



# Ontario Aboriginal Diabetes Strategy



# Table of Contents

3	Introduction
8	How the Ontario Aboriginal Diabetes Strategy was Developed
9	Vision
14	Prevention
18	Care and Treatment
22	Education
26	Research
30	Coordination
33	Appendix A: Glossary of Terms
35	Appendix B: Other Aboriginal Diabetes Initiatives
36	Appendix C: Ontario Aboriginal Diabetes Strategy Steering Committee



# Introduction

Traditionally, Aboriginal people led physically active lifestyles and ate nutritious food that was abundant from the land. Over the past 50 years, lifestyles in Aboriginal communities have changed dramatically. Aboriginal people now lead much more sedentary lives and eat a more Western diet. These changes have had a profound impact on their health. More Aboriginal people are now developing chronic illnesses, such as obesity, cardiovascular disease and diabetes.

In fact, type 2 diabetes – or adult-onset diabetes – is now a major public health problem in Aboriginal communities.<sup>1</sup> Rates of diabetes are highest in Aboriginal people in the Ontario-Manitoba-Saskatchewan region.<sup>2</sup> In Ontario, the prevalence of diabetes in Aboriginal people is three times that in non-Aboriginal Ontarians.<sup>3</sup>

The problem is not just affecting adults. More Aboriginal children – particularly adolescent girls who are more likely than boys to be overweight or obese – are being diagnosed with type 2 diabetes. Because of the increase in diabetes, Aboriginal people are also developing diabetes-related illnesses (e.g., end-stage renal or kidney disease, retinopathy or loss of vision) more often and at younger ages.

Sandy Lake First Nation in northwestern Ontario already has the third highest rate of diabetes in the world: at least 26 percent of the population have type 2 diabetes and another 14 percent are glucose intolerant (i.e., they have higher than normal blood glucose levels and are considered to have pre-diabetes).

The dramatic increase in type 2 diabetes in Aboriginal communities is due to a combination of sedentary lifestyles, diet and genetic susceptibility. If nothing is done to change current trends, within the next 20 years, 27 percent of Aboriginal people will develop diabetes.<sup>4</sup>

<sup>1</sup> S. Meltzer, et al., *Clinical Practice Guidelines for the Management of Diabetes in Canada*. Canadian Medical Association Journal 1998, 159 (8 Suppl), pp. S1-29.

<sup>2</sup> E. Bobet, *Diabetes Among First Nations People: Information From the 1991 Aboriginal Peoples Survey Carried out by Statistics Canada*. Ottawa: Medical Services Branch, Health Canada, 1997.

<sup>3</sup> B. Shah, et al., “Diabetes and First Nations People,” in *Diabetes in Ontario: An ICES Practice Atlas*, eds. Jan E. Hux, et. al. Toronto: Institute for Clinical Evaluative Sciences, 2003, p. 13.235.

<sup>4</sup> C. Greene, et al., “Projecting Future Diabetes Prevalence in Manitoba First Nations,” *Proceedings of the 4th International Conference on Diabetes and Indigenous People*, San Diego, 1997. Tucson, AZ: Native American Research and Training Center, University of Arizona, 1999.



## Nitam Wiindamaagewin

Bizhishig igo gii-nitaa-anokiiwag anishinaabeg, e-bimaaji'idizowaad odaanaang gaa-gii-izhiseg. Gaawiin wiin daabishkoo noongom gaa-izhiseg, gii-michi-nanaamadabinaaniwang. Michi-bimibide aaniish gakinagegoon boongom. Bakaan gaye gii-inanjige anishinaabe mewinzha, gaawiin wiin noongom gaa-ayaamagag gaa-boonzaag miijim, gaye gaa-zhiiwang. Aazha naanimidana daso-biboon izhise gaa-aanjitood anishinaabe odizhitwaawin. Odani-maanishkaagon dash anishinaabe owe bakaan e'inanjiged, gaye e-michi-ayabid. Odani-aakoziishkaagon owe wemitigoozhiiwaadiziwin. Ani-wiinino, ani-aakozi ode'ing, gaye ani-ziizibaakwadwaapine.

Amii dash iwe Niizhin gaa-izhinikaadeg dino ziizibaakwadwaapinewin aazha miziwe anishinaabe-dazhiikewining gaa-gikenjigaadeg e-ayaag. Wiinge omaa Ontario gaye Maanitooba, gaye imaa Saskaachiwan ezhi-baatiinowaad igi anishinaabeg gaa-ziizibaakwadwaapinewaad. Imaa Ontario niswaa nawach iwe inaapinewag anishinaabeg apiich wiin wemitigoozhiiwag.

Gaawiin dash wiin eta gichi-aya'aag owe gaa-inaapinewaad. Abinoojiizhag gewiinawaa ani-inaapinewag. Memindage go ikwezensag gaa-wiinowaad ani-ziizibaakwadwaapinewag. Amii dash gaye ezhisewaad anishinaabeg gii-ziizibaakwadwaapinewaad, e-ani-aakoziwaad odedikosiwaang, gaye e-ani-gagiibiingwewaad, amii dash iwe ziizibaakwadwaapinewin gaa-izhichigemagag. Nawach dash ani-oshkaadiziwag iwe gaa-inaapinewaad.

Nengawi-zaaga'iganiing gegaa maawach izhi-baatiinowag gaa-ziizibaakwadwaapinewaad omaa akiing. Niishtana-shi-ngodwaaso endaso-ngodwaak minik iwe odayaanaawaa niizhin gaa-izhinikaadeg ziizibaakwadwaapinewin, miinawaa dash midaashi-niiwin endaso-ngodwaak odayaanaawaa ziizibaakwad omiskwiimiwaang gii-nanaando-gikenjigaadenig, amii dash ji-ayaangwaamiziwaad gewiinawaa maawiin ji-ani-ziizibaakwadwaapinewaad.

Amii dash iwe enaamenjigaadeg, gaa-zhiiwang miijim, gaa-boonzaag miijim ozaam bizhishig anishinaabe iwe e-inanjiged, gaye e-ani-nanaamadabid bizhishig, gaye anishinaabeg igo iwe maawach gaa-inaapinewaad. Giishpin aanjitoosigwaa anishinaabeg iwe gii-izhi-bimaadiziwaad, niishtana-daso-biboon izhiseg, gegaaa niishtana-shi-niizhwaaso endaso-ngodwaak minigok gakina anishinaabeg iwe da-inaapinewag.

