Ministry of Health and Long-Term Care

Diabetes Management Strategy

Follow-up to VFM Section 3.03, *2012 Annual Report*

RECOMMENDATION STATUS OVERVIEW					
	# of	Status of Actions Recommended			
	Actions Recommended	Fully Implemented	In Process of Being Implemented	Little or No Progress	Will Not Be Implemented
Recommendation 1	2	2			
Recommendation 2	3		3		
Recommendation 3	2		2		
Recommendation 4	3		2	1	
Recommendation 5	3	2	1		
Total	**13**	**4**	**8**	**1**	**0**
%	**100**	**31**	**61**	**8**	**0**

Background

Diabetes, which results from the body's partial or complete inability to produce and/or properly use insulin, is one of the most common chronic diseases in Ontario. It can lead to kidney failure, heart attack, stroke, amputation and blindness if poorly managed or left untreated. Type 1 diabetes, which accounts for 10% of cases, is not preventable and its cause remains unknown. However, Type 2 diabetes, which accounts for the other 90% of cases, is most often preventable with lifestyle changes that include healthier eating and exercise.

The number of people with diabetes in Ontario more than doubled from 546,000 in 2000 to 1.2 million in 2010, increasing further to 1.5 million in 2014. According to estimates made by the Canadian Diabetes Association, the number is expected to grow to 2.2 million by 2024. People with diabetes use the health-care system at about twice the rate of the general population, and the annual cost to Ontario's health-care system is expected to grow from $5.8 billion in 2014 to $7.6 billion in 2024.

Our audit objective in 2012 was to assess whether the Ministry of Health and Long-Term Care (Ministry) had adequate systems, policies and procedures in place to:

- monitor and assess whether service providers are meeting the needs of people with diabetes by providing them with timely access to appropriate and quality care;
- ensure funding and resources provided for the Ontario Diabetes Strategy (Strategy) are used cost-effectively; and
- measure and report periodically on the results and the effectiveness of the Strategy.

In 2008, the Ministry established a four-year, $741-million Ontario Diabetes Strategy (Strategy). The Strategy's short-term results were mixed. The availability of diabetes care was definitely improved. However, most diabetes service providers that were set up with Strategy funding were underused, and many told us that more of their funding should go toward preventive services. We noted in our 2012 audit that 97% of the funding was earmarked to treat people who already had diabetes, with only 3% for prevention initiatives.

In our *2012 Annual Report*, some of our other more significant observations were as follows:

- Efforts by eHealth Ontario (eHealth) to produce an electronic Diabetes Registry to allow physicians and the Ministry to monitor patient data had been problematic. eHealth had been working with a private-sector vendor on the Registry, but the original completion deadline of April 2009 was not met, and the proposed release date was extended many times. The contract with the vendor was eventually terminated in September 2012.
- In 2010, eHealth and the vendor signed a $46 million contract stipulating that the vendor would be paid only after the Diabetes Registry was launched. eHealth has acknowledged that this contract traded away much of the province's control over the project's design, progress and delivery time in exchange for price certainty. Although no payment had been made to the vendor and the Registry was cancelled in September 2012, the Ministry and eHealth incurred about $24.4 million in internal costs related to the Registry between 2008/09 and the time the project was cancelled.
- There has been considerable duplication and overlap in education programs on diabetes. The provincial Strategy runs 152 Diabetes Education Programs (DEPs), each with one or more Diabetes Education Teams consisting of a registered nurse, a registered dietician and other professionals. However, many hospitals and physicians' clinics have set up education programs of their own, with funding from other sources, leading to service overlaps and under-utilization of 90% of the DEPs.
- The Ministry needed to significantly enhance its monitoring of funds used by a not-for-profit organization to which it had been giving $20 million a year to manage and fund 47 DEPs in northern Ontario and a number of other diabetes service providers. The organization had paid a consulting firm $105,000 from the 2009/10 fiscal year to the time of our audit for such services as "advice on election strategizing" and "developing relationships with relevant political decision-makers." There were also instances where staff meal expense claims were not in line with government policy.
- The Ministry had significantly increased the number of in-province bariatric surgeries—from 245 in 2007/08 to 2,500 in 2011/12—to combat Type 2 diabetes in obese people. However, this still did not meet the current demand and was actually lower than the 2,900 surgeries done in 2009/10.

