.

Methods of Offering Service:	Services are offered in person and by phone.
Distances:	The travel time for the furthest patients is 45 minutes; the average travel time is 15 minutes. There is no public transportation and no formal taxi, but patients can sometimes hire neighbors to bring them to the clinic. The clinic does not provide distant services.

Satisfying Patient Needs

Satisfaction Levels:	The clinic has done overall satisfaction surveys with positive results. *"We get positive feedback everywhere we go."*
What Makes the Clinic Special:	Because the clinic is in a small community, the staff knows everyone and has multiple contacts with most of their patients.
Dealing with Special Needs:	The clinic finds that hearing is an issue with many of their patients. The clinic is wheelchair accessible. Visually impaired patients and those with learning disabilities generally bring someone with them.
Dealing with Cultural Differences and Literacy:	The clinic has not run into language differences or issues with cultural differences and rarely faces literacy problems. They have one patient with literacy problems and deal with that through phone calls.

Patient Feedback

Visiting Clinic:	The patient has visited the clinic for 13 years.
Rating of Service:	10 out of 10.
Role of Patient and Clinic:	The patient views his/her role as being careful about diet and carbs and views the role of the clinic as identifying problems, finding solutions and "keeping after" the patient.
Patient Education:	The patient's primary source of trusted information is the clinic's registered nurse. The patient also mentions that there is a lot of print material available, as well as books that may be borrowed by patients. The patient has also attended seminars and is aware of the amount of information available on the Internet.
Accessibility:	The patient has a car and can get to the clinic in about 5 minutes. The patient also mentioned the ground floor location and wheelchair button as pluses.
Expenses:	The patient, who is not on insulin yet, says that medication is the main expense.
Satisfaction and Complaints:	The patient says that the people working in the clinic make it *"very special, because their concern is genuine and they care about our health."* The patient also expresses worries about what will happen to the clinic when the present doctor retires.

Chipman Health Centre

9 Civic Court
Chipman, NB
E4A 2H8
T: 506.339.7650

Clinic Type:

Health Centre

Clinic Profile

Chipman Health Centre is located at 9 Civic Court in Chipman. The clinic serves clients in Chipman, Minto and Grand Lake. In various forms, the clinic has been in existence for 38 years

Clinic Mandate

The clinic uses the Horizon mandate and mission.

Meeting Population Needs

While the clinic doesn't track specific diagnoses, it believes it currently has about 250 clients who have diabetes.

The clinic finds that it's a challenge for many in the population they serve to monitor their blood sugar because they don't have a senior's plan or work health plan and can't afford to buy strips.

Most patients have co-morbidities.

New patients meet with a doctor who explains the results of blood work and the diagnosis. The patient is then assigned to the diabetes program, where the patient first meets with a nurse for an education session and gets a referral to the dietitian. The clinic does testing to establish a baseline and patients who are in the program are called back to the clinic every 4 months.

The clinic provides appointments with a physician or nurse as well as blood draws, review of lab work, diagnosis, dietary education, foot assessments, annual cardiogram, and screening for peripheral vascular disease. The clinic conducts group classes, but has found that these are not well-received.

The clinic does not provide insulin pump teaching.

Levels of Prevention

The clinic provides pre-diabetes education and screening.

Primary (disease prevention, health promotion): The clinic offers as much primary prevention that the small staff can give. They offer groups related to exercise and lifestyle change and they check immunizations.

Secondary (screening and early diagnosis): A lot of what the clinic does on a day-to-day basis is secondary.

Tertiary: The clinic has no inpatient beds, but does provide ambulatory care for some people with illnesses that can be managed on an outpatient basis (IV antibiotics, cellulosis) when they have the resources to do so.

Ensuring Follow-up: When a patient sees a specialist or has a test done, the clinic checks the results and if there is a concern, they contact the patient by phone or bring them in for an appointment.

Clinic Team

Internal Team Members: The team consists of 5 members: 2 family doctors, a dietitian, a nurse and one other clinician.

Co-Morbidities: Ophthalmology and cardiology are the two most common referrals provided by the clinic. They also make regular referrals to deal with smoking cessation, obesity, sleep apnea and circulation problems.

Self-Management

Role of the Patient:

The clinic considers the patient responsible for *"putting all the measures in place"*: making appointments for follow-up, practicing the education the clinic provides and doing their sugar tests. The clinic considers itself responsible for making services easily accessible and available for making sure the patient is well educated.

The no show rate at the clinic is 2 to 4 patients per day. Because of limited resources, the clinic only makes reminder calls for therapeutic department (dietitian) appointments.

Professional/Patient Relationship:

The clinic believes they have a good relationship with their patients, but that some patients are not ready to make the necessary changes after a diagnosis of diabetes. *"I think they respect and understand what we have to say, but trying to implement all of those lifestyle changes that come with diabetes can be really difficult."*

Patient Education:

The clinic's goal in education is for patients to feel that they have the knowledge to manage their disease. Most diabetes education is done one on one. If the clinic has a group session that may be of interest to diabetes patients, they will specifically invite them.

Key Services Offered:

The clinic offers one on one appointments and some classes, but no phone consultations. It typically does not see drop-ins.

Proportion of Patients Controlled:

The clinic finds that some patients do really well. Others manage to the best of their financial ability. Some patients are limited by factors outside of their control, while others may not be ready to make lifestyle changes.

Availability and Meeting Demand

The clinic is open from 8 to 4 Monday to Friday.

Wait Times:

For first-time patients, appointments are set up within a couple of weeks. Follow-up visits are generally scheduled every 4 months.

Wait times when a patient arrives for an appointment varies within 30 minutes.

Methods of Offering Service:

Services are offered face-to-face.

Distances:

The travel time for the furthest patients is one hour, usually because the patient has moved and either chooses to stay with the clinic or hasn't found a new doctor. The average travel time is 10 to 15 minutes. There is no buses or taxis in the area. Patients usually walk, drive themselves, of have a family member or friend drive them.

The clinic does not offer distant services.

Satisfying Patient Needs

Satisfaction Levels:

While the clinic has done some satisfaction surveys in the past, they have not done anything recently. There has been discussion about conducting a survey prior to the clinic's next accreditation. Based on narrative, patient progress and lack of complaints, the clinic is satisfying its patients' needs.

What Makes the Clinic Special:

The fact that it is a small clinic contributes to its success. The clinicians know everyone quite well and know their circumstances, which makes it possible to work with them successfully.

