WATERLOO WELLINGTON DIABETES

Diabetes Central Intake/Mentoring/Website

Year End Report to WWLHIN

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May 31, 2018

Improving access. Improving knowledge. Improving health.

Contents

Introduction

This annual report provides a summary of activities to date for Diabetes Central Intake, Mentoring and the Waterloo Wellington Diabetes website www.waterloowellingtondiabetes.ca Langs receives base funding from the WWLHIN to offer these regional services to support the coordination of diabetes care for the region of Waterloo Wellington. These services support:

1. residents (patients, families and health care providers) with easy access to diabetes care;
2. the LHIN in system planning for diabetes care by monitoring volume and wait-time reports; and
3. health care providers in the region to enhance their knowledge of diabetes management.

Detailed reports on the volume of referrals and referral sources as well as the types of referrals are submitted quarterly. This end of year report provides a summary of the activities and successes over the past fiscal year of 2017/18.

All of this work aligns with the MOHLTC *Patients First: Action Plan for Health Care* Strategy, including:

Patients First:
Action Plan for Health Care

- **Access:** by monitoring wait times for diabetes care
- **Connect:** by ensuring every person referred is connected to a Diabetes Education Program and/or specialists as needed
- **Inform:** by supporting both health care professionals and individuals and families with education and information
- **Protect:** by triaging referrals for urgency and identifying near misses

Our work also aligns with the 2018-19 WWLHIN *Annual Business* Plan (ABP) of:

Starting with the Patient Experience: Making sure no-one is lost in the system; offering self-referral; offering a website to support them with resources.

Driving Through Community Leadership: Continuing to lead the province with our central intake success and our coordination of diabetes care.

Igniting Innovation and Creativity: Working closely with the SCA team and Consortium to develop, implement, and utilize eReferral solution. Identify solutions to manage increasing prevalence of diabetes with limited resources.

Empowering Clinical Leadership: Continuing to host the regional diabetes network; supporting health care professionals with mentorship and educational opportunities.

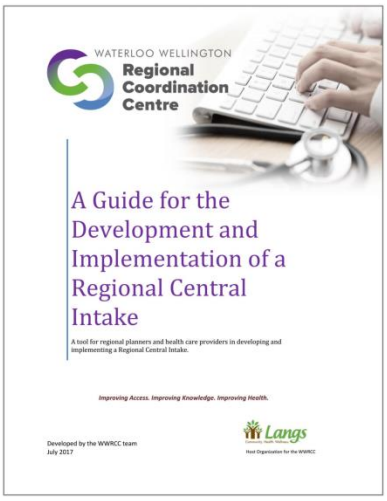
Creating a Great Place to work: Continuing to support our staff with continuing education, networking opportunities and healthy workplace.

Our work continues to align with the Ontario Chronic Disease prevention and management framework by focusing on the components of self-management, system design, provider decision support and information systems. It also continues to support the goals of promote, prevent and attach.

At all times, our focus continues to be patient focused, and we continue to focus on our tag line of Improving Access, Improving Knowledge and Improving Health. We participate regularly with various community partners in the region and exhibit at many community events, promoting our services.

Diabetes Central Intake

Diabetes Central Intake (DCI) continues to be successful with 35,623 referrals currently in our database, which represents the volume processed since DCI's inception in 2011. Other regions of the province continue to consult with us on the "how to" of developing a central intake program (not only for diabetes but other specialities). Due to the number of inquiries, we developed a guide to support other regions in developing a Central Intake Program, which is available on request from our Resources page on our RCC website (www.wwrcc.ca).



This year has been exciting, as we have worked closely with the System Coordinated Access team and the Consortium (Cognisant MD, Think Research and Centre for Effective Practice) in developing the electronic process for referral to Diabetes and Orthopedic Central Intake. This was successfully launched in August 2016 with 39 eReferral sources and 240 eReferrals as of March 31st, 2017. There are 5 Diabetes Education Programs and 2 endocrinologists receiving eReferrals now. We are hopeful that additional Diabetes Education Programs and Endocrinologists will sign on to receive eReferrals this year. We continue to promote eReferral through various community events, continuing medical education events as well as sending faxes to referral sources who continue to fax referrals. We also have the link for eReferral on our website.

We continue to support SWLHIN with receiving/sending referrals to them, despite no further funding for this. To date, we have processed 1305 referrals to London with 162 referral sources from that region.

Our Successes

Despite the increasing prevalence of diabetes, we have demonstrated the following successes in our region:

