

**Mobile Diabetes Screening Initiative**  
**Evaluation 2004-2006**  
**Final Report**

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## **HIGHLIGHTS**

Since implementation in 2004, the Mobile Diabetes Screening initiative (MDSi) has offered mobile screening clinics in 19 different off-reserve Aboriginal communities (8 Métis Settlements and 11 other communities). A total of 2458 clients have visited the clinics over just under 300 visit days. Per client start-up costs are approximately \$165, while ongoing implementation costs are approximately \$720 per client. This is less costly than the 2003 reported cost of the federal SLICK program at approximately \$915 per client.

MDSi clients regard the screening as a valuable service which contributes to diabetes awareness and prevention. Clients like the thoroughness of the screening, the fact that test results are shared with them at the time of the screening, and the information they receive at the clinic. Nurses are friendly and they spend time with the clients. Some of the nurses are Aboriginal and they speak Cree which is very appreciated by Metis Settlement residents. Clients value the clinics coming to see them in their communities. If the clinics could be improved, clients would like to see more and improved promotion of them to let people know when they are in the community; they would like the clinics to visit more often; and they would like to see the clinic hours extended into the evenings.

Evidence supports increased community awareness of diabetes issues and its complications and quality of life implications among targeted community members.

MDSi staff, stakeholders, and Alberta Health and Wellness are consistent in their views that MDSi is a valuable program that should continue. They see relationships with Settlements as a very important part of program delivery, and use of community people to schedule clinic appointments as very helpful to maintain an increase attendance. MDSi should continue to link with other regional health promotion and diabetes prevention initiatives to ensure follow-up of clients who have been screened. Regional Diabetes Educators and dieticians are increasingly assuming this responsibility. Physician support across regions visited appears to be stable; however, there is further opportunity to work with physicians in building relationship and understanding of the program, including how physicians and MDSi can be mutually supportive in diabetes education and prevention.

Staff turnover on the MDSi team is proving challenging due to extensive travel and time away from home and families.

A model of best practice in promoting diabetes awareness and knowledge, and screening for diabetes is emerging from the eastern Métis Settlements. The model involves an active Community Health Council (CHC) who collaborates effectively with the health region in a partnership that draws on the resources and capacities of the region and the Settlements. The model also includes a region that spends considerable time on the Settlements, and an active Community Health Representative who is knowledgeable about the culture of the community and a stable link to the community. In these Settlements an on-site Settlement Nurse is respected by the community, and she schedules appointments for the clinic, thereby taking responsibility and ownership of the screening process. Test results are shared with the Community Health Council who then uses this evidence for planning processes and leverage for funding support to address diabetes and chronic disease issues in the community.



## INTRODUCTION

### Purpose of the Evaluation

In 2004 Howard Research & Management Consulting Inc. was contracted by the Mobile Diabetes Screening initiative (MDSi) to conduct an external evaluation. The initiative has been in operation for three years. This is the second cycle of evaluation which is intended to provide evidence of the extent to which expectations have been met:

1. A diabetes screening program is implemented in off-reserve Aboriginal communities;
2. Partnerships are fostered between diabetes related programs and services provided at the regional / community level; and
3. Community awareness of diabetes issues and its complications and quality of life implications are perceived to be increased among targeted community members.

Note: A fourth expectation has been dropped from MDSi: *A collaborative working relationship with First Nations and Inuit Health Branch and Health Canada (within the framework of ADI: Aboriginal Diabetes Initiative – a federal program) is established to share program experiences and explore opportunities for mutual benefit.*

### Methods

#### Data Collection and Analysis

A qualitative approach was used to gather data for this evaluation. Staff, stakeholders, and users were asked to discuss their experiences and perspectives in the following areas:

- Organization and administration of the program;
- Access by community members including identification of barriers and suggestions for improvement;
- Impact and value to community members; and
- Partnerships, collaboration and linkages.

Site visits were made to Peerless Lake and Kikino Settlements. Interviews were conducted with 12 clients and the MDSi team members at those sites:

#### Peerless Lake:

- Program administrator
- 1 Nurse Practitioner from Peerless Lake (regional health professional)
- 4 MDSi team members
- 1 Aboriginal Leadership representative (community booker)

#### Kikino:

- 4 MDSi team members (same as in Peerless Lake)
- 2 Aboriginal Leadership representatives

Other MDSi staff were interviewed in Edmonton.



Semi-structured telephone interviews were conducted with regional representatives (as below), two physicians, and two representatives from Alberta Health and Wellness.

- Aspen (3 representatives)
- Peace Country (1 representative)
- Northern Lights (3 representatives)

Interview instruments can be found in the Appendix of this report.

All data were content analyzed. First level analysis identified meaning units within each interview. Second level analysis identified common themes within each group by area of inquiry. This method supported drawing insights and conclusions from a comprehensive assessment of perspectives. Frequency counts were not conducted on qualitative data. Rather than tracking the number of times a comment was made, for example, the range and diversity of comments were documented.

### Limitations

Because data were gathered purposefully from community members who participated in the screening events, they provide a reflection of the experiences and perspectives of the community at that point in time. The numbers were small and may not necessarily reflect the experiences and/or perspectives of the entire community in which MDSi was implemented.

### **Presentation of Results**

Results are presented in four sections.

Section 1: Perspectives of MDSi staff and stakeholders

Section 2: Users

Section 3: Cost analysis

Section 4: Conclusions and Recommendations



## SECTION 1: PERSPECTIVES OF MDSI STAFF AND STAKEHOLDERS

### Project Background

The purpose of MDSi is to improve early detection of Type 2 diabetes and to screen for complications of diabetes in those already diagnosed / affected. Information provided through the program on the prevalence of diabetes is intended to improve linkages with existing and future health promotion and disease prevention initiatives primarily at the regional level, but also at provincial and national levels, and to help government, health regions, and other interested bodies in making informed decisions related to health promotion and prevention of diabetes.

Short-term expected outcomes focus on an increase in the number of individuals screened for diabetes. Improved quality of care and management of diabetes are also expected outcomes. Mid- to longer-term expected outcomes focus more on information obtained through the screening, that is, helping people to make better lifestyle choices and healthy changes. Screening is also expected to inform regions of the presence of risk factors associated with diabetes among individuals who are screened to help direct health promotion and diabetes prevention initiatives. Preventing complications related to the disease, such as amputations and renal and kidney failure, through earlier diagnosis and treatment is viewed as an important long-term outcome that will ultimately provide cost savings to the health care system.

From the perspective of AHW, MDSi is supported as a long-term commitment to raise awareness that targeted programs in health promotion to Aboriginal communities can work. While attendance at the mobile clinics is important and an indication of success of the reach of MDSi, relationship-building with regions is also important so that regions themselves take up the work of targeting specific population groups regarding diabetes education, prevention and promotion activity.

### Program Description

Targeted communities include off-reserve, remote Aboriginal communities<sup>1</sup>. MDSi services (i.e., mobile screening clinics) can be provided at a community health clinic or health centre (e.g., Peerless Lake); however, in most cases, the MDSi services are provided in community recreation halls, community halls, school gyms, or church basements. Preference, if at all possible, is to work out of the community's health centre or health clinic in conjunction with the local health representative.

