The QUERI Roadmap for Navigating Implementation and Quality Improvement

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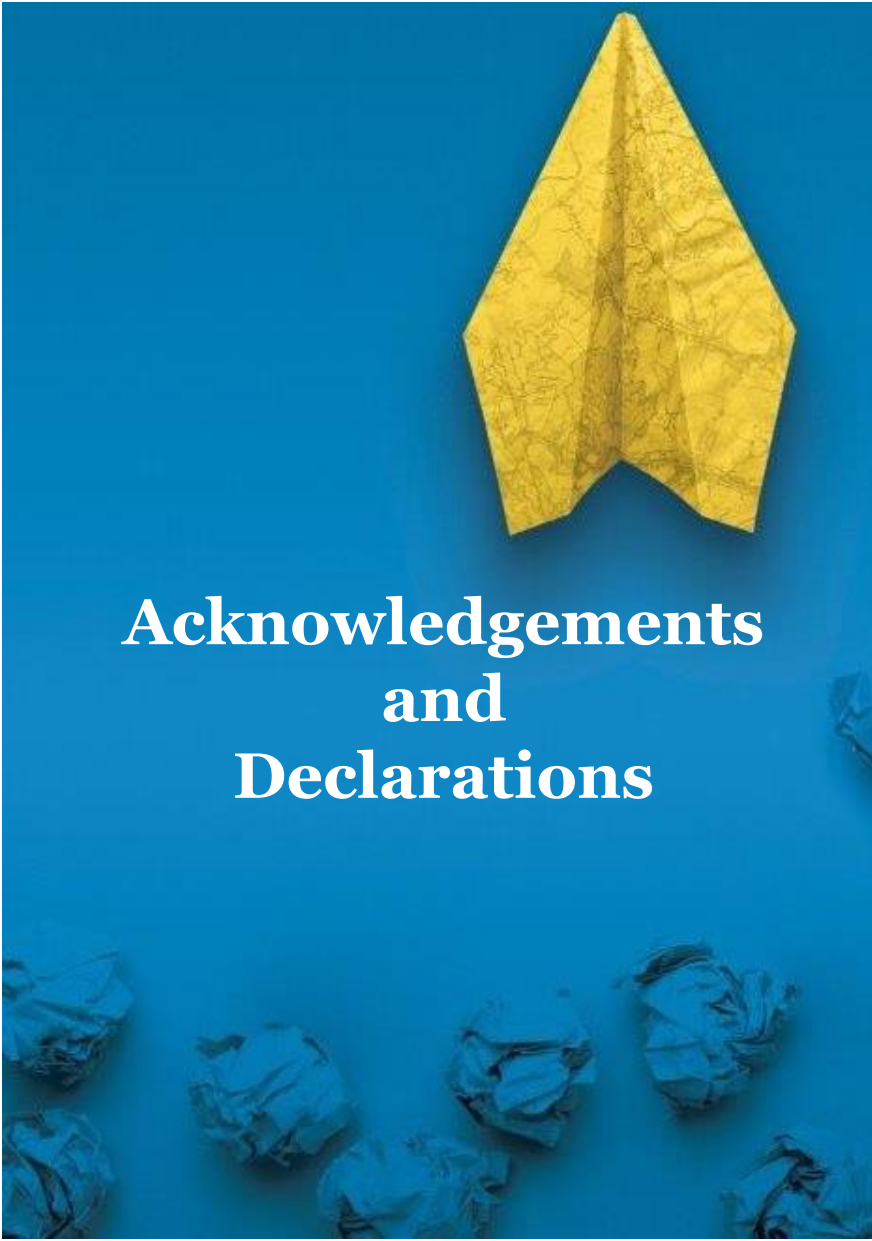
Conflict of Interest

- I have no conflicts of interest to declare

- The views expressed in this talk are those of the presenter and do not reflect those of the US Department of Veterans Affairs or the US Government

Acknowledgements and Declarations

For More Information on the Roadmap

- **Access online** by Pubmed: https://pubmed.ncbi.nlm.nih.gov/
  Search by: "Goodrich, Miake-Lye, Braganza, Wawrin, Kilbourne"

- **QUERI website**: https://www.queri.research.va.gov/tools/roadmap/

- Additional readings

    - Article in the journal *Medical Care*

      https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6750196/pdf/mir-57-s286.pdf
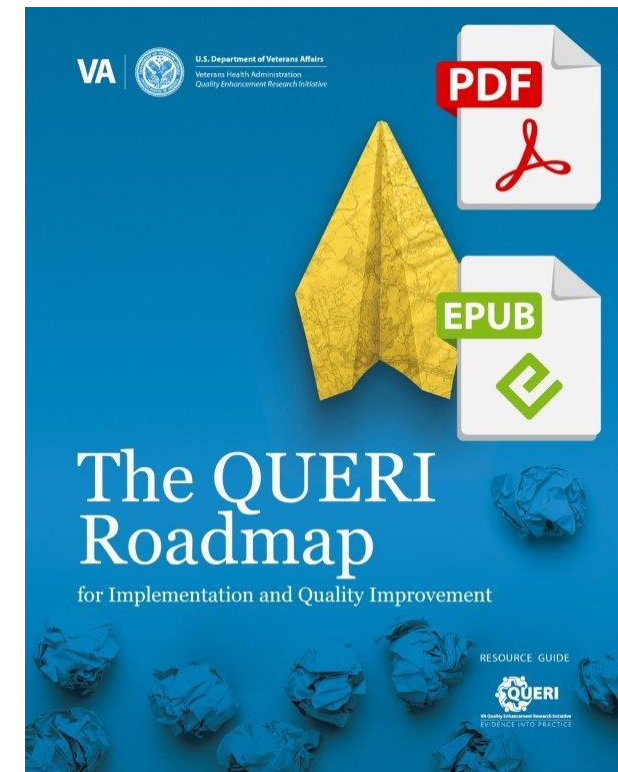
Overview

- **Objective 1**. Provide history and context for D&I quality improvement science embedded in the Veterans Health Administration (VA)

- **Objective 2**. Describe the philosophy and theoretical tenants underlying the QUERI *Roadmap*

- **Objective 3**. Highlight the content, user-friendly features and resources in the *Roadmap* features

- **Objective 4**. Foster DISC discussion on use of pragmatic tools and resources to support implementation practice

INTRODUCTIONS

- With the Veterans Health Administration in Ann Arbor, Michigan since 2006

- Research interests in behavioral medicine and organizational behavior

- Career paralleled the growth of implementation science

- Implementation Scientist for the VA QUERI Center for Evaluation and Implementation Resources (CEIR) 2017-2021

- Implementation Scientist at the VA Center for Health Equity Research and Promotion (CHERP) since Fall 2021

Background:
The Origins of
VA QUERI

Quality Enhancement Research Initiative 1.0 (circa 1998)

Reinventing VA Health Care

Systematizing Quality Improvement and Quality Innovation

KENNETH W. KIZER, MD, MPH,* JOHN G. DEMAKIS, MD,† AND JOHN R. FEUSSNER, MD†

The Quality Enhancement Research Initiative (QUERI)

From Evidence to Action

JOHN R. FEUSSNER, MD, KENNETH W. KIZER, MD MPH, AND JOHN G. DEMAKIS, MD

The Problem
Lost in Translation

It takes 17 years
to translate
14% of original research
to the benefit of patient care

Balas and Boren, 2000

The Foundation: QUERI Implementation Framework 1.0*

STEP 1

Identify high-risk/high volume diseases or problems

STEP 2

Identify best practices

STEP 3

Define existing practice patterns and outcomes across the VA and current variation from best practices

STEP 4

Document that best practices improved outcomes

STEP 5

Document that outcomes are associated with improved health-related quality of life

* To learn more see past QUERI journal supplements:
Medical Care, 2000; 38(6).
Journal of General Internal Medicine. 2006; vol. 21.
Implementation Science, 2008; vol. 3.