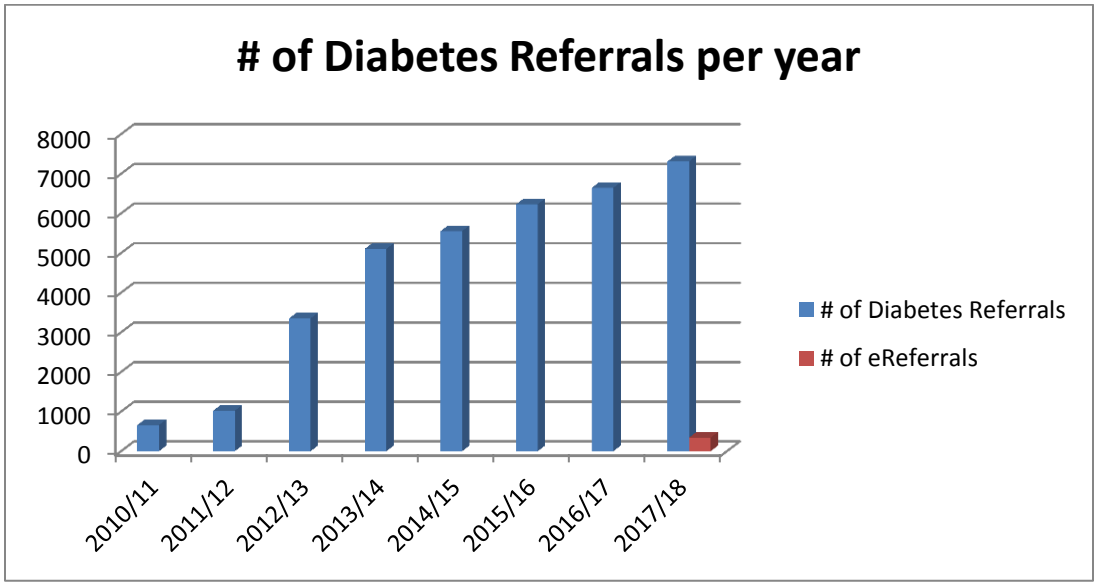
- No-one is “lost in the system”
- Increased number of people referred and followed for education with same resources
- People accessing care close to home
- People are able to send self-referrals
- Standardized regional wait-times established for benchmarking
- Wait-times for diabetes education programs within target
- Increased utilization of community programs
- Identified pharmacies with Certified Diabetes Educators (CDEs) to offer after-hours education
- Streamlined access to diabetes specialists
- Increased prevention
- Increased retinopathy screening

There is a 118% increase in people being referred since 2013.

A Closer Look at our Program

The following data offers a detailed look at our work to date. There continues to be a steady increase yearly in referrals for diabetes care. (Table 1) As mentioned in the introduction, eReferral was launched in August 2017 and is integrated with Practice Solutions Software (PSS), which is the most common electronic medical record (EMR) in this region. There has been a gradual uptake with it, but we are hopeful this will continue to increase as more primary care physicians sign on with Ocean.

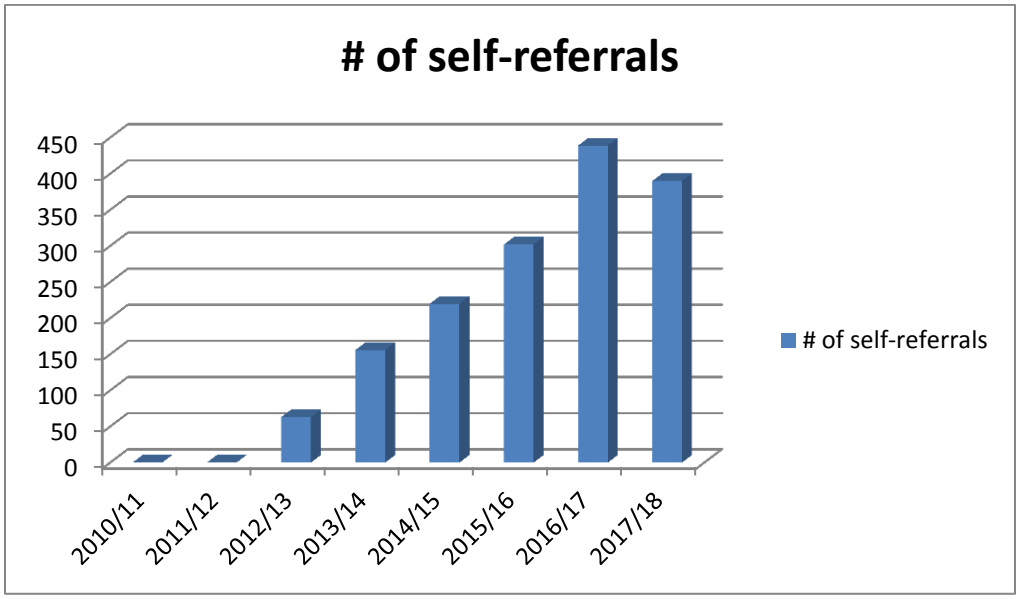
Table 1: # of Diabetes Referrals to Diabetes Central Intake



There was a slight drop in self-referrals this year, although still a sizeable number, ensuring easy access to everyone with diabetes. (Table 2) This year, we had a self-referral from Singapore. A father contacted us through our website, as his son has Type 1 diabetes and is starting University of Waterloo this fall. Our triage nurse was able to facilitate access to primary care, endocrinology and diabetes education support for him so that this will be ready for when he arrives.

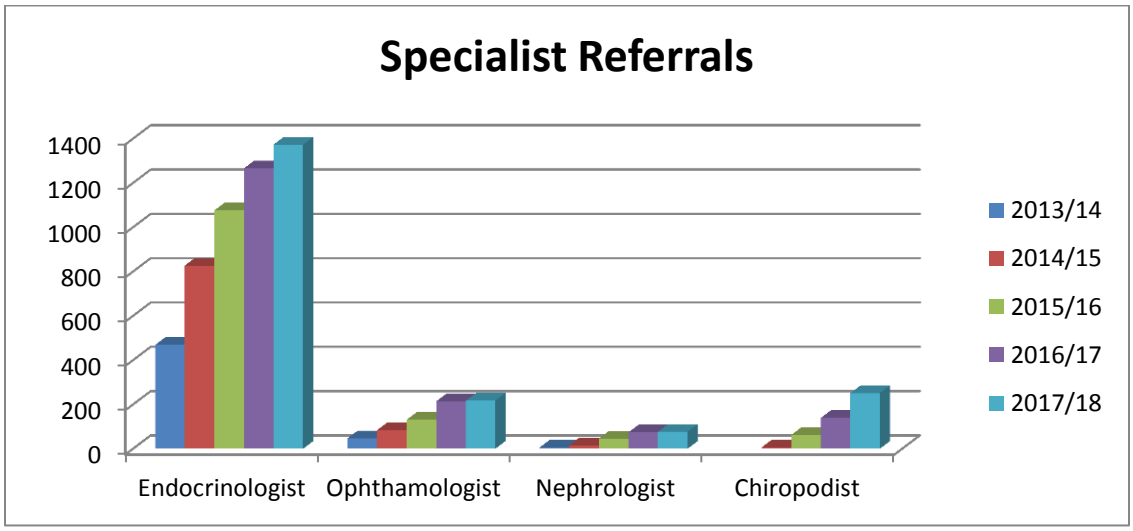
This year, DCI received a self-referral from Singapore for a student with Type 1 Diabetes who will be attending University of Waterloo in the fall.

