WATERLOO WELLINGTON DIABETES

Diabetes Central Intake/Mentoring/Website

Year End Report to WWLHIN

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Langs
Community. Health. Wellness.

WaterlooWellington
DIABETES

Improving access. Improving knowledge. Improving health.

Contents

Central Intake/Mentoring/Website

Langs receives base funding from the WWLHIN to support the regional services of Diabetes Central Intake, Mentoring and the Waterloo Wellington Diabetes website. 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; and
3. health care providers in the region to enhance their knowledge of diabetes management.

Reports on the volume of referrals and referral sources are submitted monthly and more detailed reports are submitted quarterly. This end of year report provides a summary of the activities and successes over the past fiscal year of 2016/17.

Central Intake

Central Intake (CI) continues to be successful with 28,309 referrals (as of March 31st) being processed since its inception in 2011. Many other regions in the province continue to consult with our program seeking help in developing similar systems.

In 2010, an inventory of services was done for the WWLHIN region, which showed that ~21% of the diabetes population in the region were seen or followed for their diabetes. This year, based on the prevalence data, 38% of the diabetes population have been referred through Diabetes Central Intake. This increased percentage excludes Guelph and North Wellington, which were included in the 2010 inventory, indicating there has been a significant improvement in access to care for diabetes in the past 6 years in this region.

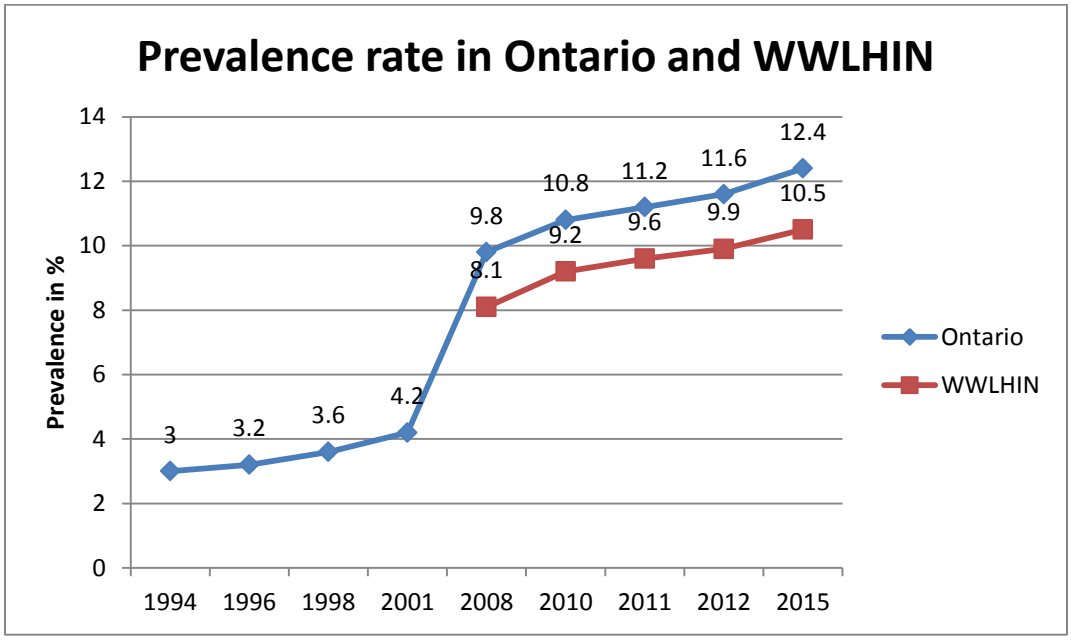
We are currently doing a pilot project with London Intercommunity Health Centre and the SWLHIN to roll-out diabetes central intake to their region. To date, we have processed 761 referrals to London with 119 referral sources from SWLHIN. They supported us with one time funding which allowed us to hire a casual contract triage nurse. Further discussions are taking place to determine sustainability going forward.

We are also actively participating in the Proof of Concept for System Coordinated Access which is an electronic referral management solution. Significant work has been done on this project and we are hoping to "go-live" with this system in June of this year.

Prevalence of Diabetes

The prevalence rate for diabetes continues to rise, increasing at 0.2% per year, which is consistent with the provincial rate (Table 1) although WWLHIN continues to be the lowest prevalence rate in the province when compared to other LHINs. (Health Analytics Branch, MOHLTC, 2016) The rate of increase has dropped both regionally and provincially over the past 4 years.

Table 1: Diabetes Prevalence in Ontario and WWLHIN



Prevalence Count (2015)

Ontario: 1.4 M people

WWLHIN: 66,182 people

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
- Increased 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

There is a 46% increase in people being referred since 2013, and programs continue to meet wait time targets.

