Patient-Centered Outcomes Research Trust Fund Strategic Framework

DEPARTMENT OF HEALTH & HUMAN SERVICES • USA

AHRQ
Agency for Healthcare Research and Quality

Patient-Centered Outcomes Research Strategic Framework

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THE AGENCY FOR HEALTHCARE RESEARCH AND QUALITY'S PATIENT-CENTERED OUTCOMES RESEARCH TRUST FUND STRATEGIC FRAMEWORK

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Acronyms

AHRQ	Agency for Healthcare Research and Quality
ASPE	Assistant Secretary for Planning and Evaluation
CER	Comparative Effectiveness Research
CDS	Clinical Decision Support
D&I	Dissemination & Implementation
EPC	Evidence-based Practice Center
LHS	Learning Health System
NAC	National Advisory Council
NASEM	National Academies of Sciences, Engineering and Medicine
PCORI	Patient-Centered Outcomes Research Institute
PCORTF	Patient-Centered Outcomes Research Trust Fund
SDOH	Social Determinants of Health
SNAC	Subcommittee of the National Advisory Council
USPSTF	U.S. Preventive Services Task Force
HHS	United States Department of Health and Human Services

1. Introduction

The Agency for Healthcare Research and Quality (AHRQ) is the lead Federal agency charged with improving the safety and quality of healthcare for all Americans. AHRQ develops the knowledge, tools, and data needed to improve the healthcare system and help consumers, healthcare professionals, and policymakers make informed health decisions. AHRQ accomplishes this mission by focusing on three core competencies: health systems research; practice improvement; and data and analytics.

The Patient-Centered Outcomes Research Trust Fund

In 2010, the Patient Protection and Affordable Care Act (P.L. 111-148) established the Patient-Centered Outcomes Research Trust Fund (PCORTF) and the Patient-Centered Outcomes Research Institute (PCORI). The Further Consolidated Appropriations Act, 2020 (P.L. 116-94) reauthorized the PCORTF and PCORI for 10 years, through 2029.

The goals of the PCORTF are to fund Patient-Centered Outcomes Research (PCOR), disseminate PCOR evidence, build capacity for research, and develop a data infrastructure for PCOR to improve health and healthcare. PCOR provides decision makers with objective, scientific evidence on the comparative effectiveness of different treatments, services, and other interventions used in healthcare. The goals of the PCORTF are accomplished in coordination among three partners: PCORI, AHRQ, and the Department of Health and Human Services (HHS) Office of the Secretary, specifically the Assistant Secretary for Planning and Evaluation (OS-ASPE).

Distribution of the PCORTF is authorized in section 937 of the Public Health Service Act, beginning in FY 2011, and continuing with the reauthorization in 2019. PCORI receives 80 percent of the funds appropriated or credited to the PCORTF each year to fund PCOR and disseminate its findings. The Department of Health and Human Services (HHS) receives 20 percent of the PCORTF funds each year. Sec 937 further directs HHS to transfer its share: 80 percent to AHRQ (16 percent of the total PCORTF) to disseminate PCOR and build research capacity and 20 percent to the OS-ASPE (4 percent of the total PCORTF) to build data capacity for research.

AHRQ's Role in the PCORTF

The Patient Protection and Affordable Care Act (P.L. 111-148) also outlined AHRQ's authorized activities to be funded by the PCORTF. It directed AHRQ to broadly disseminate findings from and build capacity for PCOR to improve healthcare and health outcomes in the United States. It further directed AHRQ to create and disseminate informational tools for a variety of healthcare decision makers and stakeholders, work with stakeholders to leverage computer-based clinical decision support (CDS) in dissemination efforts, gather feedback on the information disseminated, and train patient-centered outcomes researchers. AHRQ's role is to ensure that the findings from PCOR are known, understood, and used by a wide variety of healthcare decision makers. Those include patients, healthcare professionals, health systems, professional associations, vendors of health information technology, payers, and policy makers. AHRQ coordinates its efforts closely with PCORI and OS-ASPE as well as other HHS agencies.

Strategic Planning for the PCORTF

Reauthorization of the PCORTF for an additional 10 years offered an opportunity for all three recipients to conduct long-range planning. Ongoing coordination and collaboration among AHRQ, OS-ASPE, and PCORI has allowed alignment of strategic planning efforts with strong commitments to continue working together to achieve the shared goals of improving health and healthcare.

AHRQ has developed a strategic framework for the Agency's PCORTF investments through fiscal year 2029 to guide program development and evaluation of AHRQ's PCORTF investments. The PCORTF strategic framework aligns with AHRQ's mission and broader goals of improving the quality, safety, equity, and value of healthcare delivery. AHRQ's PCORTF Strategic Framework, described herein, provides a long-range mission, vision, and goal, as well as four high-level strategic priorities for future PCORTF investments and ten cross-cutting strategies to achieve them. Appendix A provides definitions for terms and Appendix B provides a list of acronyms used throughout the document.

Developing the PCORTF Strategic Framework

Expert staff from across AHRQ's research centers and operational offices engaged in a collaborative strategic planning process to develop a *proposed* PCORTF Strategic Framework. The planning process followed five key guiding principles. First, the framework must promote person-centered care, which AHRQ has defined as viewing "a person seeking care as an individual with unique needs and opinions rather than merely an ill patient, and which requires a strong partnership between the provider and the patient in which both sides share power and responsibility for clinical decision making and care management." Second, it must promote evidence-based practice and implementation, which thoughtfully integrates the best available scientific knowledge with expert clinical decisions, processes, and technologies. Third, it must be collaborative, reaching beyond AHRQ to partner with other Federal agencies, PCORI, and stakeholders across the healthcare landscape to create synergies for more impactful change. Fourth, it must be stakeholder-driven, involving key stakeholders throughout the design and decision-making processes. Finally, it must be evaluated for impact to ensure that changes are bringing about intended results, and to identify lessons learned that can be applied to bring about further improvements.

The *proposed* PCORTF Strategic Framework was released to the public in February 2022. AHRQ then embarked on a robust process to obtain wide-ranging public and expert input to finalize the framework.

1. The PCORTF Strategic Framework was posted in the *Federal Register* with a request for public comment from February 19 to May 24, 2022. AHRQ received a robust response from individuals and organizations representing a wide variety of organizations and individuals, including academia, industry, clinicians, government agencies, private sector payors and consultants, community and advocacy organizations, and patients.
2. AHRQ commissioned The National Academy of Science, Engineering and Medicine (NASEM) to independently plan and host a series of four virtual workshops, Accelerating the Use of Findings from Patient-Centered Outcomes

Research in Clinical Practice to Improve Health and Health Care: A Workshop Series, in June and July of 2022. Subject matter experts provided input on how to accelerate the use of PCOR findings into clinical practice.

3. AHRQ's PCORTF Subcommittee of the National Advisory Council (SNAC) held four meetings from June to October of 2022 and subsequently provided recommendations about PCORTF investments that were presented in a report to and approved by the AHRQ National Advisory Council (NAC).

In addition, AHRQ has previously received expert and stakeholder input from other PCORTF planning events and activities to inform its work going forward. These included the Multiple Chronic Conditions Research Summit, the Primary Care Research Conference, the Health Equity Summit, and U.S. Preventive Services Task Force (USPSTF) recommendations.

AHRQ contracted with Arbor Research Collaborative for Health to synthesize the above information sources in an External Stakeholder Report. Based on the synthesized public feedback, AHRQ worked closely with Arbor Research to revise and finalize AHRQ's PCORTF Strategic Framework. Below, each element of the Framework is described in detail.

