



CHRONIC DISEASE BURDEN UPDATE

■ This update provides trend data and a snapshot of the current burden of diabetes in Illinois using the Behavioral Risk Factor Surveillance System (BRFSS).

Diabetes mellitus is a chronic disease that causes high blood glucose levels as a result of insufficient production or improper use of insulin. Diabetes can have harmful effects, such as, kidney failure, blindness, heart attacks, strokes and amputations. According to the U.S. Centers for Disease Control and Prevention (CDC) 2012 data, 29.1 million people, 9.3 percent of the population, in the United States have diabetes. This includes 21.9 million with diagnosed and 8.1 million undiagnosed with diabetes. In 2011, diabetes was the seventh leading cause of death in the United States.¹

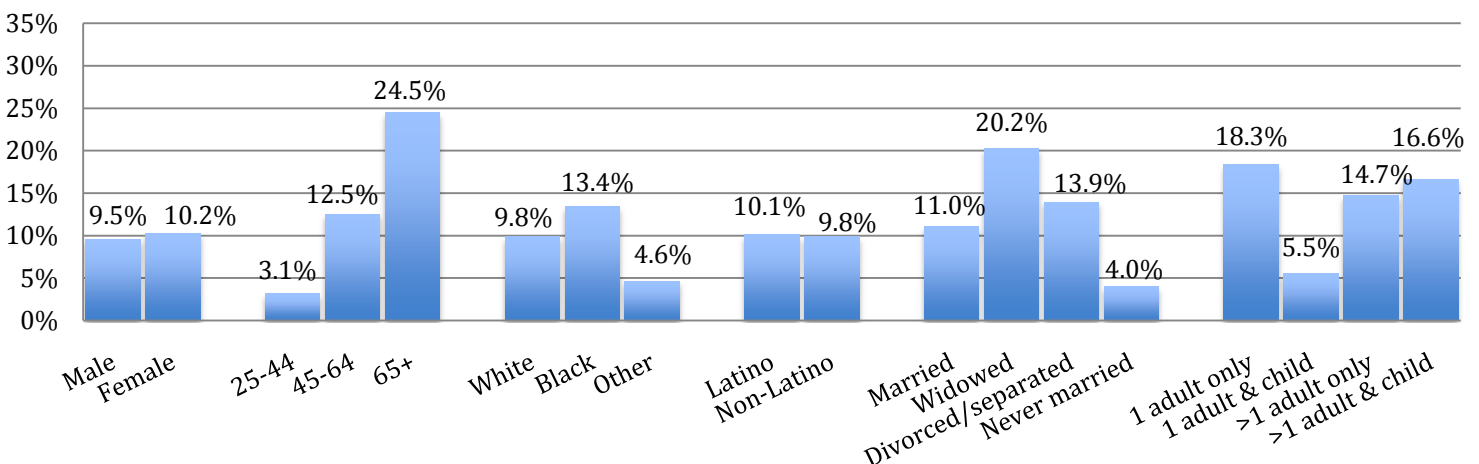
In Illinois, the number of adults diagnosed with diabetes has more than doubled, reaching approximately 969,000 in 2013, 10 percent of the adult population. It is the ninth leading cause of death in Illinois. People with prediabetes have glucose levels higher than normal, but not high enough to indicate diabetes. Most people with prediabetes are at a high risk of developing type 2 diabetes, heart diseases and stroke. According to the Illinois BRFSS, approximately 7 percent of Illinois adults have been diagnosed with pre-diabetes.

WHO HAS DIABETES?

Prevalence of diabetes in Illinois varies between sex, age, race and ethnicity. Prevalence of diabetes increases significantly from adults 25-44 (3.1%), 45-64 (12.5%) and 65 or above (24.5%) age groups. However, age at diagnosis does not follow such a linear correlation. Approximately half of adults with diabetes are diagnosed between the ages of 45 and 64 (55.7%), while 24 (24.4%) percent are diagnosed between 18 and 44 years of age and 17 percent (16.5%) 65 years of age or above.

Prevalence of diabetes is significantly lowest within adults who have never been married (4.0%). Adults who are currently married (11.0%) are significantly less likely to have diabetes than those who are divorced or separated (13.9%) or widowed (20.2%). Prevalence of diabetes varies between adults living alone, with others and with or without children.

