Western Health

Enhancing Diabetes Programs and Services in Western Health

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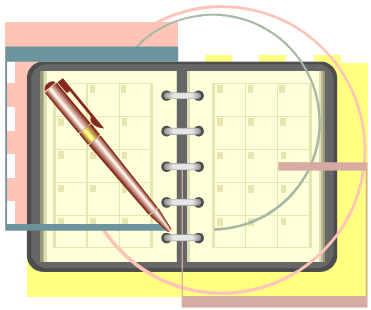
Western Health

Objective

To share WH experiences with quality improvement related to Diabetes Services.

- Background
- Model of Care
- Infrastructure
- Quality Initiatives
  - Quality
  - Access
  - Monitoring



Western Health Strategic Goal 2011-2014

"By March 31, 2014, WH will have enhanced programs and services in diabetes management to respond to the identified concerns of residents in the Western region."

- Diabetes Steering Committee

- Priorities:
  - Improved Access to Diabetes Services
  - Improved Quality of Diabetes Services
  - Improved Monitoring of Diabetes Outcomes

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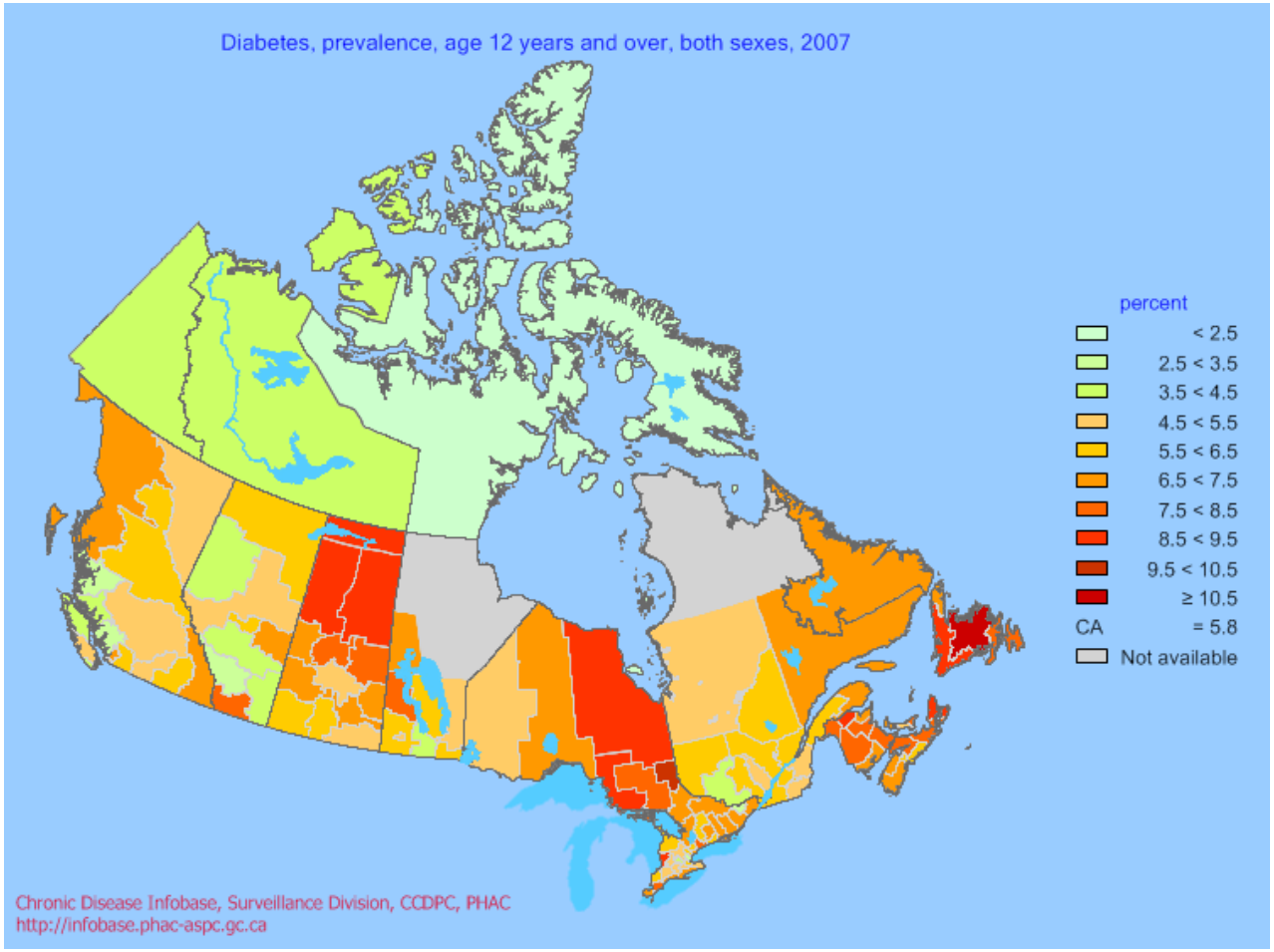
Our starting place….



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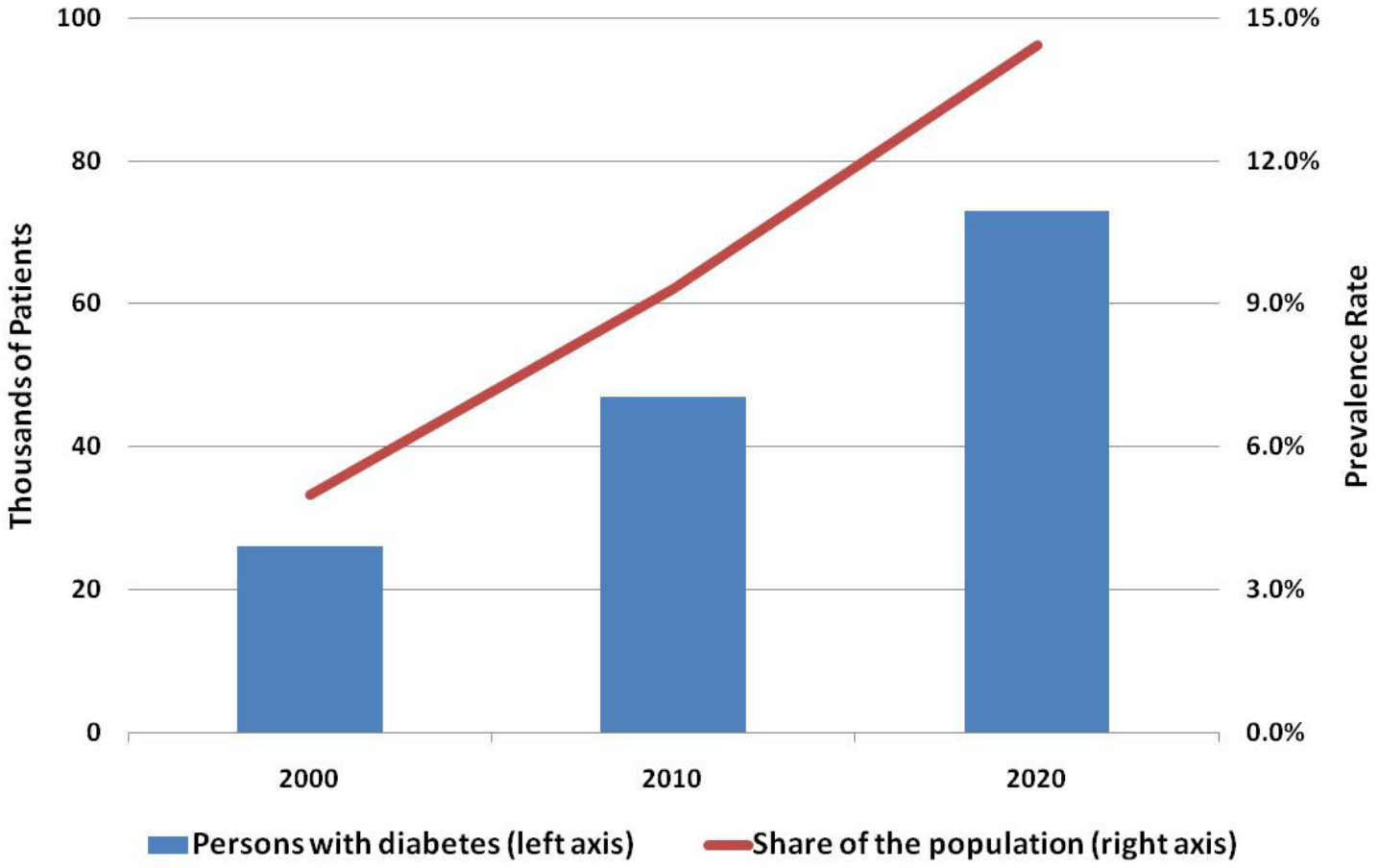
Type 1 and Type 2 Diabetes in NL
2000. 2010. estimated 2020