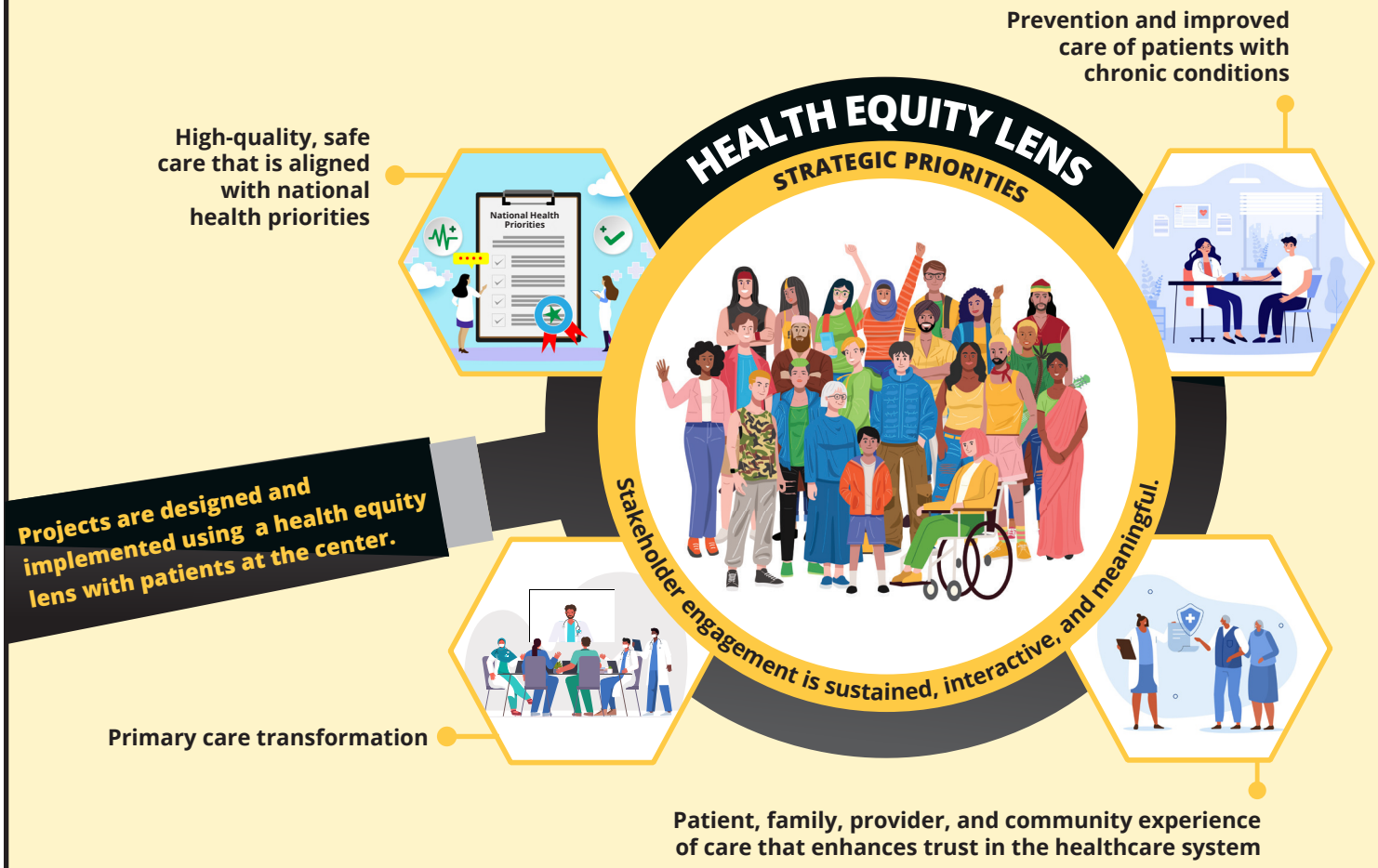
Agency for Healthcare Research and Quality

Strategic Framework to Guide AHRQ's PCORTF Investments

MISSION
Dissemination and implementation of evidence into practice and train the next generation of patient-centered outcomes researchers

VISION
Equitable, whole-person care across the lifespan that acknowledges the impact of community and social context on patient health

GOAL
Improve health outcomes by promoting safe, affordable, evidence-based, integrated, coordinated, team-based, patient centered care with a focus on underserved populations



CROSS-CUTTING STRATEGIES TO ACHIEVE EQUITABLE, WHOLE-PERSON CARE ACROSS THE LIFESPAN

- Build national capacity to rapidly disseminate and implement PCOR evidence into practice
- Apply an equity framework to all projects
- Synthesize evidence that is important to patients and key stakeholders with attention to AHRQ's priority populations
- Disseminate evidence to key stakeholders in accessible and actionable formats
- Support implementation of evidence into practice at state and local levels
- Leverage and support innovation in digital health, clinical decision support, and new models of care
- Support Learning Health System capacity to collect, analyze, harmonize and share actionable data with stakeholders to improve essential health outcomes
- Work with federal, state, and other partners to fund evidence creation, communication, and targeted dissemination to inform health policy
- Train and support the next generation of health services researchers with a focus on team science, understanding community needs, and advancing health equity
- Evaluate the impact of PCORTF investments on care delivery, quality, costs, health outcomes, and health inequities

2. Mission, Vision, and Goal for the PCORTF

Mission: Dissemination and implementation of evidence into practice and train the next generation of patient-centered outcomes researchers.

AHRQ's PCORTF mission reflects activities mandated by Congress in the PCORTF authorizing language. The mission provides the "how" for making progress towards the Agency's vision for the PCORTF (described below). Utilizing its core competencies, AHRQ built a strong foundation in PCOR dissemination and implementation (D&I), clinical decision support, and training in its first decade of PCORTF investments. AHRQ will continue to innovate in these areas toward achieving equitable, whole-person care.

Vision: Equitable, whole-person care across the lifespan that acknowledges the impact of community and social context on patient health.

The PCORTF vision defines AHRQ's highest-level aspiration. The vision drives the mission, the specific goals that make progress towards the mission, and the priority areas of the Strategic Framework. It explains why the work is being done and provides the ultimate definition of success. AHRQ's definition of equitable care includes a deliberate focus on understanding and addressing factors at multiple levels of influence, including community and social context. The National Academy of Medicine, in *Achieving Whole Health: A New Approach for Veterans and the Nation*, defines whole-person health as "physical, behavioral, spiritual, and socioeconomic well-being as defined by individuals, families, and communities." Likewise, *whole-person care* is aligned with a person's life mission, aspiration, and purpose. It shifts the focus from a reactive disease-oriented medical care system to one that prioritizes disease prevention, health, and well-being."[1]

Goal: Improve health outcomes by promoting safe, affordable, evidence-based, integrated, coordinated, team-based, patient-centered care with a focus on underserved populations.

AHRQ's goal will guide PCORTF funding decisions and influence the design and evaluation of projects to improve health outcomes in AHRQ's priority populations. The specific care characteristics (i.e., safe, affordable, evidence-based, integrated, coordinated, team-based, patient-centered care, focused on underserved populations) detailed in this goal will shape the metrics that AHRQ will use to evaluate how successful the Agency has been in achieving its mission and vision.

Since 1999, AHRQ's priority populations have included children/adolescents, elderly, low-income populations, racial/ethnic minorities, rural/inner-city residents, populations with special healthcare needs, and women. In 2021, AHRQ expanded the definition of priority populations to include individuals that were identified by Executive Order as members of underserved communities. This includes Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.

