

Special Diabetes Program for Indians: North Dakota

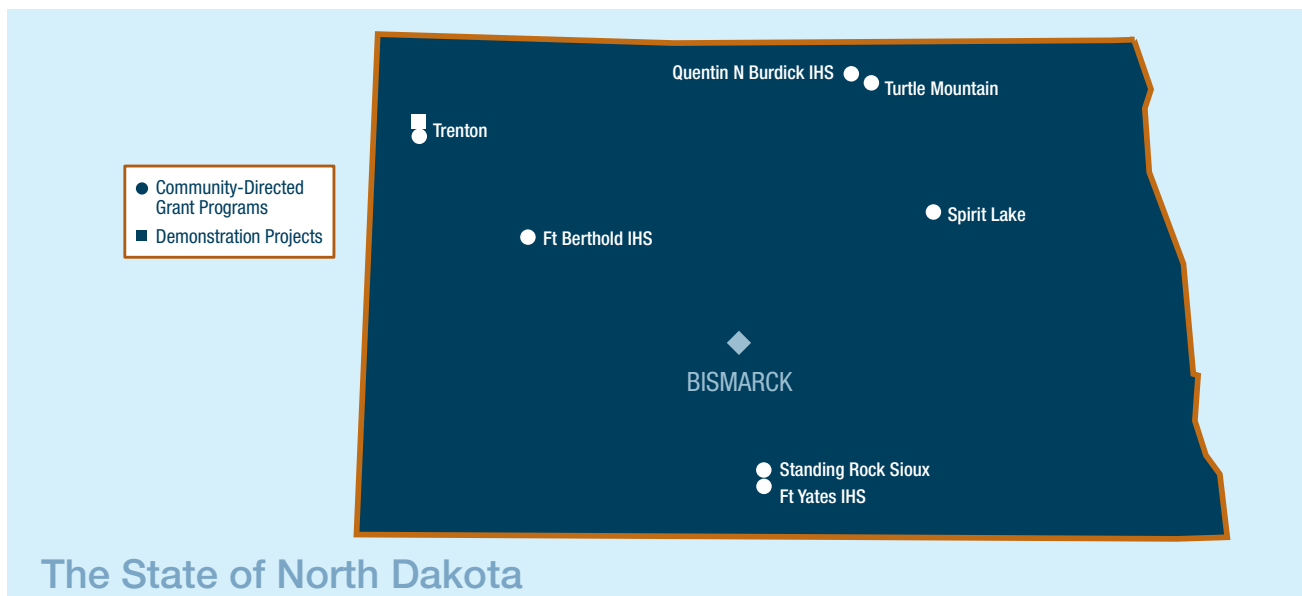
The Special Diabetes Program for Indians

In response to the diabetes epidemic among American Indians and Alaska Natives, Congress established the *Special Diabetes Program for Indians* in 1997. Administered by the Indian Health Service (IHS) Division of Diabetes Treatment and Prevention, this \$150 million per year grant program provides funding for diabetes treatment and prevention services at 399 IHS, Tribal, and urban Indian health programs in all 12 IHS administrative areas across the United States.

The *Special Diabetes Program for Indians* includes two types of grant programs. Since 1998, the 333 **Community-Directed Diabetes Programs** have implemented diabetes treatment and prevention interventions that address local priorities. The 66 **Demonstration Projects**, mandated by Congress in 2004, translate scientific findings and best practices from the research literature in real world settings by implementing structured interventions designed to prevent diabetes in American Indians and Alaska Natives without the disease or to reduce cardiovascular disease risk in American Indians and Alaska Natives who have diabetes.

State of North Dakota Diabetes Programs

Program Type	Number of Programs	2006 Funding	Total Funding Through 2006
Community-Directed <i>Special Diabetes Program for Indians</i>	7	\$2,643,997	\$17,884,044
<i>Special Diabetes Program for Indians</i> Demonstration Projects	1	\$324,300	\$978,600