We made five recommendations in our *2012 Annual Report* for improvement and received commitments from the Ministry that it would take action to address them.

Status of Actions Taken on Recommendations

The Ministry provided us with information in the spring and summer of 2014 on the current status of our recommendations, indicating it has made significant progress in implementing several of the recommendations we made in our *2012 Annual Report*. In particular, to improve accountability and to ensure more effective regional system planning, the Ministry has transferred the oversight of most of the Diabetes Education Programs (DEPs) to the 14 Local Health Integration Networks (LHINs), which are responsible for planning, integrating and funding local health care. Subsequent to our audit fieldwork, the Ministry also terminated its agreement with a not-for-profit organization that managed and funded the DEPs in northern Ontario and pediatric DEPs across the province on behalf of the Ministry; our audit found that this organization did not use the Ministry's funding appropriately and did not comply with the Broader Public Sector Expense Directive. In addition, the Ministry has allocated additional funding to enhance access to specialized diabetes services, such as foot and wound care. Apart from the actions taken by the Ministry, eHealth Ontario (eHealth), which was responsible for developing and implementing the then-cancelled Diabetes Registry, has improved its contract terms for procurements of information technology projects. Work was still under way to address our recommendations regarding diabetes prevention and health promotion, improving diabetes education programs, and strengthening coordination of and access to diabetes-care providers.

The current status of the action taken on each of our recommendations is as follows.

Diabetes Registry and Baseline Diabetes Dataset Initiative

Recommendation 1

To allow for efficient and effective diabetes surveillance at the provincial level and to gauge the progress of the Ontario Diabetes Strategy, the Ministry of Health and Long-Term Care (Ministry) should work closely with eHealth Ontario (eHealth) and Infrastructure Ontario to:

- *ensure that eHealth's initiatives for chronic-disease prevention and management are implemented with an appropriate quality assurance process so that they meet the needs of physicians and other users; and*
  Status: Fully implemented.

- *implement measures based on lessons learned from using the total outsourcing system development model for the Diabetes Registry if this procurement process is used for future information technology projects.*
  Status: Fully implemented.

Details

At the time of our audit in 2012, eHealth had worked with a private-sector vendor on developing the Diabetes Registry; Infrastructure Ontario had also been involved in providing eHealth with procurement-management services such as performing a risk analysis before eHealth signs a contract with the vendor and monitoring the progress of the Diabetes Registry project. However, the original completion deadline of the Diabetes Registry was not met, and the proposed release date was extended many times. Subsequent to our audit fieldwork, eHealth terminated the Diabetes Registry project in September 2012. Since then, eHealth has taken the following actions to ensure that other information technology projects for chronic-disease prevention and management are implemented in a way that meets the needs of physicians and other users:

- eHealth is training its staff to use a business requirements framework to identify needs and

develop solutions through business analysis for future information technology projects.

- eHealth has adopted a policy that holds individuals accountable for approving business requirements and for ensuring that test results comply with the requirements.
- eHealth has involved other stakeholders in its decision-making process. For example, a volunteer Patient Advisory Panel was established in April 2013. The panel, which includes patients with chronic diseases, caregivers and Ontario citizens, provides advice on eHealth's work. Working with eHealth, the panel has attended and participated in discussions to provide input on specific projects and solutions, as well as to identify and address potential concerns of patients, caregivers and the citizens of Ontario.

eHealth has also used the lessons learned from the Diabetes Registry project to improve its project governance and procurement practices by:

- requiring direct reporting from project teams to eHealth's executives via a project review committee that is chaired by eHealth's President and CEO, who reports to eHealth's Board of Directors. The committee is a key governance mechanism in providing oversight, decision-making and management of projects in eHealth to ensure that all approved projects support and align with eHealth's strategy; and
- improving the terms of the master agreement with vendors for procurements in any information technology projects, such as the Drug Information System project. Examples of such improvements include:
  - increasing eHealth's ability to exercise assignment and refusal rights over the selection of vendors' subcontractors;
  - providing eHealth with intellectual property and source code at various stages of the project, instead of only at the end of the project; and
  - limiting eHealth's liability and protecting eHealth against lawsuits and claims.