- Increased retinopathy screening
- Decreased diabetes related ER visits

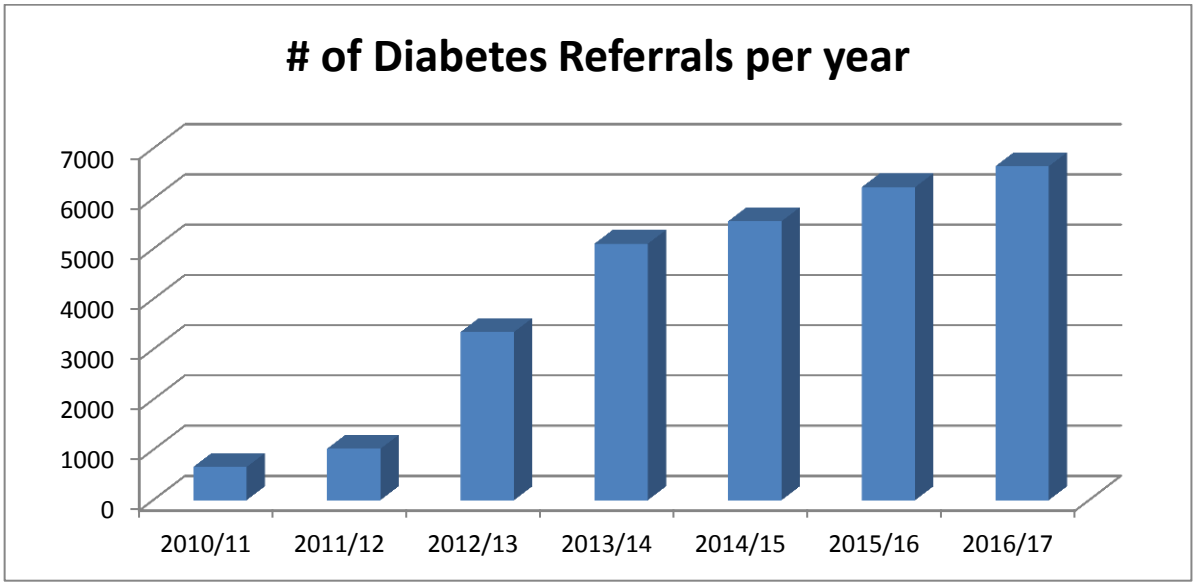
A Closer Look at Our Program

The following data offers a closer look at our program. All of the work to date aligns closely with the provincial "Patients First Action Plan for Health Care". It also aligns 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.

Access to Care

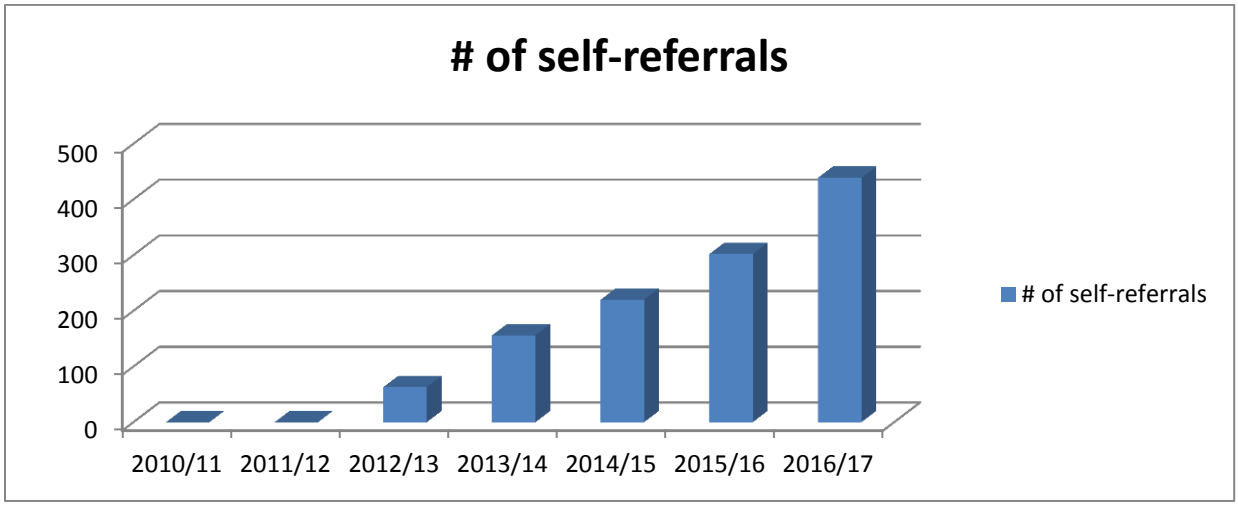
CI has increased access to care by streamlining the referral process with one form and one location to send the form. This has allowed a steady increase yearly in the referrals for diabetes care. (Table 2) As of March 31st, 2017, we have processed 28,309 referrals to Diabetes Education Programs since CI started.

Table 2: # of Diabetes Referrals to Diabetes Central Intake



There continues to be an increase in the number of self-referrals through CI, with a record number of 439 self-referrals this year, representing a 31% increase from last year. This demonstrates easier access for people to obtain diabetes care. (Table 3)

