



Quality Improvement Resource Guide

Welcome

Welcome to the Quality Improvement Resource Guide! This Resource Guide was created through a partnership of the South Dakota Department of Health and the [South Dakota Cardiovascular Collaborative](#). The purpose of this guide is to familiarize you with quality improvement processes as a way of improving clinical quality. While many of the examples within the guide are related to cardiovascular disease, the quality improvement process can be applied to any process or condition where improvements are needed.

Improving Cardiovascular Healthcare

Background

Managing the care of cardiovascular health is as complex as the disease itself. Making clinic-wide, system-level improvements in cardiovascular care can be challenging and time consuming. Quality Improvement (QI) is a process for improving care and the processes for delivering care. It does not specify what improvements should be made, other than that any improvement should be organized, systematic, reproducible, and sustainable.

This Resource Guide describes a general quality improvement approach that is easily adaptable to any QI effort in any type of organization. It provides [key resources](#) that explain what QI is and information and tools to assist with implementing QI strategies.

Why is Quality Improvement in Cardiovascular Care Important?

- 1. The current state of cardiovascular disease is not where it should be.** Data collected by a variety of organizations - including the Centers for Disease Control and Prevention, American Heart Association / American Stroke Association, and the Institute for Healthcare Improvement - regarding the current state of heart disease and stroke

suggest there is significant room for improvement. Some facts, studies, and findings of the current state of heart disease and stroke are listed below:

Heart Disease Facts

From the Centers for Disease Control and Prevention

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

This page provides national data about heart disease and its risk factors.

The Burden of Cardiovascular Diseases Among US States, 1990-2016

A report from the Global Burden of Cardiovascular Diseases Collaboration

<https://healthmetrics.heart.org/wp-content/uploads/2018/04/The-Burden-of-Cardiovascular-Diseases-Among-U.S.-States-1990-2016.pdf>

This publication in the *Journal of American Medical Association – Cardiology* concludes that large disparities in total burden of cardiovascular disease (CVD) persist between US states despite marked improvements in CVD burden. Differences in CVD burden are largely attributable to modifiable risk exposures.

Advocacy Fact Sheets

From the American Heart Association

http://www.heart.org/HEARTORG/Advocate/StateIssues/FindStateSpecificInformation/State-Fact-Sheets_UCM_426369_Article.jsp#.W5aQDS2ZMXo

This page contains a repository of fact sheets on a variety of cardiovascular and public health topics.

Heart Disease and Stroke Statistics At-a-Glance

From the American Heart Association and American Stroke Association

https://www.heart.org/-/media/data-import/downloadables/heart-disease-and-stroke-statistics-2018---at-a-glance-ucm_498848.pdf

This resource provides key statistics about heart disease, stroke, other cardiovascular diseases, and their risk factors.

Heart Disease and Stroke Statistics—2018 Update

A report from the American Heart Association

<https://www.ahajournals.org/doi/full/10.1161/CIR.0000000000000558>

This publication in *Circulation* documents statistics related to heart disease, stroke, and the cardiovascular risk factors, including core health behaviors and health factors that contribute to cardiovascular health.

- 2. We can reduce total cost of care and improve patient outcomes.** Resources, publications, and information about how to prevent cardiovascular disease are listed below:

Reducing the Risk of Heart Disease and Stroke: A Six-Step Guide for Employers

From the Centers for Disease Control and Prevention

https://www.cdc.gov/dhdsp/pubs/docs/six_step_guide.pdf

This guide explains how to reduce costs by investing in worksite health promotion and negotiating with health plans to cover preventive services. It also gives tips for getting started.

Successful Business Strategies to Prevent Heart Disease and Stroke: A Toolkit Guide for Creating Heart Healthy and Stroke Free Worksites

From the Centers for Disease Control and Prevention

<https://www.cdc.gov/dhdsp/pubs/docs/toolkit.pdf>

This toolkit provides information and materials to motivate employers to provide prevention health benefits and services for their employees and establish effective worksite programs to prevent heart disease and stroke.

Long-Term Outcomes of a Cardiovascular and Diabetes Risk-Reduction Program Initiated by a Self-Insured Employer

White, N.D., Skrabal, M.Z., Lipari, L., Lenz, T.L., Skradski, J.J. (2018). Long-Term Outcomes of a Cardiovascular and Diabetes Risk-Reduction Program Initiated by a Self-Insured Employer. Am Health Drug Benefit, 11(4):177-183.