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- Diabetes Focused Environmental Scan 2008
- Strategic Plan 2008-2011

  (CDPM Focus)
- Community Health Needs Assessment

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Services Provided for Clients with Diabetes - 2011

	Diabetes Education Centers	Diabetes Collaboratives
Program Lead	Community Health and Family Services	Health Promotion and Primary Health Care
Managers	Community Health Nurse Manager (nurses/admin) Director of Patient Services (dieticians)	Primary Health Care Managers (2)
Locations	Western Memorial Regional Hospital Sir Thomas Roddick Hospital Sir Charles Legrow Health Care Center	Port Saunders Bonne Bay Deer Lake/White Bay
Type of clients	Basic – very Complex, gestational, peds, type I, Type II, Pumps	Type II
Service Providers	Diabetes Nurse Educators Community Health Nurses Dieticians Admin Support	Physicians Nurse Practitioners Community Health Nurses Dieticians Admin Support
Dedicated or Shared Resources	Most dedicated, except dieticians outside the Corner Brook Site	All Shared

"fragmentation of services, need for dedicated leadership, resources and a program plan" (Dort, 2008)

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Identifying a New Approach to Care

- To identify a model of care to support creation of a Regional Integrated Diabetes Prevention and Management Program.
  - Build on strengths of current services
  - Develop shared vision across the continuum of care
  - Decrease fragmentation of services
  - More closely align services with needs of communities/ residents
  - Increase access to services for clients
  - Improve client outcomes by improving quality of services

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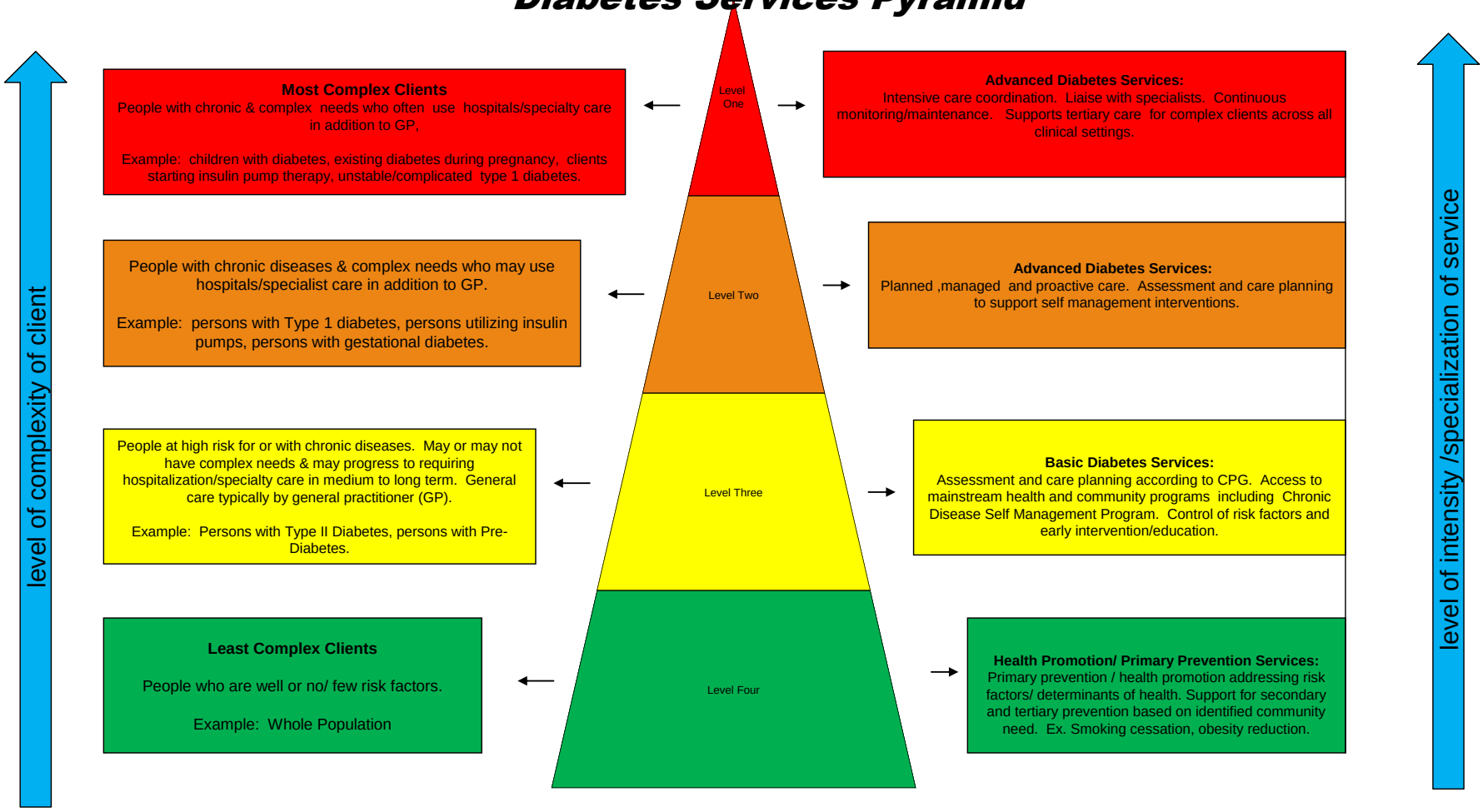
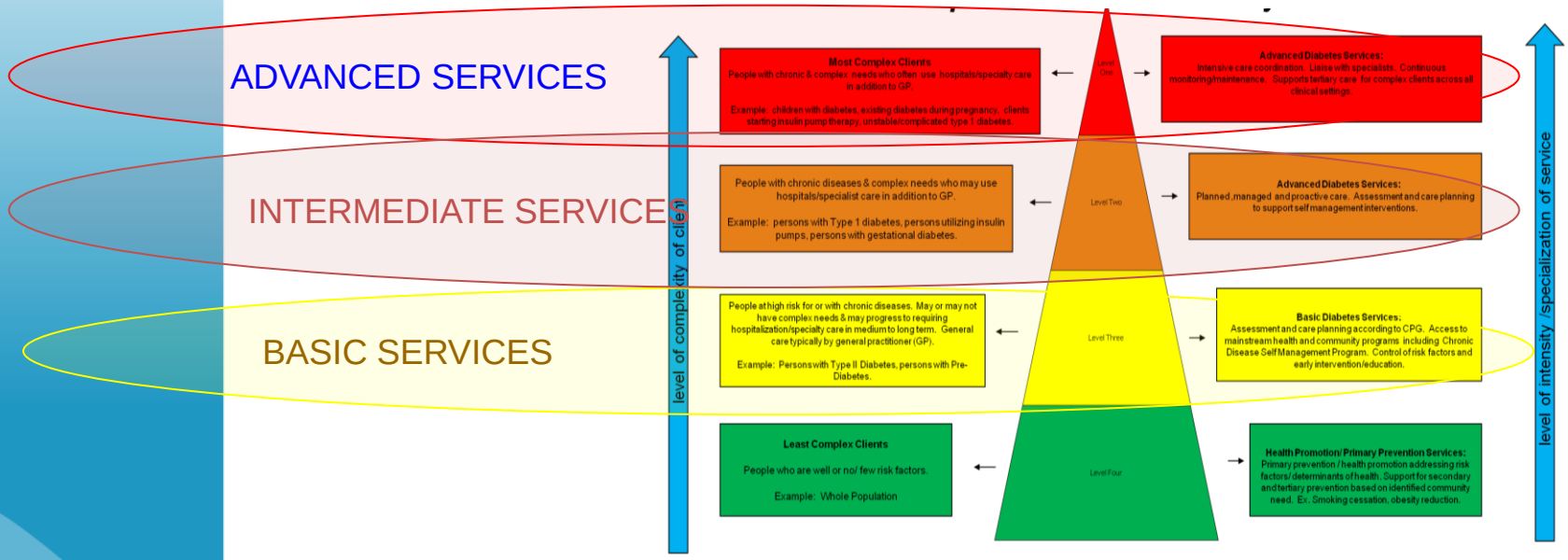
Diabetes Services Pyramid



