Patient Wait Time Guarantee Pilot Project for the Prevention, Care, and Treatment of Foot Ulcers of People Living with Diabetes in Manitoba First Nations

saint ELIZABETH HEALTH CARE

&

Assembly of Manitoba Chiefs

Patient Wait Time Guarantee Pilot Project

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Prevention, Care, and Treatment of Foot Ulcers of People Living with Diabetes

in

Manitoba First Nations

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This report on the PWTG Pilot Project
is dedicated to
Manitoba First Nation people living with diabetes,
the loved ones we have lost, and a future for all without diabetes.

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Message from the Assembly of Manitoba Chiefs

In 1999, the Chiefs declared diabetes to be an epidemic and called upon federal and provincial governments to work with us to undertake prevention and drastically improve services to our people across Manitoba, in our 64 First Nations communities and in the towns and cities, wherever our people lived. This PWTG project has provided the opportunity for Manitoba First Nations to work with governments and non-profit sector to pursue initiatives that will work. From the beginning, we believed in and committed resources to our partnership with the Saint Elizabeth Health Care in the 18 month Patient Wait Time Guarantee Project for the prevention, treatment and care of diabetic foot ulcers among Manitoba First Nation people. This report demonstrates the positive results that emanate from a focused and coordinated approach of many people involved to tackle a major health issue of our times. The perspective of Wait Times demonstrated the underlying issues of lack of services within our communities and the impact of the continuing legacy of Indian Act and Residential Schools, in particular, on our people. We look forward to implementation of our recommendations for investment and tracking needed to reduce and eliminate this epidemic of a chronic disease which disproportionately affects our people.

Message from Chief Norman Bone, Keeseekoowenin First Nation, Chair, and AMC Chiefs Task Force on Health

The Chiefs Task Force on Health is mandated by the AMC Chiefs in Assembly to lead the implementation of our Health & Wellness Strategy. We were very involved throughout the PWTG project, in Gatherings with First Nations, Traditional Healers, and First Nations and non-First Nations health professionals, visiting some of the eight First Nations who participated in this pilot project, and in reviewing the report and recommendations. We appreciated the strong partnership that AMC enjoyed with Saint Elizabeth Health Care, and that organization's understanding that effective initiatives must come from our own people, in conjunction with health providers outside our First Nations. This Report provides the evidence for action to be taken immediately to change the unacceptable rate of diabetes and amputations among our people.

Message from Michael Decter, Board Chair, & Shirlee Sharkey, President and CEO, Saint Elizabeth Health Care

Saint Elizabeth Health Care (SEHC) is a Canadian not-for-profit charitable leader that has played an active role in the development of community health care for over 100 years. Through the provision of expert care and integrated solutions, SEHC's mission is to share its talent and wisdom to meet the physical, emotional and spiritual needs of individuals and families in their homes and communities.

SEHC recognizes that organizations can achieve greater results by working together. We place particular importance on partnerships that are built on mutual values and respect, and we continue to learn and grow based on the diversity of perspectives, talent and wisdom represented in each partnership experience. Through our current partnerships with First Nations, we know there is incredible knowledge and skills within these communities and supporting the people, even in small ways, can bring significant benefits. We also know that the people who are impacted by issues must be involved in understanding them and seeking solutions.

The goal of this project was to develop a patient wait time guarantee model that would reduce the significant impacts of foot ulcers and reduce the disproportionate level of amputations for people living with diabetes in Manitoba First Nations communities. It has been a meaningful experience to work in partnership with the Assembly of Manitoba Chiefs on this critical challenge. We are proud to present our collective work and contributions, which have been informed by the needs and wisdom of First Nations people. Finally, we believe the enclosed report and recommendations present a compelling opportunity to improve health outcomes, reduce health inequalities and ensure the future sustainability of the Canadian health care system.

Executive Summary & Recommendations

Diabetes is a significant health issue for First Nations in Manitoba. Through their long standing partnership with Manitoba First Nations (MFNs), Saint Elizabeth Health Care (SEHC) began to see the epidemic nature of diabetes and its complications. The Assembly of Manitoba Chiefs (AMC) was also seeing the devastating impact of this chronic disease in their communities, a disease that was unknown to their people until 30 years ago. Researchers confirmed these observations and identified that **18.9%** of Manitoba First Nations people are living with diabetes versus **4.54%** of all other Manitobans. In addition, Manitoba First Nations are **18 times more likely** to have an amputation as a result of a diabetic foot ulcer than all other Manitobans (Martens, Martin, O'Neil & MacKinnon, 2007).

In January 2007, Federal Health Minister, the Honorable Tony Clement, announced a unique Patient Wait Time Guarantee (PWTG) pilot project to explore the prevention, care and treatment of foot ulcers among Manitoba First Nations people living with diabetes. The goal of the Manitoba First Nations PWTG project was to understand the current health care process for diabetes and foot care, and to develop a patient wait time guarantee framework that would reduce the significant impacts of foot ulcers and the disproportionate number of amputations. SEHC, an innovative home care nursing organization, and AMC, a First Nations leadership advocacy organization, brought their shared values and collective strengths together in partnership to embark on an 18-

month journey of discovery. Working collaboratively with a wide-cross-section of partners, a patient wait time guarantee framework was created. This included best practices and benchmarks for care, recourse options for patients who do not receive treatment within the designated timeframe, as well as a model for First Nations involvement.

To provide information on the current situation and develop meaningful and realistic solutions, the partners chose to involve Manitoba First Nations people and communities at every level and phase of the project. This included employing First Nations project staff, developing a First Nations advisory committee, involving Traditional Healers, as well as the many other methods outlined in this report. Networks, partnerships and synergies with other MFN diabetes-related initiatives and groups were also developed.

Key partners provided foundational information to guide the project through process mapping workshops, interviews and community profiles. As well, eight First Nation communities from across Manitoba were invited to participate as project partners. Clinical elements of the PWTG framework were developed and implemented across these pilot sites. Three community gatherings and numerous community visits ensured full involvement of community staff, leadership and First Nations community members to provide ongoing feedback and evaluation about the framework and its implementation.

FINDINGS:

Focusing on wait times implies that there is reasonable and consistent access to all aspects of the health care continuum that can be manipulated to reduce time between a trigger and an action in a linear manner. The simple fact is that basic primary foot care services do not exist in the majority of Manitoba First Nation communities. Funding for community based foot care services and diabetes programs is inconsistent and insufficient, and current policy limits service.

As well, silos of health care exist in providing service to Manitoba First Nations people. There appeared to be a lack of coordination between Health Canada-FNIH, Manitoba Health, Regional Health Authorities, local communities and medical specialists. In addition, there was variability in existing diabetes and wound prevention and care programs across all sites, leading to inconsistent patient education, care and coordination. To compound this, health care was often not delivered in a manner that was culturally sensitive or meaningful for MFN people. In the absence of standardized referral pathways, specialist care for both foot and wound care was not equally accessed. The recourse option when specialist care was not available was the use of emergency care. Together these factors contribute to reasons why people do not seek care or are lost to follow up within the health care system. This results in considerable disparity in foot care services available across Manitoba First Nations, with all too often MFN people seeking care for foot ulcers at a stage when amputation may be the only option.

It is important to note, that underlying some of the factors are more fundamental contextual issues than providing access to health care alone. Basic necessities such as the availability of affordable and nutritional food, proper shoes, and clean running water in Manitoba First Nations communities is having an impact on the course of diabetes, foot ulcers and care.

MOVING FORWARD

To address the key findings, a strategic PWTG plan was developed and implemented in eight Manitoba First Nation communities (pilot sites).

The PWTG Framework

The PWTG framework consists of a comprehensive program of prevention, care and treatment of diabetic foot ulcers, recourse options for care when the clinical benchmark is not met, as well as a model for First Nations involvement.

1. **Primary Prevention**
   Basic primary foot care services are critical to addressing the issue of foot ulcers in Manitoba First Nation communities. Acknowledging that the best medicine is prevention and that tools must be put into the hands of people who know how to and will use them, a primary prevention strategy was identified to include:
   - Health Canada FNIH Non-Insured Health Benefits (NIHB) policies that ensure medical transportation for preventative services for diabetes and related complications including: traditional healing, screening, podiatry and basic footwear assessment
   - adequate numbers of health care staff, and appropriate and equitable resources in Manitoba First Nation communities to provide education regarding diabetes self-care and management
   - access to Traditional Healing
   - podiatry services including foot care, footwear assessment and offloading devices as an insured health service for all Manitobans through Manitoba Health
   - affordable, appropriate footwear and food in Manitoba First Nations communities for people living with diabetes

2. **Early Detection**
   An interoperable and secure electronic health record was implemented to support the coordinated prevention, screening, early detection and management of foot ulcers for people with diabetes. In accordance with the principle that First Nations have Ownership, Control, Access, and Possession of their own data, this project demonstrated that the Mustimuhw e-health record meets the needs of Manitoba First Nations.

   To facilitate best practice, community health care workers were provided with basic tools such as foot screening/care kits and digital cameras to allow for electronic consultation with specialists. In addition, comprehensive multidisciplinary education was delivered through cost-effective and accessible approaches including workshops and knowledge sharing platforms such as SEHC's @YourSide Colleague®.

3. **Diagnosis of Foot Ulcers**
   A diabetes foot risk assessment and management tool developed by Manitoba foot care providers was updated and standardized to be current and applicable to Manitoba First Nation communities. This tool consists of a comprehensive screening assessment, risk category descriptions, and interventions and standardized referral plans based on risk. It also includes clinical benchmarks and timeframes for care.

4. **Care, Treatment and Referral Processes based on the Best Practice Pathway**

   A clinical benchmark was developed based on discussions with prominent Manitoba specialists and allied health professionals, as well as information obtained from the latest research and standards, key informant interviews, process mapping, and experiences of the Manitoba First Nations health staff and people living with diabetes (see Appendix A for PWTG Foot Care Screen).

   With respect to Manitoba First Nation people living with diabetes and the prevention of worsening foot ulcers and possible amputation, the clinical benchmark reached by consensus in this PWTG project is:

   No longer than two (2) weeks between referral and actual meeting with specialist for a non-infected diabetic foot ulcer; immediate referral to a specialist (within one day) for an infected diabetic foot ulcer.

   A standardized foot care referral protocol incorporating updated benchmarks and guidelines for diabetes foot care was developed in consultation with partners, specialists and tertiary providers. The guidelines include information on when to refer (risk assessment), what information to provide with the referral and who and how to refer (see Appendix B for Manitoba First Nations PWTG Diabetes Foot Care Referral Guidelines).

   The project was also able to link similar initiatives such as the Diabetes Integration Project; create connections between First Nation's Traditional Healers and the biomedical system; and identify the need for culturally appropriate health programs and broader issues for First Nations people, such as their inherent right to self determination, basic requirements such as adequate housing, clean and running water, access to nutritious food and affordable shoes in local communities.

5. **Recourse Option**

   When specialist care is not available in the two-week time frame (for a non-infected diabetic foot ulcers) or within one day (for an infected diabetic foot ulcer), recourse options were identified to include:

   - Immediate access and referral to an acute care specialist. This could be facilitated through the establishment of an Internet-based e-care system to enable electronic consultation with experts.

   In addition to being a previously tested proven solution for Manitoba First Nation communities, the PWTG project was able to successfully trial this option with positive results.

Context of Care

Foot ulcers and amputations are prevalent within MFN communities due to a number of complex issues. This project was able to document the lack of access to adequate health care, validate its link to the legacy of colonization and marginalization of First Nations in Canada, but also develop new approaches. The project was able to develop a model to address the barriers to care in a way that does not rely on health care professionals alone, but instead, adopts different ways of involving the people most affected. The project partners recognized that immediate action could be taken to improve the current health care system. To this end the project team worked in collaboration with patients

and their families, members of the communities and health care providers, both within and outside of First Nations to build partnerships, clinical best practice guidelines and benchmarks for foot risk assessment, and care and treatment of foot ulcers for people living with diabetes.

Model of First Nations Involvement: Critical Factor for Success

A model of meaningful partnership and full participation of Manitoba First Nations and other key partners was integral to the success of this project. The SEHC-AMC partners chose to involve Manitoba First Nations people and communities at every level and phase of the project. This included employing First Nations project staff; engaging First Nation nurses in process mapping; developing a First Nations advisory committee; reviewing progress with the Chiefs Taskforce on Health throughout the project; involving Traditional Healers; inviting eight Manitoba First Nations as project pilot sites; and interviewing First Nations people living with diabetes and complications.

In addition, the project team engaged with local communities and their members, and worked in partnership with Health Canada – First Nations & Inuit Health Branch, Health Canada – First Nations & Inuit Health – Manitoba Region, Manitoba Health, Regional Health Authorities and First Nation Diabetes committees and related initiatives.

PWTG RECOMMENDATIONS

To reduce the significant impacts of diabetes, foot ulcers and the disproportionate number of amputations experienced by Manitoba First Nations people, SEHC and AMC recommend that:

1) The Federal and Manitoba Governments partner with Manitoba First Nations to replicate and fully implement the PWTG framework and model outlined in this report in all 64 MFN communities, starting in 2009-10. This activity to be completed in full partnership with Manitoba First Nations, Health Canada – First Nations & Inuit Health Branch, Health Canada – First Nations & Inuit Health – Manitoba Region, Manitoba Health and Regional Health Authorities, and supportive health care organizations such as Saint Elizabeth Health Care.

The implementation of the PWTG framework must include a program assessment and planning process for diabetes and wound care to ensure all aspects of primary prevention, early detection, diagnosis, care, treatment and referral processes, and recourse options are available. All of these steps are critical to ensuring the success of this framework. In addition to the information outlined in the framework and model, we recommend:

2) To jointly develop and implement a comprehensive program of foot care in all 64 Manitoba First Nation communities.

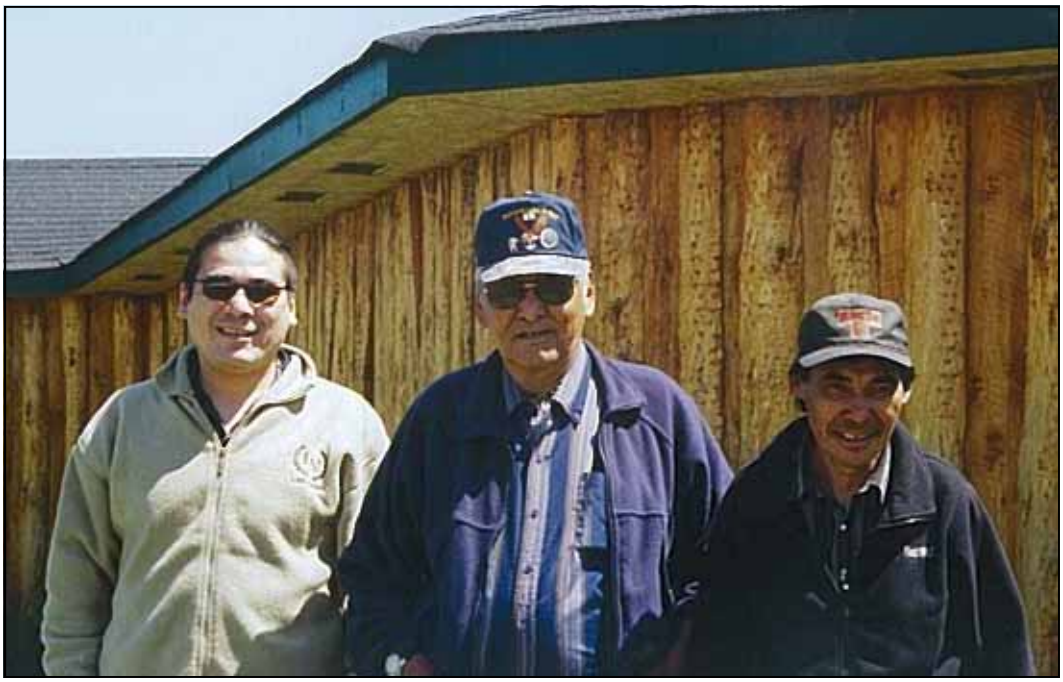
3) To support innovative First Nations initiatives to improve First Nations health status and health care services. For example, The Manitoba First Nations Diabetes Integration Project, which presently operates on a pilot basis to provide basic treatment, screening and referral services to Manitoba First Nations, has the endorsement of the AMC Chiefs in Assembly and needs sustainable support to expand to all 64 Manitoba First Nations.