Dealing with Special Needs:

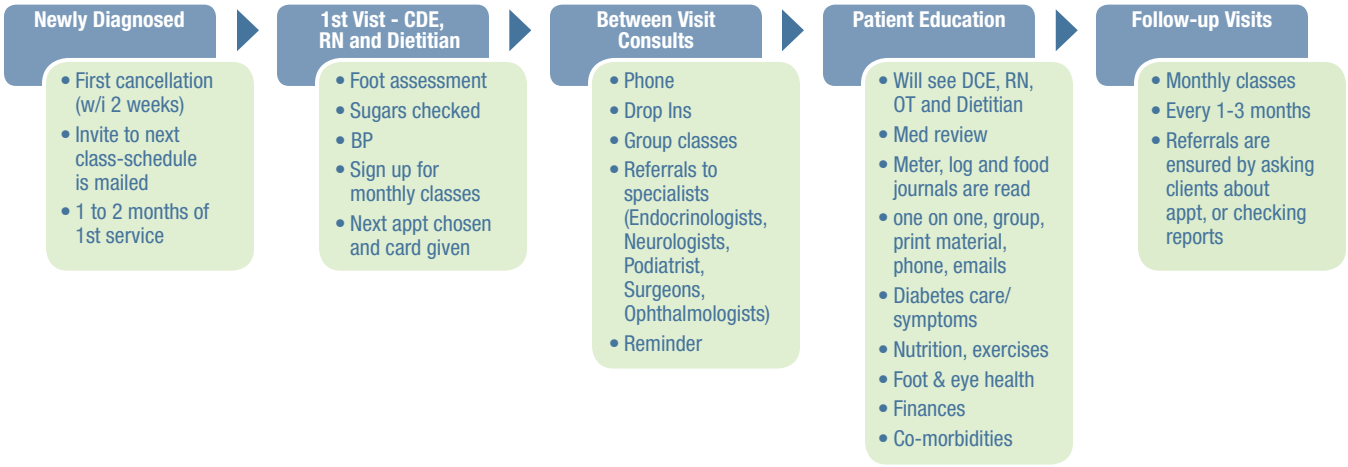
The clinic is wheelchair accessible.

Dealing with Cultural Differences and Literacy:

Cultural and language differences are not an issue at the clinic.

The clinic adjusts to literacy differences by changing its means of teaching; for example, using a video rather than written information or a demonstration rather than a brochure.

Patient Feedback



Visiting Clinic:

The patient has visited the clinic for 3 years.

Rating of Service:

10 out of 10.

Role of Patient and Clinic:

The patient reports that his/her role is to *"look after my feet and try to do what I am supposed to do,"* while the clinic is responsible for *"seeing signs in my body (especially my feet) that are affected by diabetes."*

Patient Education:

The patient was offered the opportunity to attend classes, but feels that any questions are well answered during appointments.

Accessibility:

This patient relies on getting a ride from others to get to appointments, but is only 5 minutes from the clinic. The patient mentioned the clinic's availability of parking and first-floor location as benefits to patients.

Expenses:

The patient finds the amount of money needed for needles, alcohol swaps, medications and finger pinchers *"overwhelming,"* but says *"you don't get upset about it because it's a necessity."*

Satisfaction and Complaints:

The patient is very complimentary about the staff, particularly the physician. *"I can't say enough about my doctor. He says the things you don't want to hear, but in a way that you don't feel bad. He is good at talking and listening."* The patient also notes how comfortable the staff make him/her feel.

Harvey Health Centre

2019 Route 3
Harvey Station, NB
E6K 3E9
T: 506.366.6400

Clinic Type:

Health Centre

Clinic Profile

The health centre is located in Harvey Community Hospital, 2019 Rte 3, Harvey Station N.B.

Harvey Health Centre provides primary care, including diabetes treatment, to the Harvey Village and Manor Sutton area, which has a population of about 3,500. Diabetes care at the clinic has changed during the past 5 years, moving from predominantly one on one to group education sessions. Education is done with either a nurse or dietitian.

Clinic Mandate

The clinic's mandate is to provide primary care to the Harvey Station catchment area.

Meeting Population Needs

Because the clinic's registration process does not separate patients based on disease, they have no way of knowing the number of diabetes patients they treat.

The clinic's clients come from a very rural, very spread out area. The average age is 42 and the average income is just under $50,000 per year. A significant percentage of the patients are highly educated and English; 73% are third-generation. People in the area have a sense of ownership of the centre and view its personnel as part of the community, so they support the clinic and want it to be successful.

Depending on their needs, new diabetes referrals may see a nurse or a dietitian.

The clinic does not provide insulin pump training; those patients go to Dr. Everett Chalmers Regional Hospital in Fredericton.

Levels of Prevention

Primary (disease prevention, health promotion):	The clinic provides both pre-diabetes education and pre-screening through community outreach. For example, they may bring a mobile machine to the bank for a testing session. They are currently hiring a community developer to promote healthy lifestyle choices for various age groups.
Secondary (screening and early diagnosis):	The clinic provides secondary prevention through education and access to its services.
Tertiary:	The clinic does not provide services related to tertiary care.
Ensuring Follow-up:	If the primary care provider is a private doctor, follow-up can be difficult because the clinic needs patient-specific permission to pull a file.

Clinic Team

Internal Team Members:	The clinic has 9 team members, including a nurse practitioner, registered nurses, a licensed practical nurse, a clerk, a dietitian. There are two doctors who work in private offices in the centre.
Team Structure:	The staff reports to the centre manager, who in turn reports to the Director of Community Health. There is a new diabetes educator who also reports to the Director of Community Health.
Co-Morbidities:	For appointments with specialists, patients need to go elsewhere. The clinic provides referrals to endocrinologists, ophthalmologists, neurologists and orthopedic doctors.

Self-Management

Role of the Patient:

The clinic views the patient as responsible for accessing their services and obtaining whatever enables them to meet their goals. The practitioners provide education and support and work to create an environment that makes patients want to access the services that will help them manage their health and lifestyle.

The clinic believes that promotional campaigns are working in their community. There are patients who have *"heard a PSA and want more information to be healthier. It seems the population wants preventative strategies more than before".*

The no show rate is low because the clinic makes reminder calls and provides appointment cards for some of its services.

Professional/Patient Relationship:

Because most patients have lived in the area their whole life, they know the practitioners outside of the health centre and have constant access to them. This familiarity both helps the relationship and makes it difficult, so there is a conscious effort to respect boundaries. *"The person providing the education about diabetes may be viewed as the person who plays the organ at church, so it's hard to change hats. Patients don't hesitate to ask you a question in a restaurant or bank, which may enhance patient care [in a way that] does not happen in urban settings".*

Patient Education:

The clinic's educational goal is to provide patients with knowledge and tools to live a good life and increase their overall health, not just control their diabetes. The clinic provides education through the local newspaper and advertises education sessions offered in the surrounding area. They provide group sessions for all patients (not just diabetes) as well as one on one consultations and displays based on monthly topics. They also use tools from the Department of Health website so messages are standardized.

Key Services Offered:

Diabetes patients can access the full range of services at the health centre, including pulmonary care, education programs and primary care. In addition to one on one consultations and group education, the clinic provides phone counselling. The clinic does not use email contact.

Proportion of Patients Controlled:

The clinic believes that proportion is probably low, but the trend is shifting due to changes they've made. *"For a long time we offered advice and the patient either did it or didn't. If they didn't, they may not have come back. Now when a patient comes, the visit is to talk about whatever aspect of diabetes the patient wants, not a standard list that we have to get through as we did before."*

Availability and Meeting Demand

The clinic is open from 7 to 7 Monday to Friday. After hours, patients can get information through the Telecare line. If patients need service urgently, nursing care is available immediately any time the clinic is open. The clinic can also make referrals to a diabetes care case manager who travels to the clinic. Phone support is another option offered by the clinic.

Missing Services:

There are some communication difficulties between the clinic and the private practice doctors in the hospital stemming from the need to keep patient information private and to restrict access to patient records. This issue was identified in their needs assessment, and they are working to make improvements.

Wait Times:

The clinic has a lot of flexibility in terms of seeing patients. Diabetes patients can be seen within one day by nurses; the wait to see the nurse practitioner may be up to a week, depending on urgency. The clinic tries to include a visit with a dietitian at the same time, but the wait could be as long as one week. In some cases, walk-ins may be seen immediately.

