THE DIABETES DILEMMA

In Ontario, an estimated 1.4 million people are living with diabetes, and that number is expected to increase to 1.9 million by 2020. RNs are already providing exceptional guidance and care to those with this chronic disease. We hope their stories will inspire other nurses called upon to address the coming surge.

BY: MELISSA DI COSTANZO

PHOTO: GRAEME OXBY

Culturally appropriate diabetes care

Sam* stared at Angie Olaveson, shook his head, and said "you're never going to make me change." He had just been referred to the Timmins RN and program co-ordinator of the Misiway Diabetes Wellness Centre with a Type 2 diabetes diagnosis. Olaveson was explaining the importance of consistently administering insulin and taking new medications. Sam, a 59-year-old Aboriginal, lived by himself, was obese and partially blind, the latter a complication of the disease.

Like she does with all 386 of her clients, 90 per cent of whom are Aboriginal, Olaveson told Sam: "I know you can do this." She spoke to him about the disease and encouraged him to take on an active role in his treatment by shifting to a healthier diet and sticking to a medication routine. His weight was preventing him from walking long distances, so she helped him get a walker. Now, Sam's "a changed man," she says. His blood sugar levels have lowered significantly since he first stepped into Olaveson's office a year ago. He can go for a stroll without fearing shortness of breath or a fall. "It's very rewarding, and that's why I love my job," Olaveson says. "Most of my clients have a story like that."

Little things like stapling bus tickets to appointment cards and placing a bowl of fresh apples, oranges and bananas at the front entrance of the centre, show clients "we do care, and that we're here for them no matter what," Olaveson says. With such a high concentration of Aboriginal clients – a demographic identified to

Timmins RN Angie Olaveson understands the cultural sensitivities that need to be considered when helping Aboriginal clients manage their diabetes.

have burgeoning diabetes rates in Canada – the petite non-Aboriginal says every little bit counts. "First Nations people are very shy and reserved. They need to be followed closely because they (give up) very quickly," she explains, likening herself to a confidant or even sometimes a friend. "You're not just dealing with the diabetes. You're dealing with emotional baggage." Patients have walked out on the nurse or repeatedly cancelled and rescheduled appointments. Olaveson doesn't overload them with details, and always reminds them: "I care about you. I want to see you improve. I want to see you live long and healthy."

Diabetes is said to affect Aboriginal Canadians at rates up to five times higher than the rest of the population. Genetics, coupled with lifestyle changes, including a shift away from traditional practices such as hunting, fishing and berry-gathering, less physical activity, and the high cost of food on reserves (the price of food in some fly-in northern Ontario communities is 86 per cent higher than the Canadian average) sadly translate into statistics that will only continue to rise. In Timmins alone, where the Aboriginal population makes up approximately 10 per cent of residents, almost 5,000 people have Type 2 diabetes.

To mark National Aboriginal Diabetes Awareness Day, Angie Olaveson (right) organized an event at the Misiway Diabetes Wellness Centre in Timmins.

Factor in geographical barriers facing those who live on remote reserves, and Olaveson has her work cut out for her. Luckily, she's relentless.

She travels to the remote communities of Matachewan, Mattagami, Wahgoshig and Taykwa Tagamou each month with a dietician and foot-care specialist in tow. The group spends anywhere from four to six hours providing workshops and one-on-one sessions to those who have limited or no access to diabetes care otherwise. Olaveson also connects some clients to traditional spiritual and/or healing programs.

Reaching out to the Aboriginal community in populated areas such as Timmins is also important, she says, especially considering many are reluctant to disclose details of their health to strangers. In May, the Misiway Diabetes Wellness Centre marked National Aboriginal Diabetes Awareness Day by hosting exhibitors, tai chi demonstrations and a sandwich and yogurt bar. The event was held at the Timmins Native Friendship Centre, a gathering place many Aboriginals are familiar with. "I think it's important for them to have a place to go where they feel comfortable," she explains. During summer festivals, Olaveson will set up a teepee for passersby to listen in on presentations on how to read food labels. Similar activities are also planned for November's Diabetes Awareness Month.

