Type1 Diabetes in America

As of 2015, 30.3 million Americans — 9.4 percent of the U.S. population have diabetes (CDC).

Introduction

Type 1 diabetes, once known as juvenile diabetes or insulin-dependent diabetes, is a chronic condition in which the pancreas produces little or no insulin. Insulin is a hormone needed to allow sugar (glucose) to enter cells to produce energy.

Different factors, including genetics and some viruses, may contribute to type 1 diabetes. Although type 1 diabetes usually appears during childhood or adolescence, it can develop in adults.

Despite active research, type 1 diabetes has no cure. Treatment focuses on managing blood sugar levels with insulin, diet and lifestyle to prevent complications.

The 6 graphs displayed show the significance for diabetes in America with each graph showing different outcomes of the diagnosis.
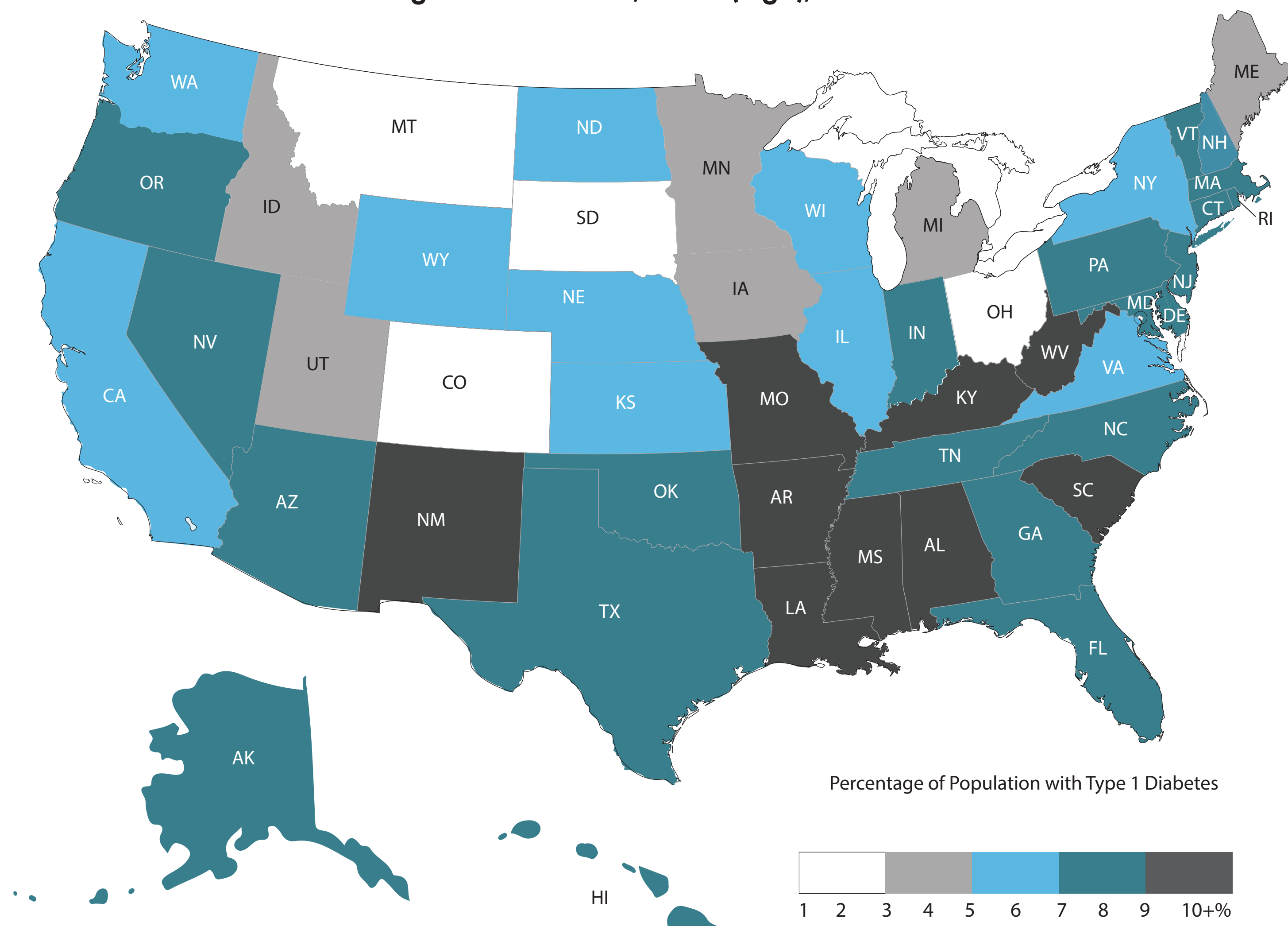
Percentage in the States