Within Step 4, a pipeline of phases enabled refinement and spread of effective and implementable programs:

1. Single site pilot
2. Small scale, multi-site implementation trial
3. Large scale, multi-region implementation trial
4. System-wide rollout

Disruption – an impetus for change (circa 2014)

VHA's Innovation Ecosystem: Operationalizing Innovation in Health Care

Ryan J. Vega, MD

Accelerating Research Impact in a Learning Health Care System

VA's Quality Enhancement Research Initiative in the Choice Act Era

Amy M. Kilbourne, PhD,

Partner or Perish: VA Health Services and the Emerging Bi-Directional Paradigm

Amy M. Kilbourne, PhD, MPH[1,2] and David Atkins, MD, MPH[1]

[1]VA Health Services Research and Development Service, Department of Veterans Affairs, Washington, DC, USA; [2]Department of Psychiatry, University of Michigan, Ann Arbor, MI, USA.

implementation on provider motivation, opioid management, suicide prevention, homelessness, medical home models, and communication of adverse events.

QUERI Three-fold Strategic Methodology

Implement
Plan, deploy and sustain effective practices across diverse settings

Enhance Veteran access to cutting edge, personalized treatments

Evaluate
Conduct rigorous evaluations to optimize programs and policies affecting Veterans

Develop mutually beneficial partnerships
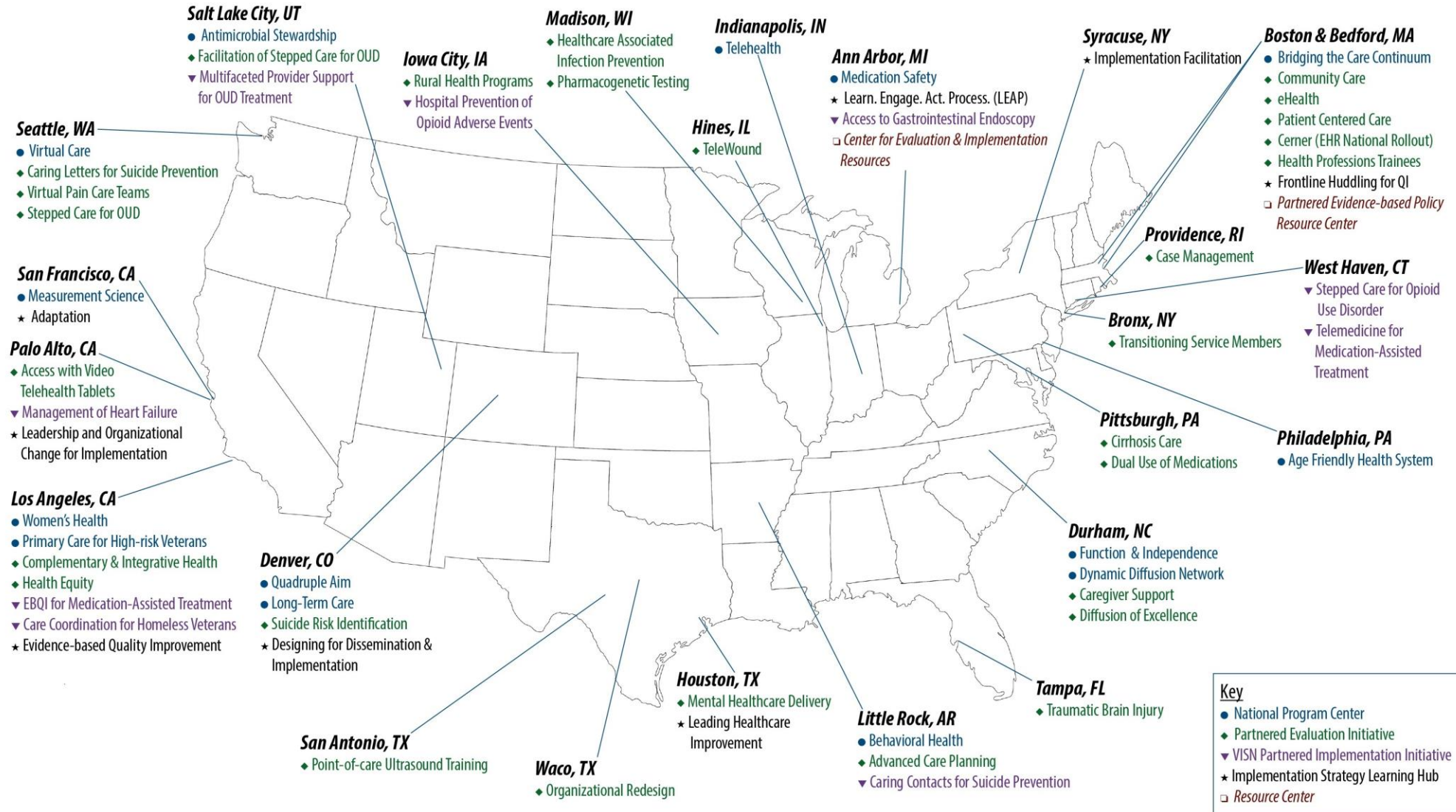
Inform rollout of high priority initiatives
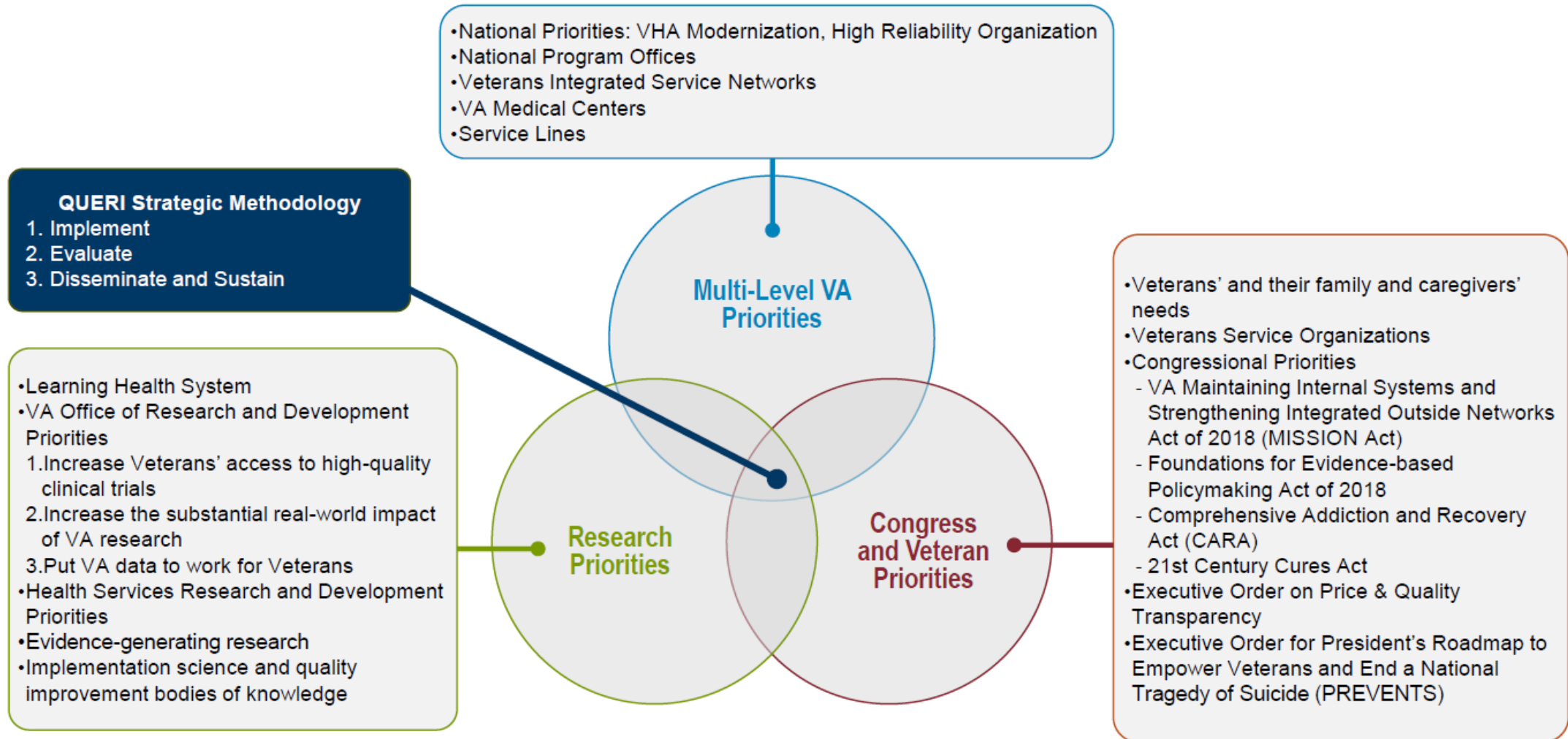
Disseminate & Sustain
Promote the application of implementation and quality improvement sciences across the translation spectrum