Gaa-izhinikaazowaad gaa-gii-ozhibii'igewaad gaa-gii-ondinang ji-wiindang omaa:

1. S. Meltzer gaye godak, "Ge-gii-doodamowaapan Ji-naagajitooowaad z\Ziizibaakwadwaapinewin Omaa Canada-akiing." Izhinikaadeni omazina'igan. Mashkikiirwininiwag dash gaa-izhi-waabanda'iwenaniwangin mazina'iganan 1998 gii-izhiseg gii-onjii owe ozhibii'igan, 159 gaa-izhibii'igaadeg, (8 dagobii'igan) paakiiginaning 51-29.
2. E. Bobet, "Anishinaabeg Gaa-ziizibaakwadwaapinewaad: Gii-ondinigaade Owe Wiindamaagewin Gii-maawadoonigaadegiban Gagwedwewin 1991 Gii-izhisegiban." Aadawaa gichi-mashkikiirwigamigong gii-onjiimagan owe mazina'igan 1997 gii-izhiseg.
3. B. Shah gaye godak. "Ziizibaakwadwaapinewin, Anishinaabeg Dash" gii-izhinikaadeni gaa-gii-ozhibii'ang imaa mazina'iganing Ziizibaakwadwaapinewin omaa Ontario gaa-izhinikaade. Jan E. Hux godak dash gii-wiiji'iwewag imaa Toronto gaa-dazhi-nanaandogikenjigaadeg gegoon mashkikiirwining onji. 2003 gii-izhiseg. Baakiiginaning 13.235.
4. C. Greene gaye godak. "E-gagwe-waabanjigaadeg AaninMminik Anishinaabeg Ge-ziizibaakwadwaapinewaad Omaa Maanitooba", imaa gii-ondinigaade mazina'iganing Gaa-waawiindeg Gaa-gii-dazhinjigaadeg Anishinaabeg gii-ziizibaakwadwaapinewaad" San Diego 1997 gii-izhiseg. Tucson AZ dash onjiimagan owe mazina'igan Gaa-dazhi-nanaandogikenjigaadeg gegoon Anishinaabe gaa-inishkaagod. Gichi-gikendaasoowigamigong Arizona gaa-ayaag. 1999 gii-izhiseg.

## Tekwanonwera: tons

Ne ne wahón:nise, sénha ioiánere se's tehontskà:hons ne Onkwehón:we. Né:e se's rón:ne'ks tsi nahó:ten ratiíenthos. Tsi náhe ne wísk niwáhsen shiiohserá:ke é:so teiotténion tsi ní:ioht tsi tehontskà:hons. Iáh ó:nen ronakiohkwá:nen teshatiiénthos tánon iah ó:nen teskakhwí:iohs teshón:ne'ks. Tho niió:re tsi é:son teiotténion tsi nihotirihò:ten ó:nen sénha ronakiohkwá:nen ne Onkwehón:we rotinonhwáktani. Tehotinekwenhsatsikhè:tare, sótsi wahónre'se tánon é:son wa'kahétkenhte ne awé:ri.

Onkwehonwè:ne nón:we - Ontario, Manitoba tánon Saskatchewan, né:e kwah tehoti'nikónhare ne ronatehià:ron tsi tehotinekwenhsatsikhè:tare. Né:e ne Ontario nón:we, Onkwehón:we sénha ronakiohkwá:nen tehotinekwenhsatsikhè:tare tsi ní:ioht ne ratihnarà:ken.

Iah né:k ne ronatehià:ron tehotitononhwáktani. Ken'nithotiiòn:sa's ó:ni tehotinekwenhsatsikhè:tare. Sénha ne tsionathonwí:sen tsi niká:ien ne iotia'tákste. Né:e tsi sótsi ronakiohkwá:nen ó:nen tehotinekwenhsatsikhè:tare né:e kahetkénhtha ne otskiéhseri tánon wahatihkahráksen'ne. Sénha ne ken'nithotiiòn:sa:

Sandy Lake Onkwehonwè:ne nón:we khná:a ahsénhaton ró:ne tsi niiohwéntsia tsi tehotinekwenhsatsikhè:tare. 26 % ne onkwe'tà:ke tehotinekwenhsatsikhè:tare tánon 14 % tehoti'nikónhare ne raotinekwenhsa. (Ne kén:ton tsi skaná:ron'ks tahotinekwenhsatsikhè:tara'ne.)

Tho niiohshó:re tsi é:son wa'tewatténi tsi nihotirihò:ten ne Onkwehón:we. Tsi ní:ioht tsi tehontskà:hons tánon iah kwah teshontorià:nerenhs wa'kahétkenhte ne raotiièròn:ta tánon ratiíà:kon. Toka' iah tha'tahatité:ni tsi ní:ioht tsi tehontskà:hons tánon tsi ní:kon tsi ronterià:nerenhs tsi ní:iore ne tewáhsen niiohserá:ke 27 % nihá:ti ne Onkwehón:we tehotinekwenhsatsikhè:ra'ne.

<sup>1</sup> S. Meltzer, et al., Tsi ní:ioht tsi Tehonwatíhsnie ne Tehotinekwenhsatsikhè:tare ne Koráhne. Karahró:non Rontétsien'ts Raotikióhkwa Raotihiatónhsara 1998, 159 (8 Suppl), pp.s1-29

<sup>2</sup> E.Bobet, Onkwehonwè:ne Tehotinekwenhsatsikhè:tare: Karihwaró:ron ne 1991 Onkwehón:we ne Rotio'tèn:en ne Ratirihwarò:roks Koráhne. Kanà:tsio Rontétsien'ts Shakotia'takénhnhahs Ata'kariténhtshera Koráhne, 1997

<sup>3</sup> B.Shah, "et al., Tehotinekwenhsatsikhè:tare tánon Onkwehón:we" Tehotinekwenhsatsikhè:tare Ontario nón:we An ICES Karihonnién:ni Kari:ware, eds. Jan E. Hux, et. al, Terontò: Kanonhwakténhtshera Ratirihó'kwats Raotikióhkwa Aorihwà:ke, 2003 p. 13.235.

<sup>4</sup> C. Greene, et al., "Watró:ris tsi Nihá:ti Tenhotinekwenhsatsikhè:tara'ne ne Manitoba Rononkwehón:we. Tsi Onterihwahtén:ti ne Kaieríhaton (4th) Teiohwéntsiake Ontsiénhaien ne Tehotinekwenhsatsikhè:tare tánon Onkwehonwehshòn:a, San Diego, 1997 Tucson, AZ: Onkwehón:we Ratirihó'kwats tánon Ronwatirihonnién:ni, Tsi Ionteweienshahkwa'kó:wa ne Arizona, 1999





# How the Ontario Aboriginal Diabetes Strategy was Developed

The Ministry of Health and Long-Term Care (MOHLTC) is committed to addressing the very serious impact of diabetes on Aboriginal communities and decreasing the incidence of type 2 diabetes and its related complications.