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<sup>1</sup> The federal government equivalent for MDSi is Screening for Limbs, Eyes, Cardiovascular & Kidney (SLICK) Complications of Diabetes. The SLICK Project was a collaborative endeavour between the University of Alberta, Alberta First Nations and Health Canada, and was coordinated by the Implementation Committee of the Aboriginal Diabetes Initiative. SLICK occurs on-reserve and is carried out at federal health centres. SLICK, like MDSi, is a screening initiative for diabetes, although SLICK focuses more on complications, whereas MDSi focuses more on diabetes risk. These are the only two systematic diabetes screening initiatives currently operating in Alberta, apart from the work done out of physicians' offices. All other diabetes programming in Alberta is funded by the Regional health Authorities, with varying degrees of prevention/education/care focus.



MDSi operates under a four-stage process that involves scheduling of appointments, registration of clients, screening/lab work, and counseling.

### Scheduling

1. People in the community are contacted by a booker (a community member who is paid for their services) to attend an appointment with the MDSi team.
2. Booker follows up with clients one day before their appointment to remind them to fast before their appointment.

### Registration

1. Client comes in for scheduled appointment and goes through the registration process.
2. Client is asked for their personal information including family health history and diet/exercise patterns.
3. Information is input into the MDSi database via lap top computer (manually in some cases, then input into a computer at a later point).
4. Client signs a research release/consent form (optional).
5. Client is then sent to the lab station for their lab work-up.

\*NOTE: Cree interpreters (one MDSi staff member and the booker) are available throughout the entire process if needed.

### Screening/Lab Work

1. Client's height, weight and waist circumference are taken and recorded.
2. Client's Body Mass Index (BMI) is calculated and recorded.
3. Client's blood pressure is taken and recorded.
4. Client is given a foot test if they are a diagnosed diabetic. This is to test for nerve damage and foot sores (to detect and avoid possible amputation).
5. Blood test to test for current blood sugar levels, A1c (average blood sugar from past 3 months), total cholesterol (TC), LDL (bad cholesterol), HDL (good cholesterol), TC/HDL (ratio of total vs good cholesterol), and triglycerides.
6. Client asked to provide a urine sample for protein leakage, a measure of cardiovascular and renal risk.
7. Client then sent back to waiting area.
8. Client is given a bagged lunch containing healthy foods (if client has been fasting).
9. If the client is a diagnosed diabetic, they are sent to the retinal photography room where a technician takes photos of their eyes.

### Counseling

1. Client is called into a private room for a one-on-one chat with a counselor– either the local nurse from the health clinic, the Project Manager, or the Field Team Lead (counselors have either a nursing or dietitian background).
2. Test results are provided to the client and can be taken home with them.
3. Blood test results are presented in numeric format as well as in symbolized easy-to-understand format (happy face, neutral face, sad face). Test results are explained and discussed with client.



4. Recommendations/suggestions for healthier eating and physical activity are provided. These are recorded in the counseling notes section of the test results page, which the client can then take home with them.
5. A copy of Canada’s Food Guide is provided to client and explained, if necessary.

Clients who are suspected of having diabetes or have other abnormal tests (e.g., high blood pressure or high cholesterol) are referred to a physician for repeat blood work and diagnosis. Rarely severe high blood sugars or high blood pressure require immediate attention and this is arranged, through Dr. Toth if necessary.

### Selection of Sites

Decisions about sites MDSi will visit generally reflect those communities selected in previous years. To November 2006, clinics have been offered in 19 different communities, in the following locations (bold indicates Metis Settlement):

Figure 1: Number of Clinic Visits Per Community

Community (Metis)	# of Visits	Community	# of Visits
<b>Buffalo Lake</b>	6	Anzac	2
<b>East Prairie</b>	5	Conklin	2
<b>Elizabeth</b>	6	Evansburg	1
<b>Fishing Lake</b>	5	Grande Cache	2
<b>Gift Lake</b>	5	Hinton	3
<b>Kikino</b>	7	La Crete	5
<b>Paddle Prairie</b>	5	Marlboro	1
<b>Peavine</b>	5	Peerless Lake	2
		Trout Lake	1
		Wabasca	2
		Wildwood	1

### Organization and Scheduling--How They Are Working

The MDSi program manager, in collaboration with Settlements and health regions, is primarily responsible for organizing the mobile clinics. The individual with whom the program manager liaises with, however, varies. In Northern Lights region, for example, MDSi works with the Community Health Nurse (CHN) to organize the clinics. In Peerless Lake, specifically, the Community Health Representative typically works with MDSi to organize the clinics, but that position became vacant during 2006. Local bookers are arranged to schedule clinic appointments (difficulties associated with this are mentioned under the Challenges section).

In Aspen region, the four eastern Métis Settlements drew again on the support of their regional Aboriginal Liaison to organize the clinics. These Settlements have a history of working with Dr. Toth (MDSi lead), and currently MDSi visits the community every six



months. Approximately two months before a visit is to take place, the program manager contacts the community to see if they are still interested in having the clinics, and to date, the community always has been. The eastern Settlements also have established Community Health Councils who are integrally involved in organizing health services for the Settlements and they continue to support the clinics by providing transportation to Settlement residents to and from the clinics. Local bookers schedule appointments as they have done in previous years. The Settlement Nurses who reside on site continue to be instrumental in telling community members about the clinics. Physicians in communities surrounding the Settlements were notified about the clinics from the first clinic visits, and they continue to be notified of the clinics as well.

At sites in the Peace region, organization occurred with the support of regional staff. Local bookers are arranged to schedule clinic appointments.

### What is Working Well

- For the most part, locations of the clinics within the community are working quite well. The MDSi team accommodates existing conditions and has learned to be very flexible with where and how it sets up the various stations at the on-site clinics. In most cases, clinics have been set up where they were located in previous years.
- Having the region contribute the time of Community Health Representatives (CHRs) to serve as bookers for the clinics is very helpful to MDSi. CHRs know the dynamic of the community and are well positioned to get community members to attend the clinics (e.g., two CHRs were bookers in Peerless which was considered a good event).
- The majority of MDSi staff members indicated that the addition of electronic charting has been a positive change in delivery. Although there were some problems with the new system at first, the new electronic system is much more efficient than manually entering patients' information. The client database is now stable as well. However, one staff member indicated preference for paper charting to enable her to maintain process eye contact with clients.
- The team now has another Diabetes Counselor on staff which has helped improve client flow at the clinics.
- The MDSi team is regarded as easy to work with due to their flexibility in scheduling appointments and willingness to accept all clients.

### Challenges with Delivery

Two main challenges with delivering MDSi were mentioned: a) ensuring that bookers are selected and that they fulfill their responsibilities, and b) that there is a full team to travel to the sites.

#### *Bookers*

The regional health professional typically identifies a local booker for the team. The booker's role is to increase awareness of the mobile clinics and schedule screening appointments. Although the booker does not need a health background, he/she must be closely integrated into the community and be familiar with the local population. One booker, for example, indicated that she approaches each household in the community and keeps a list of who she has talked to and who is attending the clinics. Bookers remind clients to fast and to bring with them to the clinics their Alberta Health cards, any diabetes medications they are taking,



and sunglasses (for after retinal exams when their eyes can be sensitive to sunlight). Bookers are typically on-site while the clinic is in operation, so that missed appointments can quickly be filled by other community members.