Drive a culture of learning and knowledge translation across VA

QUERI Funds 40+ Centers Across the VA

Salt Lake City, UT
- Antimicrobial Stewardship
- Facilitation of Stepped Care for OUD
- Multifaceted Provider Support for OUD Treatment

Iowa City, IA
- Rural Health Programs
- Hospital Prevention of Opioid Adverse Events

Madison, WI
- Healthcare Associated Infection Prevention
- Pharmacogenetic Testing

Indianapolis, IN
- Telehealth

Ann Arbor, MI
- Medication Safety
- Learn. Engage. Act. Process. (LEAP)
- Access to Gastrointestinal Endoscopy
- Center for Evaluation & Implementation Resources

Hines, IL
- TeleWound

Syracuse, NY
- Implementation Facilitation

Boston & Bedford, MA
- Bridging the Care Continuum
- Community Care
- eHealth
- Patient Centered Care
- Cerner (EHR National Rollout)
- Health Professions Trainees
- Frontline Huddling for QI
- Partnered Evidence-based Policy Resource Center

Seattle, WA
- Virtual Care
- Caring Letters for Suicide Prevention
- Virtual Pain Care Teams
- Stepped Care for OUD

San Francisco, CA
- Measurement Science
- Adaptation

Palo Alto, CA
- Access with Video Telehealth Tablets
- Management of Heart Failure
- Leadership and Organizational Change for Implementation

Los Angeles, CA
- Women's Health
- Primary Care for High-risk Veterans
- Complementary & Integrative Health
- Health Equity
- EBQI for Medication-Assisted Treatment
- Care Coordination for Homeless Veterans
- Evidence-based Quality Improvement

Denver, CO
- Quadruple Aim
- Long-Term Care
- Suicide Risk Identification
- Designing for Dissemination & Implementation

Providence, RI
- Case Management

West Haven, CT
- Stepped Care for Opioid Use Disorder
- Telemedicine for Medication-Assisted Treatment

Bronx, NY
- Transitioning Service Members

Pittsburgh, PA
- Cirrhosis Care
- Dual Use of Medications

Philadelphia, PA
- Age Friendly Health System

Durham, NC
- Function & Independence
- Dynamic Diffusion Network
- Caregiver Support
- Diffusion of Excellence

Houston, TX
- Mental Healthcare Delivery
- Leading Healthcare Improvement

San Antonio, TX
- Point-of-care Ultrasound Training

Waco, TX
- Organizational Redesign

Little Rock, AR
- Behavioral Health
- Advanced Care Planning
- Caring Contacts for Suicide Prevention

Tampa, FL
- Traumatic Brain Injury

Key
- National Program Center
- Partnered Evaluation Initiative
- VISN Partnered Implementation Initiative
- Implementation Strategy Learning Hub
- Resource Center

Address Diverse Partnered Evaluation Priorities

QUERI Strategic Methodology
1. Implement
2. Evaluate
3. Disseminate and Sustain

Multi-Level VA Priorities

Research Priorities

Congress and Veteran Priorities

- National Priorities: VHA Modernization, High Reliability Organization
- National Program Offices
- Veterans Integrated Service Networks
- VA Medical Centers
- Service Lines

- Learning Health System
- VA Office of Research and Development Priorities
  1. Increase Veterans' access to high-quality clinical trials
  2. Increase the substantial real-world impact of VA research
  3. Put VA data to work for Veterans
- Health Services Research and Development Priorities
- Evidence-generating research
- Implementation science and quality improvement bodies of knowledge

- Veterans' and their family and caregivers' needs
- Veterans Service Organizations
- Congressional Priorities
  - VA Maintaining Internal Systems and Strengthening Integrated Outside Networks Act of 2018 (MISSION Act)
  - Foundations for Evidence-based Policymaking Act of 2018
  - Comprehensive Addiction and Recovery Act (CARA)
  - 21st Century Cures Act
- Executive Order on Price & Quality Transparency
- Executive Order for President's Roadmap to Empower Veterans and End a National Tragedy of Suicide (PREVENTS)

QUERI Over Time

Then

- Traditional pipeline (linear, time consuming, less responsive)

- Disease-specific programs

- Research timeline*

Now

- Responsive to system needs (months to a year)

- Supporting translation at national, regional network (VISNs), and local facility levels

- Efforts aligned with system leadership priorities annually

- Non-research (QI) under VA policy/Common Rule

* VA implementation research RFAs are currently funded through QUERI's parent Health Services Research & Development Service

WHY MAKE A ROADMAP???

Roadmap Needs: User-Centered Design Considerations

- Helps users navigate an implementation process from start to finish

- "Open-Sourced" to all approaches

- Makes best practices understandable and accessible

- Clear (less jargon)

- User-friendly format

- Adaptable to local contexts

- Encourages de-implementation of low value services

- Highlights landmarks, points of interest, and helpful resources

- Bridges disciplines and siloes with <u>common approach</u>
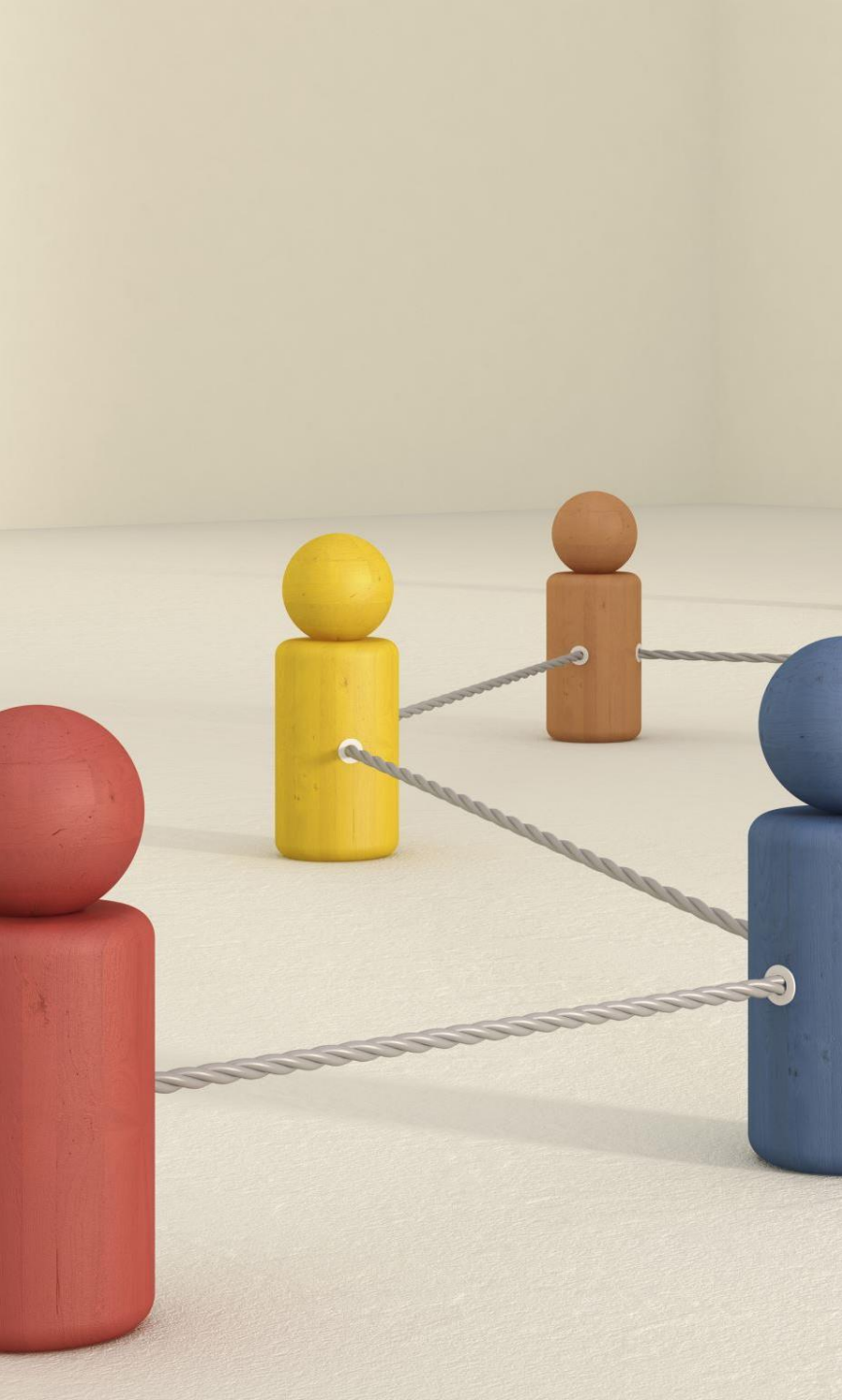
Roadmap Guiding Principles