Olaveson also speaks to grade-school children about healthy snacking. This is an especially important target group given the Canadian Diabetes Association's (CDA) recommendation that First Nations children be screened for the disease at the age of 10 (compared to 40 years of age for the general public). The CDA says First Nations children as young as eight are being diagnosed with Type 2 diabetes. In Timmins, it is estimated roughly 10 per cent of the population was 14 or younger in 2006. "At risk (education) is so important. If we can change (attitudes and behaviours) at that stage in life, we won't have this problem later in life," Olaveson says.

More than 600 kilometres south, at Richmond Hill's Mackenzie Health Diabetes Education Centre (DEC), RNs Lynn Woods, Marisa Cotturo and Helen Poon find themselves thinking of similarly creative care plans that address cultural sensitivities for the clients they serve.

The nurses and dieticians speak French, Italian, Hindi, Punjabi, Urdu, Cantonese, Mandarin and Spanish to help cater to the area's diverse population.

They also delve into culture-specific foods and eating habits with clients. For instance, if an Italian patient says they eat zucchini, Cotturo will ask how the vegetable is prepared. A traditional Italian dish is deep-fried zucchini, which doesn't offer the same health benefits as grilled zucchini. "When you understand culture and food, and how the two interact, you can better advise people how to cope (with their diabetes)," Woods says.

Group classes – including cooking lessons – are also offered in different languages, including Mandarin and Cantonese for the Chinese-Canadian population. According to a recent study published in the U.S.-based *Diabetes Care* journal, this population has seen a staggering increase in cases of Type 2 diabetes.

In May, researchers revealed that the study found there were 1.3 newly diagnosed Type 2 diabetes cases per year in 1996 for every 1,000 Ontarians of Chinese decent. Fourteen years later, the annual rate jumped to 19.6 per year, a rise Poon attributes to less activity and more fast food, two culprits behind the spike in the disease. In her practice, Poon focuses on culture-specific eating habits with her clients by asking them what kind of meals they prepare. Many Chinese people tend to favour deep-fried tofu. Poon recommends steaming the bean curd instead.

Poon has worked at the DEC for eight years, and says she began to notice a rise in the number of Chinese-Canadians with diabetes roughly five years ago. Eighty per cent of her patients are Chinese-Canadians who have emigrated from cities such as Hong Kong, where cars are considered luxury items, and where people tend to favour walking to work over driving, she says. Mandarin and Cantonese group classes – run by Poon, who typically focuses on foot care and what it means to live with diabetes – help these patients and their friends or relatives share similar experiences.

No matter the cultural background, clients are encouraged to email their questions to DEC staff in their native language. Staff will also speak about the importance of a balanced diet to newcomers at the Welcome Centre Richmond Hill, which helps to support and provide information to immigrants.

"It's more than just speaking the language. It's (about) understanding the culture," explains Woods. **RN**

Best practice, evidence in diabetes care

Research suggests that if people's feet are monitored at the beginning of a diabetes diagnosis, complications such as neuropathy (damaged sensory nerves) can be avoided. But convincing someone with healthy feet to take better care of them before problems begin can be tricky.

That's where evidence can make a big difference.

A recent Canadian Institute for Health Information (CIHI) study, *Compromised Wounds in Canada,* found people with diabetes admitted to hospitals are roughly six times more likely than other patients to develop wounds that don't heal properly. It concludes diabetes was a factor in over 2,000 foot amputations between 2011 and 2012, and claims many could have been prevented if proper wound care management and prevention had been in place.

RNAO staunchly supports this call for greater attention on wound care. In fact, the association developed two best practice guidelines (BPG) that deal directly with diabetic wounds: *Reducing Foot Complications in People with Diabetes* and *Assessment and Management of Foot Ulcers for People with Diabetes*. Both include a number of recommendations based on the best and most up-to-date evidence.

RN Pat Coutts is relaying research and evidence-based findings to clients. As a result, more people are beginning to understand just how valuable best practice and evidence are to their care.