The National Diabetes Statistics Report, released approximately every two years, provides information on diabetes prevalence and incidence, prediabetes, risk factors for complications, acute and long-term complications, mortality, and costs in the U.S.
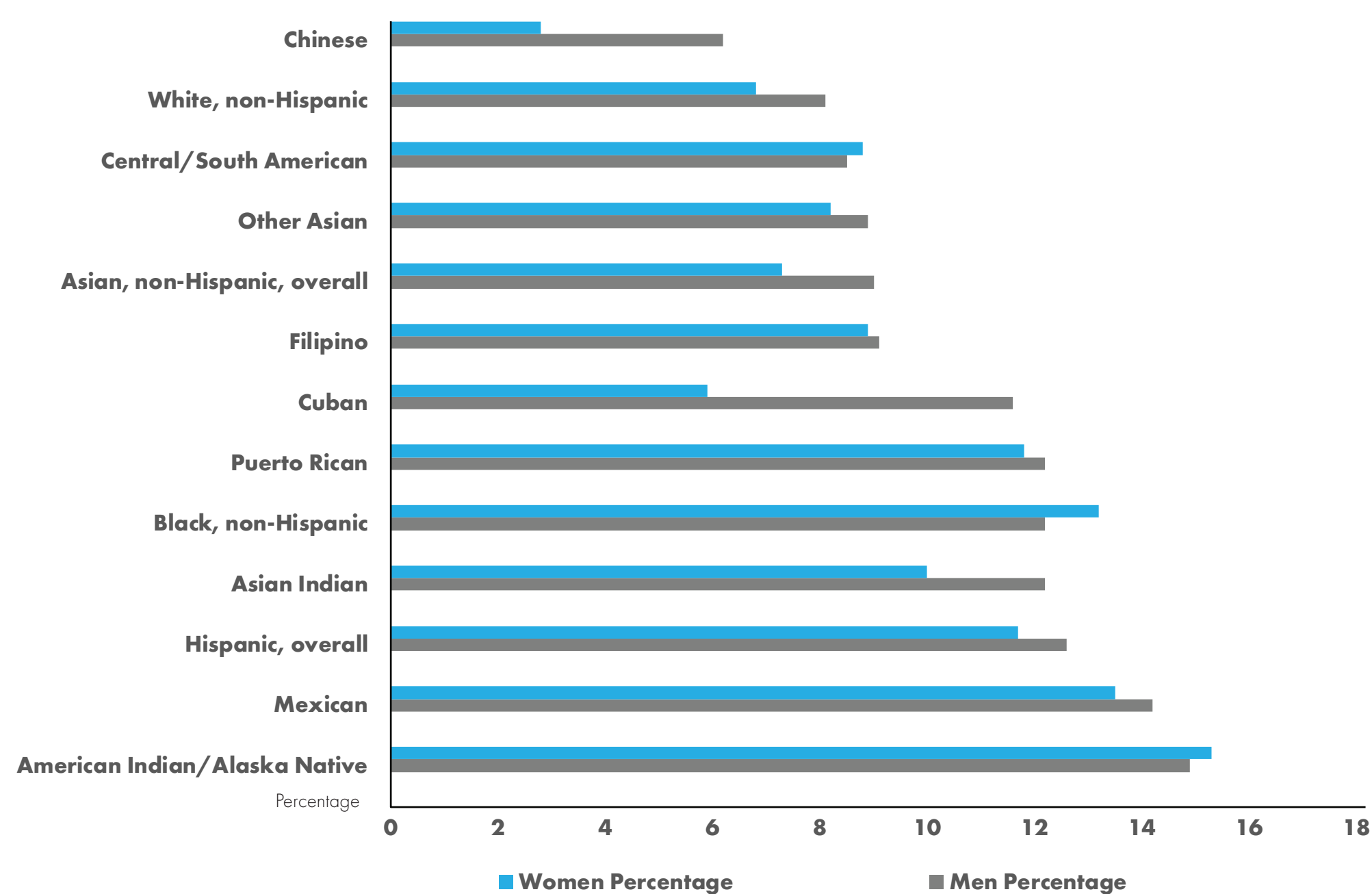
In 2015, an estimated 1.5 million new cases of diabetes were diagnosed among people ages 18 and older. Nearly 1 in 4 four adults living with diabetes – 7.2 million Americans – didn't know they had the condition. Only 11.6 percent of adults with prediabetes knew they had it. Rates of diagnosed diabetes increased with age. Among adults ages 18-44, 4 percent had diabetes. Among those ages 45-64 years, 17 percent had diabetes. And among those ages 65 years and older, 25 percent had diabetes.