MOHLTC, in collaboration with Ontario Aboriginal organizations and independent First Nations, established the Ontario Aboriginal Diabetes Strategy Steering Committee (OADS-SC) to develop a comprehensive, innovative provincial Aboriginal diabetes strategy. (See Appendix C for OADS-SC membership.)

The strategy developed by the OADS-SC sets out a long-term approach to diabetes prevention, care and treatment, education, research and coordination that can be implemented both now and in the future.





## Vision

A comprehensive Aboriginal-specific strategy that engages provincial and Aboriginal communities in developing an integrated and coordinated approach for diabetes prevention and management.

## Principles

The Ontario Aboriginal Diabetes Strategy is based on the following common principles:<sup>5</sup>

- Aboriginal people view health from a **holistic perspective** in which health involves the physical well-being of an individual as well as the social, emotional, mental, spiritual and cultural well-being of the person and the whole community. Both traditional Aboriginal healing practices and modern technologies contribute to the concepts and practices of holistic health.
- **Self-determination** is fundamental. Aboriginal people must be involved in all aspects of health care delivery, including research, planning and development, implementation and evaluation. Commitment is required to involve Aboriginal people fully at all levels of decision-making.
- It is the **right of Aboriginal people to choose different models of health care**. Aboriginal people are a culturally and socially diverse group, whose health needs are affected by geography, history, access and a range of other issues. Health programs must be tailored to meet the needs of each community, as identified by that community.
- **Social, economic and physical environments** have a significant impact on health status. The high levels of poverty and unemployment, low educational status, inadequate or unaffordable housing, food insecurity, and loss of identity and culture in many Aboriginal communities are having a negative effect on health. Improving the social, economic and physical environments will contribute to significant gains in Aboriginal health status.
- **Health care services must be appropriate and accessible to all Aboriginal people in Ontario, regardless of residency**. The factors that affect Aboriginal people's ability to access health care services include distance, transportation, financial resources, employment, attitudes of non-Aboriginal health care providers and the involvement of Aboriginal communities. To improve access, service delivery models must address all these factors.
- **Health services must be provided in a culturally secure environment and manner**. Health care practices need to change to accommodate the cultural rights, views, values and expectations of Aboriginal people.
- **A coordinated and collaborative intersectoral approach** is required. Within the health care system, the delivery of different services – such as primary and secondary services – needs to be coordinated.
- **Improved, guaranteed funding** and political willingness and commitment are central to all health strategies for Aboriginal people. Access to all health services must be based on need. Resources must be allocated based on need to achieve equality of health outcomes.

<sup>5</sup> Western Australian Aboriginal Health Planning Forum on Aboriginal Diabetes, "Western Australian Aboriginal Health Strategy: A Strategic Approach to Improving the Health of Aboriginal People in Western Australia," February 2000. Available at: <http://www.diabetes.health.wa.gov.au/docs/WAAHS.pdf>

## Current Aboriginal Diabetes Programs in Ontario

Ontario currently has a number of Aboriginal-specific diabetes programs:

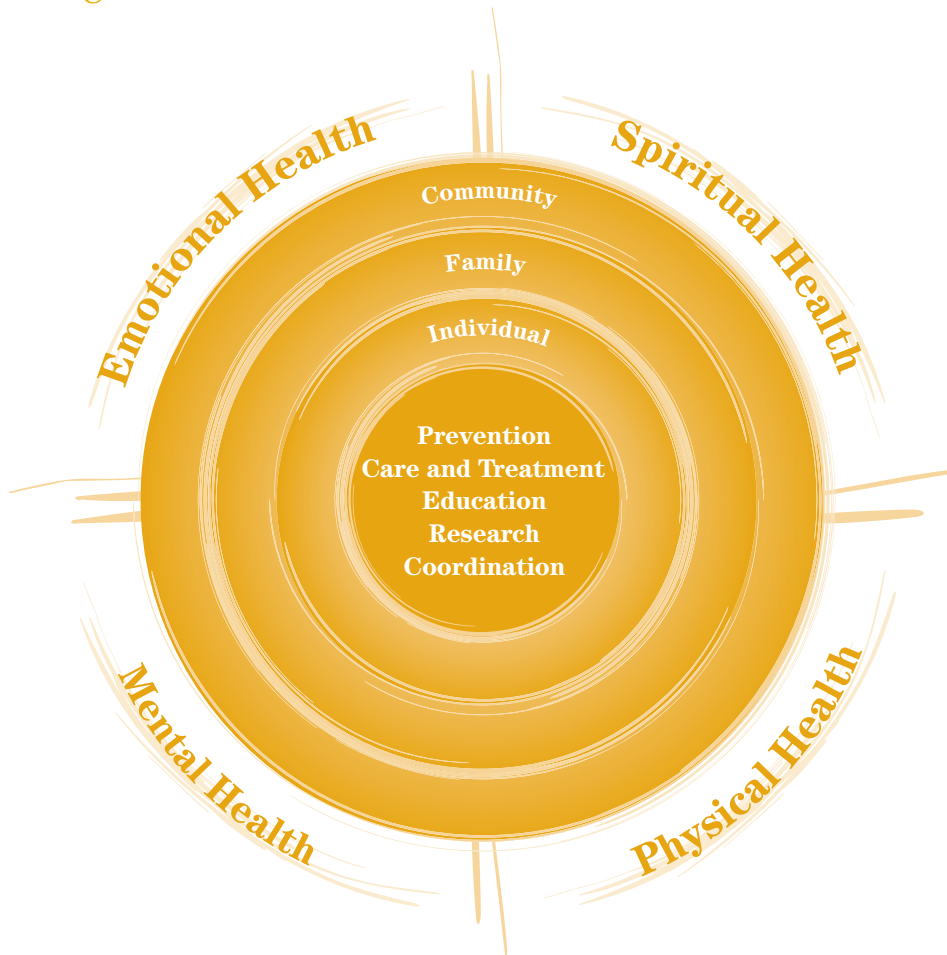
- **The Northern Diabetes Health Network (NDHN)** was established by MOHLTC in October 1992 to address the high rate of diabetes and the lack of diabetes services in northern Ontario. The network funds 38 adult diabetes education programs in large and small northern centres, including some Aboriginal communities, as well as 34 pediatric diabetes programs throughout Ontario. Some mainstream diabetes programs also serve high numbers of Aboriginal clients.
- **The Southern Ontario Aboriginal Diabetes Initiative (SOADI)**, established in 1994, is a non-profit corporation funded by MOHLTC. Through its five regional diabetes workers, SOADI provides diabetes education, prevention and management in on- and off-reserve Aboriginal communities in southern Ontario.
- **The Aboriginal Diabetes Education and Health Promotion/Prevention Program**, established by MOHLTC in 2001, provides funding to eight Aboriginal organizations and the independent First Nations Health Liaison to support Aboriginal-specific diabetes education and care programs.
- **The Aboriginal Diabetes Initiative (ADI)** is one of four components of the Canadian Diabetes Strategy (CDS) established by the federal government in 1999. ADI provides funding for diabetes initiatives in Aboriginal communities across Canada through the First Nations On-Reserve and Inuit Communities Program, and the Métis, Off-Reserve Aboriginal, and Urban Inuit Prevention and Promotion Program.