Coutts works as a wound care and clinical trials co-ordinator at Toronto Regional Wound Healing Clinic. She was a panel member during the development of RNAO's two wound care guidelines which, combined with the Canadian Diabetes Association's guidelines, have already helped to regulate diabetes care, especially as it pertains to feet.

Clients living with diabetes who experience foot ulcers are encouraged to take pressure off and tend to their feet, something Coutts says health-care providers have only recently started to share with their clients thanks to recommendations in the BPGs. Nurses and doctors will now also check patients' feet during monthly and bimonthly check-ups for dryness, cracks, blisters, maceration between the toes and fungus. This is in addition to traditional checks for blood sugar levels, weight and urine, which have always been the norm. Patients' shoes are also monitored to ensure a proper fit.

These are all important advancements in evidence-based care, and Coutts thinks more are necessary.

She points to other recommendations in RNAO's BPGs, one of which suggests health-care professionals gradually introduce clients to the complexities of their disease when they're ready to receive the information and after personal goals have been established, rather than overwhelm them with too much early in their diagnosis. This will help nurses to foster therapeutic relationships, which Coutts says is key to chronic disease management. Strong interactions between clients and providers means clients are more likely to trust providers and the options they present, particularly those that are evidence-based. Leaning on best practice helps people better understand their provider's thought process. "I have conversations with people hesitant to do things (so I say) 'our BPGs tell us that this is what will work,'" she says. "I think it is so important for everyone – practitioners, patients and families – to have guiding principles. That's what BPGs, in my mind, are." Understanding and providing information based on a client's ▶

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There are four types of diabetes:

1 TYPE 1 DIABETES
The pancreas does not produce **ANY** insulin, which helps to regulate the level of glucose in blood.

2 TYPE 2 DIABETES
The pancreas does not produce **ENOUGH** insulin, or your body does not properly use the insulin it makes.

3 GESTATIONAL DIABETES
A temporary condition **during pregnancy**. The body develops carbohydrate (glucose) intolerance and does not produce adequate amounts of insulin to process sugar.

4 PRE DIABETES
Higher than normal **blood glucose** levels. Many people develop Type 2 diabetes after it is determined they are pre-diabetic.

Diabetes can lead to numerous complications if untreated or not managed properly, including: **heart**, **kidney** and **eye disease**, **impotence** and **nerve damage**.

Diabetes affects many across Canada:

An estimated **80 per cent** of people with diabetes will die from heart disease or a stroke.

About **10 per cent** of people with this chronic disease have Type 1 diabetes.

20 per cent of First Nations adults have been diagnosed with diabetes.

Source: Canadian Diabetes Association, Assembly of First Nations, Ontario's Ministry of Health and Long-Term Care

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context and needs also helps nurses to tailor care which, in turn, helps to boost clients' confidence.

Providers should take more time to engage clients in planning their care with a thorough understanding of the disease and its effects. Many people with diabetes are prevented from holding down a steady job because they suffer from depression or eye issues, says Coutts. Nurses need to assess complications that stem from diabetes, and a patient's ability to cope. Consideration must be given to how these impact clients' daily lives. "We need to realize it's not just a chronic illness we're dealing with...it affects the person's ability to be a productive member of society," says Coutts.

Working with all members of the interprofessional team is also critical to ensuring clients receive the highest quality care and are able to meet their goals. When it comes to this chronic illness, a combination of nurses, doctors, dieticians, social workers, podiatrists, gait specialists, occupational therapists – and sometimes more – should be on board with a client's care plan.

Another important player who needs to be on board is the client themselves. "Health-care practitioners are realizing they can't dictate anymore. It just doesn't work," says Coutts. As many as 90 per cent of people with Type 2 diabetes are overweight or obese, and nurses can support clients who are adjusting their lifestyle to include a balanced diet and fitness routine customized to their personal targets. "People from a very young age need to know they're responsible for their own health," she says, adding she thinks RNAO's *Primary Prevention of Childhood Obesity* BPG will play a starring role in communicating this message.