Diabetes prevalence varied significantly by education. Among U.S. adults with less than a high school education, 12.6 percent had diabetes. Among those with a high school education, 9.5 percent had diabetes; and among those with more than a high school education, 7.2 percent had diabetes. More men (36.6 percent) had prediabetes than women (29.3 percent). Rates were similar among women and men across racial/ethnic groups or educational levels.

Diagnosed Diabetes, 18-44(Age), Adults with Diabetes

Percentage of Population with Type 1 Diabetes

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10+% |

Diabetes per Ethnic Group

Chinese
White, non-Hispanic
Central/South American
Other Asian
Asian, non-Hispanic, overall
Filipino
Cuban
Puerto Rican
Black, non-Hispanic
Asian Indian
Hispanic, overall
Mexican
American Indian/Alaska Native
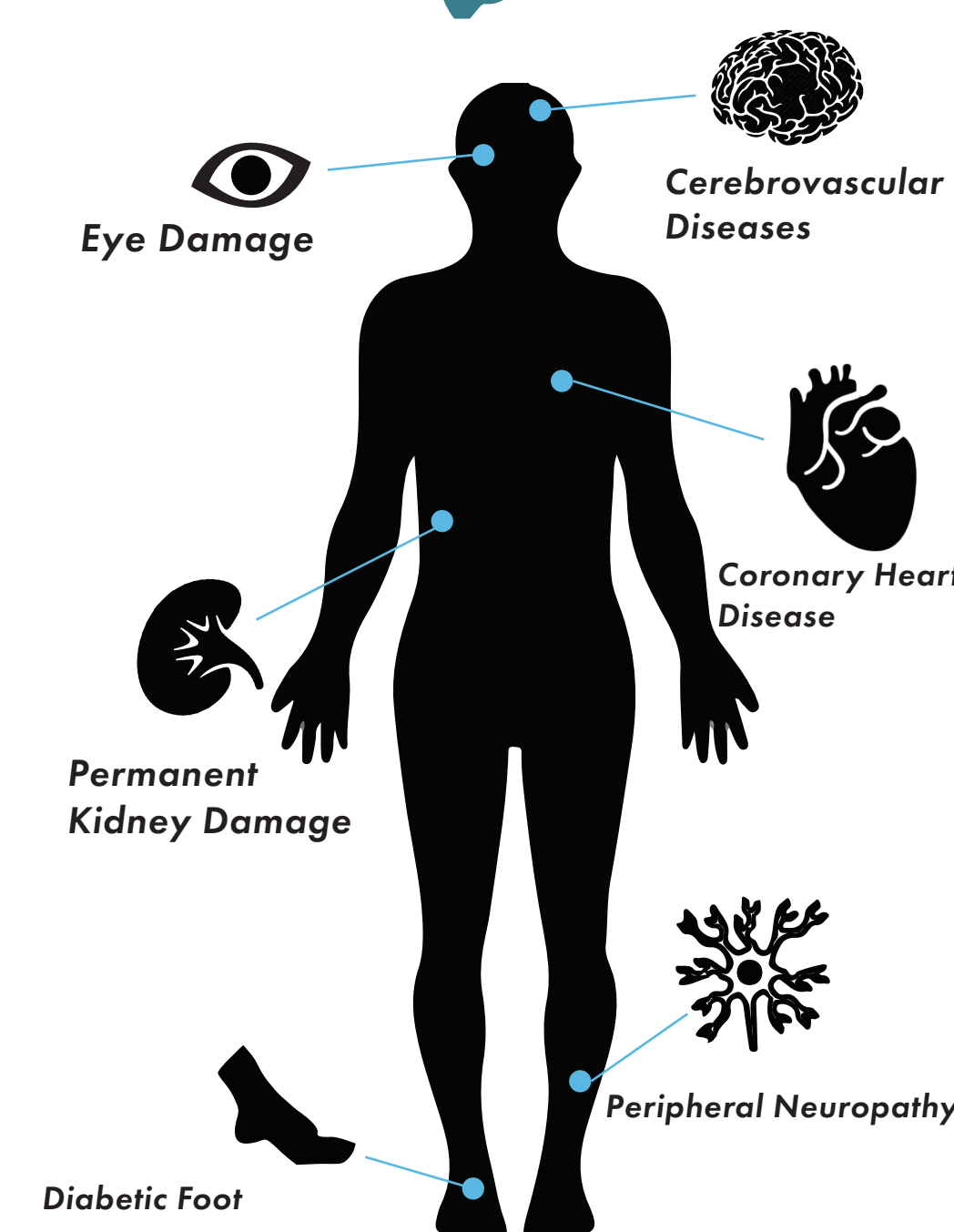
Percentage

■ Women Percentage   ■ Men Percentage

Diabetes Ethnic Study

Globally the prevalence of diabetes mellitus has increased at alarming epidemic rates. In the summary statistics presented here, we report the comparative prevalence of diabetes in various regions, which adjusts for differences in the age distributions of various countries and allows regional comparisons. In 2011, 365 million people worldwide had a diagnosis of diabetes. The West Pacific region had the highest number of individuals (131.9 million) diagnosed with diabetes with a comparative prevalence rate of 8.3%. The two countries in this region that had the highest prevalence rates were the Kiribati and Marshall Islands, with rates of 25.7% and 22.2%, respectively. Middle East and North Africa regions had the highest comparative prevalence rates of diabetes at 11.0%.

Genetic factors have been considered as a potential explanation for race/ethnic differences in diabetes risk; however, the majority of studies suggest that the genetic architecture conferring an increased risk of type 2 diabetes is similar across race/ethnic groups, at least as far as common variants are concerned. Over 40 confirmed loci are associated with an increased risk for type 2 diabetes regardless of ethnicity.

Eye damage. Diabetes can damage the blood vessels of the retina (diabetic retinopathy), potentially causing blindness. Diabetes also increases the risk of other serious vision conditions, such as cataracts and glaucoma.

Foot damage. Nerve damage in the feet or poor blood flow to the feet increases the risk of various foot complications. Left untreated, cuts and blisters can become serious infections that may ultimately require toe, foot or leg amputation.