3. Health Equity Lens

Applying a health equity lens

Health equity is essential to all areas of the framework. The magnifying glass signifies **AHRQ's commitment to using an equity lens through which to design and drive the implementation of the goals, desired outcomes, and cross-cutting strategies.** An equity lens provides a deliberate focus on understanding and addressing factors at multiple levels of influence (policies, systems, and environmental factors; institutional and organizational factors; community-level factors; and individual factors) that can advance fair and just opportunities to attain the highest level of patient health outcomes and well-being for all, regardless of race, ethnicity, disability, gender identity, sexual orientation, socioeconomic status, geography, language preference, or other socio-demographic characteristics. Additionally, a health equity lens also highlights the importance of prioritizing patient-centered and participatory methods that center equity and ensure the voices of stakeholder and community members from underserved and priority populations are reflected in all stages of the research process.

Key domains to advance health equity

AHRQ has identified five key domains or levers for action to advance health equity (listed below in bold). The Agency pursues answers to these broad, critical questions through its PCORTF mechanisms and other partnerships to pursue our mission of ensuring equitable patient-centered care for *all* patients.

1. **Healthcare delivery system infrastructure:** How can healthcare delivery organizations structure their systems of care to advance health equity?
2. **Payment:** How can payers and healthcare delivery organizations use payment to support and incentivize advancing healthcare equity?
3. **Social determinants of health and social needs:** How can healthcare delivery organizations address individual patient social needs and broader structural social determinants of health (SDOH) to advance health equity?

4. **Implementation:** How can healthcare delivery organizations most effectively implement interventions to advance health equity?
5. **Access:** How can healthcare delivery organizations and payers improve access to high-quality care to advance health equity?

By using its core competencies to support progress in these key areas, AHRQ aims to support health systems to deliver equitable care, and ultimately to achieve the outcome of reducing disparities in access, quality, safety, affordability, and value. In the PCORTF strategic framework, specific health equity targets include reduced health disparities for AHRQ's priority populations; engagement of underrepresented communities in training, implementation, and clinical decision support initiatives; and improved access to needed evidence-based care for vulnerable populations.

See examples of AHRQ's prior work to reduce and document disparities in healthcare and increase health equity. AHRQ will continue to build and expand upon this body of work using its PCORTF strategic framework as a guide.

4. Patient-centeredness and Diversity, and Stakeholder Engagement

Amplifying patient voices

Patients are at the center of the PCORTF strategic framework. This placement signifies that AHRQ's PCORTF work prioritizes patients and aims to **amplify their voices** to identify and tackle the issues most relevant to them. Patients are the experts on their own lives and how they experience health and health care. The multiple people at the center of the framework represent diverse experiences and perspectives that patients bring. AHRQ is committed to incorporating their expertise into PCORTF work to improve healthcare delivery, and ultimately to ensure equitable patient-centered care for *all* patients.

Engaging diverse stakeholders to focus on patient-centered care

The broader term "stakeholder" in the framework recognizes that the goal of patient-centered care requires and is affected by efforts across social networks and systems in which the patient is embedded. In addition to patients, AHRQ's PCORTF stakeholders are broad and diverse. Stakeholders include family members and caregivers, patient advocates, community members and organizations, clinicians and support staff, health care provider organizations, healthcare improvement organizations, payers, policymakers, health information technology developers and vendors, researchers and academic research organizations, other funders of health services research, government and quasi-governmental partners, and others.

Sustained, interactive, and meaningful engagement

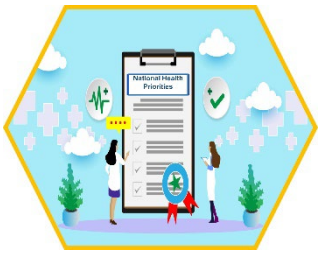
The text in the framework below the patients reads: "**Stakeholder engagement is sustained, interactive, and meaningful."** AHRQ intends to engage stakeholders repeatedly over time, with bidirectional communication, and in ways that feel meaningful to them. Stakeholder engagement has and will continue to inform all aspects of AHRQ's PCORTF strategic planning and implementation. Examples of stakeholder engagement include participation in determining funding priorities; evaluating applications for grant funding; synthesizing evidence; designing and implementing clinical decision support and other evidence-based tools; disseminating and implementing PCOR evidence into practice; training researchers and healthcare professionals; and selecting metrics to evaluate success.

AHRQ will continue to improve our methods for stakeholder engagement and to look for new opportunities to do so across all PCORTF activities. For example, AHRQ will increase its support for implementation strategies that use participatory approaches that foster genuine partnerships between implementers and the communities intended to benefit from implementation of evidence-based practices. Communities can be defined in social, economic, or geographic terms, such as patient communities, racial/ethnic communities, percent living below the Federal poverty level, or residents of an urban or rural neighborhood. Stakeholder engagement can help define appropriate community representatives to include in the work.

5. Strategic Priorities

The PCORTF strategic framework identifies **four priorities** for improving healthcare delivery that are aligned with AHRQ's mission and core competencies and that have the potential to improve outcomes that are important to patients. As detailed further below, these priority areas focus on high-quality safe care, chronic conditions, primary care transformation, and trust. AHRQ places equal importance on all four priorities, each of which is integral to the overall vision of equitable, whole-person care across the lifespan. The priorities are interrelated. Thus, projects can simultaneously address multiple priority areas or complement projects in another priority area.

High-quality, safe care that is aligned with national health priorities



AHRQ's goal is to improve quality and safety of healthcare for patients. Ongoing efforts in AHRQ's Patient Safety and Quality portfolio include enhancing diagnostic safety, preventing healthcare-associated infections (HAI's), measuring and addressing disparities in care quality, and supporting the National Action Plan to Advance Patient Safety. AHRQ aims to complement those efforts by leveraging its PCORTF authorization to synthesize and implement PCOR evidence and tools, including clinical decision support, and to train the PCOR researchers and workforce to support high-quality, safe care. The focus on national priorities allows for flexibility in the case of emergent or urgent health issues, or other changes in national health priorities. This priority area aligns with the efforts of other HHS agencies. It also aligns with the Institute for Healthcare Improvement's quintuple aim for healthcare improvement, which includes strengthening population health, care experience, care team well-being, health equity, and reducing costs.[2]

AHRQ has three desired outcomes in this priority area.

1. Transformation of healthcare organizations into learning health systems.
2. Increased uptake of evidence-based practices that strengthen healthcare quality, safety, equity, and affordability.

3. Improved outcomes for targeted national priority conditions.

Prevention and improved care of people with chronic conditions

People living with multiple chronic conditions (MCC) are particularly vulnerable in our current healthcare system which is fragmented and disease-focused. Multiple chronic conditions (MCC) are costly and burdensome to patients and their families as well as the healthcare system. AHRQ is the only Federal agency whose primary mission is to develop and disseminate evidence on strategies for improving the patient-centeredness, efficiency, and effectiveness of healthcare delivery. Thus, in 2019 and 2020, AHRQ engaged a number of stakeholders in a series of activities culminating in a summit about improving healthcare delivery for people living with MCC. Stakeholders included patient advocates, clinicians, researchers, health system leaders, community organizations, professional societies/organizations, policymakers, foundations, and Federal partners. In 2021, AHRQ set an agenda to transform care for people living with MCC in a Health Services Research Journal article.[3] This work influenced AHRQ's PCORTF Strategic Framework. AHRQ aims to leverage its PCORTF authorizations and investments to advance its MCC agenda.

AHRQ has four desired outcomes in this priority area.

1. Increased uptake of evidence-based preventative services, early intervention, and secondary intervention.
2. Decreased fragmentation of care for people living with multiple chronic conditions.
3. Greater co-design of innovations in care with patients, caregivers, and other key stakeholders in their communities.
4. Improved equity in access to prevention and coordinated chronic care.

