

Health and Economic Benefits of Diabetes Interventions

- More than 38 million Americans of all ages have diabetes, and 98 million adults are at high risk.
- Diabetes is the most expensive chronic condition in the United States.
- Lifestyle changes and good self-care can help people stay well and avoid costly complications.



Diabetes in the United States

Current estimates show that 1 in 3 Americans will develop diabetes sometime in their lifetime.¹ [Diabetes](#) is a chronic (long-lasting) health condition that affects how the body turns food into energy and results in too much sugar in the bloodstream. Over time, this can cause serious health problems and damage vital organs. Most people who have diabetes have a shorter life expectancy than people without the disease.

Quick facts

- 38 million people of all ages (about 11.6% of the population) have diabetes.²
- 98 million adults (38%) have prediabetes, blood sugar levels that are higher than normal but not high enough to be diagnosed as diabetes.²
- Diabetes complications are increasing for young adults aged 18 to 44 and middle-aged adults aged 45 to 64.³
- Diabetes is more common among American Indian or Alaska Native, non-Hispanic Black, Hispanic, and Asian people than non-Hispanic White people.
- Nearly 1 in 5 adolescents aged 12 to 18 and 1 in 4 young adults aged 19 to 34 have prediabetes.⁴

The high cost of diabetes

The total annual cost of diabetes in the United States is \$413 billion,⁵ making it the most expensive chronic condition in our nation.⁵⁶

- \$1 out of every \$4 in U.S. health care costs is spent on caring for people with diabetes.⁵
- \$307 billion⁶ is spent each year on direct medical costs and another \$106 billion⁶ on reduced productivity.⁵
- 61% of diabetes costs are for adults aged 65 or older, which is mainly paid by Medicare.⁵
- Among Medicare beneficiaries aged 65 or older with type 2 diabetes, the estimated median costs associated with diabetes complications is \$5,876 per person each year.⁷
- 48% to 64% of lifetime medical costs for a person with diabetes are for complications related to diabetes, such as heart disease and stroke.⁸

Strategies that work

CDC is working to help millions of Americans reduce their risk of type 2 diabetes and prevent or delay serious diabetes complications, which will save lives and lower medical costs.

Preventing type 2 diabetes

While some risk factors for type 2 diabetes, such as family history or age, cannot be changed, others can be avoided by maintaining a healthy weight and being physically active. To help prevent or delay type 2 diabetes, CDC's [National Diabetes Prevention Program](#) (National DPP) delivers an affordable, evidence-based lifestyle change program. Studies show that the lifestyle change program, which focuses on healthy eating and physical activity, can reduce the risk of type 2 diabetes by more than 50% for people at high risk. CDC and its partners are working to make the lifestyle change program available to more Americans. More than 750,000 adults had participated as of March 2024.

To make more people aware of their risk of prediabetes, CDC partnered with the American Diabetes Association, American Medical Association, and Ad Council to launch the first [national prediabetes awareness campaign](#). The campaign includes a 1-minute online risk test and links people to organizations across the country that deliver the National DPP lifestyle change program. More than 12 million people now know their prediabetes risk as a result.

Preventing diabetes complications

To prevent complications in people living with diabetes, CDC and its partners are working to expand access to and participation in [diabetes self-management education and support \(DSMES\) services](#).

DSMES services reach over 1 million people with diabetes each year. DSMES services help people with diabetes effectively manage their blood sugar, blood pressure, and cholesterol and get preventive care. Keeping diabetes under control through effective disease management can lower risks of diabetes complications. For example:

- Effective blood sugar management can reduce the risk of eye disease, kidney disease, and nerve disease by 40%.[9](#)
- Blood pressure management can reduce the risk of heart disease and stroke by 33% to 50%.[10](#) Improved cholesterol levels can reduce cardiovascular complications by 20% to 50%.[11](#)
- Regular eye exams and timely treatment could prevent up to 90% of diabetes-related blindness.[12](#)
- Health care services that include regular foot exams and patient education could prevent up to 85% of diabetes-related amputations.[13](#)
- Detecting and treating early diabetic kidney disease by using kidney protective medicines that lower blood pressure can reduce decline in kidney function by 33% to 37%.[14](#)

Benefits of using proven strategies

Many effective diabetes prevention and management strategies are a good value in terms of cost per quality-adjusted life year (QALY) gained. Public health interventions that cost less than \$50,000 per QALY are widely accepted as being good value or cost-effective.