Diabetes Prevention and Health Promotion

Recommendation 2

To enhance the focus on prevention and early detection of diabetes as long-term, cost-effective strategies, the Ministry of Health and Long-Term Care should:

- *re-assess whether allocating only 3% of total dedicated diabetes funding to prevention initiatives is the most cost-effective long-term strategy;*
  Status: In the process of being implemented.
- *devise ways to identify, on a more timely basis, people with undiagnosed diabetes; and*
  Status: In the process of being implemented.
- *develop comprehensive health-promotion strategies that focus on all Ontarians and consider similar strategies used in other jurisdictions.*
  Status: In the process of being implemented.

Details

The Ministry has not re-assessed whether allocating only 3% of total dedicated diabetes funding to prevention initiatives was the most cost-effective long-term strategy, because the 3% figure includes only funding under the four-year Ontario Diabetes Strategy that came into effect in June 2008. In April 2012, the Ministry extended the Strategy for another four years, from 2012 to 2016, with new funding of $152 million, with about 6.6% of the funding being provided annually in the 2012/13 and 2013/14 fiscal years for diabetes prevention programs. In addition to this funding, the Ontario government has adopted a broader approach of integrating prevention and health promotion by investing in various programs to address common risk factors associated with chronic diseases, including but not limited to diabetes. For example, in each of the fiscal years 2012/13 and 2013/14, different ministries invested over $500 million collectively in various programs relating to childhood

obesity prevention and reduction to promote healthy eating, physical activity and maternal health. Examples of such programs included EatRight Ontario and the Healthy Communities Fund under the Ministry of Health and Long-Term Care; the Healthy School Recognition Program under the Ministry of Education; and the Student Nutrition Program under the Ministry of Children and Youth Services.

The Ministry has taken the following actions to identify people with undiagnosed diabetes:

- The Ministry established a Diabetes Prevention and Screening Working Group in 2012 to lead the development of a consistent, integrated provincial framework for diabetes screening and early detection in Ontario. In March 2014, the provincial framework was completed. Currently, the Ministry is reviewing options for the framework's implementation.
- The Ministry provided multi-year funding of $504,000 for 2013/14 and 2014/15 to support expansion of the Primary Care Diabetes Prevention program across six out of over 180 Family Health Teams. This program is intended to improve prevention, screening and early intervention for Type 2 diabetes in primary-care settings such as Family Health Teams.
- The Ministry provided the University of Ottawa Heart Institute with one-time funding of $423,000 for three years from 2013/14 to 2015/16 for the implementation of a project to help identify undiagnosed diabetes and dysglycemia (abnormally high, low or unstable blood glucose levels) in five out of over 150 hospitals across Ontario.

The Ministry has developed and implemented health promotion strategies to improve health outcomes within different population groups, including Aboriginal people, children and youth, and smokers. These strategies share a focus on vulnerable and high-risk populations and the common risk factors—such as unhealthy eating, lack of physical activity, smoking and alcohol addiction—that contribute to chronic diseases, including diabetes. For example:

- The Ministry has increased its funding by 60% (from $4.7 million in the 2012/13 fiscal year to $7.5 million in the 2014/15 fiscal year) for existing health promotion programs run by Aboriginal organizations and tailored to their unique cultural traditions and knowledge. The programs include the Healthy Eating and Active Living Initiative; the Urban Aboriginal Healthy Living Program; and the Northern Fruit and Vegetable Program. They are based on Aboriginal culture and holistic approaches to address the multiple, related risk factors impacting the health of Aboriginal people and communities.
- In May 2012, the Ministry set up a Healthy Kids Panel to develop recommendations for government action to achieve a 20% reduction in childhood obesity in five years. To implement the panel's recommendations, the Ontario government launched an interministerial Healthy Kids Strategy in 2013 aimed at promoting the health of children and youth by focusing on supporting healthy pregnancy, achieving healthy weights and childhood development, and building healthy environments for children. This strategy is supported by a Ministers' Working Group that includes representatives from the Ministries of Health and Long-Term Care; Children and Youth Services; Agriculture and Food; Tourism, Culture and Sport; Municipal Affairs and Housing; Education; and Aboriginal Affairs.
- The Smoke-Free Ontario Strategy combines programs, policies, legislation and social marketing to reduce tobacco use, lower the risk to non-smokers, and reduce the overall smoking-related impact on the health of Ontarians. As part of the provincial strategy, the Ministry has implemented a school-based tobacco use prevention pilot program in 24 elementary

and secondary schools during the 2013/14 and 2014/15 school years.

- In September 2013, the Ministry announced new investments to increase supports for breastfeeding, which has been demonstrated to have a significant beneficial impact on long-term health outcomes and reduced incidence of chronic diseases, such as diabetes.

The Ministry engaged an external consultant to conduct an evaluation of health promotion initiatives for diabetes prevention. The evaluation report issued in January 2013 indicated both strengths and weaknesses of the initiatives based on consultation with diabetes-care providers:

- For strengths, the report noted that the diabetes prevention initiatives delivered a full spectrum of evidence-based diabetes prevention activities focused on high-risk populations across Ontario. Specifically, the activities directly reached over 48,000 people at risk of Type 2 diabetes and delivered public education and resources on diabetes prevention and risk factors to people across the province.
- For weaknesses, the report noted that the diabetes prevention initiatives did not flow from a clear overall strategy aligned with major agendas. To maximize the return on investment in diabetes prevention, the report provided several recommendations to the Ministry. For example, the Ministry should articulate an overall diabetes prevention strategy and should develop a comprehensive long-range diabetes prevention strategic plan that aligns with Ontario's Chronic Disease Prevention Framework as well as with international, federal and provincial strategies and programs.

To address the above weaknesses, the Ministry developed and implemented a broader risk-factor-based health promotion strategy that focuses on vulnerable or high-risk populations and common risk factors that contribute to chronic diseases, such as unhealthy eating and lack of physical activities. The Healthy Kids Strategy in 2013, noted previously, is one example of this broader strategy.

Diabetes Education Programs

Recommendation 3

To ensure that Diabetes Education Programs (DEPs) provide diabetes patients with consistent and quality care, and in compliance with applicable policies, the Ministry of Health and Long-Term Care should strengthen its oversight of DEPs and other recipients of diabetes funding by:

- *developing appropriate service-delivery and cost-effectiveness measures and requiring DEPs to periodically report on these measures; and*
  Status: In the process of being implemented.

- *conducting periodic site visits to selected regional, community and broader-public-sector organizations that receive diabetes funding.*
  Status: In the process of being implemented.

Details

The Ministry and the 14 Local Health Integration Networks (LHINs), which are responsible for planning, integrating and funding local health care, have taken the following actions to improve the accountability and oversight of Diabetes Education Programs (DEPs):

- Effective April 2013, the Ministry transferred the oversight of most DEPs to the LHINs, retaining oversight only of DEPs located in Aboriginal organizations, not-for-profit organizations and Family Health Teams because LHINs are not responsible for overseeing these organizations according to the *Local Health System Integration Act, 2006*. As of June 2013, the LHINs executed accountability agreements with the DEPs they now oversee. The agreements specified the reporting requirements for the DEPs and provided performance measures and accountability mechanisms or processes, including conducting site visits to selected DEPs. The Ministry has executed

similar agreements with those DEPs for which the Ministry retained oversight responsibility. With respect to site visits, 301 were conducted by either a LHIN or the Ministry in 2013 and 2014. Specifically, 171 site visits were done in 2013, and 130 were done in 2014 by the month of September, with at least three more site visits planned for the remainder of 2014.