Patient, family, provider, and community experience of care that enhances trust in the healthcare system

Trust in the healthcare system is essential and is conceptualized on multiple levels. First, trust is important at the interpersonal level between patients, their family members, and the healthcare system. This interpersonal trust is deeply influenced by people's experiences with the healthcare system and can impact patients' desire to seek care, confidence in provider recommendations, and patient health behaviors (e.g., medication adherence). Higher patient trust is associated with better health outcomes. Second, it is critical that providers have trust in and feel valued by the healthcare systems they work in to help prevent provider burnout. Finally, the framework envisions trust as a concept that goes beyond individuals to entire communities. This broader way of thinking is tied to the deep focus on health equity that acknowledges structural factors (e.g., racism) that collectively impact entire communities and their experience of care. AHRQ has long invested in generating and disseminating evidence and tools to enhance patient, family, and provider experiences to improve health outcomes. AHRQ aims to leverage the PCORTF to further disseminate and implement them, and train PCOR researchers to use them, with a focus on trust as an outcome.

AHRQ has four desired outcomes in this priority area.

1. Improved patient engagement, family engagement, shared decision-making and reported experience of care.
2. A focus on whole-person care with attention to mental health, social determinants of health and cost of care.
3. Improved provider wellness and retention.
4. Reduced health inequities for AHRQ's priority populations.

Primary care transformation

AHRQ recognizes that revitalizing the U.S. primary care system is foundational to achieve high-quality, accessible, and efficient healthcare for all Americans. AHRQ is a leader in primary care research and serves as the home of the National Center for Excellence for Primary Care Research. In 2020, 30 years after its first primary care research conference, AHRQ again convened diverse participants to provide guidance on its primary care research agenda for the 2020s. The Primary Care Research Conference culminated in 40 research questions in 5 domains for primary care transformation: patient-centeredness; clinicians and practices; systems and infrastructure; community and public health; and equity and disparities. Making substantial progress in any of these areas will require uncovering and addressing long-term issues that exist at the systems level. The discussions and resulting research questions from the conference specifically inform both PCORTF priorities and strategies. AHRQ aims to advance the goals of primary care transformation by disseminating and implementing relevant PCOR evidence and training PCOR researchers in primary care settings.

Our definition of primary care transformation includes aligning payment mechanisms with value to the patient. This would be inclusive of accounting for the full medical and public health neighborhood that interfaces with primary care. Attention to innovations that improve care access and coordination with the highest quality public health, social services, and specialty care are all of interest in patient-centered models of care. We are particularly interested in high-value models of synchronous and asynchronous collaborative care, such as telehealth, e-consult, and home-based primary care that increase timely access to specialty expertise and improve transitions in care.

One key component of increasing uptake of evidence into practice is "making the right thing to do the easy thing to do." Clinical Decision Support (CDS) is specifically called out in AHRQ's PCORTF authorization. CDS isn't just an afterthought that can simply be added on as a mechanism or tool for a project with a different or more general focus. It requires deliberate thinking during the planning phase (e.g., planning for

interoperability or limits to interoperability, informatics staffing on projects, right amount of resources, etc.). AHRQ has moved the CDS field towards more patient-centered CDS. Our PCORTF investments since reauthorization include the CDS Innovation Collaborative (CDSiC) that actively involves patients in the development of CDS. Including patients in CDS development may contribute to advancing health equity as well since there are multiple underrepresented minorities that cannot utilize CDS as it was not created for their needs.

AHRQ has four desired outcomes in this priority area.

1. Increased uptake of new models of primary care by leveraging digital healthcare technologies, including – but not limited to – the development and testing of patient-centered clinical decision support tools for both clinicians and (when appropriate) for patients.
2. Increased integrated team-based behavioral health, as part of whole-person care.
3. Identification and provision of resources (including CDS and social services) needed for comprehensive primary care and uptake of evidence-based best practices.
4. Greater engagement of underrepresented communities in trainings and implementation initiatives that improve access to primary care.

6. Cross-cutting Strategies

AHRQ tackles healthcare delivery challenges in myriad ways. Cross-cutting strategies are built on AHRQ's core competencies and evidence-based methodologies and aligned with its PCORTF authorizations. The cross-cutting strategies will be used across all priority areas of the PCORTF strategic framework to guide investments and maximize impact. The strategies are as follows:

Build national capacity to rapidly disseminate and implement PCOR evidence into practice

AHRQ's role among the PCORTF partners is to ensure that the findings from PCOR evidence are understood and used by healthcare decision makers, policy makers, and other stakeholders across the healthcare landscape. The barriers to the rapid dissemination and implementation of PCOR evidence into practice are many. These

include payment structures and policies that may not align with, or may even disincentivize, implementing evidence-based best practices; a lack of scientists with the skills to design, implement, evaluate, and support the ongoing evidence exchange needed to expand the capacities of learning health systems (LHSs); and a lack of coordinated and sufficient community and technical support for practice transformation. These challenges occur across the healthcare system, but especially affect more resource-challenged safety-net practices.

AHRQ intends to use its PCORTF authorizations of evidence dissemination, leveraging clinical decision support, and training the PCOR workforce to support building and growing the national capacity for rapid information and technology dissemination and implementation. With a focus on improving equity in the health system, AHRQ intends to focus its capacity-building efforts at the state-level and within the healthcare safety net to better reach underserved and priority populations to serve as a beginning framework and model for a national healthcare extension service.

AHRQ recognizes that implementation is local but is influenced and impacted by national and state-level factors, including laws, policies, and payment structures. AHRQ aims to build a national healthcare extension learning network that continuously engages and convenes relevant national, state, and local community stakeholders to support and align PCOR dissemination and implementation efforts with the needs of the local community while building trust and sustainable partnerships among members. AHRQ intends to invest in the PCOR workforce and learning health system development with the goal of reducing the time between generation of patient-centered evidence and changes in healthcare delivery in support of the PCORTF priorities. AHRQ will evaluate the efforts at both the state and national levels to share lessons learned and best practices and continue and expand the learning/improvement cycle.

Apply an equity framework to all projects

Advancing health equity is central to the AHRQ strategic framework. AHRQ will use an equity lens to design and implement all of its goals, desired outcomes, and cross-cutting initiatives. To create systems-level change, AHRQ recognizes the need to assess entrenched practices and policies, engage in internal and external systems changes, and acknowledge structural barriers that compromise equity. The Agency is also committed

to fostering organizational level change (e.g., within health systems) to promote equity, including by offering culturally appropriate patient care, ensuring diverse representation in leadership and governance, establishing equitable and inclusive organizational policies, and engaging community in collaborations to seek solutions to healthcare challenges.

In 2022, AHRQ held a Health Equity Summit with healthcare leaders to develop a shared understanding and language to describe what health equity means in the context of health systems, and what it means within the context of AHRQ's mission and work. Attendees discussed how to build a community of trust, how to emphasize development of a common language around health equity, and ways in which structural racism continues to impact healthcare delivery and opportunities for improvement. These conversations have informed the strategic framework and the critical need for AHRQ to use an equity lens to guide all initiatives. The health equity lens is described further above.

Synthesize evidence that is important to patients and key stakeholders with attention to AHRQ's priority populations

Strong evidence is the foundation of any dissemination and implementation initiative. Single studies are rarely strong enough to implement broadly for all patients, treatments, or settings and instead should be considered as part of a larger body of evidence. Evidence synthesis reports provide the highest level of evidence by comprehensively reviewing all the studies in a field and grading the strength of evidence based on the quality of the studies included. Greater weight is given to results from higher quality studies. AHRQ's Evidence-based Practice Center (EPC) Program has been producing systematic, rigorous, and unbiased synthesis of evidence for more than 25 years and is well recognized for its expertise in this area.