Table 2: # of Self-Referrals



DCI has streamlined coordination and access to specialized diabetes care by providing specialist consults on the same referral form (paper or electronic) for endocrinologist, ophthalmologist, nephrologist, and chiropodist. (Table 3) With Langs DEP providing chiropody services and a pilot for Total Contact Casts (TCC), we are seeing a steady increase in referrals for this service. We also have agreements with a select number of chiropodists in our region who will receive referrals from us for chiropody services, although this service is fee for service and is dependent on the person's ability to pay.

Table 3: # of Referrals Sent to Specialists



We continue to see an increase in our referral sources from within our region and outside our region. As of year-end, we have a total of 1704 referral sources with 54% of referrals from primary care and 19%

from endocrinologists. Table 4 represents the total number of unique referral sources and Table 5 identifies the referral sources by specialty.

Table 4: # of referral sources per year

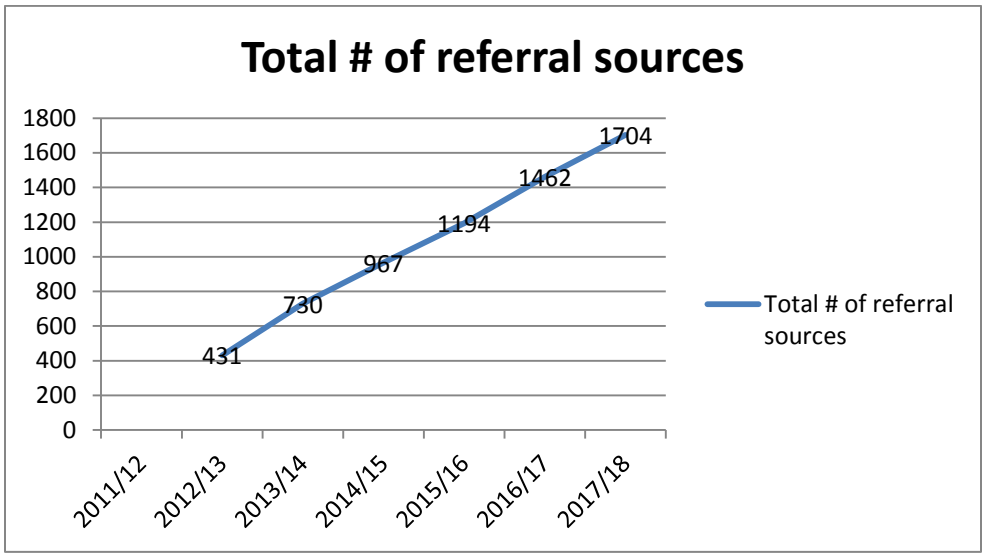
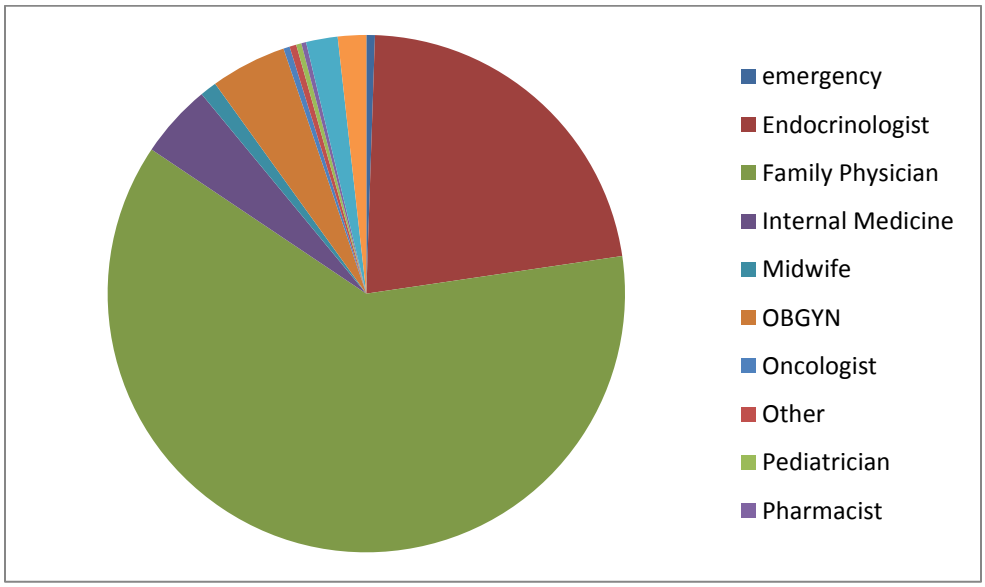


Table 4: # of Referrals by Referral Source/Profession



We continue to see an increase in referrals from hospitals, except for Guelph General Hospital and Groves Memorial Hospital, where their diabetes educators facilitate transition of residents from hospital directly to their Diabetes Education Program. This year, we received 5 referrals from hospitals outside our region. The following table (Table 5) illustrates the number of referrals from hospitals each year. Table 6 illustrates the breakdown of Emergency Room (ER), In-patient (Inpt) and Out-patient (Outpt) referrals from each of the hospitals this past year.