RNAO's diabetes BPGs are already playing a starring role in some circles. In fact, *Assessment and Management of Foot Ulcers for People with Diabetes* made waves nationally a year ago when it was adopted by the Council of the Federation, comprised of Canada's premiers and territorial leaders, who chose to implement the BPG across the country. The guideline, currently in its second edition, is the subject of a national monthly webinar series, hosted by RNAO. In anticipation of implementation across the country, the webinars outline some structured implementation strategies. "We are very proud that the Council of the Federation has recognized the quality of our guideline development program," Heather McConnell, associate director of RNAO's BPG program, says of the initiative that will only continue to standardize diabetes care. "We want to highlight the importance of a systematic implementation plan that must include multi-pronged approaches in order to achieve sustainable practice change." **RN**

Diabetes in the digital age

Mark* wanted to learn more about how to read food labels. Having been diagnosed with Type 2 diabetes, he wanted to understand how to make better decisions when buying groceries. He wanted to access this information quickly, so he turned on his computer, opened up an Internet browser and typed "St. Joseph's Health Care London Diabetes Education Centre" into the search field. Up popped a webpage featuring six different-coloured squares, directing him to information about Type 1, 2, pre- and gestational diabetes.

He arrived at a page called *Using food labels,* where he learned, among other things, to avoid trans fat and to choose foods with 10 or less grams of fat per package.

Mark, and other diabetes clients just like him, can access information and resources about diabetes outside of St. Joseph's Diabetes Education Centre's (DEC) hours. This is an important part of ensuring they are in better control of their disease, explains DEC NP Maureen Loft. And it's an online resource that offers reliable information backed by evidence. With so much available online, it may be difficult for clients like Mark to assess what information is correct and what is heresy. "We're trying to get the information or education the patients want or need in their hands," she says.

St. Joseph's DEC website was revamped a year ago as part of an organization-wide website overhaul, and continues to occupy a spot as one of the top five sites that generates the most traffic for the organization. "It's an adjunct to (in-person) patient care," explains Loft. "I strongly believe patients (shouldn't) get lost in the wealth of information that's out there. Sometimes patients get overwhelmed at their appointments. We went through great pains to ensure we had a website that is easy to navigate."

Loft says the addition of an electronic self-referral is being explored. If people think they have high blood sugar levels, or are pre-diabetic, they would be able to fill out the online form to see a practitioner. In Loft's view, it could be a useful resource, especially considering one in three people will have diabetes or

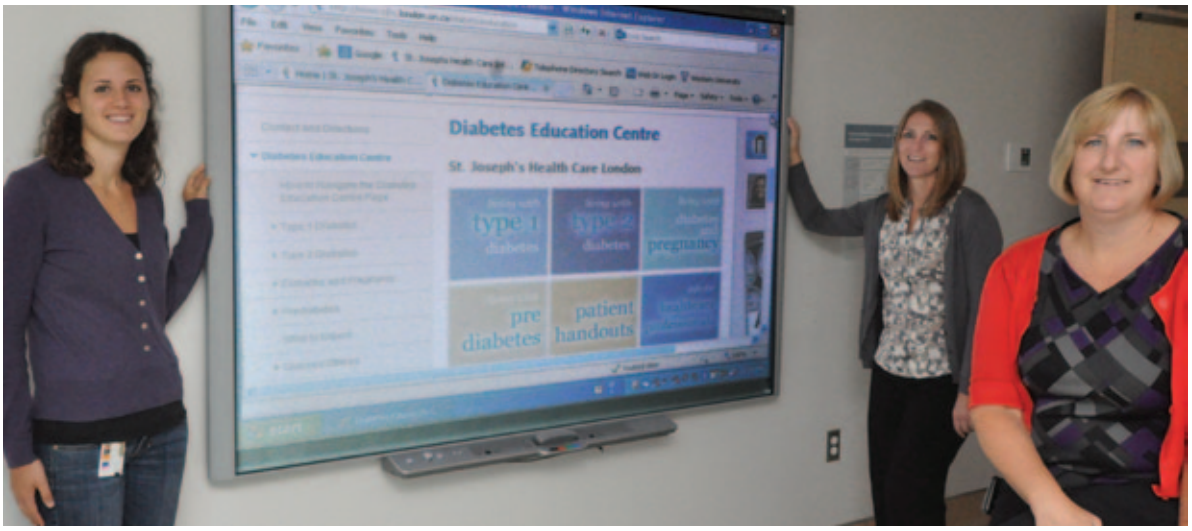
The cost of diabetes is high, in many ways:

People with diabetes incur medical costs that are **two to three times higher** than those without diabetes. They can face direct costs for medication and supplies ranging from $1,000 to $15,000 a year.

Diabetes is a causal factor in the deaths of more than **40,000** Canadians annually.

Life expectancy for people with Type 1 diabetes may be shortened by as much as **15 years**. Life expectancy for people with Type 2 diabetes may be shortened by **five to 10 years**.

* *Pseudonyms have been used to protect privacy.*



London NP Maureen Loft (right) says St. Joseph's diabetes website is a valuable tool for reliable information backed by evidence. (L to R) DEC dieticians Valerie Lammers and Lisa Jorgenson.

pre-diabetes by the end of this decade. "We want to make sure we're offering patients as many opportunities (as possible) to access the information that they need," she says.

Clients are not the only ones who need fast, convenient access to the latest diabetes information. Health-care professionals, especially those practising in rural or remote areas, can also benefit from easy access to online resources.

Three years ago, when RN Glen Chenard signed up to get his Canadian diabetes educator certification (CDE), he thought "why go about this journey alone if I can take other people along with me for the ride?" The advanced practice consultant in chronic disease management at Saint Elizabeth, a national home health organization, put out a call a couple of weeks before the CDE exam, trying to determine if anyone was interested in participating in a virtual study group to prep for the test. Five people joined him that year. The following year (2011), the initiative was advertised to First Nations contacts. "Those who work in rural or remote communities (face) a lack of access to quality continuing education," he explains. Forty participants signed up. Over the years, interest continued to build. Eighty-four people participated in 2012 and more than 130 this year.

The live, weekly sessions are recorded and archived, and help people understand the exam process, what it takes to be eligible, and offer recommended readings and expert commentary.

Spanning five time zones and all provinces and territories, the webinar series brings together an interprofessional group of diabetes practitioners, including RNs, RPNs, registered dieticians and social workers. "It's a virtual world in which we live," says Chenard. "(We're) offering continuing education in a way that is convenient... and that can be accessed without (practitioners) having to leave community practice settings." The series isn't the only digital resource health-care professionals have access to. *Diabetes 101: A Comprehensive Learning Tool for Health-Care Professionals in Long-Term Care Settings* is a DVD that launched in September 2011 and was produced by the Seniors Health Knowledge Network Diabetes Community of Practice for Ontario. Chenard is the lead for the group. "Older adults have the highest prevalence of diabetes of any age group in Canada," he says. "We need to be increasingly able to manage and prevent complications and to help support self-management." Plus, it's yet another opportune way to offer accessible continuing education prospects to health-care providers. Viewers learn about monitoring blood glucose, medical emergencies, understanding diabetes, hyperglycemia and hypoglycemia. It can be viewed in just over an hour.

Chenard hopes the DVD and webinar series pave the way for more diabetes-related web-based resources for practitioners. They're the beginning "of something wonderful. We're just getting started," he says. **RN**

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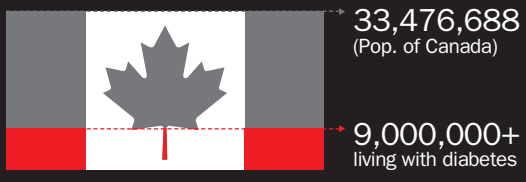

More than **nine million Canadians** live with diabetes or pre-diabetes…

…with another **20** diagnosed **every hour**.

By 2020, diabetes is expected to cost the national health-care system **$16.9 billion** annually.

Source: Canadian Diabetes Association, Assembly of First Nations, Ontario's Ministry of Health and Long-Term Care