

Racial, ethnic, socioeconomic disparities in insulin pump use have persisted over 20 years

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While use of insulin pumps to manage type 1 diabetes has grown over 20 years, there has been no improvement in racial, ethnic, and socioeconomic disparities associated with their use. By the end of the period studied, insulin pump use was 67% among non-Hispanic whites, 41% among Hispanics, 29% among Blacks, and 46% among other racial

and ethnic groups.

In addition, 70% of people with bachelor's degrees or higher used the pumps, compared with 56% among those with some college, 40% among holders of high school degrees, and 18% among those with no [high school education](#). By [income level](#), 74% of those with [household incomes](#) of \$75,000 or more, 66% with \$50,000 to 74,999, 51% with \$25,000 to \$49,999, and 41% with less than \$25,000, used the pumps.

Insulin pump use has been shown to lead to improvements in glycemic control, quality of life, satisfaction with treatment, and lower diabetes distress. Overall use has grown over two decades from about 32% to 59% among people with type 1 diabetes.

The researchers examined data from the SEARCH for Diabetes Youth Study, a multicenter, observational, and population-based study of youth under 20 years of age. They broke up the analysis across four time periods between 2001 and 2019: 690 youth and young adults with type 1 diabetes in 2001-2005, 1,706 in 2006-2010, 2,385 in 2011-2015, and 2,257 in 2016-2019.

The paper is published in the journal *Diabetes Technology & Therapeutics*.

Further research is needed on ways to improve access to insulin pumps and address persistent inequities in use of the devices, which are known to improve health and quality of life for people with type 1 diabetes.

"Diabetes technology has numerous benefits for patients with type 1 diabetes, but the problem is that there is a huge divide in who actually has access to these technologies," said study lead Dr. Estelle Everett, assistant professor of medicine in the division of endocrinology, diabetes & metabolism at the David Geffen School of Medicine at UCLA.

"Our study found that over the past 20 years, despite the overall increase in the use of insulin pumps, racial-ethnic minority groups and those of lower socioeconomic status still have unequal access to this very beneficial management tool. This is very concerning because these groups have more challenges managing their diabetes and have higher risk of complications with diabetes, so they may actually gain the most benefit from diabetes technology use. Changes in the approach to diabetes care and health policies are needed to ensure [equal access](#) to this life changing diabetes device because everyone deserves an equal opportunity to improve their [diabetes](#) health."

More information: Estelle Everett et al, A longitudinal view of disparities in insulin pump use among youth with type 1 diabetes: The SEARCH for Diabetes in Youth Study, *Diabetes Technology & Therapeutics* (2022). [DOI: 10.1089/dia.2022.0340](https://doi.org/10.1089/dia.2022.0340)

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