See Appendix B for examples of other Aboriginal diabetes programs in Canada and other jurisdictions.

## The Focus of the Strategy

The Ontario Aboriginal Diabetes Strategy focuses on five inter-related activities: Prevention, Care and Treatment, Education, Research, and Coordination. Prevention and Care and Treatment are activities that directly address the continuum of diabetes, from wellness to illness. Education and Research are driven by and support the needs of both Prevention and Care and Treatment. Coordination involves all aspects of service delivery along the continuum of care.

## Achieving Good Health



For each activity, the Ontario Aboriginal Diabetes Strategy sets out the goal, the current gaps, and the objectives and actions required to close the gaps and achieve the goal. The objectives and actions are listed in order of priority for Aboriginal communities in Ontario, as identified by the provincial Aboriginal organizations and independent First Nations.





## Prevention

Prevention involves activities designed to reduce or delay the onset of diabetes. Because type 2 diabetes is primarily a preventable chronic disease, preventive measures are an effective way to work towards reducing the future burden of diabetes and improving health status and quality of life in Aboriginal communities.



Prevention activities strive to reduce risk factors and prevent diabetes in Aboriginal people by promoting healthy environments and healthier lifestyles. Prevention initiatives must be designed, developed and delivered in ways that are appropriate and relevant for Aboriginal communities.

## Goal

To decrease the cross-generational incidence of type 2 diabetes in all Aboriginal communities in Ontario by addressing the unique needs of Aboriginal people and the diverse circumstances of Ontario's Aboriginal communities.

## Gaps

- Few public awareness programs and resources in Aboriginal communities to explain the nature of diabetes, the role of risk factors (particularly overweight/obesity and physical inactivity), the complications of diabetes and ways in which type 2 diabetes can be prevented
- Few systematic, sustained and culturally-appropriate awareness campaigns
- Not enough screening programs to identify people who are glucose intolerant
- Lack of Aboriginal-specific public policies and environmental supports for diabetes prevention and health promotion
- Limited access in some communities – because of remote location or poverty – to affordable nutritious foods
- Not enough physical activity programs and facilities in Aboriginal communities

## Objectives and Actions

To decrease the incidence of type 2 diabetes in Aboriginal communities, prevention initiatives should strive to achieve the following objectives:

### **1. Change risk factors and health behaviours by promoting healthy lifestyles**

- a) Deliver Aboriginal-specific healthy lifestyles programs, including messages that address diabetes risk factors:
  - nutrition and healthy eating, including traditional foods, community gardening, food preparation and cooking, reading labels, and affordable meal planning
  - weight management
  - physical activity and recreation
  - holistic well-being
  - smoking
  - alcohol consumption
  - stress management
- b) Establish linkages between diabetes prevention and other chronic disease awareness initiatives
- c) Work with Elders and Traditional People to identify traditional prevention approaches (e.g., traditional lifestyles and foods)
- d) Increase community awareness and understanding of traditional Aboriginal knowledge, including traditional teachings on health and wellness.

## **2. Increase awareness and understanding of diabetes in Aboriginal communities**

- a) Develop and promote Aboriginal-specific messages, resources and information about diabetes that are appropriate for diverse Aboriginal communities and available in a variety of formats and settings, such as:
  - posters, pamphlets, handouts and fact sheets
  - television and radio commercials
  - videos and theatrical productions
  - workshops
  - Aboriginal gatherings
- b) Promote National Aboriginal Diabetes Awareness Day and other relevant events.

## **3. Achieve community support for diabetes prevention initiatives**

- a) Encourage and support community efforts to recognize and understand diabetes and diabetes risk factors
- b) Encourage Aboriginal leaders to support and participate in diabetes prevention initiatives
- c) Identify ways to make healthy nutritious foods more affordable in Aboriginal communities
- d) Establish partnerships with community organizations and businesses to promote activities that reduce risk factors for diabetes, including nutrition, physical activity, and spiritual and emotional well-being
- e) Educate the community about the role of mutual support and care in diabetes prevention
- f) Provide more opportunities and infrastructure for active living, sports and recreation in Aboriginal communities (e.g., community centres, access to sports facilities, playgrounds, green spaces, evening use of school gymnasiums and classrooms).

## **4. Ensure that diabetes preventive initiatives reach all groups in Aboriginal communities**

- a) Develop, implement and coordinate prevention initiatives that target both general audiences and specific groups within Aboriginal communities, such as:
  - parenting programs to help parents better understand and educate their families and children about healthy living and diabetes prevention
  - support groups for pregnant women
  - recreation programs for youth
  - community walking and active lifestyle programs for all risk groups
- b) Promote school-based health promotion and diabetes prevention programs that include healthy eating and physical activity components.

## **5. Help health promotion and disease prevention service providers to share information on Aboriginal diabetes prevention**

- a) Support the establishment of an organized and collaborative network of Aboriginal diabetes prevention workers and other health promotion/prevention-related service providers
- b) Promote ongoing education of prevention workers and health service providers through methods such as training, regular meetings and conferences, electronic communication, and joint resource development
- c) Identify and share best practices and successful models for Aboriginal diabetes prevention
- d) Develop working relationships with mainstream service providers to learn about successful mainstream prevention models and to promote Aboriginal diabetes prevention initiatives in non-Aboriginal specific settings.





## Care and Treatment

Diabetes care and treatment involves providing Aboriginal-specific diabetes programs and services<sup>6</sup> that will help individuals living on- and off-reserve to manage their diabetes, prevent complications and promote well-being.