Unscheduled patients who arrive at the clinic are triaged and informed what the waiting time will be. Patients with scheduled appointments occasionally have to wait if the team has to deal with an emergency situation.

Methods of Offering Service:

Services are offered in person and by phone, particularly for insulin adjustments.

Distances:

The travel time for the furthest patients is 30 minutes; the average travel time is 30 minutes. There is no bus service to the clinic, but there is a bus with limited seating that travels to Fredericton two times a month. Patients without their own transportation rely on friends and family or may pay a neighbor to transport them. The clinic does not provide distant services, but will make referrals to the Extra–Mural Programme.

Satisfying Patient Needs

Satisfaction Levels:

A1c levels show that things are working and satisfaction surveys after education sessions are positive. *"We don't do goal setting on patient charts yet; we are waiting for the pilot".* Because the team knows their clients, the clients are comfortable telling them if they need more of something. There have been no complaints from patients. Complaints from staff members about manual scheduling and booking are being addressed.

What Makes the Clinic Special:

The clinic believes that ready access to primary care and the ability to walk in or have a phone consultation makes the clinic special. In addition, they offer a personal approach. *"If one person cannot help you, they will find someone who can."*

Dealing with Special Needs:

The clinic has wheelchairs at the door and will help family members bring patients in. The clinic has a high-low table to help patients get up and down.

Dealing with Cultural Differences and Literacy:

To deal with language differences, some staff are taking French language training. Sometimes they call other centres for 3-way direct call translation services. To accommodate patients with literacy issues, all printed material is at a grade 6 or lower level and the clinic has some educational material in diagram format. *"[Literacy] is a concern and hard to detect in one on one, but we try to be aware of the cues."*

Outreach Diabetes Case Manager (Southeast NB)

RÉSEAU DE SANTÉ vitalité HEALTH NETWORK

Clinic Type:

Outreach Case Manager

Profile

The South-East New Brunswick outreach case manager is a nurse certified in diabetes who visits doctors' offices. She is based out of the Dr. Georges-L.-Dumont University Hospital Centre, but travels to visit patients in Moncton, Dieppe, St-Louis and Shediac.

Meeting Population Needs

During the last 3 months before the interview, the nurse had seen between 200 and 250 patients with some being seen once a month to only once every 6 months. These patients live in many different regions, the furthest one being about one hour away from Moncton.

Certain areas have a higher percentage of patients without insurance. Shediac and St-Louis seem to be two of these areas with an older population and having mostly seasonal workers.

Only 5% to 10% of patients are no-shows. The main reason for the low no-shows is due to the dual appointment with their physician.

The nurse does not offer help with insulin pump.

Levels of Prevention

Primary (disease prevention, health promotion): 1/3 of the cases are pre-diabetes patients. They are seen by the nurse once to explain exercise and prevention. They are then sent to the dietitian. The nurse does not see them again unless the patient specifically requests it through the physician. This happens rarely.

Secondary (screening and early diagnosis): Physician do all the screening. Some will request blood tests regularly for patients who are susceptible to diabetes. Others don't screen as well. It is up to the patient's physician to determine screening and get the early diagnosis.

Tertiary: The nurse does follow-ups at the physician's office. With some education, she helps the patient maintain control of their diabetes.

Ensuring Follow-up: For patients not very well controlled, the nurse will see them monthly. Once they become better, she will see them every 3 months. 70% of patients are seen every 3 months. Follow-ups are done face-to-face in the doctor's office as well as by phone.

Clinic Team

Internal Team Members: Because the nurse is not working from a clinic, she is not part of a team. She works on her own and visits the offices of physicians.

External Team Members: She does, however, have access to these physicians. When she visits the patients, she can easily request a consultation with them.

Co-Morbidities: Though not necessarily due to their diabetes, 30% to 40% of her patients have pulmonary and cardiac issues. When problems arise, there is always a doctor available, often during the same session.

Communication: Communication with the doctors is usually informal since they are in the same office. On some occasions, notes are written for the patient's file. There is also contact with nurses from the diabetes clinic. This is mostly done by phone.

Self-Management

Role of the Patient: Though the nurse is there to help, the patient needs to take responsibility and learn how to live with and control their diabetes. Patients have to take their medicine, check their feet and keep their doctor's appointments. Much motivation is needed for them to do this.

Professional/Patient Relationship: Patients seem to be comfortable meeting with the nurse since they are in a known environment (doctor's office).

Patient Education: She teaches her patients about prevention, meal planning and exercise during her visit but is very limited due to a 30 minute time restriction. In some cases, when she needs to teach something to a patient, for example a new meter, she will extend the visit to an hour instead of 30 minutes. However, the visit has to be scheduled in advanced for that period of time.

Key Services Offered: Foot care is available when patients are referred by the nurse. Patients who need to see other specialists, including the ophthalmologist, will be referred by their physician. Extra-Mural is also available for in home care when needed.

Availability and Meeting Demand

Only patients who have a family physician can see this nurse. She does not coordinate with any diabetes clinic. If a person wants help with their diabetes but does not have a family doctor, they must go through the clinic and this can be a longer process. The need seems to exceed what she can handle at this time.

Wait Times: Since visits are done in the doctor's office, there is no waiting list. Patients can be seen very quickly, usually within 2 weeks. However, on average, visits to each office are only once per month.

Methods of Offering Service: Services are offered mostly in person at the physician's office. There were a few mentions of telephone calls, mostly for insulin follow-ups.

Distances: Patients do not need to travel to see the nurse since she goes to their doctor's office. It makes it much easier on the patient. The longest she travels is about an hour.

Parking: Since patients visit their doctors at the same time, parking was not mentioned as being an issue.

Other Barriers: Some physicians do not understand her role therefore do not deem her visits necessary. Others are new to the area and aren't aware of her services.

Satisfying Patient Needs

Satisfaction Levels: Questionnaires are sent to the physician who then gives them to the patients. Once those are filled out they are mailed to the supervisor.

What Makes the Clinic Special: The fact that patients are seen often and quickly proved to be a strong point. Also, patients have easy access since they only need to go to the doctor's office. This way, she is able to access more people than at the clinics.

Dealing with Cultural Differences: One patient speaks Spanish but understands English. It did not seem to be a problem. Very few cultural differences have been identified.

Family Encouraged: Family members and caregivers often accompany patients during their visits. Because of space restrictions (small offices), only one or two members usually go with them.

Outreach Diabetes Case Manager (Southeast NB)

Clinic Type:

Outreach Case Manager

Clinic Profile

The outreach diabetes case manager in Southeast NB is a relatively new role in New Brunswick. It was developed in response to the perceived lag time between a patient's diagnosis of diabetes and attendance at the Diabetes Education Centre. The objective of this role is to provide support and timely access to a certified diabetes educator. For 9 years (since 2004), the outreach diabetes case manager has been visiting primary care practices and family doctor's offices and bringing the services to them. Her role is to enhance best practices within those practices, educate patients, physicians and staff inside those practices. She serves about 42 physicians and 2 nurse practitioners across communities in the Southeast (Greater Moncton, Petitcodiac, Rexton).

Case Manager Mandate

The principal mandate is to bring collaboration with family doctors. The case manager is the liaison between the patient, diabetes expertise and the family doctor. An important part of the service is to build relationships with the patient (helping them buy-in and feel more comfortable with treatments and diabetes overall), as well as with the doctors, and being able to advance therapy a little faster.