Diabetes Prevalence in Adults by Demographics, Illinois, 2013

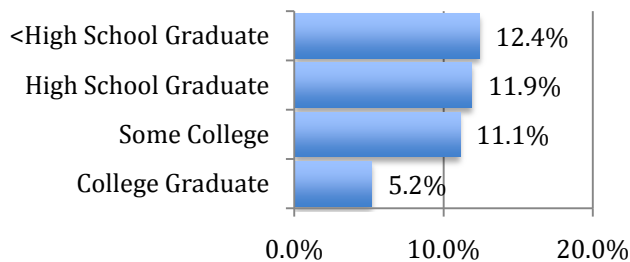


Source: Illinois Behavioral Risk Factor Surveillance System, 2013

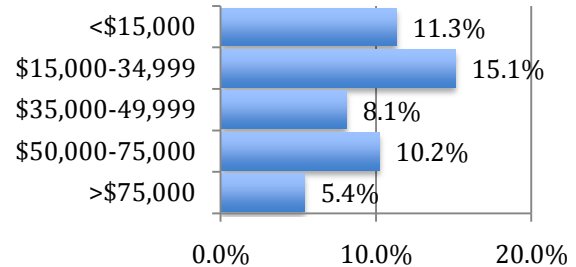
INCOME AND EDUCATION

Diabetes is often more prevalent in people with low socioeconomic status. According to the 2013 Illinois BRFSS, the prevalence of diabetes is lowest in adults with a college degree (5.2%) than with less than high school education (12.4%), high school graduates without college (11.9%) and some college (11.1%). Prevalence of diabetes is significantly higher within adults with an annual household income of less than \$15,000 (11.3%), between \$15,000 and \$34,999 (15.1%) and between \$50,000 and \$74,999 (10.2%) than those with annual household income of \$75,000 or above (5.4%).

Diabetes Prevalence by Education, Illinois, 2013



Diabetes Prevalence by Income, Illinois, 2013



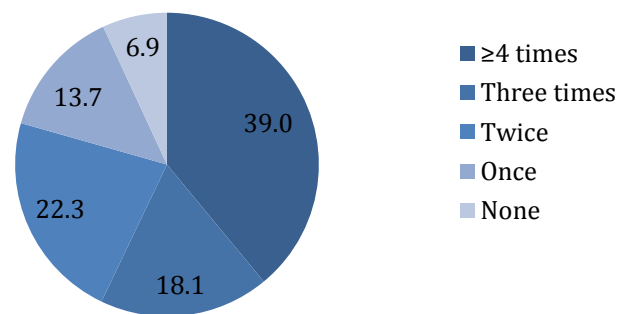
Source: Illinois Behavioral Risk Factor Surveillance System, 2013

RISK FACTORS

Risk factors for diabetes include being overweight or obese, having a family history of diabetes, impaired fasting glucose and/or elevated hemoglobin A1c, hypertension and abnormal low-density lipoproteins (LDL) cholesterol level. It is important to recognize and to be screened for these risk factors to ensure proper treatment is given and preventive steps are taken. With the numerous health conditions associated with diabetes, it is particularly important for people with diabetes to see their health care providers routinely and as needed to best manage and to treat their diabetes.

When people with diabetes were asked how many times they had seen a doctor for diabetes within the past year, more than half had three times or more (57%). Approximately 36 percent had seen a doctor once or twice (13.7% and 22.3% respectively) for diabetes and seven percent had not at all.

Times Seen Doctor for Diabetes in Past Year, Illinois, 2013



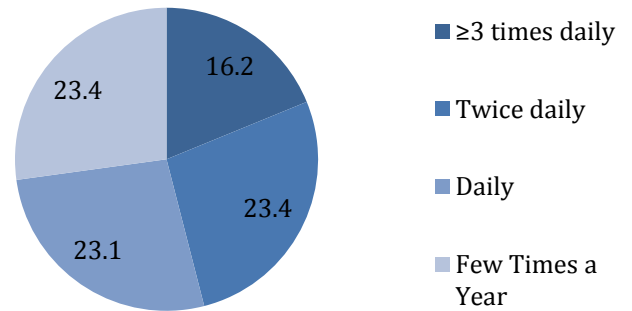
Source: Illinois Behavioral Risk Factor Surveillance System, 2013

MANAGEMENT OF DIABETES

People can take steps to manage diabetes on their own, including self-checking. Diabetes self-management classes educate people and caregivers of people with diabetes on how to manage associated risk factors, prevent complications and properly treat their diabetes. According to Illinois BRFSS, approximately half of people with diabetes have taken a class on how to manage diabetes.

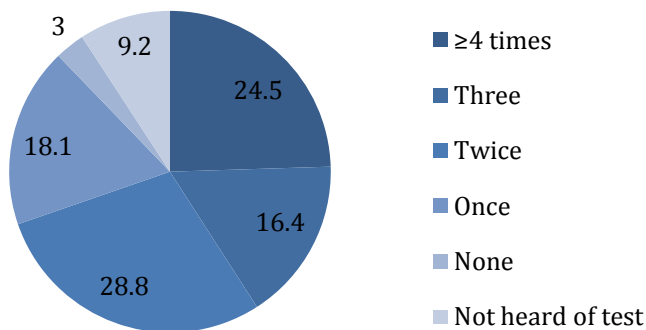
Monitoring blood sugar levels is essential to properly managing diabetes. According to Illinois BRFSS, approximately 30 percent (29.2%) of adults with diabetes take insulin. Blood sugar levels are used to determine how much and how often to use insulin. When adults with diabetes were asked how often they check their blood for glucose or sugar in the past 12 months, not including times when checked by a health professional, approximately half do daily or twice daily (23.1% and 23.2% respectively). Nearly a quarter of people only checked their blood sugar a few times a year (23.4%) and 14 percent never check it. More than 40 percent (44.0%) of adults with diabetes have not had a test for high blood sugar in the past three years.

