

Community Assistantship Program

**Assessment of Disease Management of Diabetes-
Phase 1**

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Prepared in partnership with
Mille Lacs Band Diabetes Program

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Assessment of Disease Management of Diabetes: The Mille Lacs Band of Ojibwe

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The Mille Lacs Band of Ojibwe¹

The Mille Lacs Band is a sovereign nation of Ojibwe Indians. The Treaty of 1855 with the United States established the Mille Lacs Band reservation in East Central Minnesota. Today, the Mille Lacs Band has approximately 3,600 members, 1900 of whom live in the area surrounding beautiful Lake Mille Lacs. The Lacs. The Band owns and operates 2 casinos, 2 schools, 3 elder assisted living units, units, an elder center, 3 community centers, and Anishinabay Izhatwahwin (Mille Lacs (Mille Lacs Ojibwe Way of Life) Cultural Center. The Mille Lacs Band offers tribal health services operating under PL 93-638 authority.

Diabetes Epidemic in Indian Country

European contact and settlement in North America over the past 500 years disrupted the traditional Indian way of life. Poverty, despair, and new diseases followed. Type 2 diabetes was first recognized as a significant health problem in American Indian communities 40 years ago.² Type 2 diabetes is now an epidemic in Indian Country.³ Rates of type 2 diabetes are higher among Native Americans than other U.S. citizens. Native Americans with diabetes suffer more complications (diseases of the eye, kidney, heart, and circulation) that limit well-being and shorten lives. The Mille Lacs Band Health System counts 441 people on its diabetes registry.

Diabetes Disease Management

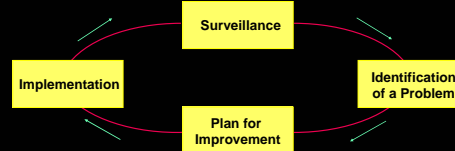
The devastating complications of type 2 diabetes can be minimized by careful control of blood sugar and related conditions such as high blood pressure.⁴ People with diabetes, their families and communities partner with health care providers to support lifestyles and health services needed to control diabetes. As part of their aggressive attack on diabetes, the Mille Lacs Band initiated a system of diabetes disease management to optimize the health of people with diabetes. Health services are coordinated through specialty clinics offered by a diabetes team providing evidence-based care. Annual audit of service utilization and outcomes is completed to evaluate and improve the disease management program.

Purpose

To summarize baseline information about diabetes management at Mille Lacs.

Method

The 2003 Indian Health Service Diabetes Care and Outcomes Chart Audit form is being used to collect data from medical records of all persons on the Mille Lacs Band Health System Diabetes Registry. Findings reported are an interim analysis based on data from the first 73 records that were reviewed.



Improvement Cycle for Diabetes Disease Management

Findings

Who has diabetes?

Records for 34 men and 39 women were reviewed. All are members of the Mille Lacs Band. Their ages ranged from 29 to 91 years old. They have had type 2 diabetes from 1 to 49 years. (Average time since diagnosis was 13 years).

Which diabetes disease management components are utilized?

Most people on the registry (66%) made at least 1 visit to the Diabetes Clinic. The table shows care that was received in the Diabetes Clinic or during other visits.

Component	Men %	Women %	Overall %
Blood Pressure Measurement	100	100	100
A1C or BG Measurement	88	90	89
Glucose Self-Monitoring	77	79	78
Urinalysis	74	71	72
Any Education	64	69	67
Lipid Measurement	59	69	65
Foot Exam	38	54	47
Eye Exam	30	45	38
Diet Education	36	35	33
Exercise Education	15	31	24

Are people with diabetes reaching desired physical health outcomes?

The table shows the percentages of men and women with available data who reached recommended physical health goals.

Outcome	Criterion	Men %	Women %	Overall %
Kidney Function	Proteinuria (neg or tr)	80	82	81
Diastolic BP	< 80 mm Hg	68	77	73
Systolic BP	< 130 mm Hg	59	61	60
Kidney Function	Microalbuminuria(neg)	42	54	48
A1C	< 7.0%	38	41	40
Triglycerides	< 150 mg/dl	29	26	27
HDL	> 40 mg/dl	18	36	27
LDL	< 100 mg/dl	15	26	21

Note. Sample sizes vary.

What other health problems are experienced along with diabetes?

The number of visits to the Diabetes Clinic ranged from 0-12. (24 patients made no visits, 28 made 1 or 2, and 20 made 3-12 visits.) People with intensive Diabetes Clinic usage had severe disease but were less depressed. Those who attended the Diabetes Clinic had more careful monitoring of critical health parameters, including self-monitoring of blood glucose. Hypertension and hyperlipidemia were less frequent among those who attended Diabetes Clinic, despite having more severe disease.

Characteristic	Diabetes Clinic Visits		
	None %	1-2 %	3-12 %
Depression Diagnosis	27	64	9
A1C < 7%	46	43	30
BP Monitored	100	100	100
Glycemic Control Monitored	80	93	95
Glucose Self-Monitoring	71	82	84
Lipids Monitored	67	54	80
Diastolic BP < 80	54	86	75
Systolic BP < 130	46	68	65
HDL > 40 mg/dl	29	18	40
LDL < 100 mg/dl	21	11	35

Assessment and Plan

At this time, 73/441 charts have been reviewed. Priority action is to complete the full audit to confirm trends in the initial review of data. Key observations are: (a) *People with no visits to the Diabetes Clinic* had less systematic metabolic monitoring. Many had high blood pressure and fats in the blood. Increased use of the Diabetes Clinic by everyone on the registry should be encouraged; (b) *Depression is common*. The community should be consulted about ways to support people with depression that complement medical treatment; (c) *More people with diabetes need education for diet and exercise*. A plan for creating accessible, effective ways to encourage enjoyable and healthy eating and exercise habits is needed.

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