Table 5: # of Referrals From Hospitals per Year

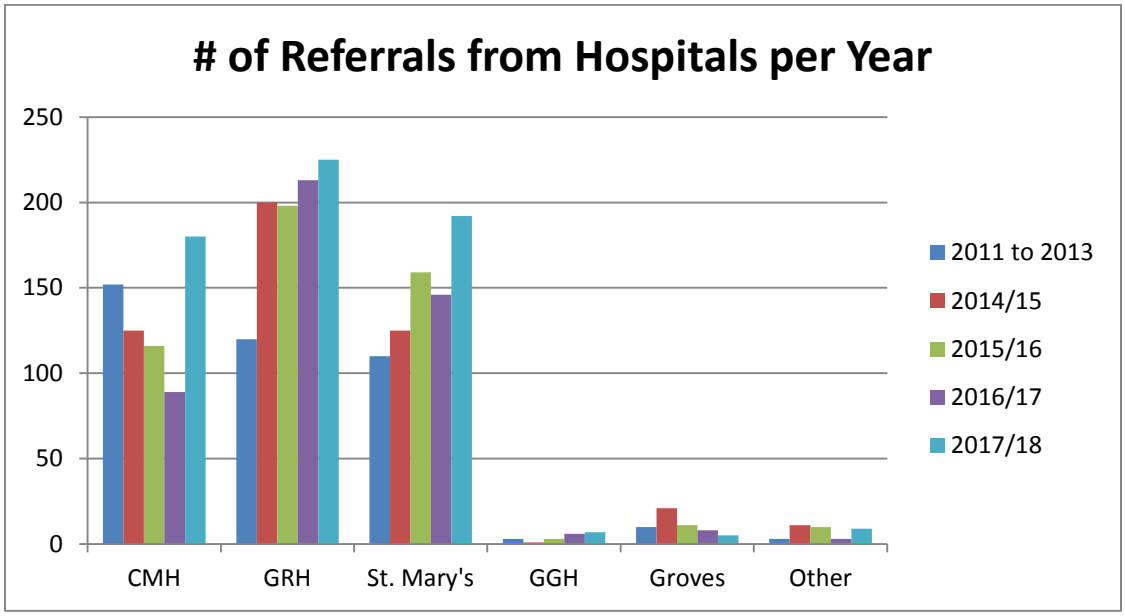
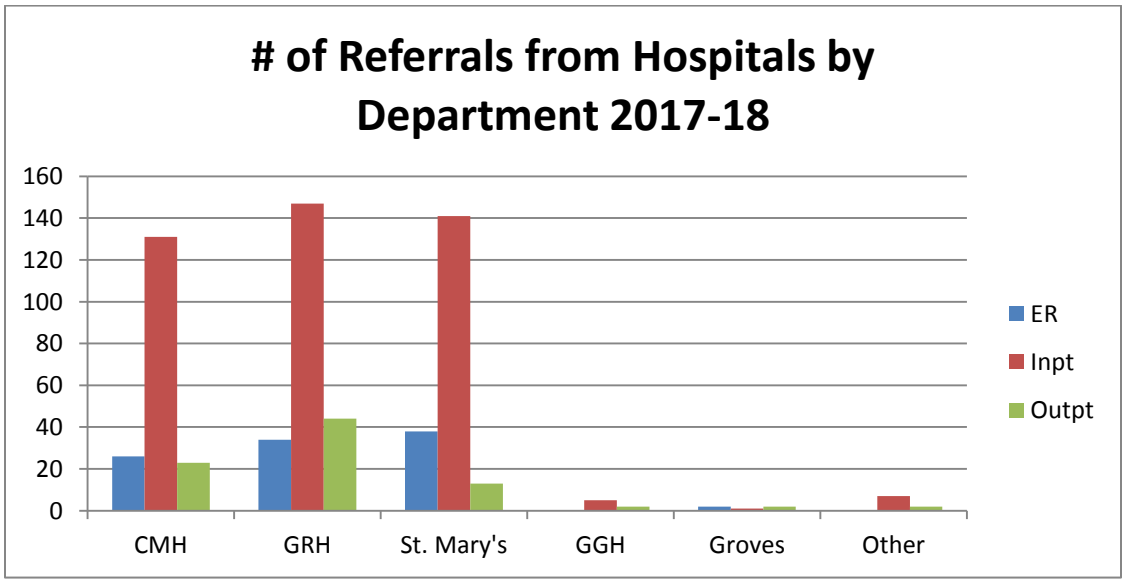


Table 6: # of Referrals from Hospitals by Department for 2017-18



DCI also continues to direct and receive referrals outside of the WWLHIN. We continue to be consulted by other regions and provinces with inquiries on how to implement diabetes central intake. The following data provides the breakdown of referrals sent to and received from other LHINs and outside of our province. (Table 7)

Table 7: # of Referrals Sent To and Received from Inside and outside of WWLHIN as of March 31st, 2018