“Regional Diabetes Services”



- Intensity of services
- Complexity/ Level of client need
- Qualifications/competencies of staff

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Developing an Infrastructure to Support the Model of Care

- Local Diabetes Service Teams
- Operational Structure
- Management Structure

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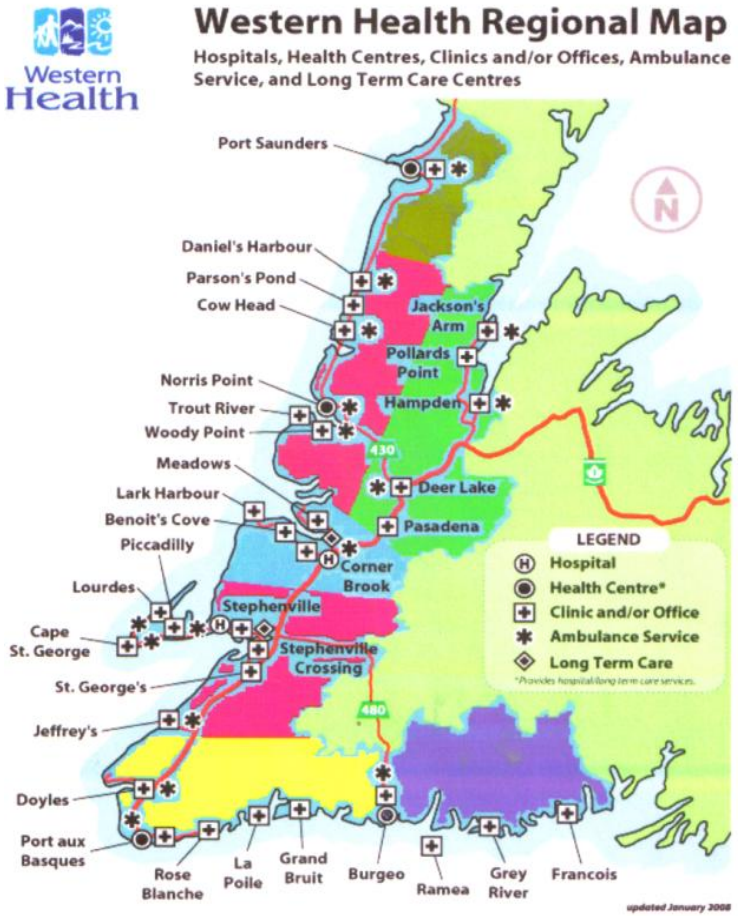
Local Diabetes Service Teams

- 7 teams
- Coordinated by manager
- Membership varies by team:
  - Diabetes Nurse Educator
  - Nurse Practitioner
  - Community Health Nurse
  - Dietitian
  - Admin
  - Physician Rep



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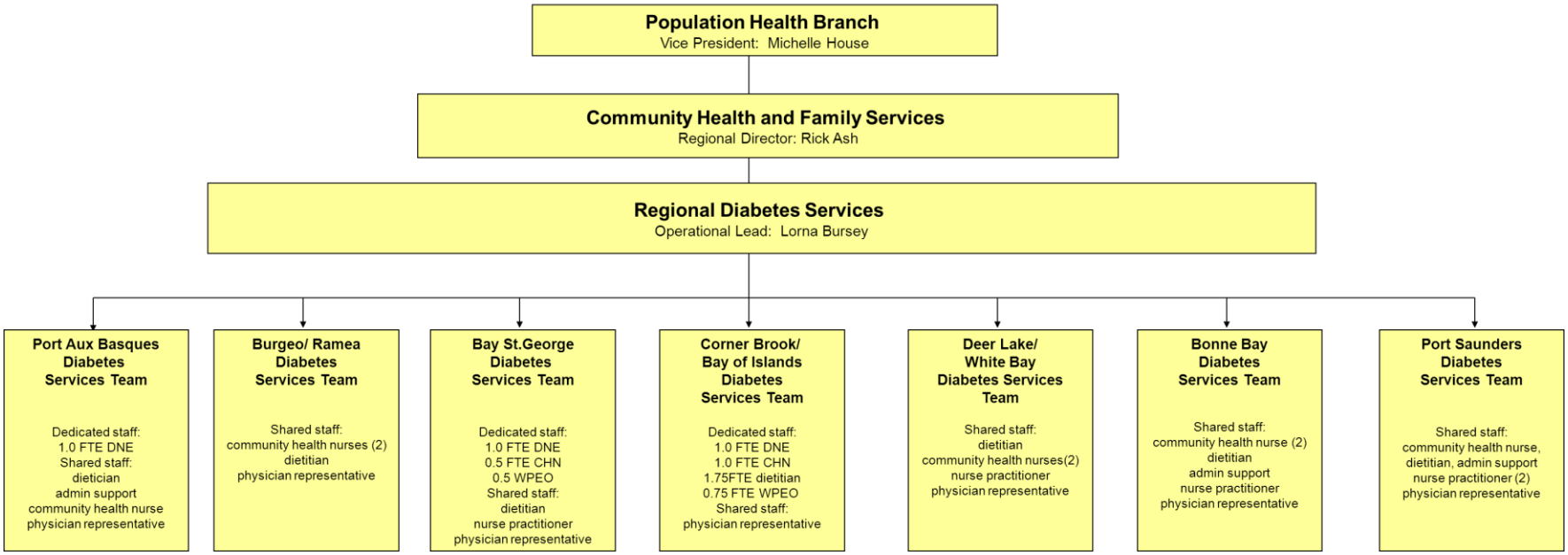
Regional Diabetes Services Operational Structure



Diabetes Management Structure

Diabetes Management Steering Committee

- Supports the development, implementation and evaluation of a regional integrated approach to diabetes management.
- Program lead supports operational managers in program planning, policy/standard development across the continuum of care.
- Committee is the decision maker. Program lead supports the committee.
- Ensure that we are all working toward the same vision, remembering the big picture, and that the program plans for basic and advanced diabetes services use all resources most effectively across continuum of care.
- Includes leads from all clinical branches - represent services within their program areas and are responsible for linking/coordination and information sharing within their areas.