Table 3: # of Self-referrals

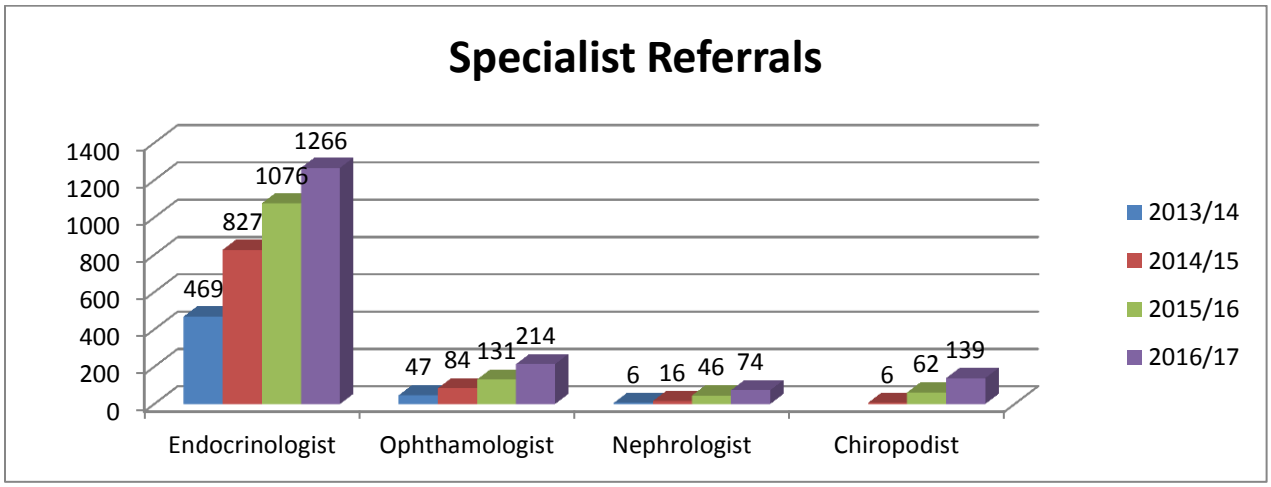


Access to Specialists in Diabetes Care

CI has improved coordination and access to specialized diabetes care. CI receives referrals for specialists including endocrinologist, ophthalmologist and nephrologists. CI also receives and directs referrals for chiropody and pharmacists. This year we have had a 25% increase in referrals to specialists.

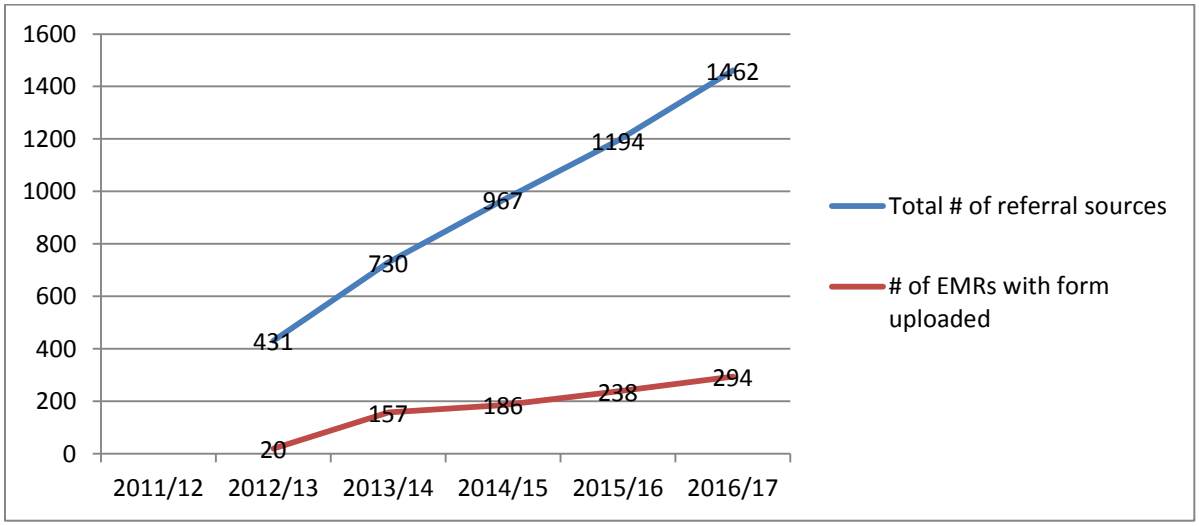
CI directs referrals in a rotational pattern or to the requested specialist or to the specialist with subspecialty (ie. diabetes and pregnancy). CI does not currently monitor wait-times of specialists, but we do stay informed of their average next available appointments and their vacation schedules. CI also facilitates urgent referrals to specialists, for example, if it is a newly diagnosed person with type 1 diabetes, we will arrange an urgent appointment with the endocrinologist. The following table provides a record of the volume of specialist referrals, with a total of 1693 referrals sent to specialists this year.(Table 4)

Table 4: # of Referrals sent to Specialists



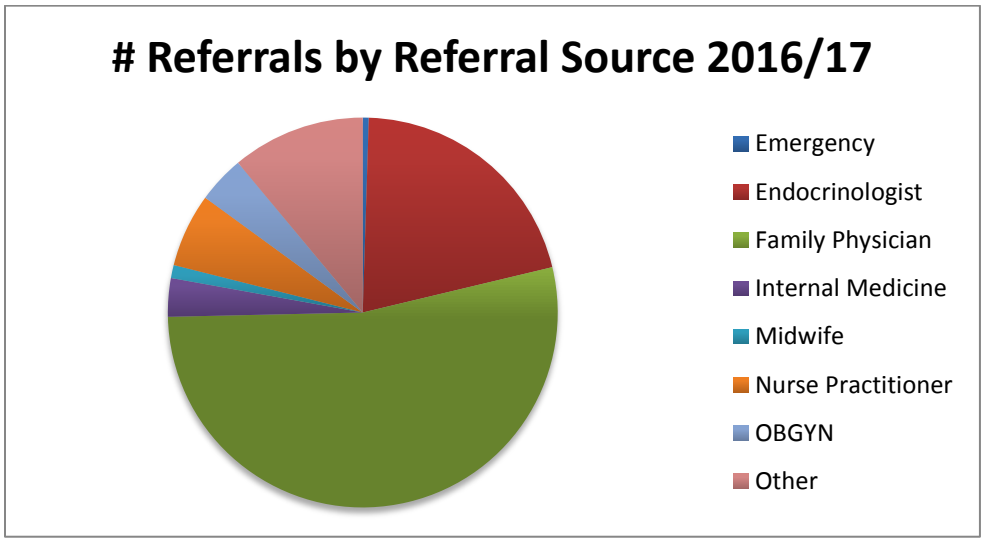
Our referral form is uploaded to >294 EMRs in the region (PSS, Accuro, NOD and Oscar). With Accuro and NOD, physicians can download the form from the directory, so the numbers are higher than we are able to track. Our referral sources (1462) continue to increase with 86% of primary care physicians in the WWLHIN using our form (98% of primary care physicians in Kitchener/Waterloo/Cambridge). The following table shows the increasing number of referral sources currently referring through diabetes central intake and # of EMRs with the form uploaded.(Table 5)