4) To support formal and lasting connections between First Nations Traditional Healers and practitioners in the biomedical system in order to:
   - Develop recognition of and supports for Traditional Healing.
   - Facilitate discussions between Traditional Healers and physicians, nurses and other allied health professionals.

5) To invest more aggressively in public health with culturally relevant disease prevention programs, health education and increased financial and human resources in Manitoba First Nation communities.

6) To support AMC in the development of a joint Manitoba First Nations-Federal-Provincial public report on action taken and outcomes achieved in response to these recommendations by March 31st, 2010, and annually thereafter for a five year period.

7) Additional consideration should be given to implement this PWTG framework across Canada.



L to R: Victor Tssessaze (translator), Pierre Denechezhe, Baptiste Dettanikkeaze
Northlands Denesuline First Nation, AMC healers meeting at Sagkeeng First Nation June 2008

INTRODUCTION

The Manitoba First Nation Patient Wait Time Guarantee (PWTG) pilot project for effective prevention, care and treatment of diabetes foot ulcers is a partnership between Saint Elizabeth Health Care (SEHC), a not-for-profit charitable organization, and the Assembly of Manitoba Chiefs (AMC), the political body representing 64 Manitoba First Nations. The project was funded by Health Canada and was announced by the Minister of Health in January 2007, effective April 1, 2007.

The two organizations had worked together over the past several years in the implementation of innovative solutions to support health services at a local level and through this partnership they brought together their shared values and collective strengths in an effort to impact change for Manitoba First Nations living with Diabetes.

SEHC is a charitable, not-for-profit health care organization that has been providing high quality, compassionate care since 1908. SEHC shares their talent and experience nationally and internationally through direct care and service, education, e-learning and consultation, to support the transformation of care for individuals, families and communities, whether assisting other health organizations or delivering care directly. For more than nine years, SEHC has been working with First Nations in many parts of the country. Much of this work has focused on the development and establishment of home and community care programs and the search for innovative solutions to improve health services at a local level.

The Assembly of Manitoba Chiefs (AMC) was created in 1988 as a forum for unity and discussion on common issues amongst First Nations leaders. It traces its origins to leadership gatherings held since time immemorial, and is the latest generation of First Nations organizations from the Manitoba Indian Brotherhood of the early twentieth century. AMC is dedicated to implement treaty and inherent rights to self-determination, and to improve the socio-economic conditions in First Nations, through its work to restore First Nations jurisdiction and strengthen governance, and to provide leadership, evidence-based and culturally rooted research & policy development to support advocacy.

The goal of the Manitoba First Nation PWTG project was to develop wait time guarantees for the prevention, care and treatment of diabetic foot ulcers in Manitoba First Nation communities, thereby reducing the significant impact of foot ulcers and the incidence of amputations. Diabetes is a significant health issue for First Nation people in Manitoba. **18.9%** of Manitoba First Nations are living with diabetes, versus **4.54%** of all other Manitobans. As well, Manitoba First Nation people are **18 times more likely** to have an amputation as a result of a diabetic foot ulcer than all other Manitobans (Martens, Martin, O'Neil & MacKinnon, 2007).

The Government of Canada has articulated a framework for consideration of patient wait guarantees that includes two essential components:

Manitoba First Nation people are 18 times more likely to have an amputation as a result of a diabetic foot ulcer than all other Manitobans

(Martens et al 2009)

Timelines: establishing timeframes for service based on what is clinically or medically acceptable.

Recourse: providing recourse or alternative service options for patients that do not receive treatment within the clinically or medically acceptable time frame.

What is clear from international literature is that even with relatively straightforward clinical benchmarks as markers for "guarantees" (foot ulcers are a complex condition), an understanding of the dynamics of the current health care system is the first stage of any project.

This report of the Manitoba First Nation PWTG Pilot Project provides an overview of the approach the project partners took to understand the current health care context for Manitoba First Nations, how that understanding could be applied to strategic action and the key findings and recommendations for the prevention, care and treatment of diabetic foot ulcers.

L to R: Elder David Duck Senior, Elder Joe Thorassie Senior, Wife Mrs. David Duck Maria Duck, Jessie Cutlip Sayise Dene July 2007

PROJECT DESIGN

The design of the project was as follows:

Phase I: Establishing the foundation

Part A: Understanding the current system, identifying gaps and delays in care, and understanding the context of care for First Nation people

Part B: Application of Evidence – Building a Framework for a Testable Model and Development of a Strategic Plan

Phase II: Implementing the strategic framework

Phase III: Key findings, model refinement, conclusion and recommendations

While the project activities within this report are described in sequential phases, it is important to note that the project was undertaken through a process of discovery, fully involving Manitoba First Nations throughout so that information discovered guided our path. A brief chronology of the phases is provided to highlight the scope and depth of the project activities.

In the first phase of understanding the present situation, from April through August 2007, this PWTG pilot project began with the partnership agreement, literature review, and interviews with key people in the federal, provincial and First Nation health care systems, as well as the involvement of the Manitoba First Nation Diabetes Committee in process mapping the current care system. To gain greater understanding, and to begin to build an effective model, the team invited eight Manitoba First Nations to participate in the project. This participation would provide opportunities for Manitoba First Nations to share their relevant insight and experience as well as to test some of the best practices and tools which were beginning to be developed. The criteria and selection of the Manitoba First Nations were finalized by the steering committee and invitations went out in the summer of 2007, followed by community visits, interviews, and three gatherings (February, March, and September 2008). As well, the team met with Traditional Healers and involved them in the community gatherings and other meetings.

The project held an open house at AMC in October 2007 to share our purpose and goals, work accomplished to date and to invite questions and involvement. We prepared three newsletters, launched our project website www.fnwaittimesguarantee.com and inserted brief reports in AMC Quarterly Updates to Manitoba First Nations www.manitobachiefs.com, and in SEHC newsletters, also accessible through www.saintelizabeth.com.

To meet the early identified need of Manitoba First Nations for a database which could track care of their people living with diabetes and their care and treatment on- and off-reserve, a subcommittee reviewed several available electronic health record/case management programs. The Cowichan Tribal Health Council's Mustimuhw eHealth record was

selected to be implemented in as many of the pilot Manitoba First Nations as possible. This process took a full year, and team efforts to meet Manitoba First Nations' concerns regarding sustainability led to further action in October 2008 after the official end of the project.

Through this growing understanding, the framework for action began to be developed by January 2008 and involved the Advisory Committee, health care providers and clinical specialists, and First Nations Traditional Healers who contributed to the evolving strategy and the initial analysis of its impact. Clinical best practice guidelines, benchmarks and referral pathways were developed. Basic tools were also provided to the eight Manitoba First Nations to enable best practices and an Education Workshop was held in late August. Immediate impacts were seen. Evaluation occurred on an ongoing basis, driving the next steps of the project. The summer months saw much activity in ensuring Manitoba First Nation people with diabetes and associated complications could relate their experiences and validate the assessment of the project's findings. The project ended with a final gathering in September 2008, with all participants expressing the most significant impacts of the project.

We invite you to review this process, the findings and recommendations and join us in a call to action to implement the recommendations.

L to R: Lyna Hart, Karen Ray, Mabel Horton, Connie Kuzdak
Process Mapping Workshop

Phase I: Part A
Establishing the Foundation

PART A: Understanding the current system, identification of gaps and delays in care, and understanding the context of care for First Nation people

The key objectives of this part of the pilot project were:

- To document the current system of diabetes care and diabetes foot care in Manitoba First Nation communities
- To identify the major wait times in the management of diabetes-related foot ulcers
- To analyze the major issues underlying the gaps and delays in diabetes foot care

The key activities undertaken in this phase included:

- Literature review
- People Engagement
- Partnership Model
- Process Mapping
- Key Interviews
- Traditional Healers
- First Nations Involvement and
- Community Profiles

These activities and the tapestry of stories, experiences and insights of the front line providers and key decision makers in First Nation health revealed:

- Expectations of best practice in foot care
- Existing practice and models of foot care in Manitoba First Nation communities
- The political, economic and cultural context of diabetes foot complications in Manitoba First Nations

This information informed the identification of waits and major issues underlying the gaps and delays in diabetic foot care.

Literature Review

An initial literature review was conducted and then continued throughout the project, on such subjects as:

- The prevalence of diabetes among First Nations
- Wait times strategies in Canada
- Providing diabetes care for, and by, Indigenous people, including First Nations' and Native Americans' views of diabetes as a newcomer disease and the need for community empowerment in prevention, treatment and care
- Chronic disease management models
- Notes from Manitoba First Nations & Regional Health Authority meetings March 2004 and July 2005
- The cost of amputations and wounds
- The funding structures for First Nation health in Manitoba

The literature review assisted the project team in understanding the awareness levels of academics, clinicians and health care providers, policy and decision makers, First Nations and the public. The review also gave an indication of what new knowledge this pilot project might bring forward.

People Engagement

The foundation of the Manitoba First Nation PWTG project lies in the rich information gathered from key stakeholders in diabetes foot care from multiple disciplines – nurses, Traditional Healers, physicians, allied health providers, health directors and administrators – and from multiple sectors – community, clinical, academic and government. The project partners placed a particular emphasis and invested a considerable amount of time on activities focused on engaging people. One of the key lessons learned during the project was the importance of these activities in building people's understanding, support and commitment to the project.

Although not meant to be exhaustive, the following groups reflect some of the key people engaged during the course of the project:

- Assembly of Manitoba Chiefs (AMC) Chiefs Task Force on Health
- Manitoba First Nations Elders and Traditional Healers – AMC ad hoc committee
- First Nations Inuit Health, Manitoba Region
- Manitoba Tribal Councils Health Directors, Tribal Nursing Officers
- Manitoba First Nation Diabetes Committee
- Manitoba First Nations Diabetes Integration Project
- AMC Health Information Research Governance Committee (HIRGC)
- Manitoba First Nations Health Technicians
- Intergovernmental Committee on First Nations Health (First Nation political organization with Federal and Manitoba department representatives)
- Northern Medical Unit at the University of Manitoba (UM)
- Manitoba Health (Aboriginal Health, Chronic Diseases Branch, Patient Wait Times Task Force)
- University of Manitoba, Faculty of Medicine, Community Health Sciences Department
- Manitoba First Nations Centre for Aboriginal Health Research at the University of Manitoba
- Manitoba Centre for Health Policy at the University of Manitoba
- Manitoba Regional Health Authorities Management (CEOs) committee
- Winnipeg Regional Health Authority Aboriginal Programs and Services
- Manitoba General Practitioners and Physician Specialists
- College of Registered Nurses of Manitoba
- College of Registered Licensed Practical Nurses of Manitoba

Development of a Partnership Model

At the outset of the project, a collaboration agreement between SEHC and AMC was developed to ensure meaningful participation of Manitoba First Nations. Such an agreement would facilitate finding solutions that would work for Manitoba First Nation communities, would emphasize Manitoba First Nation cultural values and perspectives (including the OCAP principles that First Nations have Ownership, Control, Access and Possession of their own data) and would also endeavour to consider all effective options, including traditional healing.

These two organizations brought their shared values and collective strengths together in an effort to build a grassroots model to impact

change for Manitoba First Nation people with diabetes and limb complications. In turn SEHC and AMC worked in partnership with Manitoba First Nations communities, committees, and advisory bodies (including the Manitoba First Nation Diabetes Committee and the AMC HIRGC) to ensure meaningful First Nations involvement and participation in this project.

A key aspect of the partnership model was the establishment of a Manitoba First Nation PWTG Advisory Committee. This committee had membership from the AMC, Manitoba First Nation Diabetes Committee, AMC HIRGC, First Nation Elders and First Nation youth to ensure representation related to First Nation diabetes care in Manitoba. The committee advised on the strategic directions and priorities for the project and included ex-officio representatives from Manitoba Health, FNIH and senior management of SEHC and the AMC.

Guided by a participatory approach that honors First Nations governance in health, the project partners developed and refined the strategic framework and model in collaboration with our eight partner First Nation communities. To extend our contacts, in the fall of 2007 and again in early 2008, the project also met with staff of several Manitoba Health sections and the CEOs of the Regional Health Authorities in Manitoba to give them an update. The project invited all RHAs to the March and September 2008 gatherings, to which a few attended.

This project demonstrated the potential of partnership, both between the AMC and SEHC, and the numerous organizations and people that were brought together and who shared our commitment to addressing issues of diabetes care in Manitoba First Nation communities.

Process Mapping Workshops (April-September 2007)
The pilot project partners held three workshop meetings with the Manitoba First Nation Diabetes Committee working group facilitated by Jay Cowan and Nedra Anderson of Anokiwiin Inc. The purpose of the workshops was to:

- identify the current processes used in the diagnosis and treatment of diabetes in First Nation communities throughout Manitoba;
- identify gaps in the health care continuum that could have an impact on the wait times that clients experience when undergoing treatment for diabetes-related foot and lower limb injuries that could lead to amputation;
- analyze the possible causes of gaps in the health care continuum; and begin the process of considering realistic and workable responses to those gaps.

Once the gaps had been identified, the AMC and SEHC intended to identify measures and actions that would reduce any unnecessary wait times through the use of client-focused, medically sound, culturally relevant and community-controlled models and practices.

Workshop participants quickly indicated that developing the planned process map would not be possible as there is no overall, consistent sequence of routine events or activities for diagnosing and treating clients with diabetes that could be identified through a typical process map due to differences based on client circumstances, geography, First Nation circumstances and health care practitioners (availability and clinical knowledge).

Accordingly, participants worked in two groups; One group reviewing circumstances related to nursing stations, and the other reviewing circumstances related to First Nation community health centres. Each group prepared a "mind map" that graphically displayed the various elements that have the potential to impact upon the diagnosis and treatment of clients with diabetes living in Manitoba First Nation communities.

It is important to note that two process maps were required due to the considerably different care models of nursing stations and health centres. These differences reflect the scope of practice of nurses working with these respective models and therefore the care available to community members. The project partners did discover that a number of tertiary health care providers were not aware of these differences and assumed all First Nation communities and nursing staff provided the same care. This is not the case, as health centres in southern First Nations function within a primary health care model but do not provide primary care. What this means is northern Manitoba First Nations with nursing stations have funded 24/7 care which includes emergency care and services from a physician and/or expanded practice nurse, whereas Southern Manitoba First Nations with health centres typically must make referrals outside of the community for medical care, and are not funded for expanded hours or emergency care (although health staff living in the community are often called in emergencies).

Following the workshop, the mind map for each group was analyzed for common elements, themes, gaps, issues and observations. Significant progress on identifying key issues for consideration during the design, development and delivery of the pilot project's model of care were identified as part of the three highly interactive workshops. The Manitoba First Nation Diabetes Committee members who attended these working group meetings brought with them immense knowledge and experience in the realities of diabetes programs in First Nation communities. Many of the current members had been part of the committee that prepared the Manitoba First Nation Diabetes Strategy and Report in 1999. Their on-the-ground experiences and expertise kept the workshop discussion focused on the "realities" of the care of individuals with diabetes in Manitoba First Nation communities and the "practical possibilities" for a model that will work under real world circumstances.

Participants in the workshops noted that the real challenge facing First Nation people living with diabetes in First Nations was more a matter of access than wait times**.**

The real challenge facing First Nation people living with diabetes was more a matter of access than wait times.

Focusing on wait times for specific procedures and responses to specific circumstances implies that there is reasonable and consistent access to all aspects of the health care continuum that can be manipulated to reduce time between a trigger and an action in a rather linear manner. Participants suggested that the challenges were far more fundamental, and that focusing on improving wait time would be both frustrating and unproductive without an examination of the fundamental issues and efforts to address and impact these issues. Without the proper actions in the proper sequence, wait times cannot fundamentally improve, and because of this, wait time is not the crucial issue – the real issue is access.

The full report of the process mapping workshops is available at www.fnwaittimesguarantee.com

The foundational knowledge and understanding gained through process mapping was further validated and built upon in a series of key stakeholder interviews and their insights, revelations and suggestions were incorporated into the ongoing pilot project activities. From this point forward the project team ensured that the fundamental issues underlying the high rates of amputations were explored, understood and valued as critical to the development of a model.

Key Interviews (April – September 2007)

A total of 25 interviews were conducted in person and by telephone with key informants from community, hospital, academic and government sectors. Participants included nurses and health administrators from 10 First Nation communities in northern and southern Manitoba. Managers and Directors from the University of Manitoba, Health Canada and Manitoba Health were also interviewed. The interviews were conducted using a questionnaire guide with open and closed questions. Face-to-face meetings were held with the health authorities of the eight Manitoba First Nation PWTG pilot First Nation communities. Meetings were also conducted with physician specialists from vascular surgery and infectious diseases. A survey questionnaire was administered in person and via telephone to nurses and health administrators from the pilot project partner First Nation communities to complete documentation of existing diabetes care systems. Measures for the survey questionnaire were formulated from preliminary analysis of interview and workshop session data.

