DIABETES

ACT for NIH

New cases of diagnosed diabetes in the U.S. decreased by 35 percent between 2009 and 2017 - a sign that efforts to stop the nation's diabetes epidemic are working. This decline is due in part to NIH-supported research on diabetes prevention and treatment.

Diabetes is a disease that occurs when your pancreas does not produce enough insulin to allow your body to capture and use glucose for energy and your blood sugar is too high.

Type 1 Diabetes: Typically diagnosed in children and young adults.

Type 2 Diabetes: Most common among middle-aged and older adults and accounts for 90-95% of cases nationwide.



38.4 million Americans have diabetes. (~1 out of 10)



352,000 American youth (age 20 or younger) live with diabetes.



African Americans and Hispanics are nearly 50% more likely to have diabetes than non-Hispanic whites.



Americans spend **more than \$412B annually** on treating diabetes.

People with diabetes are **more likely to suffer** from stroke, heart disease, high blood pressure, kidney failure, gum disease, complications from the coronavirus, depression, and other illnesses.



Decades of NIH-funded discoveries have helped prevent and manage diabetes. These include:

- **Glucose monitors and insulin pumps** that deliver rapid-acting insulin allow individuals with type 1 diabetes to live longer and healthier lives.
- The identification of over 400 genetic regions that may affect risk for type 2 diabetes.
- Evidence that type 2 diabetes can be delayed or prevented by basic lifestyle interventions, such as weight loss and exercise, and type 1 diabetes can be delayed with early preventative treatment.
- An artificial pancreas system that improves type 1 diabetes management by helping control blood glucose levels and reduce the daily burden of the disease.₃

Today, NIH-funded researchers are:

- Studying genetic and environmental factors that contribute to diabetes progression.
- **Identifying new methods** to improve blood glucose monitoring and insulin delivery in type 1 diabetes.
- **Examining behavioral approaches** to prevent type 2 diabetes and enhance self-management.
- Uncovering the fundamental cellular and molecular pathways underlying the development of diabetes and its complications.

Sources: 1. Centers for Disease Control. (2024). <u>https://www.cdc.gov/diabetes/about/2CDC_AAref_Val=https://www.cdc.gov/diabetes/basics/index.html</u>; 2. Centers for Disease Control (2022). <u>https://archive.cdc.gov/www.cdc_gov/diabetes/research/reports/cdc-research-20yr-report.html</u>#:~:text=After%20an%20almost%2020%2Dyear.in%202017%20(figure%201);

National Institute of Diabetes and Digestive and Kidney Disease (2024). Retrieved from: <u>www.niddk.nih.gov/about-niddk/strategic-plans-reports/niddk-recent-advances-emerging-opportunities</u>;
National Institutes of Health (2019). Retrieved from: <u>www.nib.gov/news-releases/artificial-pancreas-system-better-controls-blood-glucose-levels-current-technology</u>
National Institutes of Health (2019). Retrieved from: <u>www.nib.gov/news-releases/artificial-pancreas-system-better-controls-blood-glucose-levels-current-technology</u>
S. American Diabetes Association (2023). Retrieved from: <u>https://diabetes.org/about-diabetes/statistics/about-</u>
<u>diabetes#:~itext=Diagnosed%20and%20undiagnosed%324%2000%20the.seniors%204.diagnosed%20and%20undiagnosed</u>

Diabetes technology has continually evolved to improve quality of life and ease of care for affected individuals. But future progress depends on NIH funding growing reliably every year.