Meeting Population Needs

The case manager does not have an accurate record of the number of patients she sees as patient files typically remain at their physicians' respective clinic. However, the Health Department noted 372 patients 2011, which seems to be an underestimate (counted 460 in 2008). The case manager had 672 visits last fiscal year (not unique patients), 72 of which were newly diagnosed. She can see between 7 to 10 patients per day depending on the types of patients. She allocates 1 hour for insulin starts and 1 hour for new patients and 30 minutes for follow-ups.

Demographically, her patients vary as they are in different communities. Patients are mostly type 2 diabetes and many are from rural areas. In Rexton, First Nations people commonly choose to visit the clinic rather than their health centre and, as such, are referred to the case manager for diabetes education. *"They don't go to their own services…Some won't go to the health centre."* Rexton is also surrounded by French communities, which is at times (but rarely) an issue to accommodate since most speak both languages.

The case manager solicits her services to doctors at their offices, and the service works particularly well for doctors in shared spaces. One physician added this year. Referrals from those doctors (to the diabetes case manager) vary as not all doctors use the service the same way. Some wish for the case manager to visit *all* diabetes and pre-diabetes patients, others tend to refer the problem or more acute cases. Some patients, particularly pre-diabetes patients, may be referred to the case manager only once. Patients will visit with their doctor after having seen the case manager (sometimes on the same day, other times not, depending on the doctor and service) as a follow-up to the visit and to refer to a specialist or prescribe new/change medication as suggested. *"I do not have direct access but can speed up if need to be in front of the list. Still need referral from doctor but can fast track it."*

The case manager works very closely with the doctors. She identifies patients who need to see a specialist, can refer patients back to the Diabetes Education Centre's dietitian or other services (and book appointments for them) and will recommend or connect patients with community resources such as the Sobeys classes or the YMCA.

First appointments are made by the doctors' administrative staff, and in accordance to the case manager's scheduling chart. Follow-up appointments are then often made directly by the case manager. Reminder calls are sometimes made, depending on the office. *"In most offices I'll have my charts plus my schedule and I will book the follow-up."*

The case manager focuses on the 'buy in' and helping patients accept their disease, first and foremost, as well as patient-led management of diabetes. *"It's about the patient. Wherever they think they need to be and what the doctor thinks. Try to get them in the middle. It's about the patients, not the numbers."*

The case manager does not offer insulin pump teaching but will connect patients with resources as needed.

Levels of Prevention

The delivery of services across each level of prevention depends largely on the physician.

Primary (disease prevention, health promotion): Limited. Diabetes education classes in Rexton and Petitcodiac are open to the community not just patients of the primary care providers in those facilities.

Secondary (screening and early diagnosis): Depends on the doctor. Some doctors will screen and refer pre-diabetes patients to the case manager for a prevention consult. *"Some (doctors), if it's pre-diabetes, they want them to come see me to touch base, prevention strategies."*

Tertiary (management of disease and complications): This is the most important level of service for the case manager. *"The idea was to target people with an A1C above 8."*

Ensuring Follow-up: Patients are followed-up as long as individual doctors continue to agree with the recommendation of a follow-up. Pre-diabetes patients are typically seen once. Follow-up visits are based on the need and will be no sooner than one month apart as the case manager visits each office once per month on the same day each month. Most follow-ups, however, will be scheduled every 3 months, 6 months or once a year.

Clinic Team

The case manager is part of multiple teams of various types of structure, depending on the patient and the clinic.

Internal Team Members: Depending on the clinic, the case manager will work collaboratively with one doctor, or a nurse practitioner and often a receptionist/medical administrative assistant.

External Team Members: The case manager considers anyone that has any direct or indirect impact in helping a patient manage their diabetes as part of the 'team'. This includes fitness facilities, pharmacists and other links in the community. *"And the community pharmacist, they're part of the team. Team is whoever can help you."*

Team Structure: The team structure depends on the office/clinic. For the most part, the team is a collaborative structure between the case manager and the primary care provider (family doctor or nurse practitioner). The philosophy is such that the patient is expected to be the leader of his/her 'diabetes team'. The role of the case manager is to empower them with the tools and information needed to take self-management into their own hands. *"If we teach them and empower them to be, they will be (the lead)."*

Co-Morbidities: The case manager, through an individual interviewing process, defines other variables that may have an impact on patients' self-management such as socio-economic factors, co-morbidities and medications. Co-morbidities are easily identified given the access to the patients' full medical information at the doctor's office and the case manager incorporates this information and individualizes her consult accordingly. *"When patient goes to the (diabetes) clinic you have one paper with limited amount of information about this person. They have to understand they may have very thick files. Might be many issues you don't know like depression."*

Communication:

Communication across team members is both informal and formal. The case manager will discuss patient issues with their physician and will coordinate schedules through the administrative assistant. Formally, patient notes are written down in the patient's chart (at the office, electronically) as well as recorded in the case manager's files. The case manager uses enterprise-wide scheduling to make, for example, appointments with dietitians on behalf of patients. *"Connect through secretary. If doctor is in the building I will go see him/her for prescriptions for insulin if patient is ready."*

Self-Management

Role of the Patient:

The patient is taught and expected to take control and take ownership of his/her diabetes and managing the disease. They are provided with individualized tools, information and resources that help them achieve self-management. *"People need to self manage. Our role is to facilitate." "I tell my patient my job is tools and information. You're the one that has to do the work."*

The case manager deals with very few 'no-shows'. Some offices call their patients the day before to remind them. The no shows are patients who do not show even for the family doctor. *"They are just not on board with anything. Can usually tell from the chart. Not very many."*

Professional/Patient Relationship:

The relationship is individualized to the patient, depending on their needs and self-management barriers. The case manager is respected by patients because of the collaborative relationship with physicians. *"It's a comfort thing. Knowing I'm having the same conversations with their doctor. A lot of comfort in that."*

Patient Education:

The case manager's goal is to empower patients with individualized information, resources and tools to facilitate self-management. She also educates doctors and office teams on all things diabetes. Most patient sessions are individualized but for those comfortable in groups and who wish to attend a class, some classes are held (in Rexton and Petitcodiac in particular) on basic diabetes education using tools such as the CDA's 'Living with diabetes' Map and "Healthy Eating" map. *"In Rexton and Petitcodiac, I do classes. Class is basic education. This is diabetes, this is how it works, this is how we manage it."*

Key Services Offered:

The case manager's role is to facilitate self-management, and to enhance best practices within the doctor's practices. Visiting practices gives easier and quicker access to specialists and other resources because of the collaboration with the family physician. Another key benefit is the individualized service from having access to patients' health history, as the thorough examination of barriers to self-management that can be achieved from this individualized service. *"It's harder to know softer stuff; barriers to self-management. Money? Insurance? Takes more digging. Need conversation."*

Proportion of Patients Controlled:

The proportion of patients that are controlled or doing well is difficult to measure. For the case manager this involves not just data and targets, but also qualitative measurements of stability. *"For me, not at target but how stable are they. If they're close to target and staying there, that's stability."* Empowerment and making informed decisions is also described as a measure of 'doing well' according to the case manager and, as such, most patients are doing well. Although the case manager noticed a notable improvement in A1C's among her patients, the proportion of those who seem stable or controlled was unknown. *"I did a measure in 2008. 460 some patients. 0.766% average drop in A1C. I tracked it myself for a while, though not now. Within one year there's a drop."*

Availability and Meeting Demand

The case manager's services currently meet the needs and demand from the patients of the 42 physicians and 2 nurse practitioners served. Shelly added one additional clinic in the last fiscal year and does allocate time to various committees and as such, her numbers are down this year (in terms of number of visits) relative to last year. *"I have a couple of days that don't belong to anyone and I protect those days. Need those if there's a storm and need to reschedule."*

Missing Services: The key missing piece is the lack of an exercise physiologist (or kinesiologist) as part of the team. Shelly has access to multiple community resources but when it comes to exercise programs, access is limited due to cost. Not having sidewalks/safe roads to walk on is an important barrier to self-management/ exercise in rural areas.