Implementation and Quality Improvement…

- Are dynamic, multi-phased, and iterative

- Require technical, adaptive, and relational innovation skills

- Use implementation strategies tailored to patients and settings as solutions to innovation barriers

- Promote learning health system strengths

- Cultivate effective leadership/management strategies

- Require continuous engagement and meaningful collaboration with multilevel partners over time

- Use rigorous evaluation methods and designs

Where to Start?

| Pre-Implementation | → | Implementation | → | Sustainment |
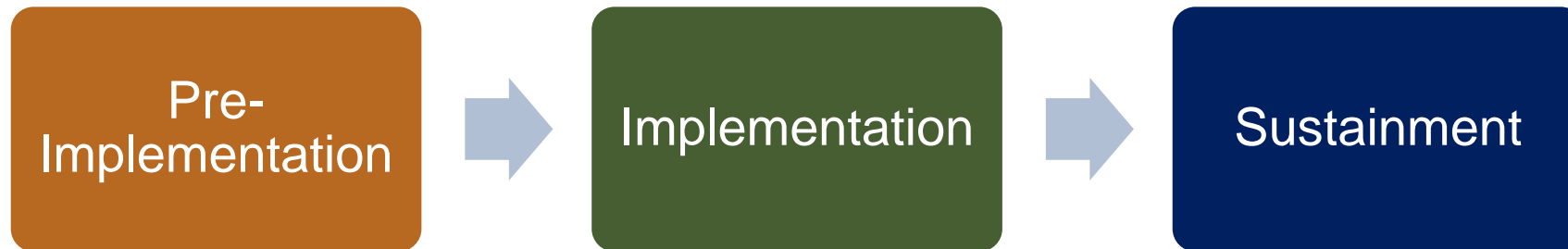
QUERI Implementation Roadmap
(*Detailed Version*)

	Pre-implementation	Implementation	Sustainment
What is being implemented?	**Identify a problem and solution** • Identify high-priority need and goals • Agree on evidence-based practices (EBP) and settings • Clarify EBP core elements, adaptation options (Veteran, provider input)	**Implement an intervention** • Select implementation strategies • Tailor strategies to local settings • Disseminate implementation plan and support tools	**Sustain an intervention** • Develop business plan to continue EBP • Monitor for changes in EBP, whether different EBP is needed • Weigh costs of maintaining EBP
Who and what settings are involved?	**Engage stakeholders** • Cultivate leadership/stakeholder support • Assess capacity, including barriers and solutions to EBP delivery • Package EBP with delivery adaptations	**Activate implementation teams** • Convey top-down practice support "push" to local sites from leadership • Empower bottom-up "pull" to enhance stakeholder buy-in at local level • Create stakeholder feedback channels	**Transition ownership to stakeholders** • Provide management support • Plan and budget for resources • Support continuous learning and innovation in local stakeholder teams
How is it being measured?	**Develop measures and data** • Design evaluation to match goals • Identify measures of success and data sources • Establish baseline performance	**Monitor implementation progress** • Report progress to stakeholders • Make data accessible to stakeholders • Adjust plan based on feedback	**Ongoing Evaluation and Reflection** • Veteran outcomes • Delivery of EBP (fidelity vs. adaptation) • Provider and system costs

QUERI Roadmap

ORIGINAL ARTICLE

OPEN

Quality Enhancement Research Initiative Implementation Roadmap
Toward Sustainability of Evidence-based Practices in a Learning Health System

Amy M. Kilbourne, PhD, MPH,*† David E. Goodrich, EdD,‡ Isomi Miake-Lye, PhD,§
Melissa Z. Braganza, MPH,* and Nicholas W. Bowersox, PhD, ABPP‡

Background: Learning Health Systems strive to continuously integrate innovations and evidence-based practices (EBPs) into routine care settings. Few models provide a specified pathway to accelerate adoption and spread of EBPs across diverse settings.

Objective: The US Department of Veterans Affairs Quality Enhancement Research Initiative (QUERI) Implementation Roadmap facilitates uptake of EBPs in routine practice by aligning research and health system priorities.

Methods: The Roadmap is based on earlier iterations of the QUERI translational research pipeline, incorporating recent advancements in quality improvement and implementation science. Progressive, dynamic phases were operationalized to form an implementation process that promoted a participatory approach which enables stakeholders (health care consumers, clinicians, administrators, and leaders) to systematically plan, deploy, evaluate, and sustain EBPs using implementation strategies within a Learning Health System framework.

Results: The Roadmap consists of Preimplementation, Implementation, and Sustainment phases. Preimplementation identifies a high priority

technical competency and adaptive skills to motivate providers to own and sustain EBPs. Sustainment includes evaluation analyses that establish the EBP business case, and hand-off to system leadership to own EBP implementation maintenance over time.

Conclusions: The QUERI Implementation Roadmap systematically guides identification, implementation, and sustainment of EBPs, demystifying implementation science for stakeholders in a Learning Health System to ensure that EBPs are more rapidly implemented into practice to improve overall consumer health.

Key Words: implementation science, quality improvement, veteran health

(*Med Care* 2019;57: S286–S293)

The mission of the US Department of Veterans Affairs (VA) Quality Enhancement Research Initiative (QUERI) is to improve the health of the US military veterans by accelerating the adoption of evidence-based practices (EBPs) into routine

Learning Health System Knowledge to Action Framework with QUERI Roadmap

A common approach to improve VA health care

The QUERI Roadmap

A pragmatic guide on how to adopt, adapt, implement, spread and sustain new clinical practices and innovations across diverse real-world settings

DESIGNING FOR USABILITY

QUERI Implementation Roadmap
User Guide Version

Support uptake of the effective practice

Activate and engage stakeholders and delivery capability

Optimize the use of data and measures to assess progress

Phase

Section

Step (within sections)

PRE-IMPLEMENTATION

Identify a problem and solution

Engage stakeholders

Develop measures and data

IMPLEMENTATION

Implement an intervention

Activate intervention teams

Monitor implementation progress

SUSTAINMENT

Sustain an intervention
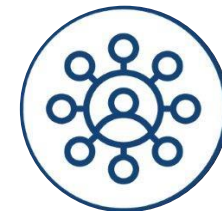
Transition ownership to stakeholders

Ongoing evaluation and reflection

Getting Where You Need To Go

Move effective practices from research to routine clinical care settings

NAVIGATE THE PROCESS
Guides you through the implementation process phases: pre-implementation, implementation, sustainment

APPLY IMPLEMENTATION METHODS
Practical mile markers to help implementers know when and how to apply implementation methods

FIND RESOURCES
Links to deep dives on topics

What's in the Guide?
Navigating sections

Preview each section

Phase overview

Phase summary checklist

What's in the Guide?
Navigating sections

Summarizes phase

Outlines sections

What's in the Guide?
Navigating sections

Identifies phase and section

Describes steps

Highlights VA Resources for steps

Identifies section key concepts

WHAT IS BEING IMPLEMENTED?
Identify a Problem and Solution

What's in this section?

Identify high-priority need and goals
What kinds of issues make good targets?
How should you define the problem?
A "shared understanding" of what?
With whom?

Agree on effective practices and settings
Why use effective practices (EPs)?
Where can you find potential EPs?
What makes an EP a good fit?

KEY RESOURCES
VA Evidence Synthesis Program

Clarify EP core elements, adaptation options
(consumer/provider input)
What are the "active ingredients" of an EP?
What changes, if any, need to be made for the EP work in a certain setting?
What kinds of adaptations might you consider?