Table 5: # of referral sources and # of EMRs per year



Our referral sources include a variety of professions (29 recorded) with 53% of referrals coming from primary care physicians and 21% from endocrinologists. The following table describes the most common type of professionals currently referring to Diabetes Central Intake. (Table 6)

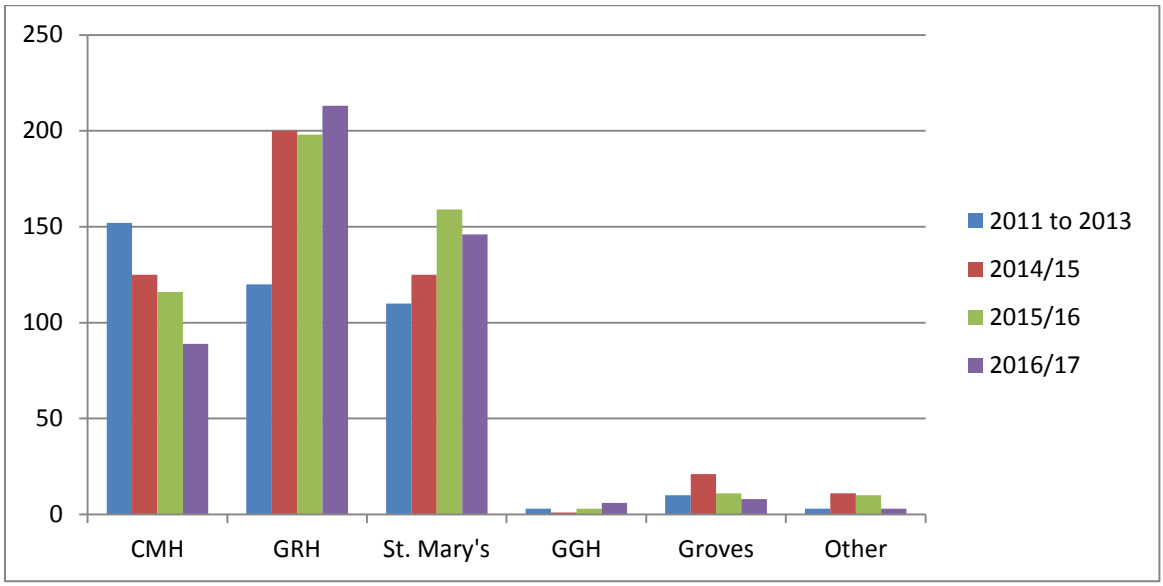
Table 6: # of Referrals by Referral Source/Profession



CI has the referral form in all hospitals, except for Guelph General Hospital, which facilitates transition of residents from hospital to Diabetes Education Programs. Meetings have been held with GGH, but feedback from the Guelph Family Health Team requested that the Diabetes Care Guelph referral form be the only referral form in GGH.

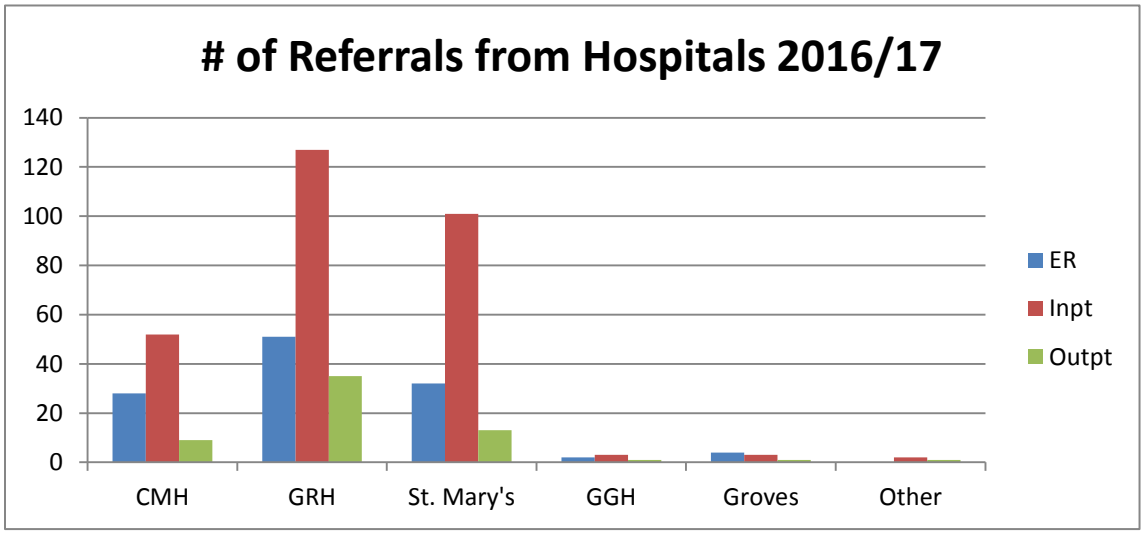
The following table illustrates the # of referrals per hospital each year. The referrals are down this year from previous years with the exception of Grand River and Guelph. (Table 7)