Wait Times: Depending on the patient, wait times will be at least one month depending on the type of patient. Most will wait 3, 6 or 12 months between visits.

Methods of Offering Service: In between visits, Shelley will do telephone consults and some email follow-ups, particularly for those new on insulin. She occasionally provides her personal cell phone number to patients when she feels they might have questions or concerns starting insulin.

Distances: The travel time would depend on the clinic's location. For the most part, because the case manager visits rural regions (Rexton and Petitcodiac) at local doctors' offices, patients live nearby. Access is easy, familiar, convenient and parking is free. *"It's the place where they are going usually anyway."*

Satisfying Patient Needs

Satisfaction Levels: No formal means of feedback is available. Patients are encouraged to talk and give feedback during visits.

What Makes the Clinic Special: The most important element of the case manager's service is consistency in messaging. What the doctor says is on par with what the case manager says because of the collaboration between the two. It gives patients comfort. The case manager is a specialized extension of the physician's services. *"Family doctors don't have the time, the resources, training, coaching to move that patient along in a 7 and a half minute visit."*

Dealing with Special Needs: Physical accessibility depends on the clinic. It is unclear whether the case manager has special tools or resources to work with hearing or visual impairments.

Dealing with Cultural Differences and Literacy: When in Rexton, the case manager sees a good number of First Nations members. Many chose to visit the Rexton clinic over the health centre in their communities. The case manager does not speak French but has been able to meet the language needs of patients and the majority of physicians (except one) had no concerns with the language of service.

Family Encouraged: Spouses/family members frequently come to visits with the patient and are encouraged to do so as they too are an important part of the team.

Saint John Regional Hospital – Pediatric Clinic

400 University Avenue
Saint John, NB
E2L 4L2
T: 506.648.6000

Clinic Type:

Pediatric Clinic

Section 1: General Information about Clinic

Let's start with some general information about the clinic. Can you tell me some general information about how long it has been in existence, how many people work here and what their various roles are?

How long has the clinic been in existence?	**30 (IN YEARS)**
Respondent:	**Role and clinic commitment:**
• Tara McAfee BN RN CDE	Diabetes Nurse Educator (.4 FTE)
• Allison Crowell BN RN CDE	Diabetes Nurse Educator (.4 FTE)
• Lori Waller RN	Diabetes Nurse Educator – on call to clinic
• Janet von Weiler BAA MEd RD CDE	Dietitian (.2 FTE)
• Dr. Susan Sanderson	Pediatric Endocrinologist (6 hr/week clinic time plus additional hours for follow-up telephone calls, prescription renewal, inpatient management etc.)
• Dr. Marianne McKenna	Pediatrician (3 hr/month clinic time plus additional hours for follow-up telephone calls, prescription renewal, inpatient management etc.)
• Dr. Marc Nicholson	Pediatrician (3 hr/month clinic time plus additional hours for follow-up telephone calls, prescription renewal, inpatient management etc.)
• Dr. Wendy Alexander	Pediatrician (3 hr/month clinic time plus additional hours for follow-up telephone calls, prescription renewal, inpatient management etc.)
• Erin Connelly	Administrative support for Dr. Sanderson. Fields phone calls, organizes charts and forms and generally supports the team in clinic activities.

In addition there is 24/7 coverage provided to patients through the hospital pediatrician call schedule. When the patient is hospitalized, the pediatrician is directly responsible for day to day care of the patient while the nurses and dietitian are responsible for ongoing education and follow-up.

Have there been major changes to the clinic (either since it started or in the past 5 years or so). Briefly what have they been?

- Originally the clinic was staffed by a pediatrician (approx. 10 hr/month), a nurse educator (approx. 0.1 FTE) and a dietitian (approx. 0.1 FTE) who had a commitment for the actual clinic time plus additional time for inpatient teaching at new diagnosis of Type 1 diabetes
- In November 1996 a part-time nurse (0.4 FTE) was hired to manage the program and become a certified diabetes educator. Prior to that time it was typical that at diagnosis, children stayed in hospital about 2 weeks. The goal with the changes to the program was to shorten hospital stay to a minimum and with the money saved from admission, fund the position
- Shortly before this time, the clinic was joined by a pediatric endocrinologist and time commitments for clinic were formalized. (Dietitian time was established at 0.2 FTE, clinic frequency was increased, follow-up schedule was formalized)

- During the following 17 years, nursing staff has increased to current levels to meet increasing demand.
- In the past 5 years, the pediatrician who originally established the clinic retired and three new pediatricians joined the clinic, each following their own cohort of patients
- In the past 2 years, the New Brunswick Pediatric Insulin Pump Program was established which has increased demands on clinic for pump initiation and follow-up for additional children using insulin pump therapy, plus on-going program documentation for all children using insulin pump therapy.

What is the clinic's mandate? How and to what extent does it realize that mandate? Which services are provided?

To help families and children in the Saint John Area with diabetes live healthy lives – living life to the fullest and having best possible health outcomes. The vast majority of children followed by the Pediatric Diabetes Clinic have Type 1 diabetes.

Services provided:

- Education for children and families newly diagnosed with diabetes
- On-going care and follow-up for children and families with diabetes
- Insulin Pump initiation and follow-up
- Liaison with the education system and day-care to assist teachers with children with diabetes in their classroom
- Liaise with the Department of Social Development as needed
- Liaise with the Canadian Diabetes Association, Juvenile Diabetes Research Foundation, parent support groups and other related community groups
- Educational workshops for other diabetes educators, teachers, and the public regarding topics related to children living with Type 1 diabetes

What is the clinic's reporting structure?

- The nurses report to the Nurse Manager of Pediatrics who in turn reports to the Program Administrative Director, Pediatrics and Women's Health
- The dietitian reports to the Manager of Clinical Nutrition who in turns reports to Director of Rehabilitation, and Psycho Social Services

Theme 1: Meeting Population Needs

Could you tell me about the people that you serve? Where do they come from geographically?

Saint John Area of the Horizon Health Network with additional referrals for follow-up from throughout New Brunswick.

Number of clients (validate our info)

- 147 clients
- 415 visits per year
- 10 to 15 per day calls that are received
- 10 emails per day

Any characteristics that stand out? Demography (age, rural/urban, socio-economic group…)

- Children aged 18 years or less at the time of diagnosis of diabetes with on-going follow-up and management until the patient is aged 18 to 22 years
- Urban and rural split is about half and half
- Patients and the families represent all socio-economic classes

How many visits per client?