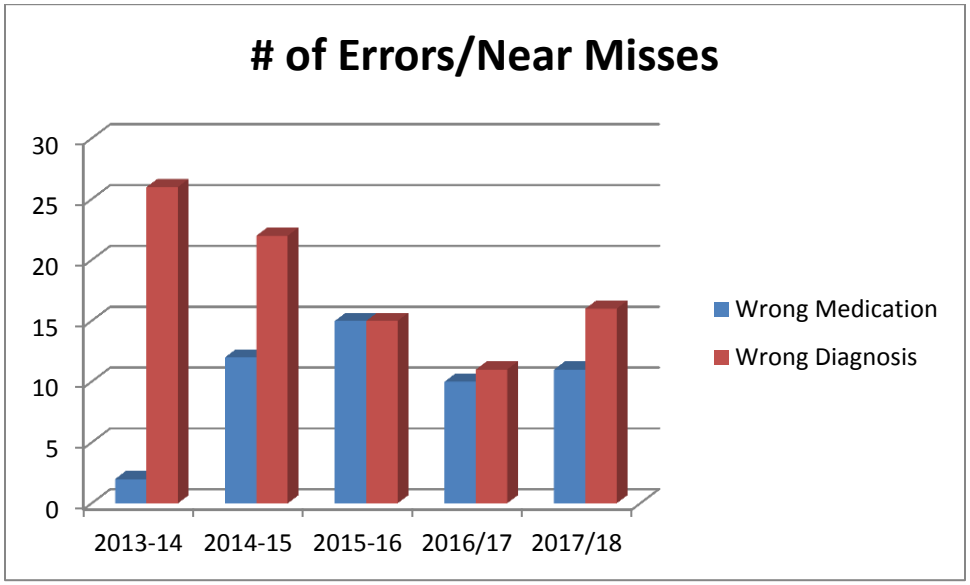
Waterloo Wellington Diabetes Central Intake Data as of March 31, 2018			
Ontario LHIN #	**LHIN name**	**# of referrals sent to**	**# referral sources from**
1	Erie St. Clair	15	2
2	South West	1305	165
3	Waterloo Wellington	34271	1200
4	Hamilton Haldimand Niagara Brant	180	80
5	Central West	18	41
6	Mississauga Halton	25	116
7	Toronto Central	13	46
8	Central	12	21
9	Central East	10	10
10	South East	3	0
11	Champlain	3	1
12	North Simcoe Muskoka	10	10
13	North East	3	3
14	North West	2	1
	unknown		4
Other Province		4	4
		35874	**1704**

Triaging

The role of the clinical triage nurse/patient navigator is essential in making Diabetes Central Intake a success. The triage nurse is an experienced Certified Diabetes Nurse Educator (CDE), who reviews every referral and determines the urgency of the referral and where to send the referral to. She is in regular contact with Primary care physicians, Endocrinologists and Diabetes Educators in the DEPs to ensure excellent patient navigation and coordination. She connects with hospital units to determine when patients are being discharged from hospital to facilitate appropriate follow-up with Diabetes Education Programs. She uses *Clinical Connect* when necessary to obtain additional data to support triaging.

The expertise of the triage nurse has provided identification of cases that were misdiagnosed, for example when they were identified as type 2 diabetes when they had type 1 diabetes. This has prevented many patients from progressing to diabetic ketoacidosis , which is a serious life-threatening condition. The triage nurse has also identified cases where the person was prescribed the wrong medication and/or the wrong dosage. This clinical expertise and intervention has provided safe, effective and efficient service, preventing individuals from ending up in Emergency or hospital admission. The following table demonstrates the # of missed diagnoses/incorrect medication identified by the triage nurse. (Table 8)

Table 8: # of Missed Diagnoses and Incorrect Medication/Dosages

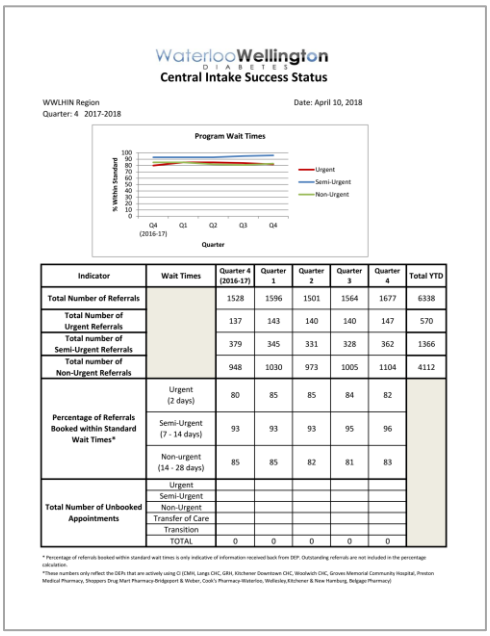


Monitoring of Data

Wait Times

DCI monitors wait times for diabetes education programs and reports to the DEP program managers and the WWLHIN quarterly. (Fig.1) This monitoring is not intended to be punitive, but to provide support to managers to adjust their programming accordingly. With the increasing prevalence of diabetes, and the need for on-going follow-up to support effective self-management of diabetes, programs need to be constantly identifying more effective and efficient methods of program delivery. The service of monitoring and reporting supports programs in offering effective programs.