The State of North Dakota

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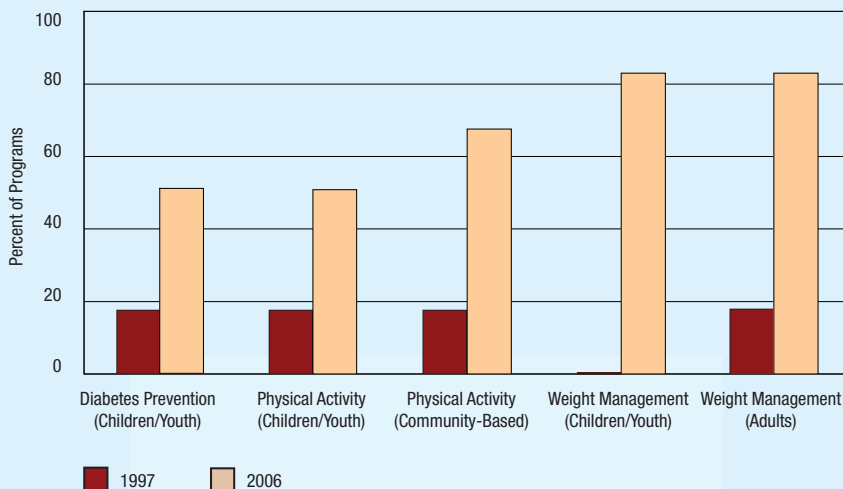


Impact of the *Special Diabetes Program for Indians* in North Dakota— Outcomes from the Community-Directed Programs

Diabetes Prevention Outcomes

Preventing diabetes in American Indians and Alaska Natives is an important component of the *Special Diabetes Program for Indians*. Activities to prevent diabetes in both adults and children and youth result in improved health and quality of life for individuals and entire communities. Since the inception of the *Special Diabetes Program for Indians* in 1998, diabetes prevention activities in North Dakota have greatly increased, as reported by the Community-Directed Diabetes Programs in North Dakota (see Figure 1).

Figure 1. Increase in Prevention Activities in North Dakota



Why is this important?

- ❖ Diabetes prevention programs promote healthy lifestyles and help people reduce their risk of developing diabetes.
- ❖ The percent of youth with type 2 diabetes is increasing at an alarming rate, making diabetes prevention programs for youth an important public health priority.
- ❖ Youth who develop type 2 diabetes will experience more years of disease burden and are more likely to suffer from serious diabetes-related complications.

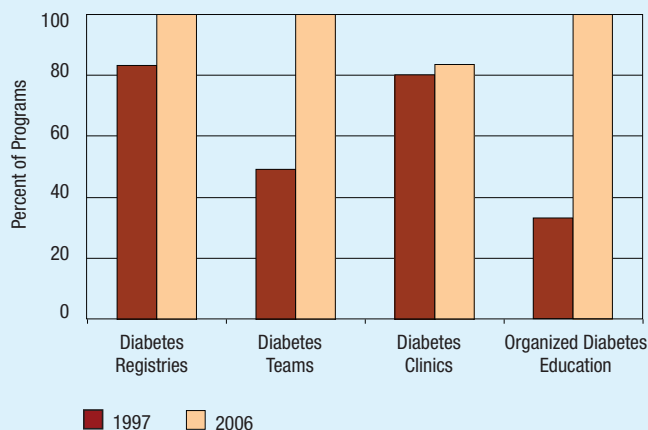
Clinical Diabetes Outcomes

Like diabetes prevention, providing care for and measuring health outcomes of American Indians and Alaska Natives who have diabetes are important components of the *Special Diabetes Program for Indians*. Since the inception of the *Special Diabetes Program for Indians*, diabetes care and health outcomes in American Indians and Alaska Natives have improved both nationwide and in the state of North Dakota. These improvements result in and represent better health and quality of life for people with diabetes and have the potential to reduce future health care costs. To obtain information about diabetes care and health outcomes for American Indians and Alaska Natives in North Dakota, the IHS Division of Diabetes uses data collected from the Community-Directed Diabetes Programs and the annual *IHS Diabetes Care and Outcomes Audit*, which tracks performance on 59 diabetes care measures.

Outcomes for health care facilities

The *Special Diabetes Program for Indians* provides resources and support for grant programs to implement the **key elements of quality diabetes care at health care facilities** that serve American Indians and Alaska Natives. These key diabetes care elements, which include diabetes registries, diabetes teams, diabetes clinics, and diabetes education, have improved in North Dakota since the inception of the *Special Diabetes Program for Indians Community-Directed Diabetes Program*, as shown in Figure 2.

Figure 2. Improvements in Diabetes Care Infrastructure



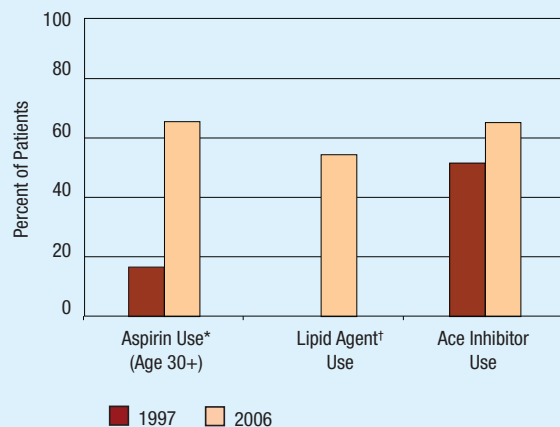
Why is this important?