One of the difficulties associated with the eastern Settlements (i.e., Buffalo Lake) was the difficulty securing a community booker. Between the time of notification of the clinic and its arrival in the community, there was a turnover of three bookers. This caused some disruption in scheduling appointments. Similar disruption occurred at the Paddle Prairie site where the Community Health Nurse position became vacant and no booker was hired. The absence of advance notice to community members and last-minute scheduling led to complaints from Settlement members.

### *MDSi Staff*

Staff turnover on the MDSi team has been quite high. The role is demanding and the lifestyle is not appealing to most people—living out of a suitcase for long periods of time, living in hotels/motels in remote locations, being away from family and friends, dealing with the stress of uncertain weather and road conditions, etc. The program coordinator, herself, has filled in three times due to the illness of staff members.

### Where Attention Can Continue to be Focused

*Location of the Clinics* - Last minute re-locations of clinics is detrimental to access by Settlement members. It is imperative that the MDSi is highly visible in a centralized location that is easily accessible to community members. The team's preference is to have the clinics located in more structured spots (i.e., in established offices in the community where photocopier, printer, shredder, etc. are available rather than in community halls or churches).

*Building Awareness of MDSi* – Sufficient advance notice of clinics allows regional staff to coordinate their timetables with scheduling of the clinics so that they can provide better support to the clinics and provide information to MDSi about optimal times to be present in the community. With increased notice, the region can use its own communication networks to alert communities of the MDSi schedule.

On a broader level, staff and stakeholders suggest that increased social marketing across the province would help to reach those people who are not yet concerned about diabetes, especially since it seems that saturation levels of interested individuals may be nearing.

*Bookers* - It is critical to have a good contact person in each community. According to staff, this person needs to support the program and recognize its importance for successful implementation. An Aboriginal Liaison or Community Health Representative seems to work best. In Settlements where these individuals liaised with the team and/or served as bookers, attendance was higher than in other Settlements. Booker must be good at scheduling clinic appointments, but also “backfilling” when there are no-shows. Bookers must remind clients the day before, and day of, the clinic.

*Transportation* – Transportation for clients was provided inconsistently across Settlements and communities. It is important to many community members to transportation to and from the clinics.



*Linkage to Physicians* - linkage to physicians is very important to support appropriate reception of clients who arrive in physicians' offices with screening results from MDSi. According to regional representatives interviewed, it appears that efforts are continuing to connect to physicians, apprise them of the screening clinics, and to garner their support for them.

*Replenishing the MDSi Team* - Due to staff turnover, team members suggest considering using two separate teams or splitting teams so that they can spend every second week in Edmonton. The team could use another .5 fte on the team and .5 administrative assistant.

Some of the other challenges mentioned by the team include smooth communication among the team due to staff turnover, and physical separation of team members across the University of Alberta (U of A) campus (e.g., Dr. Toth, project lead, is located in a building two blocks away from the rest of the team). Team members commented that it would be nice to have more space, and that MDSi does not have a "home" under any of the faculties at the U of A.

Lastly, the team would appreciate someone to assist with setting up and dismantling equipment.

### Attendance at MDSi Clinics

To date, a total of 2458 visits to MDSi clinics have occurred (note that 2006/2007 is only a partial year).

#### MDSi Activity

November 25, 2003 to November 24, 2006

Fiscal Year

Apr 1 – Mar 31

03 / 04	04 / 05	05 / 06	06 / 07	Total	
<b>Visit Days</b>	45	106	92	54	<b>297</b>
<b>Visit Counts (adjusted for repeat visits)</b>	367 (417)	828 (927)	837 (899)	426 (433)	<b>2458 (2676)</b>
<b>Avg Visits per Day (adjusted for repeat visits)</b>	8.16 (9.27)	7.81 (8.75)	9.10 (9.77)	7.89 (8.02)	<b>8.24 (8.95)</b>

#### Visit Counts by Fiscal Year

		03 / 04		04 / 05		05 / 06		06 / 07		Total
		Unique	Repeat	Unique	Repeat	Unique	Repeat	Unique	Repeat	
Unknowns	Adult	242	0	445	134	361	224	176	111	1693
	Child	42	0	94	6	64	21	34	15	276
Knowns	Adult	83	0	94	55	93	73	23	67	488
	Child	0	0	0	0	1	0	0	0	1



MDSi staff members indicated satisfaction with participation rates in some communities but not in others. In Peerless Lake, for example, MDSi staff were fully booked with people lining up. In this case, the local school wanted to book 80 appointments for all of its students, but the MDSi team could not accommodate the request due to lack of time and lack of staff. However, in other locations there have been several cancellations/no shows, which is frustrating to staff. The team is heartened by the number of clients who appear to be taking their health seriously and responding so well to the clinics.

Regional representatives are apprised of participation rates by MDSi. Early indications are that attendance rates have diminished somewhat in the eastern Settlements, which is not unexpected. In their view, saturation may be occurring given that this is the third time the clinics have been at the Settlements. As well, it may be that six-month intervals between clinics is too frequent after this length of exposure on the Settlements.

AHW expressed understanding of the saturation factor and expect that there may be some drop-off in attendance. At the same time, maintained attendance may indicate that clients are using the screening clinics as a check-up service rather than going to see their physician. Substitution of physician services is not the intent of MDSi and AHW is cautious about building dependence of Metis Settlements and Aboriginal people on the screening program as a service. AHW also raises concern about diabetes and/or clients at high risk of diabetes falling through the cracks if they rely solely on MDSi.

AHW would like to keep the screening clinics running in all Metis Settlements and communities where there is a high number of Aboriginal people where MDSi and SLICK currently do not provide service. AHW is aware that requests for MDSi are originating from larger urban centres but these are not the intended target locations of the program. At the same time, though, AHW supports the flexibility of the program and regards providing service in LaCrete as appropriate as it is a remote community in the area of a Metis Settlement. AHW continues to support MDSi in providing screening service to rural and remote communities.

### **Challenges/Barriers to Sustaining Attendance Rates**

Maintaining a Centralized Location – It is important to have clinics in central, highly visible locations in the community. These arrangements need to be made well in advance with assurance that the MDSi clinics will not be bumped by other community events.

Maintaining the Novelty Effect - Some MDSi staff attribute declining attendance (including missed or cancelled appointments) to MDSi losing its novelty effect in that it appears that enthusiasm has dissipated in some communities. Poor weather may also affect attendance.

Reaching Everyone - Kikino Aboriginal Leadership representatives indicated that the majority of MDSi clients are women. The Settlement has tried a number of ways to book other groups, such as men or young people, but has not been particularly successful.

Since repeat clients are seen most often, some concern is expressed that new clients are not attending clinics. Available transportation is becoming an issue on some Settlements.

Ensuring Community Awareness - There may not be sufficient advance advertising in some communities of the clinics. A community member could be generate support prior to the



clinic by distributing newsletters to each household. Local health professionals could tell their patients about MDSi and they could also distribute posters throughout the community.

Staff members also indicated that there is still a great need for more explanation to clients, as many are afraid of the process. Explaining all parts of the process multiple times to all clients was regarded as essential in increasing participation and making visits as valuable as possible.

Securing Bookers - Staff members also indicated they rely heavily on bookers to increase attendance, and that word of mouth (clients talking about their MDSi experiences to others) seemed to be the most effective, indicating that MDSi must give clients a good experience to share with others and refer them to the screening. Dr. Toth volunteered to speak with local bookers about retinal photography to explain why eye photos are sometimes necessary (due to the complexity of the information, it was helpful for the doctor to speak directly to the bookers).

