

Study recommends using age, not weight, to screen for diabetes

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Researchers should focus on age, not weight, to capture the greatest number of people in all racial and ethnic groups with prediabetes and diabetes, recommends a new Northwestern Medicine study.

Screening all adults aged 35 to 70 years, regardless of weight, identifies the greatest proportion of adults with prediabetes and [diabetes](#) in the U.S. This approach will also maximize the ability to diagnose prediabetes and diabetes across all racial and [ethnic groups](#), Northwestern investigators found.

"All major racial and ethnic minority groups develop diabetes at lower weights than white adults, and it's most pronounced for Asian Americans," said lead investigator Dr. Matthew O'Brien, an associate professor of medicine at Northwestern University Feinberg School of Medicine and a Northwestern Medicine physician.

The study is published March 24 in the *American Journal of Preventive Medicine*.

"It might sound counterintuitive because we think of being overweight or obese as the primary cause of diabetes," O'Brien said.

The U.S. Preventive Services Task Force (USPSTF) currently recommends [screening](#) only individuals 35 to 70 who are overweight or obese.

"But if we make decisions about diabetes testing based on weight, we will miss some people from racial and ethnic minority groups who are developing prediabetes and diabetes at lower weights," O'Brien said.

Diagnosing diabetes in adults from racial and ethnic minority groups is often delayed when compared with diagnosis in white adults. A delayed diagnosis means the disease is harder to control, and individuals are more likely to develop diabetes complications in the heart, eyes and kidneys, while also having a higher risk of dying.

"Diabetes is a condition in which unacceptable racial and ethnic

disparities persist," O'Brien said. "That's why we need a screening approach that maximizes equity. If we can find everyone earlier, it helps us reduce these disparities and the bad outcomes that follow."

Approximately half of U.S. adults have type 2 diabetes or prediabetes, representing a major public health concern. Overall, 81% of adults with prediabetes are not aware of having the condition, and 23% of diabetes cases remain undiagnosed. Up to 70% of adults with prediabetes will eventually develop diabetes.

Asian American adults with prediabetes and diabetes are the most likely to be missed

Asian American adults often develop diabetes and prediabetes at a normal weight. As a result, they are the most likely racial group to be missed in the recent 2021 guidelines for prediabetes and diabetes screening, reports the new study. An estimated 6 million Asian Americans have prediabetes or undiagnosed diabetes, according to the new study.

This is the first study to examine the health-equity implications of the current screening recommendations. Northwestern investigators examined the clinical performance of the 2021 USPSTF prediabetes and diabetes screening recommendation, as well as alternate age and Body Mass Index (BMI) cutoffs. The performance was assessed in the entire U.S. adult population, and separately by race and ethnicity.

The Task Force also suggested that clinicians consider earlier screening in racial and ethnic groups with high diabetes risk at younger ages or lower BMI. However, these alternatives were not formally included in their recommendation. The current study evaluated several options for earlier screening, which provides evidence that can inform future changes to the Task Force's guideline.

"It's imperative that we identify a screening approach that is equitable across the entire U.S. population," O'Brien said. "Our findings illustrate that screening all adults aged 35 to 70 years, regardless of weight or body mass index, performs equitably across all racial and ethnic groups."

Many studies have found that only half of eligible [adults](#), or fewer, are tested for prediabetes and diabetes.

Making screening decisions based on age alone is also simpler for clinicians to implement, which may result in greater uptake of this screening approach, O'Brien said, adding, "There are many ways to nudge patients and providers to complete this testing, which should be the focus of future research."

This epidemiologic study was conducted in collaboration with researchers from the U.S. Centers for Disease Control and Prevention and Emory University using nationally representative data from the National Health and Nutrition Examination Surveys.

Other Northwestern authors include Stacy Bailey, Dr. Sadiya Khan and Dr. Ronald Ackermann.

More information: Screening for Prediabetes and Diabetes: Clinical Performance and Implications for Health Equity, *American Journal of Preventive Medicine* (2023). [dx.doi.org/10.1016/j.amepre.2023.01.007](https://doi.org/10.1016/j.amepre.2023.01.007) , [www.ajpmonline.org/article/S07... \(23\)00006-5/fulltext](http://www.ajpmonline.org/article/S07... (23)00006-5/fulltext)

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