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Diabetes in the U.S. Population

At a Glance

- An analysis of data from 2011-2012 found that 12% to 14% of U.S. adults had diabetes.

- More than half of Asian Americans and nearly half of Hispanic Americans with diabetes didn't know they had the disease.

- Learning more about who has diabetes—and who is unaware they have it—can help guide future research and prevention efforts.

Diabetes is a disorder in how the body uses glucose, a sugar that serves as the body's fuel. In type 1 diabetes, the body doesn't make insulin, a hormone that triggers cells throughout the body to take up glucose from blood. In type 2 diabetes—the most common type—the body doesn't make or use insulin well. Both types can lead to heart, kidney, nerve, and eye diseases over time.

To assess how common diabetes is, researchers at NIH's National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) analyzed data collected in CDC's National Health and Nutrition Examination Survey (NHANES). NHANES is a periodic survey of a representative sample of the U.S. population. Recent surveys included blood tests and other measurements. The researchers, led by Drs. Andy Menke and Catherine Cowie, examined data gathered from almost 2,800 people during the 2011-2012 survey cycle. The study was published on September 8, 2015, in the *Journal of the American Medical Association*.

Diabetes is a potentially devastating disease, but it can be treated. This research serves as a reminder for those at risk to get screened. Image credit: Digital Vision/Photodisc/Thinkstock.

The scientists found that the overall prevalence of diabetes in the U.S. population was 12-14%, depending on the definition of diabetes used. Of those with diabetes, 25-36% may be undiagnosed. In addition, 36-38% had prediabetes, in which blood glucose levels are higher than normal but not high enough for a diagnosis of diabetes.

When the researchers compared the new data to previous NHANES results, they found that the prevalence of diabetes in the overall population climbed steeply between 1988-1994 and 2007-2008 but leveled off after that. The percentage of undiagnosed diabetes decreased from the first survey period, except for in the youngest age group and in Mexican Americans. This general drop may be due to better screening.

Hispanic Americans had the highest prevalence of diabetes in the 2011-2012 survey at 19-23%, with up to 49% of that undiagnosed. About 21-22% of non-Hispanic black adults had diabetes, with up to 37% undiagnosed. Non-Hispanic whites had the lowest prevalence of diabetes at 10-11%. They also had the lowest proportion of undiagnosed cases, at 25-32%.

The 2011-2012 NHANES gathered enough data for the researchers to quantify diabetes prevalence for Asian Americans for the first time. Diabetes was found to be common in this group, at 17-21%. Asian Americans had the highest proportion of undiagnosed diabetes among all ethnic and racial subgroups studied, at 40-51%.

"The large proportion of people with undiagnosed diabetes points to both a greater need to test for type 2

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diabetes and a need for more education on when to test for type 2 diabetes, especially since populations such as Asian Americans may develop type 2 at a lower body mass than other groups," Cowie says.

Menke points out that the Asian population is diverse, and NHANES doesn't yet have data on differences within that population. "Getting more specific data on Asian and other subgroups may help better pinpoint education and diagnosis efforts," he says.

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Reference: Prevalence of and Trends in Diabetes Among Adults in the United States, 1988-2012. Menke A, Casagrande S, Geiss L, Cowie CC. *JAMA*. 2015 Sep 8;314(10):1021-9. doi: 10.1001/jama.2015.10029. PMID: 26348752.

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