KEY RESOURCES
VA Office of Health Equity

Key Concepts

ADAPTATION
The degree to which an evidence-based intervention is changed to fit with the needs, priorities, resources of the setting or target population

FIDELITY
The degree to which an effective practice is implemented as intended by the intervention developers and as prescribed in the original protocol

What's in the Guide?
Navigating sections

Bolded/hyperlinked glossary terms

Hyperlinks for additional info

Relevant VA resource centers

Agree on Effective Practices and Settings

High-impact implementation begins by finding the best available practice to solve the problem. An **effective practice** is a health-focused innovation, intervention, program, policy, or technology with consistent, credible evidence supporting its ability to have a meaningful impact on consumer health behaviors or outcomes while minimizing harms.

Using evidence-based practices enhances the effectiveness of the care provide to consumers and their families and saves time and resources by improving the quality, timeliness, or efficiency of current clinical workflows.

Begin the Pre-implementation phase by searching for empirically supported practices that address the problem by reviewing relevant scientific research, high-quality evidence syntheses based on standard systematic review and/or meta-analytic methods, and/or clinical practice recommendations from professional and government entities.

Note if the evidence underlying the practice has limitations. For example, was the evidence for a practice based on studies with settings, delivery methods, or populations similar to those of your own organization?[28] If these factors differ, you may need to pilot the practice to "scale out" to these new contexts or consumer populations prior to full implementation to verify the practice is effective in your setting.[29,30]

In some cases, evidence for a solution may not yet exist in a systematic review or as the outcome of a randomized clinical trial. In this situation, consider expanding your search to identify examples of positive outliers within your organization and promising practices exhibited by similar high-performing organizations.[21,31-33]

Sometimes, the best solution for a particular problem is a promising practice, which we define as a technique, intervention, program, or methodology that, through experience and rigorous evaluation, has proven to reliably lead to a desired result.[34]

The VA has created a formal process called **Diffusion of Excellence**, which actively identifies promising practices and innovations developed at the local level as well as evidence-based practices that have not been widely adopted.[35-38] Each year, practices are submitted to a national competition, where investigators and health system leaders select the top practices with the greatest potential for health system impact. These practices are in turn receive support for scale up and spread across VA.

The VA Evidence Synthesis Program offers timely and accurate syntheses of specific health care topics of importance to clinicians, managers, and policy makers as they work to improve the health and health care of Veterans.

Outside VA, look to resources like Cochrane, the U.S. Preventive Services Task Force, and the Agency for Healthcare Research Quality Evidence-based Practice Center Program.

Going forward in this guide, we use the term "**effective practice**" to include both evidence-based practices and promising practices with potential for high impact on local-, regional-, or national-level quality improvement or implementation efforts.

Consider the following questions when deciding whether to implement a practice:[39]

- Are there concurrent improvement initiatives addressing the same problem?
- Do frontline stakeholders and managers perceive the evidence as strong enough to reliably yield the desired improvement in outcome?
- What is the feasibility of implementing the practice?
- Does the practice create a larger workload for frontline stakeholders without supplying more delivery capacity (i.e., time, personnel)?
- Is the practice simple and user-friendly in design and application? Does the practice fit in workflows?
- What is the burden on consumers, their families, and/or caregivers?

Finally, there is a growing recognition of the problem of low-value care services that merit "de-implementation." In many cases, the goal may be to implement a new effective practice while acting to de-implement a low value care practice at the same time. "**Low-value**" **care** may be defined as health care services or treatments that provide little or no benefit to consumers, have the potential to cause harm, incur unnecessary costs to consumers, or waste limited resources.[40,41] An estimated 25% to 34% of all health care costs in the United States reflect low-value care practices,[42,43] and thus, reveal a large area for improvement.

De-implementation calls for a practice to be reduced, replaced, or stopped because it has been found ineffective, harmful, inefficient, or no longer necessary, even in the absence of a superior alternative practice.[44,45] While the focus of strategies to de-implement low-value care services may be slightly different than those to implement a practice,[44,46,47] the steps in the QUERI Roadmap are still applicable to planning and executing a de-implementation initiative.

PRE-IMPLEMENTATION
Identify a problem and a solution

The VA QUERI Roadmap | PAGE 14

What's in the Guide?
Navigating sections

Sections and steps in brief checklist format

What's in the Guide?
... and more!

Case studies using real examples applied to the Roadmap

The Department of Veterans Affairs Rapid Naloxone Initiative: National Diffusion of a Promising Practice

The Veterans Health Administration has worked quickly to prevent opioid overdose deaths among Veterans at VA facilities. The Rapid Naloxone Initiative is one part of a multi-faceted national strategy to address the opiate epidemic. Notably, this case study illustrates how a promising care innovation developed by a single health care facility can be spread through the system to improve outcomes using the QUERI Roadmap.[129]

Pre-Implementation

Identify a problem and solution

The United States is in the midst of an opioid epidemic. In 20__ overdoses took the lives of nearly 47,600 people—an averag__ fatalities per day. Military Veterans are a vulnerable populati__ are twice as likely to die from an accidental overdose compa__ non-Veterans.

Naloxone is a safe and effective medication that can reverse__ overdose when delivered as an intranasal spray or as an intr__ lar shot. In 2014, the VA became the first large United States__ system to rapidly implement a nationwide Opioid Overdose__ and Naloxone Distribution (OEND) program.

The goals of Opioid OEND are to educate at-risk Veterans, th__ their family, and their clinicians to improve access to naloxo__ reduce and prevent Veteran deaths. In the context of this un__ national initiative, there is ample opportunity for local innov__

Tailoring Implementation of a Medical Home Model to Meet Women Veterans' Needs Using Evidence-based Quality Improvement

We applied the QUERI Roadmap to our work to modify the VA's medical home model (i.e., Pati__ women Veterans. Women Veterans are an extreme minority in the VA (approximately 8%). Ho__ health needs that must be treated and are the fastest growing segment of new VA users.

Pre-Implementation

Identify the Problem and Solution

Women Veterans face gender disparities in primary care access, continuity, and coordination. They also face disparities when it comes to preventive screenings that routinely occur in primary care settings (e.g., colorectal cancer screening, depression screening).

The Patient Aligned Care Team was not originally changed for women Veterans' primary care needs. Therefore, multiple policies guide the implementation of Women's Health Patient-Aligned Care Team models. These models must be capable of meeting primary care and gender-specific care needs by expert clinicians in gender-sensitive care environments.

In partnership with VA Women's Health Services, our goal was to test an evidence-based quality improvement approach to tailoring the Patient Aligned Care Team (as the intervention) to meet women Veterans' care needs. This intervention is team-based and focuses on access to and continuity with identifiable teamlets. These teamlets have assigned Veteran populations for whom they are accountable for preventive care, primary care coordination, and Veteran outcomes.

Engage Stakeholders

We engaged stakeholders in the beginning using several strategies. First, we reached out to medical centers that were part of the VA Women's Health Practice Based Research Network. Each medical center has a trained site lead with knowledge about site characteristics (e.g., care

Finally, we convened multilevel (i.e., network, medical center, clinic levels) meetings within each of four participating regional networks. In the meetings, we described the problem and evidence-based quality improvement solution. We described the problem in the context of

The National Hepatitis C Innovation Team Collaborative

Pre-Implementation

Identify a Problem and Solution

The hepatitis C virus is a leading cause of liver cancer and liver failure among United States adults and Veterans. In 2014, new, direct-acting antiviral medications with fewer side effects, shorter courses of treatment, and higher cure rates became widely available.

Earlier treatments included injectable interferon and were less than optimal for consumers and clinicians. These treatments were delivered over many months and frequently had adverse side effects, contraindications, and low cure rates. As a result, few Veterans had received hepatitis C virus treatment prior to 2014.[218]

As the new medications became available in 2014, the Veterans Health Administration cared for over 160,000 Veterans who were eligible for

the medications. Recognizing the benefit of these innovative treatments on consumer health and quality of life, VA clinical leadership decided to redesign the structure of hepatitis C virus care to make these treatments easily accessible for Veterans.