Because there is no cure for diabetes, care and treatment activities focus on:

- secondary prevention activities designed to reduce the risk of complications in people newly diagnosed with diabetes, such as screening programs, regular examinations, and tests and treatments for problems with the eyes, kidney, heart and nervous system
- tertiary prevention activities designed to reduce or slow the progress of diabetes-related complications in people who have had diabetes for some time, such as foot clinics, eye clinics, smoking cessation programs, and nutrition and physical activity programs.<sup>7</sup>

Evidence from research suggests that the standards for diabetes care and treatment for Aboriginal people should be the same as for the general population. The 2003 Canadian Diabetes Association's Clinical Practice Guidelines recommend that everyone at risk should be screened for type 2 diabetes. To reduce the high rate of complications in Aboriginal people with diabetes, care providers should follow the guidelines for screening for diseases of the heart, nerves, kidney and eyes.<sup>8</sup>

A comprehensive holistic approach to care and treatment will improve access to a full range of culturally-sensitive and appropriate services – using both traditional and Western practices – for all Aboriginal people. It will also enhance physical, social, emotional, mental, spiritual and cultural well-being throughout the life cycle.

Care and treatment is just one part of a comprehensive Aboriginal diabetes strategy, and should not be considered the only or best approach.

## Goal

To establish holistic, community-based, Aboriginal-specific diabetes programs and services that will help Aboriginal people to manage their diabetes, prevent complications, and promote good health and well-being.

## Gaps

- Inconsistent use of up-to-date diabetes care and treatment standards that reflect Canadian Clinical Practice Guidelines
- Shortage of health care professionals who can educate, screen, diagnose and treat Aboriginal people with diabetes
- Lack of systematic screening for diabetes by physicians and other health care professionals
- Few Aboriginal-specific care and treatment programs
- Lack of access to culturally-appropriate tertiary prevention services, such as recreation facilities and supports, healthy lifestyle programs, and foot care services
- Few effective partnerships or care networks to provide equitable access to diabetes care and treatment, particularly in rural and remote communities
- Limited understanding of Aboriginal culture and traditions by many diabetes care and treatment service providers and health care professionals
- Need for better relationships between health care providers and Aboriginal communities

<sup>6</sup> Care and Treatment includes diagnosis, treatment, follow-up assessments, patient and family education, personal support, community-based support services, traditional healing, referral to specialists to screen for and/or assess complications (i.e., laser treatment of the eye, renal dialysis/transplantation, coronary artery bypass graft, amputation, etc.), rehabilitation and tertiary prevention activities aimed at controlling the disease in order to prevent complications.

<sup>7</sup> Aboriginal Diabetes Initiative (ADI) Working Group, *Draft Background Paper for the Development of a National Aboriginal (First Nations, Inuit, and Métis) Diabetes Strategy: Report of the Working Group*, (Ottawa: Medical Services Branch, Health Canada, 1999).

<sup>8</sup> Canadian Diabetes Association Clinical Practice Guidelines Committee, "Canadian Diabetes Association 2003 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada." *Canadian Journal of Diabetes*, 2003: 27 (suppl. 2): S10.

## Objectives and Actions

To provide more holistic, community-based services, care and treatment initiatives should strive to achieve the following objectives:

### **1. Increase access to Aboriginal-specific diabetes care and treatment programs**

- a) Improve access to Aboriginal-specific diabetes teaching aids and information that use both traditional and Western approaches
- b) Identify regional services that could provide programs and services that combine traditional Aboriginal healing and Western medicine practices, especially in rural and remote communities
- c) Help Aboriginal communities to develop links with experts and resources that will help break down barriers to accessing services (e.g., poverty, lack of transportation, lack of child care, language issues).

### **2. Improve access to community health workers and health care providers who provide screening, education and other diabetes care and treatment**

- a) Identify and remove barriers that keep Aboriginal people from using existing services that offer diabetes care and treatment
- b) Establish training or mentoring certification programs in basic diabetes care and treatment that will increase the number of community health workers qualified to provide basic diabetes care and treatment
- c) Dedicate human resources to support diabetes care and treatment
- d) Increase community knowledge, experience and skills so that Aboriginal people can develop better relationships with health care providers to manage diabetes
- e) Explore innovative ways to deliver medical services especially in underserved communities (e.g., travelling chiropodists, mobile diabetes units)
- f) Explore innovative technologies that can improve access to diabetes care and treatment, particularly in remote and rural communities.

### **3. Develop a standard approach to care and treatment for diabetes, including screening, based on the Canadian Diabetes Association's Clinical Practice Guidelines and adapted for use in Aboriginal communities**

- a) Encourage the use of standards of care and treatment that can be implemented in Aboriginal communities
- b) Identify and share with Aboriginal and mainstream health care providers examples of best practices in diabetes care for Aboriginal people
- c) Provide tools to implement and evaluate standards of diabetes care and treatment
- d) Improve access to primary care and diabetes-related screening programs
- e) Use existing partnerships and networks to promote the use of standards.

### **4. Establish effective community-based approaches to prevent and manage complications**

- a) Develop a provincial strategy to plan, implement and evaluate community-based Aboriginal care and treatment programs
- b) Improve access to culturally appropriate tertiary prevention services and resources.





## Education

Education initiatives are designed to help reduce the burden of diabetes on individuals and communities, reduce diabetes-related health complications, and improve Aboriginal health and well-being.



Education includes activities designed to increase Aboriginal people’s ability to manage their diabetes (i.e., self-management education) and decrease the risk of diabetes-related complications and/or reverse or slow the onset of more severe stages of diabetes. It also includes activities to help health systems, service providers and educators provide diabetes education that is culturally appropriate for Aboriginal people, their families and communities.

## Goal

To establish holistic, community-based Aboriginal diabetes education models that reflect Aboriginal culture, are designed by Aboriginal people to meet their communities’ needs and are accessible to all Aboriginal communities in Ontario.

## Gaps

- Lack of access to diabetes education and materials that are culturally relevant and in appropriate languages, formats and reading levels for Aboriginal communities
- Undervaluing of diabetes self-management education by some health care providers and the general public
- Little research to identify effective diabetes education strategies linked to behavioural change
- Inconsistent standards for diabetes education across Ontario
- Lack of awareness in schools of how to create safe, supportive, enabling environments for students with diabetes
- Need for a better understanding of Aboriginal traditions and culture among diabetes educators

## Objectives

To develop diabetes education models that reflect Aboriginal culture, education initiatives should strive to achieve the following objectives:

### **1. Establish, coordinate and enhance Aboriginal diabetes education programs across the life cycle**

- a) Establish community-based, age-specific programs that help people manage their diabetes, such as:
  - programs to help parents educate themselves, their families and children about living with diabetes
  - supports for women with gestational diabetes
  - physical activity programs for seniors
  - sports and recreational opportunities for children and youth
  - family-oriented recreational programs for community members of all ages
- b) Establish diabetes education programs for family members, caregivers and friends to help them care for people with diabetes
- c) Encourage school personnel (teachers, staff, nurses, administrators, boards of education) to promote safe and supportive environments for Aboriginal children and youth affected by diabetes
- d) Promote physical and health education in schools: a key site for diabetes education for children and youth.

