

Diabetes in Minnesota

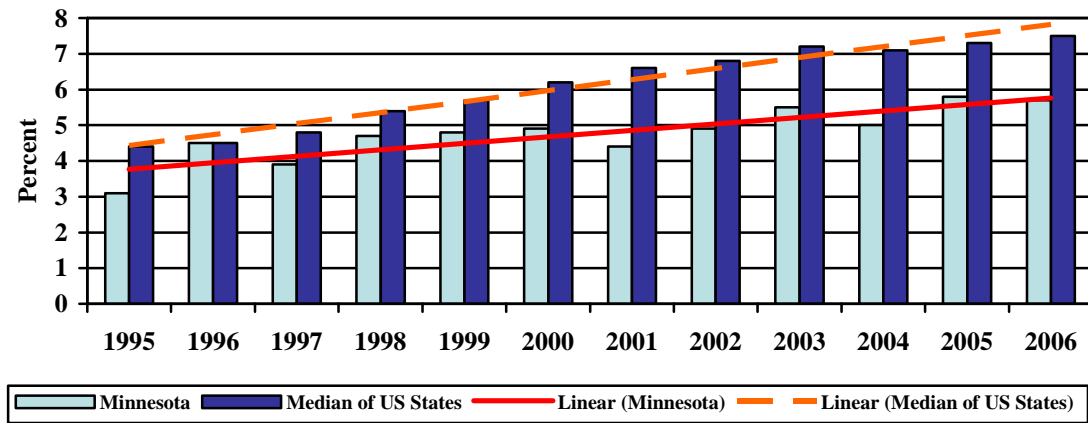
Background Information Prepared for the Health Care Transformation Task Force
by Minnesota Department of Health Staff

August 16, 2007

Prevalence of Diabetes

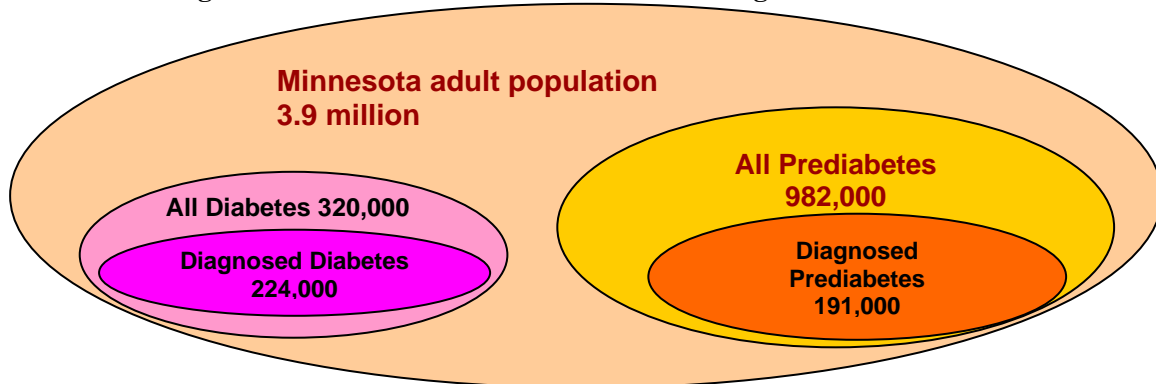
Each year, more than 26,000 Minnesotans are newly diagnosed with diabetes.¹ Diabetes is the sixth leading cause of death in Minnesota.² The prevalence of diagnosed diabetes in Minnesota increased from 3.1% of the adult population in 1995 to 5.7% in 2006, as shown in Figure 1.³

Figure 1: Diagnosed Diabetes Among Adults



Additionally, many Minnesotans have diabetes or prediabetes and do not know it. Pre-diabetes is a condition of elevated blood glucose levels that are above normal but not yet at diabetic levels.⁴

Figure 2: 2004 Diabetes and Prediabetes among Minnesota Adults



Diabetes Among Minnesota Children

Approximately 2,600 children (0.18%) in Minnesota have diabetes and an additional 41,000 (2.8%) are prediabetic.⁵

Key Factors Influencing Diabetes Prevalence in Minnesota

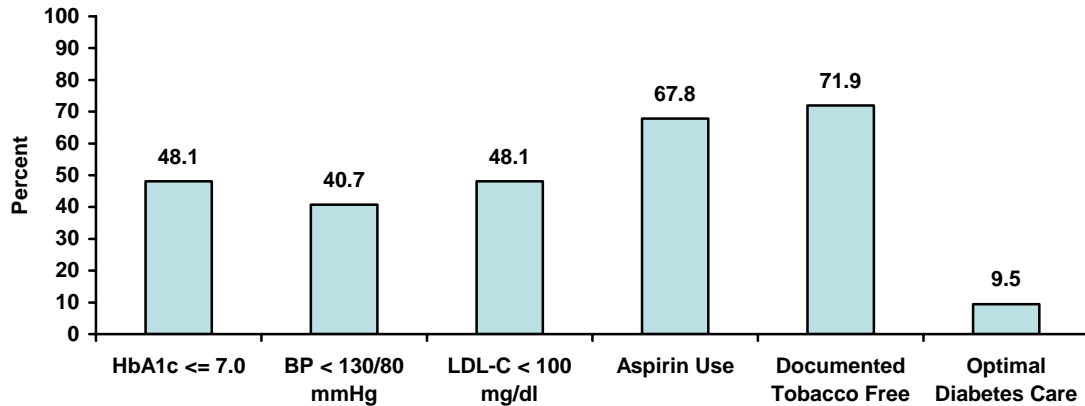
Several factors influence the prevalence of diabetes, and have implications for future prevalence of the disease in Minnesota. These factors include:

- **Age:** As is the case nationally, Minnesota's population is aging. In 2000, one in eight Minnesotans were over age 65; by 2030 that ratio is projected to be one in five.⁶ Since diabetes prevalence increases with age (e.g., In Minnesota in 2000 the prevalence of diabetes among 18-44 year olds was 0.9%, among those age 65 years and older it was 13.7%⁷), Minnesota's aging population is likely to contribute to an increase in the number of cases of diabetes in the future.
- **Diversity:** Minnesota's population is increasingly diverse. In 2000, one in eight Minnesotans were Persons of Color or American Indians; by 2025 that ratio is projected to be one in five.⁸ Diabetes rates are higher and rising faster in non-white populations than in white populations. For example, the estimated prevalence of diabetes in the U.S. among non-Hispanic whites was 8.7% compared to 13.3% among non-Hispanic Blacks.⁹
- **Obesity:** Minnesota's population is increasingly overweight and obese. The prevalence of obesity in Minnesota increased from 10.2% in 1990 to 24% in 2005.¹⁰ Since overweight and obesity is a risk factor for diabetes, this trend is likely to result in an increased number of future cases of diabetes in Minnesota.

Diabetes Management/Quality of Care

The Minnesota Community Measurement Project measures the quality of care delivered to Minnesota patients with diabetes. The percentage of patients receiving "optimal" diabetes care is shown below. Among individual medical groups, the percentage of patients receiving optimal care ranged from approximately 1% to 23%.¹¹

Figure 3: Quality of Care Delivered to Minnesota Diabetics in 2005



Certain preventive care significantly decreases the risk of complications among diabetics. The rates of recommended treatment among Minnesota diabetics are shown below in Table 1.¹²

Table 1: Percent of Minnesota Diabetics Receiving Recommended Treatment, 2005

Treatment	Percent
See a doctor/nurse annually for diabetes	90%
Had HbA1c tested in past year	90%
Had a dilated eye exam in past year	75%
Had flu shot in past year	60%
Ever had a pneumonia vaccination	50%
Checked blood glucose at least once a day	60%

Medical Cost

At the state level, there is little specific information on health care utilization and cost related to diabetes. According to national estimates, the annual medical cost for a person with diabetes in 2003 was \$10,092, nearly three times the average medical expenditures for all U.S. adults (\$3,601).¹³ Using a method that adapts national spending estimates to the state level, the estimated direct medical cost of diabetes in Minnesota in 2003 was \$1.6 billion.¹⁴

Endnotes

¹ Minnesota Diabetes Program, estimated incidence is based on National Health Interview Survey (NHIS) (1990-1992) and the 2004 Minnesota population.

² Minnesota Diabetes Program; 2004 Minnesota death certificates

³ Behavioral Risk Factor Surveillance System (BRFSS).

⁴ Minnesota Diabetes Program; prevalence of diagnosed: 2004 Minnesota Behavioral Risk Factor Surveillance Survey (BRFSS) data, 2004 Minnesota population estimates and SEARCH for Diabetes in Youth. Undiagnosed diabetes and prediabetes: National Health and Nutrition Examination Survey (NHANES) 1999-2002.

⁵ Minnesota Diabetes Program; SEARCH for Diabetes in Youth Study Group, Pediatrics 2006; Williams et al, Pediatrics 2005.

⁶ Minnesota Diabetes Program; Minnesota State Demographic Center.

⁷ Minnesota Diabetes Program; 2000 Minnesota Behavioral Risk Factor Surveillance Survey (BRFSS); 2000 U.S. Census.

⁸ Minnesota Diabetes Program; Minnesota State Demographic Center.

⁹ Minnesota Diabetes Program.

¹⁰ Minnesota Behavioral Risk Factor Surveillance Survey (BRFSS).

¹¹ 2006 Minnesota Community Measurement report.

¹² Minnesota Diabetes Program; 2005 Behavioral Risk Factor Surveillance System (BRFSS).

¹³ 2003 Medical Expenditure Panel Survey (MEPS) data

¹⁴ Minnesota Diabetes Program; Centers for Disease Control and Prevention (CDC), 2003.