



Summary of Community Preventive Services Task Force Recommendation

The Community Preventive Services Task Force (CPSTF) recommends clinical decision-support systems (CDSS) for prevention of cardiovascular disease. Evidence shows interventions improve screening for cardiovascular disease risk factors and practices for related preventive care services, clinical tests, and treatments.

Major Findings

A systematic review of evidence showed that when compared to usual care, CDSS for cardiovascular disease prevention led to modest improvements in three quality-of-care outcomes for provider practices.

- Screening and preventive care services ordered or completed increased by a median of 3.8 percentage points.
- Clinical tests ordered or completed increased by a median of 4.0 percentage points.
- Treatments prescribed increased by a median of 2.0 percentage points.

An overall conclusion about the economic value of CDSS could not be reached due to the limited cost-benefit and cost-effectiveness evidence available.



What are Clinical Decision-Support Systems (CDSS)?

Clinical decision-support systems are computer-based information systems designed to assist healthcare providers in implementing clinical guidelines at the point of care. CDSS designed to prevent cardiovascular disease include one or more of the following:

- Reminders for overdue blood pressure, glucose, and cholesterol screening
- Assessments of patients' risk based on history, behaviors, and test results
- Recommendations for evidence-based treatments of risk factors
- Recommendations for health behavior changes (i.e. smoking, physical activity, and salt intake)
- Alerts when indicators for cardiovascular disease risk factors are not at goal

CDSS are often used within electronic health record systems and linked with knowledge management systems that provide access to scientific literature and strategies for cardiovascular disease prevention.

Facts about Cardiovascular Disease

- Cardiovascular disease is the leading cause of death for both men and women in the United States.¹
- Every year, over 800,000 people die from cardiovascular disease, which is almost 1 in every 3 deaths.¹
- Cardiovascular disease costs the United States approximately \$316 billion each year in health care services, medications, and lost productivity from premature mortality.¹
- Forty-seven percent of all Americans have at least one of the three preventable risk factors for heart disease, which includes high blood pressure, high cholesterol, and smoking.²

Learn More

Summary of Evidence and Task Force Finding

<https://www.thecommunityguide.org/findings/cardiovascular-disease-clinical-decision-support-systems-cdss>

Division of Heart Disease and Stroke Prevention

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

CDC, Heart Disease

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

¹Benjamin EJ, Blaha MJ, Chiuve SE, et al. on behalf of the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics—2017 update: a report from the American Heart Association. *Circulation*. 2017 Mar 7;135(10):e146-e603. doi: 10.1161/CIR.0000000000000485. Epub 2017 Jan 25.

²Fryar CD, Chen T, Li X. Prevalence of Uncontrolled Risk Factors for Cardiovascular Disease: United States, 1999–2010. NCHS Data Brief, No. 103. Hyattsville, MD: National Center for Health Statistics, Centers for Disease Control and Prevention, US Dept of Health and Human Services; 2012.

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 task force, the recommendations developed are those of the CPSTF and do not undergo review or approval by CDC. Find more information at www.thecommunityguide.org.