## **2. Encourage Aboriginal people to manage diabetes effectively**

- a) Create programs to help Aboriginal people develop the necessary knowledge and skills to reduce diabetes complications, improve overall health and well-being, and make decisions about diabetes self-management
- b) Empower Aboriginal people to adopt healthy behaviours
- c) Develop effective self-management and harm-reduction strategies, resources and educational tools for Aboriginal people
- d) Develop self-management education that provides comprehensive, accessible and culturally-appropriate information about the benefits of healthy lifestyles and the cornerstones of diabetes self-management
- e) Include families and community members in diabetes education initiatives, and develop appropriate educational resources and tools.

## **3. Improve access to diabetes education programs for Aboriginal people in all parts of Ontario**

- a) Build on available education resources to develop Aboriginal-specific diabetes education initiatives for Aboriginal people, families and communities
- b) Encourage community health care providers to support diabetes education programs that offer traditional Aboriginal knowledge and healing methods as well as Western approaches
- c) Improve access to appropriate mainstream diabetes education programs for Aboriginal people
- d) Support Aboriginal people's freedom to choose appropriate diabetes education programs that suit their situation and needs
- e) Provide advanced diabetes self-management programs to Aboriginal persons with diabetes.

## **4. Build relationships with diabetes educator programs, and develop new Aboriginal diabetes educator initiatives**

- a) Link with post-secondary and professional diabetes education training initiatives, including certificate programs at community colleges and the Canadian Diabetes Educator Certification Board
- b) Work with specialized diabetes educator programs to ensure that the curriculum includes information on diabetes in Aboriginal communities as well as Aboriginal cultures, values and traditions
- c) Encourage Aboriginal enrolment in diabetes educator programs, and recruit Aboriginal graduates into community diabetes initiatives
- d) Identify opportunities to work with educational institutions and other health services to develop Aboriginal-specific diabetes educator and internship programs
- e) Encourage non-Aboriginal people to participate in Aboriginal diabetes educator programs.

**5. Increase health care providers' awareness of the impact of diabetes in Aboriginal communities and their understanding of Aboriginal cultures, values and traditions**

- a) Provide education and training for health organizations and service providers to increase their knowledge of diabetes in Aboriginal communities and the unique service needs of the communities
- b) Work with health professionals and health services providers to improve their understanding of and respect for Aboriginal cultures, values and traditions
- c) Build stronger relationships between mainstream health service providers and Aboriginal communities and people affected by diabetes
- d) Encourage health-related community college and university programs to include diabetes and Aboriginal cultures, values and traditions in their curricula.

**6. Use monitoring and evaluation, professional and program development, and collaboration to improve the quality of education programs**

- a) Develop an evaluation plan for Aboriginal diabetes education initiatives, including identifying appropriate data, indicators and measurables
- b) Explore and establish best practices for Aboriginal diabetes education programs
- c) Develop mechanisms to analyze program needs and monitor program effectiveness
- d) Develop standards for Aboriginal diabetes education that will help programs provide quality services and still be flexible enough to meet local needs
- e) Support program and professional development by providing opportunities for collaboration and information-sharing, such as networking sessions, annual conferences for service providers, electronic communication and continuing education.



## Research

Research supports and drives other strategy activities. It provides information about Aboriginal communities that can be used to improve health and quality of life.

Aboriginal people have not always been involved in or benefited from health research. Research has often been conducted without community input, and research findings and new knowledge have not always been shared with the community.<sup>9</sup> To ensure that Aboriginal people are more involved in the research that affects their lives and provide a cultural context for collecting and interpreting information, Ontario Aboriginal Diabetes Strategy recommends that research on Aboriginal diabetes be based on the principles of Ownership, Control, Access and Possession (OCAP) and community-based participatory research (CBPR).

- OCAP empowers Aboriginal people and communities to determine why, how and by whom information may be gathered, used and shared for various purposes such as policy, planning, research and/or evaluation.<sup>10</sup> This will ensure that Aboriginal people own, protect and control information produced about their communities.
- CBPR challenges conventional research by encouraging collaboration between researchers and community representatives. CBPR engages community members in the research process and uses local knowledge to understand health problems and design interventions. Community members are also involved in disseminating and using research findings.<sup>11</sup>

Funding of short- and long-term studies has historically fallen short of what is needed to understand costs specific to diabetes and related complications in Aboriginal people. In June 2000, the Institute of Aboriginal Peoples' Health (IAPH) under the Canadian Institutes of Health Research (CIHR) was established, increasing funding for Aboriginal health research, including emerging health issues such as diabetes. The IAPH's mission is to build research capacity in Aboriginal communities, and support partnerships between Aboriginal communities and non-Aboriginal health research organizations/institutes at the local, regional, national and international levels.<sup>12</sup> While the IAPH-CIHR will create new opportunities for diabetes research, more funding is needed to support research activities.

## Goal

To support and promote research that increases Aboriginal peoples' knowledge of diabetes as well as the impact of diabetes prevention, care and treatment on health outcomes.

<sup>9</sup> J.D. O'Neil , et al., "Integrating a Focus on Aboriginal Health Research in the Development of the Canadian Institutes of Health Research: A Concept Paper." Ottawa: Social Sciences and Humanities Research Council, 1999.