The booker position is competing with other employment in the communities. Salaries of bookers have increased from \$8 - \$12 per hour. Settlements could take on the booking responsibility and then bill MDSi for the service.

## **Program Value, Impact, and Improvement**

### Program Value

MDSi continues to be highly regarded. In Kikino, representatives indicated MDSi is very valuable: *“A lot of people really appreciate it.”* They noted that there is a high percentage of diabetes in the community, particularly for older people, as well as a number of high-risk families. It is free for clients and available on-Settlement. It is an option for community members, many of whom are fearful about visiting a physician, and/or they may not have transportation to get there.

*“The end result is that community people have been screened and educated and they are much more knowledgeable about diabetes.”* (Aspen Region)

Other examples of value include:

1. Increased access to diabetes screening and education at the community level
2. Increased access to information in client’s own language (regional health care professional) with staff members being familiar with Aboriginal cultural issues (e.g., diets)
3. Increased awareness and informal chat at the community level about diabetes
4. Increased knowledge about diabetes (Dr. Toth and her team are regarded as key factors in the success MDSi has had in providing education to the Settlements; in helping them to understand that genetic disposition of Aboriginal people to develop Type 2 diabetes and communicating to them that they must be on their guard to develop and maintain healthy eating and exercise lifestyles.)
5. Value to clients - Clients have increased comfort level of the clinics. They appear to be taking their health seriously. Immediately available test results explained in easily understood terms (This is particularly important for clients who may be



reluctant to ask questions due to cultural issues, or they may not normally follow up with a doctor. The team explains what medications mean, clients take this list home with them which helps to raise the client's comfort level. The team tries hard to be culturally sensitive. The team has an aboriginal team member (Cree-speaking) who is very well received by clients and this works well in the counseling situation.)

6. Positive response to the clinics from high level of interest from local schools in communities where MDSi visits
7. Additional entry point into Settlement communities for other promotion/prevention activity (some infrastructure, relationship and trust has been built between AHW and the four Eastern Settlements and Tri-Settlements and the Metis Settlements General Council which represents all 8 Settlements and 9 communities. This relationship building has resulted in increased receptivity and interest in the Settlements of new initiatives that AHW can support. This enhances and makes roll out of new initiatives much easier, and allows one initiative to build on its predecessors (e.g., MDSi has been supported by previous infrastructures and relationships established through the Youth Suicide and Family Friend initiatives). At the same time, the region (Aspen) has learned that the Settlements, specifically the Community Health Councils, are integral decisions-making bodies on the Settlements and the region must work through and with the Councils to introduce any new initiatives to Aboriginal people.)
8. Increased individual attention and information from a health professional (regional health care professional + MDSi team member)
9. Increased resource to regional staff (by MDSi staff)
10. Increased specialized support to northern communities that enhances generalist services of physicians
11. Continuing positive relations with Settlement leadership (Community Health Councils) through maintaining and satisfying the commitment to share results of screenings (Having MDSi make repeat visits has allowed trust to be built with patients.)
12. Increased relationships with regions (Diabetes Educators/nurses and dieticians will help to shift responsibility for follow-up from MDSi to region.)
13. Increased attention to secondary prevention, that is, through addressing risk factors for diabetes, but also other chronic diseases through education and information
14. Supporting local action on other programs (The eastern Settlements have capitalized on research findings from MDSi to support a successful research proposal on a Healthy Weight initiative to continue the work in health promotion on Settlements, this time involving schools as well. Data served as evidence to support the proposal and indicates how a community is making real use of screening results.)
15. Increased empowerment by giving clients the information and tools they need to heal themselves (shift from the "doctor knows best" model)
16. Demonstration to northern communities of interest by southern communities



## Contribution to Regional Diabetes Prevention

When asked how the MDSi was contributing to diabetes prevention, MDSi team members indicated the program is clearly filling a gap identified in diabetes prevention in rural Aboriginal off-reserve communities. MDSi is unique in its screening role and also plays an educational role by advising clients of their results and how to get further treatment. (The MDSi team has also put together a Power Point presentation with photos to demonstrate and explain why eye care is important although the presentation has not yet been shown).

A regional health professional (Peerless Lake) indicated was “simply wonderful” working with MDSi and felt more supported by MDSi than by the region in terms of technical equipment (computers, etc.). She also indicated the region’s diabetes prevention program was reportedly closing after three years due to lost funding. Although the program was primarily an education program, as opposed to screening and education like MDSi, if it is indeed eliminated, MDSi will become all the more valuable.

In both Peerless Lake and Kikino, Aboriginal Leadership representatives indicated that the region is now better prepared to offer screening because of MDSi. The initiative began with just the eight Métis Settlements but has expanded to many other communities. The Community Health Council (under the Aspen Health Region) recently submitted a proposal to the federal government to hire a diabetes promoter in the community. Funding for a 3-year project was approved and scheduled to begin on December 1, 2006:

- Year 1 – hire a diabetes promoter to work in Kikino Métis Settlement and Buffalo Lake Métis Settlement
- Year 2 – hire an additional diabetes promoter to work in Elizabeth Métis Settlement and Fishing Lake Métis Settlement
- Year 3 – combined effort (perhaps a provincial conference)

Dr. Toth, the MDSi project lead, was a partner linked to the proposal. The federal contact person indicated the panel rated the proposal highly because of MDSi and the partnership with the University of Alberta. Representatives emphasize that the research team’s passion for diabetes and aboriginal health status has earned great respect among Community Health Councils in Aspen region, for example. They like that MDSi is honest with them in explaining implications of screening results in simple, direct terms that are meaningful to community people. MDSi’s commitment to providing research results back to the community, along with the engaging personality of the project lead, have helped to build rapport at the community level and mobilize communities to look at how they can be responsible for diabetes prevention activity.

MDSi also provides a reminder to the health system about what other programs are needed. While links and collaboration with Diabetes Educators in Peace, for example, help to ensure appropriate follow-up of clients, Aboriginal Leadership representatives’ say that there needs to be increased community access to kidney dialysis for a number of diabetics in the Aspen Health Region who have had to permanently leave the Settlement in order to access regular dialysis.



## Partnerships and Collaboration

Peace region indicates positive growth in their relationship with MDSi. They appreciate that MDSi provides them with ample advance notice of the clinics to enable their staff to be on site at the time of the clinics. This facilitates follow-up of clients by the regional Diabetes Nurse Educator and Dietician.

In year two, Dr. Toth presented screening results to all Settlements in Aspen (8) and their Community Health Councils. This was significant in making the clinics important and relevant to the Settlements. Presentations like this, and other visits by Dr. Toth and other MDSi team members, continue to positively influence the support of Community Health Councils and Settlements. For other parts of Aspen region, regional representatives interviewed indicated that Dr. Toth had visited the region in June, 2006 to meet with the region's Chronic Disease Steering Committee to discuss how MDSi could collaborate with the region to ensure that duplication in services would not result. Discussions between MDSi and the Community Health Services supervisor are now underway with respect to possible expansion of MDSi to communities beyond the Métis Settlements given that saturation of the Settlements may be beginning to occur. Sites identified for possible expansion of screening include St. Paul, Lac La Biche, Slave Lake, and Mayerthorpe. Aspen has also provided MDSi with lists of physicians, Diabetes Nurses and dieticians (regional staff) with whom MDSi can communicate to notify of them of clinics, and to ensure follow up of screened clients. Physicians in Aspen region continue to be notified of upcoming screening clinics to prepare them for patients who arrive with screening test results.

