



AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



AHRQ evidence-based Care Transformation Support (ACTS) Initiative

A Roadmap for AHRQ and Other Stakeholders

AMIA Annual Conference
November 18, 2019

Town Hall Agenda



- Brief overview of ACTS Initiative/Roadmap
 - ▶ Related slides being presented to >40 organizations
- Brief comments by ACTS Participants/Presenters
 - ▶ Activities, expected benefits
- Open Discussion
 - ▶ How might you engage/benefit/contribute?

Project Goals



- Better Dissemination/Use of AHRQ/Other Resources, to
- Support Evidence-informed Care Transformation, via a
- National Learning Health System (LHS), that
- Achieves the Quadruple Aim

ACTS Stakeholder Community

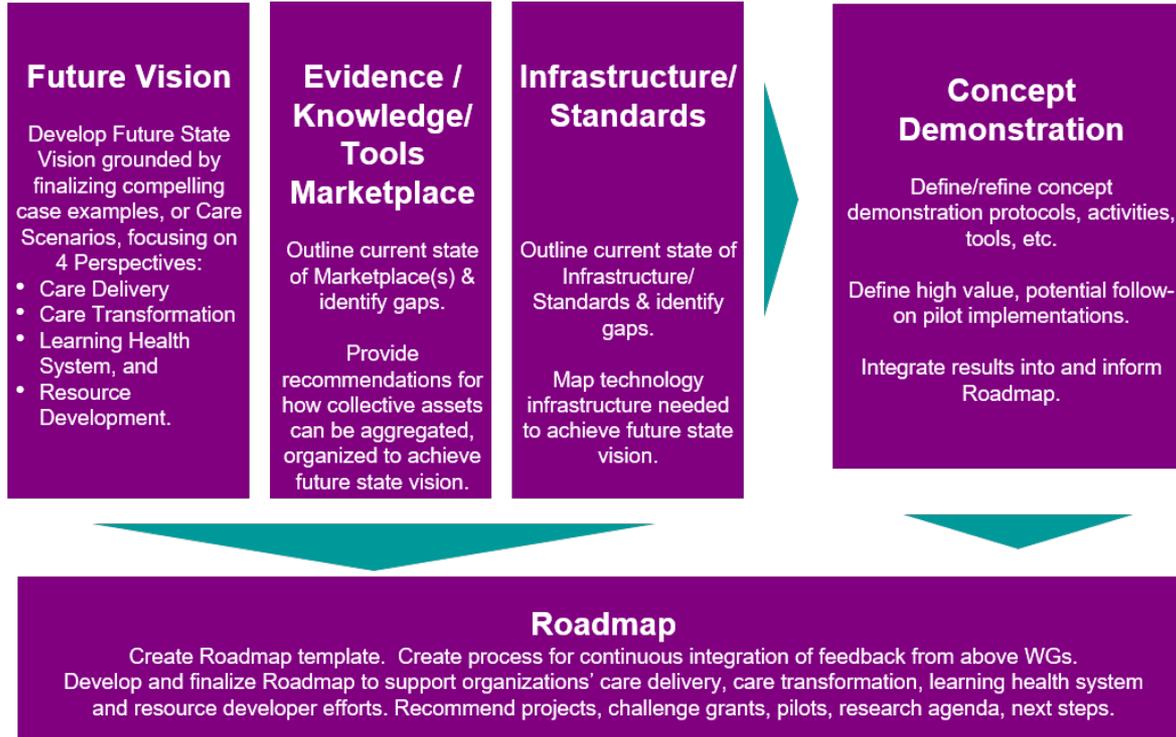


>120 individuals from:

- Care Delivery Organizations (CDOs)
- Quality Organizations / Consultants
- Health IT/CDS/EHR Suppliers
- Government Agencies
- Informatics/Researchers
- Specialty Societies
- Other Membership Organizations/Accreditors
- Patient Advocates
- Guideline Developers
- Payers
- AHRQ
- Others groups

The ACTS Project Team, Stakeholder Community, and Workgroup members are listed in the [Acknowledgements](#) (currently undergoing validation).