Traditional Healers (May 2007 - September 2008)

In the original discussions between SEHC and AMC regarding this partnership pilot project, it was recognized that traditional healing of the several First Nation cultures in Manitoba – the Cree, Dakota, Dene, Ojibway and OjiCree – would be an essential part of the strategy. The AMC Chiefs Task Force on Health required involving Traditional Healers in the development of the project, the PWTG and recourse model. While each of the indigenous peoples have their own traditional healing practices, the Traditional Healers who participated in this project shared their common understanding that health is a holistic state of walking in balance, and therefore, healing is holistic, encompassing all dimensions of life – spiritual, emotional, mental, as well as physical. The Traditional Healers explained that the life of a Healer is a spiritual one, and a person who has such a calling seeks the help of the Creator to help others. Healing is a sacred connection with spirit, combining knowledge of the land, plants, and animals into healing ways and natural medicines. While "healer" is a commonly accepted word in English, there are many words in the First Nations languages to describe Healers' multi-varied roles and responsibilities.

The project began with two Traditional Healers agreeing to be part of the PWTG Project Advisory Committee. Their advice and teachings, together with the other initiatives, led the project to understand that Traditional Healing was not well understood or connected with the established health care systems operating on and off-reserve. In October 2007, the project team requested a meeting with a representative group of Traditional Healers, who were meeting every few months on another AMC project to

coordinate a major gathering of Healers. This meeting took place at the Traditional Healing Lodge at Long Plain First Nation. The Team asked for the Healers' guidance in how Traditional Medicine could assist the prevention, treatment and care of foot ulcers of Manitoba First Nation people with diabetes. This group of Traditional Healers was also invited to the 2nd Communities Gathering in March, meeting another day ahead to consider the questions posed by eight Manitoba First Nations health directors, nurses, Aboriginal Diabetes Initiative (ADI) and Community Health Representatives (CHR) workers in February, and the Traditional Healers participated in the Final Gathering in September 2008. In addition, the PWTG team staff attended a wider AMC Gathering of Healers in June, and two Healers were invited to participate in the PWTG education for health staff of the 8 Manitoba First Nations in August. (Further discussion on pp.19-20+)

First Nations Involvement and Community Profiles (June 2007- September 2008)

The Manitoba First Nation PWTG project invited eight Manitoba First Nations to contribute to an understanding of the current situation. Their involvement entailed a number of community visits, focus groups and interviews with health staff and leadership. The information gathered was shared with participating communities in the development of their unique profiles. The profiles identified the community demographics, funding structures and resources (people, finances, facilities and programs) and examined the level of engagement of community members with their services and programs. From this analysis communities were able to identify key assets as well as their own recommendations to organize and coordinate care. These profiles also assisted First Nation communities to identify estimated wait times for the continuum of prevention, care and treatment for diabetic foot ulcers.

FINDINGS FOR UNDERSTANDING THE CURRENT SITUATION

Content analysis was completed on the process mapping by the Manitoba First Nation Diabetes Committee, the interview transcripts, meeting and workshop summary notes, and community profiles. Emerging concepts and themes were identified. The data highlighted the infrastructure and dynamics of Manitoba First Nation communities. It provided further information on health outcomes, funding structures, health resources, federal/provincial jurisdictional barriers and disconnections between Traditional Healing and biomedical healing structures, all of which are related to the prevention, treatment, and care of people's diabetic foot ulcers. The findings clearly pointed to the lack of care, gaps in care, and the lack of coordination of care as the real issues masked as wait times.

Wait times for health services serve as one marker of the performance of health systems. Wait times identified in the project are provided in Appendix C. It should be noted that the accuracy of wait times was limited by the absence of formal information and surveillance systems in communities. The average time frame for diagnosis of diabetes and diabetes complications was not measurable because many communities lacked screening programs, training, or any tracking and reporting tools. In addition most Manitoba First Nations have limited or no Information Technology funding and support. One community nurse said that at present "short of going through 6000 paper charts she would have no way of knowing who had

diabetes and when they were last screened for complications".

The large range of wait times identified is a reflection of the variation in infrastructure and dynamics of health systems in Manitoba First Nation communities. Some of the longest waits identified were for preventive foot care services such as footwear and basic foot care. These waits reflect the lack of accessibility of services and the lack of availability of primary care providers. Wait times were indefinite and not measurable for people living in some communities where foot care nurses are/were not available and where subsidies for shoes could not be accessed. Nurses indicated that people with diabetes were generally waiting too long to seek care.

Waits throughout the care continuum of diabetes have significant implication on foot health outcomes. Long waits were identified for primary foot care of both non-urgent cases (up to one year for a foot care nurse) and urgent cases of foot problems (up to three weeks for a family physician). Such lengthy waits heighten the risk of progression of foot complications and of amputation.

People often used the emergency department for primary care due to long waits for family physicians. Nurses reported that these people were sometimes sent home from emergency without treatment and instead given an appointment with a primary care physician at a later date. In addition, recent closures of emergency departments in some rural hospitals led to people having to travel longer distances to access emergency care. These downstream waits typically involve advanced foot complications such as foot ulcers with neuropathic and vascular compromise that are extremely sensitive to delays in care.

These waits indicate that the system is not performing. Exploration of the underlying issues indicates why. These system level and policy issues underlie the current situation in Manitoba First Nation communities and informed the next phase of the project.

UNDERSTANDING SYSTEMS LEVEL ISSUES

Management of Foot Care

- Few Manitoba First Nation communities were able to coordinate health services to implement an integrated diabetes and/or foot care program. Communities typically lacked a formal system to assess and streamline diabetes care (triaging).

- Health providers working in Manitoba First Nation communities lacked reliable benchmarks to guide diabetes foot care. Existing clinical practice guidelines were neither up to date nor applicable to the Manitoba First Nation communities.

- Existing information systems did not support adequate documentation, case management or evaluation of health care utilization and health outcomes.

Collaboration

- Continuity of care was compromised by the lack of two-way communication between foot care providers in primary (community) and tertiary (hospital) care systems and/or jurisdictions. Communities who have formed partnerships with governments, RHAs, and academic supports were better able to maximize limited health care resources.

Foot Care Referral Systems

- Referral policies and procedures varied among Manitoba First Nation communities. Some community providers were referring directly to specialists (primarily northern nursing stations). However, particularly in the south, family physicians and foot care nurses acted as gatekeepers to specialist care, often limiting direct foot care referrals and delaying access to specialist care. Strong relationships and connections between community providers and specialists (when present) ensured timely referrals, indicating a "relationship dependent" health care referral system.

- The issues related to lack of standardized referral procedures were highlighted in one particular case from one of the pilot sites. In this case the Community Health Nurse contacted a specialist's office 3.5 hours away with an urgent referral for an infected diabetic foot ulcer. This client was not seen until eight weeks later. Through concerted efforts on the part of the Community nurse and the PWTG project team this specialist was made aware of the case. The client was seen and the foot saved. Until this point the specialist had maintained there were no waits for his/her services and urgent referrals would be seen in one day. Following this case the specialist worked closely with the PWTG pilot project team to standardize and streamline referral polices and procedures which are now in effect (as of September 2008).

Foot Care Training

- Training in health centres was limited by funding levels and funding allocation. Nurses working in health centres reported less support for professional development than did nurses in nursing stations. Non-nursing community-based health staff had even fewer opportunities for training and consequently were underutilized in the prevention, care and treatment of diabetic foot ulcers.

UNDERSTANDING POLICY LEVEL ISSUES

Access to Basic Resources

- People living in Manitoba First Nation communities did not have equitable access to basic resources. In some communities, people did not have ready access to clean or running water.

- Inadequate housing, quality and quantity, meant difficult living conditions for people living with diabetes.

- Healthy food was a scarce commodity in both remote and less remote Manitoba First Nation communities. Nutritious food was not available in most community stores and not easily accessible in remote communities.

- Healthy food was not affordable to most Manitoba First Nation residents, particularly those living in northern communities. The relatively high cost of healthy food (compared to junk food) prohibited many people from having a healthy diet.

Delivery of Primary Foot Care

- Funding levels were insufficient to deliver a comprehensive foot care program to meet the needs of people living in Manitoba First Nation communities. Communities lacked adequate funds for recruitment and retention of clinical staff to deliver primary care. Communities also lacked the resources and infrastructure to support effective prevention, care and treatment.

- Present primary foot care funding is not needs based. Funds for foot care services were not distributed equally among Manitoba First Nation communities resulting in considerable disparities in foot care capacity and in the level of foot care services available across Manitoba.

- Currently only 21 of 64 Manitoba First Nations receive funding for basic foot care services, and this funding is not based on a needs assessment. In addition, nine communities receive advanced, but no basic foot care services.

- Lack of availability of primary health providers led to significant waits for diabetes/foot care, compromised continuity of care, and placed increased demands on the tertiary (hospital) care system.

Access to Footwear

- Non-Insured Health Benefits (NIHB) Program policy delisting off-the-shelf shoes significantly restricted access to basic protective footwear. NIHB Program policy regulations on footwear providers restricted and delayed access to footwear assessment and fittings. Consequently, many people living with diabetes in Manitoba First Nation communities were unable to afford or access properly fitting footwear in a timely manner.

- Restricted provision of footwear at an early stage led to the progression of foot complications and diminished the efficacy of more costly downstream specialist wound care. In the words of one specialist the answer is "shoes, shoes, shoes." There is no point to downstream intervention if someone is sent back home with harmful or no footwear.

Access to Medical Supplies

- Under NIHB Program policy, health providers working in Manitoba First Nation communities had limited access to medications and wound care supplies. Nurses were unable to access specialized dressing supplies without a prescription, thereby delaying wound healing times and compromising the effectiveness of wound care practice. Most physicians and specialists were unaware of this barrier and thought Manitoba First Nations had fully stocked clinics.

- Southern First Nation Community health centres were allocated a smaller stock of medical supplies under the Blue Card system (i.e. FNIH approval system for restocking) than were the Northern First Nation nursing stations. Such procedures constrained highly-trained wound care nurses from utilizing their expertise and delivering wound care in a timely manner.

Karen Ray (Saint Elizabeth Health Care), Chief Norman Bone (AMC Chiefs Task Force on Health)
Trying Wasagamack medical travel (Helicopter to Garden Hill airport, then plane to Winnipeg) December 2007

Access to Medical Transportation

- NIHB funding levels for medical transportation had not kept up with the increasing demand for primary and tertiary care services outside under-resourced communities, the increasing cost of fuel, and the population growth.
- Resulting reductions in transportation services in communities delayed and impeded people from keeping medical appointments. Many individuals travel for hours in a van or bus to attend medical appointments.
- NIHB policy limits travel to Traditional Healer services only within Manitoba, and only provides reimbursement of the most economical form of transportation, regardless of the condition of the client travelling.
- Restrictions to medical transportation under NIHB Program policy limited access to preventive and acute foot care services. Currently policy requires a referral from a community foot provider/ physician. One northern Manitoba First Nation shared that due to this policy people with foot problems have had to wait until their condition develops into a medical emergency in order to access care; there is no preventative care.

Phase 1: Part B
Application of Evidence

PART B : Application of Evidence – Building a Framework for a Testable Model and Development of a Strategic Plan

The key objective of this part of the project was to synthesize key findings to inform a strategy and model framework for the optimal prevention, care and treatment of diabetes-related foot complications and amputations in Manitoba First Nation communities.

It is important to note that this did not occur in a linear fashion, but rather in an iterative process that allowed us to take the discoveries from Part A, share them with communities and other partners, and continue to refine the framework and model through the duration of the project. To assist in this process, a visual framework was developed to demonstrate the varied sources of information that were being connected by the PWTG project team, as the strategy was being formulated for the PWTG on the prevention, treatment and care of foot ulcers of Manitoba First Nation people living with diabetes.

Diagram A was placed on the website (www.fnwaittimesguarantee.com) and included in the second newsletter. It was also presented and discussed at the October 2007 Healers Gathering during the first visits to the eight pilot Manitoba First Nation communities and at the first Community Gathering in February 2008. Our Manitoba First Nation community partners appreciated the visual framework which identified the many sources and types of information that were being gathered and their integral role in the development of community specific models.

Utilizing Diagram A, the results from the interviews, surveys, community meetings and community profiles identified themes and issues concerning key assets and barriers in community health systems. These were applied toward the development of a strategic plan for diabetes foot care in Manitoba First Nation communities. The framework and themes were verified by First Nation community stakeholders.

DEVELOPMENT OF THE STRATEGIC PLAN

Nurses, paraprofessional health providers and health administrators from the pilot partner First Nation communities convened at the Manitoba First Nation PWTG Gathering of Manitoba First Nation Communities in Winnipeg in February of 2008 to review proposed strategies and debate the current issues in foot care. During this strategy session the community partners verified priority issues and refined the strategic plan for diabetes foot care in Manitoba First Nations. This strategic plan consisted of four main strategies:

- Partnership network
- Information management
- Engagement of people
- Review of health policy

The strategies were formulated according to several principles and objectives as depicted in Diagram B.

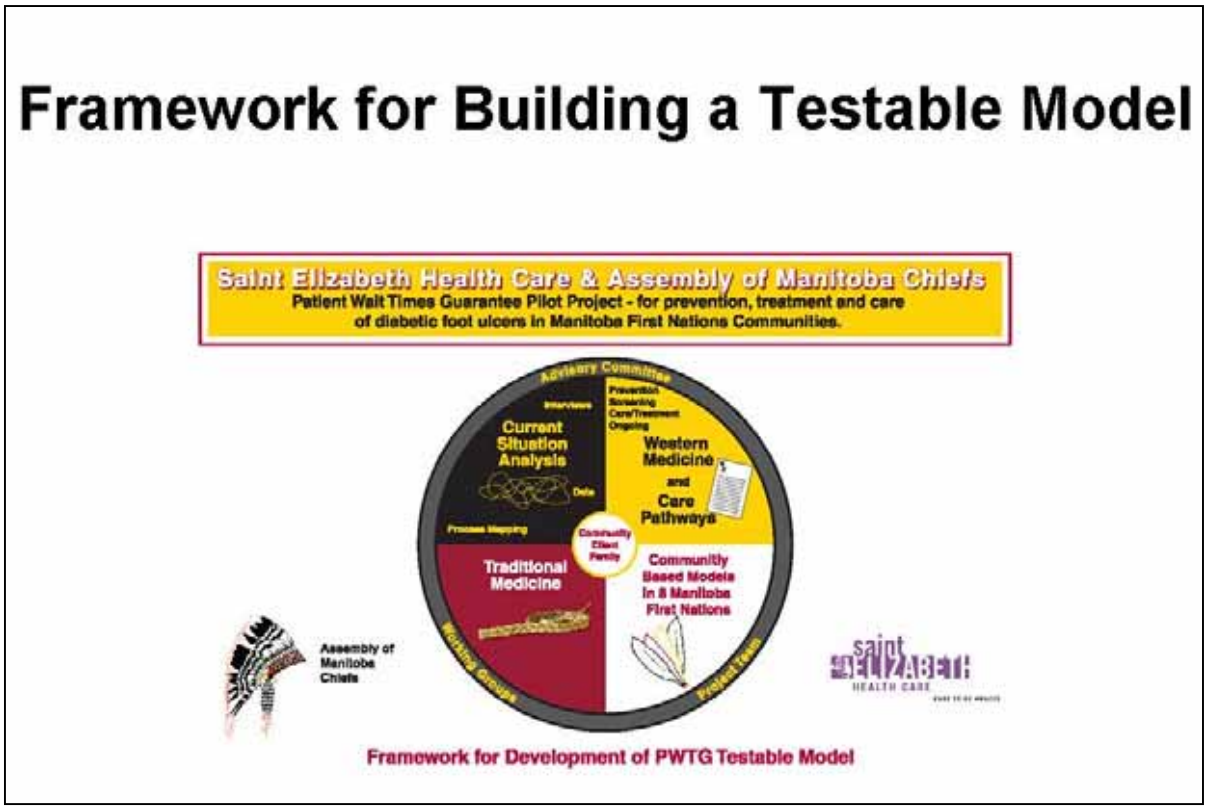


Diagram A

1. Strategy for a Partnership Network

This strategy involves linking stakeholders from different disciplines, sectors and systems in the advancement of best practice in diabetes foot care. The strategy promotes collaboration between stakeholders in education and knowledge exchange and in the coordination of foot care.