<http://www.ahdbonline.com/issues/2018/june-2017-vol-10-no-4/2581-long-term-outcomes-of-a-cardiovascular-and-diabetes-risk-reduction-program-initiated-by-a-self-insured-employer>

This study published in the journal *American Health & Drug Benefits* concludes that sustained participation in an employer-sponsored disease management program can lead to significant changes in employees' health, well-being, and health-related costs.

An Ounce of Prevention...The Value of Prevention for Cardiovascular Disease

From the American Heart Association and American Stroke Association

https://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_474332.pdf

This fact sheet provides information to support the case for specific system and environmental changes that promote cardiovascular health.

Heart Health in the Workplace

Paul, P.E., et al (2016). The Art of Health Promotion – ideas for improving health outcomes. American Journal of Health Promotion, 30(7):563-582.

<http://journals.sagepub.com/doi/pdf/10.1177/0890117116668866>

This issue of *The Art of Health Promotion* (from the *American Journal of Health Promotion*) describes "Life's Simple 7" and the American Heart Association's plan to work with workplaces to improve heart health.

- 3. There are established scientific, evidence-based best practice guidelines.** These resources are regularly updated as more is learned about best practices for managing cardiovascular disease:

Best Practices Guide for CVD Prevention

From the Centers for Disease Control and Prevention

https://www.cdc.gov/dhds/pubs/docs/Best_Practices_Guide_intro_508.pdf

This guide highlights effective strategies for widespread control of hypertension and hyperlipidemia, focusing on health care systems interventions and community programs linked to clinical services.

Guidelines and Clinical Documents

From the American College of Cardiology

<https://www.acc.org/guidelines>

This page contains a repository of guidelines on a variety of cardiovascular topics.

Focus on Quality

From the American Heart Association

<http://www.heart.org/en/professional/quality-improvement>

This page has sets of guidelines for creating programs to improve care related to several cardiovascular conditions.

Heart Risk Calculator

From Ahead Research, Inc.

<http://www.cvriskcalculator.com>

This online calculator calculates 10-year risk of heart disease or stroke using the Atherosclerotic Cardiovascular Disease (ASCVD) algorithm.

Overview of Quality Improvement

What is Quality Improvement?

Quality improvement, or QI (also known as quality assurance, continuous improvement, quality management, or performance improvement), **is an organizational approach to managing the systems that support the work of an organization.** It focuses on creating system-level changes so that the organization's work meets or exceeds the needs and expectations of everyone who depends on that work.

Process and system thinking is critical to QI. All work of any kind is regarded as a process; a series of related activities or tasks aimed at producing a particular outcome. Everything that we do in health care involves processes, whether they are the defined steps in making an appointment or the multiple steps in managing the more complex needs of a person with cardiovascular disease.

QI has its own terminology and a set of defining principles. Key QI principles and some definitions are provided in the following resources:

Basics of Quality Improvement

From the American Academy of Family Practice

<https://www.aafp.org/practice-management/improvement/basics.html>

This page describes the basics of QI, including benefits, key concepts, and frameworks.

What is quality improvement and how can it transform healthcare?

Batalden, P.B. & Davidoff F. (2007). What is quality improvement and how can it transform healthcare. Qual Saf Health Care, 16(1):2–3.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2464920/>

This editorial published in *Quality and Safety in Health Care* defines QI and describes tools and methods for implementing it.

Practice Facilitation Handbook Module 4. Approaches to Quality Improvement

From the Agency for Healthcare Research and Quality

<https://www.ahrq.gov/professionals/prevention-chronic-care/improve/system/pfhandbook/mod4.html>

This module gives an overview of the 14 Deming principles, which focus on underlying processes as the primary source of error and variation, and describes a model for process improvement.

Five Deming Principles That Help Healthcare Process Improvement

From Health Catalyst

Article: <https://www.healthcatalyst.com/insights/5-Deming-Principles-For-Healthcare-Process-Improvement>

Infographic: <http://www.healthcatalyst.com/wp-content/uploads/2014/03/Five-Deming-Principles-help-process-improvement.png>

This page and infographic describe how five of the fourteen Deming principles apply to healthcare process improvement.