ACTS Stakeholder Workgroups



Coordinated with Other Related Activities & Initiatives



- Mobilizing Computable Biomedical Knowledge (MCBK)
- AHRQ CDS Connect Project and Workgroup
- AHRQ Patient-Centered CDS Learning Network (PC-CDS-LN)
- USPSTF Digital Health Forum
- AHRQ/NIH-NIDDK eCarePlan project for MCC
- CDC Adapting Clinical Guidelines for the Digital Age (CDC-ACG)
- HL7
- Logica Health (HSPC)
- OMG BPM+
- NLM, VHA
- **Many others**

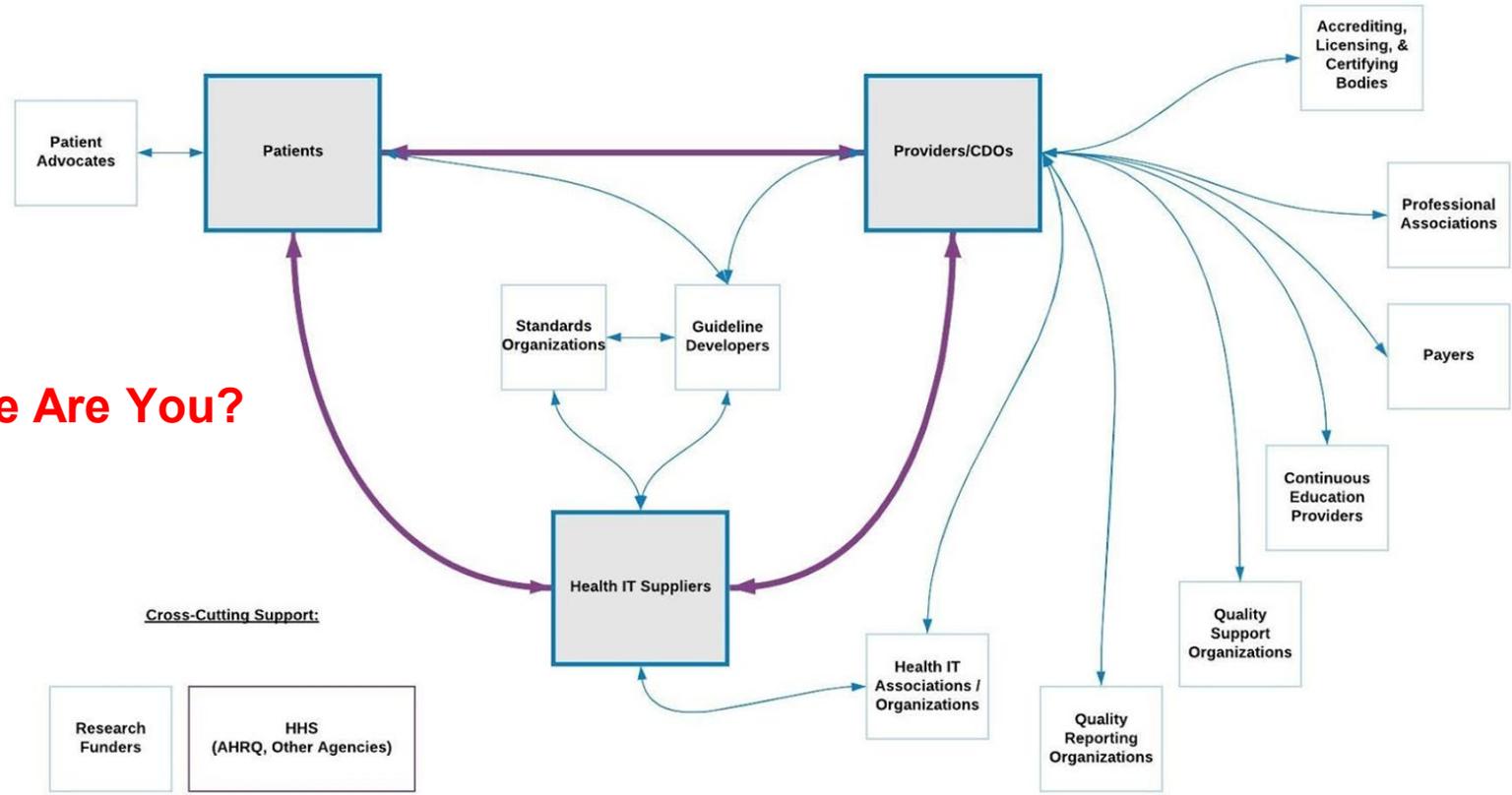
Why Does This Matter To You?