A. Education and Knowledge Exchange

Essential elements for building capacity in diabetes foot care in Manitoba First Nation communities include:

- Equitable access to education resources for all community health providers
- Sharing community providers' expertise
- Exchange of knowledge between different disciplines in foot care and between primary and tertiary care providers
- Dissemination of up-to-date guidelines and recommendations for diabetes foot care

B. Collaboration and Coordination of Foot Care

An ongoing dialogue between Traditional Healers, biomedical providers and community health authorities is essential for understanding the place of traditional medicine and biomedicine in diabetes foot care and for understanding ways in which to best access these systems.

Collaboration between community nurses and tertiary care specialists serves to build consensus on benchmarks for diabetes foot care and also to helps to standardize foot care referral systems.

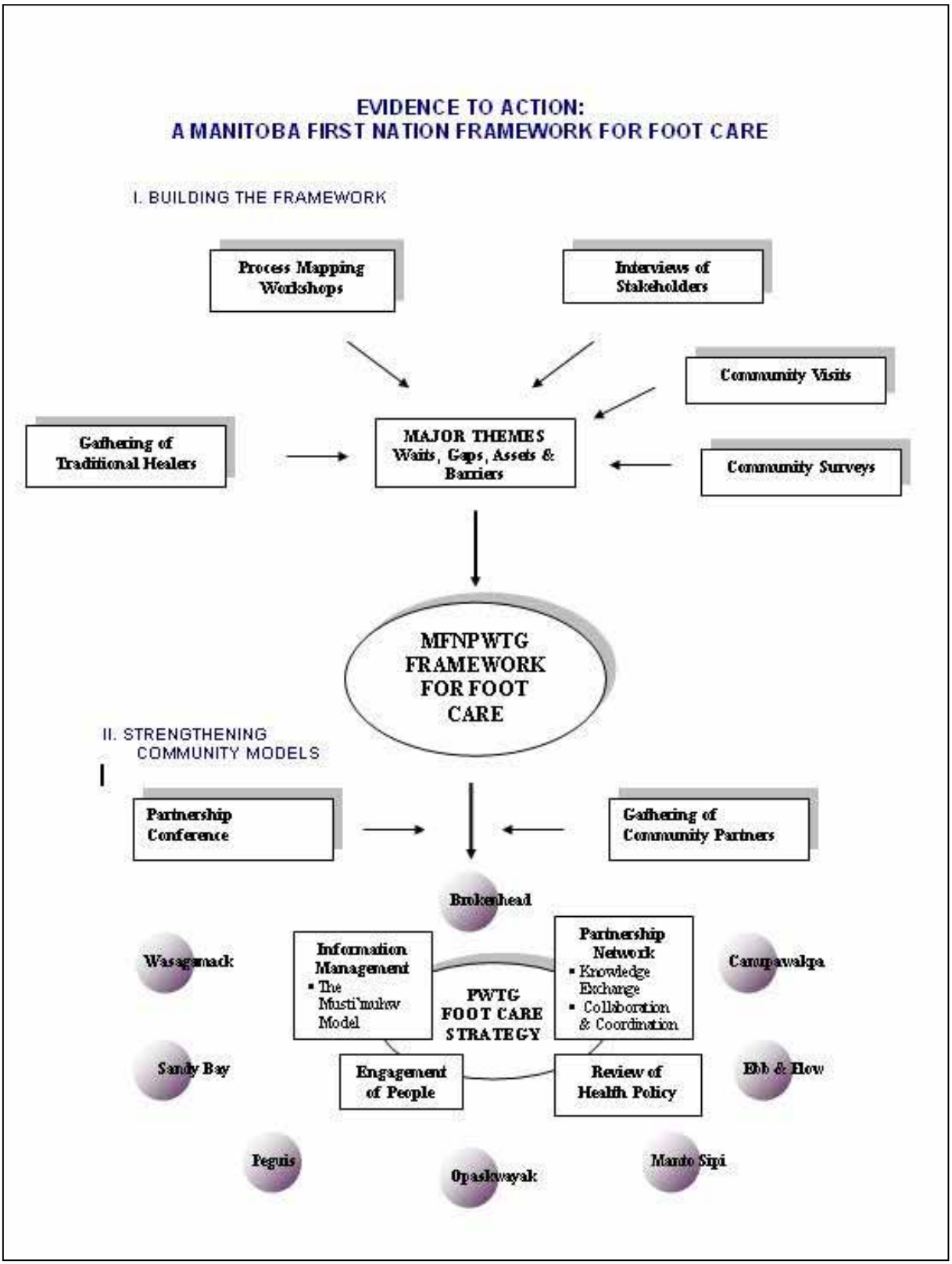

EVIDENCE TO ACTION:
A MANITOBA FIRST NATION FRAMEWORK FOR FOOT CARE
I. BUILDING THE FRAMEWORK
Process Mapping Workshops
Interviews of Stakeholders
Community Visits
Gathering of Traditional Healers
MAJOR THEMES Waits, Gaps, Assets & Barriers
Community Surveys
MFNPWTG FRAMEWORK FOR FOOT CARE
II. STRENGTHENING COMMUNITY MODELS
Partnership Conference
Gathering of Community Partners
Brokenhead
Wasagamack
Information Management
The Musti'mukw Model
PWTG FOOT CARE STRATEGY
Partnership Network
Knowledge Exchange
Collaboration & Coordination
Canupawakpa
Sandy Bay
Engagement of People
Review of Health Policy
Ebb & Flow
Peguis
Opaskwayak
Manto Sipi

Diagram B

Collaboration between community health providers enables an integrated approach to case management and program planning.

2. Strategy for Information Management

A centralized and linked information system is essential to support coordinated delivery of diabetes care and foot care in communities. An electronic health information system has such capabilities and enables easy access to health information for case management, planning, reporting and evaluation.

3. Strategy for the Engagement of People

Engagement of First Nation people in foot health entails understanding the collective experience of First Nation people and listening to the stories of individuals. Principles upheld in this strategy include:

- Respect of the knowledge and autonomy of people in managing their health
- Support through adequate health resources
- Advocacy in navigating the health system.

4. Strategy for Review of Health Policy

A review of health policy involves an analysis of the key issues in diabetes foot care for Manitoba First Nations and the identification of key points of change. This strategy seeks to engage decision-makers to act on the evidence and implement the recommendations to achieve timely and effective diabetes foot care.

These four strategies were deemed critical to implement and test as part of a model for the prevention, care and treatment of diabetic foot ulcers. The pilot project understood that some activities could be implemented and tested within the time frame of the project (e.g. best practice guideline development), while others would require action on the fundamental issues underlying the current situation (e.g. health policy and funding structures). Our intent was to test those that could be tested within the time frame and to document those that required fundamental change.

AMC PWTG Coordinator Mabel Horton, PWTG Elder Rod Young
Workshop February 2008

Phase II: Implementing the Strategic Framework

The objective of this phase was to implement and evaluate key strategies identified as imperative to addressing the underlying issues and barriers impacting the high rates of amputations of Manitoba First Nations.

Key activities undertaken in this phase include:

1. Strategy for a Partnership Network

A. Education and Knowledge Exchange

The goal of this strategy was to ensure equitable access to education resources for all community health providers, share expertise of community providers, exchange knowledge between different disciplines in foot care and between primary and tertiary care providers and to disseminate up to date guidelines and recommendations for diabetes foot care.

This goal was met through the development of best practice guidelines, a diabetes foot risk assessment tool, the delivery of an education workshop, the provision of foot care toolkits to participating communities and the provision of virtual on-line learning resources.

- **Best Practice Guidelines – Consensus on Benchmarks**: The guidelines for diabetes foot care were updated and standardized with a diabetes foot risk assessment and management tool developed by Manitoba foot care providers. The PWTG project identified the need to build consensus on a diabetes foot screen amongst community health providers and key specialists. Specialists identified what care benchmarks were important to them and community health care providers identified the context of care in communities (gaps, access to resources). This project merged this information and built consensus. This tool consists of a comprehensive screening assessment, risk category descriptions, and interventions and standardized referral plans based on risk. Multiple disciplines were involved and the tool was revised to be current and applicable to Manitoba First Nation communities. This tool included clinical benchmarks and time frames for care. The clinical benchmark that was developed was based on discussions with the most prominent Manitoba specialists and allied professionals. Information was obtained from the latest research and standards, as well as from the key interviews, process mapping, and experiences of the Manitoba First Nations health staff and people living with diabetes (see Appendix A for Foot Care Screen). With respect to Manitoba First Nation people living with diabetes, the clinical benchmark reached by consensus in this PWTG project is:

No longer than 2 weeks between referral and actual meeting with specialist for a non-infected diabetic foot ulcer. Immediate referral to a specialist (within one day) for an infected diabetic foot ulcer.

Consensus Clinical Benchmark: No longer than 2 weeks between referral and actual meeting with specialist for a non-infected diabetic foot ulcer

- **Education Workshop**: All diabetes providers in First Nation pilot communities were provided with equitable access to training in diabetes care and foot care in order to build capacity and to enable a multidisciplinary approach to care in the community. The education workshop engaged providers from different communities, disciplines and sectors to enable sharing of expertise and to facilitate consensus on benchmarks for diabetes foot care. Partnerships between foot care providers across disciplines, jurisdictions and systems were supported in the prevention and management of diabetes and diabetes foot complications. Such partnerships between experts from Manitoba First Nation pilot communities and from multiple clinical disciplines are integral to improving coordination of foot care between primary and tertiary care systems, and to building skills in Manitoba First Nations.

- **@YourSide Colleague®**: In order to broadly disseminate the education information, sustain community networks, and support future knowledge exchange, the project team leveraged a program currently being utilized by Manitoba First Nations, @YourSide Colleague (aYSC). aYSC is a secure web-based e-learning program that offers around-the-clock access to a virtual support network of peers and experts in 14 health courses (including areas such as Diabetes, Palliative Care and Cancer Care). Learners can navigate through courses at their own pace, 24 hours a day, seven days a week or join facilitated study groups. Participants have unlimited access to information related to clinical health care and health care management, which feature resources such as a glossary, library, tools & template, web resources, discussion area and help & support.

  aYSC is a proven solution already being accessed by more than 60 Manitoba First Nation communities and over 220 Manitoba First Nation community health care providers. It was recommended by numerous key partners and communities as the logical place to locate all information related to the project. In addition to the courses available, aYSC provides a secure communication platform and will be used to connect and support the electronic health record and tracking process, Mustimuhw, community systems champions in Manitoba and British Columbia. For further information on aYSC please visit www.atyourside.ca.

- **Provision of Tools to Support Best Practices**: The community surveys of health staff identified that Manitoba First Nation community providers often lacked the basic tools required to provide foot care services, including screening. In order to support this need, the project provided all of the pilot communities with basic foot care kits. The kits included tools for screening, assessment and care (e.g. 10 gm monofilaments, files, dremels, burs, and a mini doppler). The Manitoba First Nation health providers were extremely grateful for these tools and reported at the final gathering that the kits had positively impacted their ability and confidence to provide care.

Through PWTG project team discussions and consultations with specialists, it was determined that photographs of ulcers would assist in determining the urgency of the ulcer and facilitate timely and appropriate referral. In response to this information, communities were given a digital camera and printer to assist with wound assessment and consultation with specialists. The project team looked at various types of cameras for use in the First Nation communities. In consulting with retailers, wound care nurses, and TeleHealth users, eight state-of-the-art digital cameras at a modest price were purchased. This equipment was given out at the August 2008 Educational Workshop, where participants from the 8 Manitoba First Nations pilot sites had the opportunity to try them out and learn together. It is interesting to note that at the Final Gathering in September 2008, several Manitoba First Nations health providers reported the positive impacts the cameras were already having on improving access to care and referrals for diabetic foot ulcers.

What was learned from the provision of these toolkits and cameras is that small investments at the First Nation community level can have significant returns in the prevention, care and treatment of diabetic foot ulcers.

B. Collaboration and Coordination of Foot Care

The goal of this strategy was:

- To promote an ongoing dialogue between Traditional Healers, biomedical providers and community health authorities
- To promote collaboration between community nurses and tertiary care specialists
- To build consensus on benchmarks of diabetes foot care
- To standardize foot care referral systems
- To promote collaboration between community health providers in order to establish an integrated approach to case management and program planning.

i. Established timely, accessible referral paths

The PWTG project team collaborated with biomedical specialists, Manitoba First Nations in the pilot communities, SEHC clinical staff (who reviewed best practice literature), and key people with direct interests to develop a standardized foot care referral protocol incorporating updated benchmarks and guidelines for diabetes foot care. These updated guidelines were applicable to Manitoba First Nation communities as agreed upon by the communities and by foot care providers in Manitoba from multiple disciplines. These referral pathways were developed in consultation with tertiary providers and included information on when to refer (risk assessment), what information to provide with the referral and who and how to refer**.**

ii. Facilitated integrated, coordinated delivery of foot care at community level

The current system of delivery of diabetes care and foot care in Manitoba First Nation communities is both constantly changing and varied. Close examination of this system in the eight project partner First Nation communities from 2007 to 2008 revealed eight distinct models of diabetes foot care. The main elements of these models were summarized in a profile of diabetes foot care of each First Nation partner community. The community profiles provided a snapshot of how the current health system is working within their community for Manitoba First Nation people. The profiles also served as a health planning tool for community health staff to facilitate integrated and coordinated delivery of foot care at the local level.

C. Facilitated communication between Traditional Healers and other health care providers

From the beginning the pilot project sought to involve First Nation Traditional Healers in various ways. What is presented here is what we learned from the Healers. Much more needs to be done to facilitate communication between Traditional Healers and practitioners in the biomedical system. It is a process that will take some time and requires mutual respect.

"I grew up healthy on the trapline, with my father as the doctor and my mother the nurse, and the bush, our pharmacy. Now we live in a community with a nursing station and we're sick."

Percy Okemaw, Manto Sipik Health Director

First Nation Traditional Healing is an ancient way of preventative health and treatment and is passed from one generation to another. This is usually done through apprenticeship, often with a close relative or someone chosen by the Healer. The Traditional Healers involved in this project explained that sacrifice is part of a Healer's life as the Healer is the conduit that the Creator works through. Humility is a characteristic that true Healers have. The Healer's responsibility lasts a lifetime, from the acceptance of one's role and apprenticeship, through helping many people and mentoring the next generations.

Throughout the project, the Healers related how they are already at work helping people with diabetes, a disease that was unknown to any of their peoples until more recent years (Ferreira & Lang, 2006). Thus, diabetes which became known as the "sugar disease," is connected to many of the ills inflicted by outsiders (Bruyere & Garro, 2000). However, the Healers stated they do know plants that can assist people living with diabetes to be healthy and live longer. They added that while some other Healers may know of cures, they personally did not. However, they agreed that the sooner a person came to see them, the more

effectively they could help them. In this, they agreed with the medical practitioners and specialists in western medicine who had been interviewed previously.

The Healers spoke of prevention as the most important thing, and that awareness of the disease and how it works is part of prevention, but the key is in the traditional teachings of their own peoples. All life is respected, however, the Healers understood that living life in balance or walking the Red Path is not a simple maxim to follow. Living a balanced life is difficult because of the history of oppression of First Nation people in Canada. The Healers recounted that many people, including themselves, were forced to be separated from their extended families and communities for years in residential schools. This experience meant they were often forbidden to speak their own language, were daily told their loved ones and ancestors were pagans and devil-worshipers, and were not allowed contact with anyone or anything they had previously known. As the literature on residential schools has documented, and as the June 2008 Apology by the Government of Canada clearly stated, the purpose of the residential schools was "to kill the Indian in the child". That mission has had devastating impacts, causing psychological trauma to the survivors, and in turn, their children and generations afterward. In addition to the physical and sexual abuse that many children suffered at these schools, the complete absence of parental love and guidance caused suffering throughout childhood and into adulthood. Yet these narratives had remained untold until the past few years; some have never been disclosed. Many individuals endured the pain in their lives in silence, with neither the survivors nor their children and grandchildren recognizing how the pain was passed to those who never attended residential schools.

The Healers noted that part of the background to the present diabetes epidemic in First Nations was the change experienced in residential school, from traditional diet to a daily diet based on white flour, lard and sugar. This diet was also encouraged in relief rations given by Indian Agents. Buying processed foods from a package or can is considered a main source of diabetes. "We get the sickness from what we eat, when we buy from the store," said one Healer. Several said the people must return to the foods and medicines that also made them strong, living off the land, eating traditional foods of moose, deer, caribou, fish, and the plants.