Eye Damage
Cerebrovascular Diseases
Coronary Heart Disease
Permanent Kidney Damage
Peripheral Neuropathy
Diabetic Foot

Physical Complications

Heart and blood vessel disease. Diabetes dramatically increases your risk of various cardiovascular problems, including coronary artery disease with chest pain (angina), heart attack, stroke, narrowing of the arteries (atherosclerosis) and high blood pressure.

Nerve damage (neuropathy). Excess sugar can injure the walls of the tiny blood vessels (capillaries) that nourish your nerves, especially in the legs. This can cause tingling, numbness, burning or pain that usually begins at the tips of the toes or fingers and gradually spreads upward. Poorly controlled blood sugar could cause you to eventually lose all sense of feeling in the affected limbs.

Damage to the nerves that affect the gastrointestinal tract can cause problems with nausea, vomiting, diarrhea or constipation. For men, erectile dysfunction may be an issue.

Kidney damage (nephropathy). The kidneys contain millions of tiny blood vessel clusters that filter waste from your blood. Diabetes can damage this delicate filtering system. Severe damage can lead to kidney failure or irreversible end-stage kidney disease, which requires dialysis or a kidney transplant.

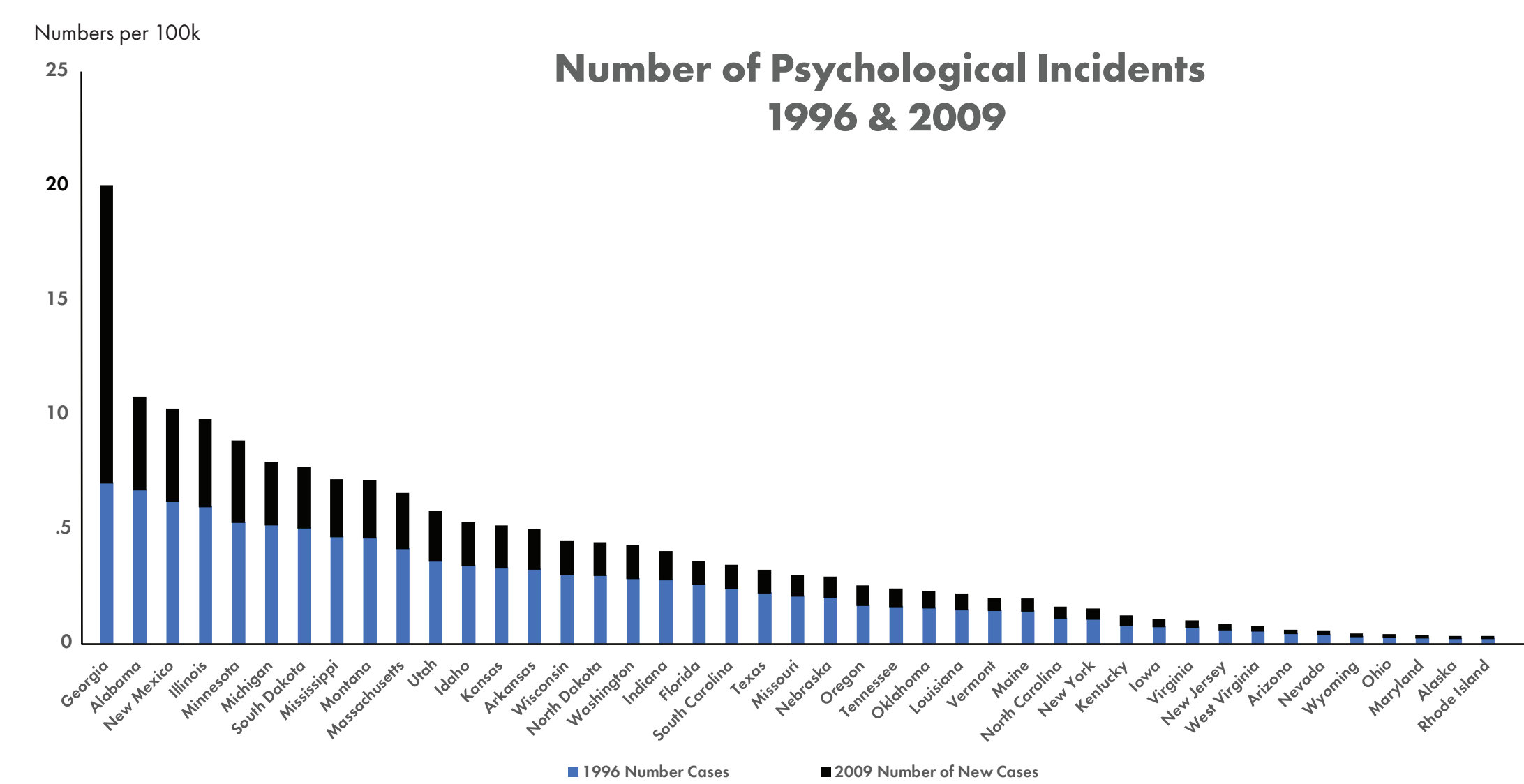### Death Rates from Diabetes 2017

Deaths per 100k
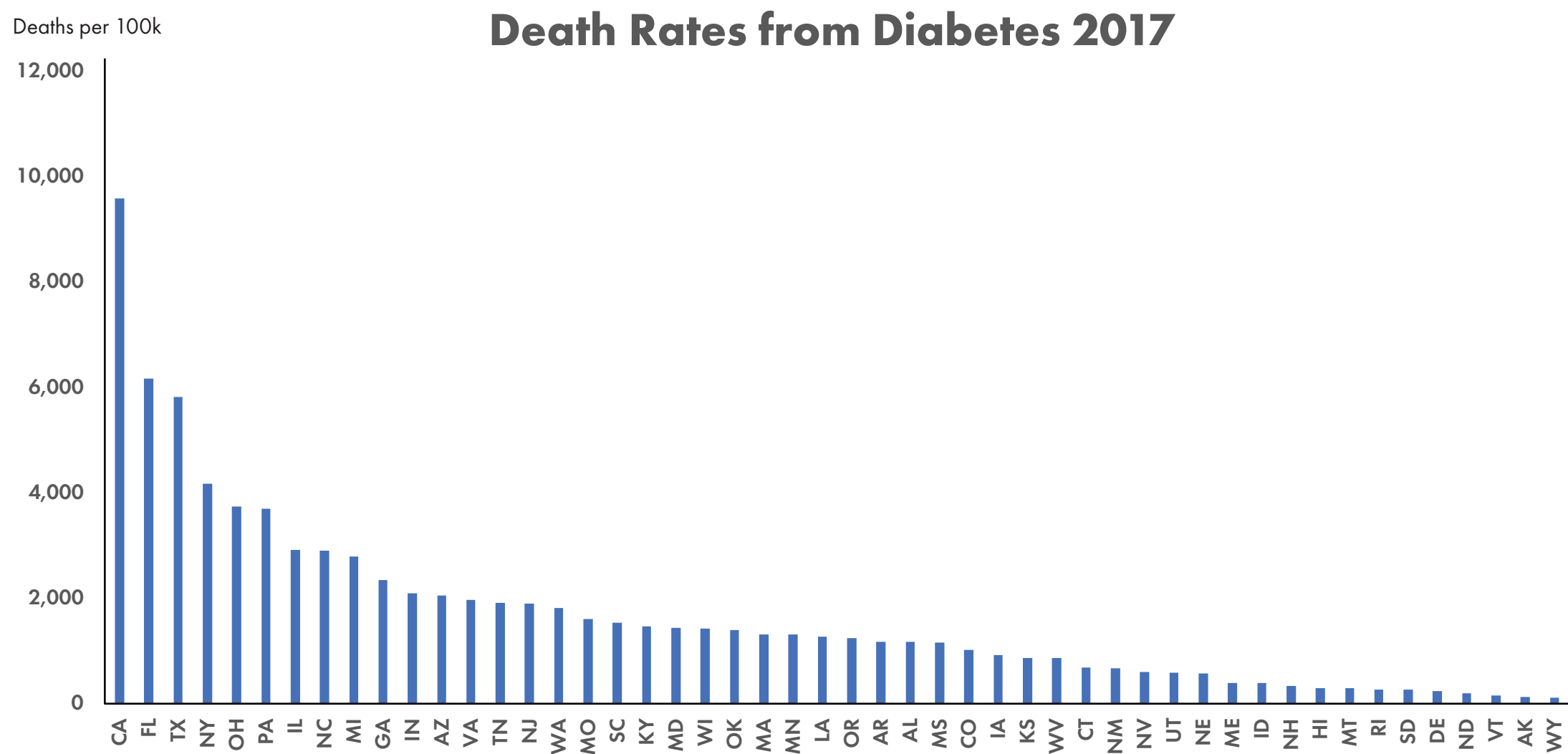
Death Rates

Diabetes was the seventh leading cause of death in the United States in 2017 based on the 79,535 death certificates in which diabetes was listed as the underlying cause of death. In 2015, diabetes was mentioned as a cause of death in a total of 252,806 certificates.

Diabetes may be underreported as a cause of death. Studies have found that only about 35% to 40% of people with diabetes who died had diabetes listed anywhere on the death certificate and about 10% to 15% had it listed as the underlying cause of death.

Number of Psychological Incidents 1996 & 2009

Numbers per 100k

■ 1996 Number Cases   ■ 2009 Number of New Cases

Rising Insulin Cost

America's getting plenty angry about the rising cost of insulin—and no wonder. Between 2002 and 2013, the average price for this life-saving, injectable drug used by nearly 10 million Americans with diabetes has tripled, according to the American Diabetes Association (ADA). The cost of a vial of the short-acting insulin lispro (Humalog) increased 585% (from $35 to $234) between 2001 and 2015. By January of 2017, it reached $270, according to the drug-price website GoodRx-.com.5 During the same time, the price of a vial of human insulin rose 555%, from $20 to $131, according to endocrinologist Irl B. Hirsch, MD, a professor of medicine at the University of Washington. And by January 2017, it hit $147 according to GoodRx.com