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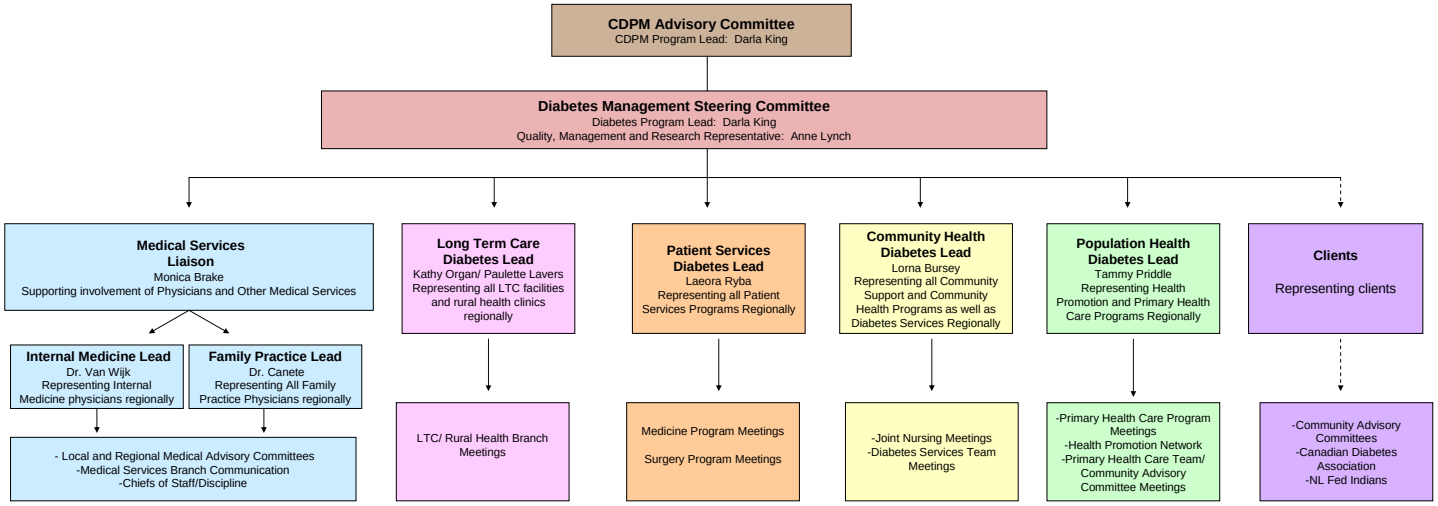
Western Health Integrated Diabetes Management Structure



Goal One: Improve Quality

- Program Plan
- Regionally consistent standards and policies
- Self management / Self management support

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Diabetes Services Logic Model

Program Components	Basic Services	Intermediate Services	Advanced Diabetes Services	Collaborative Care/Medical Management
Activities	-Processing referrals -Group education sessions -Individual nurse/ dietitian services	-Processing referrals -Intake assessments -Group education session -Individual nursing instruction/treatment -Individual dietitian treatment -Case management	-Processing referrals -Intake assessments -Group education session -Individual nursing instruction/treatment -Individual dietitian treatments -Case management -Continuing education/mentoring of other providers	-Team meetings -Program planning -Communication/collaboration with Primary Care Providers -Linkages with community resources/services ex. Improving Health: My Way Program
Target Population	Persons with pre diabetes or uncomplicated type II diabetes	Persons with uncomplicated type I, or complicated type II diabetes	Persons under age 18, pregnant, on insulin pump or other complicated type I diabetes.	All persons with diabetes or pre diabetes
Outputs	-# of basic referrals - # of group education sessions - # attendances at group education sessions -# of clients receiving individual services	-# intermediate referrals -# intake assessments -# group education sessions -# attendances at group education sessions -# attendances at individual nursing instruction/treatment -# attendances at individual dietician instruction/treatment session	-# advanced referrals -# intake assessments -# group education sessions -# attendances at group education sessions -# attendances at individual nursing instruction/treatment -# attendances at individual dietitian instruction/treatment session	-# team meetings -Minutes from team meetings -# policies developed -% Policy audit results indicating adherences to program standards -# partners identified -# referrals to community agencies/services
Short-term Outcomes	Improved knowledge, skill and self management behavior demonstrated by clients.		Increased % of persons who are monitored according to recommended guidelines (HbA1C, lipid testing, foot exam and eye exam).	
Longer-term Outcomes	Increased percentage of persons with diabetes in who the last HgAIC is seven or less (under control)	Decreased percentage of persons with diabetes in who the last HgA1C is more than nine (very uncontrolled)	Decrease in use of hospital days by persons with most responsible diagnosis of diabetes.	Decreased rates of lower extremity amputation in patients with diabetes.

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Basic Diabetes Services

Prediabetes, uncomplicated diabetes

- Group education/support session
  - What is diabetes?
  - Basic self management skills: nutrition, physical activity, self monitoring, etc.
  - Goal setting, client passport
  - Screening for other services

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Diabetes Passport

Prescribed Medications - including insulin

Medication	Dose/How Often	Condition Taken For	Time Of Day

Over The Counter Medications

Medication	Dose/How Often	Condition Taken For

My Medication Allergies

For more information, please contact your local diabetes services team:

Bay St. George ... (709) 643-5111 (ext. 480)
Bonne Bay ..... (709) 458-2211 (ext. 260)
Burgeo/Ramea ..... (709) 886-1550
Corner Brook..... (709) 637-5388
Deer Lake/White Bay..... (709) 635-7830
Port aux Basques ..... (709) 695-4625
Port Saunders ..... (709) 861-9126 (ext. 44)

www.westernhealth.nl.ca

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Our Vision

The vision of Western Health is that the people of Western Newfoundland have the highest level of health and well being possible - Your Health Our Priority.

My Diabetes Passport

Take this passport to every appointment and use it with your health care team to help manage your diabetes.

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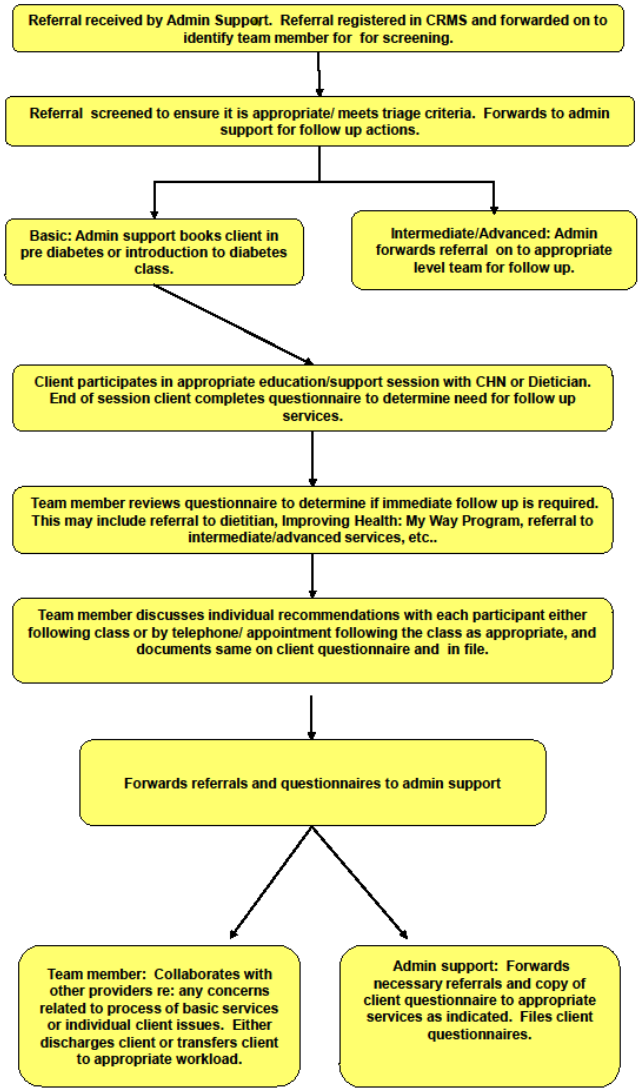
Basic Diabetes Services
Program Plan

The following protocol demonstrates the flow of clients through the Basic Diabetes Services Program. Since clients triaged into the basic program are less complicated, an individual intake is not required for all clients. Services are provided by designated staff within the appropriate diabetes team.