- 3 face-to-face visits per year with additional visits if the need arises

Does this include contacts other than direct face-to-face e.g. telephone, group meetings? How many clients have co-morbidities (other health conditions)?

- In addition to face-to-face visits we also have telephone and email contact
- Patients using insulin pump therapy can upload data to web-based systems such as CareLink for further discussion and analysis with the pump educator
- Most common co-morbidities found in the patient population are other auto-immune diseases such as celiac disease, thyroid disease and other endocrine issues

What are the main services that you provide to clients? What would happen to a new referral to your clinic?

- Education at new diagnosis of Type 1 diabetes, within 24 hours of diagnosis
- Follow-up and education and management following diagnosis
  - 1 week,
  - 6 weeks,
  - 3 months post diagnosis and
  - On-going follow-up every 3 to 6 months

Referrals received from outside the Saint John Area for assistance with on-going diabetes care are scheduled as soon as possible, generally within 1 month.

Does the clinic offer insulin pump teaching?

Yes

Does the clinic offer pre-diabetes education/screening?

No – Not Applicable

As our clinic deals with Type 1 diabetes, there is no pre-diabetes screening possible at this time with current medical knowledge.

Services for each level of prevention

To what extent does the clinic provide services relating to each level of prevention? (see explanation at bottom of questionnaire)

Our clinic deals almost exclusively with Type 1 diabetes, therefore only tertiary services are available to this population.With the current standards of practice and medical knowledge of Type 1 diabetes, no prevention or pre-screening is possible except possibly in a medical-research setting.

Primary Prevention and Secondary Screening and education for the children and youth at risk for Type 2 is done by the endocrinologist, pediatricians and dietitian in other settings, but not within the Pediatric Diabetes Clinic setting.

How are services for each level of prevention provided to this population or clientele? (primary, secondary, tertiary)

How does the clinic ensure that its population has *access to the full range of required services* including community services and specialist health services? (e.g. referral to specific specialists, liaison with community services or individuals). Are these services provided within the clinic or by liaison with other organizations/individuals?**

Tertiary

- Referrals to other specialists are arranged by endocrinologist or pediatricians
- Referrals to other services are arranged by clinic staff as needed

How is follow-up ensured?

- Via phone call or direct contact with patient and family

Which regular sources of specialist care are used? What formal lines of communication *(describe the lines of communications for each that apply)* NOTE: Start by dealing with these individually, but if respondent combines them into one topic, that is okay.

Endocrinologist	• part of clinic team
Ophthalmologist	• referral basis as needed • yearly screening by ophthalmologist or optometrist, reminder given to patients and families and followed-up at clinic visit
Neurologist	• referral basis as needed – seldom required
Podiatrist	• referral basis as needed – seldom required
Surgeon	• referral basis as needed – seldom required
Other – Dermatologist, Nephrologist, Gastroenterologist	• referral basis as needed as a result of screening for complications and co-morbidities done during clinic visit and follow-up
Social Worker, Psychologist, Child Life Specialist	• Valuable members of the larger Diabetes Care Team having an expertise in caring for children and families with Type 1 diabetes, who see patients case by case on a consult basis as the need is identified by the core team members

How does the clinic provide for patients with co-morbidities?

- Team reminds patients and families about need for on-going monitoring of complications and records results or reports in clinic chart
- When screening completed during the clinic visit shows any areas of concern, a referral is made by the endocrinologist or pediatrician to an appropriate specialist
- Follow-up is provided in clinic

Theme 2: Self-Management

What is the role of the patient and family in disease management?
What is the role of the professional in disease management?

Goal of education and support is self-management of Type 1 diabetes by the patient as appropriate for age, and the family. The role of the team members is facilitating management of Type 1 diabetes by the patient and parents and to support them as they become independent.

How is the professional/patient relationship viewed?

We work as a diabetes care team with the patient and family as the core. Our goal is to develop a warm, interactive relationship with the patient and family that facilitates information sharing.

Who is responsible for defining patients' problems and their solutions?

The patient, family and team members all have a responsibility. Every clinic visit each patient meets with the dietitian, nurse and physician. Each professional explores issues and concerns with the patient and family and together a management plan is developed based on the patient's age and development.

Patient Education

Types offered?

- One to one teaching and follow-up with each family
- In the past classes were tried however given the individual needs, varying ages and stages of development with the population served, the classes were not well received

Themes addressed?

- Self-management of Type 1 diabetes
- Healthy eating and carbohydrate counting
- Active living
- Insulin injection technique
- Insulin adjustment
- Blood sugar monitoring
- Diabetic Ketoacidosis (DKA) prevention
- Sick Day Management
- Hypoglycemia management
- Insulin pump training and management
- As age appropriate - other topics such as leaving home, driving with diabetes, alcohol

Methods used?

One-to-one education with patients and their families using a variety of teaching tools, including materials from:

- Canadian Diabetes Association
- BC Children's Hospital
- Toronto Hospital for Sick Children (Sick Kids)
- IWK Hospital
- Many self-developed materials

What are the goals of patient education?

- The goal of patient education is ultimately to have the patients develop the skills to look after themselves (age and development appropriate)

Who is involved in patient education?

- The family has a key role in caring for the child or youth with Type 1 diabetes and patient education is directed to the family. Extended family member involvement is encouraged

Tell me about patients' level / degree of self-management overall?

- Variable skills depending upon child's age and stage of development, family's problem solving skills and supports. All families are encouraged to develop self-management skills

How is self-management supported? Availability of team to advise, including out of hours? Tools used? Written patient contracts?

- Physician support available 24 hours a day
- Nurses are available 4 days per week, Dietitian available 5 days per week during work hours
- Emails, phone messages and faxes checked regularly
- Team members are also available via pager or cell phone after hours especially for families newly diagnosed with diabetes or at the time of pump initiation
- Written contracts were tried with some older teens and families with limited success in the past so are not used

How does the team support self-management of conditions other than diabetes?

- Focus of team is diabetes
- Other conditions such as celiac, hypothyroidism, Down's syndrome, anxiety disorder, eating disorders, autism etc. are taken into account but these are not the primary focus of the clinic

To what extent is self-management supported? Give reasons for the answer; details on why it is believed that self-management is actually achieved.

- Self-management is the goal and model used in the education and follow-up of our clinic patients. Education focuses on management and treatment of diabetes including treating low blood sugars, carbohydrate counting, administration and adjustment of insulin, blood glucose monitoring and treatment of high blood sugars
- The minimal number of hospital visits occurring due to complications surrounding diabetes management after initial diagnosis gives us a good indication that patients and families are managing diabetes fairly well

Theme 3: Team Approach

Can you tell me who you consider to be the team members within the clinic and outside the clinic?

Clinic Team Members:

• Tara McAfee BN RN CDE	Diabetes Nurse Educator (.4 FTE)
• Allison Crowell BN RN CDE	Diabetes Nurse Educator (.4 FTE)
• Lori Waller RN	Diabetes Nurse Educator – on call to clinic
• Janet von Weiler BAA MEd RD CDE	Dietitian (.2 FTE)
• Dr. Susan Sanderson	Pediatric Endocrinologist (6 hr/week clinic time +)
• Dr. Marianne McKenna	Pediatrician (3hr/month clinic time)
• Dr. Marc Nicholson	Pediatrician (3 hr/month clinic time)
• Dr. Wendy Alexander	Pediatrician (3 hr/month clinic time)
• Erin Connelly	Administrative support for Dr. Sanderson

External Team Members:

- 2 Child Psychologists
- Social Worker
- Family Doctor
- Child Life
- Patient Family Resource Centre librarian
- Additional Administrative support

Record Above: Can you tell me about professional qualifications for these people and further training they might have? Do you have a mechanism for training?