- Success in achieving your goals depends on actions *by others* **but** your current *approaches to driving these actions* are [likely] *suboptimal*
- This Roadmap outlines *shared* stakeholder goals that are *interdependent with yours*, and provides a collaborative path *for all of us to achieve them better*
- *AMIA Implications???*

Desired Presentation Outcome: You consider ways to leverage ACTS Roadmap & related collaborations to enhance progress toward your goals and join the initiative!

Interdependent Stakeholder Groups: Current Efforts Typically Siloed with Suboptimal Results



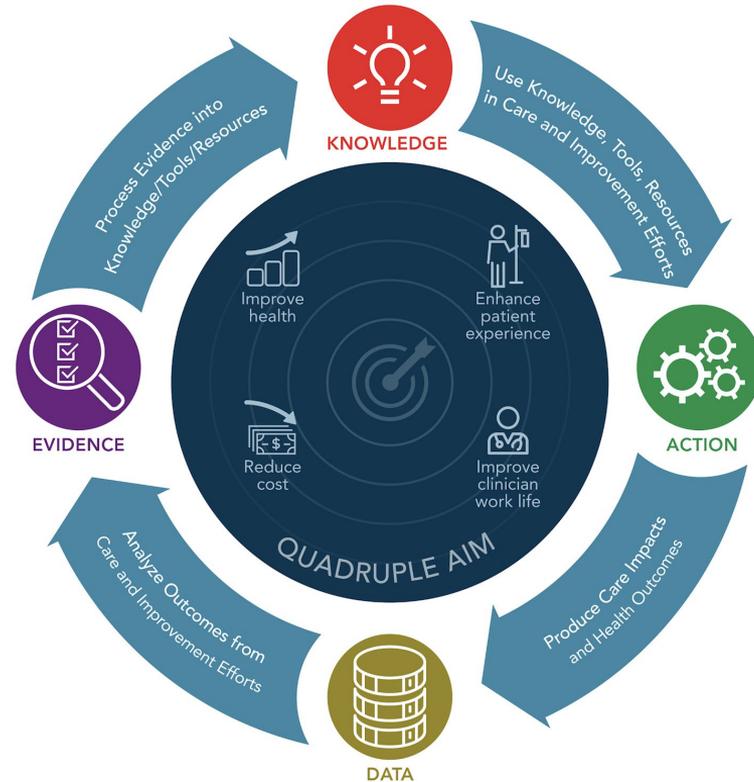
Where Are You?

Cross-Cutting Support:

Creating a National LHS to Meet Everyone's Needs Better

AHRQ evidence -based Care Transformation (ACTS) Initiative

- Improve access to/use of AHRQ and other evidence-informed resources
- Roadmap for a National LHS virtuous cycle to achieve the Quadruple Aim
- Deliver information/tools how, when, where needed throughout the cycle



- Create a **Stakeholder Community** and **workgroups** to produce (and ultimately foster execution of) a **Roadmap** that:
 - ▶ Defines a **shared future vision** for evidence-informed, health IT-enabled care - including better development, dissemination, use of resources from AHRQ/others
 - ▶ Defines **stakeholder-driven actions AHRQ/others can take** to achieve the future vision,
- Have organizations execute Roadmap to ***achieve their goals and future vision***

Future Vision Perspectives Addressed



- Care Delivery
 - ▶ Giving and receiving care
- Organizational LHS
 - ▶ Care transformation in individual CDOs
- Care Resource Developers
 - ▶ Creating tools for care delivery and transformation
- National LHS
 - ▶ Creating the LHS virtuous cycle throughout the healthcare ecosystem

