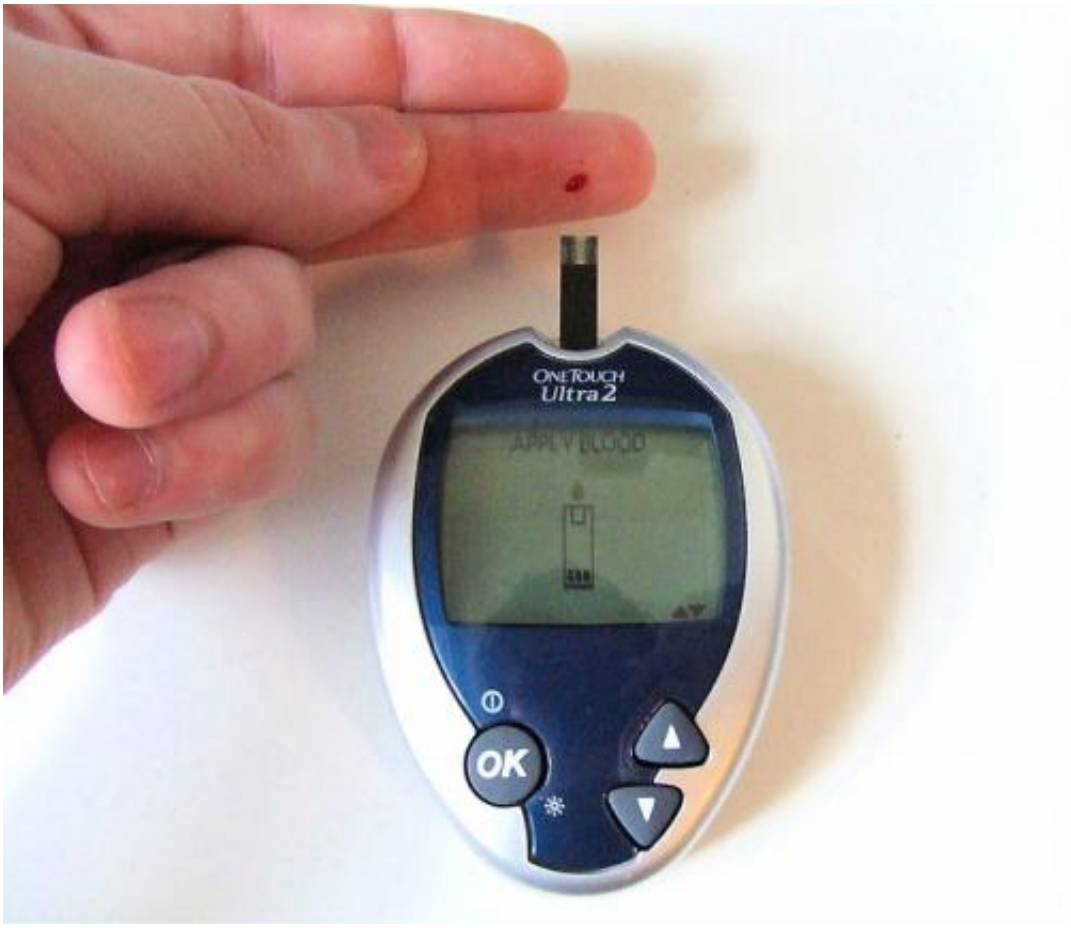
Minorities more likely to have diabetes at lower weights

September 19 2019



Blood glucose monitoring. Credit: Wikipedia

Being overweight or obese is commonly associated with diabetes, but a new Kaiser Permanente study finds the connection differs widely by

race or ethnicity. Members of racial and ethnic minority groups were much more likely to have diabetes or prediabetes at lower weights—even at normal or below-normal body mass index (BMI), according to research published in *Diabetes Care*.

The large analysis included more than 4.9 million people of diverse backgrounds and geographies who were part of the nationwide Patient Outcomes Research to Advance Learning network. The PORTAL study group, supported by the Patient-Centered Outcomes Research Institute, includes data on more than 12 million patients contributed by all regions of Kaiser Permanente, along with HealthPartners in Minnesota and Denver Health.

Normal-weight Hawaiians and Pacific Islanders were 3 times more likely to have diabetes than normal-weight white people. Diabetes prevalence at normal BMI was 18% for Hawaiians/Pacific Islanders versus just 5% for whites; prevalence was also high for blacks (13.5%), Hispanics (12.9%), Asians (10.1%) and American Indians/Alaskan Natives (9.6%).

Disparities were also found in prediabetes but were not as pronounced. Results also differed by gender. Asians, Hispanics, and Hawaiians/Pacific Islanders had a higher prevalence of prediabetes at lower BMIs than other groups, particularly among women.

For primary care clinicians, the findings could signal a change in how they screen racial and ethnic minority patients for diabetes and prediabetes, said senior author Assiamira Ferrara, MD, Ph.D., a senior research scientist with the Kaiser Permanente Division of Research in Oakland, California. "This study suggests that along with screening patients who are overweight and obese, minorities should probably be screened even if they have a normal BMI, particularly as they get older," Ferrara said.

This study is one of the largest that has examined the relationship between BMI and diabetes and prediabetes prevalence. The study also included large enough samples of some understudied minority groups to draw conclusions about them, the authors said. The study offers new information about diabetes prevalence across BMI categories among Asians, Hawaiians, Pacific Islanders, American Indians, and Alaskan Natives across the country.

This study took into account neighborhood-level measures of income and education, neither of which were found to fully explain the racial/ethnic differences in prevalence of diabetes beyond BMI. While access to primary care is a major factor in health care disparities, it was not seen as a contributor in this study because all of the patients had health insurance and were members of integrated health systems.

The authors speculated that there could be physiological differences among people of varying races and ethnicities relating to diabetes, citing the example of Asians having a higher share of body fat and visceral fat at the same BMI as other groups, which could lead to insulin resistance, prediabetes, and diabetes.

Lead author Yeyi Zhu, Ph.D., a research scientist with the Kaiser Permanente Division of Research, called for better understanding of how the physiological mechanisms of diabetes may vary. "Future research could focus on body composition, genetics, and other lifestyle factors that may contribute to disparities in chronic disease burden," Zhu said.

She also noted that the analysis identified a group of people at risk who don't get as much attention for diabetes risk: those who are underweight. The study found significant differences in diabetes prevalence among underweight men, ranging from 7.3% in whites to 16.8% in American Indians/Alaskan Natives.

Provided by Kaiser Permanente