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Intermediate/ Advanced Services

More complex clients

- Individualized Intake/Assessment by Case Manager
  - Health Status
  - Diabetes Specific Health Assessment
  - Self Care Behaviors
    - Insulin/medications
    - Hypo/hyperglycemia
    - Blood glucose monitoring
  - Nutrition
  - Physical Activity
  - Psychosocial assessment
- Development of treatment plan
  - Goal setting/passport
  - Follow-up appointments with nurse/dietitian/nurse practitioner
  - Referral to class
  - Referral to other services within Western Health (i.e., mental health)

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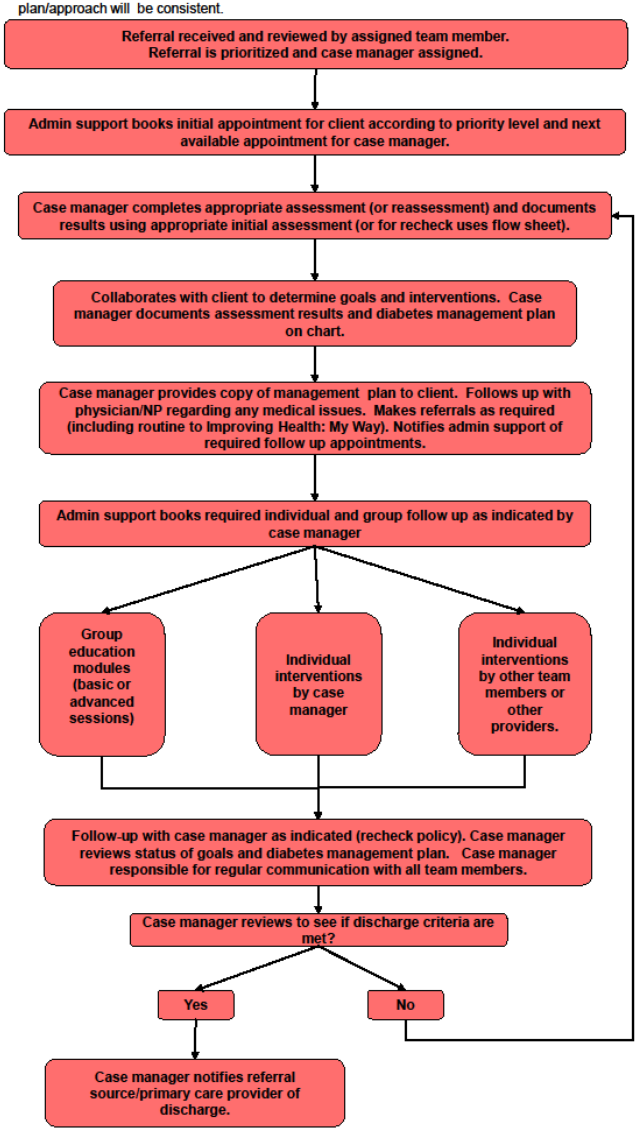
Intermediate/ Advanced Diabetes Services Program Plan

The following protocol demonstrates the flow of clients through Intermediate and Advanced Diabetes Services. Since level 1 & 2 clients are complicated, an individual intake is used. Service providers may be different depending on level of need of the client but the program plan/approach will be consistent.



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Qualifications

- Diabetes Qualifications
  - Professional Designation
  - Certified Diabetes Educator
  - Insulin Pump Certification
  - Insulin Dosage Adjustment Certification
- Each position reviewed
- Type of Service (Basic, Intermediate, Advanced)
  - Qualifications required
  - Time dedicated to Diabetes Services
  - Case Management vs. Discipline Specific Treatment

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Inpatient Services

- Policies same across all setting
- Basic teaching done by inpatient nurses/dieticians
- Support from Diabetes Services for more complex clients (referral policy)

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Consistent Policies and Standards

- Referral
- Intake
- Response time
- Education and support sessions
- Initial assessment
- Treatment planning
- Diabetes passport
- Depression screening
- Blood pressure monitoring
- Insulin initiation
- Missed apt
- Consultation with pharmaceutical
- Collaborative practice
- Recheck
- Documentation
- Discharge policy
- Self monitoring blood glucose
- Basic inpatient diabetes teaching

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Goal Two: Improve Access

- Telediabetes
- Improving Health: My Way
- Awareness/ Uptake

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Tele diabetes Utilization Dec 2012-2013

Host Site (ie. Service Provider Location)	Diabetes Nurse New Patient	Diabetes Nurse Follow up	Dietitian New Patient	Dietitian Follow up	TOTAL
Stephenville Diabetes Services	10	8	0	0	18
Bay St. George	0	0	0	1	1
Corner Brook – Western Memorial	3	1	0	0	4
Bonne Bay Heath Center	0	0	0	16	16
Port Saunders - Rufus Ginchard	0	0	1	0	1
Burgeo – Cader Health Care Center	0	0	2	1	3
TOTAL	13	9	1	18	43

Referral Site (i.e. Location of Client)	Dietitian	Nurse	Total
Ramea - Ramea Medical Clinic	3	8	11
Francois – Francois Clinic	1	0	1
Burgeo - Calder Health Center	0	10	10
Deer Lake - Deer Lake Office	0	3	3
Bonne Bay Health Center	1	1	2
Port Saunders - Rufus Ginchard Health Center	16	0	16
TOTAL	21	22	43

Managing Diabetes

"I made a plan. It wasn't easy...
"But I did it. So can you."

People who learn to manage their diabetes have fewer health problems from diabetes years later. Learn to manage your diabetes now. Your local diabetes team can help.

Bay St. George . . . . . (709) 643-8747	Deer Lake . . . . . (709) 635-7830
Bonne Bay . . . . (709) 458-2211 ext. 260	Deer Lake . . . . . (709) 635-7831
Burgeo . . . . . (709) 886-1550	Port aux Basques . . . . . (709) 695-4625
Corner Brook . . . . . (709) 637-5388	Port Saunders . . . (709) 861-9126 ext. 44

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Call the Diabetes Services Team nearest you.

If there isn't a Diabetes Services Team in your community, you may be able to link with the team by way of telehealth.

Ask us for the details.

1. **Bay St. George**
   (709) 643-8747
2. **Bonne Bay**
   (709) 458-2211
   Extension 260
3. **Burgeo**
   (709) 886-1550
4. **Corner Brook**
   (709) 637-5388
5. **Deer Lake**
   (709) 635-7830
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Our Vision

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Managing Diabetes

"I made a plan. It wasn't easy... But I did it. So can you."