<sup>10</sup> National Aboriginal Health Organization, "OCAP Principles." Accessed January 7, 2004.  
[http://www.naho.ca/firstnations/english/ocap\\_principles.php](http://www.naho.ca/firstnations/english/ocap_principles.php)

<sup>11</sup> Agency for Health care Research and Quality, Conference on Community-based Participatory Research, 2001. Accessed July 17, 2003.  
<http://www.ahrq.gov/about/cpcr/cbpr>

<sup>12</sup> Canadian Institute for Health Research, "CIHR - Institute of Aboriginal Peoples' Health - Goals, 2002." Accessed July 17, 2003.  
[http://www.cihr-irsc.gc.ca/institutes/iaph/about\\_iaph/iaph\\_fs\\_goals\\_e.shtml](http://www.cihr-irsc.gc.ca/institutes/iaph/about_iaph/iaph_fs_goals_e.shtml)

## Gaps

- Lack of health and diabetes research regarding off-reserve Aboriginal people and Métis (compared to First Nations)
- Lack of community partnerships with Aboriginal people in research activities
- Few research studies on type 2 diabetes in children, diabetes and pregnancy, effective Aboriginal-specific educational materials, integration of traditional and Western medicine approaches in prevention and treatment, and best practice strategies/interventions
- Lack of a coordinated provincial vision and strategy for diabetes research
- Lack of capacity to address gaps in research on diabetes and Aboriginal people
- Lack of sustained funding to maintain effective community-based research projects that model best practices, build on existing work and develop Aboriginal expertise and capacity

## Objectives and Actions

To increase the impact and effectiveness of Aboriginal diabetes services, research initiatives should strive to achieve the following objectives:

### **1. Promote community-based participatory research initiatives that involve Aboriginal people in designing, implementing, analyzing and disseminating research results**

- a) Work with Aboriginal communities to develop provincial guidelines for CBPR and research ethics.

### **2. Develop a strategic framework for Aboriginal diabetes research in Ontario**

- a) Develop an infrastructure to support and coordinate research initiatives
- b) Identify research priorities
- c) Establish guiding principles for community research partnerships
- d) Incorporate traditional knowledge into health research agendas
- e) Develop a process for vetting research proposals that have both scientific and community relevance
- f) Establish a process for evaluating and disseminating research results.

### **3. Build research capacity among Aboriginal people**

- a) Encourage research programs to hire and train Aboriginal people, and develop a cadre of Aboriginal health researchers and research assistants
- b) Promote careers in health research to Aboriginal people
- c) Create links with the Aboriginal academic research community to provide opportunities for mentorship and training.

### **4. Establish and maintain funding for short- and long-term research projects**

- a) Provide sustained funding for community-based best practice sites for diabetes research.





## Coordination

Coordination brings together all aspects of diabetes policy and programming to ensure a consistent efficient approach to planning, development and implementation. Coordination involves many stakeholders – individuals, communities, organizations, service providers, health care professionals, researchers, various levels of government and the general public – working together to reduce Aboriginal diabetes.



Coordination of Aboriginal diabetes initiatives in Ontario is an important building block in a comprehensive diabetes strategy. A coordinated provincial approach to Aboriginal diabetes should take into account the many stakeholders, programs and services throughout Ontario, and be flexible enough to meet community and regional needs.

## Goal

To improve integration, collaboration and partnerships in Aboriginal diabetes policy, programs and services, and enhance Ontario's capacity to deliver comprehensive, quality programs and services for Aboriginal people and communities.

## Gaps

- Lack of a consistent case management approach among local health care professionals serving Aboriginal people with diabetes
- Lack of seamless services for young people making the transition from pediatric to adult care
- Lack of coordinated local strategies to help people manage their health care (e.g., lack of support for people dealing with the stress of a diabetes diagnosis)
- Duplication of health promotion services and resources
- Lack of planning for systematic diabetes screening
- Lack of coordination between federally-funded and provincially-funded initiatives
- Lack of coordination between Aboriginal and mainstream provincially-funded programs

## Objectives and Actions

To improve integration of Aboriginal diabetes programs and services, coordination initiatives should strive to achieve the following objectives:

- 1. Ensure consistent messages on all aspects of diabetes prevention, care and treatment**
  - a) Establish consistent provincial messages on Aboriginal diabetes prevention, education, and care and treatment
  - b) Identify and promote best practices in diabetes messaging/communication strategies
  - c) Create tools and resources to help Aboriginal communities deliver consistent messages about diabetes
  - d) Target diabetes messages to Aboriginal communities and service providers, as well as mainstream health care providers.

**2. Increase communication and cooperation among the federal and provincial governments, funding agencies, researchers, and Aboriginal organizations and communities**

- a) Explore opportunities for coordination among federal, provincial and Aboriginal governments/leaders to achieve common goals (i.e., prevent diabetes and improve access to diabetes programs)
- b) Identify opportunities to coordinate public policy on Aboriginal diabetes, reduce gaps and avoid duplication in diabetes programs and services
- c) Coordinate with other diabetes initiatives, including the Canadian Diabetes Strategy and the federal Aboriginal Diabetes Initiative
- d) Promote the Ontario Aboriginal Diabetes Strategy to Aboriginal leaders, prevention and education workers, treatment/care providers, researchers, and other individuals and organizations with an interest in Aboriginal diabetes
- e) Encourage ongoing communication among community and regional service providers to maximize collaboration and avoid duplication.

**3. Collaborate with other Aboriginal health and social programs, as well as mainstream chronic disease prevention and health promotion initiatives**

- a) Promote collaboration and coordination with other disease prevention initiatives at all stages (i.e., policy, program design, implementation, service delivery).
- b) Identify Aboriginal and non-Aboriginal stakeholders and initiatives as well as the most effective approaches for coordination
- c) Collaborate with other provincial, regional and community initiatives
- d) Develop links with both Aboriginal and mainstream chronic disease prevention programs (e.g., Heart Health, stroke prevention, nutrition, arthritis, osteoporosis and Aboriginal Health Access Centres)
- e) Work with other wellness initiatives to develop consistent messages to promote healthy weights, nutrition, physical activity and overall well-being.

**4. Promote ongoing communication among partners and organizations involved with Aboriginal diabetes programs and services**

- a) Establish mechanisms to share information and expertise
- b) Develop forums for discussion on all aspects of Aboriginal diabetes, such as:
  - a quarterly provincial Aboriginal diabetes newsletter
  - annual provincial conferences on Aboriginal diabetes prevention and management
- c) Identify and share best practices in Aboriginal diabetes prevention and management
- d) Support professional development and continuing education as a means of promoting networking and coordination.

**5. Build effective partnerships and networks among community health organizations, hospitals and other providers of diabetes care and treatment in Aboriginal communities**

- a) Explore a regional model for Aboriginal diabetes care and treatment
- b) Develop indicators, benchmarks and outcomes for diabetes treatment and care
- c) Explore technologies that can be used to share best practices and other information on diabetes care and treatment.

# Appendix A

## Glossary of Terms

**Aboriginal** refers to persons descending from the original inhabitants of Canada, including Status Indians, non-Status Indians, First Nations people, Métis and Inuit. In Ontario, Aboriginal people live both on- and off-reserve, and have unique and diverse heritages, languages, spiritual beliefs, and cultural and traditional practices. There are approximately 220,000 Aboriginal people living in Ontario.

