



IMPROVING PEDIATRIC TYPE 1 DIABETES CLINIC EFFICIENCY

AIM STATEMENT

To improve the efficiency of Dr. Miller's type 1 diabetes clinic by limiting the time the physician spends per appointment to 30 minutes. To accomplish this while ensuring that all multidisciplinary team members maintain high quality patient/family encounters.

► BACKGROUND

Diabetes mellitus is the most common endocrine disease and one of the most common chronic health conditions in childhood. Children with diabetes are seen by their diabetes care team approximately every three months. The complex physical, developmental and emotional needs of children with diabetes and their families, combined with the frequency of appointments, results in significant workload for the pediatricians in Prince George who provide diabetes care and for the Diabetes Centre staff (nurses and dietitian). The need to optimize efficiency in the delivery of care at Pediatric Diabetes Clinics was identified.

► PROBLEM STATEMENT

There were a number of obvious inefficiencies that the pediatrician (Dr. Miller) and Diabetes Centre staff identified. These included: staff time spent downloading sensors and pumps, limited space in which to see patients in the clinic, suboptimal utilization of Diabetes Centre staff time during the clinics and inefficient methods of collecting patient information (questions which are asked at every appointment).

► CHANGE IDEAS

The team came up with the following change ideas:

- To change the flow of the clinic by having patients/families see team members at different times (i.e. Meeting the dietitian, then the physician, then the physician and nurse together), thereby enabling more than one patient/family to be seen at a time.
- To use an additional room during the clinics.
- To create a questionnaire for patients/families to complete prior to being seen, thereby decreasing the number of questions asked by the physician/nurse at each appointment.
- To encourage patients/families to upload their sensors/pumps prior to their appointments.
- To implement a multidisciplinary form to document recommendations from each team member; as this will also be provided to patients/families at the end of the visit, it will serve the dual purpose of ensuring the various team members as well as the patients/families have clear documentation of Diabetes Clinic staff recommendations

Patient/Family 1	
Patient/Family 2	
Patient/Family 3	
Patient/Family 4	
Patient/Family 5	

ORIGINAL CLINIC FORMAT

- 4 patients seen in 3 hours
- All team members see the patient/family together for 45 minutes

	DIETICIAN	NURSE	PHYSICIAN
0900-0905	Pt and Family 1		
0900-0906			
0900-0907			
0900-0908			
0900-0909			
0900-0910	Pt and Family 2		
0900-0911			
0900-0912			
0900-0913			
0900-0914			
0900-0915	Pt and Family 3		
0900-0916			
0900-0917			
0900-0918			
0900-0919			
0900-0920	Pt and Family 4		
0900-0921			
0900-0922			
0900-0923			
0900-0924			
0900-0925	Pt and Family 5		
0900-0926			
0900-0927			
0900-0928			
0900-0929			
0900-0930			
0900-0931			
0900-0932			
0900-0933			
0900-0934			
0900-0935			
0900-0936			
0900-0937			
0900-0938			
0900-0939			
0900-0940			