- To ensure more effective regional oversight and system planning, the Ministry terminated its agreement with a not-for-profit organization that had for over 20 years managed and funded the DEPs in northern Ontario and pediatric DEPs across the province on behalf of the Ministry. Our audit in 2012 found that this organization did not use the Ministry's funding appropriately and did not comply with the Broader Public Sector Expense Directive. After terminating the agreement with this not-for-profit organization, the oversight responsibility for all the DEPs previously belonging to this organization were transferred to either the Ministry or LHINs.
- In May 2013, the Ministry and the LHINs established a Joint Diabetes Planning and Management Committee. This committee's scope includes collaborative planning for the oversight, management and co-ordination of diabetes services and programs. In October 2013, a subcommittee, the Ministry–LHIN Performance Working Group, was established to develop performance indicators, common benchmarks and reporting templates for the DEPs to ensure reporting consistency across the province. The working group has completed consultations with diabetes service providers and administrators to ensure that the updated DEP reporting templates strengthen accountability and facilitate planning for diabetes services in communities across the province. The Ministry and the LHINs have worked together to update the Diabetes Policies and Procedure Manual in order to reflect changes made to the DEP reporting templates. The revised reporting requirements took effect on April 1, 2014, for all DEPs in the province. The Ministry held webinar training sessions on the revised reporting templates and the Manual for both LHIN-managed and Ministry-managed DEPs in March and April 2014.

Co-ordination of and Access to Diabetes-Care Providers

Recommendation 4

To improve co-ordination among diabetes-care providers and access to specialized diabetes care, the Ministry of Health and Long-Term Care should:

- *take into account the demand for and availability of diabetes services offered in community health centres, hospitals and Family Health Teams when allocating diabetes funding and other resources to avoid duplication or under-utilization of services;*
  Status: In the process of being implemented.
- *evaluate the need for the Diabetes Management Incentive, given the evidence indicating its lack of impact on encouraging physicians to provide continuous and co-ordinated diabetes management; and*
  Status: Little or no progress.
- *monitor whether people have timely and equitable access to diabetes-care specialists in high demand, such as foot-care specialists, especially where there is evidence that a lack of timely treatment is likely to result in hospitalization.*
  Status: In the process of being implemented.

Details

To avoid duplication or under-utilization of diabetes services, both the Ministry and the LHINs support and promote the integration of diabetes programs through Health Links established in December 2012. Health Links are a new way of co-ordinating local health care for patients who often receive care from several different providers.

Health Links specifically focus on improving the services available to patients with complex conditions or multiple chronic diseases, including diabetes. All Health Links have a co-ordinating partner, such as a Family Health Team, Community Health Centre, Community Care Access Centre or hospital. Therefore, Health Links encourage greater collaboration between existing local health-care providers, including family-care providers, specialists, hospitals, long-term care, home care and other community supports. Greater collaboration helps avoid any gaps and duplication in the care provided to patients and helps ensure that patients do not have to answer the same question from different providers but have a care provider they can call, eliminating unnecessary provider visits. The Ministry has encouraged the Diabetes Education Programs (DEPs) to develop relationships with their local Health Links to ensure better co-ordination of services for individuals with diabetes. For example, in Toronto Central LHIN, health-care providers in DEPs have collaborated with Health Links and provided diabetes education and management services at the Health Link site.

The Diabetes Management Incentive (DMI) was introduced by the Ministry in April 2006 to promote quality diabetes care by paying a $75 annual payment to physicians for co-ordinating, providing and documenting all required elements of care for each diabetes patient. Subsequent to our 2012 audit, in April 2013, the DMI was reduced to $60. To evaluate the need to continue this initiative, internal ministry consultations were under way at the time of our follow-up.