- All professionals are registered members of their professional bodies with specialized interest and training in pediatrics and Type 1 diabetes
- Nurse educators and dietitian are Certified Diabetes Educators and Certified Pump Trainers

What kinds of educational materials and activities do team members use to keep up to date? Is there organizational support for educational activities?

- National Canadian Diabetes Association conference (once every 2 years)
- Provincial Diabetes Educators conference yearly
- Local Diabetes Educators meetings and workshops
- Webinars sponsored by CDA, DES or a variety of other industry sources
- “Lunch and Learns” and other learning opportunities provided by industry representatives
- Journals and professional articles regarding diabetes care and best practice

Education leave is supported through Horizon Health Network as per the applicable collective agreements.

How are the roles defined?

Roles are defined by our profession and area of expertise

What is the overlap between the roles of the team members?

Each team member has distinct roles with minimal overlap. Questions from patient or family more appropriate for another professional are re-directed.

Who is the team coordinator?

No one is formally designated as team coordinator. Coordination is a group effort using a collaborative approach. Different team members may take the lead on a particular project or issue as applicable to their knowledge and talents.

Who is the team leader? How does he or she execute his or her role?

Dr. Susan Sanderson is the team leader. Using a facilitative collaborative approach decisions are made and actions are taken.

Describe the role of community resources in relation to the team. How is the community invited to participate in care?

- Participate and involve personnel in the schools
- Family support group – Silly Frogs
- Work with Department of Social Services as needed
- JDRF
- CDA

Describe the role of hospital resources in relation to the team?

- Salaries of team members
- Workspace and materials
- Clinic space
- Laboratory medicine

What is the involvement of the team in the care of hospitalized patients?

- Education of patient and family with regards to any diabetes related hospitalization
- Problem solving and support related to diabetes care during hospital stays for other issues
- Pediatricians are directly responsible for day to day medical care of the patient

Describe the means of informal communication between team members (including with those outside the clinic). Describe their effectiveness.

Very effective.

- The core clinic members work in a central area and have daily discussions and communication
- Other communications involved telephone, email, and fax
- Regular team meetings

Describe the means of formal communication between team members (including with those outside the clinic). Describe their effectiveness.

Very effective.

- Rounds once a week involving team members
- Semi-regular planning meetings for the clinic structure and set-up
- Frequent email discussions

How are the interventions of the team members guided? Do the members use common evidence-based guidelines, protocols, flow sheets or other tools? How is it decided which tools are used? How are tool updates integrated into team practice?

- Canadian Diabetes Association Clinical Practice Guidelines
- International Society for Pediatric and Adolescent Diabetes Clinical Practice Consensus Guidelines
- CDA flow sheets and work sheets
- Continually revising practice and updating in an ongoing process

How is communication between team members maintained, how is communication between the team coordinator, the team leader and the team members maintained?

We all work together collaboratively and work in close proximity. Daily discussions occur.

How are patient care processes and outcomes evaluated? What happens to the results of these evaluations?

- Follow-up of serial A1c results
- Tracking hospital admission rates
- Focus groups
- Research project - survey of newly diagnosed families 3 months post diagnosis
- Information gathered is reviewed on a regular basis and is used in planning for programs and services offered by the clinic as well as to address any areas of concern uncovered

How is quality of care ensured?

- Close follow-up and individualized attention to need

What are the main services that you provide that you feel really makes a difference to the lives of your clients?

- On-going follow-up with patients and families
- Individualized personal care and attention

Is there anything missing? Is there something that you would like to be doing that you are not able to do?

- Secretarial/admin support in booking patient into clinics and telephone reminder calls would be greatly appreciated as the nursing staff currently performs this function and their time would be much more effective focused on patient care and education rather than administrative functions
- Transition to adult care program has been under development for some time and enough time, and resources to trial and launch the program would benefit the older teens and their families
- We had a family therapist as part of the team in the past who made a valuable contribution to many families. When she was re-assigned, her role was not filled on the team
- Time and resources to be able to incorporate new teaching tools such as Conversation Maps into the clinic program

Theme 5: Team Approach

Availability

What would you say is the availability of the service? i.e. the volume of services offered in relation to the demand?

- Meeting needs overall

How long is the wait for first service?

- Within 24 hours of diagnosis

How long is the wait for follow-up visits?

- Beginning post diagnosis – 10 days, 6 weeks, 3 months and then onto the regular clinic schedule

Are services offered via telephone or indirect contact?

- Yes – telephones are answered Monday to Thursday and voice mail messages are checked throughout the week
- Also interact with patients and families via fax and email

Accessibility

What is the journey length for the most distant clientele of the service?

- 4 to 5 hour drive

What is the average journey length of the clientele?

- ½ hr to 1 ½ hr drive

Approximately what proportion of the served population would be able to access the services using public transport?

- Approximately 30%

How do clients get to the clinic? What kind of help is offered to those who find it difficult to get to the clinic?

- Generally private vehicle, some via public transport
- Irving Fuel to Care funding is available to assist with the cost for some families
- Parking passes are available for families with a Health Card from Social Development

Does the clinic offer distant services? Does the clinic's clientele benefit from distant services (from other service providers)?

- We correspond with patient and families via telephone, fax and email
- We have used videoconferencing with some families at a distance, through their local health care facility
- Blood work can be arranged near people's homes

How do patients communicate with the clinic?

- Face to face
- Phone
- Email
- Fax

Of patients with scheduled appointments, how many do not turn up for the appointment?

- 20 to 25% - most will call prior to their clinic appointment to inform us they are not able to come

What reasons are given for not turning up?

- Conflict with parent's work schedule (not allowed by employer to take time for children's appointments)
- School schedule – exams etc.
- Transportation difficulties
- Weather

What efforts are made to increase the attendance at scheduled appointments?

- Appointment call 1 month prior and reminder call 1 week prior to appointment
- Flexible scheduling to meet requests whenever possible

How are first appointments scheduled? How are follow-up appointments scheduled? How are appointments confirmed or how are patients reminded of their appointments?

- First appointments are made at the time of diagnosis, follow-up appointments are arranged at that time and each subsequent appointment has a reminder call

Accommodation

What are the clinic's opening hours?

- 8: 30 am to 4:30 pm, Monday to Thursday

What kinds of consultations are available (scheduled, unscheduled, in person, by telephone or email)?

- All of the above

What is the wait time in the clinic for an unscheduled consultation?

- Depending upon the day about a half hour to an hour wait

What is the wait time for a scheduled consultation?

- About 1 month from receipt of new consult to the appointment time
- Within 24 hours of new diagnosis
- Waiting time on the day of the actual appointment varies but may be half an hour to 45 minutes

How does the clinic accommodate patients with special needs, e.g. visual impairment, mobility impairment, parents with children…?

- Special needs are accommodated on a case by case basis – literacy issues, learning difficulties, hearing or visual impairment, supplemental oxygen dependency etc.
- By definition, all of our clinic patients are children or youth

Affordability

What other expenses do patient bear in order to get appropriate care (travel, parking, accommodation, dietary requirements, exercise facilities etc.)