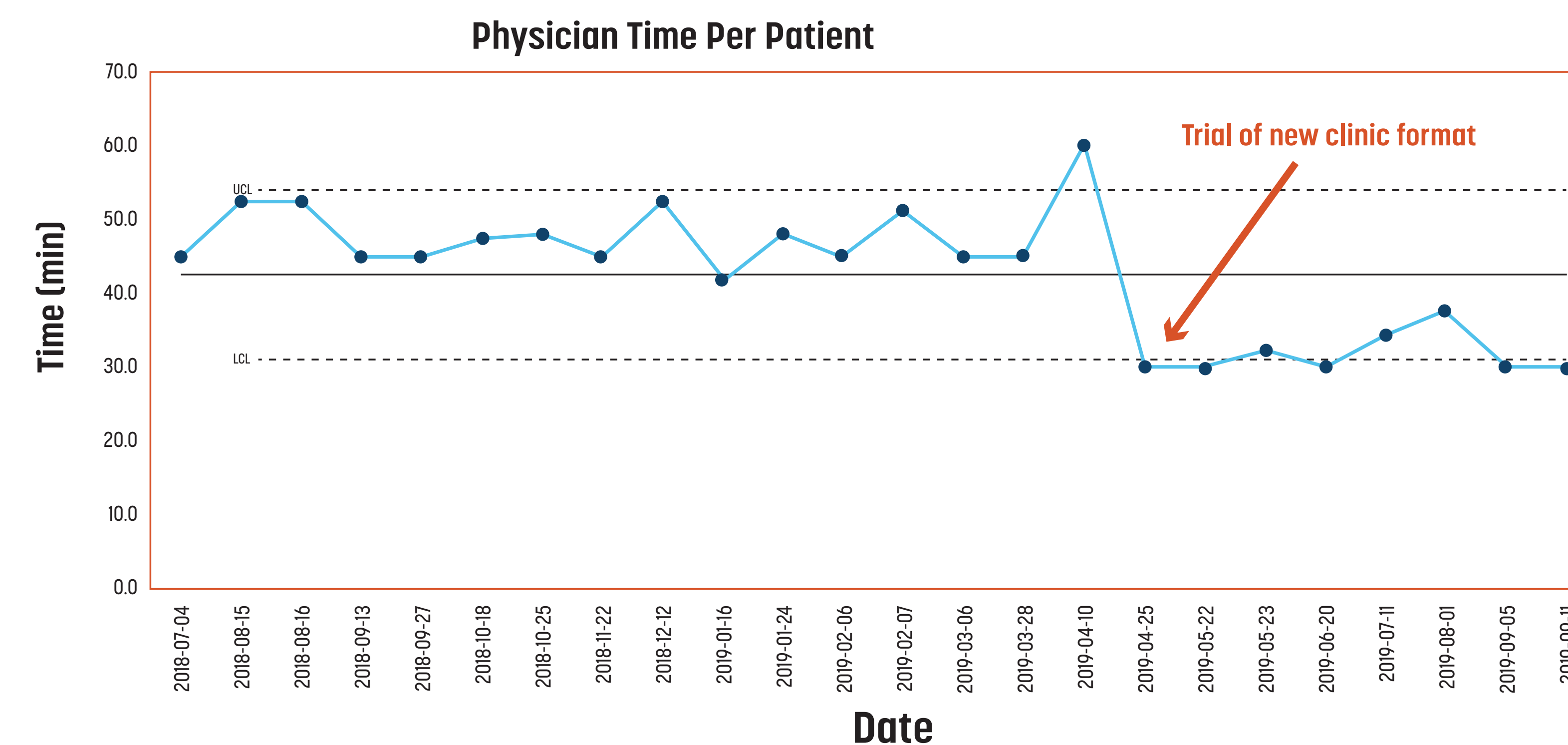
NEW CLINIC FORMAT

- 5 patients seen in 2 hours 45 minutes but total time for the patient remains the same.
- Dietitian can spend more than 15 minutes with the family if necessary due to overlap time.

	DIETICIAN	NURSE	PHYSICIAN
0900-0905	Pt & Fam		
0905-0910			
0910-0915			
0915-0920		Fam	Pt
0920-0925			
0925-0930	Pt & Fam		
0930-0935			
0935-0940			
0940-0945			
0945-0950			
0950-0955		Fam	Pt
0955-1000	Pt & Fam		
1000-1005			
1005-1010			
1010-1015			
1015-1020			
1020-1025		Fam	Pt
1025-1030	Pt & Fam		
1030-1035			
1035-1040			
1040-1045			
1045-1050			
1050-1055		Fam	Pt
1055-1100	Pt & Fam		
1100-1105			
1105-1110			
1110-1115			
1115-1120			
1120-1125		Fam	Pt
1125-1130	Pt & Fam		
1130-1135			
1135-1140			
1140-1145			
1145-1150			
1150-1155			
1155-1200			

► RESULTS

CLINIC RESULTS



PATIENT/FAMILY SATISFACTION

Statement	Before Changes	After Clinic Changes	Change from pre to post
I am asked for input in decisions about my care and treatment	4.38	4.88	0.5
Any concerns I have are addressed	4.54	4.78	0.24
I receive good care from the dietitian	4.54	4.89	0.35
The dietitian spends enough time with me	4.54	4.89	0.35
I am happy with the care I receive at the diabetes clinic	4.62	4.78	0.16
Things are explained to me in a way that I understand	4.62	4.89	0.27
Members of the clinic team are available for questions between appointments	4.69	4.67	-0.02
The doctor spends enough time with me	4.85	4.89	0.04
The nurse spends enough time with me	4.92	4.67	-0.25
I receive good care from the doctor	5	4.78	-0.22
I receive good care from the nurse	5	5	0

Patient/Family satisfaction with the clinic was good to start, therefore, the goal was to maintain this level of satisfaction with the clinic after the changes. This was achieved.

► NEXT STEPS / SUSTAINING THE GAINS

- In their Diabetes Clinics, other Pediatricians have started using:
 - the medical questionnaire
 - the multidisciplinary recommendation sheet
- Team to connect with BC Children's Hospital Diabetes Clinic for strategies on getting patients/families to upload their sensors/pumps at home, prior to their clinic appointments

► PATIENT/CUSTOMER

Children with type 1 diabetes (and their families) who see Dr. Miller for their care

► TEAM MEMBERS

Dr. K. Miller, Pediatrician
T. Klassen, Registered Nurse
K. Eby, Registered Nurse
A. Pudlas, Registered Nurse
L. LeFebvre, Registered Dietitian
M. Levesque, Diabetes Program Manager
S. Movold, PQI Coach

PRIMARY EMAIL CONTACT:

kirsten.miller@northernhealth.ca

SECONDARY EMAIL CONTACT:

shelley.movold@northernhealth.ca