

FEATURE

## IDF Atlas: 1 in 10 adults worldwide now has diabetes

**Publish date:** December 10, 2021

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### *Clinical Endocrinology News*

One in 10 adults worldwide currently has diabetes, accounting for an estimated global health expenditure of \$966 billion in U.S. dollars in 2021, according to the new International Diabetes Federation Diabetes Atlas.

The IDF Atlas, 10th edition, was [published online](#) [<https://diabetesatlas.org/atlas/tenth-edition/>](https://diabetesatlas.org/atlas/tenth-edition/) Dec. 6, 2021.

Highlights from it were presented during two sessions at the IDF Virtual Congress 2021, covering global diabetes incidence and prevalence, mortality, and costs, as well as new sections in this edition devoted to adult-onset type 1 diabetes, childhood-onset type 2 diabetes, and the interactions between diabetes and COVID-19.

More detailed data from some of the Atlas chapters were also published Dec. 6, 2021, in separate papers in the IDF [journal](#) [<https://www.sciencedirect.com/journal/diabetes-research-and-clinical-practice>](https://www.sciencedirect.com/journal/diabetes-research-and-clinical-practice) Diabetes Research and Clinical Practice, with more publications planned.

Information for the Atlas comes from peer-reviewed literature, unpublished reports, and national registries. This latest edition includes 219 data sources from 144 countries, with figures for other countries extrapolated.

and another 319 million have impaired fasting glucose. Over three-quarters of all adults with diabetes now live in low- and middle-income countries. And about 6.7 million deaths in 2021 can be attributed to diabetes.

The Atlas also predicts increases in these numbers over the coming decades if current trends continue.

“Our data and projections tell a sobering story. Diabetes prevalence is expected to increase globally. The number of adults with diabetes will rise from 537 million in 2021 to 786 million ... by the year 2045, an increase of 46%. Rises are expected in every region of the world, with the largest increases expected to occur in the regions of Africa, the Middle East, and Southeast Asia,” said Dr. Magliano, head of diabetes and population health at the Baker Heart and Diabetes Institute, Melbourne.

Since 2019, when the last Atlas [was published](https://www.medscape.com/viewarticle/922121)  [<https://www.medscape.com/viewarticle/922121>](https://www.medscape.com/viewarticle/922121) , the 2021 numbers represent increases of 73.6 million more adults with diabetes including 7.8 million more undiagnosed, 2.5 million more deaths attributed to diabetes, and an additional global expenditure of \$206 billion.

Increases have also occurred in the number of people with prediabetes, children with type 1 diabetes, and pregnancies affected by diabetes, Dr. Magliano reported.

“There is a strong need for effective intervention strategies and policies to stall the increase in the number of people developing diabetes across the world,” she added.

The current \$966 billion global health expenditure caused by diabetes represents a 316% increase from the \$232 billion reported in 2006, according to William H. Herman, MD, professor of internal medicine and epidemiology at the University of Michigan, Ann Arbor.

By region, 43% of current diabetes-related global expenditures are in North America, 25% in the Western Pacific, and 20% in Europe, while 12% are from the regions of South and Central America, North Africa, Africa, and Southeast Asia combined, Herman said.

The direct costs of diabetes are projected to grow to \$1054 billion in 2045, an increase of just 9% over 25 years. The reason for the far lower increase going forward, compared with the tripling in the 15 years prior, is because of the anticipated diabetes rise in regions of the world where per-person spending on diabetes is low, a situation Dr. Herman called “unsustainable.”

“The keys to controlling the global costs of diabetes care are diabetes prevention and providing effective care to the largest number of people at the lowest possible cost,” he said.