

ACTION III 2020 Project Summaries

Project Title	Prime Contractor	Total Cost	Page #
Assistance to AHRQ to Disseminate EvidenceNOW Findings and Plan for Future Investments in Primary Care Quality Improvement Infrastructure	Abt	\$2,258,365	1
Evaluation of the SHARE Approach Model	University of Colorado, Denver	\$1,199,946	4
Technical Assistance to and Evaluation of Grant Initiative to Develop State-level Capacity for Dissemination and Implementation of Patient-Centered Outcomes Research into Primary Care	Abt	\$2,749,598	6
Implementation of an Electronic Care Plan for People with Multiple Chronic Conditions	RTI	\$1,379,102	11
The Comprehensive Unit-based Safety Program (CUSP) for Methicillin-Resistant Staphylococcus Aureus (MRSA) Prevention	JHU	\$16,474,659	Coming Soon



This page is intentionally left blank.

ACTION III Project Summary: Assistance to AHRQ To Disseminate EvidenceNOW Findings and Plan for Future Investments in Primary Care Quality Improvement Infrastructure

Prime Contractor: Abt Associates

Principal Investigator/Project Lead: Jessie Gerteis, M.P.H.

Additional Key Personnel and Subcontractors

- Gabrielle Weber
- Crosby Marketing

Project Period: 2/14/2020–2/13/2023

Total Cost: \$2,053,511

AHRQ Contracting Officer's Representative: Jan DeLaMare, M.P.Aff.

Project Purpose Goals and Objectives

The purpose of this project is to assist AHRQ in disseminating findings, resources, and tools emerging from the EvidenceNOW initiative. The project will also help build on those findings to develop a strategic plan to inform AHRQ's future investments in supporting primary care quality improvement and its required infrastructure in the United States.

Specific objectives are to:

1. Create and update resources, tools, syntheses, stories, and other communication materials designed to increase awareness of emerging EvidenceNOW findings.
2. Create and implement a plan to disseminate emerging EvidenceNOW findings to key stakeholder groups, including primary care practices, quality improvement personnel, practice facilitators, State and local policymakers, and others.
3. Develop recommendations for integrating EvidenceNOW web content with other relevant primary care-related content on AHRQ's website.
4. Assist AHRQ in developing a strategic plan, based on learning from EvidenceNOW, to inform AHRQ's future investments in supporting primary care quality improvement and its required infrastructure in the United States.
5. Develop a handbook to support and train health information technology (IT) advisors.

Background

Every year, more than 1.5 million people in the United States suffer a heart attack or stroke. Survivors often need continuous care, and primary care providers may help these patients manage their healthcare needs.

AHRQ recognizes that primary care forms the foundation for high-quality, accessible, efficient healthcare for all Americans. As America's population grows and ages and as more people are living with complex health conditions, the Nation's primary care system must adapt to meet the country's changing needs. The ability to integrate new discoveries and proven practices into patient care creates a stronger and more effective healthcare system.

In 2015, AHRQ launched EvidenceNOW, a \$112 million effort to strengthen our Nation's primary care system and its ability to adapt, thrive, and improve patient care through the use of evidence in an environment of discovery and change. One of the first topics was cardiac care (EvidenceNOW: Advancing Heart Health in Primary Care).

EvidenceNOW funded seven regional cooperatives to support small and medium primary care practices in integrating evidence-based approaches into patient care. The cooperatives also helped practices collect and analyze their own data to ensure they were delivering the best care possible and making continuous data-informed improvements.

In addition, EvidenceNOW funded a consortium of researchers to conduct an independent national evaluation of the initiative. As grants for the cooperatives have now ended and the evaluation of EvidenceNOW enters its final phase, this project will compile and disseminate the rich findings and tools from EvidenceNOW to support continued primary care transformation efforts nationwide.

This contract will help disseminate the important findings and lessons learned from EvidenceNOW to primary care audiences that can best learn from and use them, including up to 134,000 of American Academy of Family Physicians' members, an estimated 100,000 practice facilitators, and 77,000 quality improvement professionals on LinkedIn.

Target Audiences

The intended audiences for the materials and tools developed for this project include primary care clinicians and staff, practice facilitators, quality improvement personnel, primary care researchers, and State and local policymakers. The ultimate beneficiaries of the implementation of EvidenceNOW findings and resources are patients, particularly primary care patients at risk for heart disease.