Table 7: Total # of Referrals from Hospitals per Year



The following table illustrates the breakdown of Emergency Room (ER), In-patient (Inpt) and Out-patient (Outpt) referrals from each of the hospitals this past year. (Table 8)

Table 8: # of Referrals from Hospitals 2016/17 by Department (ER/Inpatient/Outpatient)



CI also continues to direct and receive referrals outside of the WWLHIN. The following data provides the breakdown per LHIN. (Table 9)

Table 9: # of referrals Sent To and Received From Inside and Outside of WWLHIN as of March 31, 2017

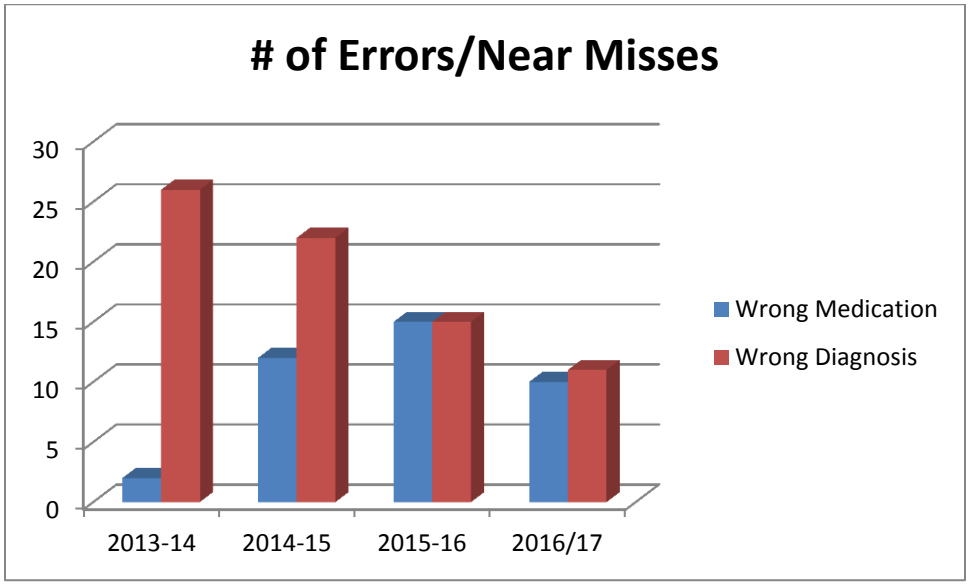
Waterloo Wellington Diabetes Central Intake Data as of March 31, 2017			
Ontario LHIN #	**LHIN name**	**# of referrals sent to**	**# referral sources from**
1	Erie St. Clair	13	1
2	South West	761	119
3	Waterloo Wellington	27314	1077
4	Hamilton Haldimand Niagara Brant	146	59
5	Central West	15	28
6	Mississauga Halton	22	90
7	Toronto Central	9	37
8	Central	8	8
9	Central East	8	7
10	South East		0
11	Champlain	2	1
12	North Simcoe Muskoka	9	8
13	North East	2	3
14	North West	2	0
	unknown		6
Alberta		1	
British Columbia			1
New Brunswick		1	
Nova Scotia		1	
Quebec			1
		28314	**1446**

Triaging

The role of the triage nurse/patient navigator is very important in making Diabetes Central Intake a success. The triage nurse is an experienced Certified Diabetes Nurse Educator (CDE). She reviews every referral and determines the urgency of the referral and where to send the referral to. She uses *ClinicalConnect* when necessary to obtain additional data to support triaging. *ClinicalConnect* was used to improve the reported history and labs, look-ups from referral source, accessed reports for specialist consult.

The expertise of the triage nurse has prevented many patients from progressing to diabetic ketoacidosis and has identified cases that were mis-diagnosed or prescribed the wrong medication and/or identified as type 2 diabetes when they were type 1 diabetes. These numbers are tracked, and used to guide educational topics for our primary care educational event and for our mentor to follow-up on. The misdiagnosis of type 2 versus type 1 is a common problem throughout the province and country, and the triaging in our region has made a significant improvement in diabetes care for patients in our region. The following table demonstrates the # of missed diagnoses/incorrect medication. (Table 10)

Table 10: # of Missed Diagnoses and Incorrect Medication/Dosages

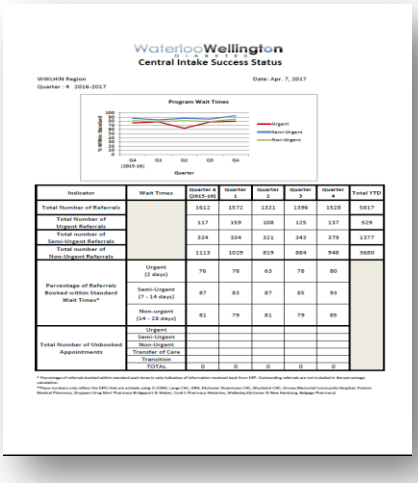


Monitoring of Data

Wait Times

CI monitors wait times for diabetes education programs and reports to the DEP program managers and the WWLHIN quarterly. (Fig. 1) This allows program managers to adjust their programs accordingly.

