



# UW-Madison Research Finds Diabetes Goes Undiagnosed Due to Flaws in Screening

## UW-Madison Press Release

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Madison, Wisconsin - Using one of the two major national diabetes screening guidelines misses about one-third of those with diabetes, consequently putting them at risk for serious health complications, according to surprising research findings at the University of Wisconsin School of Medicine and Public Health.

The report, published in the January issue of Mayo Clinic Proceedings, compares American Diabetes Association (ADA) screening guidelines with those of the U.S. Preventive Services Task Force (USPSTF), an independent panel that recommends clinical preventive services. These are the two primary guidelines used by providers in the U.S. to screen for diabetes.

The three-year study used a database of 47,000 patients who were at least 20 years old and who made two non-emergency visits to medical clinics in Madison and surrounding areas based on Wisconsin Collaborative for Healthcare Quality (WCHQ) criteria.

Of that group, nearly 34,000 met criteria for diabetes screening and more than 85 percent of them were tested for diabetes under ADA or USPSTF guidelines.

The ADA recommends screenings for patients who are 45 years of age or older as well as for younger patients who are overweight, and have certain ethnic backgrounds, or have high blood pressure, heart disease and other high-risk medical conditions. However, the USPSTF recommends screenings only for those with high blood pressure (above 135/80).

## Task Force's Screening Guidelines May Not Detect Diabetes

According to the study's lead author [Ann Sheehy, MD, MS](#), a hospitalist and clinical assistant professor at the School of Medicine and Public Health, use of U.S. Preventive Services Task Force guidelines resulted in 460 fewer diagnoses of

diabetes or greater than one-third of all cases detected, compared to screening criteria recommended by the American Diabetes Association.

"The ADA recommends testing patients with a body mass index greater than or equal to 25 and at least one additional risk factor, and if the patient is 45 years and older," she said. "The USPSTF doesn't recommend screening for the morbidly obese or offer age recommendations. It misses a significant number of people with diabetes."

Sheehy said she and her colleagues with the [Health Innovation Program](#) at UW-Madison were surprised by their findings.

"We suspected that the USPSTF guideline would miss the mark, but we didn't think they would fare quite this badly," she said. "The fact is, the USPSTF guidelines are the U.S. Department of Health and Human Services-sanctioned guidelines, and are followed by many primary care providers in this country and are strictly based on evidence.

"Evidence-based practice is very important, but when evidence is lacking, we need to come up with our best recommendations based on the evidence we have."

Sheehy said the study was prompted by her dealings with patients, who may have had undiagnosed diabetes.

"I saw patients with random glucose levels of 220 or higher, but they didn't carry a diagnosis of diabetes," she said. "One in 20 people in the U.S. has undiagnosed diabetes. We wanted to know, why is that? Are providers not capturing the right guidelines?"

### **Patients With Risk Factors Should Ask About Diabetes Testing**

Sheehy encourages people to seek testing for diabetes when making routine visits to the doctor, especially if they are 45 years and older, overweight, and have high-risk factors such as high blood pressure and cholesterol.

"Since Type 2 diabetes is often asymptomatic, most people are not aware they have the disease until they have a blood test showing elevated blood glucose," she said. "These patients should consider asking their physician if they should be screened for diabetes with a blood test if they have not been tested in the last three years.

"If the disease is not diagnosed, patients obviously cannot be treated, their blood sugar cannot be controlled, and this may have lasting effects. Early diagnosis gives us a chance to prevent some outcomes."

Sheehy said the good news is the U.S. Preventive Services Task Force has publicly stated its guidelines for screenings in general need to be changed in situations where evidence is lacking, such as for diabetes.

"They criticized their own guidelines and proposed a new way to develop better recommendations when perfect evidence is not available," she said.

**This press release was posted on the UW Web site at:**

<http://www.med.wisc.edu/news-events/news/uw-madison-research-finds-diabetes-goes-undiagnosed-due-to-flaws-in-screening/26164>

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