To support the expansion of treatment, the HIV, Hepatitis, and Related Conditions Program created a national quality improvement collaborative called the Hepatitis C Innovation Team Collaborative. The collaborative's goal was to improve the hepatitis C virus system of care. Health system leaders saw this rapid, national effort as an opportunity to study implementation strategies and how they affect outcomes over time. This work informs future similar implementation efforts.[218]

To support the study, implementation scientists at VA partnered with the collaborative to answer these questions:

1. Which strategies helped make sites successful in providing hepatitis C virus treatment and testing?
2. Was the collaborative an important part of hepatitis C virus treatment success?

Hepatitis C Innovation Team Collaborative Structure
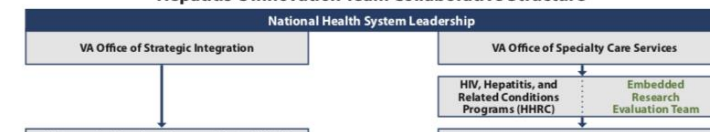
National Health System Leadership	
VA Office of Strategic Integration	VA Office of Specialty Care Services
	HIV, Hepatitis, and Related Conditions Programs (HHRC) — Embedded Research Evaluation Team

What's in the Guide?
... and more!

CEIR
VA QUERI Center for Evaluation and Implementation Resources

CENTER FOR EVALUATION & IMPLEMENTATION RESOURCES
Time sensitive consultation support to Operational Leaders on evaluation & implementation

ESP
Evidence Synthesis Program

EVIDENCE SYNTHESIS PROGRAM
Identifies best practices & conducts rapid evidence reviews

PEPReC

PARTNERED EVIDENCE-BASED POLICY RESOURCE CENTER
Supports development & evaluation of national policies/program for VA Leaders using rigorous designs

VIReC

HSR&D VA INFORMATION RESOURCE CENTER
Provides guidance on data, information systems & analysis

HERC
Health Economics Resource Center

HSR&D HEALTH ECONOMICS RESOURCE CENTER
Estimates return on investment & implementation strategy costs

Descriptions and contact info for VA resources

VA Resources for Implementation & Quality Improvement

VA Resource Centers Fact Sheets:

- Center for Evaluation & Implementation Resources (CEIR)

- Evidence Synthesis Program (ESP)

- Partnered Evidence-based Policy Resource Center (PEPReC)

- HSR&D VA Information Resource Center (VIReC)

- HSR&D Health Economics Resource Center (HERC)

QUERI Implementation Strategy Learning Hubs

VA Quality Scholars

What's in the Guide?
... and more!

Other Implementation Resources

**AGENCY FOR HEALTH RESEARCH AND QUALITY: ADVANCES IN PATIENT SAFETY: FROM RESEARCH TO D...
TOOL TO GUIDE RESEARCH DISSEMINATION**

This Dissemination and Implementation toolkit was developed to help investigators evaluate their research a...
ate dissemination plans. With a focus on assessing "real-world" impact, this tool aids patient-safety investigato...

...anning.html

...ASED PRACTICE CENTERS
...ed to promote evidence-based practice in ev...
...ts on topics relevant to clinical and other he...

.../index.html

...ACILITATION HANDBOOK
...training of new practice facilitators to acqui...
...cularly related to the implementation of the...

...SOCIETY OF CLINICAL PSYCHOLOGY
...linical psychologists interested in learning r...

Glossary of Terms

From the Glossary of Terms from Implementation Science at a Glance: A Guide for Cancer Control Practitioners by the National Cancer Institute, 2019. https://cancercontrol.cancer.gov/sites/default/files/2020-04/NCI-ISaaG-Workbook.pdf

ACTIVE RESISTERS – Health care personnel who vigorously and openly oppose implementing changes in clinical practice and whose resistance typically takes one of two forms: 1) difficulty implementing a change that is incompatible with practices that are engrained as the result of prior clinical training or habitual work flows or 2) resistance from competing authorities on whether to implement the new effective practice.[275,276]

ADAPTATION – A process of thoughtful and deliberative alteration of the design or delivery of an effective practice with the aim of improving its fit or effectiveness in a given context.[62,63]

***ADOPTION –** A decision to make full use of an effective practice or program as the best course of action available. Also defined as the decision of an organization or community to commit to and initiate an effective practice.[108]

FORMATIVE EVALUATION – A rigo...
designed to identify potential and a...
quality and potential sustainment...
then use this data to refine, improv...
process and, in some cases, adapt a...
tive practice itself; formative evalua...
during, and/or after implementatio...
mediate use to optimize a related i...
hoc interpretation of findings.[30,186]

HEALTH DISPARITY – A particular t...
closely linked with social or econom...
adversely affect groups of people w...

Tools, Checklists, Guides aplenty!

General Resources for Implementation and Quality Improvement

Resources:

- Implementation versus Improvement Science (Quality Improvement)

- Adaptation Guidance Tool

- The Iterative Decision-making for Evaluation of Adaptations (IDEA) Decision Tree

- Abridged Checklist for Conducting Adaptation Interviews

- Detailed FRAME Adaptations and Modifications Checklist

- What's a Barrier and Facilitator Framework

- List of Expert Recommendations for Implementing Change (ERIC)

- Evaluation and Study Designs for Implementation and Quality Improvement

- Other Resources

APPLICATION OF THE ROADMAP

QUERI Implementation Roadmap
Where do you want to go?

Support uptake of the effective practice

Activate and engage stakeholders and delivery capability

Optimize the use of data and measures to assess progress
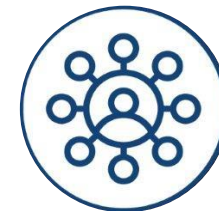
PRE-IMPLEMENTATION	Identify a problem and solution	Engage stakeholders	Develop measures and data
IMPLEMENTATION	Implement an intervention	Activate intervention teams	Monitor implementation progress
SUSTAINMENT	Sustain an intervention	Transition ownership to stakeholders	Ongoing evaluation and reflection

Pre-Implementation

What is being implemented?
IDENTIFY A PROBLEM AND A SOLUTION

Who and what settings are involved?
ENGAGE STAKEHOLDERS

How is it being measured?
DEVELOP MEASURES AND DATA

Identify a problem and a solution

- Identify high-priority need and goals

  "What keeps you awake at night?"

- Agree on effective practices and settings
  - Finding effective practices?
  - Evidence Synthesis Program

  ESP
  Evidence Synthesis Program

- Clarify **core elements/adaptation** options
  - Think social determinants/health disparities here
  - Adaptation happens – health systems need to learn from positive adaptations/deviations!

Figure 4. Optimizing Implementation Effectiveness with Fidelity and Adaptive Fit to Context

Practice Fidelity (High / Low) × Practice Fit with Local Context (Low / High)

- High Fidelity, Low Fit: Variable Implementation Effectiveness
- High Fidelity, High Fit: Effective Implementation
- Low Fidelity, Low Fit: Poor Implementation
- Low Fidelity, High Fit: Variable Implementation Effectiveness
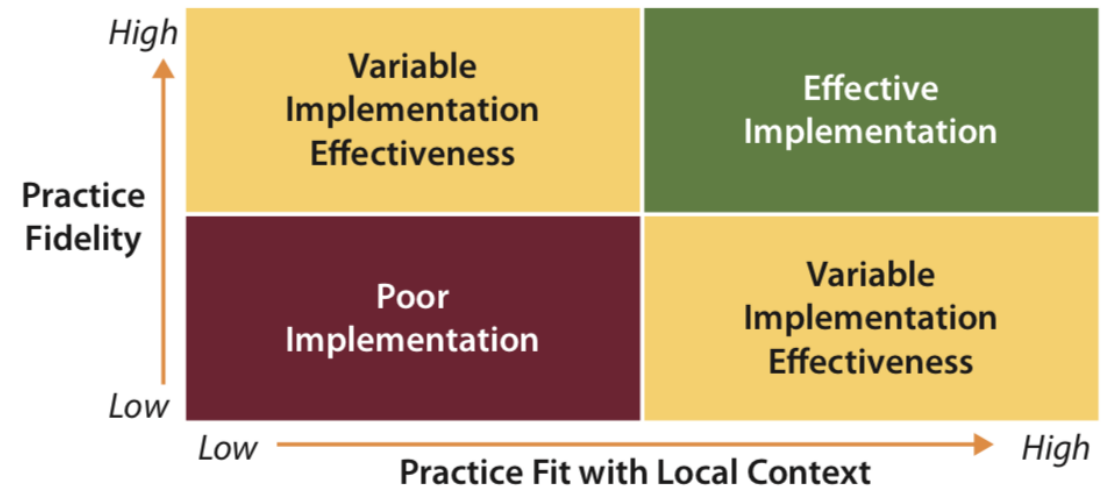
Figure 7. A Systematic Approach to Designing an Implementation Plan

STEP 1
Assess practice gaps using current knowledge and current practice

STEP 2
Use current knowledge to assess effective practices to reduce the gap

STEP 3
Map out and analyze processes, behaviors, and/or decision points that make up an effective practice

STEP 4
Assess barriers and/or facilitators related to implementing the effective practice

STEP 5
Use theory to link barriers to evidence-based change techniques

STEP 6
Design an implementation strategy to overcome barriers

STEP 7
Develop a logic model to align activities to measure and monitor outcomes

Re-evaluate fit and repeat steps if necessary

Adapted from [102,111,114]

Implementation as organizational behavior change

Implementation Strategies

"Old way of doing things"

Barriers to Change

Think

Decide

Act

Behavior

Clinicians
Teams
Services
Hospitals
Health System

New practice integrated into workflow, process of care, algorithm, EHR, etc.