Regional Diabetes Services

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Goal Three: Improve Monitoring

- Monitoring access
  - Wait time
- Monitoring Utilization of Services
  - Workload measurement
- Monitoring of Diabetes Outcomes
  - Diabetes Database

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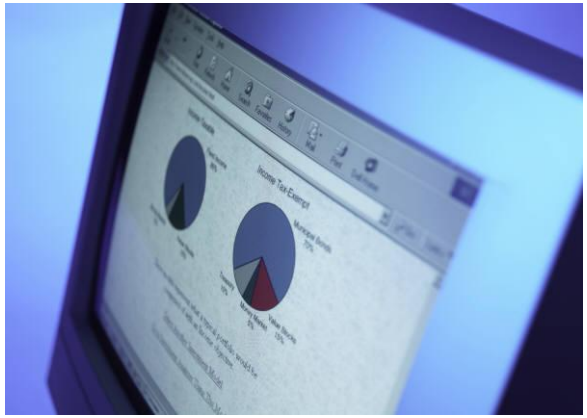
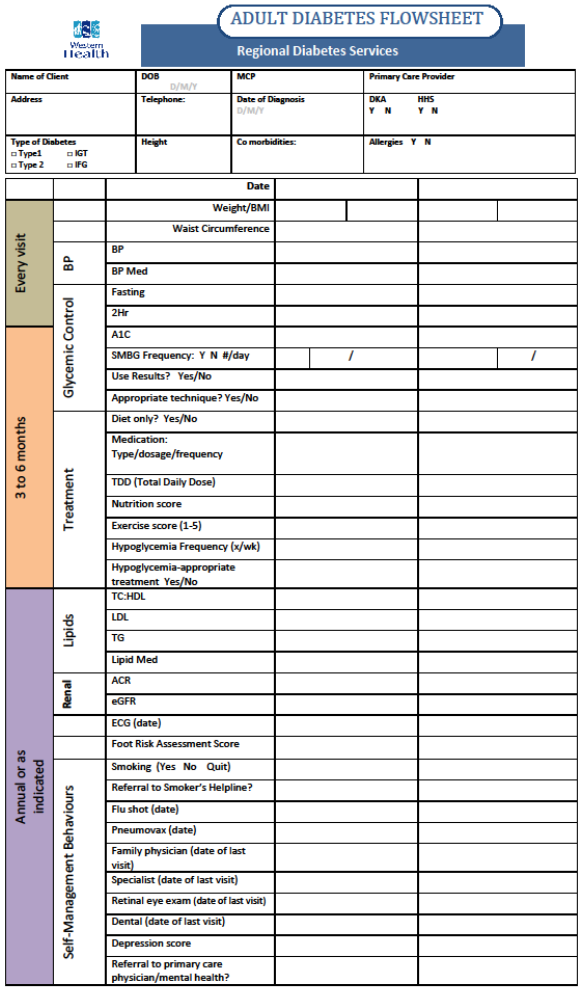
Diabetes Database

- Monitor trends/outcomes related to Diabetes/ Prediabetes prevalence
- Monitor quality of care
- Support quality improvements

Diabetes Database



Diabetes FlowSheets



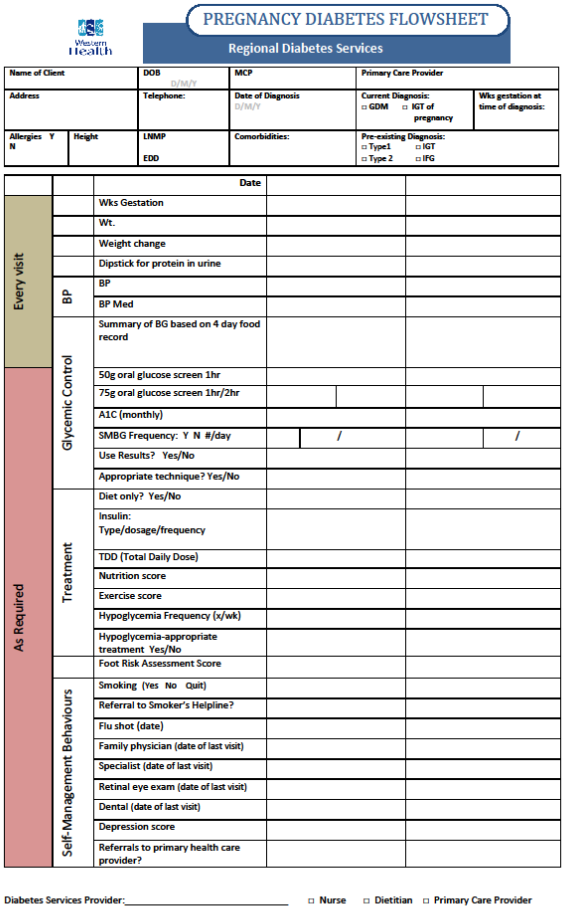
ADULT DIABETES FLOWSHEET

Regional Diabetes Services

Name of Client	DOB D/M/Y	MCP	Primary Care Provider
Address	Telephone:	Date of Diagnosis D/M/Y	DKA Y N HHS Y N
Type of Diabetes □ Type1 □ IGT □ Type 2 □ IFG	Height	Co morbidities:	Allergies Y N

			Date				
Every visit			Weight/BMI				
			Waist Circumference				
3 to 6 months	BP		BP				
			BP Med				
	Glycemic Control		Fasting				
			2Hr				
			A1C				
			SMBG Frequency: Y N #/day		/		/
			Use Results? Yes/No				
			Appropriate technique? Yes/No				
	Treatment		Diet only? Yes/No				
			Medication: Type/dosage/frequency				
			TDD (Total Daily Dose)				
			Nutrition score				
			Exercise score (1-5)				
			Hypoglycemia Frequency (x/wk)				
			Hypoglycemia-appropriate treatment Yes/No				
Annual or as indicated	Lipids		TC:HDL				
			LDL				
			TG				
			Lipid Med				
	Renal		ACR				
			eGFR				
			ECG (date)				
			Foot Risk Assessment Score				
	Self-Management Behaviours		Smoking (Yes No Quit)				
			Referral to Smoker's Helpline?				
			Flu shot (date)				
			Pneumovax (date)				
			Family physician (date of last visit)				
			Specialist (date of last visit)				
			Retinal eye exam (date of last visit)				
			Dental (date of last visit)				
			Depression score				
			Referral to primary care physician/mental health?				

Diabetes Services Provider:_____ □ Nurse □ Dietitian □ Primary Care Provider



PREGNANCY DIABETES FLOWSHEET

Regional Diabetes Services

Name of Client	DOB D/M/Y	MCP	Primary Care Provider	
Address	Telephone:	Date of Diagnosis D/M/Y	Current Diagnosis: □ GDM □ IGT of pregnancy	Wks gestation at time of diagnosis:
Allergies Y N / Height	LNMP / EDD	Comorbidities:	Pre-existing Diagnosis: □ Type1 □ IGT □ Type 2 □ IFG	

			Date				
Every visit			Wks Gestation				
			Wt.				
			Weight change				
			Dipstick for protein in urine				
	BP		BP				
			BP Med				
As Required	Glycemic Control		Summary of BG based on 4 day food record				
			50g oral glucose screen 1hr				
			75g oral glucose screen 1hr/2hr				
			A1C (monthly)				
			SMBG Frequency: Y N #/day		/		/
			Use Results? Yes/No				
			Appropriate technique? Yes/No				
	Treatment		Diet only? Yes/No				
			Insulin: Type/dosage/frequency				
			TDD (Total Daily Dose)				
			Nutrition score				
			Exercise score				
			Hypoglycemia Frequency (x/wk)				
			Hypoglycemia-appropriate treatment Yes/No				
			Foot Risk Assessment Score				
	Self-Management Behaviours		Smoking (Yes No Quit)				
			Referral to Smoker's Helpline?				
			Flu shot (date)				
			Family physician (date of last visit)				
			Specialist (date of last visit)				
			Retinal eye exam (date of last visit)				
			Dental (date of last visit)				
			Depression score				
			Referrals to primary health care provider?				