Methods

The Abt team will engage key stakeholders and subject matter experts and review and build on existing findings and results to:

- Identify materials for development and revision;
- Use design and plain language principles to develop written material; and
- Use best practices in website design, architecture, navigation, and engagement for redesign and reorganization recommendations.

In addition, the team will use the SOAR framework (Strengths, Opportunities, Aspirations, and Results) and an appreciative inquiry approach to guide the strategic planning process.

Key Activities

- **Scan** the EvidenceNOW microsite, grantee websites, and journal publications to identify relevant findings; and categorize EvidenceNOW findings by key topic areas to identify common themes.
- **Develop a strategic communication matrix** that distills and aligns key EvidenceNOW findings with potential key messages, target audiences, and dissemination formats.
- **Develop communication materials, tools, and resources** such as blog posts, infographics, syntheses, stories, conference flyers, PowerPoint slides or talking points, social media or listserv messages, and Tools for Change resources.
- **Collect and track feedback and suggested improvements** from stakeholders and subject matter experts on materials, resources, and tools.
- **Develop and execute a dissemination plan** outlining strategies and tactics for reaching the target audiences (primary care practices, including clinicians and staff, Quality Improvement Organizations and Area Health Extension Centers, practice facilitators, primary care researchers, and State and local policymakers). Dissemination strategies may include a combination of earned and paid trade media outreach, boosted LinkedIn outreach, public webinars, direct email outreach, promotion on selected websites and trade media, and communications via the AHRQ listserv and social media.
- **Develop annual summary of dissemination efforts** to report on engagement and feedback from stakeholders to whom findings are disseminated and to summarize dissemination metrics (e.g., number of impressions, opens, click-throughs, social media comments, webinar registrations and attendees, social media comments).
- **Develop recommendations for integrating EvidenceNOW web content** with other primary care content on the AHRQ website and for organizing AHRQ's web-based primary care content.
- **Plan and host an annual stakeholder meeting** to support strategic planning for the project, including gathering input on the current primary care quality improvement (QI) landscape and perspectives to support AHRQ's strategic thinking in primary care QI.
- **Develop a handbook for health IT advisors:**
 - Identify, invite, and convene an editorial panel, writers, and reviewers to assist in developing the handbook for health IT advisors.
 - Collect and review relevant existing content for inclusion in and adaptation for the handbook.
 - Work with the editorial panel to develop and refine the handbook outline and writing assignments and then to review and revise content based on editorial panel review and feedback from health IT advisors.

Key Deliverables

- Communication materials
- Tools for Change resources
- Annual summary of feedback on resources and tools
- Report of recommendations for integrating EvidenceNOW and other primary care-related web content
- Strategic plan
- Health IT advisors' handbook

ACTION III Project Summary: Evaluation of the SHARE Approach Model

Prime Contractor: Regents of the University of Colorado

Principal Investigator and Project Director: PI-Laura Scherer, Ph.D.; PD-Mark Gritz, Ph.D.

Key Personnel

- Perry Dickinson, M.D.
- Doug Fernald, M.A.
- Daniel Matlock, M.D., M.P.H.
- Allyson Gottsman, B.A.
- Chris Kneopke, Ph.D., MSW, LCSW
- Robyn Wearner, M.A., RD, PMP
- Elinor Brereton, M.A.

Project Period: 11/15/2019–11/28/2023

Total Cost: \$1,199,946

AHRQ Contracting Officer's Representative: Alaina Fournier

Project Purpose, Goals, and Objectives

The goal of this project is to evaluate the implementation and effectiveness of the SHARE Approach for improving clinician shared decision making (SDM). The three primary objectives of this project are:

- To update the SHARE Approach curriculum and tools to have updated references and relevance for SDM in the context of problem solving and to shorten the curriculum to facilitate implementation;
- To evaluate how the SHARE Approach is implemented in four cardiology and eight primary care clinics across the State of Colorado;
- To assess the effectiveness of the SHARE Approach in improving clinicians' use of SDM with patients facing treatment choices and with complex issues involving both short- and long-term problem solving.

Background and Significance

Studies have shown that SDM can increase patient knowledge, satisfaction, and receipt of preference-concordant care. In 2013, following calls for resources and support to facilitate SDM across many areas of medicine, AHRQ developed the SHARE Approach model that provides education and tools for clinicians to support patient-centered conversations. The SHARE Approach is not tied to any specific clinical context or decision, and the strength and innovation of this approach is that it can be used to train clinicians working in diverse clinical areas. The SHARE Approach remains one of the only freely available resources for comprehensive SDM training for clinicians.