Old practice de-implemented or de-intensified
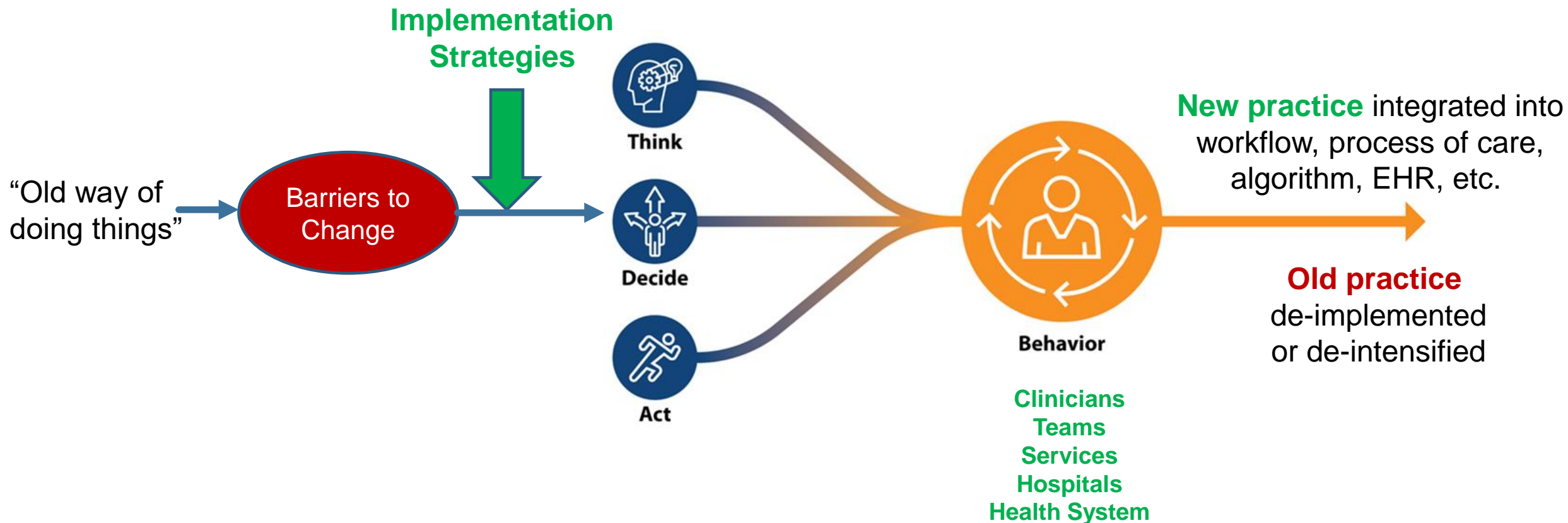
Engage stakeholders

- Cultivate leadership/stakeholder support
  - Identify and engage multi-level stakeholders
  - Build distributed leadership support
  - View resistance as feedback in hard-to-engage sites
    - See ESP Report on
  - Build partnerships between operations and scientists
  - Understand context – diagnose readiness, barriers (Systematic approach)
  - Assess capacity, including barriers and strengths
- Help clinicians and teams be able to change automatic behaviors – think, decide, act (workflows) with theory, implementation strategies, planning & assessment approaches
- Package practice with delivery adaptations

"If you want to go quickly, go alone. If you want to go far, go together."
- African proverb

Develop measures and data

- Mutual co-design of evaluation aims/design*

- Identify measures of success and data sources

  - Apply D&I evaluation frameworks like RE-AIM or implementation outcomes

  - Plan for strategic process data collection

  - Use logic models as visual planning/evaluation tool

  - Establish baseline performance

  - Assessing performance with appropriate and meaningful benchmarks/quality indicators

CEIR VA QUERI Center for Evaluation and Implementation Resources — **CENTER FOR EVALUATION & IMPLEMENTATION RESOURCES** Time sensitive consultation support to Operational Leaders on evaluation & implementation

PEPReC — **PARTNERED EVIDENCE-BASED POLICY RESOURCE CENTER** Supports development & evaluation of national policies/program for VA Leaders using rigorous designs

VIReC — **HSR&D VA INFORMATION RESOURCE CENTER** Provides guidance on data, information systems & analysis

HERC Health Economics Resource Center — **HSR&D HEALTH ECONOMICS RESOURCE CENTER** Estimates return on investment & implementation strategy costs

* See Resources section on considerations for selecting an evaluation design

Implementation

What is being implemented?
IMPLEMENT AN INTERVENTION

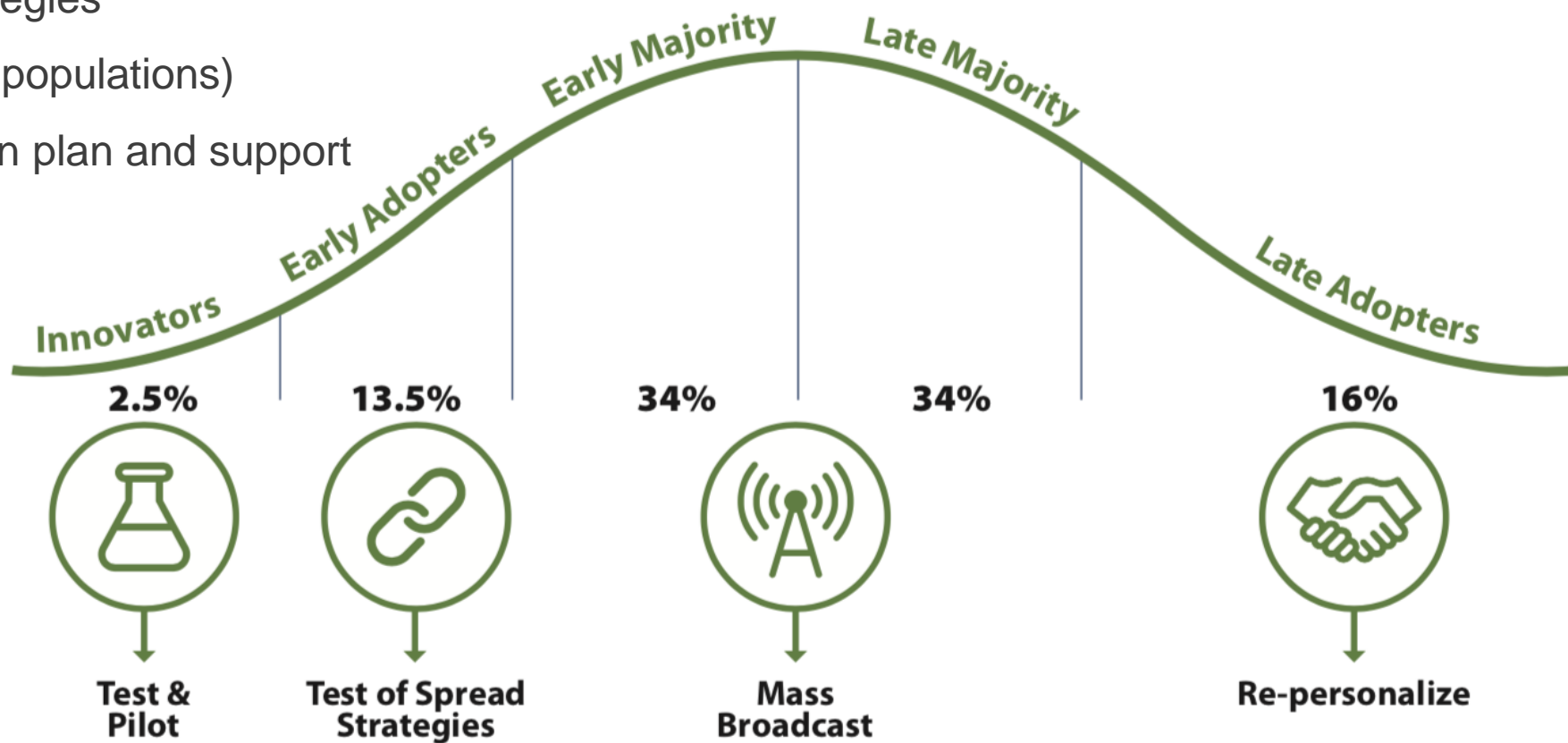Who and what settings are involved?
ACTIVATE IMPLEMENTATION TEAMS