The EPC Program has four goals: 1) produce high-quality reviews that are rigorous, timely, and actionable; 2) build impactful partnerships between the EPC program and end users; 3) advance methods to synthesize and contextualize evidence for decision-making; and 4) improve future evidence for healthcare decision-making by reducing evidence gaps and improving study quality. Individuals and organizations, including

AHRQ, can submit suggestions to the EPC Program for evidence reports. All suggestions are carefully considered based on a set of criteria, including appropriateness of the topic, whether there is sufficient evidence to synthesize, the availability of existing evidence syntheses, the interest of a clear end user, and the potential impact of the review on the quality of healthcare and health outcomes. Evidence gaps identified in the reviews are shared with research funders, such as AHRQ, PCORI, and NIH to encourage additional evidence generation.

Since 2010, AHRQ has invested PCORTF funds to support EPC systematic reviews of PCOR evidence from PCORI, NIH, and other sources on a range of health topics, including clinical and healthcare delivery topics. The reports provide a scientifically sound picture of what treatments work best for which types of patients with particular health conditions.

AHRQ investments in EPC systematic reviews will align with the goals, priorities, and strategies of the PCORTF Strategic Framework. AHRQ will apply key tenets of the framework, such as promoting health equity and patient-centered, whole-person care among its priority populations, in designing key questions and analyses for evidence reviews. For example, reviews will include analyses of historically underserved populations when information is available. These may include subgroup analyses, assessment of the applicability of the evidence to historically underserved populations, assessment of the strengths or limitations of the evidence with regards to priority populations, and ensuring evidence gaps relevant to such populations and outcomes are identified for research funders to address in future research.

Disseminate evidence to key stakeholders in accessible and actionable formats

Evidence from scientific studies and publications, including systematic reviews, may be difficult for end users to apply directly to their situations or settings. Evidence needs to be translated into accessible and actionable formats that are responsive to the needs of the specific end user to support implementation. AHRQ values returning data to key stakeholders—including patients, communities, patient advocacy organizations, providers, policy makers and others—in accessible and actionable formats. AHRQ has

long supported this type of translation into a variety of formats, including development of tools and training, for a variety of audiences.

AHRQ's PCORTF authorization specifically includes creating and disseminating informational tools, including clinical decision support (CDS), for healthcare decision makers and stakeholders to broadly disseminate findings from PCOR to improve healthcare and health outcomes in the United States. CDS efforts are described further below.

AHRQ recognizes the need to partner with key stakeholders and community representatives to ensure the content is tailored for the intended audiences so that it can be easily understood and applied. AHRQ encourages its contractors and grantees to use methods such as formative audience and communication research and community-based participatory research to develop and pilot test evidence-based tools. It is important to identify which partners are best positioned to participate in translation and tool development activities, identify the appropriate channels through which to disseminate information, and disseminate to particular audiences. Researchers may need to work in close collaboration with partners embedded in communities (e.g., community health workers, staff at community-based organizations) to disseminate information and highlight the ways in which recipients of this information can use it. Appropriate channels for dissemination should go beyond publication of results in academic journals and presentations at academic conferences. Dissemination should include other channels that the intended audience uses. These may include traditional and community media, public service announcements, social media, trusted intermediaries and local champions, and policy briefs. The language used in these communications must be appropriate in terms of language (e.g., literacy level, technical content, languages other than English). These types of collaborative efforts can help promote inclusivity and engagement to build trust with communities.

Examples of tools for evidence dissemination include:

- EPCs creating tools for and partnering with Learning Health Systems to implement them.
- The EvidenceNOW program creating tools for primary care practices and practice facilitators.
- The SHARE Approach training curriculum and toolkit to encourage clinicians to use evidence with patients and families in shared decision making.

Support implementation of evidence into practice at state and local levels

AHRQ's PCORTF implementation investments continue to focus on bridging the gap between evidence-based research and implementation to improve health outcomes, building on its mission to make sure that evidence is understood and used. One of AHRQ's core competencies is to support practice improvement by creating tools and strategies to help health systems and healthcare professionals implement evidence into practice to provide high-quality, safe, high-value healthcare. As described above, AHRQ recognizes that health systems' and health care professionals' ability to implement PCOR is influenced and impacted by various contextual factors. Many of these factors are determined at the state level, including Medicaid, the healthcare exchange insurance marketplace, Managed Care Organizations, and private payers. All have unique payment policies and incentives, organizational policies, and available resources. Likewise, the local context also includes geographic challenges, access to the full range of healthcare professionals, and skills and knowledge of staff, as well as the social, cultural, and economic characteristics of the community and patients served. For implementation to be effective, it needs to be designed based on a deep understanding of state and local contextual factors that influence healthcare delivery.

All of AHRQ's implementation projects engage a broad range of partners and stakeholders with diverse perspectives to foster collaborative and cooperative efforts among those working to implement PCOR, those who are in the position to affect or influence implementation success, and those affected by the implementation. Engagement helps implementers better understand local needs and resources to implement evidence in efficient, effective, and sustainable ways. For example, costly implementation efforts may not be feasible or sustainable in certain settings and may

create additional inequities. Creating a shared understanding of health equity among implementers and stakeholders is required to dismantle systemic barriers and reshape the development of interventions and implementation processes. Sustained community engagement is a valuable tool that can impact the level of change an intervention is capable of influencing.

AHRQ aims to engage and involve stakeholders, especially those affected by implementation efforts and those with lived experience, in every step, from determining priorities, implementation design and execution, to evaluation design and analysis, reporting, translation, and dissemination of findings.

Leverage and support innovation in digital health, clinical decision support, and new models of care

The ACA requires AHRQ to promote the timely incorporation of research findings into clinical practices via clinical decision support (CDS) and engage with stakeholders about the value of the information disseminated. CDS are tools that bring together clinical knowledge about healthcare options and patient-specific information to improve decision making for clinicians, care team members, and patients. AHRQ has adopted the "Five Rights of CDS" framework to guide its PCORTF CDS investments. The "Five Rights" are to deliver the right information, to the right people, using the right formats, in the right channels, and at the right times during workflow.[4]

AHRQ has a long history of investing in research about how to make CDS more effective and usable. Early efforts included demonstration projects that created processes, tools, standards, and technology for translating clinical knowledge and narrative guidelines into sharable formats that can be used by multiple electronic health record (EHR)systems for implementing CDS across a range of healthcare settings. These efforts became the foundation for AHRQ's PCORTF investments in further advancing patient-centered CDS as a more effective tool to accelerate PCOR evidence into clinical practice.

In 2016, AHRQ launched a multi-component PCOR CDS program of grants and contracts. These included AHRQ's CDS Connect platform that incorporates a CDS authoring tool and artifact repository to accelerate the incorporation of PCOR findings into health information technology that is FAIR (Findable, Accessible, Interoperable,

Reusable). These tools and technologies are shareable, standards-based, publicly available, and patient-centered. AHRQ's PCORTF also supports the CDS Innovation Collaborative (CDSiC), a community composed of diverse stakeholders working to design and conduct projects to better understand how to make CDS more patient-centered and more valuable and meaningful.

AHRQ also continues to support grants that scale clinical decision support tools, promote interoperability, and that must also incorporate patient input. As with other PCORTF investments, AHRQ has invested in a comprehensive evaluation of the PCOR CDS initiative with a horizon scan and technical expert panel to identify gaps and prioritize opportunities for further investment.