- ❖ **Diabetes registries** help health care providers track people with diabetes, develop treatment plans, and monitor progress.
- ❖ **Diabetes teams** are groups of health care providers who work together to provide comprehensive diabetes care.
- ❖ **Diabetes clinics** enable people with diabetes to see multiple health care professionals in one visit.
- ❖ **Diabetes education** lowers the risk for diabetes-related complications and improves quality of life by helping people with diabetes obtain skills in diet, exercise, and self-care management.

Outcomes for American Indians and Alaska Natives with diabetes

The *Special Diabetes Program for Indians* also supports **quality clinical care to American Indians and Alaska Natives with diabetes**. This care includes the use of aspirin, lipid-lowering medications, and ACE inhibitors (a type of blood pressure medication that reduces protein in the urine). These practices—considered the gold standard in diabetes care—are now increasingly common in North Dakota health care facilities that serve American Indians and Alaska Natives (see Figure 3). In addition, this care has contributed greatly to the improved health of American Indians and Alaska Natives with diabetes, as demonstrated by improvements in blood sugar control, kidney function, and cholesterol levels.

Figure 3. Improvements in Diabetes Clinical Care



*Aspirin use data from 1997 not available; graph reflects data from 1999.

†Lipid agent use data from 1997 not available.

Why is this important?

- ❖ **Aspirin use** improves the cardiovascular health of people with diabetes.
- ❖ **Lipid-lowering medications** significantly reduce the chance of heart attacks and other cardiovascular complications associated with diabetes, such as stroke and heart failure.
- ❖ **ACE inhibitors** prevent or slow the progression from diabetes-related kidney disease to kidney failure.

Improvements in other clinical outcomes

- ❖ **Reduction in A1C levels** – the best measure of long-term blood sugar control – from 8.96% in 1997 to 8.38% in 2006.
- ❖ **Reduction in proteinuria** – prevalence of protein in the urine of patients – from 39% in 1997 to 11% in 2006.
- ❖ **Reduction in mean LDL cholesterol levels** (i.e., “bad” cholesterol) – from 123 mg/dl in 1997 to 103 mg/dl in 2006.

Special Diabetes Program for Indians Programs in North Dakota—Highlights

Community-Directed Diabetes Programs

The **Spirit Lake Nation** has used *Special Diabetes Program for Indians* grant funds to implement numerous health and wellness events and activities that reach men and women of all ages. In the annual “Get Fit by Summer” competition, over 150 participants work together in teams to earn points by exercising. Also, the diabetes program works with the Four Winds Community School to implement the Quest Curriculum for first grade children. The curriculum teaches approximately 45 students each year about how to prevent diabetes. Recently, the Spirit Lake Nation started a fitness and nutrition program that targets girls between the ages of 12 and 14 who are at risk of developing diabetes.

Over the past 7 years, the **Three Affiliated Tribes of Ft. Berthold** have used *Special Diabetes Program for Indians* grant funds to improve foot care services for people with diabetes. The diabetes program increased the number of special foot care clinics and added nursing staff who provide education on foot care and conduct foot exams. These improvements have contributed to a substantial decrease in the number of diabetes-related lower-extremity amputations: From 15 amputations in 2000 to 3 amputations in 2006.

Each year, the **Turtle Mountain Chippewa Tribe** uses *Special Diabetes Program for Indians* grant funds to hold the National Youth Summer Program for children between the ages of 10 and 16. During this four-week summer camp, youth obtain education on nutrition and diabetes prevention, are screened for diabetes risk factors, and participate in a variety of sports. The camp also provides an opportunity for youth to hear traditional stories that promote Tribal culture and heritage. In 2007, 160 youth participated in the summer camp.

Demonstration Projects

In 2004, the IHS awarded a *Special Diabetes Program for Indians* **Diabetes Prevention Demonstration Project** grant to the Trenton IHS. The Trenton IHS uses grant funds to focus on preventing diabetes in American Indians and Alaska Natives at risk for developing the disease. This program recruited people with pre-diabetes who are currently participating in an intensive lifestyle change curriculum that includes weight loss, improved nutrition, and increased physical activity.