Figure 1: Copy of Success Status Report for WWLHIN



WaterlooWellington DIABETES

Central Intake Success Status

WWLHIN Region
Quarter: 4 2017-2018

Date: April 10, 2018

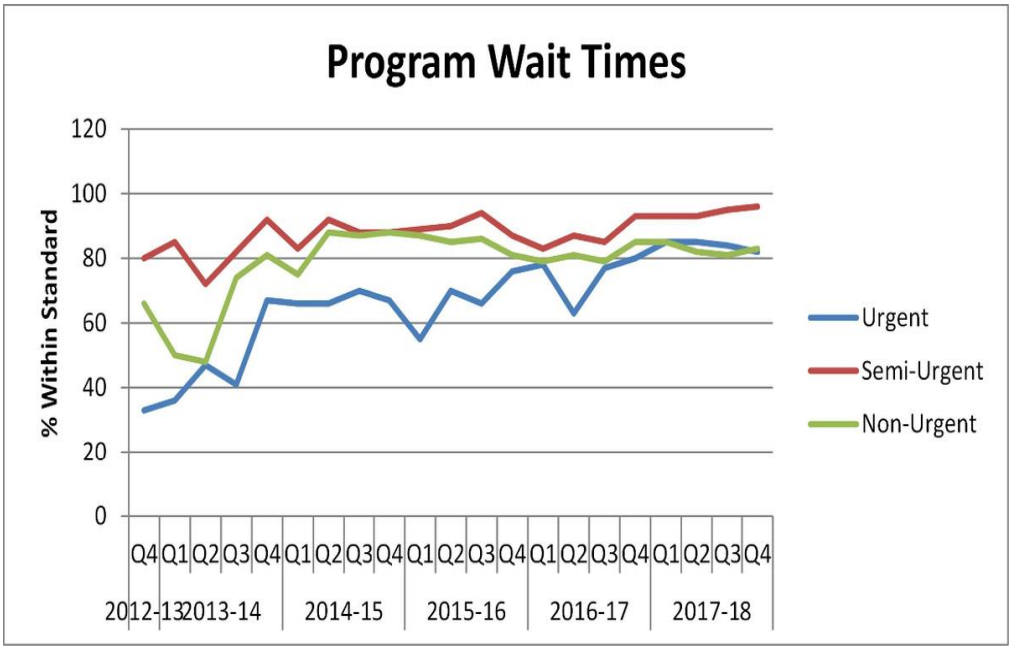
Indicator	Wait Times	Quarter 4 (2016-17)	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total YTD
Total Number of Referrals		1528	1596	1501	1564	1677	6338
Total Number of Urgent Referrals		137	143	140	140	147	570
Total number of Semi-Urgent Referrals		379	345	331	328	362	1366
Total number of Non-Urgent Referrals		948	1030	973	1005	1104	4112
Percentage of Referrals Booked within Standard Wait Times*	Urgent (2 days)	80	85	85	84	82	
	Semi-Urgent (7 - 14 days)	93	93	93	95	96	
	Non-urgent (14 - 28 days)	85	85	82	81	83	
Total Number of Unbooked Appointments	Urgent						
	Semi-Urgent						
	Non-Urgent						
	Transfer of Care						
	Transition						
	TOTAL	0	0	0	0	0	

* Percentage of referrals booked within standard wait times is only indicative of information received back from DEP. Outstanding referrals are not included in the percentage calculation.

**These numbers only reflect the DEPs that are actively using CI (CMH, Langs CHC, GRH, Kitchener Downtown CHC, Woolwich CHC, Groves Memorial Community Hospital, Preston Medical Pharmacy, Shoppers Drug Mart Pharmacy-Bridgeport & Weber, Cook's Pharmacy-Waterloo, Wellesley,Kitchener & New Hamburg, Belgage Pharmacy)

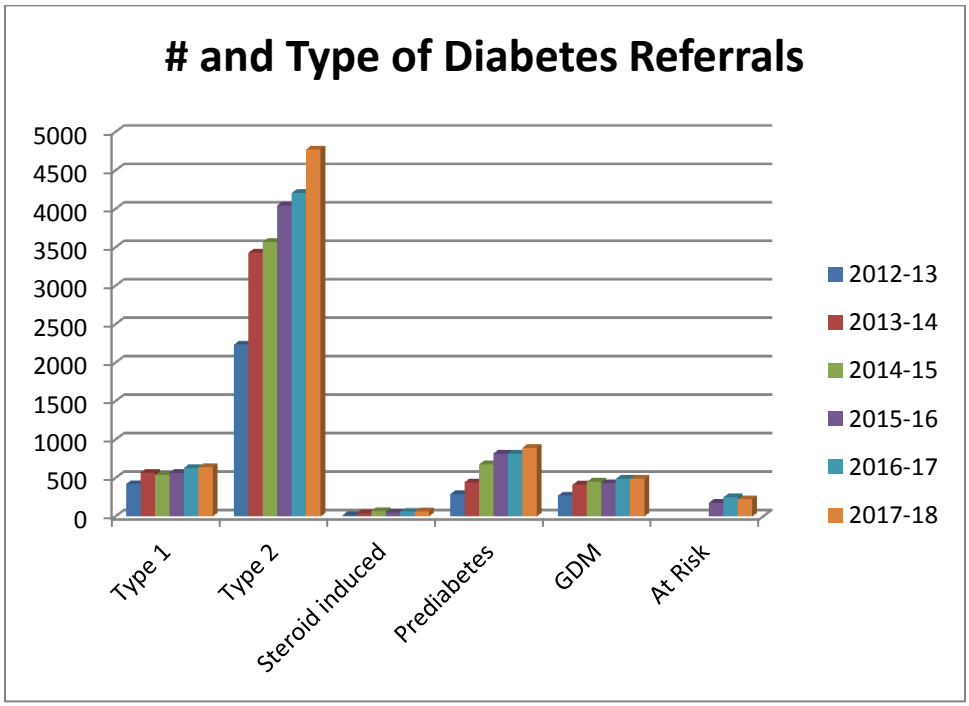
Wait times continue to be within 80% of the benchmark wait times for urgent, semi-urgent and non-urgent referrals, despite the increasing referral volume. (Table 9) Attention must be taken by programs to continue to see individuals for follow-up care and not to eliminate this essential part of diabetes care in order to meet the wait times for incoming referrals. DCI is noticing that we are receiving an increasing number of repeat referrals on the same person as they haven't been followed by the diabetes education program.