Although the SHARE Approach has seen signs of early success, to date the SHARE Approach has not been systematically implemented and evaluated in the diverse clinic and patient populations where it was intended to be used. The primary purpose of this project is to fill this gap. Critical unanswered questions include whether SHARE effectively enables clinicians to engage patients in conversations in different types of clinical situations, improves patient-centered outcomes such as patient participation in decision making and satisfaction, and improves clinician-centered outcomes such as clinician satisfaction and burden. This research will identify the effectiveness of SHARE and study how it is implemented in diverse clinic settings.

Target Audiences

All primary care and specialty medical practices will be able to benefit from an understanding of how to effectively implement the SHARE Approach and its expected benefits. Patients may benefit from improved conversations with their clinician and receipt of care that is consistent with their preferences and values. Patients are the ultimate beneficiaries of organizations using this approach.

Project Settings

- University of Colorado School of Medicine, Aurora, CO – Project Lead
- Eight primary care practices in Colorado that agree to implement the SHARE Approach
- Four cardiology practices in Colorado that agree to implement the SHARE Approach

Key Tasks and Methods

- Solicit clinician and patient stakeholder feedback on SHARE materials and tools.
- Conduct an environmental scan of recent SDM literature.
- Revise SHARE materials and tools using stakeholder feedback and recent literature.
- Evaluate the effectiveness and implementation of the SHARE Approach in eight primary care and four ambulatory specialty (cardiology) clinics using a pre-post trial with staggered implementation of SHARE.
 - Implementation and dissemination will be assessed using the RE-AIM framework (Reach, Effectiveness, Adoption, Implementation, and Maintenance).
 - Effectiveness of the SHARE Approach for improving SDM will be measured by patient and clinician self-reports and coded audio recordings of patient-clinician interactions.
- Further revise SHARE Approach materials using lessons learned from the implementation and evaluation results.
- Disseminate project findings through a final report, peer-reviewed publications, and other dissemination avenues.

Expected Deliverables

- Updated implementation plan
- Updated SHARE Approach curriculum, tools, and materials
- Practice recruitment report
- Revised SHARE Approach curriculum, tools, materials, and implementation guide
- Final project report

ACTION III Project Summary: Technical Assistance to and Evaluation of Grant Initiative To Develop State-Level Capacity for Dissemination and Implementation of Patient-Centered Outcomes Research Into Primary Care (Building State Capacity)

Prime Contractor: Abt Associates

Project Director: Ann Loeffler, M.S.P.H.

Key Personnel and Subcontractors:

- Key Personnel:
 - Sara Shoemaker, Ph.D., Hunt, Evaluation Team Lead
 - Cynthia Klein, Ph.D., Project Quality Advisor
 - Lyndee Knox, Ph.D., Practice Facilitation Curriculum Lead Author
 - Lorie Martin, B.A., Communications Team Lead

- Subcontractors:
 - Center for Health Care Strategies
 - Comagine

Project Period: 2/14/2020–2/13/2024

Total Cost: \$2,749,598

AHRQ Contracting Officer’s Representative: Daniel Miller

Project Purpose, Goals, and Objectives

The primary goals of this project are to:

1. Provide technical assistance to AHRQ grantees that will be establishing, expanding, and sustaining State-level quality improvement (QI) networks to help primary care practices build QI capacity and implement evidence from patient-centered outcomes research (PCOR), starting with heart health; and
2. Conduct an overarching evaluation of this grant initiative to capture lessons learned from the grantees and to develop materials that may help other States improve their primary care QI efforts.

Specific objectives include:

1. Deliver one-on-one, targeted, and group technical assistance to AHRQ grantees through a core group of coaches with subject matter expertise and access to a pool of other experts, tools, and other resources.
2. Create and disseminate communication materials to share grantee accomplishments and promote actionable tools and strategies for building sustainable, State-level primary care

QI infrastructure, including a handbook that will provide models and strategies for implementing State-based QI programs.

3. Conduct a robust cross-site mixed-methods evaluation of the initiative to document the ways grantees create State-level entities, the network models they choose to support QI, the impact of their efforts on practice capacity and outcomes, and the factors associated with success.
4. Create interactive modules for training practice facilitators, updating AHRQ's Primary Care Practice Facilitation Curriculum.