Preliminary work is underway with Northern Lights region.

### Linkage and Collaboration with Physicians

#### *Team Members Views*

A number of team members feel they continue to have insufficient links to physicians. The team would like access to NetCare in order to access patients' histories and avoid duplicating tests.

#### *Physicians' Views*

Of the two physicians interviewed (one from Aspen, one from Northern Lights), both were familiar with MDSi, but only one had had conversations with Dr. Toth (twice in the past two years). Both physicians had received patients who had been screened by MDSi. Both examined test results, and conduct further tests where indicated. MDSi forms are then filed in the patients' charts. The physician from Northern Lights indicated that most follow-up tests require fasting, and since only 50% of patients return to have the tests done, there is a low compliance rate with follow-up. (The physician's office will attempt three follow-up calls to get the patient to return.) However, patients are also encouraged to access nutritionist/dietician services directly.

According to the two physicians interviewed, the greatest value of MDSi is the public awareness and education functions of the program. The program does communicate the need for healthy eating and exercise to avoid diabetes, and provides good advice in these



areas. As well, MDSi also reinforces to patients (those with diabetes and those on medication) the need to comply with the medication, and maintain good foot care.

Several suggestions for enhancing the value of MDSi were offered by the two physicians:

1. Promote the availability of dieticians and nutritionists and their direct accessibility to patients without referral by a physician (Northern Lights)
2. Create a database of MDSi patients into which patients' test results would be entered. Physicians would have access to this database and would be able to avoid duplication in testing by both physicians and MDSi.
3. Improve coordination of MDSi with services physicians offer by alerting them when clinics are visiting the region.

The Northern Lights physician indicated that the region hopes to hire a Diabetes Educator as part of their Primary Care Network (Fort Vermillion and High Level offices). This individual would then become the most appropriate contact with MDSi.

#### *AHW Views*

Reports persist that physicians are not following up as comprehensively on MDSi clients as the program might like. AHW has put additional effort into working with physicians to build their awareness of MDSi and health promotion programs in the region to which physicians can link their Aboriginal patients. This should lead to more effective follow-up of clients who have been screened. While AHW is keenly aware of the busy-ness of physicians, a comprehensive system of care where all parts speak to one another and support the activities of one another is key. Aspen and Peace regions have been very cooperative in these efforts (e.g., provided lists of physicians, Diabetes Educators, and nurses). This model of having Diabetes Educators and Diabetes nurse assume the educative/promotion and follow-up functions seems reasonable given the shortage of physicians in the north and their patient loads. Further work is being undertaken with Northern Lights.

#### *Regional Representatives Views*

Representation from Northern Lights Health Region indicated that physicians have some familiarity with MDSi, but that without direct knowledge of how many community members are following up with physicians, it is difficult to assess the strength of that linkage. As well, lack of Diabetes Educators in the region also means that community members have less opportunity to follow up with a health care provider who could address their diabetes-related needs.

Representation from the Peace Region indicates intent not to duplicate services provided by MDSi and those provided by local physicians. With knowledge of when clinics intend to be in the region, the region can assist the clinic in letting physicians know about the clinic and at the same time, raise awareness among physicians of the screening program.

In Aspen, overall, much improvement in linkage of MDSi to physicians in the region has been seen since initiation of the program. In the initial stages of MDSi, strong relationships were established between MDSi and the Settlement Nurses and Community Health Councils, with less emphasis on linking to physicians and Diabetes Educators. Information was provided to Settlement Nurses who served as proxies for physicians. As MDSi continues on the Settlements and moves to other communities in Aspen region, the region



intends to increase collaborative working relationships with physicians by involving them earlier in planning to have the clinics in communities. With all relevant care providers in the loop, people are more likely to feel that the region is providing a system of comprehensive care. The region is very large, but the structure is in place to support increased communication with physicians. There is some intent to link diabetes care (and thus MDSi) to chronic disease management within the newly established Primary Care Networks in the region. As well, Dr. Toth's office had sent a letter to Lac La Biche doctors to inform them about the program. MDSi also tells clients to follow up with doctors in Lac La Biche when necessary and makes referrals. Kikino representatives also indicated that people could learn about diabetes from the community health nurse and community centre on-Settlement as well as doctors/health centre in Lac La Biche. There was speculation that the younger generation frequently uses the Internet, although there was uncertainty as to whether they used it for medical purposes. The school also does some diabetes teaching that ties in with some of the Settlement's other programs.

### Linkage, Collaboration, and Partnerships with Other Health Care Providers/Organizations

#### *Linkages with Regions*

Northern Lights representative indicated that MDSi could work more closely with the chairs of the Community Health Councils and while the Councils meet on a monthly basis only, and coordination with MDSi would be required, the Council linkages would help to shore up the links to physicians who are in short supply in the region.

Peace region representative reported increased links with Diabetes Educators in the region, as evidenced by increased referrals to them. Because these nurse positions are new, it is difficult to assess which linkages (that is, to the nurses or physicians) are increasing as a result of MDSi.

In Aspen region, MDSi staff had worked with local health promotion and Aboriginal Liaison to provide some preventative information over the summer months when clinics do not operate. Communication among all providers of diabetes care in the region is important because of the regional focus on diabetes. Further collaboration could occur in the future with local groups such as Friendship Centres and Métis Societies who could provide support to MDSi. An event either prior to or following screening clinics could involve a variety of providers to illustrate to community people what diabetes-related services and providers are available to them for follow-up. These events could be expanded to include schools and other existing groups to encourage broad-based community support for active living and nutritious eating as preventative strategies.

#### *Program Linkages*

MDSi team members are somewhat unfamiliar with the structure of current diabetes programming in Alberta and that the only other program with which MDSi has contact is the Aboriginal Diabetes Wellness Program through Capital Health/Royal Alexandra Hospital, an educational program to which MDSi sometimes refers diabetic clients. There were references to the Aspen Health Region's Diabetes Prevention Program but staff members were not familiar with it. MDSi is liaising with Weight Wise Program and Canadian Diabetes Travelling Diabetes Resource Program (TDRP) (mainly awareness raising activity) and



SLICK. An education day is planned with TDRP in January 2007. Further training will take place in 07 on CPR and the certified diabetes educator exam (one team member).

### *Jurisdictional Linkages*

At the National Aboriginal Health Summit in British Columbia much interest was expressed in knowing how to address diabetes (one of three top priorities) in Aboriginal communities. Insights from MDSi are expected to contribute to this interest.

## **Regional Capacity for Screening**

### *AHW Perspective*

AHW understands that regions do not have the capacity to screen themselves, but that they can support the efforts of AHW to maximize funding contributions by AHW. Efficient use of resources is key. Regions could contribute by providing a volunteer to do the scheduling and booking of appointments, for example.