Table 9: Program Wait times for WWLHIN Over Time



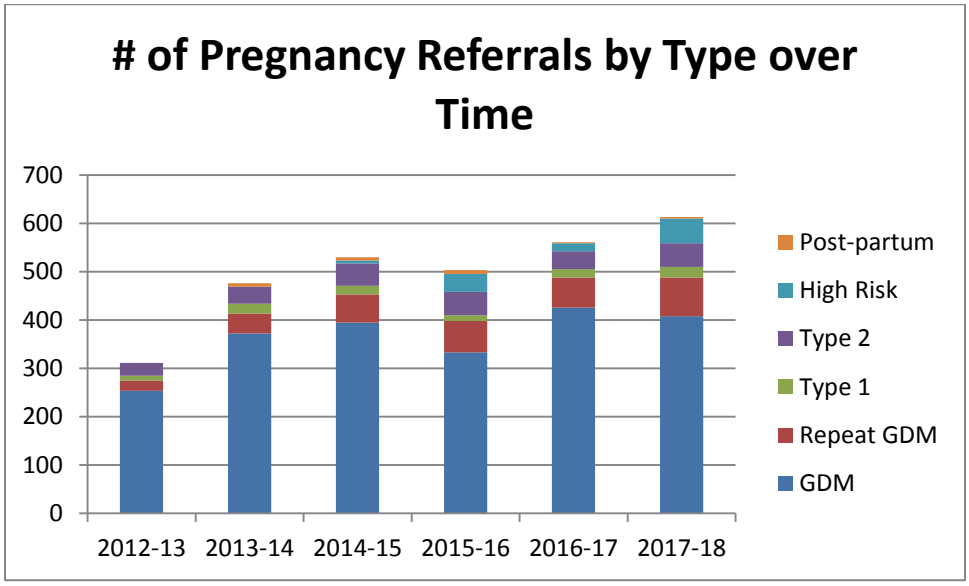
DCI is able to capture the various types of diabetes being referred (Table 10) for Diabetes Education. This is data that is not available in any other region of the province. This also allows for effective program planning. Note that programs only started receiving referrals for At Risk for diabetes in 2015/16.

Table 10: # and Type of Diabetes Referrals



DCI is also able to capture the number of pregnancy referrals broken down by type. (Table 11) This data excludes Guelph and North Wellington, but is useful for the hospital programs who manage diabetes and pregnancy. By monitoring the # of women with gestational diabetes, it provides opportunity for intervention with this group post-partum to prevent them from progressing to Type 2 diabetes.

Table 11: # of Pregnancy Referrals by Type Over Time



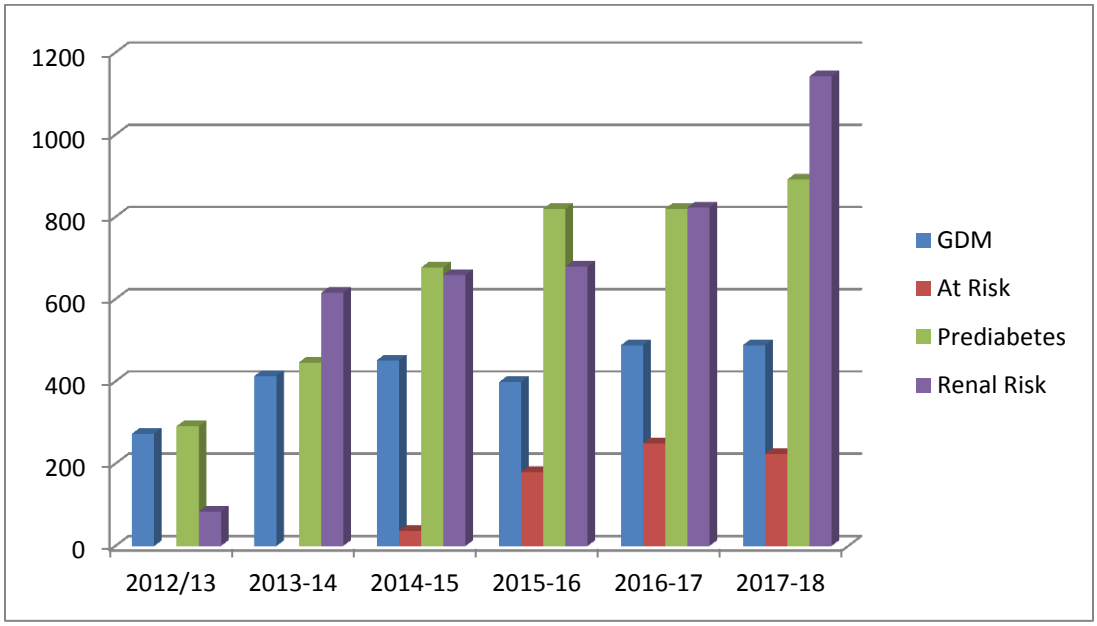
Prevention

DCI continues to focus on prevention efforts. As mentioned above, the diagnosis of gestational diabetes provides an opportunity to intervene to prevent the onset of type 2 diabetes in both the mother and the baby. Identifying women with gestational diabetes and early referral indicates improved screening and intervention.

Diabetes Programs now accept referrals for "at risk" for diabetes and prediabetes. Intervention at the prediabetes stage can prevent the progression to diabetes by up to 58% (DPP study). This year, DCI and the Self-Management Program are supporting primary care in this region to roll-out the Group Lifestyle Balance Program which is modelled after the Diabetes Prevention Program (DPP) from University of Pittsburgh. Training for health care providers is scheduled for June 13, 14th this year.

DCI continues to monitor the number of referrals with criteria indicating higher risk for renal disease to identify further opportunities for earlier intervention. (Table 12)

Table 12: # of Referrals Focusing on Prevention



Education and Mentoring

The mentoring program, which is unique to this region, continues to offer support to health care providers throughout the region. This program offers an experienced Certified Diabetes Educator (CDE) who travels to the various workplaces, enhancing clinicians' knowledge, confidence and skill-set in managing diabetes. Our mentor also provides review sessions for those educators writing their CDE exam as well as lunch and learns on various topics. This year, she offered many of the sessions by webinars allowing 54 educators to access the service. They will write their exam in May, but 100% of the educators who participated last year in the mentoring, passed their CDE. This resulted in 17 new CDEs in the region giving a total of 140 CDEs in the region. The mentoring program has made a positive impact on the quality of diabetes care being provided to patients in this region.