The LHINs, in consultation with the DEPs, were assessing the state of foot-care services and related service gaps at the time of our follow-up. Specifically, they were determining and monitoring whether people have timely, equitable access to diabetes-care specialists in high demand, such as foot-care specialists. Both the Ministry and the LHINs have taken the following actions to enhance access to diabetes-care specialists:

- In December 2013, the Ministry allocated about $1.2 million to support enhanced access to specialized diabetes services, including foot and wound care, in Aboriginal and First Nations communities in which the prevalence of diabetes and related complications is among the highest in the province. The funding was provided to 19 diabetes service providers for management of diabetes and related health concerns, including foot or wound care, nutrition and physical activity.
- The Ministry has continued to implement programs that address equitable access to diabetes specialists, including foot care. These include six Centres for Complex Diabetes Care (which provide specialized interprofessional services for individuals with diabetes and complex needs) in the Central West, North East, North West, Central, Mississauga Halton and Central East LHINs; and the North West LHIN Mobile Diabetes Service (which delivers care to individuals with diabetes in remote and rural areas).
- The Ministry was seeking interested First Nations, Métis and Aboriginal organizations to submit proposals for the provision of diabetes services, including those related to foot and wound care. If the Ministry decides to proceed, the selected organizations will receive funding to serve both adult and pediatric populations.
- The LHINs have developed foot-care pathways (a decision-making aid for diagnosis and treatment) and a foot-care tool kit for health-care providers, and partnerships with chiropodists have been developed to enhance foot-care services.

Bariatric Surgery

Recommendation 5

To ensure that people receive adequate, timely and quality bariatric surgical services across the province, the Ministry of Health and Long-Term Care should:

- *review trends of demand and capacity for bariatric surgery to identify gaps and needs, especially on a regional basis;*
  Status: Fully implemented.

- *consider providing the public with information on the average elapsed time between a physician's referral and completion of the required pre-surgery assessments; and*
  Status: In the process of being implemented.

- *periodically monitor surgical outcomes to determine whether hospitals offering this surgery need to go through an accreditation process as hospitals in the United States do.*
  Status: Fully implemented.

Details

After reviewing trends of demand and the capacity of bariatric surgery, in order to identify regional gaps and needs, the Ministry made the following changes to the referral process for bariatric assessment and treatment to ensure adequate and timely bariatric services across the province:

- To shorten wait times and travel times, patients residing in the London, Ontario, area are now assigned to the bariatric assessment centre in Windsor instead of to the assessment centres in Hamilton and Guelph.
- The bariatric assessment centre in Thunder Bay began offering bariatric surgeries in summer 2014 to meet the need for bariatric services in that region.
- The Ministry, in conjunction with the Ontario Bariatric Network, is considering requests from a bariatric assessment centre in Kingston and another hospital in London to become surgical sites in order to meet the need for bariatric services in those regions.

With regard to providing the public with information about the average elapsed time between a physician's referral and completion of the required assessments before bariatric surgery, all patients who attend an orientation session before bariatric surgery are advised of the average timelines to surgery (that is, from the time of the orientation session to the time of the surgery). Bariatric surgical centres also provide patients with information explaining that wait times to surgery can be contingent on several factors, including a patient's unique medical circumstances, the availability of specialists, and the booking of necessary medical tests. The Ministry has published wait times for bariatric surgery online. Between April 2014 and June 2014, for example, the wait time for bariatric surgery once a surgeon had approved it was 132 days, which is within the general surgery target of 182 days. These wait times published online are measured using Ontario's standard definition of wait times: from the decision to treat to surgery date. The time from the initial physician's referral to booking the surgery is not included in the wait times published online but is tracked on a monthly basis by bariatric surgical sites.

Regarding the oversight of surgical outcomes, the Ontario Bariatric Network hired a Clinical Lead in March 2013 to monitor bariatric surgical centres, improve sharing of best practices and provide input on quality of care, wait times and process improvements. The Ministry has been working with the Ontario Bariatric Network to monitor the bariatric assessment and surgical centres, and to make funding adjustments when necessary. Surgical outcomes are also monitored through the Bariatric Registry, and each bariatric surgical centre is provided with a "scorecard" that shows its outcomes compared to other centres. With respect to the accreditation process in Ontario, the Ministry indicated that most aspects of the Ontario bariatric program are modelled on the standards set by the accreditation bodies in the United States, so whether bariatric surgical centres in Ontario obtain the U.S. accreditation remains voluntary.