The Quality Improvement Approach

- Step 1: Leadership creates the mandate for change
- Step 2: Identify the opportunity
- Step 3: Collect data
- Step 4: Analyze the data
- Step 5: Choose an approach/strategy for improvement
- Step 6: Develop the process for implementation and evaluation
- Step 7: Implement the strategy
- Step 8: Evaluate against the goal/benchmark and continue improvement as needed
- Step 9: Achieve benchmark status
- Step 10: Establish sustainable processes

Quality Improvement Steps

Step 1: Leadership creates the mandate for change

Leadership provides a mandate for change and facilitates real improvements to the care delivery system. A leader has the authority in an organization to make changes and delegate the resources needed to implement and sustain those changes. Virtually any organization could assume a leadership role in cardiovascular care improvement if they have long term commitment, clear improvement goals, dedicated resources (staffing, budget, time, etc.), and provider interest and buy-in. Clinic and organizational leaders (those with the authority to change policy or redirect resources) lay the groundwork by making cardiovascular care improvements a system-wide priority and establishing or adopting cardiovascular care guidelines supported by all clinicians. They ensure that a multidisciplinary improvement team is convened and define the team's mission and improvement aim. They also identify a clinic leader to act as the project sponsor and liaison to management on behalf of the QI team. Ongoing leadership commitment and support is essential for the success of any QI effort. Leadership will determine readiness of the organization to take on a QI project.

The unique role of the leader will be to:

- Create and maintain a supportive environment for change by:
 - Demonstrating the need for improvement
 - Creating an expectation for change
 - Establishing incentives (or remove disincentives) for improving cardiovascular care
 - Helping to identify and remove barriers to improvement
- Prepare your organization for its leadership role by:
 - Establishing cardiovascular care improvement as a very high priority for your organization
 - Defining your organization's cardiovascular quality improvement plans
 - Seeking additional partners as needed to leverage scarce resources and extend reach
 - Identifying a team within your organization to implement the QI process and set expectations for roles
 - Monitoring and evaluating your organization's progress
 - Reporting out performance to governing board on a set timeframe (e.g., monthly or quarterly)
- Spread successful improvement strategies
- Maintain regular, effective communication to keep stakeholders informed, engaged, and committed to the improvement efforts.
- Share experiences and successes

- Spread the improvement program to other sites and to the care of other chronic conditions
- Facilitate continuous improvement in the clinics/sites by:
 - Promoting your organization’s long-term role in facilitating cardiovascular improvements
 - Helping clinics/sites create a culture of continuous improvement
 - Offering recognition and rewards to stimulate continued commitment to improvement

Step 2: Identify the opportunity

Prior to beginning the process of identifying the opportunity, the team needs to establish how they will work together, including roles and responsibilities, frequency of meetings, communication methods, etc.

Leadership will help the team develop a clear understanding of their charge by outlining the purpose with a goal statement, the need for improvement, and improvement objectives or specific aim. National benchmarks relevant to cardiovascular disease will help you define what is considered as best practice and can be used to help you determine what you should be aiming for compared to where you currently are. This may require some initial data collection to determine the current state of cardiovascular care in your organization.

You may find multiple “opportunities,” in which case you will need to prioritize them and determine where to begin. Taking them all on at once may be too much and undermine your success. You can always come back to the others once you have completed your top priority.

Once you have identified an area of opportunity, flowchart out the current process to better understand how things are happening now. For more about how to create a flowchart go to:

What is a Process Flowchart?

From the American Society for Quality

<http://asq.org/learn-about-quality/process-analysis-tools/overview/flowchart.html>

This site explains what a flowchart is, when to use it, and how to create one. It also provides example flowcharts and a flowchart template.

Flow Charting

From the American College of Cardiology

https://cvquality.acc.org/docs/default-source/qi-toolkit/14e_flow-charting_12-10-13new.pdf?sfvrsn=e5468fbf_2

This document provides an overview of how to create a flowchart.

It will be important that the aim statement is measurable with a defined time frame, and that you identify both how it will be measured and how you will know when you have achieved it. Consider using the SMART goal format when developing an aim statement.