More recently, AHRQ launched CEDAR (CEPI Evidence Discovery And Retrieval). CEDAR is a PCORTF-funded project to develop an open-source standards-based application programming interface (API) that supports search, access, and use of PCOR and other research findings across multiple repositories and programs within AHRQ's Center for Evidence and Practice Improvement (CEPI). CEDAR was developed using the FAIR principles (Findable, Accessible, Interoperable, and Reusable) to allow health IT developers to integrate PCOR research findings from AHRQ's repositories directly into their existing systems. Information can then be more easily accessed and used by researchers, clinicians, policymakers, patients, and other decision makers to inform clinical decisions. This is one way AHRQ is returning data and information to stakeholders in accessible and usable formats.

AHRQ recognizes the use of digital health technology, informatics, and data science is crucial to support healthcare transformation efforts with new models of care. New models include telehealth, e-referral to provide asynchronous collaborative care between providers, digital health apps that collect and monitor patient data, use of community and home-based services, e-caring to assist caregivers, and others. Digital health technology can support learning health system models to identify patients at high or rising risk and to strengthen CDS and care planning to address those risks with high-quality, coordinated, appropriate, and safe care. It will be important for AHRQ to monitor the evidence generation that supports these models and to continue to support

rapid-cycle real-world demonstrations to address anticipated implementation challenges for clinicians' sustained use. AHRQ also understands the risk that without careful planning and consideration, digital health technologies and new models of care can increase inequities due to increased burden on patients and families, as well as factors related to the social determinants of health, such as lack of reliable Internet or e-technology access in rural areas, among homeless populations, and for lower income populations. AHRQ is supporting the development of a digital healthcare equity framework to help creators and users of healthcare solutions that involve digital technologies ensure that their solutions are equitable.

Support Learning Health System capacity to collect, analyze, harmonize, and share actionable data with stakeholders to improve essential health outcomes

AHRQ defines a learning health system as a health system in which internal data and experience are systematically integrated with external evidence, and that knowledge is put into practice. It is a value-based framework that focuses on health systems providing clinicians with strong, actionable data and tools to provide patients with higher quality, safer, and more efficient care, while identifying and using the right performance metrics to hold them and their teams accountable. The model also aims to make health systems better places to work. The learning health system model fits well with AHRQ's PCORTF authorizations to disseminate and implement PCOR evidence, supporting integration of evidence into CDS, and training PCOR researchers.

AHRQ has conducted research and provides training, tools, and data to help healthcare delivery organizations of every size move towards becoming learning health systems. Several of these initiatives have been investments of the PCORTF. For example, the EPC Program convened a Learning Health Systems panel to guide the development of relevant evidence reports as well as tools to help health systems use findings from EPC evidence reviews. The EPC Program then developed a series of evidence reviews and translated them into actionable tools in response. Later EPCs partnered with learning health systems to conduct pilot dissemination and implementation studies with the tools.

In 2016, AHRQ developed core competencies for the learning health system researcher. The PCORTF training programs have also supported, in partnership with PCORI, the

Learning Health Systems Centers of Excellence and, most recently, the Learning Health System Embedded Scientist Training and Research (LHS E-STaR) Centers. These programs are described in more detail below in the cross-cutting strategy for training and supporting the next generation of health services researchers.

AHRQ will continue to leverage the PCORTF within its authorized activities to support ongoing and new initiatives to support health systems in their iterative, continuous improvement journeys toward becoming learning health systems. AHRQ understands that health systems operate within payment and policy environments that influence their ability to, or the way in which they implement PCOR. They also have to be responsive to their unique patient populations and community environments. AHRQ aims to support learning health systems in aligning their transformation efforts and sharing actionable data within that environment for greater efficiency and impact. AHRQ also recognizes there are other research and practice improvement programs and other state-based initiatives that are doing similar work and providing valuable contributions toward the learning health systems goals. AHRQ aims to partner or collaborate with other initiatives, rather than duplicate efforts, to create synergies locally.

AHRQ can provide opportunities for learning health systems and their key stakeholders and partners to learn from one another to accelerate implementation of PCOR evidence into practice at a systems level. Sharing actionable data with stakeholders involves a paradigm shift from thinking of end users as passive recipients of healthcare to active participants involved in designing solutions that will address issues in their unique communities. In the learning health system paradigm, it will be necessary to set new standards for cultural competence and build conduits to sustain engagement. Community members and stakeholders must be active in creating data that can be accessed and meaningfully used by individuals in the communities that allowed it to be gathered. The transparency and availability of data collected in a community can incentivize meaningful participation in the research.

Work with federal, state, and other partners to fund evidence creation, communication, and targeted dissemination to inform health policy

The PCORTF mission, vision, and goal are broad and bold. AHRQ's success in carrying out the work outlined in the PCORTF Strategic Framework will be impacted by outside

influences such as the regulatory environment, public and private payor policies at national, state, and local levels (especially Medicaid programs), and organizational policies. AHRQ recognizes the limits of the PCORTF authorizations and funds to accomplish it all. We cannot do it alone. AHRQ must extend the reach of PCORTF investments with strategic and synergistic partnerships across the healthcare landscape. A collaborative strategy has many advantages, including understanding external perspectives and gathering important feedback; reducing duplicative work; and leveraging the authorities, resources, and expertise of other organizations that work in overlapping or adjacent areas. It can also provide understanding of pathways to reducing unintentional barriers to program goals, such as health policies that create barriers to disseminating and implementing PCOR in clinical practice. Collaborating with partners also increases the relevance and utility of the work, evidence, materials, and processes to a variety of stakeholders, including those who have the direct power to shape and reform policy.

The Agency aims to collaborate more extensively with our PCORTF partners, PCORI and ASPE and with other organizations whose missions and activities are aligned with the Strategic Framework priorities and cross-cutting strategies. To extend the reach of PCORTF investments, AHRQ will continue to build external partnerships at the Federal, national, state, and local levels to align and coordinate its PCORTF efforts. Federal partners include other HHS Operating Divisions (e.g., Office of the Assistant Secretary for Health, Centers for Medicare and Medicaid Services (CMS), the CMS Innovation Center (CMMI), the Centers for Disease Control and Prevention (CDC), the Health Resources and Services Administration (HRSA), The Substance Abuse and Mental Health Services Administration (SAMHSA), the National Institutes of Health, the Administration for Community Living, and other Federal health programs like the Veterans Health Administration. National level partners may include PCORI, foundations that support healthcare delivery research and improvement, health professional organizations, business groups and employers, health information technology developers and vendors, patient organizations, and others. State partners can include, for example, state departments of public health, and human services and Medicaid agencies. Local partners may be health systems and community-based advocacy organizations or

coalition groups that are able to make or influence healthcare change as trusted messengers.

AHRQ recognizes the importance of partnering with community members with lived experience who may be affected by initiatives to reduce inequities or unintended consequences. AHRQ also recognizes the need to engage with partners and stakeholders with diverse perspectives and representation throughout the research translation, dissemination, implementation, and training processes. This also means sharing actionable data, findings, and tools with the partners and stakeholders that can be meaningfully used in their settings and communities to affect change. Partnerships may occur at the Agency level or at the program- or project-level through contracts or grants. AHRQ aims to continually improve its internal operational processes and requirements for grants and contracts to ensure appropriate engagement and representation.

Train and support the next generation of health services researchers with a focus on team science, understanding community needs, and advancing health equity

Training and supporting the next generation of a diverse, multi-disciplinary PCOR workforce with expertise in the science of D&I is crucial to improving healthcare outcomes, advancing health equity, and understanding community needs, and are key authorized activities for the PCORTF. This cross-cutting strategy has special relevance to building and sustaining the PCOR pipeline through workforce development. Since the PCORTF was established, AHRQ has leveraged its decades-long expertise in building capacity through training programs that support investigators capable of conducting PCOR throughout the career continuum, from new investigators to established career clinical and research investigators seeking new skills. The Agency supports both institutional and individual awards.