- Parents missing time from work – usually unpaid
- Travelling costs
- Overnight accommodation for some out of town families
- Cost of caring for diabetes – insulin, blood glucose monitoring, special diets etc.

Acceptability

How do you know that you are meeting the needs of the client/what do you do to ensure that you are meeting the needs of clients? How is the satisfaction of clients and their families measured?

- In the past we have had surveys and focus groups with parents and children with diabetes
- Currently have a research project – survey regarding satisfaction with initial interactions post diagnosis

If there have been complaints about clinic services, in what areas are they and what has been done to address them?

- Waiting time in the registration line
- Waiting time in the blood lab
- We have discussed these issues at various times with both departments and have had some limited success with making improvements – demands on the system and staff issues are usually the basis for the problem

How does the clinic deal with different cultures and languages?

- Use translation services as needed
- Availability of some translated materials through Canadian Diabetes Association
- Try to be sensitive to the individual needs of all of our patients

How does it deal with literacy problems?

- A number of visual tools have been created by the Canadian Diabetes Association plus many from other sources are available
- Many visual tools are available to teach young children who have not yet acquired literacy skills
- Clinic has developed a number of tools such as calculator sheets to help with numeracy issues

The Moncton Hospital – Pediatric Clinic

135 MacBeath Avenue
Moncton, NB
T: 506.857.5111

Clinic Type:

Pediatric

Clinic Profile

The clinic is located in the Moncton Hospital. The Moncton Hospital is located at 135 MacBeath Avenue, in Moncton.

As a critical care and Level 2 trauma centre, the Moncton Hospital is a Maritime referral destination for acute and trauma cases, covering New Brunswick, Prince Edward Island and northern Nova Scotia. As well, the hospital provides family practice, medical and surgical sub-specialties including neurosurgery, medical oncology, interventional radiology, and women and children's services (including neonatal intensive care).

The clinic started approximately 12 years ago with Dr. Bensaleh, a nurse/diabetes educator and a dietitian and has since grown to 6 pediatricians and, as needed, child life specialists, social workers and psychologists. An additional part-time nurse has also been added during that time.

A major change in the past several years is the use of insulin pumps and the need for training on different models of pumps.

Clinic Mandate

The clinic's mandate is to continue to stay on the leading edge of what is new and to help the children and young adults they see transition into the adult world. The clinic's focus is broader than the patient and includes the family of the patient: *"how can we help the family unit?"*

Meeting Population Needs

The clinic serves between 60 and 80 patients in total and these people are seen generally every three to four months. A patient and family will generally visit a structured clinic every four months and the clinic has 13 clinic days every 3 to 4 months with a pediatrician present. They try to make appointments 45 minutes apart, but all team members meet at once (family, patient and any health care providers) and so appointments typically last an hour. They can see 6 patients a day.

In addition to seeing patients in person, they can call and email. If they like, they can email their records once a week. A pediatric registered nurse is accessible via pager 24/7 because of the belief that the family needs to be able to reach someone who knows their case when they most need it.

The clinic serves the School District Anglophone East area which includes the English schools from Port Elgin to Richibucto to Riverside Albert. There are also a few patients in Parrsboro and Amherst Nova Scotia who find it easier to get to Moncton than to Halifax.

Part of the service offered is to go into the schools to educate teachers who have a person with diabetes. The vast majority of patients have type 1 diabetes.

Since the clinic does serve pediatrics with type 1 diabetes they do not spend much time on co-morbidities. They do, however, screen for celiac, thyroid and cholesterol and refer to an ophthalmologist every two years.

Levels of Prevention

Primary (disease prevention, health promotion):	There is little pre-diabetes work because they are dealing mostly with type 1 diabetes. There is some nutrition education done in schools.
Secondary (screening and early diagnosis):	Again because they are dealing with type 1 diabetes there is no work done at this level.

Tertiary: This is where the majority of their work is done. All new patients are in hospital first and there is a general referral to the whole team.

Ensuring Follow-up: No-shows for appointments are not much of an issue and are usually weather related when they do happen. The pediatricians' offices send reminders for clinic appointment visits.

Clinic Team

Internal Team Members: They include 6 pediatricians, a nurse/diabetes educator, a dietitian and a part-time nurse.

External Team Members: Include child life specialists, social workers, psychologists and pharmacists.

Communications: The key members of the clinic meet once a week as a team. The clinic uses a paper record system that all members of the team can access.

Model: The clinic follows the CDA for clinical standards and also follows international standards. In terms of formal tools, they have modified tools from the IWK to suit their own needs. The quarterly diabetes assessment report tool was blended from other tools. The striking difference in this clinic is that all members of the team meet with the patient at one time rather than one on one sessions with each health care practitioner.

Team Structure: There is a coordinator, but the clinic is run more collaboratively with the person with the most involvement with the child taking the role of coordinator. A team leader is specified for each person and most of the time it is nursing that takes the coordinator role.

Self-Management

Role of the Patient: To feel empowered and to be able to care and manage their health independently with the clinic support.

Professional/Patient Relationship: To try to empower the family and to educate them for their child's care. They do use patient contracts for some of the teenagers who are using insulin pumps. They use it for leverage with the pump and they renew it every year.

Patient Education: There are 7 to 8 modules that are conducted in a classroom setting. These include; what is diabetes, what is insulin, blood glucose monitoring, carb counting and nutrition, exercise and diabetes, sick day management and diabetes and school. They also use conversation maps. For pump training there is a pre-pump session and a pump training session and these are conducted one on one with the patient and a broad definition of the patient's family.

Key Services Offered: The ability to contact their nurse any time. *"There is an individualized care plan and when patients are done with us we hope they feel empowered to care and mange their health and diabetes"*.

Proportion of Patients Controlled: Staff estimates that more than half are reasonably self-managed.

Availability and Meeting Demand

The pediatric clinic is open from 8 to 4 Monday to Friday but if there is a new diagnosis on the weekend, the diabetes educator will go in and introduce herself to alleviate any worries the patient might have.

Missing Services:

"We would love to have a transition clinic for those 19 to 25 who have different needs from children and adults and who do not fit into either group." "How do I manage my diabetes as I am trying to figure out my life?"

Wait Times:

The clinic is in contact with new patients every day on discharge and once stabilized. The families communicate mostly through email weekly with blood sugar reports. If the clinic feels that a family needs to be brought back in between clinics, they can get an appointment within 2 weeks.

A small number of families might arrive at the clinic without an appointment. An effort is then made to see them if possible.

Methods of Offering Service:

Services are offered in person, by phone and by email. The clinic travels to schools and provides community health education.

Distances:

While the distances for some visiting the clinic could be approximately an hour by car, she is not aware of any serious issues concerning accessing the clinic.

Satisfying Patient Needs

Satisfaction Levels:

The clinic participates in the Horizon Health Network satisfaction survey and asks for feedback during appointments.

Affordability:

The Provincial Pediatric Insulin Program (PIPP) that was introduced last year has helped, but it is the strips and the sensors that are now costly. As an example, the sensors are $60 and last 6 days so people often use them for a period of time, record the data and make adjustments and then stop using them for a period.

Dealing with Special Needs:

There are accommodations for wheelchair access and vision issues.

Dealing with Cultural Differences and Literacy:

During the psychosocial assessment when the child and family are first met, there is an assessment of literacy levels and cultural preferences/differences that are used to modify the teaching and care plan.

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