Quality Measures

From the American Academy of Family Physicians

<https://www.aafp.org/practice-management/improvement/measures.html>

This page defines quality measures, gives examples of common measures, discusses how to decide what to measure, what constitutes a quality measure, and benchmarking.

The Essential Guide to Writing SMART Goals

From Smartsheet

<https://www.smartsheet.com/blog/essential-guide-writing-smart-goals>

This article describes what a SMART goal is, provides advice on how to craft them, and offers a template to help guide the process of writing SMART goals.

Compare how you are doing against national benchmarks and performance measures.

2018 ACC/AHA Clinical Performance and Quality Measures for Cardiac Rehabilitation

A Report of the American College of Cardiology/American Heart Association Task Force on Performance Measures

<https://www.ahajournals.org/doi/10.1161/HCQ.0000000000000037>

This report developed by the ACC/AHA provides practitioners and institutions that deliver cardiovascular services with tools to measure the quality of care provided and identify opportunities for improvement.

Step 3: Collect data

Some data will be needed to gain an understanding of the issues with the current care system that are impeding optimal cardiovascular care. This step will provide the team with a foundation on which to proceed. It will also supply comparative data for evaluating the benefits of any changes the team makes.

Step 4: Analyze the data

By translating the data collected in Step 3 into useful information, the team will uncover and be able to illustrate the real reasons why problems are occurring.

Managing Data for Performance Improvement

From the Health Resources and Services Administration

<https://www.hrsa.gov/sites/default/files/quality/toolbox/508pdfs/managingdataperformanceimprovement.pdf>

This document illustrates how a QI team can establish a plan and methods for gathering, analyzing, interpreting, and acting on data for a specific performance measurement.

Step 5: Choose an approach/strategy for improvement

During this step, the QI team will think through potential solutions to the causes of problems identified in Step 4. The team will develop a strategy that includes both an overall direction and

specific improvements. It will be helpful to look at best practice recommendations and success stories from other similar organizations to help identify strategies that have worked for other organizations like yours, keeping in mind that all organizations are different and have their own unique culture. The team will need to decide on a strategy that will fit their situation and ensure buy-in from leadership as well as providers involved in the improvement effort.

Patient outcomes improve when medical professionals follow the most up-to-date evidence-based treatment guidelines. Following are several resources related to treatment guidelines and best practices.

Guidelines related to Million Hearts[®], a national initiative to improve the nation's cardiovascular health through evidence-based practices and prevention:

Million Hearts[®] Resources for Clinicians

<http://www.homehealthquality.org/Cardiovascular-Health/Million-Hearts-Resources.aspx>

This is a collection of high-impact Million Hearts[®] materials for clinicians, including numerous sets of protocols, action guides, and templates to create your own protocols.

The Million Hearts initiative: Guidelines and best practices

Mazurek, B.M., et al (2016). The Million Hearts initiative: Guidelines and best practices. The Nurse Practitioner, 41(2):46-53.

https://journals.lww.com/tnpj/Fulltext/2016/02000/The_Million_Hearts_initiative_Guidelines_and_best.7.aspx

This article from the journal *The Nurse Practitioner* reviews the ABCS of Million Hearts and describes recommendations for clinical practice, education, research, and health policy.

Million Hearts[™]: preventing a million heart attacks and strokes through public–private collaboration

Wright, J.S. (2013). Million Hearts[™]: preventing a million heart attacks and strokes through public–private collaboration. Future Cardiology, Vol.9(3):305-307.

<https://www.futuremedicine.com/doi/full/10.2217/fca.13.15>

This interview published in *Future Cardiology* describes the Million Hearts[™] Initiative, its progress, and expected impact.

Million Hearts[®] Progress Report 2012-2016

From the Centers for Disease Control and Prevention and the Centers for Medicare & Medicaid Services

<https://millionhearts.hhs.gov/files/MH-meaningful-progress.pdf>

This report describes the progress made by the Million Hearts[®] initiative through 2016, describing the activities and policies supported by the initiative as well as the outcomes.

Million Hearts[®] Progress Report 2012

From the Centers for Disease Control and Prevention and the Centers for Medicare & Medicaid Services

https://millionhearts.hhs.gov/files/MH_YearinReview_2012.pdf

This report describes the progress made by the Million Hearts® initiative in its first year, focusing on the implementation of partnerships, strategies, and activities.