How is it being measured?
MONITOR IMPLEMENTATION PROGRESS

Implement an intervention

- Select implementation strategies
- Tailor to local settings (and populations)
- Disseminate implementation plan and support tools
 - Plan for spread and scale

Innovators — 2.5% — Test & Pilot

Early Adopters — 13.5% — Test of Spread Strategies

Early Majority — 34% — Mass Broadcast

Late Majority — 34%

Late Adopters — 16% — Re-personalize

Tailored Approaches for Spread Across the Diffusion of Innovations Curve

Activate implementation teams

- Convey top-down support to create "push" for practice to local sites from leadership
  - Consider *Rodger's Diffusion of Innovations theory* and other recent science on how strategies must evolve for phase of implementation, audience, channel, change objective
  - Consider how to spread and scale an innovation from local implementation to system-wide
- Empower local stakeholders to create bottom-up "pull" to enhance stakeholder buy-in and long-term capacity building
- Create effective stakeholder feedback channels
  - Leadership/management must create a **positive climate** for learning and innovation (e.g., community of practice)
  - **Psychological safety** enables sharing errors, problems, mistakes, and setbacks without fear of reprisal
  - Hold teams **accountable** to **performance goals/standards** for disciplined and systematic improvement

Transactional vs Transformational Leadership

Learning climate and support
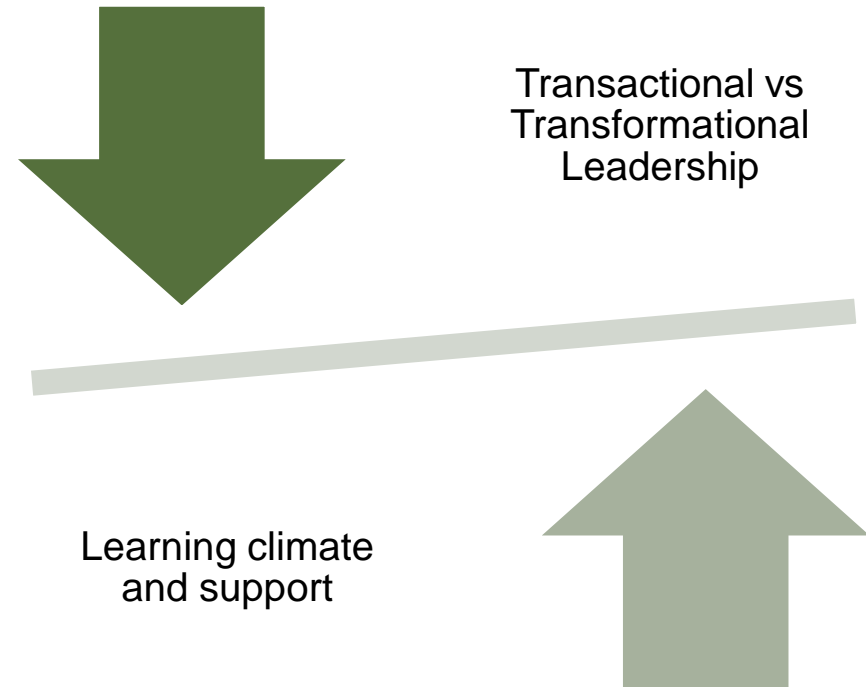
Develop measures and data

- Report progress to stakeholders
- Making data accessible to stakeholders
  - Data should be usable for iterative use
  - PDSA
- Adjust plan based on feedback
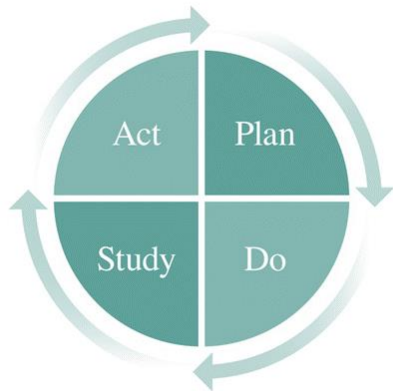
"Until a new process or practice is completely routine, each use of it is an experiment"
- Amy Edmondson

Sustainment

What is being implemented?
SUSTAIN AN INTERVENTION

Who and what settings are involved?
TRANSITION OWNERSHIP TO STAKEHOLDERS

How is it being measured?
ONGOING EVALUATION AND REFLECTION

Sustainment

The Goal

To integrate the effective practice into habitual workflows in clinical care settings and employ it at the local health care facility level without special external support, such as grant or start-up funds.

Not an endpoint but rather a process that involves:

- Assessing the effective practice's performance on an ongoing basis
- Adapting the effective practice over time to maintain or improve clinical effectiveness
- Periodically reviewing to decide whether to continue to sustain a practice or **de-implement** it
- Creating a business plan to support ongoing delivery

Sustain an intervention

- Develop a business plan to continue the practice
    - Consider sources of funding, local fit, value to local organization, etc.
    - Design for sustainability
    - Use appropriate strategies and tools to plan for local integration and ownership
- Monitor for changes in practice and whether a different practice is needed
    - Keep abreast of needed changes, adaptations, or consider **de-implementation/de-intensification**
- Weigh costs of maintaining

Successful implementation requires that organizations "design for sustainability in Pre-Implementation by empowering local stakeholders to be actively involved in planning, delivering, measuring, and refining the practice so they feel ownership of the practice and appreciate its value.

Transition ownership to stakeholders

- Provide management support
  - Develop an **implementation playbook** to clarify how to support the effective practice
- Plan and budget for resources
  - Consider local and shared operating resources (budget impact analysis, break-even analysis)
- Support continuous learning and innovation in local stakeholder teams
  - Plan for ongoing analysis, sharing between sites, and staff development

A defining characteristic of a sustainable practice is that it is viewed as an essential part of ongoing routine clinical care and is valued by both providers and by organizational leaders at the local and system levels

Ongoing evaluation and reflection

- Consumer outcomes
    - Ensure EP has a population effect on a priority group(s) of patients
- Delivery of practice (fidelity vs. adaptation)
    - Maintain ongoing monitoring of fidelity and testing of adaptations to improve fit
- Provider and system costs
    - Local teams should iteratively refine implementation to optimize local fit and uptake

Are you achieving system levels of impact?

(i.e., Quadruple Aim)

- Population health indices?

- Enhancing consumer experience of care?

- Decreasing per capita cost of care?

- Improving work life balance of health care workers?

Implications for science and practice

- The Roadmap provides a process map/"app" to guide clinicians, leaders, and researchers on how to partner and work from a common set of principles

- Reflects > 20 years of QUERI institutional knowledge and advances in D&I science

- Designed to help implementers understand key milestones and how to accomplish them through:
  - Designs, methods, measures, theories, frameworks, strategies, tools, and key citations
  - VA Resource Centers

- A framework applicable and adaptable to system research and "non-research"
  - Use in VA from Cooperative Studies Program (CSP) multisite clinical trials to local promising practices
  - Not prescriptive and allows for VA and non-VA researchers and evaluators to use preferred theories, frameworks, and methods

- A model of embedding applied researchers to partner with operational stakeholders to innovate

Thank you!

Questions? Let's talk!