



## *The Diabetes Epidemic Among American Indians and Alaska Natives*

### WHAT IS DIABETES?

- Diabetes is a group of diseases marked by high levels of blood glucose resulting from defects in insulin production, insulin action, or both. Diabetes can lead to serious complications and premature death, but people with diabetes can take steps to control the disease and lower the risk of complications.
- Diabetes is one of the leading causes of death and disability in the United States. Total health care and related costs for the treatment of diabetes run about \$174 billion annually.

### WHAT ARE THE DIFFERENT TYPES OF DIABETES?

- **Type 1 diabetes** (formerly called juvenile diabetes) results when the body's immune system attacks and destroys its own insulin-producing beta cells in the pancreas. People with type 1 diabetes must have insulin delivered by injection or a pump. Symptoms of type 1 diabetes – increased thirst and urination, constant hunger, weight loss, blurred vision, and extreme fatigue – usually develop over a short period of time. If type 1 diabetes is not diagnosed and treated, a person can lapse into a life-threatening coma.
  - Type 1 diabetes accounts for 5 to 10 percent of all diagnosed cases of diabetes.
- **Type 2 diabetes** (formerly called adult-onset diabetes) occurs when the body does not make enough insulin or cannot use the insulin it makes effectively. This form of diabetes usually develops in adults over the age of 40 but is becoming more prevalent in younger age groups – including children and adolescents. The symptoms of type 2 diabetes – feeling tired or ill, unusual thirst, frequent urination (especially at night), weight loss, blurred vision, frequent infections, and slow-healing wounds – may develop gradually and may not be as noticeable as in type 1 diabetes. Some people have no symptoms.
  - Type 2 diabetes accounts for about 90 to 95 percent of all diagnosed cases of diabetes.
  - A person is more likely to develop type 2 diabetes if they:
    - have a family history of diabetes
    - are a member of an ethnic group like American Indians and Alaska Natives
    - are overweight or obese
    - are 45 year old or older
    - had diabetes while pregnant (gestational diabetes)
    - have high blood pressure
    - have abnormal cholesterol (lipid) levels
    - are not getting enough physical activity
    - have polycystic ovary syndrome (PCOS)
    - have blood vessel problems affecting the heart, brain or legs
    - have dark, thick and velvety patches of skin around the neck and armpits (This is called acanthosis nigricans, A-can-THO-sis NI-gri-cans.)
- **Gestational diabetes** develops during pregnancy. Women who have had gestational diabetes have a 40 to 60 percent chance of developing diabetes, mostly type 2, in the next five to 10 years.

### HOW MANY AMERICAN INDIANS AND ALASKA NATIVES HAVE DIAGNOSED DIABETES?

- About 16.5 percent of American Indians and Alaska Natives ages 20 years and older who are served by the Indian Health Service have diagnosed diabetes.
- Diabetes rates vary -- among Alaska Natives (6.0 %) to American Indians in southern Arizona (29.3 %).

## WHAT IS THE LINK BETWEEN CARDIOVASCULAR DISEASE AND DIABETES?

- Cardiovascular disease is the leading cause of death for people with diabetes – about 68 percent die of heart disease or stroke.
- Adults with diabetes have heart disease death rates about two to four times higher than adults without diabetes.
- The risk for stroke is two to four times higher among people with diabetes.
- About 75 percent of people with diabetes also have high blood pressure.
- Smoking doubles the risk for heart disease in people with diabetes.

## WHAT CAN AMERICAN INDIANS AND ALASKA NATIVES DO TO PREVENT HEART DISEASE OR STROKE AND OTHER DIABETES COMPLICATIONS?

- Diabetes is a self-managed disease. People with diabetes must take responsibility for their day-to-day care.
- The chances of having diabetes complications can be reduced or delayed significantly by keeping blood glucose (blood sugar), blood pressure, and cholesterol levels in the target range. The National Diabetes Education Program recommends the following targets for reducing the risk of heart disease and stroke for people with diabetes:

### A1C (Blood Glucose)

Less than 7 percent  
(check at least twice a year)

### Blood Pressure

Less than 130/80 mmHg  
(check every doctor's visit)

### Cholesterol (LDL)

Less than 100 mg/dl  
(check once a year)

- People with diabetes can manage their disease by eating healthy foods, being physically active, taking diabetes medicine as prescribed, and testing blood glucose levels.
- Community education and support programs can help people with diabetes and their families to manage their diabetes.

## CAN TYPE 2 DIABETES BE PREVENTED?

- YES! The Diabetes Prevention Program (DPP), an important trial sponsored by the National Institutes of Health, showed that type 2 diabetes can be delayed or prevented in overweight adults with pre-diabetes, including American Indians and Alaska Natives. Pre-diabetes is a condition where blood glucose levels are higher than normal, but not yet high enough for a diagnosis of diabetes.
- Risk factors for pre-diabetes are the same as those listed for type 2 diabetes.
- To prevent diabetes, the people who participated in the DPP study:
  - Lost 5 to 7 percent of their body weight (that's 10 to 14 pounds in a person who weighs 200 pounds).
  - Were physically active for 30 minutes a day, 5 days a week. Most participants chose brisk walking.
  - Made healthier food choices and limited the amount of calories and fat in their diet.

## WHERE CAN I GO FOR MORE INFORMATION?

For more information about preventing and controlling diabetes, call 1-888-693-NDEP (6337) or visit the National Diabetes Education Program's website at [www.YourDiabetesInfo.org](http://www.YourDiabetesInfo.org).

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Adapted from the National Institute of Diabetes and Digestive and Kidney Diseases. National Diabetes Statistics, 2007. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, 2008.  
<http://www.diabetes.niddk.nih.gov/dm/pubs/statistics/>

*Updated August 2008*