### *Regional Perspective*

All regions interviewed (Northern Lights, Peace, and Aspen) indicated little to no capacity to assume responsibility to provide screening service, which they regard as very important, particularly with the high level of diabetes among Aboriginal people, and in Northern Lights, increasing levels among the Mennonite population. While Aspen indicated that it would rely on its primary care physicians to assume responsibility for screening, and Peace indicated that it hopes to increase its Diabetes Nurse Educator position from .7 to one FTE all three regions indicated that if MDSi were to discontinue service, a large gap would exist.

## **Next Steps**

AHW continues to be very supportive of MDSi. They believe that awareness of the 8 Settlements and 9 communities visited by MDSi grows exponentially each year. MDSi has the ability to link to the people in the community and spend time with them which is what physicians cannot do. More than dollars MDSi is about valuing Aboriginal people. From AHW's perspective the MDSi team is operating near capacity. They are willing to look at staffing, understanding and appreciating the difficulty of the task—at the same time wanting to maximize screening time in the Settlements. They look to the wisdom and experience of the team to identify options/alternatives/suggestions for how staffing and other delivery elements could be improved (e.g., working with U of A Union to secure unpaid time off during the summer months as one option).



## SECTION 2: PERSPECTIVES OF USERS

Data was collected from 12 screening clients. Findings are organized according to questions posed. Interview guides can be found in the Appendix.

### ***Reasons Clients Attend Screening Clinics***

The majority of clients indicated they heard about the screening from the local community booker or from family/friends. Some were repeat clients while others were first-time visitors to the program. Nearly half had no health issues but wanted to get checked just in case, in some cases due to a family history of diabetes. Some indicated that they visit their local doctors regularly but that it is quite far away. One client had never had blood drawn before and was interested in doing so. Other clients previously diagnosed with diabetes indicated they wanted to bring family members or make sure that everything was okay. One client indicated "I look after it good but thought I might learn something."

### ***Satisfaction with the Diabetes Screening Program***

Participants were positive about their experience with MDSi, and nearly half of the clients indicated they liked everything. The thoroughness of the screening and the manner in which the screening process and results were explained were mentioned frequently including:

- Everything is looked after. "Everything is being tested, which you don't normally get from the doctor."
- Information/results available right away. "You feel the diabetes is being looked after," otherwise you are "a statistic; you don't hear about it."

Other areas of satisfaction included:

- Information received – accurate, helpful and useful; will exercise and eat healthier now that he/she is aware of the consequences
- Let's you know changes from year to year. Comments included "That's good to know; it may not be pleasant to know, but it helps you to prepare." "It's like you're monitoring your journey through diabetes when testing is here."
- No travel (easier when you have small children)
- No wait time
- Friendliness of MDSI staff
- Having Aboriginal ladies working at MDSI so community members feel more at ease
- Being weighed (client had never been weighed before and did not know if he/she was overweight)
- Having blood drawn (has never seen own blood before in that way)
- Snacks (because not allowed to eat before coming)



### **Reasons for Attendance / Non-attendance**

Comments regarding whether others in the community know about MDSi were mixed. They suggested reasons why others may not have attended, including:

- Weather
- Small children at home
- Busy with other things
- Lack of time
- Shy (i.e., some people don't want to come in on their own and sit among strangers even within the community where people stay in their own groups)
- Fuel costs
- Lack of concern/relevance ("They've got no interest I guess or something."  
"Some people think they can beat it, but they can't.")

### **Supports for Attending**

When asked what would have made it easier for them to attend the clinics, several commented that MDSi was already very convenient:

"I don't know. How much easier can you do? You're out here with your whole vanload of equipment."

Suggestions included:

- If MDSi could go to the homes of those who can't get out (e.g., seniors)
- Extend MDSi hours (i.e., open later for those who work)
- Have MDSi present at community events such as sport days

### **Enhancing Awareness**

About half of screening participants felt there was good awareness in the community about MDSi because of local promotion such as signs at the store, word-of-mouth, home visits from community health representatives, etc. Others were not sure or indicated there were people in their community who were not aware of the program. Some indicated they were not sure who those people might be or that there was no particular group.

Suggestions to increase awareness included:

- Promotion in the local store (pamphlets, signs)
- Posters at the water plant
- Promotion in newsletters or local/regional newspaper
- Holding an event or gathering to announce it to the community, such as at a community supper
- Notices in the mail because many people do not have telephones and are unable to speak to the local booker



When asked where else community members might go to learn about diabetes, approximately one-quarter indicated they would not go anywhere else. Alternatives suggested included:

- Community nurse
- Local health centre
- Health clinic
- Doctor (in neighbouring community)
- Association / community office
- Local school
- Family / friends
- While visiting in the community (e.g., client's aunt is diabetic and tests client's mom's blood sugar while they are visiting)

### ***Cost for Attending***

The majority of participants indicated they did not have to pay anything to visit Mobile Diabetes Screening Program. The program was felt to be convenient, and in many cases participants had their own transportation. Those who noted a cost specified transportation costs, specifically gas money ranging between “not much” and \$10-15 paid by mother who was also a participant.

### ***Suggestions for Improving MDSi***

Overall, participants found MDSi to be valuable and indicated the program is doing a good job as it is. Suggestions for improvement included:

- More promotion
- More frequent visits to the community (e.g., every month or every six months)
- Perhaps visiting seniors' homes



### SECTION 3: COST ANALYSIS

Part of the 2004-2006 evaluation of MDSi involved an analysis of the cost of providing the service to off-reserve Aboriginal communities not served by SLICK (federally funded diabetes screening program). The cost analysis reflects information provided by MDSi and includes start-up and ongoing operational costs. Start-up costs relate to:

1. Staff training
2. Diagnostic equipment
3. Vans
4. Computer Services
5. Other Equipment
6. Office Furniture
7. Lab Services
8. Advertising

Ongoing costs include fixed costs related to equipment, rental, administrative, fund holding administrative costs from the University of Alberta, and evaluation. Ongoing costs also include: a) variable indirect costs associated with telephone, postage, software licenses, and general office supplies; b) variable direct costs associated with medical and lab supplies, equipment, computers (accessories, hardware and software), travel and subsistence allowances, database development, data management and storage, posters and catering; c) personnel costs related to salaries and benefits, recruitment and training; d) personal costs related to travel (per diem and out-of-pocket expenses).

Ongoing costs are calculated as follows:

*Ongoing Costs = Fixed Costs + Variable Costs (Indirect + Direct + Personnel) + Personal + Miscellaneous)*

Estimated costs for MDSi are as follows:

Start-Up Costs = \$409,905.94

Ongoing Costs = \$1,772,212.12

When costs are calculated for all MDSi clients since project initiation, the per client costs are as follows (assuming 2458 unique clients):

Per Client Start-Up Costs = \$166.76

Per Client Ongoing Costs = \$721.00

Per Client Total Costs (start-up and ongoing as of 2<sup>nd</sup> Quarter Year 3) = \$887.76

This is compared to the SLICK total cost of approximately \$917.00 (reported November 17, 2003) which includes start-up. Excluding start-up and in-kind contributions, the cost of SLICK per client visit was estimated at \$734.34.



