



Summary of Community Preventive Services Task Force Recommendation

The Community Preventive Services Task Force (CPSTF) recommends the use of diabetes self-management mobile phone applications (apps), when implemented in healthcare systems, to improve blood glucose among patients with type 2 diabetes.

The CPSTF finds insufficient evidence to determine whether these interventions benefit patients with type 1 diabetes because there were too few studies.

Major Findings

The CPSTF recommendation is based on evidence from a systematic review published in 2016.¹

- Compared with usual care, mobile phone apps implemented in healthcare settings reduced blood glucose levels (A1c) among patients with type 2 diabetes by a median of 0.4%.
 - ▶ Apps that provided feedback from healthcare professionals produced greater reductions in blood glucose levels than apps that only provided automated feedback.
 - ▶ Greater reductions in A1c were seen among patients 55 years of age or younger.

What are mobile phone apps for diabetes self-management?

The CPSTF findings are for mobile phone apps used within healthcare systems to improve diabetes self-management. Patients enter data into apps or use medical equipment that transmits data directly. The apps then provide patients with feedback from healthcare professionals or automated systems.

Facts about Diabetes

- More than 30 million people in the United States have diabetes.²
- Diabetes increases patients' risk of heart attacks, strokes, nerve damage, eye damage and blindness, kidney disease, and more. When properly managed, however, patients can reduce these risks.³

Learn More

Summary of Evidence and CPSTF Finding

Type 2 Diabetes: www.thecommunityguide.org/findings/diabetes-management-mobile-phone-applications-used-within-healthcare-systems-type-2

Type 1 Diabetes: www.thecommunityguide.org/findings/diabetes-management-mobile-phone-applications-used-within-healthcare-systems-type-1

National Diabetes Prevention Program

<https://www.cdc.gov/diabetes/prevention/index.html>

CDC, Diabetes

<https://www.cdc.gov/diabetes/>

¹The CPSTF considers recently published systematic reviews to provide public health professionals and decision-makers with effective intervention options. A team of specialists in systematic review methods and in nutrition research, practice, and policy selected and evaluated the following published review: Hou C, Carter B, Hewitt J, Francis T, Mayor S. Do mobile phone applications improve glycemic control (HbA1c) in the self-management of diabetes? A systematic review, meta-analysis, and GRADE of 14 randomized trials. *Diabetes Care* 2016; 39:2089-95.

²Centers for Disease Control and Prevention. (2017). Basics About Diabetes. Diabetes Home. Retrieved from <https://www.cdc.gov/diabetes/basics/diabetes.html>.

³Centers for Disease Control and Prevention. (2017). National Diabetes Statistics Report, 2017: Estimates of Diabetes and Its Burden in the United States. Atlanta (GA): CDC. Retrieved from: <https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf>.

Established in 1996 by the U.S. Department of Health and Human Services, the Community Preventive Services Task Force (CPSTF) is an independent, nonfederal panel of public health and prevention experts whose members are appointed by the director of CDC. The CPSTF provides information for a wide range of decision makers on programs, services, and other interventions aimed at improving population health. Although CDC provides administrative, scientific, and technical support for the CPSTF, the recommendations developed are those of the CPSTF and do not undergo review or approval by CDC. Find more information at www.thecommunityguide.org.