Frequency of Checking Blood Sugar, Illinois, 2013



Source: Illinois Behavioral Risk Factor Surveillance System, 2013

Frequency of Last A1C Test in Past Year, Illinois, 2013



Source: Illinois Behavioral Risk Factor Surveillance System, 2013

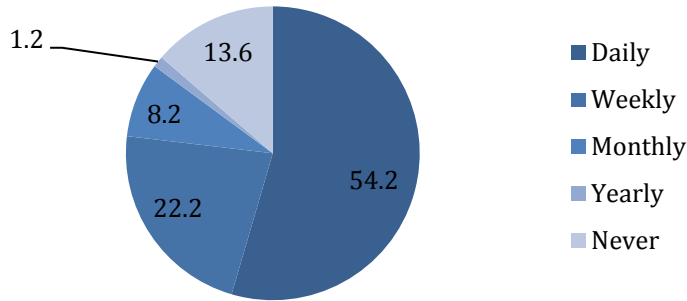
A hemoglobin A1C test can provide the average level of blood sugar over the past three months. The A1C test is used to determine best treatment options to reduce long-term complications.² The American Diabetes Association recommends people with proper treatment and stable blood glucose levels have the A1C test twice a year. When people with diabetes were asked how many times in the past 12 months they had a A1C test, almost 10 percent (9.2%) of people with diabetes had not heard of the A1C test. Another 3 percent did not have one within the past 12 months. Approximately one quarter of adults reported having a A1C test four or more times within the past 12 months.

DETECTION OF ASSOCIATED FOOT AND EYE CONDITIONS

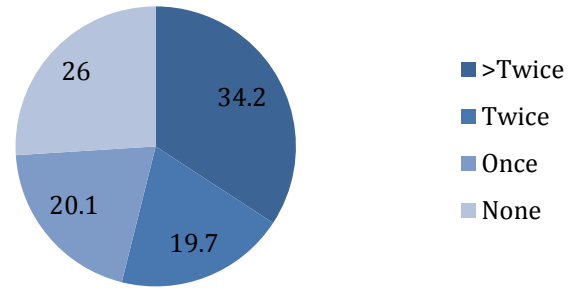
Foot conditions are a common concern for people with diabetes. Overabundance of glucose can cause nerve damage and poor blood flow. Neuropathy can be a side effect of diabetes. When left unnoticed, further complications and infection can cause foot deformities or even require amputation.

When adults with diabetes were asked how often they check their feet for sores or irritations, approximately half (54.2%) reported checking their feet daily. More reported checking their feet weekly (22.2%) than monthly (8.2%) or yearly (1.2%). Nearly 14 percent (13.6%) reported never checking their feet. When asked how often a doctor had checked their feet for sores or irritations in the past year, more reported more than twice (34.2%) than once (20.1%) or twice (19.7%). Around one quarter (26.0%) reported none.

Frequency of Checking Own Feet, Illinois, 2013



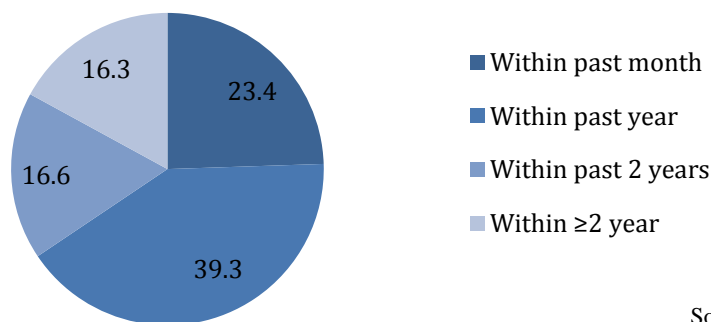
Times Doctor Checked Feet in Past Year, Illinois, 2013



Source: Illinois Behavioral Risk Factor Surveillance System, 2013

Eye disease can be caused by complications of diabetes. These include diabetic retinopathy, cataract and glaucoma. If untreated, irreversible vision loss or blindness can occur. Diabetic retinopathy can occur without symptoms until the disease becomes severe. Regular dilated eye exams are essential for early detection, treatment and prevention of eye disease. The National Eye Institute recommends a comprehensive dilated eye exam at least once a year.³ Approximately one third of adults with diabetes reported not having had a dilated eye exam within the past year, including 16 percent (16.3%) who had not within the past two years and 4 percent who had never (4.3%).

Last Eye Exam Where Pupils were Dilated, Illinois, 2013



Source: Illinois Behavioral Risk Factor Surveillance System, 2013

¹U.S. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, National Diabetes Statistics Report, 2014. <http://www.cdc.gov/diabetes/pubs/statsreport14/national-diabetes-report-web.pdf>

²American Diabetes Association. <http://www.diabetes.org/living-with-diabetes/treatment-and-care/blood-glucose-control/a1c/>

³National Eye Institute. Information for Healthy Vision.

<http://www.nei.nih.gov/diabetes/content/english/faq.asp><http://www.nei.nih.gov/diabetes/content/english/faq.asp>