



## Division of Community and Family Health

# Diabetes Prevention and Control Program

### **Burden of Diabetes**

#### **Health Factsheet: Diabetes in Maine January, 2005**

##### **Diabetes: A Growing Epidemic in Maine**

*As many as one out of every ten Maine adults may have diabetes*

- The 2000 U.S. census estimates Maine's adult population to be 973,685.<sup>2</sup>
- Recent survey data estimate that 6.6% of the adult population in Maine is diagnosed with diabetes.<sup>1</sup> Based on these data we estimate 64,263 adults in Maine are diagnosed with diabetes.
- For every two people diagnosed with diabetes, there is one person that has the disease but has not yet been diagnosed. We estimate that 32,132 (3.1%) Maine adults have diabetes but have not yet been diagnosed.

Based on these estimates, 96,395 Maine adults have diabetes.

*Pre-diabetes or impaired fasting glucose tolerance may affect two out of every ten adults in Maine*

Before type 2 diabetes develops there is a period of several years when blood-sugar levels are higher than normal (100 - 125 mg/dl) but not yet at levels of diabetes (126 or greater mg/dl). This condition is called Pre-diabetes.

- Pre-diabetes raises cardiovascular risks by 50%
- New data estimates that 40% of people ages 40 to 74 have pre-diabetes.<sup>3</sup> In Maine, this would amount to 201,834 people.
- Studies have shown that about 11% of pre-diabetes converts to diabetes in 3 years.<sup>4</sup> Based on 2000 census data 22,202 Maine adults would be affected, averaging 7,400 people developing diabetes a year.

Research studies have found that modest lifestyle changes can prevent or delay the onset of type 2 diabetes among high-risk adults. The Diabetes Prevention Program was the first major trial to show that diet and exercise can effectively delay diabetes in a diverse American population of overweight people with high blood glucose levels.

### **Long Term Complications**

#### *Cardiovascular Disease (CVD)*

The risk of cardiovascular disease (CVD) and stroke are 2 to 4 times higher in people with diabetes

- In 2002, 1 in 5 persons with diagnosed diabetes were hospitalized for CVD compared to 1 in 8 persons without diabetes.

### *Non-Traumatic Lower Extremity Amputations (LEAs)*

Diabetes is the leading cause of non-traumatic lower extremity amputations (LEAs).

- For years 2000-2002, three out of four LEAs in Maine were diabetes related with twice as many men than women having amputations.

### *Diabetic Retinopathy*

The National Eye Institute estimates 25,670 people in Maine, ages 18 and older, have diabetic retinopathy (based on 2000 census data).

- This figure represents 1 in 3 persons with diabetes in Maine having retinopathy.

### *End Stage Renal Disease*

Diabetes is the leading cause of end-stage renal disease (ESRD).

- Data from the U.S. Renal Disease System for 1997-2001 shows that Maine's rates for persons with diabetes initiating treatment increased from 8.2/100,000 in 1997 to 9.7/100,000 in 2001.
- 43% of all newly diagnosed chronic ESRD patients in Maine had a diagnosis of diabetes in 2002.

Source: ESRD Network of New England. Statistical Highlights, 2003. Network SIMS Database.

### **Diabetes Related Hospitalizations are Increasing**

Diabetes related hospitalization increased 13% from 148.50/10,000 in 1996 to 167.69/10,000 in 2002 in Maine.

Source: Maine Hospital Discharge Data.

### **Deaths Attributed to Diabetes are Rising**

Data from the state of Maine's mortality records from 1979 through 2000 shows a 62% increase in deaths attributed to diabetes. Although the increase is substantial, the actual number of diabetes related deaths is probably much greater. Diabetes has been noted to be under reported on death certificates.

### **Diabetes and Smoking**

Diabetes damages the vascular system. When people with diabetes engage in smoking the risks of developing cardiovascular disease rises dramatically. Maine has the highest rate of smoking among people with diabetes in New England according to results of the BRFSS. In 2002, the age adjusted rate in Maine was 27.2%. Rates among people with diabetes are higher than smoking within the adult general population.

### **Preventative Practices**

Many complications from diabetes can be avoided or reduced through self-management and regularly scheduled medical consultations that focus on diabetes care.

According to 3 years of BRFSS survey data (2000-2002) of people with diagnosed diabetes:

- 57% check their blood-glucose levels daily
- 67% daily foot check for sores or irritations
- 57% received education on diabetes self-management
- 72% had an eye exam within past 12 months

- 86% had seen a health care professional in past 12 months

## Diabetes Education

Diabetes Education has been shown to improve clinical outcomes. Data reported to the Maine DPCP from 1998-2002 showed consistent decreases in mean A1c measurements on paired data taken prior to diabetes education and then at one year after completions of the program. A1c levels below 7% is a target for glycemic control.

- 8.5% - A1c levels before 1 year diabetes education
- 6.5% - A1c levels after 1 year diabetes education

Total number of records analyzed was 4,696. The results were significant. Only participants that completed the entire diabetes education program with valid clinical measures were included in this analysis.

### Technical Notes

Behavioral Risk Factor Surveillance System, Maine - 2001-2003 survey. Centers for Disease Control and Prevention. U.S. Census Bureau, Census 2000 Redistricting Data (P.L. 94-171) Summary File, Tables PL1, PL2, PL3, and PL4. T.Thompson, U.S. Health and Human Services Department, 2004  
Diabetes Prevention Program (2001)



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