Guidelines on high blood pressure:

Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults

Cifu, A.S. & Davis, A.M. (2017). *Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults*. JAMA, 318(21):2132–2134.

<https://jamanetwork.com/journals/jama/article-abstract/2664350>

This article published in the *Journal of the American Medical Association* describes the 2017 guidelines for the prevention, detection, evaluation and management of high blood pressure in adults.

High Blood Pressure in Adults: Guidelines for the Prevention, Detection, Evaluation and Management

From the American College of Cardiology

<https://www.acc.org/guidelines/hubs/high-blood-pressure>

This site has many resources regarding the 2017 guidelines for the prevention, detection, evaluation and management of high blood pressure, as well as how to implement the guidelines.

Guidelines on Heart Failure:

2017 Guideline for the Management of Heart Failure

Yancy, C.W., et al (2017). *2017 ACC/AHA/HFSA focused update of the 2013 ACCF/AHA guideline for the management of heart failure: A report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America*. *Circulation*, 136:e137– e161.

<https://www.ahajournals.org/doi/pdf/10.1161/CIR.0000000000000509>

This article published in *Circulation* describes the 2017 guidelines for the management of patients with heart failure. The guidelines were developed by the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America.

Guidelines on Atrial Fibrillation:

2014 Guidelines for the Management of Atrial Fibrillation

January, C.T., et al (2014). *2014 AHA/ACC/HRS guideline for the management of patients with atrial fibrillation: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and the Heart Rhythm Society*. *Circulation*, 130:e199–e267.

<https://www.ahajournals.org/doi/abs/10.1161/CIR.0000000000000041>

This article published in *Circulation* describes the 2014 guidelines for the management of patients with atrial fibrillation. The guidelines were developed by the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Rhythm Society.

Other guidelines:

Best Practices Guide for CVD Prevention

From the Centers for Disease Control and Prevention

https://www.cdc.gov/dhdsdp/pubs/docs/Best_Practices_Guide_intro_508.pdf

This guide highlights effective strategies for widespread control of hypertension and hyperlipidemia, focusing on health care systems interventions and community programs linked to clinical services.

Developing or updating clinical practice guidelines and treatment protocols are ways to document new care processes. Sample guidelines and protocols are available in the Appendices of this guide:

Adult Heart Failure Guidelines

See Appendix A

Clinical Practice Guideline regarding adult heart failure treatment to support decision-making for patient care.

Hypertension Treatment Protocol

See Appendix B

Evaluation and Treatment Protocol regarding adult hypertension to support decision-making for patient care.

Lipid Screening & Treatment Protocol

See Appendix C

Evaluation and Treatment Protocol regarding adult lipid screening to support decision-making for patient care.

Step 6: Develop the process for implementation and evaluation

The team will next identify the specific plan for implementing the new or improved cardiovascular care processes. Identify where you will try this out, who will be involved and responsible for informing staff of the process, how the improvements will be documented, and how will the process be re-evaluated for further refinement.

Step 7: Implement the strategy

As the team executes the plan, they will also monitor whether the new care processes are working as planned and adjust as needed.

Step 8: Evaluate against the goal/benchmark and continue improvement as needed

At this stage, the team reviews its progress and the improvement process used. The team measures and compares effects of the changes against improvements by moving through steps 5-8 repeatedly. These four steps are similar to the Plan-Do-Study-Act (PDSA) cycle, which is often referred to as a process of small, rapid tests of change. The idea is to catch errors and problems quickly, adjust your plan, try again and re-evaluate. Keep repeating these four steps until you have achieved your goal.

Plan-Do-Study-Act (PDSA) Worksheet

From the Institute for Healthcare Improvement

<http://www.ihl.org/resources/Pages/Tools/PlanDoStudyActWorksheet.aspx>

This page describes the PDSA cycle and provides a worksheet to document a test of change. Brief videos explaining PDSA cycles are also available on the page.

Step 9: Achieve benchmark status

It is time to celebrate! It is always important to celebrate success and acknowledge those who did the work. The feeling of accomplishment and recognition for the work will go a long way in keeping the momentum going. This team can become a group of champions for further improvement efforts in the future.

Step 10: Establish sustainable processes

Now that you have achieved your goal, you want to maintain it. It will be important to make QI a continuous process and ongoing pursuit in your organization. QI should become a standard operating procedure, incorporating it as a way of moving forward, expanding to other areas of opportunity, and holding your gains.