Background and Significance

Until the recent COVID-19 pandemic, heart disease had been the leading cause of death in the United States for the past eight decades, regardless of race, ethnicity, or sex.¹ One in every four deaths was caused by heart disease; more recently, having a heart disease-related condition has contributed to death from COVID-19.² Many of these conditions are preventable with high-quality primary care.³ Therefore, in 2015 AHRQ launched EvidenceNOW: Advancing Heart Health, a \$112 million effort and one of AHRQ's largest primary care research initiatives to date.

Under EvidenceNOW, AHRQ awarded grants to seven regional cooperatives that provided support to primary care practices to help them integrate evidence-based approaches into patient care and to offer services to improve delivery of heart health care. EvidenceNOW and other similar programs demonstrated that QI networks can enable primary care practices to improve the quality of their care while they navigate an ever-changing healthcare landscape.

Since the launch and implementation of EvidenceNOW, primary care practices have had to adapt to the new pandemic while navigating continuing changes in the healthcare landscape, including value-based care and payment models, new technologies, and increasing emphasis on shared decision making and patient-centered care.

Now more than ever, primary care practices need support to integrate evidence-based approaches and treatments and make data-informed, continuous improvements. Thus, AHRQ has launched a new EvidenceNOW initiative: Supporting Primary Care To Advance Cardiovascular Health in States With High Prevalence of Preventable CVD Events. This initiative will use what was learned from AHRQ's [EvidenceNOW: Heart Health](#) as a foundation for establishing State-based sustainable primary care QI networks. The goal is to align improvement activities statewide and, ultimately, prevent heart disease and stroke.

This new EvidenceNOW initiative includes grants and a contract:

1. AHRQ will award a set of grants to establish State-based multi-organizational partnerships between public entities and other QI and primary care entities ("cooperatives") to align existing efforts across States to engage primary care practices in evidence-based QI. Each State cooperative will support a learning network of primary care practices. At least 50 of these practices will participate in a QI project focused on improving heart health and stroke prevention.

Practices will benefit from peer learning within their own State and cooperatives will benefit from peer sharing with other participating State cooperatives. While the initial

focus will be on cardiovascular disease, the capacity and skills supported through the initiative can be leveraged in the future to address other chronic conditions.

2. Recognizing that States with high disease burdens and limited capacity to leverage QI efforts may need specialized technical assistance to support their efforts, AHRQ has awarded this contract to provide this assistance in the forms of training and coaching. The contract will also support dissemination of interim lessons learned, resources, tools, and success stories to inform other State-based QI efforts and advance shared, statewide goals for primary care transformation.

Finally, this contract will support an overall evaluation that will summarize patient and practice capacity outcomes. In addition, it will describe how States created their QI networks, including the models they chose, strategies to strengthen primary care practices, lessons learned, and factors that contributed to their success. The evaluation will provide valuable guidance for future improvement efforts.

Target Audiences

The intended audiences for technical assistance delivered through this project include State-level QI cooperatives. These cooperatives will apply new knowledge, skills, and approaches to benefit primary care practices interested in improving heart health outcomes and their capacity for QI. Communication materials, including the practice facilitation course and evaluation findings, will benefit everyone who works on strengthening primary care and patient-centered outcomes in the United States. These include QI staff, health systems researchers, policymakers, and other stakeholders. All facets of this project ultimately benefit patients at risk of morbidity and mortality associated with heart disease and stroke.

Project Settings

States with grantees selected for AHRQ funding under [RFA HS-20-002: Supporting Primary Care To Advance Cardiovascular Health in States With High Prevalence of Preventable CVD Events](#). Awardees will be determined by 2021.

Key Tasks and Methods

- Prepare To Deliver Technical Assistance:
 - The project team will identify a faculty composed of subject matter experts in areas such as practice recruitment, multi-organizational partnership engagement, governance structures, and effective methods to build practice capacity to implement PCOR evidence.
 - The team will develop an outline, analysis plan, and brief describing lessons learned about models during prior initiatives such as EvidenceNOW: Heart Health, Transforming Clinical Practice Initiative, and others related to supporting multi-organizational networks to improve primary care.
- Provide Technical Assistance to Grantees:
 - The team will develop a grantee journey map to establish a common language and expectations for technical assistance with grantees. The Core Coaching Group will also