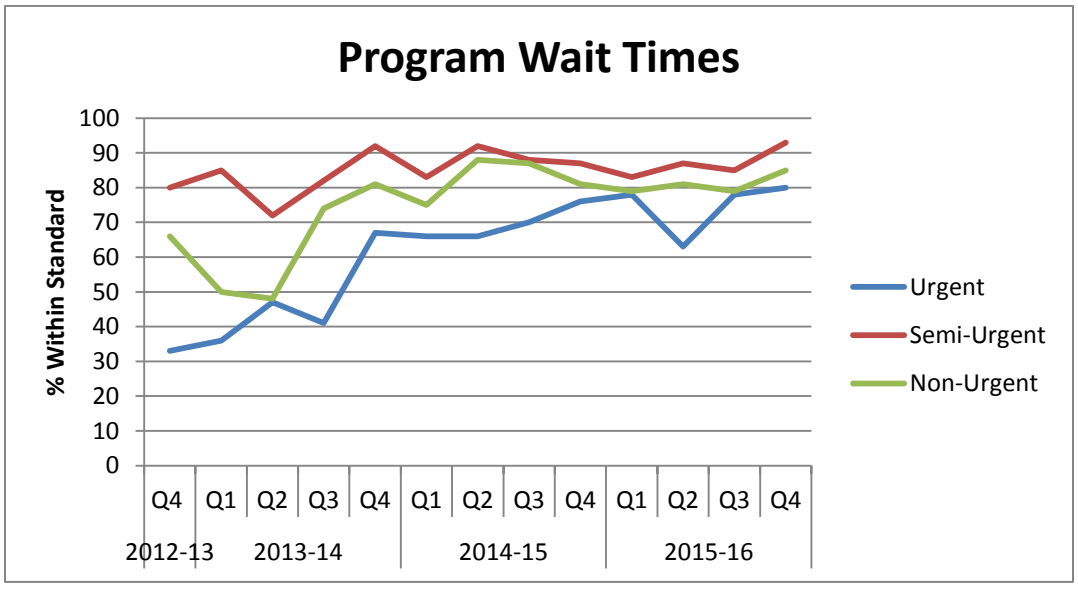
Figure 1: Copy of Success Status Report for WWLHIN



Indicator	Wait Times	Quarter 4 (2015-16)	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total YTD
Total Number of Referrals		1612	1572	1321	1396	1528	5817
Total Number of Urgent Referrals		117	159	108	125	137	529
Total number of Semi-Urgent Referrals		324	334	321	343	379	1377
Total number of Non-Urgent Referrals		1113	1029	819	884	948	3680
Percentage of Referrals Booked within Standard Wait Times*	Urgent (2 days)	76	78	63	78	80	
	Semi-Urgent (7 - 14 days)	87	83	87	85	93	
	Non-urgent (14 - 28 days)	81	79	81	79	85	
Total Number of Unbooked Appointments	Urgent						
	Semi-Urgent						
	Non-Urgent						
	Transfer of Care						
	Transition						
	TOTAL	0	0	0	0	0	

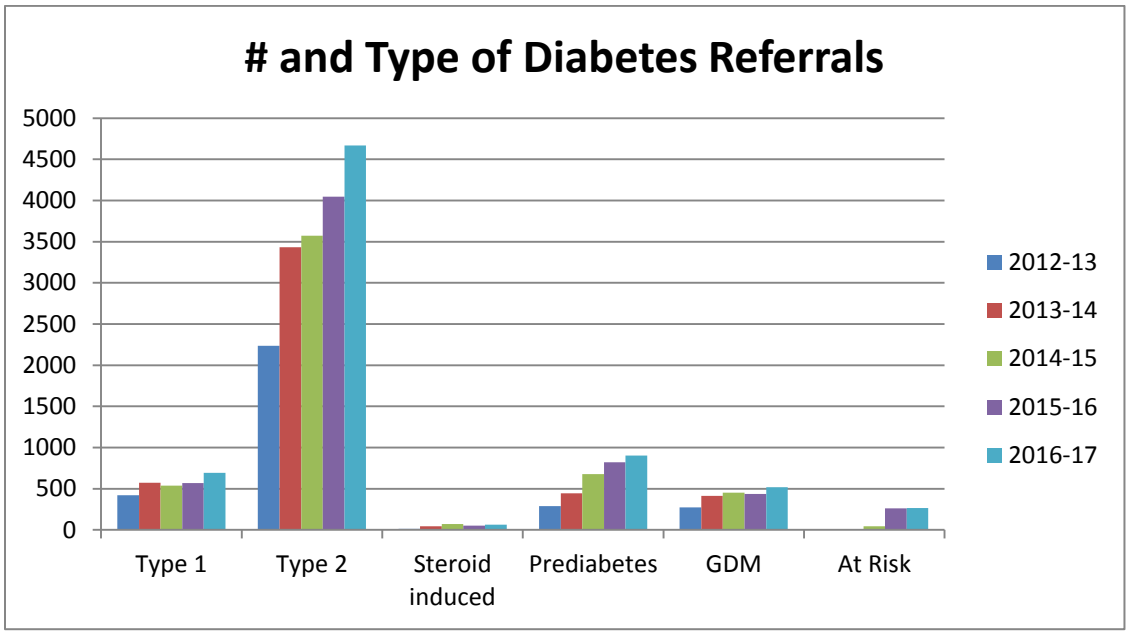
Wait times are all within the 80% target for standard wait-times as of Q4 of this year, which is the first time since CI began measuring wait times. This success has occurred without any increase in funding for resources. (Table 11)

Table 11: Program Wait times for WWLHIN



CI is able to capture the various types of diabetes being referred. (Table 12) This is data that is not available in any other region of the province. This also allows for effective program planning.