AHRQ has innovated within its PCORTF authority to support a full range of training programs to develop a PCOR workforce with the skills, capabilities, and knowledge to apply methodologies necessary to disseminate, implement, and evaluate the use of

evidence to improve clinical practice and decision making. Programs have included didactic and experiential research training with the purposes of generation, adoption, and spread of new evidence to patients, clinicians, and other decision makers. Methodologies have included research standards, prospective observational research, development and use of registries, clinical trials, and collaborative learning networks, among others. AHRQ's PCORTF training programs continue to innovate on new methodologies as PCOR grows and evolves to meet the needs of patients, clinicians, health systems, policymakers, and other healthcare decision makers that use it. AHRQ has encouraged trainee applicants from diverse disciplines, including social and behavioral sciences, business, and engineering, to speed that evolution with new perspectives and methodologies.

AHRQ's training programs have been established in and utilized by both academic and applied settings such as the healthcare delivery system, state and local governments, health plans, and research networks. AHRQ has made targeted training investments to expand diversity to geographic areas that traditionally lack PCOR capacity and within institutions that serve predominantly minority populations to improve equity in training and capacity for PCOR.

AHRQ has also partnered with PCORI to expand the reach and impact of its training program. In 2018, AHRQ and PCORI funded 11 institutional career development awards to create Learning Health Systems (LHS) Centers of Excellence designed to train clinician and research scientists to conduct PCOR research within LHSs. Trainees worked with system leaders and conducted studies focused on how healthcare organizations generate, adopt, and apply evidence to improve the quality and safety of care. Recently, AHRQ and PCORI innovated that model further with the LHS E-STaR (Learning Health System Embedded Scientist Training and Research) Centers that support multi-component program project grants structured to facilitate training and augment didactic and experiential training opportunities in PCOR/CER for embedded learning health system scientists. The program will fund centers with a multidisciplinary approach to shared resources and facilities for research and training by investigators from different disciplines who focus on a common research problem. The focus of LHS E-STaR is improving the care of underserved populations and enhancing primary care research.

Specific priorities for the program include addressing health equity and enhancing diversity in the learning health system (LHS) research workforce and building a national primary care research mentoring network. Awards will focus on programs that strengthen comparative effectiveness research and patient-centered outcomes research training; enhance diversity within the learning health system research workforce; support partnerships with community organizations, healthcare systems, and other stakeholders; and conduct research projects that prioritize improving health system operations, healthcare quality, and health outcomes.

AHRQ will continue innovating in its PCORTF training initiatives to develop the skills of trainees from diverse disciplines and settings to meet the current and future needs of evolving PCOR research. For example, AHRQ recognizes that complex health issues arise from multiplicative factors that can be addressed most innovatively, creatively, and efficiently when those with specialized knowledge interact to produce a multi-faceted solution. AHRQ can encourage and support a team-based science approach that involves interdisciplinary collaboration that fosters and rewards team innovation. Additionally, investigators need to have a deep understanding of the needs and context of the patients and communities they are serving. AHRQ can include training on how to meaningfully engage with and integrate patients and communities throughout the entire lifecycle of a project to better recognize and increase sensitivity and responses to their needs. This should include training in translating and disseminating research data and results into tools and formats that are accessible and actionable for the intended audiences.

Evaluate the impact of PCORTF investments on care delivery, quality, costs, health outcomes, and health inequities

Evaluating the broad and enduring population-level and clinical outcomes defined in the PCORTF strategic framework requires an approach that recognizes the complexity and timeline of organizational and systems change. For each funded project, program, or activity, as well as the overall PCORTF portfolio, the use of change models, logic models, and formative evaluations are necessary to document the extent that funded efforts are delivered as intended and have the desired effects.

Change models describe an expected causal pathway or theory of change to guide planning, implementing, and evaluating an activity in a specific setting. They increase the likelihood of project success by specifying the resources needed and the implementation steps required to achieve the desired project outcome. A required component of PCORTF funding mechanisms will be specification of change models to facilitate ongoing alignment (and adjustments when necessary) across individual projects to ensure they meet the strategic framework's aims and priorities. Change models also guide data collection on the impact of the specific projects and the overall funding portfolio on care delivery, quality, costs, health outcomes, and health inequities.

Logic models provide a visual depiction of planned program activities and desired outcomes. The use of logic models will be important for PCORTF applicants as they specify program components and activities, the linkages between them, and their expected effects and outcomes. Logic models demonstrate that applicants have developed rigorous approaches to bridge the gap between research and implementation. They lay the groundwork for evaluation efforts by specifying intended outcomes, identifying existing measures and data sources, and ensuring the identification of appropriate data collection methods for monitoring implementation process and project impact. Appropriate and feasible evaluation methods are critical to assess the fidelity with which processes are implemented and the extent to which desired outcomes are achieved.

Formative evaluation also facilitates project success and will be part of evaluation plans for PCORTF investments. When taking this approach, the implementation process is assessed while it is happening rather than waiting to evaluate the outcomes at the end of the project. The use of rapid-cycle evaluation approaches will provide opportunities for refinement, modification, and real-time course corrections that can help achieve the best outcomes.

Examples of PCORTF program evaluations include:

- Grant- and program-level evaluations for the EvidenceNOW dissemination and implementation programs
    - EvidenceNOW: Advancing Heart Health

    - EvidenceNOW: Managing Unhealthy Alcohol Use
    - EvidenceNOW: Managing Urinary Incontinence
- Overall evaluation of the Clinical Decision Support (CDS) initiative
- Evaluation of the PCORTF Training Programs

7. Next Steps

The strategic framework will serve as an enduring guide over the next decade to determine how AHRQ invests PCORTF funds. The framework identifies an overall goal of achieving improved health outcomes and a national vision of having equitable, accessible, and affordable whole-person care over the course of the entire lifespan. By defining priority areas and populations, and by identifying specific strategies within AHRQ's mandate of D&I, clinical decision support, and training, AHRQ is laying the foundation for allocating funds in a manner that will maximize the health impact of its investments.

AHRQ will bring this strategic framework to life by creating funding mechanisms and opportunities in response to the priorities, through an equity lens, and with evaluations that align successful outcomes with the mission, vision, and goal of the PCORTF. When designing opportunities and evaluating potential projects, the framework can be referenced to check that these initiatives are in alignment with the advances in healthcare that AHRQ is trying to achieve. Further, as an enduring framework, it is designed to be flexible so that it continues to be relevant and meaningful as circumstances and knowledge change over the next decade. It can be revisited as often as necessary as national challenges or priorities emerge and in response to related endeavors by sister agencies, policy makers, and payers at state and Federal levels.

8. Appendices

Appendix A: Glossary

Access: The timely use of personal health services to achieve the best health outcomes. Access to healthcare consists of four components: coverage (facilitates entry into the health care system), services (having a usual source of care), timeliness (ability to provide healthcare when the need is recognized), and workforce (capable, qualified, culturally competent providers).[5]

Affordable: Affordability is a function of income, spending, and judgments about the value of goods and services for their price. It includes a range of measures that capture the cost burden for individuals and families with different forms of coverage, in different financial circumstances, and with different health concerns.

Chronic conditions: Defined broadly and inclusive of mental and behavioral health and the social conditions that influence health.

Co-design: Active collaboration between stakeholders in designing solutions to a prespecified problem. It promotes citizen participation to formulate or improve specific concerns (e.g., service or product improvement, better prevention activities, more resources, better trained health promotion staff and, evidence informed initiatives).[6]

Clinical Decision Support (CDS): For the purposes of AHRQ's PCORTF-funded CDS program, AHRQ leverages the "Five Rights" framework to broadly envision CDS as processes and mechanisms that deliver the right information, to the right people, using the right formats, in the right channels, and at the right times during workflow.[4]

Coordinated care: Improved communication, planning, and transitions in care between patient/family and all providers and settings.