**MDSi Cost Analysis: Start-Up**

**Staff Training**

First-Aid Training/Certification	\$767.32
CPR Training/Certification	\$350.00
Body Mechanics/Heavy Lifting	\$200.00
Aboriginal Diabetes Wellness	\$8,000.00
Defensive Driving	\$982.16
U of A Road Test	\$50.00
Phlebotomy Training	\$900.33
Retinal Photography Training Year 1 (2004)	\$4,666.92
Retinal Photography Training Year 2 (2005)	\$5,349.24
Retinal Photography Training Year 3 (2006)	\$644.04
<b>Sub-total: Total Training Start-Up Costs</b>	<b>\$21,910.01</b>

**Diagnostic Equipment**

Bayer DCA 2000+ (A1c, urine)	\$13,781.55
Cholestech LDX glucose, lipids)	\$5,528.39
Tono-Pen XL (interocular eye pressure)	\$8,182.75
Fundus Camera (retinal screening)	\$113,727.78
Fridge freeze	\$2,121.06
Serofuge	\$2,120.39
<b>Sub-total: Total Diagnostic Equipment</b>	<b>\$145,461.92</b>

**Vans**

Vans purchase	\$67,344.54
Vans insurance	\$1,973.40
Vans rental	\$26,632.59
Vans maintenance, campus parking - Yr 1 (2004)	\$4,487.06
Vans maintenance, campus parking - Yr 1 (2005)	\$7,959.47
Vans maintenance, campus parking - Yr 1 (2006, 7 months)	\$2,375.04
<b>Sub-total: Total Vans</b>	<b>\$110,772.10</b>

**Technical Computer Services**

Server storage/maintenance (Yr 1 Pro-rated & Yr 2)	\$8,400.00
Networking and security	\$5,734.42
<b>Sub-total: Total Technical Computer Services</b>	<b>\$14,134.42</b>

**Other Equipment**

Computers & related equipment	\$58,423.57
Other equipment	\$8,102.50
<b>Sub-total: Total Other Equipment</b>	<b>\$66,526.07</b>

**Office Furniture**

Start-up furniture	\$9,945.87
<b>Sub-total: Total Office Furniture</b>	<b>\$9,945.87</b>

**Lab Services**

CEQAL (quality assurance) Yr 1	\$19,873.71
CEQAL (quality assurance) Yr 2	\$18,091.98
Sample Analysis Yr 1 (pro-rated)	\$427.31
Sample Analysis Yr 2	\$762.17
Sample Analysis Yr 3 (pro-rated)	\$181.72
<b>Sub-total: Total Lab Services</b>	<b>\$39,336.89</b>

**Advertising**

Advertising Yr 1	\$95.25
Advertising Yr 2	\$1,196.52
Advertising Yr 3	\$526.89
<b>Sub-total: Total Advertising</b>	<b>\$1,818.66</b>

Staff Training	<b>\$21,910.01</b>
Diagnostic Equipment	<b>\$145,461.92</b>
Vans	<b>\$110,772.10</b>
Technical Computer Services	<b>\$14,134.42</b>
Other Equipment	<b>\$66,526.07</b>
Office Furniture	<b>\$9,945.87</b>
Lab Services	<b>\$39,336.89</b>
Advertising	<b>\$1,818.66</b>

<b>GRAND TOTAL</b>	<b>\$409,905.94</b>
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MDSi Costing Model							
?C(i) = F + V(I + D + P) + Personal + Misc	Cost = F+V(I+D+P)+Personal + Misc						
F = Fixed Costs	\$361,177.20						
I = Indirect Costs	\$38,129.13						
D = Direct Costs	\$415,929.59						
P = Personnel Costs	\$956,976.23						
Personal							
Misc							
<b>Grand Total</b>	<b>\$1,772,212.15</b>						



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Fixed Costs								
Annual capital charge: S(t)B								
S(t) = total equipment costs								
B = annuity factor based on social discount rate of 3%								
	2005-2006					2006-2007		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	
Equipment	\$10,177.79	\$10,777.35	\$1,178.61		\$22,133.75	\$1,945.56	-\$26.29	\$24,053.02
Rental (photocopiers)	\$379.47	\$379.47	\$379.47	\$379.47	\$1,517.88	\$379.47	\$379.06	\$2,276.41
U of A administration overhead			\$130,434.76		\$130,434.76	\$130,434.76		\$260,869.52
Evaluation (independent)					\$49,339.38	\$12,500.00	\$12,500.00	\$74,339.38
Evaluation adjustment	-\$361.13				-\$361.13			-\$361.13
							<b>TOTAL</b>	<b>\$361,177.20</b>
Variable Indirect Costs								
	2005-2006					2006-2007		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	
Telephone	\$425.50	\$2,402.75	\$401.30	\$678.16	\$3,907.71	\$432.47	\$713.01	\$5,053.19
Postage, software licenses, general office supplies	\$898.37	\$9,423.21	\$1,230.90	\$3,083.38	\$14,635.86	\$2,384.59	\$781.94	\$17,802.39
Quality assurance (CECAL)	\$2,557.24	\$2,301.97	\$3,503.60	\$2,966.48	\$11,329.29		\$3,944.26	\$15,273.55
							<b>TOTAL</b>	<b>\$38,129.13</b>
Variable Direct Costs								
	2005-2006					2006-2007		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	
Material & Supplies (Medical)								
Mantha Med	\$267.86	\$36,181.78	\$529.02		\$36,978.66		\$154.45	\$37,133.11
Mantha Med (supplies for 1 yr)		\$36,181.78			\$36,181.78			\$36,181.78
Bayer	\$4,756.70		\$7,594.15	\$7,032.49	\$19,383.34		\$12,007.74	\$31,391.08
Other Lab Supplies	\$1,144.82	\$1,045.54	\$933.67	\$1,068.83	\$4,192.86	\$522.00	\$24.64	\$4,739.50
Equipment Meditronic Canada	\$8,182.75				\$8,182.75			\$8,182.75
Computer accessories	\$51.15	\$6,941.74			\$6,992.89			\$6,992.89
Computer hardware (Dell)	\$1,943.89	\$9,710.25			\$11,654.14			\$11,654.14
Computer software (Compusmart)				\$1,156.10	\$1,156.10			\$1,156.10
Travel & Subsistence	\$10,383.91	\$2,405.51	\$14,450.65	\$24,515.06	\$51,755.13	\$19,489.70	\$1,388.24	\$72,633.07
Outstanding travel & per diems						\$4,891.76	\$1,514.40	\$6,406.16
Travel to conferences		\$5,967.92	\$8,059.89	\$12,904.67	\$26,932.48	\$430.28		\$27,362.76
Travel to community meetings	\$1,768.33	\$920.15		\$408.18	\$3,096.66	\$620.32		\$3,716.98
Travel to regional meetings							\$554.09	\$554.09
Van maintenance	\$580.15	\$756.64	\$5,289.68	\$2,853.57	\$9,480.04		\$477.11	\$9,957.15
Database development	\$6,189.76	\$64,031.66			\$70,221.42			\$70,221.42
Database deployment			\$21,409.94	\$15,546.92	\$36,956.86			\$36,956.86
Database enhancements				\$14,870.40	\$14,870.40	\$10,955.77	\$1,093.74	\$26,919.91
Data management						\$802.48	\$3,649.91	\$4,452.39
Data storage/server maintenance			\$6,150.00	\$618.63	\$6,768.63	\$8,400.00		\$15,168.63
Community awareness (posters)		\$1,497.11	\$2,249.98		\$3,747.09			\$3,747.09
Catering (meetings)	\$254.50				\$254.50	\$117.66	\$29.57	\$401.73
							<b>TOTAL</b>	<b>\$415,929.59</b>
Personnel Costs								
	2005-2006					2006-2007		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	
Salaries & Benefits	\$123,142.63	\$142,795.02	\$144,568.29	\$170,309.05	\$580,814.99	\$201,892.19	\$130,711.74	\$913,418.92
Training			\$500.00	\$1,544.37	\$2,044.37	\$122.77	\$122.72	\$2,289.86
Recruitment (Advertising)		\$214.85		\$412.04	\$626.89			\$626.89
Casual staff in communities		\$320.00		\$192.00	\$512.00		\$240.74	\$752.74
Memberships								\$0.00
Salary Adjustments	\$39,887.82				\$39,887.82			\$39,887.82
							<b>TOTAL</b>	<b>\$956,976.23</b>