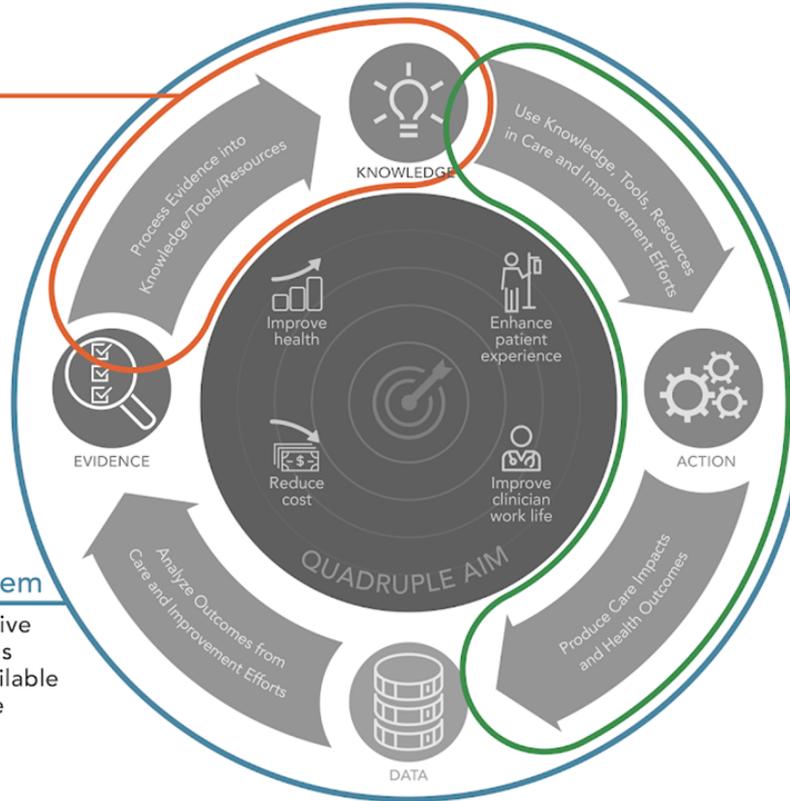
Shared Future Vision for a National LHS: A Virtuous Cycle Without Obstacles/Silos

Resource Developers

Ready access to evidence and information when and how needed; increasingly delivered proactively for resource development, updating

National Learning Health System

Supportive policies/incentives; effective standards, marketplaces, shared focus and efforts on goals. Information available when/where/how needed to optimize decisions/actions/results



Information/Resources are FAIR

Findable, Accessible, Interoperable, Reusable

Care Delivery/Transformation

CARE DELIVERY

Patients/care teams have current tools and resources to develop and implement evidence-informed care plans for all clinical issues, and to address other care needs

CARE TRANSFORMATION (Organization LHS)

Quality Improvement teams use tools/resources informed by best evidence; these address costs, are sensitive to organizational needs, comprehensively support care transformation

Care Delivery Future Vision

- **Care is patient-centered, proactive, and effective** - Quadruple Aim achieved by better use of evidence-informed, health IT-enabled tools to support:
 - ▶ **Decisions and actions** (e.g., re: preventive care, self-care, managing acute/chronic conditions)
 - ▶ **Communication/coordination** among care team members including patients and their caregivers
- **Information flow, workflow, and outcomes are improved**. For example:
 - ▶ **Information/resource portals** provide user-focused access to needed information, tools, and resources from AHRQ and other sources
 - ▶ **Evidence-based care plans** and shared decision-making tools for preventive care and acute/chronic clinical problems support decisions, actions and outcomes across entire care team, individualized for patient goals, preferences, circumstances (see mockup)

- ***Proactively*** bring *tools and evidence into care decisions and actions*
- Provides *templates for evidence- informed care plans*
 - ▶ ***Integrated*** across patient's clinical issues, care teams
 - ▶ ***Customized*** to each patient

Care Plan Generator Mockup

Concept Demonstration of Care Plan Generator (in development by EBSCO Health Innovations)