Holding the Gains in Quality Improvement

From the American Academy of Family Practice

<https://www.aafp.org/fpm/1999/0500/p29.html>

This article describes how to keep momentum going and find further needed improvements.

Setting facility-wide QI policies can be a way to institutionalize QI efforts and ensure sustainability. Sample policies are available in the Appendices of this guide:

Quality Clinic Policy

See Appendix D

This overarching clinic policy delineates QI efforts in order to identify problems or potential problems and use data to track root causes and develop solutions.

Patient Care Services Quality Assessment / Performance Improvement Program

See Appendix E

The goal of this policy is to develop and establish a Quality Assessment / Performance Improvement program that will enhance patient care and assess appropriate allocation of healthcare resources through ongoing assessment of aspects of patient care and the performance improvement of identified problem.

Additional Resources

Quality Improvement

Quality Improvement for Institutions: QI Toolkit

From the American College of Cardiology

<https://cvquality.acc.org/Clinical-Toolkits/QI-Toolkit>

This toolkit provides information and resources about the entire QI process, including worksheets and other tools.

Cardiovascular Health Improvement Initiative

From Home Health Quality Improvement

<http://www.homehealthquality.org/Cardiovascular-Health.aspx>

This page provides an overview of the national Million Hearts® initiative and links to a recording of the initiative's kick-off webinar.

Quality Assurance / Process Improvement (QAPI) Tool Framework

From the Center for Medicare & Medicaid Services

<https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/Downloads/ProcessToolFramework.pdf>

This chart describes five key elements of QAPI and provides tools related to each element.

Quality Improvement Methods

National Nursing Home Quality Improvement Campaign

<https://www.nhqualitycampaign.org/qualityImprovementMethods.aspx>

This website provides information, tools, and resources about a variety of QI methods.

Clinical Outcomes Assessment Program (COAP)

From COAP, a program of the Foundation for Health Care Quality

<http://www.coap.org/about-coap/about-coap-overview>

<http://www.coap.org/participating-hospitals>

COAP is a regional quality collaborative that leverages medical leadership and clinical, administrative, and financial data to establish and drive best practices in cardiac care. The COAP website describes the collaborative and their activities.

Resources for Public Health Quality Improvement

From the Institute for Healthcare Improvement

<http://www.ihc.org/resources/Pages/Tools/ResourcesforPublicHealth.aspx>

This page provides a list of resources to help practitioners apply QI to programs and processes.

The Science of Improvement on a Whiteboard!

From the Institute for Healthcare Improvement

<http://www.ihf.org/education/IHIOpenSchool/resources/Pages/BobLloydWhiteboard.aspx>

These short videos discuss QI concepts including Deming's System of Profound Knowledge, the Plan-Do-Study-Act (PDSA) cycle, flowcharts, and more.

Quality Improvement Resources

From the Public Health Foundation

http://www.phf.org/focusareas/qualityimprovement/Pages/Quality_Improvement_Resources.aspx

This page defines QI and provides resources, tools, and case studies that facilitate application of QI principles.

5 Phases of Transformation

From the Virginia Cardiac Services Quality Initiative

<http://vcsqi.org/wp-content/uploads/2017/11/The-TCPI-Journey-5-phases-roadmap-v3.pdf>

The VCSQI is a consortium of hospitals that aims to improve quality of care and contain costs related to heart procedure programs. This document describes the five phases of transformation as part of the Transforming Clinical Practice Initiative.

South Dakota Cardiovascular Health and Quality Improvement Organizations

South Dakota Cardiovascular Collaborative

<https://doh.sd.gov/diseases/chronic/heartdisease/state-plan.aspx>

South Dakota Department of Health, Heart Disease and Stroke Prevention Program

<https://doh.sd.gov/diseases/chronic/heartdisease/>

South Dakota Association of Healthcare Organizations

<http://sdaho.org/>

South Dakota State Medical Association

<https://www.sdsma.org/SDSMA/>

American Heart Association

<https://www.heart.org/>

Great Plains Quality Innovation Network

<https://greatplainsqin.org/>

Community Healthcare Association of the Dakotas

<https://www.communityhealthcare.net/>