- create grantee-specific technical assistance plans based on the needs and input of grantees once they are identified. Core Coaching Group members, subject matter experts, and their peers will deliver technical assistance individually or in groups during virtual meetings and one in-person meeting each year, as appropriate. Grantees will also apply resources and tools shared during technical assistance activities.
- The team will establish a technical assistance tracking system (TTS) to capture and monitor technical assistance needs and actions taken to address those needs. The TTS will support effective monitoring of technical assistance efforts to identify gaps, resources, and collaborative learning opportunities.
 - Collect, Create, Disseminate, and Track Tools, Resources, and Other Products:
 - The team will ask grantees for any tools and materials to be modified and shared more broadly and will maintain a catalogue of these items, describing the name of the tool, its content, target audience, and other characteristics. The tools will eventually be posted on AHRQ's EvidenceNOW Tools for Change website.
 - The team will create a guide on how to develop and sustain a State-level entity to deliver primary care QI support, a succinct, user-friendly document for future State entities. It will be informed by both technical assistance and evaluation data.
 - The team will recommend ways to publicize the products to specific target audiences using existing AHRQ channels (listservs, social media, website) and other mechanisms. These may include web marketing, social media channels, GovDelivery blasts, trade journal publications, and State and national primary care association newsletters.
 - Evaluate:
 - The team will apply a mixed-methods approach to the analysis. The Abt team will deductively and inductively code and analyze qualitative data using NVivo to create individual case studies and support programwide analysis. Descriptive statistics will include changes in two key ABCS outcomes (aspirin when appropriate, blood pressure control, cholesterol management, and smoking cessation) and changes in practice capabilities as indicated in repeated Change Process Capability Questionnaires.
 - The team will share annual interim findings, including data limitations and other issues that could threaten the findings' validity. The final report will include findings on patient outcomes and practice capacity, individual case studies, and a summary of collective results. The findings in the report will include descriptions of grantee strategies, strengths and weaknesses, lessons learned, and implications for future programs. As appropriate, the findings will inform a manuscript to be submitted to a peer-reviewed journal.
 - Revise AHRQ's Primary Care Practice Facilitation Curriculum:
 - The team, in consultation with a practice facilitation expert, will conduct a review of AHRQ's Primary Care Practice Facilitation Curriculum to identify out-of-date material and gaps. The expert will conduct virtual interviews with a small group of practice facilitation leaders, who will reflect the evolution from a nascent field to an established profession. This group will suggest how to incorporate best practices in EvidenceNOW:

Heart Health, the Transforming Clinical Practice Initiative, and other practice facilitation models and activities into the curriculum.

- The team will revise each training module and create new modules as needed and will work with AHRQ's information technology group to design and implement an interactive online course.

Key Deliverables

- Brief on State-level multiorganizational models
- Faculty roster
- Materials for in-person meetings and meeting summaries
- Tools for Primary Care Improvement for States landing page
- Communication plan and products
- Tools and resources from grantees
- How-to guide
- Evaluation design
- Final evaluation report
- Updated Primary Care Practice Facilitation Curriculum

References

1. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division for Heart Disease and Stroke Prevention. Heart Disease Facts. Last reviewed June 22, 2020. <https://www.cdc.gov/heartdisease/facts.htm>. Accessed October 13, 2020.
2. Centers for Disease Control and Prevention. Coronavirus Disease 2019 (COVID-19): People at Increased Risk and Other People Who Need To Take Extra Precautions. Last updated June 25, 2020. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html>. Accessed October 13, 2020.
3. Centers for Disease Control and Prevention. Preventable Deaths From Heart Disease and Stroke. Last reviewed September 3, 2013. <https://www.cdc.gov/vitalsigns/heartdisease-stroke/index.html>. Accessed October 13, 2020.

ACTION III Project Summary: Implementation of an Electronic Care Plan for People With Multiple Chronic Conditions

Prime Contractor: RTI International

Project Director: Saira Haque, Ph.D., MHSA, FAMIA

Subcontractors

- David Dorr, M.D., Oregon Health and Science University (OHSU)
- Dave Carlson, Ph.D., Clinical Cloud Solutions

Project Period: 2/7/2020–10/6/2021

Total Cost: 1,379,102

AHRQ Contracting Officer's Representative: Chun-Ju (Janey) Hsiao

Project Purpose

The purpose of this project is to develop and pilot test an electronic care (e-care) plan application (app) that will improve care coordination for people with multiple chronic conditions (MCC). More specifically, the pilot test will assess whether the e-care plan app facilitates standardized data collection and data sharing across clinical and community settings and systems for patients with chronic kidney disease (CKD) and at least one other chronic illness.