The Healers knew in their own lives that, in addition to the heavy influence of the missionaries, the Indian Act controlled Indian people's lives from "the cradle to the grave." The federal and provincial governments cooperated to remove Indians onto reserves, selected to be away from "any known or probable line of settlement or minerals." Oppressive measures were taken by federal and provincial governments in tandem to end people's fishing, hunting, trapping and gathering on First Nations traditional lands. These measures also affected their people's access to natural foods and medicines, and their freedom to be out on the land. With interference, there was fear of being arrested or having gear confiscated, merely for hunting, fishing, trapping and gathering according to their treaty and inherent rights as First Peoples of this land.

The Healers spoke of what effort is required to walk the Red Path, to understand and walk by the traditional teachings, to respect who you are, where your people came from, and take care of oneself and family in the future. They recognized that a greater healing is needed than just to deal with diabetes.

The Healers said that some Healers were wary of sharing their knowledge, due to traditional medicines and ceremonies being forbidden under Canadian law for several generations. Others were glad that some of their ceremonies were in the open, as it would demonstrate to their own people not to be afraid or be shamed any longer. Some reluctance to share their ways stems also from the Healers' fear of misappropriation of their knowledge for profit, including commercialization of their natural medicines. "Our pharmacy is in the bush," explained the Project's advisor and Elder Rod Young. Many plants have medicinal purposes and there are different medicines that have the properties of insulin which can help control sugar levels. Ceremony is also used in many ways, some in diagnosis, some in completion and thanksgiving for the treatment.

The Healers said that when someone seeks their help, the Healers give direction on what the person, and often family, need to do. They are asked to give of themselves. It is up to the person whether or not to follow that direction. Tobacco is given by the person seeking help to the Healer, as a necessary first step, in acknowledgement of Healers who for millennia offered their prayers to the Creator through the sacred pipe. There is no precise method of payment, nor is there any formal system of recognition or payment connected with the western health system.

The Healers said that traditional healing is a distinct way of healing and can be complimentary to or collaborative with other ways of healing, but this involves an ongoing relationship. Healers do not want to be integrated or subsumed into any other system, but are willing to work hand in hand with doctors and nurses in the biomedical services, for example, as long as respect is mutual. These Healers were open to working with biomedical health professionals and sharing their traditional knowledge, but said it must be done on their own terms, using their own protocols and teaching lodges.

2. Strategy for Information Management:

Selection of the Information Technology (IT) System

The goal of this strategy was to provide a centralized and linked information system to support coordinated delivery of diabetes care and foot care in communities. During the focus groups, surveys and interviews, community health care providers and staff identified the need for information technology in the communities. Specifically, the issues and reasons for needing an IT system included:

i. Health care systems not connecting
ii. Lack of communication and information sharing
iii. No case management or follow-up system or continuity between on- and off- reserve First Nation care systems
iv. Health centre and home care team not located in same building
v. Limited data collection
vi. The need to generate reports
vii. Multiple charts in the health centre for the same client
viii. Lack of continuity in care providers

For over a decade, governments, organizations and funders have sought to implement electronic health records in an effort to improve the health of Canadians. The Manitoba First Nation PWTG pilot project successfully partnered with select Manitoba First Nations in the start up and implementation of a community-based health information system that honors and recognizes the principles of OCAP with the Mustimuhw Model.

"short of going through 6000 paper charts, the community nurse would have no way of knowing who had diabetes and when they were last screened for complications".

(Project Phase I interview with health professional)

The Mustimuhw Model is a community-based health information system designed by First Nations for First Nations to incorporate and celebrate the culture of the people using the system. This comprehensive, member-centred electronic health record has been customized to reflect the unique values, missions and goals of each First Nations health centre.

Principles of the Mustimuhw Model

- Ownership, control, access and possession (OCAP) of the data resides with the First Nation communities
- Incorporates a template of policies and procedures that meet the requirements of the *Access to Information and Privacy Acts* and is adaptable to each community
- A Privacy Impact Assessment is completed for each participating community
- Ensures responsibility for decision making is at the community level
- Facilitates accessibility of information
- Promotes unity in service delivery
- Focuses on strengths of community members and facilitates the building of capacity in communities. The project found Mustimuhw stands out as a program that involves people in keeping their health records up to date and taking responsibility for their own health
- Enhances accountability to communities as well as to government.

Special Features

- Ability to read into the system a community's culture and traditions that can be translated into the language of the community
- Ability to collect comparable data across sites or interface with

larger systems such as the Intergrated Public Health Information System (IPHIS) or Panorama
- Charting formats can accommodate any number of community-based programs (e.g. Immunization, Patient Transportation, Home and Community Care Program)
- Reporting meets the criteria of the First Nations & Inuit Health for targeted programs
- Designed to be compatible and interoperable with federal and provincial systems

The pilot project added several components of evidence-based care for diabetes and wounds to Mustimuhw. To begin, an organizing committee was established that included two advanced practice consultants in diabetes and wound care and two graduate prepared researchers with expertise in systematic reviews. As per the requirements of the project, the topics identified were prevention, screening, early detection and management of foot ulcers for people with diabetes, with a specific focus on timelines and benchmarks for diagnostics and treatment. Electronic databases were searched, in addition to known relevant sites such as the Canadian Diabetes Association (CDA), the National Institute for Clinical Excellence (NICE), Health Branch of Manitoba, the Registered Nurses Association of Ontario (RNAO) and the Winnipeg Regional Health Authority (WRHA). A plan was developed to identify recommendations within the guidelines in a table to be distributed to the committee and a series of teleconference meetings were pre-arranged to discuss the recommendations.

The table of contents from the retrieved guidelines included such information as: source of guideline developers, year, country and language of publication, selected recommendations related to prevention/ screening, early detection, management, Charcot's foot/infection, and levels of evidence. Timeframes were identified for each of the relevant recommendations when specified. Only guidelines from credible professional sources were considered within the previous 5 years. Quality of content was assessed through levels of evidence and applicability to the current situation and population. Consistency of the recommendations was assessed across and between guidelines. Only guidelines with recommendations that were consistently identified across all the guidelines were selected: 1) CDA; 2) RNAO; 3) WRHA.

Considerations were made on recommendations most relevant for the clinical focus, the First Nation peoples, the professionals to whom the guidelines would be targeted, and the health care setting and context in which the guideline would be used. As a result, the Winnipeg Regional Health Authority Regional Wound Care recommendations for Diabetic Foot Ulcers were chosen. However, two gaps in these recommendations were identified: there were no benchmarks related to healing rates or timely referral. To address the identified gaps, the healing rate benchmark was adapted from the RNAO guideline on the Assessment and Management of foot ulcers for people with diabetes (2006). The evidence (Margolis et al., 1999; Tallman, Muscare, Carson, Eaglstein & Falanga, 1997; Van Rijswijk & Polansky, 1994) states that wound size should decrease within 3 weeks or wound consultation/reassessment should be done, and this recommendation was added to the care pathway. To address the gap in timely

referrals, criteria were adapted from consultation with local medical specialists in infectious and vascular disease (see Education and Knowledge Exchange section of report for further information).

A key element of the diabetes and wound care screen that the pilot project added to Mustimuhw includes screening for the risk of foot complications related to diabetes and care and treatment to prevent amputation. Currently, Mustimuhw has the ability to store digital photographs of wounds. A practice assistant was added to each of the diabetes care screens to support local health care providers in following best practices in physical assessment, tracking laboratory results, lower extremity assessment, diabetes education, case management, treatment and follow-up.

Once the data are entered, the program displays screening results in a timely and secure fashion for clients and their caregivers. Graphs showing the client's progress may be printed and taken home by the community members. Abnormal results are clearly and quickly highlighted for health care providers, alerting them to potential problems and complications. Follow-up plans have been added to remind health care providers and clients when their next screening tests and appointments are due. These reminders are based on the recommendations of the Manitoba Diabetes Care Guidelines and will support timely access for clients to foot care services, diabetes and vascular specialists and those who provide special footwear. The health care providers are then able to better facilitate and support members in moving through the health care system or assist with implementing recourse options as necessary. The same follow-up system can be used to enhance communication between health centre providers, sending secure and confidential follow-up reminders to other staff who also have access to these aspects of the system and are involved in client follow-ups.

Ongoing monitoring and reporting through a comprehensive Diabetes Registry in Mustimuhw is exactly what the Manitoba First Nation Diabetes Committee and the Manitoba First Nation communities in the pilot project requested. The chosen e-health record will give providers and communities information such as number of clients in the community with diabetes, number of people with diabetes receiving prevention education and screening, and number of people with diabetes that have foot ulcers and other complications. Several reports are also available on the number, type and nature of visits with community members who have diabetes. As this fills a critical gap in information and clinical management that existed in the pilot communities, it is highly recommended that the impacts/outcomes be evaluated in the future at one, three, and five years.

While the intention of the project was to fully implement Mustimuhw in all eight pilot communities, this was not achievable. The implementation of Mustimuhw involves numerous steps and activities as outlined below:

- IT equipment is purchased (mix of desktops and laptops) based on a needs assessment. A secure server (with back up system) is established and wiring for intranet is put in place (if required). Security of information is ensured through a network analysis and installing firewalls. Remote access ports are established for ongoing remote support and the installation of future upgrades.
- Preplanning Visit: A general overview of health programs and how Mustimuhw can

assist with the service delivery within a community's health centre is provided. Information on the importance of appointing a Systems Champion is discussed.

- Making Mustimuhw Your Own: Basic customization of Mustimhuw to each community's health programs: encounter types, encounter purposes, encounter groups, charting formats, registries. Includes the development of community specific policies and procedures to ensure privacy legislation is met and OCAP principles are honored.
- Training: Three training sessions of five days are provided over set intervals.
- Ongoing Support: three levels of support are required to ensure the continued success of the MHIS. The first level is basic network support for hardware, internet, printers, security, and software. Second level support is support to health teams in the use of the Mustimuhw application. Third level support is related to the program software. The project team worked with a local IT support company to build 1st and 2nd level support structures for Manitoba First Nations.

Three of the six communities did complete all implementation activities, including training. Three communities completed steps 1-3 but require training to implement the program. Training was not completed in these three communities due to the time restraints of the project deadline. The project partners were able to confirm with FNIH, Manitoba Region 2009-10 funding as pilot basis to the MFN for training and technical support for Mustimuhw.

National FNIH Policy for IT and First Nations governance of IT systems

It is important to note that FNIH national policy regarding ownership and control of access to personal data prevented the full inclusion of the two more isolated Manitoba First Nation communities in this project. The project team was informed by FNIH Manitoba Region that FNIH staff were not able to input into this system. The project team had concerns that if not all health staff (FNIH and Manitoba First Nation) would be able to input and have access to parts of the Mustimuhw electronic health record then implementation of the model would not assist with improved continuity and tracking of care. In June 2008, AMC requested advice from a legal advisor with years of experience in the field of First Nations and privacy law. While federal and provincial privacy laws do not apply in Manitoba First Nation communities, the federal Privacy Act does apply to FNIH employees in nursing stations or health centres. Thus, agreements would have to be negotiated to ensure both Manitoba First Nations health staff and FNIH staff could share the e-health record.

Moving ahead with sustainability and expansion

Through the Manitoba First Nation PWTG pilot project we have come to understand the critical importance of health information systems to the continuity of care to individuals and the health of communities as a whole. We have sought and found a successful model and have successfully implemented this model in three communities. This is a significant accomplishment that requires support for continued success. Participating Manitoba First Nation communities are contributing to a broader understanding of the successful

elements in implementing a health information system in First Nation communities – information that can be used across the country and in a broader Canadian context. The opportunity to sustain and expand this model cannot be missed.

3. Strategy for the Engagement of People:

A goal of this strategy was to ensure that the project reflected the true realities of those people impacted by diabetes and diabetes-related complications, including amputations, to understand the collective experience of First Nation people and listen to the stories of individuals. In order to ensure this goal was met, communities were invited to participate at the start of the project, three community gatherings were held, and numerous visits were made to the communities to interview staff and community members.

A. Community Selection

Eight communities were invited to participate in the pilot project and all chose to do so. Several guidelines and criteria were looked at to identify these communities, including burden of illness, location (north/south, urban/ rural), degree of remoteness and size. We felt it important to identify the communities before the solution was created so that we could begin the relationship building process. We could then assist them to conduct a community assessment regarding barriers to implementation, and the communities could be intimately involved in finding solutions that meet their specific needs.

Information on the selection process and selected communities was documented and shared broadly with all key stakeholders. The following communities partnered with the project team in the Manitoba First Nation PWTG pilot project:

- Brokenhead Ojibway Nation
- Canupawakpa Dakota Nation
- Ebb & Flow First Nation
- Manto Sipi Cree Nation
- Opaskwayak Cree Nation
- Pequis First Nation
- Sandy Bay Ojibway First Nation
- Wasagamack First Nation

It was recommended by the Manitoba First Nation PWTG Advisory Committee that Sayisi Dene First Nation community members be involved in the interview process/focus group discussions but not for model implementation. The rationale for this decision being that this community has a significantly lower diabetes prevalence than other communities, perhaps due to the preservation of traditional lifestyles.

It must be noted that several of the Manitoba First Nations who agreed to be in the pilot already had experience in innovation and best practices. Sandy Bay, for example, had found private sector funding for their original Healing Ourselves and Others through Peer Support (HOOPS) program, which trained and supported First Nation people living with diabetes to provide support to newly diagnosed people and their families. Peguis had reorganized their health team with existing funding to ensure that foot care was given priority, and Traditional Healers were an integral part of their health centre. In contrast, one First Nation health director observed that within one lifetime, health care had changed from “living on the land, eating the good foods provided, with my father being the doctor and my mother as the nurse, using bush medicines” to living today with a nursing station and yet more ill health in the community.

Another example of First Nation best practices is the Manitoba First Nation Diabetes Committee. The Manitoba First Nation Diabetes Committee has long championed the issues of diabetes care and treatment. They served on the advisory committee to this project as well as participated in the process mapping workshops. In 1999, the Manitoba First Nation Diabetes Committee was mandated by the AMC Chiefs-In-Assembly to develop the *Manitoba First Nations Diabetes Strategy: A Call to Action* to identify needs and build on existing strengths to deal with the epidemic of diabetes and diabetes-related complications impacting Manitoba First Nation communities. The committee was mandated by resolution at the AMC Chiefs-in-Assembly to establish the Diabetes Integration Project (www.fourarrowsrha.ca/web/about-dip.html). Officially launched in the fall of 2008, the Diabetes Integration Project is a mobile diabetes care and treatment service model that will begin to address the needs of Manitoba First Nation peoples already diagnosed with diabetes by providing them with direct services to help monitor diabetes status, screen for and prevent further complications from developing, and provide diabetes education to clients to encourage self-management. This program is an example of First Nations developing best practices for First Nations but unfortunately is only presently available as a pilot project in 12 Manitoba First Nations.

This Manitoba First Nation PWTG pilot project would not have succeeded without the participation, collaboration, commitment and dedication of the pilot communities: their leadership, their staff and their members. The pilot communities understood the challenges, had real life examples of successfully overcoming these challenges, and had thoughtful and practical advice for the project on how to impact change and prevent amputations. They truly demonstrated the successful outcomes that can only be realized when First Nation communities are involved and empowered in projects.

B. Summary of Community Gatherings

Guided by a participatory approach that honours First Nation governance in health, the initial pilot project framework for foot care was further refined in collaboration with the eight partner First Nation communities during the *Gathering of Manitoba First Nation Communities* in February, 2008. This event marked the beginning of a First Nation community network bringing together the health providers, administrators and leadership from the First Nation partner communities to share best models of care, debate the central issues surrounding First Nation foot care and put forward recommendations to inform the Manitoba First Nation PWTG strategic plan.

A second gathering, held on March 26 - 27, 2008, *Partnerships in First Nations Diabetes Foot Care: Seeds of Change*, brought together stakeholders in Manitoba First Nation communities, representatives of traditional medicine, biomedicine and government to share in moving forward the strategic plan towards a collective vision of timely, integrated delivery of foot care in Manitoba. The partners strongly believed that in these partnerships and relationships lay the seeds of change toward sustainable innovation in foot care for Manitoba First Nations.