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Personal Costs							
	2005-2006				2006-2007		
	Q1	Q2	Q3	Q4	Total	Q1	Q2
Travel (\$40/day per staff)							
Out of Pocket Expenses							
Per Diems							
\$6600 from U of A							
Other:							
Not included:							
U of A lab costs							



## SECTION 4: SUMMARY AND CONCLUSIONS

In summary, in the view of clients MDSi is valuable and is contributing to diabetes awareness and prevention in 3 Northern Alberta Regions. Clients like:

- The thoroughness of the screening
- The manner in which the screening processes and results were explained
- Receiving results immediately
- Counseling time with team members
- Knowing changes from year to year
- Friendliness of MDSi staff
- Having Aboriginal staff on the MDSi team
- No travel time or wait time

They felt that improvements could be made by:

- More or better promotion of MDSi
- More frequent visits to the community
- Extended clinic hours

MDSi staff, stakeholders, and Alberta Health and Wellness are consistent in their views that:

1. MDSi is a valuable program that should continue.
2. Developing a good relationship with Settlements is important. Providing the community with enough time to adequately prepare for and promote the MDSi helps to increase attendance.
3. The role of the individual who books screening appointments in the community is critical. Back-ups need to be in place.
4. MDSi should link with other regional health promotion and diabetes prevention initiatives to capitalize on MDSi and ensure follow-up of through Diabetes Educators and dieticians who are being hired in regions.
5. Sustaining enthusiasm for MDSi over the longer term may be a challenge since many repeat clients are being seen and the novelty effect for new clients may be diminishing.
6. Centralized, visible locations for the clinics is essential.
7. Staff turnover on the MDSi team influences the capacity of the team.
8. Physician support is essential to program success and impact. Presently physician support appears to be stable. There is an opportunity to work with physicians in the areas of relationship building, increasing understanding of the program, and education around diabetes and best practices for diabetes.



With respect to meeting the expectations established for the MDSi:

1. Expectation: A diabetes screening program is implemented in off-reserve Aboriginal communities.

Evidence demonstrates that the program has been successfully implemented in a significant number of off-reserve Aboriginal communities.

2. Expectation: Partnerships are fostered between diabetes related program and services provided at the regional/community level.

There is evidence to support that MDSi is being linked to and/or enhanced by regional diabetes-related prevention and promotion programs. Communities identify a need for Diabetes Educators to disseminate information, and share knowledge and expertise in diabetes.

3. Expectation: Community awareness of diabetes issues and its complications and quality of life implications is increased among targeted community members.

Interview data suggest that awareness of issues related to diabetes improved for those individuals who were screened.

### What is Emerging

A model of best practice in promoting diabetes awareness and knowledge, and screening for diabetes is emerging from the eastern Métis Settlements. The model involves an active Community Health Council (CHC) who collaborates effectively with the health region in a partnership that draws on the resources and capacities of the region and the Settlements. The model also includes a region that spends considerable time on the Settlements, and an active Community Health Representative who is knowledgeable about the culture of the community and a stable link to the community. In these Settlements an on-site Settlement Nurse is respected by the community, and she schedules appointments for the clinic, thereby taking responsibility and ownership of the screening process. Test results are shared with the Community Health Council who then uses this evidence for planning processes and leverage for funding support to address diabetes and chronic disease issues in the community.



## **Appendix A: Instruments**

**Interview Questions  
MDSI Staff**

1. In which communities were DSPs established in 2006/07? Which communities initiated the visits?
2. Who organized/administered DSPs at the community level? How is that working?
3. What, if any, changes in delivery have occurred in year 2? What would you do differently next year? Why?
4. Are you satisfied with participation rates?
5. What value are clients (new and return clients) finding in the DSP?
6. What new strategies, if any, have been developed in year 2 to encourage non-users to attend?
7. Have there been any unanticipated outcomes/surprises in year 2?
8. How is MDSI contributing to regional diabetes prevention programming?
9. How, if at all, have linkages to physicians/other care providers in the community changed since year 1?
10. Have any partnerships been established between DSP and other health providers/health services? Where and what type? What is the benefit and strength of those partnerships?

## **Interview Questions Aboriginal Leadership**

1. If this is the first time DSPs have been in your community, how was the decision made to have the mobile screening visit? If this is a return visit, was the decision made any differently this time around?
2. Who are the key organizers of DSPs at the community level? How is that working to have the mobile screening run smoothly? Is there anything you have learned about delivering the DSP that you might do differently next time—for example, to get more people visiting?
3. What value is the mobile screening to clients? Have there been any surprises?
4. How well is the DSP linked to physicians/other care providers in the community? Are these providers encouraging people to visit the DSP?
5. Where else might people in your community go to learn about diabetes? Are people accessing those services?
6. Is the region better prepared now to offer screening because of this program? What else needs to happen in the region?

**MDSI Interview Questions  
Regional Representatives, Physicians**

1. Who decided in which communities DSPs would be established?
2. Who organizes/administers DSPs at the community level?
3. Is there anything about organizing and/or delivering the mobile screening visits that should be changed or improved?
  
4. How satisfied are you with attendance at the DSPs?
5. What value are people finding in being screened?
6. What could the program or the region do to encourage more people to attend?
  
7. How well is the DSP linked to physicians/other care providers in the community/the region? What improvements could be made?
8. Is there other collaboration that should be taking place? Where, and why is it important?
9. How is the MDSI initiative contributing to a diabetes prevention program in the region? What is the capacity of the region to offer diabetes screening on a regular basis? What more, if anything, could the program do to help increase the capacity of the region to offer diabetes screening on a regular basis?

## **Interview Questions MDSI Users**

1. What brought you to the screening today?
2. What did you like about the screening? What did you dislike?
3. Are there other people in your community who do know about the DSP but did not come today? Why do you think they did not come? Is there anything the program or the health region could do to make it easier for them to come?
4. Are there other people in your community who should know about the DSP but do not know about it? Who are those people? What would help them become aware that they could be screened for diabetes?
5. Where else might people in your community go to learn about diabetes (someone they trust, for example)?
6. Did it cost anything for you to come here today (probe type and amount)?
7. Is there anything the DSP could do to be a better program in your community?

**Interview Questions MDSI  
Non-Users**

1. Are there any special reasons you decided not to attend the clinic?
2. What would make it easier for you to attend the DSP?
3. What is the best way to help others be aware of the clinic?
4. What could the program do to make it easier for others to attend?
5. Is there anyone else or some other place in the community that people might go to learn about diabetes?
6. If the clinic were to come to your community again, do you think you would participate?