Background

Care plans are crucial tools to address and coordinate healthcare needs of people with MCC.¹ A care plan is a dynamic and personalized way to document an individual's needed healthcare activity, goals, and objectives.^{2,3} The U.S. Department of Health and Human Services envisions a comprehensive shared e-care plan⁴ that enables clinicians to view relevant information electronically and enables individuals to access their personal health information directly so that both clinical and nonclinical needs are addressed.

To advance this important vision, AHRQ and the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) have partnered to develop and support an e-care plan app that makes patient-centered data available across care and research settings for people with CKD and MCC. CKD is common, costly, and consequential⁵; people with CKD often also have MCC.⁶⁻¹⁰

In the first phase of this project, Cognitive Medical Systems, under contract to NIDDK, is developing:

- A Substitutable Medical Applications, Reusable Technologies (SMART[®]) on Fast Healthcare Interoperability Resources (FHIR[®]) e-care plan app and
- An FHIR Implementation Guide (IG) that documents the agreed-on technical mechanisms for data exchange between the app and other health information technology (IT) systems.

The research conducted under the second phase of the project will enable the AHRQ/NIDDK team to understand how the app and IG work in practice. The team will also be able to see the extent to which the app and IG enable collection and sharing of standardized data across diverse health settings and health IT systems for people with CKD and MCC. The pilot test's outcomes will guide further enhancement of the e-care plan app and its IG to enable physicians to care for patients with MCC better and to enable patient-centered outcomes research.

Target Audience

AHRQ and NIDDK are the intended audiences of the evaluation and the report. Once the report is final, AHRQ plans to disseminate it to their Federal partners and others who develop, implement, and use FHIR apps. Ultimately, an e-care plan app can help people with MCC and physicians who treat patients with MCC manage and coordinate care and services across diverse settings.

Project Settings

We anticipate that six sites will participate in the pilot, all located near OHSU, with the following anticipated site mix composed of 50 percent primary care organizations:

- 3 primary care (2 OHSU, 1 Northwest Primary Care)
- 1 nephrology (1 OHSU)
- 1 dialysis (Fresenius or DaVita)
- 1 long-term and post-acute care (Holladay Park or Mirabella)

Key Tasks and Methods

- **Stakeholder Working Groups:** Before the pilot, input from stakeholders will be obtained via virtual biweekly meetings to obtain input into the app and IG. The meetings' purpose will include understanding user needs and testing aspects of the app and IG that are available as development progresses.
- **Site Recruitment:** RTI will recruit sites from diverse settings, including in ambulatory care, specialty care, long-term and post-acute care, and dialysis sites. All recruited sites will have shared patients with CKD and MCC and:
 - Experience creating and using care plans,
 - A local organizational network that allows secure web- or mobile-based apps to be used and data to be transferred,
 - FHIR capabilities through their health IT systems or the ability to stage data to be translated into FHIR-based exchanges,
 - Local health IT staff who can help address any technical concerns and assess security, and
 - Local administrative (e.g., practice or site managers) and clinical champions who can report on the utility of the tool and its use in improving care.

The team will assess each of these characteristics and contextual information before starting the work and enrolling the site in the project.

- **Pilot Design:** RTI will develop a draft pilot design based on the e-care plan app functions and features, technical infrastructure, and business requirements. The pilot design will include a plan for measuring performance and reporting test results, including support for connectathons and IG updates.
- **Development of Training Materials:** To prepare for executing the pilot and as part of the design, RTI will develop and implement training approaches and resources for the sites and users. These will include an initial training kickoff meeting with the sites and ongoing biweekly video training via Zoom to review the app and discuss any workflow considerations the sites have identified.
- **IT Governance:** IT governance approval will be obtained before implementing the third-party app across sites.
- **Test Environment:** After IT governance approval is received and before the pilot's go-live date, all sites will test the app in a test environment during specific days and times. RTI will develop test scripts and site-specific scenarios for guidance on site-specific technical capabilities (e.g., ability to query/exchange care plan data or view only).
- **Pilot Implementation:** Once the app is live and in the production environment, we will conduct a soft or limited rollout. This limited rollout is a short period when the app can be used by a limited number of patients and users (one or two) to identify any issues in the production environment before full implementation across sites and users.