A third and final gathering, *Next Steps,* was held on September 16 and 17, 2008. The purpose of this gathering was to bring the pilot communities, Manitoba First Nation

Advisory Committee members, Traditional Healers and project team together to share the findings and recommendations of the project and discuss next steps beyond the project end date. Another key goal was to hear what the most significant change had been to their respective communities as a result of participating in the project. What was striking is that each community felt a different impact, and this validated our approach to work with each communities unique challenges and strengths. The other remarkable outcome was to hear how small seeds of change, such as foot care tools or digital cameras, led to significant positive impacts for communities and for the care of individuals.

There was concern from pilot communities that the important work of the project continue to bring change for their and others' communities. Breakout sessions on the final day included discussions on how the communities, tribal councils, organizations and governments could ensure the findings and recommendations of the PWTG project move forward. The strongest theme resulting from these breakout sessions was that the Manitoba First Nation PWTG had demonstrated the preferred approach to tackling issues – working directly with communities. These communities noted that they felt they were truly partners in this project and that they were able to demonstrate that a grassroots approach to building recommendations ensures that those recommendations will be successful. They felt that they were listened to, valued, and empowered to make the change required.

Another theme was that First Nations have to collaborate and create their future and that this project was helping to evolve that "new future" through the experience of collaboration. The importance of working collectively as First Nation communities, tribal councils and First Nation organizations was stressed, as was the importance of strong media and marketing strategies to share the recommendations of this project. There was a strong desire to build on the partnerships and successes of this project, and not only to sustain them but to ensure that they are shared with other Manitoba First Nations. Finally, participants felt very strongly that an evaluation should be conducted on the impact of the project's implemented strategies, as this project ended too quickly.

C. Community Visits and Interviews

Beginning with the process mapping exercise and key interviews which focused on how care is delivered to the person with diabetes, through the involvement of the pilot First Nations and the Traditional Healers, it became obvious that the project needed to speak with people living with diabetes. We sought to document the experiences of individuals and their families who have dealt with the several health care systems identified, and have suffered with complications, including amputations.

The project coordinators carried out these visits during July and August 2008, and traveled to four of the First Nations participating in the pilot project: Opaskwayak Cree Nation, Canupawakpa Dakota Nation, Wasagamack First Nation (OjiCree) and Sandy Bay Anishinaabe First Nation, to interview people, as well as to Sayisi Dene, to speak with people with diabetes and their health care workers, Elders and other leaders, on their experiences living in the farthest northern community in Manitoba.

Overall, people with diabetes living in First Nations felt marginalized by society at large. Their sense of powerlessness was formed

during the history of colonization and experiencing daily the poor socio-economic conditions in their communities. The lack of clean water in some communities, the deplorable state of housing with mold, overcrowding, poor insulation and ventilation, the lack of employment, and the high cost of food and living in the north in particular, made it very difficult for people with the chronic disease of diabetes to meet their daily needs.

People also felt marginalized from the medical system, where they experienced a loss of power and autonomy. People were discouraged from taking an active role in their health care and several were unable to effectively communicate with outside health care providers what they needed. Many felt devalued in a system that offered fewer health resources and supports than are available in the general population. People did not connect with the mainstream health care system as it was not compliant to their needs. If people with complications due to diabetes were finally able to see a specialist, it was too late for supportive intervention, and either dialysis or amputation was ordered.

People did not connect with the mainstream health care system as it was not compliant to their needs

Men and women who had lived on the land, hunting, trapping and fishing, were now overwhelmed by diabetes and its complications, and were emotionally distraught about not being able to be back on the land and waters. Several reported experiencing racism in the mainstream health care system, in the lack of care and follow-up, and were not able to bridge the gaps identified earlier in the project by the nurses in the Manitoba First Nation Diabetes Committee. As people recounted their experiences of losing limbs, failing eyesight and kidneys, and heart disease, they expressed their hurt, fear and anger. Some seemed resigned to their fate, while others wished they had another chance at life. They mentioned that they themselves would have been more action-oriented if they'd known how devastating their complications would be. All wished younger people would turn away from fast food, TV, video games and movies that kept them inside, and return to traditional teachings, natural foods, and active life outside. Those interviewed wanted more education about diabetes, what causes it, how to prevent it, and what to teach young people. Most had seen pamphlets, perhaps videos, spoken with health care professionals, and yet, they did not 'get' the message until it was too late and complications had set in. They stressed that there must be new approaches to education that are culturally relevant and focused on traditional ways.

Those interviewed wanted leadership to concentrate on helping people with diabetes with infrastructure: construct more and improved housing to reduce overcrowding, build sidewalks and ramps to help people maneuver with wheelchairs and prostheses, and ensure access to electricity, running water and toilets. Northerners wanted a hospital in their communities or between two or a few First Nations, with closer access to airports in remote communities. They wanted nutritious and affordable foods in local stores (4 L. milk costs $12.49 in the North; $8 at a southern corner store, and $4 at an urban grocery store), and worried that a store with a monopoly did not listen to their needs for fresh, nutritious foods, but rather stocked too

much junk food. Time and time again, those interviewed stressed the importance of youth learning traditional ways of living and eating, and provided practical ideas to support this.

And yet, despite the living conditions, people wanted to stay in their own communities and receive care there, even if it meant going by boat to the next First Nation for dialysis. At home, they could be active in the house and outside in the garden or boats, and could see their children and grandchildren. Relocation to the city was not a welcome option; it meant loneliness among strangers, longing for their family, noise, transportation problems, and cement as opposed to trees, lakes or prairie. Several said that provincial and health policy-makers need to come and live at their First Nation for a week to better experience and understand their way of life and the hardships people have to endure.

While we heard of despair, tragedy and loss, we also heard a strong message of strength and hope and firm belief in the strength of communities and families and their ability to tackle this problem. There was hope that this project would raise the necessary attention and that the results would be shared with communities so that they could do what was necessary to prevent amputations. The "frightening responsibility to succeed" was never more apparent than when we were in the communities, touched by the enormity of the issues yet encouraged by the hope present.

4. Strategy for Review of Health Policy

The SEHC-AMC Partnership PWTG commissioned a report on policy by consultants with many years of joint experience with First Nations, FNIH, FNIHB, NIHB, and the provincial health care system. The policy issue paper identified and discussed the impacts of the major policy shifts relating to diabetic foot care for Manitoba First Nations and suggested policy alternatives to improve equity, consistency, and efficiencies for foot care programming. The following are some of the findings of "A Policy Paper for the SEHC-AMC PWTG Project on Manitoba First Nations Foot Care Services" (MacKinnon & Grimes, 2008):

- The best foot care services are funded for federal inmates of prisons and people living on provincial Employment Income Assistance (EIA), and secondly to RCMP and Veterans under federal health insurance programs. The middle class and above pay for private care, and the First Nation people on reserve have major disparities.
- The ad hoc services and short-sighted funding arrangements by the federal government who are constitutionally responsible for "Indians" under s. 91(24) of the Constitution Act, 1867, has created a three tiered system: 34 Manitoba First Nations without any service, 21 Manitoba First Nations with varying degrees of service, and 9 Manitoba First Nations with advanced (but no basic) foot care.*
- The background to present gaps in service can be traced to 1998, when NIHB de-

* Basic foot care can be performed by a certified foot care nurses and consists of:
  - Basic foot and lower limb assessment
  - Basic wound assessment and management
  - Basic footwear assessment
  - Corn and callus reduction
  - Nail care
  - Health education & promotion related to care of feet.

* Advanced foot care by NMU nurses with advanced training and ongoing mentoring by local medical clinicians in orthopedic surgery, vascular surgery, and infectious diseases, allowing them to perform:
  - Debridement of soft tissue and bone
  - Prescriptive practices for initiation and/or continuation of anti-infectious agents
  - Direct referrals to medical specialists. (MacKinnon & Grimes, 2008, p. ii)

listed allied health services even though provincially insured services were not consistently covered across the country; this premature de-listing created jurisdictional inequities and service gaps. The de-listing of NIHB transportation to access these services further compounded the issue for two-thirds of Manitoba First Nations.

- Despite the on-reserve population growth almost doubling in the last ten years, the annual funding for foot care services ($176,000) serving 21 Manitoba First Nations has remained the same. There have been increases for the 9 Manitoba First Nations served by the Northern Medical Unit (NMU) at the University of Manitoba with an annual funding allocation of $258, 000. Combined, this represents annual funding for foot care services to Manitoba First Nations of $434, 000. There are inequities in funding between tribal councils, as well as between the six tribal councils and the University based NMU.

Blanchard, Wadja and Green (2000) compared First Nations and general Manitoban population who had lower limb amputations, projecting numbers from 1995 to 2025 (see Chart 1, Page 49). According to Manitoba Health advice included in PWTG commissioned report (MacKinnon & Grimes, 2008), these numbers are accurate or even underestimations of First Nations rates in 2008.

Dr. Arneja, Director, Amputee Program, Physical Medicine & Rehabilitation, Health Sciences Centre, reported that in Manitoba lower extremity amputations (LEA) cost a total of $81,334 each, including costs of surgical intervention, general hospital ward stay, rehab hospital ward stay and prosthetic fitting. Using this figure, the costs associated with the projected number of LEAs for registered First Nation people in Manitoba will increase from $7.7M in 1995 to $24.4M in 2015 and $36.2M in 2025 (all in 2008 dollars). This does not cover the costs that are then shifted to Manitoba First Nations and FNIH to cover Home & Community Care, ramps and other additions to housing, etc., nor does it cover costs of inflation and other cost drivers.

Present annual upstream allocation of $ 434,000 leads to downstream costs of amputations conservatively estimated at $18 million in 2008 (See Chart 2, page 49). Clearly the two jurisdictions primarily responsible for upstream investments and downstream costs, the federal and provincial governments, must work together to realize significant savings in costs and suffering.

The most immediate measure to have preventative impact would be for Manitoba Health to insure podiatry services. Physicians have neither the time nor often the expertise to perform the same foot care and treatment that podiatrists do effectively and at less cost.

FNIH Manitoba Region, while recognizing the need for comprehensive community-based foot care services, does not have the fiscal resources to implement such services. Funding must be secured, a mandate accepted and an end put to the arbitrary approach and disparities in funding or not funding foot care. Manitoba First Nations must be provided with the funds to support a comprehensive foot care program to all 64 First Nations.

As stated by specialists in Manitoba, investment in proper footwear is preventative medicine. Providing properly fitting, off-the-shelf footwear would immediately reduce

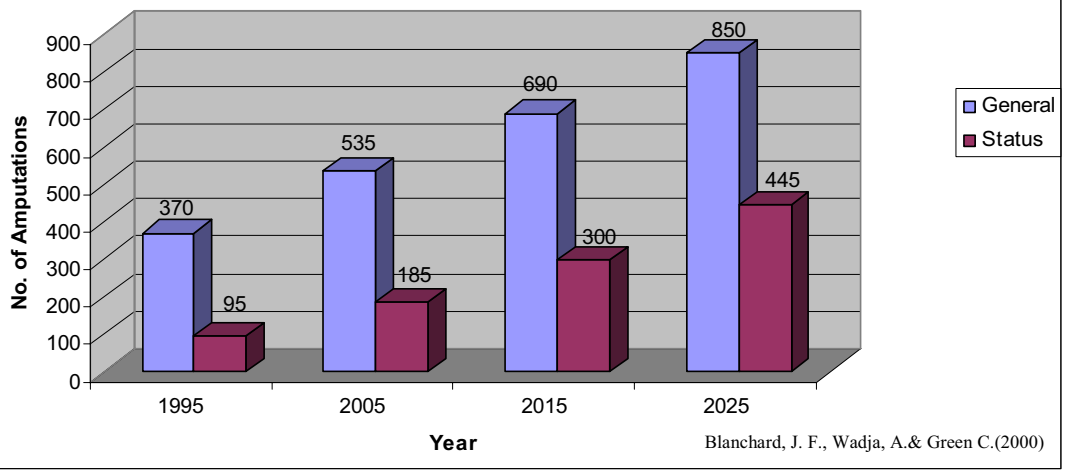
suffering and costs associated with wounds and amputations. Present complicated processes for accessing custom footwear through FNIH NIHB are costly, ineffective, and too late in delivery to act as prevention. Covering the costs of adequate everyday footwear would be a doable approach, utilizing presently available NIHB and Indian Affairs resources.

The present and future tragic scenarios can be averted by immediate direct and joint action by the federal and provincial governments whose avowed mission is to care for the health and welfare of all its citizens and who derive their funding from the same people and resources.

Lyna Hart, SERDC Tribal Nurse
Member of PWTG Advisory Committee 2007

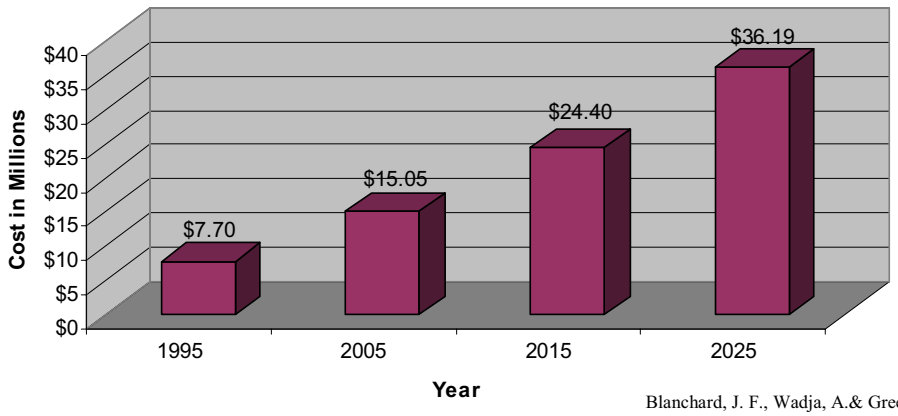
Tracy Scott, SEHC PWTG coordinator, and Doris Young, Opaskwayak Cree Nation citizen
OCN July 2008

Chart 1: Projected Number of Lower Limb Amputations Among Manitobans with Diabetes By Status



Blanchard, J. F., Wadja, A.& Green C.(2000)

Chart 2: Projected Costs for Diabetes-Related Amputations For Manitoba Registered First Nations



Blanchard, J. F., Wadja, A.& Green C.(2000)

Phase III: Discussion of the Model

The objective of this phase of the project was to review key findings with partners and governments and develop a final set of recommendations for the prevention, care and treatment of diabetic foot ulcers in Manitoba First Nations.

Key Findings and Model Refinement

The federal government's health care plan calls for a guarantee that ensures that all Canadians receive medical treatment within wait times that are clinically acceptable. Fundamental to a wait time guarantee is defined time frames for care and a set of alternative care options, should that time frame be exceeded (recourse). This project was tasked with what can be done to guarantee an acceptable level of prevention, treatment and care for one complication of one major chronic disease within the present situation.

Through this pilot project, SEHC and AMC endeavoured to develop and deliver an effective health care approach for clients with diabetic foot ulcers within the context of a wait time guarantee. As such, we developed a set of benchmarks and defined time frames for care that reflected the realities of health care delivery in Manitoba First Nation communities.

With respect to Manitoba First Nation people living with diabetes, the clinical benchmark reached by consensus in this PWTG project is:

> ***No longer than 2 weeks between referral and actual meeting with specialist for a non-infected diabetic foot ulcer. Immediate referral to a specialist (within one day) for an infected diabetic foot ulcer.***

The recommended recourse option when specialist care is not available in this time frame is immediate access and referral to an acute care specialist, facilitated through the establishment of an online system to enable virtual consultation. In the absence of this option, emergency health care must be pursued as the last resort. Unfortunately, in the current health care delivery model for Manitoba First Nations, emergency visits are the "usual way of obtaining care" as opposed to a recourse option.

It should be noted that the lack of basic primary care services and basic medicines for the foot (footwear) in the majority of Manitoba First Nations presented a significant challenge in terms of identifying alternative care options. Where basic primary foot care services are available and referral pathways are working, there is no need for recourse. For care to be guaranteed, it needs to exist. Manitoba First Nations are waiting for care that does not currently exist. Without this minimum level of health care in the community, by the time Manitoba First Nation people enter the system, it is often too late. As Chief Glen Ross (Opaskawayak Cree Nation and member of the AMC CTFOH) stated, "Our people are not waiting for care – they are waiting for amputations" .

Wasagamack First Nation Garden, Island Lake
July 2007

"Our people are not waiting for care – they are waiting for amputations"

Chief Glen Ross
Opaskwayak Cree Nation

As this report has demonstrated, foundational primary and preventative care services are the critical element in preventing diabetic foot ulcers. The answers appear simple: provide basic foot care services and medicine for the feet (foot wear), streamline referral pathways and provide tools to communities (equipment, education, electronic health records). While some answers may indeed be simple, the underlying issues are complex and will not be simple to address.