> *I just want to say thank you. This is one of the best initiatives to assist professionals, who are writing this examination.*
> …**Diabetes Educator, 2018**

Educational needs for primary care are identified through DCI. This year we offered 3 events. The annual ½ day educational conference offered each fall called, "An Ounce of Prevention is Worth a Pound of Cure" was held with an attendance of 50 primary care attendees with excellent feedback. (Fig. 2) The event is accredited through the Ontario College of Family Physicians. The attendance was down this year due to another primary care conference the same day.

We also offered a full day event called “Hypoglycemia” which was very well received, with 113 attendees. (Fig. 2)

We collaborated with Dr. Pandey (cardiologist in Cambridge) to provide an event in February called “We’re All in This Together—Diabetes and Heart Summit”. (Fig. 3.) We had 65 attendees at this workshop.

All of these events are sponsored with funding from the pharmaceutical industry. With the new guidelines from the College of Physicians and Surgeons of Ontario for Main-Pro certification, it is becoming increasingly more difficult to attain certification. This combined with the increasing volume for DCI and limited resources, it is unlikely that we will be able to continue to offer these educational events this year.

Figure 1: Ounce of Prevention

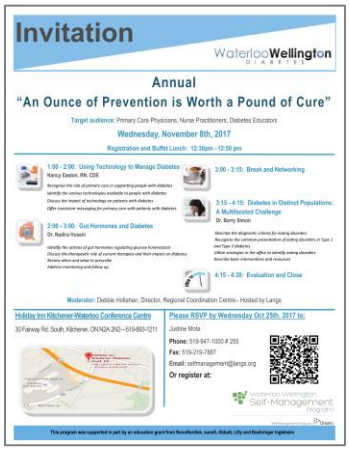


Figure 2: Hypoglycemia

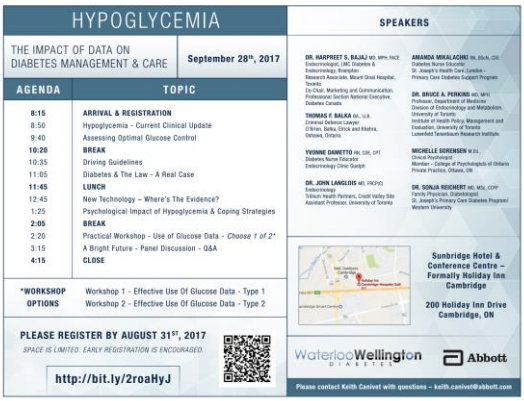


Figure 3: Diabetes & Heart Summit

Website

Our regional website continues to be well received. It offers education, information on upcoming events and local resources. It also offers easy access to referral for diabetes care. The following table describes the volume and reach of our website. (Table 13) As mentioned earlier, we were able to facilitate a referral for a student who will be attending University of Waterloo in the fall, due to the presence of our website.

Table 13: Waterloo Wellington Diabetes Website Data

	# of visitors	# of page views	# of regions in province	# of countries
2013-14	3,609	22,391	4	10
2014-15	5,495	18,766	14	81
2015-16	9,901	26,661	14	120
2016-17	7,797	21,543	14	93
2017-18	7,201	25,923	14	77

Challenges and Risks

The biggest challenge for DCI, is the limited resources of **1 FTE** Triage Nurse and **1 FTE** Admin Support. This is the same allocation of staffing resources since the MOHLTC funded DCI in 2012, yet the volume has increased **7-fold**. Also, there is no budget for vacation or sick time coverage for these 2 staff members. This poses a risk to the efficiency and effectiveness of DCI and impacts patient care if referrals are not able to be processed in time. The eReferral solution offers some efficiency with respect to the ease of transmission and notifications being sent, but DCI still requires staffing to process and follow-up regarding the referrals. It is important to note that eReferral is a method of transmission and replaces fax transmission, but the triaging, processing and follow-up are the components of central intake that require time and resources to support the ongoing success of this service.

Another challenge from a system planning perspective is that Two Rivers FHT, North and East Wellington and Guelph are not currently using Diabetes Central Intake, so the data provided is not reflecting the entire WWLHIN region. Hopefully as the electronic system is adopted, they will see the benefit of utilizing a region-wide approach to referring for diabetes care.

Summary

Waterloo Wellington Diabetes, hosted by Langs, continues to be successful, providing an excellent service to residents living or working with diabetes. It aligns with the Patient First Strategy, focusing on system access and patient navigation. It aligns with the WWLHIN annual business plan and it also aligns with the Ontario Chronic Disease Prevention and Management (CDPM) framework, focusing on all the components of the framework.

Our streamlined process and robust database ensure that no-one is lost in the system and that there is communication to the referral sources throughout the patient journey. Our available data provides valuable information for system and program planning. We continue to be consulted by other regions of the province and country on how to design and deliver centralized intake for diabetes services. Our mentoring program has helped increase capacity of experienced educators in the region. Our web-site provides education and support to people not only within but also outside our region.

Much work has been done to move to an electronic system, which was launched in August 2017. We have worked very closely with the vendors, and the SCA program to build an eReferral solution to support eReferrals to DCI. We continue to promote and encourage eReferral to referral sources and to referral targets. As mentioned, eReferral offers an effective and efficient transmission solution, but the role of central intake is essential in processing referrals. The biggest **risk** for DCI is the limited staffing resources available.