Table 12: # and Type of Diabetes Referrals



Indicators such as average age at time of referral (Table 13) and average A1C at time of referral (Table 14) are available from our database to help understand the demographics and complexity of patients being referred. By reviewing the average age, timing and approaches for programs can be adjusted accordingly. This also allows us to monitor if type 2 diabetes is being caught at an earlier age, which is predicted by other diabetes data. As expected, the hospital DECs continue to receive referrals with higher A1C s, as they continue to receive the more complex cases. The A1C for Langs is lower, which is likely due to the higher number of prediabetes and at-risk referrals they receive.

Table 13: Average Age of Patients at Time of Referral by Program

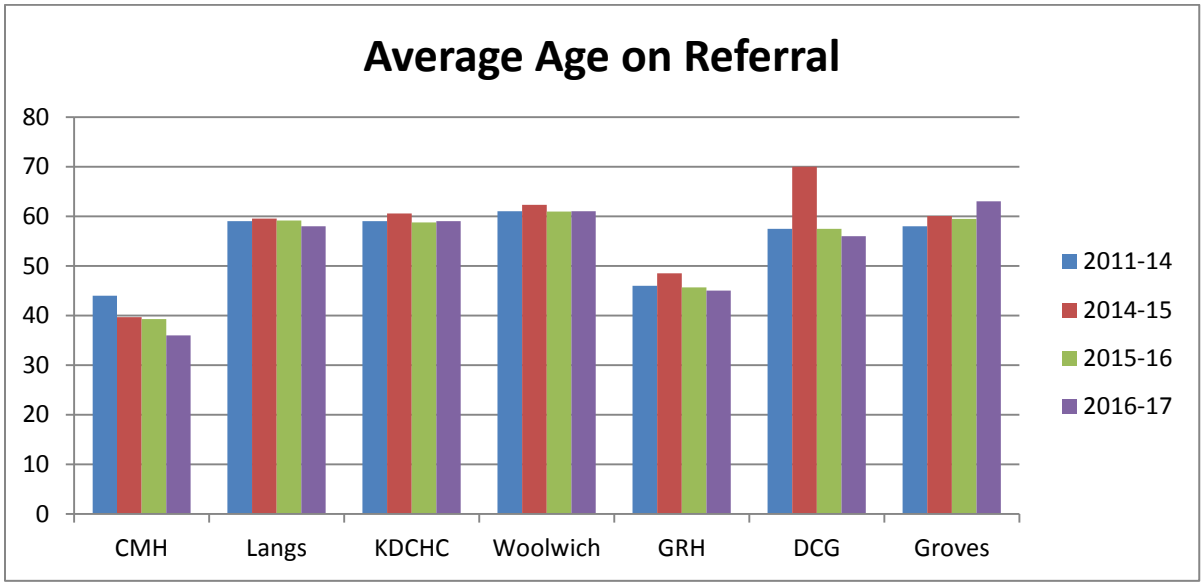
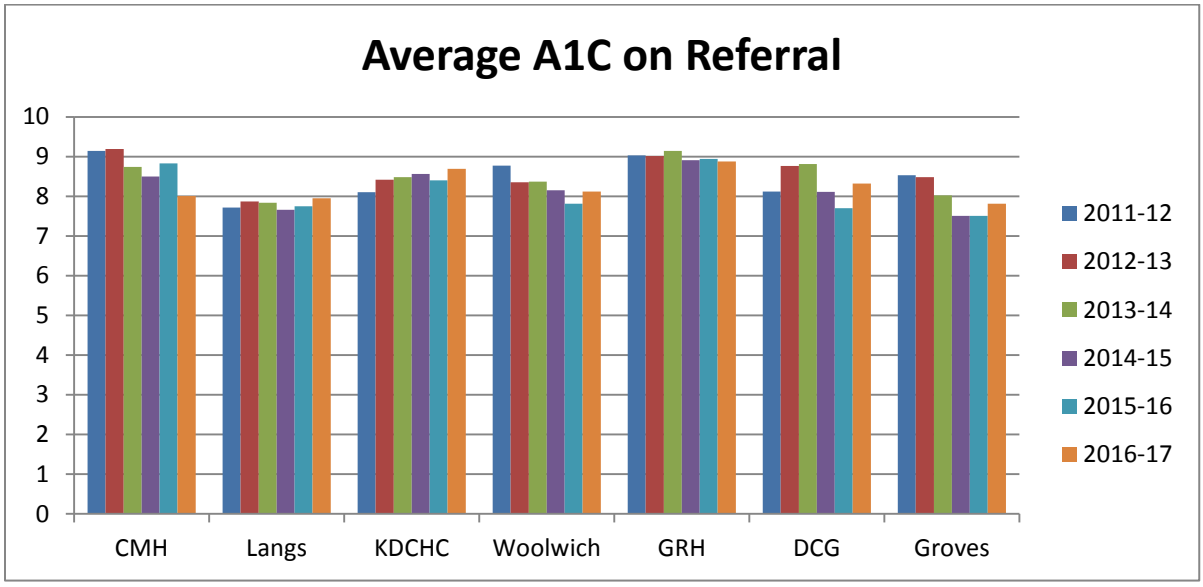