Diabetes Services Provider:_____ □ Nurse □ Dietitian □ Primary Care Provider

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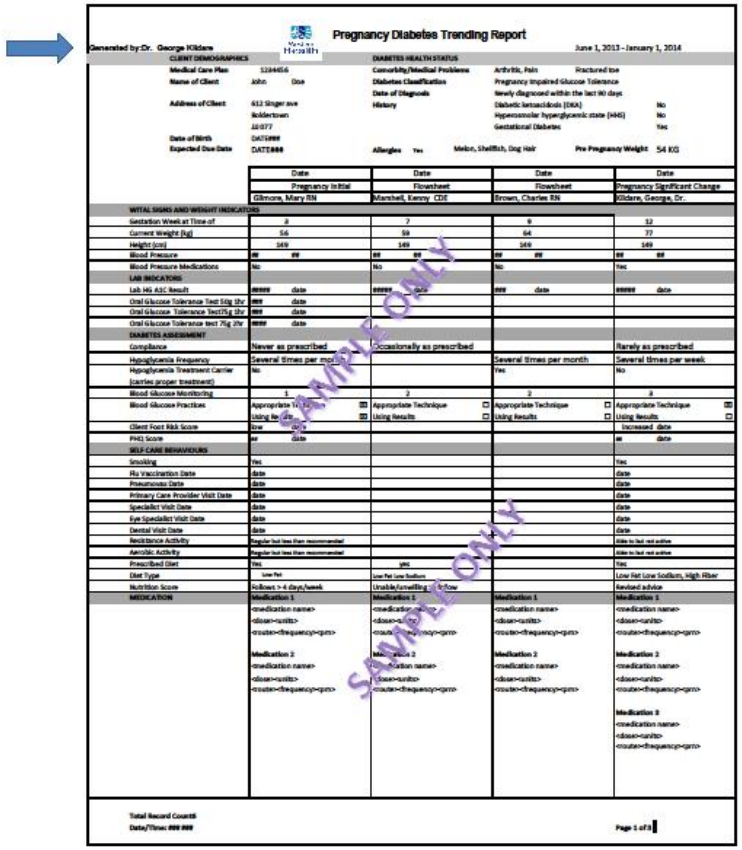
Electronic Trending Report



Pregnancy Diabetes Trending Report

Generated by:Dr. George Kildare — June 1, 2013 - January 1, 2014

CLIENT DEMOGRAPHICS

Medical Care Plan	1234456
Name of Client	John Doe
Address of Client	612 Singer ave Bolldertown J1G1T7
Date of Birth	DATE####
Expected Due Date	DATE###

DIABETES HEALTH STATUS

Comorbity/Medical Problems	Arthritis, Pain Fractured toe
Diabetes Classification	Pregnancy Impaired Glucose Tolerance
Date of Diagnosis	Newly diagnosed within the last 90 days
History	Diabetic ketoacidosis (DKA) No Hyperosmolar hyperglycaemic state (HHS) No Gestational Diabetes Yes
Allergies Yes	Melon, Shellfish, Dog Hair
Pre Pregnancy Weight	54 KG

	Date Pregnancy Initial Gilmore, Mary RN	Date Flowsheet Marshall, Kenny CDE	Date Flowsheet Brown, Charles RN	Date Pregnancy Significant Change Kildare, George, Dr.
VITAL SIGNS AND WEIGHT INDICATORS				
Gestation Week at Time of	8	7	9	12
Current Weight (kg)	56	59	64	77
Height (cm)	169	169	169	169
Blood Pressure	## ##	## ##	## ##	## ##
Blood Pressure Medications	No	No	No	Yes
LAB INDICATIONS				
Lab HG A1C Result	##### date	##### date	### date	##### date
Oral Glucose Tolerance Test 50g 1hr	### date			
Oral Glucose Tolerance Test75g 1hr	### date			
Oral Glucose Tolerance test 75g 2hr	### date			
DIABETES ASSESSMENT				
Compliance	Never as prescribed	Occasionally as prescribed		Rarely as prescribed
Hypoglycemia Frequency	Several times per month		Several times per month	Several times per week
Hypoglycemia Treatment Carrier (carries proper treatment)	No		Yes	No
Blood Glucose Monitoring	1	2	2	3
Blood Glucose Practices	Appropriate Technique ☒ Using Results ☒	Appropriate Technique ☐ Using Results ☐	Appropriate Technique ☐ Using Results ☐	Appropriate Technique ☒ Using Results ☐
Client Foot Risk Score	low ###			Increased date
PHQ Score	## date			## date
SELF CARE BEHAVIOURS				
Smoking	Yes			Yes
Flu Vaccination Date	date			date
Pneumonia Date	date			date
Primary Care Provider Visit Date	date			date
Specialist Visit Date	date			date
Eye Specialist Visit Date	date			date
Dental Visit Date	date			date
Resistance Activity	Regular but less than recommended			Able to but not active
Aerobic Activity	Regular but less than recommended			Able to but not active
Prescribed Diet	Yes	yes		Yes
Diet Type	Low Fat	Low Fat Low Sodium		Low Fat Low Sodium, High Fiber
Nutrition Score	Rollout > 4 days/week	Unable/unwilling to follow		Revised advice
MEDICATION	Medication 1 <medication name> <dose><units> <route><frequency><prn> Medication 2 <medication name> <dose><units> <route><frequency><prn>	Medication 1 <medication name> <dose><units> <route><frequency><prn> Medication 2 <medication name> <dose><units> <route><frequency><prn>	Medication 1 <medication name> <dose><units> <route><frequency><prn> Medication 2 <medication name> <dose><units> <route><frequency><prn>	Medication 1 <medication name> <dose><units> <route><frequency><prn> Medication 2 <medication name> <dose><units> <route><frequency><prn> Medication 3 <medication name> <dose><units> <route><frequency><prn>

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Page 1 of 3

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Outcomes

- Organizational Outcomes
  - Structure
  - Utilization
- Team outcomes
  - Primary Care Resources and Supports for Self Management
- Client outcomes
  - Patient assessment of Chronic Illness Care

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Primary Care Resources and Supports for Self Management (PCRS)

	Corner Brook	Burgeo	Port Aux Basques	Port Saunders	Bay St. George	Deer Lake	Norris Point	OverallAverage
Patient Supports Questions								
1. Individualized assessment of patient's self-management educational needs.	-1	3	5	4	6	4	2	3.2
2. Self-management education.	4	5	3	3	4	0	1	2.5
3. Collaborative goal setting	4	3	4	2	5	1	2	2.3
4. Problem solving skills	2	6	3	3	5	2	1	3.3
5. Emotional health	3	7	4	2	7	7	1	4.5
6. Patient involvement in decision making	5	7	2	3	5	-1	3	3.2
7. Patient social support	0	2	2	2	4	0	2	1.4
8. Link to community resources	0	3	2	1	1	1	0	0.9
Average for Patient Support Questions	**2.1**	**4.5**	**3.2**	**2.5**	**4.7**	**1.8**	**1.5**	**2.7**
Organizational Support Questions								
1. Continuity of Care	3	5	3	3	4	2	-1	2.1
2. Coordination of referrals	-1	6	3	1	3	-1	0	1.2
3. Ongoing quality improvement	3	7	6	5	5	3	5	4.5
4. System for documentation of self management support service	2	3	4	1	3	2	1	2.2
5. Patient input	4	5	7	5	3	5	5	4.3
6. Integration of self management support in primary care	1	5	6	4	5	1	3	3.5
7. Patient care team	2	3	1	0	4	-1	0	0.7
8. Physician, Team and Staff self management education and training	4	9	7	4	1	3	3	4.1
Average for Organizational Support Questions	**2.2**	**5.3**	**4.6**	**2.8**	**3.6**	**1.8**	**2.0**	**2.8**
Overall Average	**2.2**	**4.9**	**3.9**	**2.7**	**4.1**	**1.8**	**1.8**	**2.8**