**Aboriginal community** is defined as a group of Aboriginal people who share similar beliefs, traditions and cultural identity. These groups share political, cultural, spiritual and/or other affiliations. Aboriginal communities include but are not limited to: First Nations, people who share a Métis identity, Friendship Centres, community-based organizations/locals, political/non-political organizations, or any other collection of Aboriginal individuals who share identity, regardless of geography.<sup>13</sup>

**Aboriginal-specific** refers to services that are exclusive to Aboriginal people whether in receiving a service or in its provision. Validation is not sought through comparison to other cultures.

## Care

The goal of **Primary Care** is to provide basic care that provides the essential skills necessary to support healthy living and prevent the development of complications. These services include diabetes education, support and treatment, and screening for complications.

The goal of **Secondary Care** builds on primary care offering access to more specialized services to assess and treat the complications of diabetes. These services include access to more specialized education programs for diabetes complications.

The goal of **Tertiary Care** is to provide advanced level assessment, diagnosis and treatment for diabetes and its complications. These services include screening for pediatric and patients at high risk for complications, inpatient treatment for severe complications and specialized courses for those with special or multiple diabetes complications.<sup>14</sup>

<sup>13</sup> Aboriginal Family Healing Joint Steering Committee, *For Generations to Come: The Time is Now - A Strategy for Aboriginal Family Healing. A Final Report of the Aboriginal Family Healing Joint Steering Committee*, September 1993, p., 10; Ontario Ministry of Health, *New Directions: Aboriginal Health Policy For Ontario*. Toronto: Queen's Printer for Ontario, 1994, p. 46.

<sup>14</sup> Ministry of Health and Long-Term Care, *Taking Charge: A New Approach to Preventing Diabetes Complications*. Toronto: Ministry of Health and Long-Term Care, 1995, pp. 14-16.

**Culturally-appropriate** health care respects and reflects the values, heritages, traditions and experiences of people living in Aboriginal communities.

**Food insecurity** refers to insufficient access to nutritious foods to support an active, healthy lifestyle, often resulting in hunger and/or nutritional deficiencies. Many Aboriginal communities in Ontario experience food insecurity due to a variety of factors, including poverty, geography/remoteness, and loss of culture and traditional food-gathering practices.<sup>15</sup>

**Gestational diabetes** occurs in women who, during pregnancy, do not produce enough insulin, or their bodies become insulin resistant during pregnancy. While gestational diabetes normally disappears after giving birth, the mother and child experience an increased risk of developing type 2 diabetes in future years. Aboriginal women with gestational diabetes may be at higher risk of developing type 2 diabetes compared to non-Aboriginal women with gestational diabetes.<sup>16</sup>

**Glucose intolerance**, also referred to as impaired glucose tolerance, indicates blood glucose levels that are higher than normal but do not fall within the diagnostic criteria for diabetes. Persons experiencing glucose intolerance are considered to have pre-diabetes and be at increased risk of developing type 2 diabetes in the future.

**Type 2 diabetes** occurs when the pancreas produces insulin but the body cannot use it effectively, or the amount is too small to produce any effect. It is also referred to as adult-onset diabetes or Non-Insulin Dependent Diabetes Mellitus. Type 2 diabetes accounts for 90 percent of all people with diabetes, but is estimated to account for an even higher percentage in the Aboriginal population. The onset of type 2 diabetes often occurs at significantly younger ages in the Aboriginal community, with children as young as eight years old being diagnosed with type 2 diabetes.

<sup>15</sup> Ontario Federation of Indian Friendship Centres, *Child Hunger and Food Insecurity Among Urban Aboriginal Families: A Special OFIFC Report* (Toronto: OFIFC, 2003); Lynn McIntyre, et al., *A Glimpse of Child Poverty In Canada*. Applied Research Branch, Strategic Policy, Human Resources Development Canada, Ottawa.

<sup>16</sup> Canadian Diabetes Association, Clinical Practice Guidelines Expert Committee, Canadian Diabetes Association 2003 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. *Canadian Journal of Diabetes* 2003;27(suppl 2): p. S99.

# Appendix B

## Other Aboriginal Diabetes Initiatives

### ***Provincial***

- Saskatchewan Diabetes Strategy: “Diabetes 2000” report of the Saskatchewan Advisory Committee on Diabetes addresses recommendations for the education, care and support of Aboriginal communities.
- Manitoba Diabetes Strategy: “Diabetes: A Manitoba Strategy” (1998) addresses building health care provider capacity in Aboriginal communities along with access to traditional Aboriginal healing practices in reducing the burden of diabetes in Aboriginal peoples.

### ***National***

- The Canadian Diabetes Association (CDA) is the largest non-governmental supporter of diabetes research, education and advocacy in Canada. Formed in 1953, the CDA has over 150 branches in communities across the country. The CDA’s Aboriginal Program offers diabetes prevention, education, and management information and resources for Aboriginal people with diabetes.
- Duncan Declaration on Standards of Care and Education for Native People with Diabetes, 1989.
- The National Aboriginal Diabetes Association (NADA) was formed in 1995 to address diabetes among Aboriginal peoples by creating networks and opportunities for individuals and communities within their beliefs, traditions and values. Its goals include: supporting individuals, families and communities to access resources for diabetes prevention, education and research; creating working relationships with organizations committed to the prevention and management of diabetes; and promoting community wellness as a strategy to prevent diabetes.

### ***International***

- The U.S. Indian Health Service’s National Diabetes Program (NDP) promotes collaborative strategies for the prevention of diabetes and its complications in the 12 Indian Health Service areas through coordination of a network of 19 Model Diabetes Programs and 13 Area Diabetes Consultants. The NDP also manages the Special Diabetes Program for Indians grant program with 332 grantees in 35 states.
- The Australian National Diabetes Strategy and Implementation Plan was released in 1998, providing the foundation for the commitment of \$0.72 million federally for programs to address the acute needs of indigenous Australians with diabetes.
- Queensland Health Outcomes Plan – Diabetes Mellitus 2000-2004 summarizes evidence-based strategies to reduce the burden of diabetes and improve the health of indigenous people in Australia.

# Appendix C

## Ontario Aboriginal Diabetes Strategy Steering Committee

**Lillian McGregor, Elder**

### *Aboriginal Representatives*

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Nishnawbe Aski Nation

**Judy Chapman-Price**

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**Sheila Hardy**

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**Barbara Harris**

Six Nations of the Grand River

**Dawn Harvard**

Ontario Native Women's Association

**Lyndia Jones**

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**Leslie Legros**

Grand Council Treaty #3

**Cathryn Mandoka**

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