Decision Makers: Federal, state, and local policy makers, health system leadership, payers, providers, patients, and families.

Digital healthcare: Activities involving the transfer of information between patient and provider throughout the entire patient journey, as well as the intelligent use of all related data.[8]

Equitable: Providing care that reduces disparities in outcomes and does not vary in quality because of personal characteristics, including but not limited to: age, gender, sexual preference, race, ethnicity, culture, geographic location, and socioeconomic status.

Evidence-based: Practices that have been rigorously evaluated and associated with improved outcomes.

Health disparity: A particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.[9]

Health equity: The attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and healthcare disparities.[9]

High-value: Lower costs for higher quality (cost-quality continuum), includes driving transformative changes to the healthcare system to reward the de-adoption of wasteful, non-evidence-based low-value practices.

Integrated: Eliminating the walls between physical, behavioral, community, and family when providing care, with a specific focus on integrating mental/behavioral health with physical health in a primary care setting.

Learning Health Systems: A network of health providers that draws on internally generated knowledge/data and external evidence to systematically and routinely engage in continuous learning and improvement in order to deliver the highest quality care to all patients, with a particular focus on high-need, high-cost patients and those living with multiple chronic conditions.

New Models of Care: A spectrum of patient-centered encounter types included in primary care visits, such as remote monitoring, asynchronous electronic communication, video and audio televisits, in-person visits and home visits. The goal is to improve quality, preserve safety, enhance patient and clinician satisfaction, without increasing (and potentially decreasing) the cost of care.

Outcomes: The results of a health intervention.[10]

Person-centered care:[11] Views a person seeking care as an individual with unique needs and opinions rather than merely an ill patient, and requires a strong partnership between the provider and the patient in which both sides share power and responsibility for clinical decision making and care management.

Patient-centered care/initiatives: Partnering with patients, families, and communities to identify and co-create solutions to address individual and local needs in care design and delivery.

Social determinants of health (SDOH): The conditions in the environments where people are born, live, learn, work, play, worship, and age that affect health and quality of life. SDOH can be categorized into five key areas: 1) social context: (e.g., demographics, social networks and supports; social cohesion; racial, ethnic, religious, and gender discrimination; community safety; criminal justice climate; civil participation); 2) economic context (e.g., employment, income, poverty); 3) education (e.g., quality of day care, schools, and adult education; literacy and high school graduation rates; English proficiency); 4) physical infrastructure (e.g., housing, transportation, workplace safety, food availability, parks and other recreational facilities, environmental conditions, sufficiency of social services); and 5) healthcare context (e.g., access to high-quality, culturally and linguistically appropriate, and health literate care; access to insurance; healthcare laws; health promotion initiatives; supply side of services; attitudes towards healthcare; and use of services).[13]

Structural factors/structural social determinants of health: Policies, economic systems, and social hierarchies (e.g., racism, socioeconomic inequality, gender inequality) that shape the distribution of power and resources within and across

populations. They are the root causes of health inequities and are upstream determinants of social determinants of health.[12,13]

Team-based primary care: An interdisciplinary approach to care that involves collaboration among numerous provider types, such as physicians, nurses, social workers, community health workers, and peer navigators.

Transitions of care: The movement of a patient from one setting of care to another. Settings of care may include hospitals, ambulatory primary care practices, ambulatory specialty care practices, long-term care facilities, home health, and rehabilitation facilities.[14]

Underserved: As per Executive Order 13985, "underserved" refers to "Members of underserved communities: Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality."[15]

Whole-person care: Delivering care that reflects both evidence and patients' goals and priorities; elevates relationships, trust, and shared decision making; and has a renewed focus on wellness and consideration of all aspects of a person's health, including their social, behavioral, economic, and environmental context.

9. References

1. National Academies of Sciences, Engineering, and Medicine. 2023. *Achieving Whole Health: A New Approach for Veterans and the Nation*. Washington, DC: The National Academies Press. https://doi.org/10.17226/26854.
2. The Quintuple Aim for Health Care Improvement: A New Imperative to Advance Health Equity. Institute for Healthcare Improvement, Boston, MA. https://www.ihi.org/resources/Pages/Publications/quintuple-aim-for-health-care-improvement.aspx. Accessed March 23, 2023.

3. Bierman, AS, Wang, J, O'Malley, PG, Moss, DK. Transforming care for people with multiple chronic conditions: Agency for Healthcare Research and Quality's research agenda. Health Serv Res. 2021; 56(S1): 973- 979. doi:10.1111/1475-6773.13863

4. Osheroff JA, ed. Improving medication use and outcomes with clinical decision support: a step-by-step guide. Chicago, IL: HIMSS, 2009.

5. Topic: Access to Care. Agency for Healthcare Research and Quality, Rockville, MD. https://www.ahrq.gov/topics/access-care.html. Accessed March 23, 2023.

6. Vargas C, Whelan J, Brimblecombe J, Allender S. Co-creation, co-design and co-production for public health: a perspective on definitions and distinctions. Public Health Res Pract. 2022;32(2):e3222211. https://doi.org/10.17061/phrp3222211.

7. Topic: Health Information Technology (HIT). Agency for Healthcare Research and Quality, Rockville, MD. https://www.ahrq.gov/topics/health-information-technology-hit.html#:~:text=AHRQ%20uses%20the%20term%20digital%20healthcare%20research%20instead,as%20the%20intelligent%20use%20of%20all%20related%20data. Accessed March 23, 2023.

8. Disparities. HealthyPeople.gov. https://health.gov/healthypeople/priority-areas/health-equity-healthy-people-2030. Accessed March 23, 2023.

9. Definition of a Health Outcome. University of Waterloo, Waterloo, ON, Canada. https://uwaterloo.ca/research/office-research-ethics/research-human-participants/pre-submission-and-training/human-research-guidelines-and-policies-alphabetical-list/definition-health-outcome#:~:text=The%20outcome%20is%20the%20result%20of%20a%20health,something%20that%20is%20listed%20as%20a%20futuristic%20benefit. Accessed March 23, 2023.

10. Social Determinants of Health. HealthyPeople.gov. https://health.gov/healthypeople/priority-areas/social-determinants-health. Accessed April 12, 2023.

11. About SDOH in Healthcare. Agency for Healthcare Research and Quality, Rockville, MD. https://www.ahrq.gov/sdoh/about.html. Accessed April 12, 2023.

12. Mays, V. Structural vs Social Determinants of Health and Social Risk vs Social Needs of Health: Precision Matters for Accountability for Effective Change. UCLA BRITE Center for Science, Research & Policy. https://ncvhs.hhs.gov/wp-content/uploads/2021/08/Presentation-Panel-4-UCLA-Vickie-Mays-508.pdf. Accessed April 12, 2023.

13. Crear-Perry J, Correa-de-Araujo R, Lewis Johnson T, McLemore M, Neilson E, Wallace M. Social and Structural Determinants of Health Inequities in Maternal Health. Journal of Women's Health. Feb 2021.230-235. http://doi.org/10.1089/jwh.2020.8882.

14. Chartbook on Care Coordination. Agency for Healthcare Research and Quality, Rockville, MD. https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/carecoordination/measure1.html. Accessed March 23, 2023.

15. About Priority Populations. Agency for Healthcare Research and Quality, Rockville, MD. https://www.ahrq.gov/priority-populations/about/index.html. Accessed April 14, 2023.