Table 14: Average A1C at Time of Referral by Program

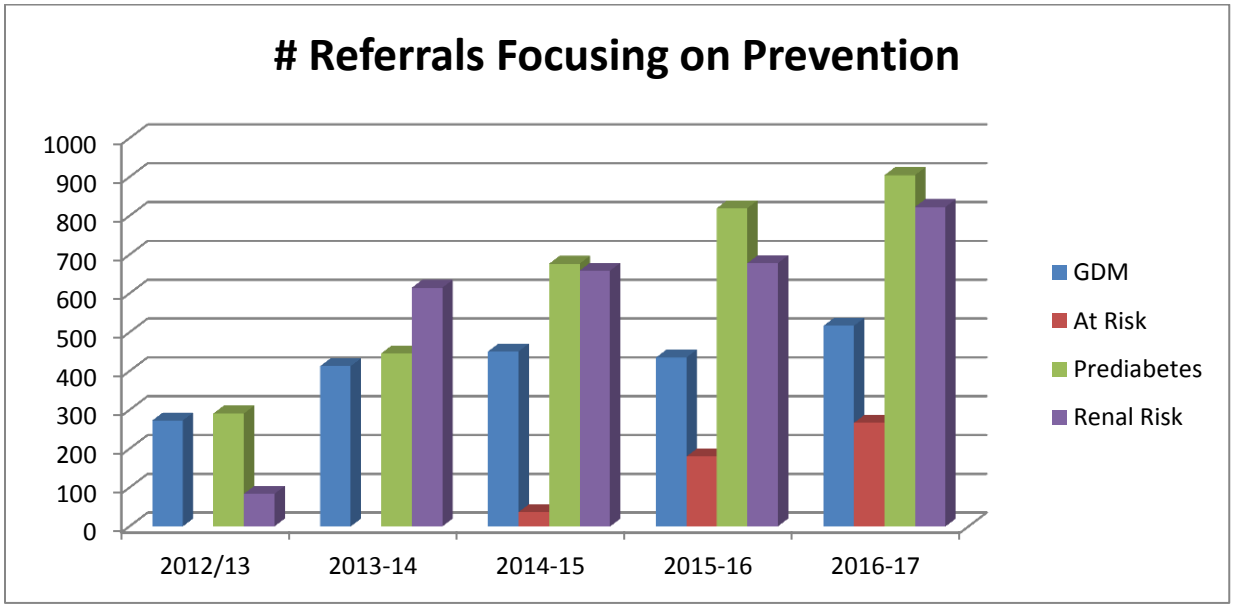


Prevention

In support of the 2012 Auditor General Report of the Ontario Diabetes Strategy, CI continues to focus on prevention efforts. 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.

This year, diabetes programs now accept referrals for "at risk" for diabetes as well as prediabetes. Intervention at the prediabetes stage can prevent the progression to diabetes by up to 58% (DPP study). CI monitors the # of at risk referrals and prediabetes referrals. This number continues to rise. CI also continues to monitor the # of referrals with criteria indicating higher risk for renal disease to identify further opportunities for earlier intervention. (Table 15)

Table 15: # 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 28 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 19 new CDEs in the region giving a total of 123 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. An abstract highlighting the mentoring program has been submitted to Diabetes Canada for this year's national conference.

Educational needs for primary care are identified through CI, resulting in an annual ½ day educational conference offered each fall called, "An Ounce of Prevention is Worth a Pound of Cure". (Fig. 2) The event is accredited through the Ontario College of Family Physicians and this year had an attendance of 76 primary care attendees with excellent feedback.

Figure 2: Annual Primary Care Event

"Terrific afternoon. Thank you"
"Excellent"
"Excellent program"
"Well organized"

Family Physicians, Kitchener

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 16) Although the volume is down slightly this year, there is still significant volume accessing it.

Table 16: 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	7,204	21,543	14	93

Challenges

The biggest challenge for Diabetes CI (DCI), is the limited resources of **1 FTE Triage nurse** and **1 FTE Admin Support**. This is the same allocation of staffing since the MOHLTC funded CI in 2012, yet the volume has increased 6-fold. Vacation or sick time coverage for triaging was covered this past year by the one-time funding from SWLHIN, but no further funding is confirmed for this year. There is no coverage for vacation relief for the admin position. The staff for Medical Specialists CI (Ortho) and DCI,

are cross-trained but both programs are very busy now due to the success of the programs. As we move to an electronic system, this is very concerning, as we will have dual processes going for some time. This challenge presents a high risk as it has the potential to threaten a successful uptake of the electronic system and needs to be recognized and addressed. To support the Diabetes CI to continue to be successful, an additional 1 FTE Triage Nurse and 1 FTE Admin Support is recommended.

Another challenge from a system planning perspective is that North Wellington and Guelph are not currently using Diabetes Central Intake, so the data provided is not reflecting the entire WWLHIN region. Hopefully as we move towards an electronic system, 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. The program 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 is targeted for a June 2017 launch. The biggest **risk** with the launch of this program is the limited staffing resources available.