Insulin cost for states with highest diabetes rates

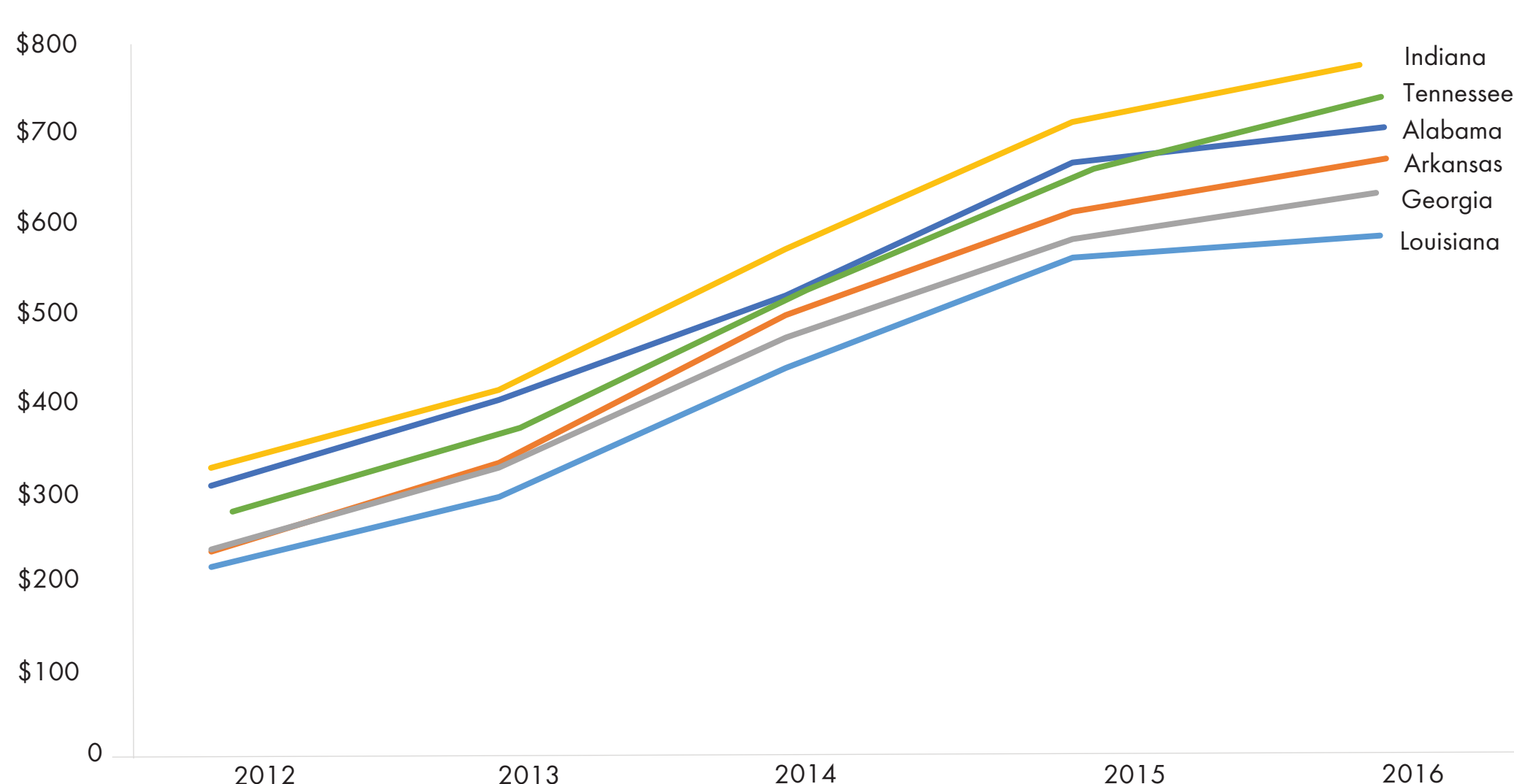Indiana
Tennessee
Alabama
Arkansas
Georgia
Louisiana

Psychological Outcome of Diabetes

Patients with diabetes mellitus (DM) need psychological support throughout their life span from the time of diagnosis. The psychological make-up of the patients with DM play a central role in self-management behaviors. Without patient's adherence to the effective therapies, there would be persistent sub-optimal control of diseases, increase diabetes-related complications, causing deterioration in quality of life, resulting in increased healthcare utilization and burden on healthcare systems. However, provision of psychosocial support is generally inadequate due to its challenging nature of needs and demands on the healthcare systems. This review article examines patient's psychological aspects in general, elaborates in particular about emotion effects on health, and emotion in relation to other psychological domains such as cognition, self-regulation, self-efficacy and behavior.

It is widely known that patients with diabetes mellitus (DM) are at high risk of decreased psychological well-being-which is already presence in about half of the patients at the time of diagnosis. This is due to strained coping with changed life routine (such as relationships, work-related and financial issues)[6] right from the time of diagnosis of. An international survey, the Diabetes Attitudes, Wishes and Needs second study, included over 16000 individuals (comprising patients, family members and healthcare providers) in 17 countries across four continents, reported that the proportion of the people with DM who were likely to have depression and diabetes-related distress (DRD) was 13.8% and 44.6%, respectively, with overall poor quality of life at 12.2%.