Patient Assessment of Chronic Illness Care

Over the past 6 months, when I received care from my local diabetes team, I was:	Average Score	PACIC Category Scores	PACIC Summary Score
1. Asked for my ideas when we made a treatment plan.	3.77	Patient Activation Score 3.77	Summary Score 4.10
2. Given choices about treatment to think about.	3.68		
3. Asked to talk about any problems with my medicines or their effects.	3.84		
4. Given a written list of things I should do to improve my health.	3.81	Delivery System/ Practice Design Score 4.41	
5. Satisfied that my care was well organized.	4.70		
6. Shown how what I did to take care of myself influenced my condition.	4.63		
7. Asked to talk about my goals in caring for my condition.	4.35	Goal Setting/ Tailoring Score 4.01	
8. Helped to set specific goals to improve my eating or exercise.	4.58		
9. Given a copy of my treatment plan.	3.56		
10. Encouraged to go to a specific group or class to help me cope with my diabetes.	3.26		
11. Asked questions, either directly or on a survey, about my health habits.	4.44		
12. Sure that my team thought about my values, beliefs, and traditions when they recommended treatments to me.	4.28	Problem Solving/ Contextual Score 4.32	
13. Helped to make a treatment plan that I could carry out in my daily life.	4.56		
14. Helped to plan ahead so I could take care of my condition even in hard times.	4.50		
15. Asked how diabetes affects my life.	4.00		
16. Contacted after a visit to see how things were going.	3.69	Follow-up / Coordination Score 3.94	
17. Encouraged to attend programs in the community that could help me	3.55		
18. Referred to a dietitian, health educator, or counselor.	4.41		
19. Told how my visits with other types of doctors, like an eye doctor or other specialist, helped my treatment.	3.73		
20. Asked how my visits with other doctors/health professionals were going.	4.19		

Client Satisfaction

	Strongly Disagree (%)	Disagree (%)	Neutral (%)l	Agree (%)	Strongly Agree (%)	Doesn't apply (%)	No response (%)	Average (%)	Strongly agree or agree (%)
1. The Diabetes Service Providers were knowledgeable and skilled.	3.3	0.0	0.0	30.0	63.3	0.0	3.3	4.55	96.5
2. The Diabetes Service Providers treated with respect and courtesy.	3.3	0.0	0.0	26.7	66.7	0.0	3.3	4.59	96.6
3. Appointments were scheduled easily and conveniently.	3.3	0.0	3.3	23.3	63.3	3.3	3.3	4.54	92.9
4. The diabetes passport was helpful to me.	3.3	0.0	10.0	20.0	20.0	36.7	10.0	3.63	87.5
5. The diabetes management plan was helpful to me.	3.3	0.0	6.7	33.3	36.7	13.3	6.7	4.25	87.5
6. The diabetes group education sessions were helpful.	3.3	0.0	0.0	33.3	26.7	23.3	13.3	4.26	94.7
7. The individual appointments with my providers were helpful.	3.3	0.0	0.0	30.0	53.3	10.0	3.3	4.50	96.2
8. My overall experience with Diabetes Services was a good one.	3.3	0.0	0.0	26.7	56.7	6.7	6.7	4.54	96.2
9. Attending Diabetes Services has helped me to manage my diabetes.	3.3	0.0	3.3	36.7	43.3	6.7	6.7	4.35	92.3

Questions

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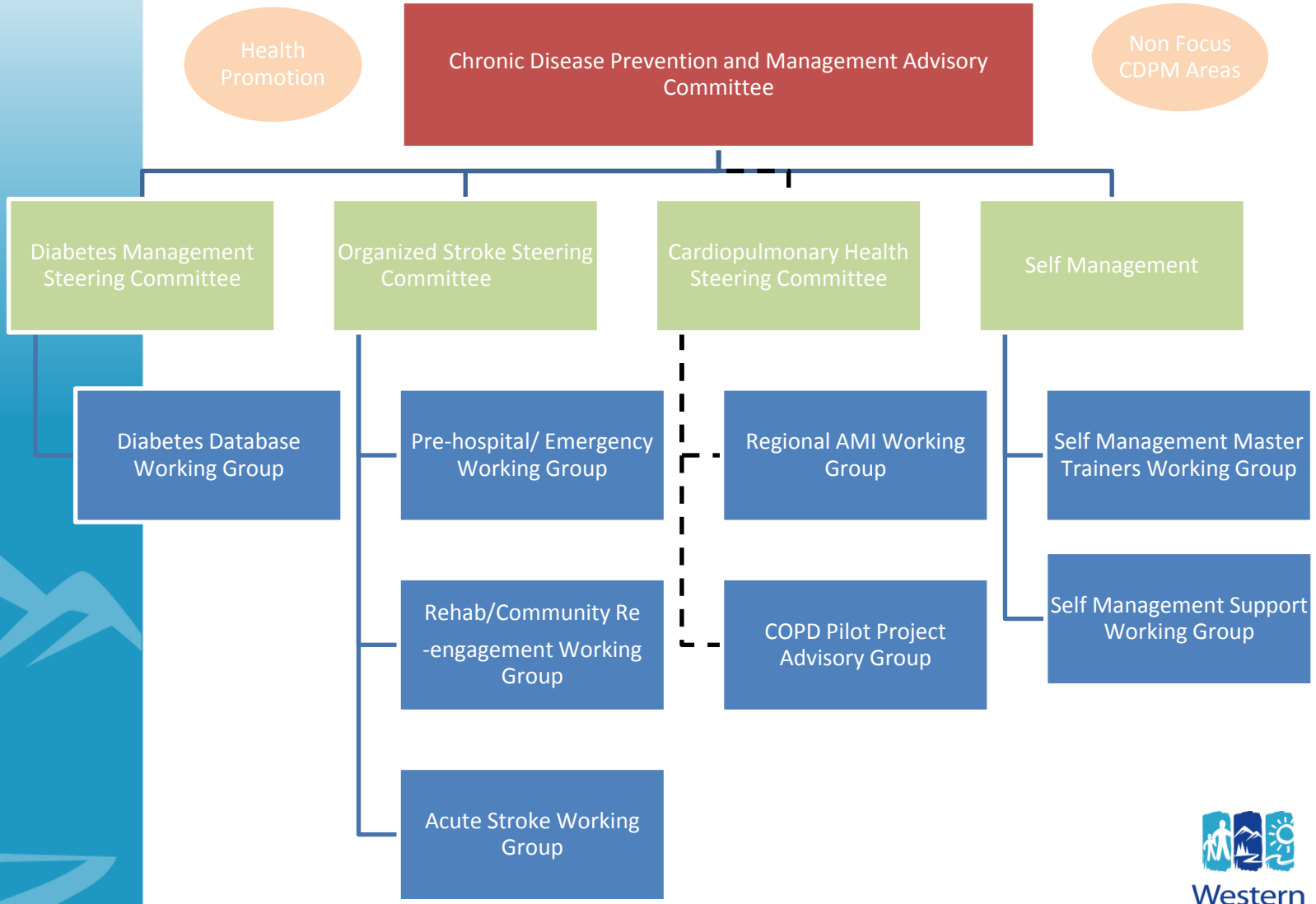
Western Health

Chronic Disease Prevention and Management Network



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