

New study estimates over nine million people living with type 1 diabetes

A study [published in Diabetologia](#), the journal of the European Association for the Study of Diabetes (EASD), estimates the prevalence of people living with type 1 diabetes to be over nine million globally. Of this total number, 2.6 million people with type 1 diabetes (29%) live in lower-middle or low-income countries. 2021 marks 100 years since the discovery of insulin. However, access to insulin, which is essential to the survival of people with type 1 diabetes, remains a major challenge—particularly in low- and middle-income countries.

The current study represents the first attempt to estimate the prevalence and incidence of people living with type diabetes globally. Previous estimates have either focused exclusively on people under the age of 19 or have used insulin as a proxy for type 1 diabetes. Despite their limitations, the current estimates show that approximately 60% of those living with type 1 diabetes are over 40 years old, highlighting that the impact of type 1 diabetes extends beyond youth, affecting many adults. Globally, type 1 diabetes accounts for only about 2% of total diabetes, with substantial variations being seen between countries and regions.

Lead author of the study, Professor Anders Green of the Institute of Applied Economics and Health Research said:

“Type 1 diabetes is commonly known as a condition of the young, and thus, in many countries care is focused accordingly. However, thanks in part to this focused care, our estimates show that over half of those living with type 1 diabetes are adults. We hope these findings will increase awareness and support planning of care, including for adults with the disease.”

Co-lead of the Addressing the Challenge and Constraints of Insulin Sources and Supply ([ACCISS Study](#)), Dr David Beran of the University of Geneva added:

“While it does not provide definitive answers, this study improves upon our knowledge of the global epidemiology of type 1 diabetes. In particular, it highlights the need for better data at many levels, ranging from patient records to epidemiological studies to help understand this complex chronic condition and propose adapted responses to different contexts.

Previous work carried out as part of the ACCISS Study found that 1 in 2 people globally with type 2 diabetes who need of insulin lack access. For type 2 diabetes this gap in access results in an increase in severe complications and in some cases death. For people living with type 1 diabetes lack of access to insulin is fatal and is an essential part of delivering diabetes care for all people with type 1 diabetes globally.

Notes for Editors

- For full paper, see: <https://link.springer.com/article/10.1007/s00125-021-05571-8>
- Globally, around 60% of all people with type 1 diabetes were above 40 years of age.

- High-income countries, which represent 17% of the global population, accounted for 52% of people living with type 1 diabetes.
- Asia, which has the largest proportion of the world's population (60%), had the largest number of prevalent cases of type 1 diabetes.
- Globally, in 2017, type 1 diabetes accounted for only about 2% of people with diabetes. However, researchers noted substantial variations in both incidence and prevalence between countries, country income levels and geographical areas.
- This year marks the centenary of the discovery of insulin, which took type 1 diabetes from a death sentence to a manageable chronic condition. To mark the occasion, Health Action International have produced a new short film looking at access to insulin 100 years on. [Link when available]
- This paper is a result of the collaborative efforts of [Health Action International](#), [Institute of Applied Economics and Health Research](#), the [World Health Organization](#), the [University of Geneva](#), [US Centers for Disease Control and Prevention](#), and the other co-authors listed on this paper.

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