Diabetes is a serious disease caused by excess glucose (sugar) in the bloodstream due to the body's inability to produce or utilize sufficient levels of insulin. It is a burdensome and costly condition that can result in severe complications, even death. Associated medical problems include hypoglycemia (low blood sugar), hyperglycemia (high blood sugar), cardiovascular (heart) disease, kidney disease, stroke, eye complications, neuropathy (nerve damage), amputation and ketoacidosis (build up of fat by-products in the blood).

The prevalence of diabetes (percentage of people with the disease) in North Dakota children has remained fairly constant from 1996 through 2002. According to data from Blue Cross Blue Shield of North Dakota, the prevalence rate in 2002 was 3.1 per 1,000 children younger than 18.

The incidence of diabetes (newly diagnosed) also has remained constant over this same time period.

### Type 1 Diabetes

About 95 percent of children with diabetes have type 1 diabetes, which is characterized by the body's inability to produce insulin.

A child who has type 1 diabetes depends on insulin injections to maintain proper blood sugar levels and avoid serious complications.

Autoimmune, genetic and environmental factors are involved in the development of type 1 diabetes.
Risk Factors

Although type 2 diabetes is not very common in children, there is evidence from the U.S. Centers for Disease Control and Prevention to suggest that the prevalence is increasing nationally. This increase is attributed to the increases in the percentages of children who are overweight and physically inactive.

According to the 2003 Youth Risk Behavior Survey, many children in North Dakota have one or more risk factors for type 2 diabetes.

In order to reduce the risk of developing type 2 diabetes, North Dakota children and adults are encouraged to maintain a healthy weight, eat a nutritious diet including five fruits and vegetables daily, and engage in moderate physical activity five or more times per week.

The North Dakota Diabetes Prevention and Control Program strives to improve the health of all citizens of North Dakota by promoting efforts to decrease diabetes risk factors. For those who already have diabetes, the goal is to improve health through education, awareness, proper nutrition, physical activity, appropriate medications and self-monitoring of blood sugar levels.

Primary prevention of type 2 diabetes focuses on the areas of weight control, physical activity and nutrition.

Secondary prevention focuses on developing effective strategies to reduce the burden of diabetes and to improve the quality of care provided by health-care systems.