- Intensive lifestyle modification to prevent type 2 diabetes among people at high risk costs \$12,500[A](#) per QALY, compared to no intervention.[15](#)
- Self-monitoring of blood sugar levels three times a day by people with type 2 diabetes on insulin costs \$3,700[A](#) per QALY compared to self-monitoring once a day.[16](#)
- Screening for eye complications every 1 to 2 years costs \$8,763[A](#) per QALY compared to no screening.[16](#)
- Annual screening for chronic kidney disease costs \$21,000[B](#) per QALY compared to no screening.[17](#)

May 15, 2024

[Facebook](#) [LinkedIn](#) [Twitter](#) [Syndicate](#)

[National Center for Chronic Disease Prevention and Health Promotion \(NCCDPHP\)](#)

Footnotes

1. Costs were measured in 2017 U.S. dollars.
2. Costs were measured in 2006 U.S. dollars. Older cost estimates are likely to be underestimates.

References

1. Koyama AK, Cheng YJ, Brinks R, et. al. Trends in lifetime risk and years of potential life lost from diabetes in the United States, 1997-2018. *PLOS One*. 2022;17(5):e0268805.
2. National Diabetes Statistics Report website. Centers for Disease Control and Prevention. Reviewed November 29, 2023. Accessed March 12, 2024. <https://www.cdc.gov/diabetes/php/data-research/index.html>
3. Gregg EW, Hora I, Benoit SR. Resurgence in diabetes-related complications. *JAMA*. 2019;321(19):1867–1868.
4. Andes LJ, Cheng YJ, Rolka DB, Gregg EW, Imperatore G. Prevalence of prediabetes among adolescents and young adults in the United States, 2005–2016. *JAMA Peds*. 2020;174(2):e194498.
5. American Diabetes Association. Economic costs of diabetes in the US in 2017. *Diabetes Care*. 2018;41(5):917–928.
6. Dieleman JL, Baral R, Birger M, et al. US spending on personal health care and public health, 1996–2013. *JAMA*. 2016;316(24):2627–2646.
7. Wang Y, Zhang P, Shao H, et al. Medical costs associated with diabetes complications in Medicare beneficiaries aged 65 years or older with type 2 diabetes. *Diabetes Care*. 2022;45(11):2570-2576.
8. Zhuo X, Zhang P, Hoerger TJ. Lifetime direct medical costs of treating type 2 diabetes and diabetic complications. *Am J Prev Med*. 2013;45(3):253–261.
9. King P, Peacock I, Donnelly R. The UK prospective diabetes study (UKPDS): clinical and therapeutic implications for type 2 diabetes. *Br J Clin Pharmacol*. 1999;48(5):643-8.
10. National High Blood Pressure Education Program. *The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure*. Bethesda, MD: National Heart, Lung, and Blood Institute; 2003.
11. Daniel MJ. Lipid management in patients with type 2 diabetes. *Am Health Drug Benefits*. 2011;4(5):312–322.
12. Murchison AP, Hark L, Pizzi LT, et al. Non-adherence to eye care in people with diabetes. *BMJ Open Diabetes Res Care*. 2017;5(1):e000333.
13. Geiss LS, Li Y, Hora I, Albright A, Rolka D, Gregg EW. Resurgence of diabetes-related nontraumatic lower-extremity amputation in the young and middle-aged adult US population. *Diabetes Care*. 2019;42(1):50–54.
14. Lewis EJ, Hunsicker LG, Clarke WR, et al; Collaborative Study Group. Renoprotective effect of the angiotensin-receptor antagonist irbesartan in patients with nephropathy due to type 2 diabetes. *N Engl J Med*. 2001;345(12):851–860.
15. Zhou X, Siegel KR, Ng BP, et al. Cost-effectiveness of diabetes prevention interventions targeting high-risk individuals and whole populations: a systematic review. *Diabetes Care*. 2020;43(7):1593–1616.
16. Siegel KR, Ali MK, Zhou X, et al. Cost-effectiveness of interventions to manage diabetes: has the evidence changed since 2008? *Diabetes Care*. 2020;43(7): 1557–1592.
17. Hoerger TJ, Wittenborn JS, Segel JE, et al. A health policy model of CKD: 2. The cost-effectiveness of microalbuminuria screening. *Am J Kidney Dis*. 2010;55(3):463–473.

[Back to Top](#)

- [Divisions and Offices](#)
- [About Us](#)
- [Chronic Disease Interventions](#)
- [Budget and Funding](#)
- [Our Impact](#)
- [Social Media Resources](#)

[Sign up for Email Updates](#)