Upon completion of a successful soft rollout, we will inform all sites that the app is live for use by all users. Internal site leaders (the champions) will attend biweekly conference calls across sites during pilot design and execution to provide feedback on the app and ensure that issues are tracked for documentation and resolution. Depending on the topic of the call, they may send a designee. The goal is for pilot sites to meet to facilitate information sharing.

- **Pilot Evaluation:** Pilot data collection will be composed of two main elements: (1) semistructured interviews and (2) app log data. We will conduct semistructured postimplementation interviews with stakeholders across sites to explore their perceptions on how the app is implemented (to inform changes to the IG) and their experiences with the app. We will also determine whether the data in the app are accurate and appropriate. We will seek input across roles and study sites to obtain a diversity of opinions. Interview guides will be tailored to each stakeholder role.

RTI anticipates performing three types of analysis:

- Electronic health record data. Confirm ability to assess care plan data, conduct terminology mapping, identify issues that need to be resolved.
 - FHIR capabilities. Review and confirm alignment of existing electronic health record capabilities and the IG in development.
 - Organizational factors. Identify business requirements and clinical and workflow needs.
- **Final Report:** RTI will review the data collected from each stage of the pilot to highlight usability enhancements, lessons learned, and recommendations for future app and IG development.

- **Connectathons:** At AHRQ’s direction and as appropriate, the RTI team will participate in the connectathons that align with the developer’s testing to ensure that testing scenarios incorporate sites’ real-world feedback.

Key Deliverables

- Workplan
- Plan for Stakeholder Meeting
- Pilot Design
- Final Report
- Connectathon Participation Plan

References

1. Lion KC, Mangione-Smith R, Britto MT. Individualized plans of care to improve outcomes among children and adults with chronic illness: a systematic review. *Care Manag J* 2014;15(1):11-25. <https://pubmed.ncbi.nlm.nih.gov/24761537/>. Accessed October 13, 2020.
2. ISO 13940:2015. Health Informatics—System of Concepts To Support Continuity of Care. Geneva, Switzerland: International Organization for Standardization; 2015. <https://www.iso.org/standard/58102.html>. Accessed October 13, 2020.
3. Dykes PC, Samal L, Donahue M, Greenberg JO, Hurley AC, Hasan O, Bates DW. A patient-centered longitudinal care plan: vision versus reality. *J Am Med Inform Assoc* 2014;21(6):1082-90. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4215040/>. Accessed October 13, 2020.
4. Baker A, Cronin K, Conway PH, DeSalvo KB, Rajkumar R, Press MJ. Making the comprehensive shared care plan a reality. *NEJM Catalyst* 2016 May 18.
5. Centers for Disease Control and Prevention. Chronic Kidney Disease: Common - Serious - Costly. Last reviewed December 27, 2019. <https://www.cdc.gov/kidneydisease/prevention-risk/CKD-common-serious-costly.html>. Accessed October 13, 2020.
6. Fraser SD, Roderick PJ, May CR, McIntyre N, McIntyre C, Fluck RJ, Taal MW. The burden of comorbidity in people with chronic kidney disease stage 3: a cohort study. *BMC Nephrol* 2015;16:193. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4666158/>. Accessed October 13, 2020.
7. Lee WC, Lee YT, Li LC, Ng HY, Kuo WH, Lin PT, Lee CT. The number of comorbidities predicts renal outcomes in patients with stage 3–5 chronic kidney disease. *J Clin Med* 2018;7(12):493. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6306906/>. Accessed October 13, 2020.
8. Fraser SD, Blakeman T. Chronic kidney disease: identification and management in primary care. *Pragmat Obs Res* 2016;7:21-32. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5087766/>. Accessed October 13, 2020.
9. Centers for Disease Control and Prevention. Chronic Kidney Disease (CKD) Surveillance System. Last updated March 20, 2020. <https://nccd.cdc.gov/ckd/default.aspx>. Accessed October 13, 2020.
10. Zelnick LR, Weiss NS, Kestenbaum BR, Robinson-Cohen C, Heagerty PJ, Tuttle K, de Boer IH. Diabetes and CKD in the United States population, 2009-2014. *Clin J Am Soc Nephrol* 2017;12(12):1984-90. <https://doi.org/10.2215/CJN.03700417>. Accessed October 13, 2020.