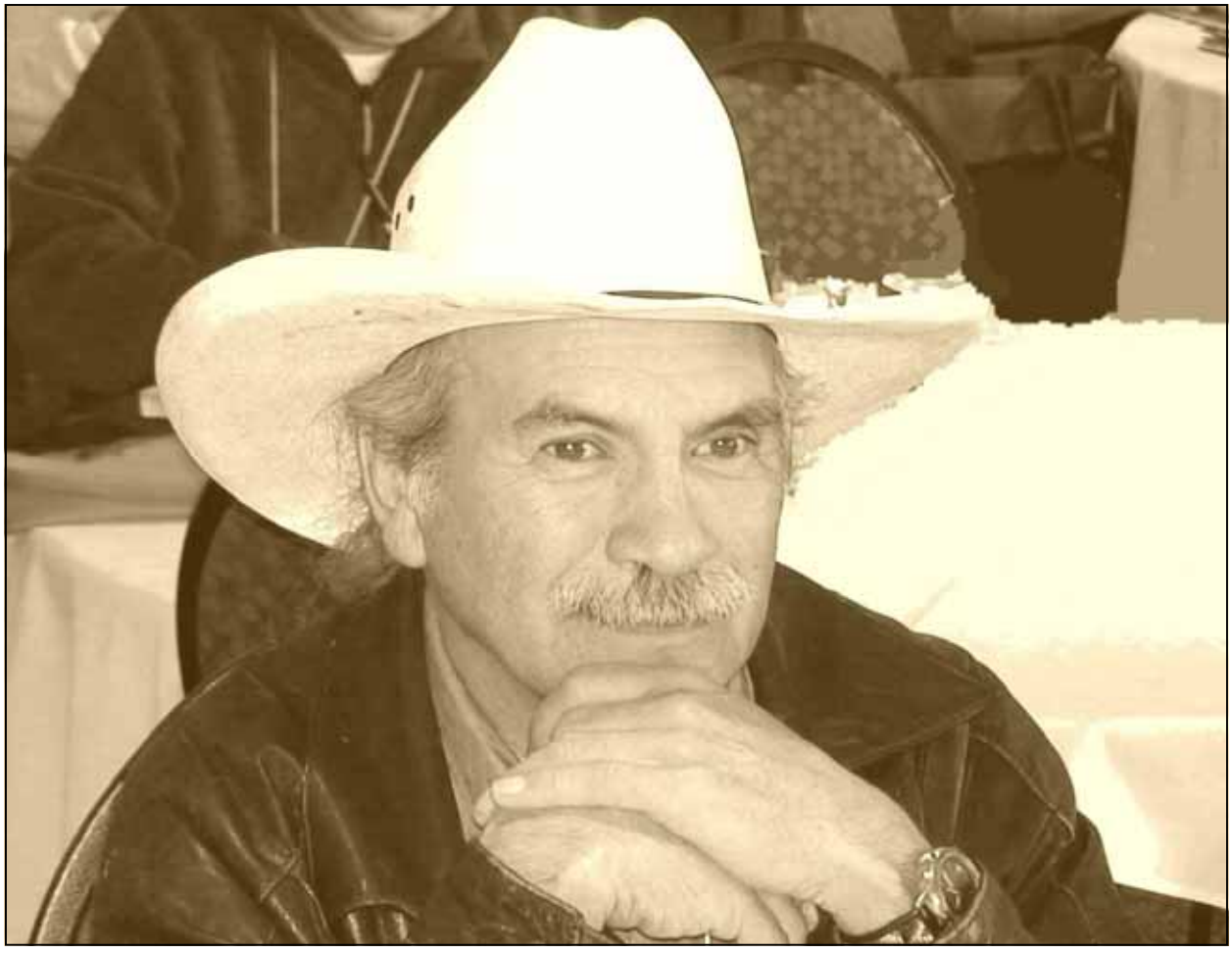
The issues of care and access to care cannot be viewed only through a western or biomedical model. This project was committed from the outset to consider all effective options, including traditional healing, and to build a solution that would work and that recognized and emphasized Manitoba First Nation cultural values and perspectives. Traditional Healers embraced the opportunity to share their knowledge and can prevent and treat diabetes and related complications. This model points to establishing stronger connections between what the Royal Commission on Aboriginal Peoples called the two great healing traditions, First Nations Traditional Healing and biomedicine.

During this project we visited numerous communities several times. We found that within the leadership, Elders, Traditional Healers, Chiefs and Councillors, and health care providers, there is an incredibly hopeful spirit and belief in the future. However, they recognize the spirit of hope is hard to grow or sustain among the ones who live in grinding poverty day after day. This project has been witness to the modern day poverty in First Nations. In some First Nation communities, there is no running or clean water. In all communities, there is overcrowding and inadequate housing. There are overworked staff and under-resourced health centres. Together with documented lack of employment and lack of resources in

education in First Nations, and other factors, these social and economic conditions determine the health of the people living there. Manitoba First Nations are just now beginning to fully realize the toll, historic trauma and oppression have taken on the spirit of the people and what some referred to as their "inability to make choices."

It is necessary for First Nations and all Canadians, federal and provincial governments, the private and non-profit sectors, and individuals, to change the unacceptable living conditions in First Nations. This project demonstrated the need to bring the systems together and find new ways to address health care issues in Manitoba First Nations. However, without empowerment of the people to live the holistic way and make positive choices, diabetes rates will continue to rise and Manitoba First Nations will continue to lose their limbs.

Fundamentally, the model developed in this project is not only about benchmarks and timeframes, but more importantly, involving the First Nations in identifying the complex underlying issues and what needs to be done. This involvement is beyond what anyone is doing today and has been crucial to the success of this project. The communities told us that this was the first time they felt they were truly respected and involved.



Henry Skywater, Dakota Healer. Bird Tail Sioux Dakota Nation
PWTG Education Workshop, August 2008

Conclusion:

The PWTG project undertook a comprehensive analysis of the underlying issues impacting diabetes and foot care in Manitoba First Nations, with the goal of developing an effective patient wait time guarantee framework that would reduce the significant impacts of foot ulcers and the disproportionate number of amputations. Even though the high rates of amputations for Manitoba First Nations were first published in 2002, no focused attention and action to address this regional issue had been taken before this PWTG was announced in January 2007.

Throughout the 18-month pilot, the SEHC-AMC partners were cognizant of the impact and importance this project may have for other First Nation people and Canadians across the country. It is in this vein that the project's conclusions highlight the need to address inter-jurisdictional divisions that prevent coordinated planning and provision of care for all Canadians. For example, in 1998, Health Canada - FNIHB, which is responsible for health care to First Nation people, delisted podiatry as a Non-Insured Health Benefit to First Nations and Inuit people, without due diligence as to whether this preventative medicine was available as a provincially-insured service. While some provinces do provide coverage, the Province of Manitoba does not. This unilateral action resulted in insufficient and inequitable foot care services, causing a situation to fester in Manitoba First Nation communities that has contributed to the unacceptably high rates of amputations.

In our view, preventative services must be covered for all Canadians. In addition, collaborative planning and decision-making, including those most affected by an issue, are required to reduce pain and suffering for people living with diabetes and their families, to ensure investment in effective health care at early stages, and to prevent more costly and often less effective intervention, such as traumatic amputations, downstream. While this study addressed one complication of diabetes, it re-emphasized that First Nations continue to face the same issues and challenges with regard to all chronic diseases. This report and its recommendations need to be read and considered within this context, pointing to the need for urgent action for health overall.

Underlying the project's approach was the commitment not simply to study the problem but "to do something" that would have immediate benefits to Manitoba First Nations. Through the PWTG project, the communities reported they felt empowered by the project asking their advice, involving them in building information systems, testing tool kits and educational approaches, and developing referral processes and best practice guidelines in the eight pilot communities. This foundational action was required to ensure Manitoba First Nations had the background and tools to track wait times for the care of diabetes-related lower limb complications.

This project would not have succeeded without the participation, collaboration, commitment and dedication of the pilot

communities: their leadership, their staff and their members. The pilot communities understood the challenges, had real life examples of successfully overcoming these challenges, and had thoughtful and practical advice for the project on how to impact change and prevent amputations. They truly demonstrated the successful outcomes that can only be realized when First Nation communities are involved and empowered in projects

Successful outcomes can only be realized when First Nation communities are involved and empowered

Our greatest hope is that through this pilot project, the potential of partnership has been clearly demonstrated – not only through the partnership of AMC and SEHC, but also Manitoba First Nations leadership, health directors and staff, Traditional Healers, First Nations Inuit Health (regional and national), Health Canada, Manitoba Health, health care professionals and individuals, all who shared a commitment to positive change.

Ekosani
(Cree)

Mahsi
(Dene)

Miigwech
(Ojibway & OjiCree)

Wopida
(Dakota)

Thank you
(English)

Merci
(French)

PWTG RECOMMENDATIONS:

To reduce the significant impacts of diabetes, foot ulcers and the disproportionate number of amputations experienced by Manitoba First Nations people, SEHC and AMC recommend that:

1) The Federal and Manitoba Governments partner with Manitoba First Nations to replicate and fully implement the PWTG framework and model outlined in this report in all 64 MFN communities, starting in 2009-10. This activity to be completed in full partnership with Manitoba First Nations, Health Canada – First Nations & Inuit Health Branch, Health Canada – First Nations & Inuit Health – Manitoba Region, Manitoba Health and Regional Health Authorities, and supportive health care organizations such as Saint Elizabeth Health Care.

The implementation of the PWTG framework must include a program assessment and planning process for diabetes and wound care to ensure all aspects of primary prevention, early detection, diagnosis, care, treatment and referral processes, and recourse options are available. All of these steps are critical to ensuring the success of this framework. In addition to the information outlined in the framework and model, we recommend:

2) To jointly develop and implement a comprehensive program of foot care in all 64 Manitoba First Nation communities.

3) To support innovative First Nations initiatives to improve First Nations health status and health care services. For example, The Manitoba First Nations Diabetes Integration Project, which presently operates on a pilot basis to provide basic treatment, screening and referral services to Manitoba First Nations, has the endorsement of the AMC Chiefs in Assembly and needs sustainable support to expand to all 64 Manitoba First Nations.

4) To support formal and lasting connections between First Nations Traditional Healers and practitioners in the biomedical system in order to:
   - Develop recognition of and supports for Traditional Healing.
   - Facilitate discussions between Traditional Healers and physicians, nurses and other allied health professionals.

5) To invest more aggressively in public health with culturally relevant disease prevention programs, health education and increased financial and human resources in Manitoba First Nation communities.

6) To support AMC in the development of a joint Manitoba

First Nations-Federal-Provincial public report on action taken and outcomes achieved in response to these recommendations by March 31st, 2010, and annually thereafter for a five year period.

7) Additional consideration should be given to implement this PWTG framework across Canada.

L to R (standing): Caroline Chartrand and Robin Miller, Diabetes Integration Project (DIP)
L to R (sitting): Cindy Hart (PWTG Nurse/Community Liaison), Doris Bear (Peguis Health Director), Fran Desjarlais

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PWTG Final Gathering—September 2008
PWTG Team, 8 First Nations in pilot, Traditional Healers, Advisory Committee Members

Appendices

Appendix A

FOOT SCREEN FOR RISK OF ULCER AND/OR AMPUTATION

Client Name: _____

Date: _____

Fill in the following blanks with a "Y" or "N" to indicate findings in the right or left foot.

	R	L		R	L
Are the shoes appropriate in support and fit?			Is there a foot ulcer now?		
Are the toenails long, thick or ingrown?			Is there foot swelling?		
Is there heavy callus build-up?			Is there elevated skin temperature?		
Can the patient see the bottom of their feet?			Is gangrene present?		
Is there loss of protective sensation?			Is there a history of foot deformity?		
Is there deformity?			Is there a history of foot ulcer?		
Is there rest pain?			Is there a history of vascular surgery?		
Are pulses ABSENT?			Is there a history of amputation?		

DOPPLER ULTRASOUND

Ankle Systolic Pressures	**Right Foot**	**Left Foot**
Dorsalis Pedis	____	____
Posterior Tibial	____	____
Highest Brachial Systolic Pressure (____)		
Ankle/Brachial Pressure Index (ABPI)		
Highest Ankle/Highest Brachial	____ / (____) = _____	____ / (____) = _____
Toe Pressure	____	____

CONSENT FOR CHANGE IN TREATMENT PLAN

Consent obtained from: _____ Relationship: _____ Signature: _____

Date: _____ Staff Initials: _____ Staff Signature: _____

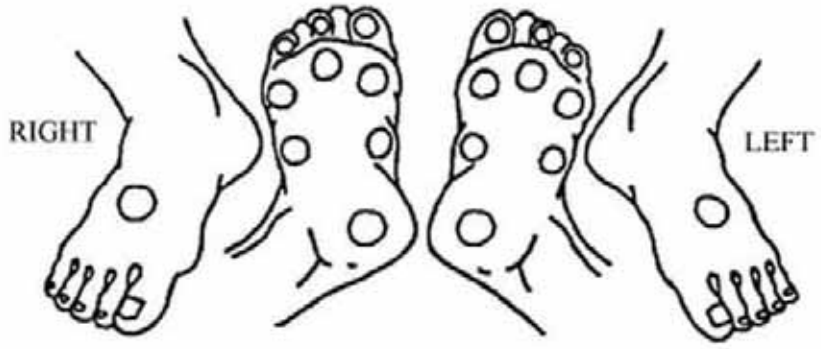
Appendix A

FOOT SCREEN FOR RISK OF ULCER AND/OR AMPUTATION

Client Name: _____

Date: _____

To test for loss of protective sensation use a 10 g monofilament; Ask client to close their eyes and to respond "yes" when they feel you gently poke them. First test the skin on the lower leg to indicate the sensation. Then test each area with a circle. Indicate presence (+) or absence (-) of sensation in each circle. (+) can feel the monofilament (-) Cannot feel monofilament

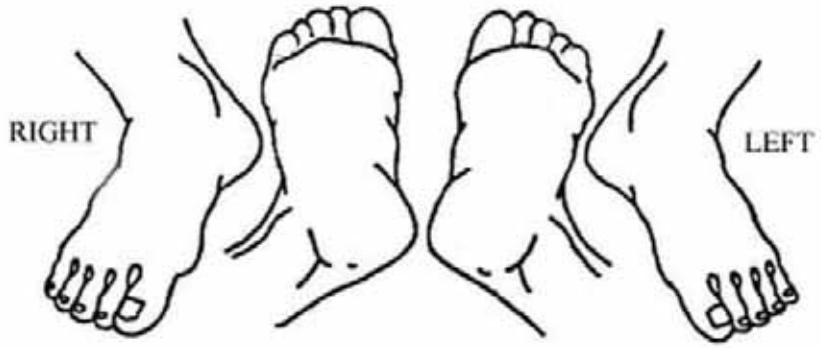


Skin Conditions on the Foot or Between the Toes:

Draw in by using cross hatched marks (▦): Callus , Pre-ulcer , Ulcer (Note: length and width in cm)

Label with:

R – redness, C – abnormal colour, M – maceration, D — dryness, W – increased warmth



CONSENT FOR CHANGE IN TREATMENT PLAN

Consent obtained from: _____ Relationship: _____ Signature: _____

Date: _____ Staff Initials: _____ Staff Signature: _____

Appendix A

FOOT SCREEN FOR RISK OF ULCER AND/OR AMPUTATION

Client Name: _____

Date: _____

RISK CATEGORY DESCRIPTION (Place a check mark ✓ in box that most closely corresponds to client's condition)

☐ **Category 0: No Neuropathy – Low risk**
Diabetes, normal sensation, no vascular disease (ABPI >0.9; toe systolic pressure >45 mmHg and pedal pulses intact), no deformity, no history of foot ulcer

☐ **Category 1: Neuropathy – At risk**
Diabetes AND loss of protective sensation

☐ **Category 2: Neuropathy with Vascular Disease and/or Deformity – Moderate risk**
As in Category 1 plus: vascular disease (ABPI < 0.8 or > 1.2 AND/OR absent pedal pulses) AND/OR foot deformity present

☐ **Category 3: History of Pathology – High risk or Urgent**
As in Category 2 plus: vascular disease (ABPI <.50) AND/OR current foot ulcer AND/OR history of foot ulcer AND/OR neuropathic fracture (Charcot deformity) AND/OR history of vascular surgery AND/OR history of amputation

RISK CATEGORY	INTERVENTION	REFERRAL PLAN
0 Low risk	• Education emphasizing disease control, proper shoe fit/design, self-care • Follow-up at least every 6 – 12 months for foot examination • Reassess all new footwear and check current footwear once a year • Follow-up as needed for skin/callus/nail care	• Refer to certified footwear specialist if client requires specialized/therapeutic fitting
1 At risk	• Education emphasizing disease control, proper shoe fit/design, daily self inspection, skin/nail care, early reporting of foot injuries • Possible candidate for custom-made orthotics • Exam feet at each visit or 2 – 4 times a year • Follow-up q3 – 6 months for skin/callous/nail care	• Refer to a certified footwear specialist for footwear assessment
2 Moderate risk	• Education emphasizing disease control, proper shoe fit/design, self inspection, skin/nail/callus care, early reporting of foot injuries • Candidate for custom-made orthotics and properly fitted orthopedic footwear • Candidate for custom made footwear if there is very abnormal shape/morphology • Exam feet at each visit or at least four times a year • Follow-up q1 – 3 months for skin/callus/nail care	• Refer to community foot clinic for follow up care • Consider referral to vascular surgery if claudication present • Refer to a certified footwear specialist for footwear assessment
3 High risk or Urgent	• Education emphasizing disease control, proper fitting footwear, self inspection, skin/nail/callus care and early reporting of foot injuries • Candidate for custom-made orthotics and properly fitted orthopedic footwear • Candidate for custom made footwear if there is very abnormal shape/morphology • Exam feet at each visit or at least four times a year • Follow-up q1 – 12 week for skin/callus/nail care IF A FOOT ULCER IS PRESENT, COMPLETE WOUND ASSESSMENT AND INFECTION ASSESSMENT	• Consider referral to vascular surgery if claudication or ABPI < 0.5 • Early referral to high risk foot clinic. Client must be seen within 2 weeks of referral • Refer to a certified footwear specialist for footwear assessment • URGENT/IMMEDIATE referral to vascular surgery of ID specialist to triage if 1 or more of the following signs/symptoms present: rest pain, necrotic ulcer, gangrene, progressive, non-healing ulcer x 2 weeks, infection or abscess, cellulitis. Client must be seen within 24 hours of referral

Diabetic Foot Clinic visit frequency may vary based on individual patient needs and availability

Print name of Evaluator	Evaluator's Signature	Evaluator's Title	Evaluator's Initial

ADAPTED FROM:
RNAO BPG Assessment and Management of Foot Ulcers for People with Diabetes March 2005
LEAP Foot Screen accessed from http://www.hrsa.gov/leap/ December 7, 2007
Diabetic Foot Risk Classification System of the International Working Group on the Diabetic Foot, 2001.
Communication with infectious disease, vascular surgery, podiatry, physiotherapy, pedorthist, and orthotist specialists in Manitoba.

An initiative of the Manitoba First Nations Patient Wait Times Guarantee Pilot Project strategy for best practice in prevention, care and treatment of diabetic foot ulcers, 2008.

Appendix B

MANITOBA FIRST NATION

PATIENT WAIT TIME GUARANTEE

DIABETES FOOT CARE REFERRAL GUIDELINES

RISK ASSESSMENT – When to Refer

REFERRAL FORM LETTER – What Information to Send

MANITOBA FOOT CARE PROVIDERS – Who and How to Refer

An initiative of the Manitoba First Nations Patient Wait Time Guarantee
pilot project strategy for a partnership network in streamlining referral systems.

Appendix B

Phone Fax

Referral to Specialist

Name	**Gender**	**Register ID**
Birthdate	**File #**	**PHN**

Dear Dr :

Reason for Referral:

History:

Diabetes: Type 1 ☐ Type 2 ☐

Prior: Ulcer ☐ Deformity ☐ Bypass ☐ Amputation ☐

Co-morbidities:

Presenting Conditions (symptoms, mechanism, duration):

Exam:	**Left Foot**	**Right Foot**
Callus	☐	☐
Deformity	☐	☐
Swelling	☐	☐
Abnormal Sensation	☐	☐
Absent Pulses	☐	☐
Ulcer/s	☐	☐
Gangrene	☐	☐

Skin/Nail Condition:

Appendix B

Ankle Systolic Pressures		
Dorsalis Pedis (DP)		
Posterior Tibial (PT)		
Highest Brachial Systolic Pressure:		
Ankle Brachial Pressure Index		
	(Left A/B)	(Right A/B)
Toe Pressures	(Left)	(Right)
#1 Wound Assessment		
Location of Wound:		
Description:		
Infection Suspected:	YES ☐	NO ☐
#2 Wound Assessment		
Location of Wound:		
Description:		
Infection Suspected:	YES ☐	NO ☐
Footwear Comments:		
Other information:		
X-rays available?	YES ☐	NO ☐
Monofilament Testing Report Attached?	YES ☐	NO ☐

Thank you for seeing .

Could you kindly provide advice and further treatment suggestions.

Signature:

Cc;

Appendix B

DIABETES FOOT CARE PROVIDERS IN MANITOBA
CONTACT LIST

DIABETIC FOOT & COMPLICATED WOUNDS CLINIC
HEALTH SCIENCES CENTRE
Winnipeg, MB

Foot Service Physicians

Dr. John Embil - Infectious Diseases
jembil@hsc.mb.ca

Dr. Ed Buchell - Plastic Surgery

Dr. Mario Dascal – Orthopedics

Vascular Surgery Consult Physicians

Dr. Joshua Kulack - Vascular Surgery

Dr. Greg Harding - Vascular Surgery

Clinic Unit Clerk

Gail Starkell
Phone: (204) 787-3868
Fax: (204) 787-7086

Referral Guidelines

If the referral is **urgent** (to be seen within 1-2 weeks), it can faxed to Gail at **1-204-787-7086.**

If the referral is **emergent** (to be seen within 24 hours), page the **foot service physician** on call through the HSC switchboard at **1-204-787-2071.** If you are unable to reach a physician through the paging system for an emergent case, refer the client to the nearest emergency department.

Vascular surgery is consulted through the clinic as needed.

The foot clinic is open Tuesday am (Dr. Embil and Dr. Dascal) and Wednesday afternoon (Dr. Embil and Dr. Buchell).

Appendix B

VASCULAR SURGEONS IN MANITOBA	
Dr. Randy Guzman 204 – 400 Tache Avenue Winnipeg, MB R2H 3C3 Phone: (204) 237-2620 Fax: (204) 237-8141 rguzman@sbgh.mb.ca	**Dr. April Boyd** GG349 – General Centre 820 Sherbrook Street Winnipeg, MB R3A 1R9 Phone: (204) 787-3343 Fax: (204) 787-3201 aboyd2@hsc.mb.ca
Dr. Gregory Harding GG349 – General Centre 820 Sherbrook Street Winnipeg, MB R3A 1R9 Phone: (204) 787-7401 Fax: (204) 787-3201 gharding2@hsc.mb.ca	**Dr. Joshua Koulack** GG349 – General Centre 820 Sherbrook Street Winnipeg, MB R3A 1R9 Phone: (204) 787-2853 Fax: (204) 787-7105 jkoulack@hsc.mb.ca
Referral Guidelines Photographs of wounds in may be emailed in JPEG format to physicians. Confidentiality procedures for sharing personal health information should be followed.	

Podiatrists in Manitoba	
***Andrews Foot Clinic**	***Fernando Foot Clinic**
***Central Foot Clinic**	***We Care Foot Clinic**
***West Man Foot Clinic**	

Providers with Standing Offer Agreements with First Nations & Inuit Health Branch

Appendix B

Orthotic Providers in Manitoba	
Rehabilitation Engineering **Health Sciences Centre** 59 Pearl Street Winnipeg, MB R3E 3L7 (204) 787-2202	**Winnipeg Prosthetic Orthotics Inc** 188 Marion Street Winnipeg, MB R2H 0T6 (204) 233-3942
Nichol Orthotic Innovations Inc **880 Harrow Street East** Winnipeg, MB R3M 3Y7 (204) 927-1600	**Snider Orthotic Design Inc** 880 Harrow Street East Winnipeg, MB R3M 3Y7 (204) 927-1610
Andrews House **2108 Portage Avenue** Winnipeg, MB R3J 0L3 (204) 837-7190	**Rehabilitation Centre for Children** 633 Wellington Avenue Winnipeg, MB R3M 0A8 (204) 452-4311
Deer Lodge Centre 2109 Portage Avenue Winnipeg, MB R3J 0L3 (204) 837-1301	**Lakewood Foot Clinic** 96 Drake Blvd Winnipeg, MB R2J 1J5 (204) 254-6845

Appendix B

REHABILITATION ENGINEERING
HEALTH SCIENCES CENTRE

59 Pearl Street
WINNIPEG, MANITOBA
R3E 3L7
8:00 am - 4:00 pm
Monday - Friday

PHONE: (204) 787-2202	**FAX**: (204) 787-5099

Referral Guidelines

Information Required on Referrals:

Date of request
Diagnosis and functional deficit of client
What orthotic/special device is required
MD signature
Client information:

- Name
- Address
- Postal code
- Home phone
- Work Phone
- Date of Birth
- MHSC #
- WCB # (if applicable)
- Status or Treaty #

Physiotherapy/occupational therapy at HSC is consulted through the orthotist as needed..

Appendix B

CANADIAN FOOTWEAR

128 Adelaide Street
Winnipeg, MB R3A 0W5
(204) 944-7463

150 St. Mary's Road
Winnipeg, MB R2M 3V7
(204) 944-7474

1530 Regent Avenue
Winnipeg, MB R2C 4J5
(204) 944-7266

Referral Guidelines

Information required on referrals:

Prescription with diagnosis and/or letter of direction.
Health care provider contact information: name and phone number
MD contact information & license # / registration #
Client information

- Name
- D.O.B
- Complete Address
- Ph. #
- 10 digit Treaty Number

Appointment required.

Appendix C

MANITOBA FIRST NATION PILOT COMMUNITY ESTIMATE WAIT TIMES FOR DIABETES FOOT CARE

Community	Footwear		Foot Care Nurse		Family Physician		ER	Specialist Physicians	
	Off the shelf footwear	Custom footwear Orthotics and/or shoes	Urgent	Non-urgent	Urgent	Non-urgent		Urgent	Non-urgent
A	**		2 weeks	2 months	1-3 wks	1 week	1-2 hrs	1-2 weeks	3-6 months
B	6 months (Band Assistance)	Less than 1 – 3 weeks	2 weeks	More than 1 year	3–48 hrs	6-24 hrs	2-24 hrs	48 hrs- 3 weeks	1-4 weeks
C	**	3-6 weeks (Orthotics less than 1 yr)	Were blank does that mean no info available?		1-2 weeks		0.5-1 hr	2-4 weeks	1-2 months
*D	**	2-3 weeks		6-8 weeks	1-24 hrs		Stat on arrival		2-3 weeks
E	1-2 weeks (Social Assistance)	2 wks–6 mths (Orthotics) 8 months (Shoes)	24 hours	1 week		1-2.5 weeks	1-8 hrs	2 weeks	2-6 weeks 2 weeks (existing PT)
*F	**		**	**			Stat on arrival		
G	**	2-4 weeks (Orthotics) 8 mths – 1 year (Shoes)	12-24 hrs	24-48 hrs	0.5-1 hr	3 days – 2 weeks	0.5 hr – 12 hrs	1 week – 2 months	1-3 months
*H	**	6-8 months (Orthotics & Shoes)							4 weeks
TOTAL RANGE	1 week Indefinite?	Less than 1 wk More than 1 yr	12 hours – 2 weeks	24 hrs–More than 1 yr	0.5 hrs – 3 weeks	6 hrs – 2.5 wks	0.5 hr – 24 hrs	48 hours – 2 months	1 week - 6 months

* First Nation Communities in Northern Manitoba
** Indefinite wait due to lake of availability/access

Acknowledgements

Acknowledgements

Saint Elizabeth Health Care and the Assembly of Manitoba Chiefs wish to thank everyone involved in this historic PWTG project for their generosity in sharing information, ideas, experiences, and hope for a much better future for people living with diabetes to prevent foot ulcers and other complications, and for a future without diabetes. For confidentiality reasons, we cannot name the key health people interviewed at the beginning of the project, nor all the people living with diabetes who were interviewed.

To all of you, we are very thankful. We hope that you see your thoughts adequately expressed in this Report. We especially thank the AMC Chiefs Task Force on Health for your continuing interest and guidance, and our Project Advisory Committee for your contributions throughout the project.

We especially wish to thank the incredibly hard working team stationed at the AMC in Manitoba, who led the process and the work to be done. This project was truly blessed to be led by two passionate and determined nurses, Mabel Lena (Hart) Horton, a Cree nurse with almost 40 years of experience and continuing her professional education toward MPA, and Tracy Scott, a community health nurse with 19 years of experience with MFNs and a Master's degree in Nursing.

PWTG Partners

Grand Chief Ron Evans, Assembly of Manitoba Chiefs (AMC)
Chief Norman Bone, Chair, AMC Chiefs Task Force on Health
Mr. Michael Decter, Board Chair, Saint Elizabeth Health Care (SEHC)

Shirlee Sharkey, President & CEO, SEHC

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Rosalind Gott, IT Technician (Jan-August 2008)
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Special Thanks to Communications:
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Charmagne De Veer, Jack Clarke, Sandra Ducharme, AMC

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Chief Marcel Balfour, Norway House Cree Nation, Co-chair
Chief Glenn Ross, Opaskwayak Cree Nation
Chief Sheldon Kent, Black River First Nation
Chief David MacDougall, St. Theresa Pt. First Nation, Island Lake
Chief Donovan Fontaine, Sagkeeng Ojibway Nation, AFN Chiefs Committee on Health

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Kathy Bird, Elder (2007)
Lyna Hart, HIRGC & co-chair MFNDC
Evelyn Weenusk, co-chair MFNDC
Liz Bone, MFNDC
Mark Sagan, Director of Surveillance, First Nations Inuit Health, MB Region
Joe Tyson First Nations Inuit Health, MB Region (alternate)
Janie Peterson Watt, Policy Analyst, Chronic Disease Branch, Manitoba Health
Melody Genaille (first as MFNDC rep and then as FNIH rep)

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Evelyn Weenusk, Keewatin Tribal Council
Jocelyn Bruyere, Swampy Cree Tribal Health
Melody Genaille, Nisichawayasiik Cree Nation Health
Caroline Chartrand, Manitoba First Nations Diabetes Integration Project
Lisa Osborne, Cross Lake Cree Nation
Donna Spence, Peguis First Nation
Connie Kuzdak, Sagkeeng First Nation
Alva McCorrister, Interlake Reserves Tribal Council
Ila Little, Diabetes Integration Project
Lauren Ducharme, Ebb and Flow First Nation

Traditional Healers committee

Henry Skywater, BirdTail Sioux
Percy & Mary Houle, Ebb & Flow Ojibway First Nation
John & Joyce Martin, Mosakahiken Cree Nation
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Hector Monias, St. Theresa Pt., Island Lake (OjiCree)
Pierre Denechezhe Northlands Denesuline First Nation
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Victor Tssessaze Northlands Denesuline interpreter

MFN Pilot Project Partners:

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Health Director Violet Harper

Manto Sipik Cree Nation
Chief Oliver Okemow
Health Director Percy Okemaw

Opaskwayak Cree Nation
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Health Director Rhonda Ross

Brokenhead Ojibway Nation
Chief Debbie Chief
Health Director Dan Wiebe

Canupawakpa Dakota Nation
Chief Franklin Brown
Health Director Wanda Sandy

Ebb & Flow First Nation
Chief Ralph Beaulieu
Health Director Lillian Houle

Peguis First Nation
Chief Glenn Hudson
Health Director Doris Bear

Sandy Bay First Nation
Chief Russell Beaulieu
Health Director Joanne Roulette

And Mahsi to Chief Ernie Buusidor and **Sayisi Dene First Nation** who welcomed us for a community visit, and Chief Joe Danttouze and **Northlands Denesuline First Nation** who shared their Elders and Healers with us, for contributing why diabetes has been almost unknown in their communities.

Patient Wait Time Guarantee Pilot Project for the Prevention, Care, and Treatment of Foot Ulcers of People Living with Diabetes in Manitoba First Nations

saint ELIZABETH HEALTH CARE

&

Assembly of Manitoba Chiefs