	Select Conditions	Set Goals	Set Preferences	Set Icons	Schedule	Review CarePlan
	Hypertension	Stage 3 CKD	Osteoarthritis			Depression, possible OUD, loneliness
Education	<input type="checkbox"/> High blood pressure: What you need to know <input type="checkbox"/> High blood pressure module (video)	<input type="checkbox"/> Chronic kidney disease: What you need to know	<input type="checkbox"/> Osteoarthritis: What you need to know <input type="checkbox"/> Knee injection (video)			<input type="checkbox"/> Depression: What you need to know <input type="checkbox"/> Opioids: Using them safely and wisely to help with pain <input type="checkbox"/> The loss of a loved one: Surviving the storm and finding a new norm
Lifestyle Actions	<input type="checkbox"/> DASH diet [info] <input type="checkbox"/> Mediterranean diet [info] <input type="checkbox"/> Eat 6 servings of fruit & vegetables a day [info] • View other Diet Actions	<input type="checkbox"/> Avoid a high protein diet [info] • View other Diet Actions	<input type="checkbox"/> Exercise for Osteoarthritis [info] <input type="checkbox"/> Weight Loss for Osteoarthritis [info] <input checked="" type="checkbox"/> Swim 30 minutes 3 times a week [info] • View other Activity Actions			<input type="checkbox"/> Walk 30 minutes 5 times a week [info] <input checked="" type="checkbox"/> Swim 30 minutes 3 times a week [info] • View other Activity Actions
Prescriptions	<input type="checkbox"/> Stop atenolol [info] <input checked="" type="checkbox"/> Start ACE inhibitor lisinopril 20mg 1x per day • [info]	<input checked="" type="checkbox"/> Start ACE inhibitor lisinopril 20mg 1x per day • [info] <input type="checkbox"/> Start statin atorvastatin 20mg 1x per day • [info]	<input type="checkbox"/> Stop oxycodone [info] <input type="checkbox"/> Start topical NSAID (diclofenac gel) • [info] <input type="checkbox"/> Start duloxetine 30mg 1x per day for 1 week then 60mg 1x per day • [info] ⚠️			<input type="checkbox"/> Stop oxycodone [info] <input type="checkbox"/> Start duloxetine 20mg 2x per day for 1 week then 60mg 1x per day • [info] ⚠️
Messages / Referrals	<input type="checkbox"/> Reminder via patient portal to record blood pressure daily		<input type="checkbox"/> Physical therapy referral [info]			<input type="checkbox"/> Referral to community support group for widows/widowers <input type="checkbox"/> For Depression – Messages/Referrals – Mental Health: Consult for Depression Order Set
Select Tests	<input checked="" type="checkbox"/> Basic Metabolic Panel now <input checked="" type="checkbox"/> Serum creatine and potassium in 2 weeks	<input checked="" type="checkbox"/> Basic Metabolic Panel now <input checked="" type="checkbox"/> Serum creatine and potassium in 2 weeks				

• For each patient health issue...

• ... integrated care plan produced by Care Plan Generator address key care plan elements

Organization LHS Future Vision



- In an ideal future, LHS organizations will (among many other things):
- ...endorse and implement **LHS Core Values** (person-focused, privacy, inclusiveness, transparency, accessibility, adaptability, governance, cooperative and participatory leadership, scientific integrity, value)
- ...**achieve real-time and near real-time data collection and analysis** that informs continuous learning and improvement - within and beyond the organization
- ...have a **care transformation support toolkit** underpinned by socio-technical infrastructure, customized to local circumstances/needs, leveraging national and institutional LHS knowledge, and readily incorporated into systems and workflows

Care Resource Developer Future Vision

- When searching for resource building blocks, developers can readily find all knowledge artifacts (KAs) they need, and easily incorporate and update them
- In the short-term vision, KAs generally will be manually discovered and assembled using search portals that return results tuned to specific needs
- In the longer-term vision, the search/retrieval process will be more automated
 - ▶ ‘Push’ features will leverage newer technologies (such as AI/ML) to deliver and keep resource building blocks updated (e.g., condition-specific care plan templates within care plan generators)

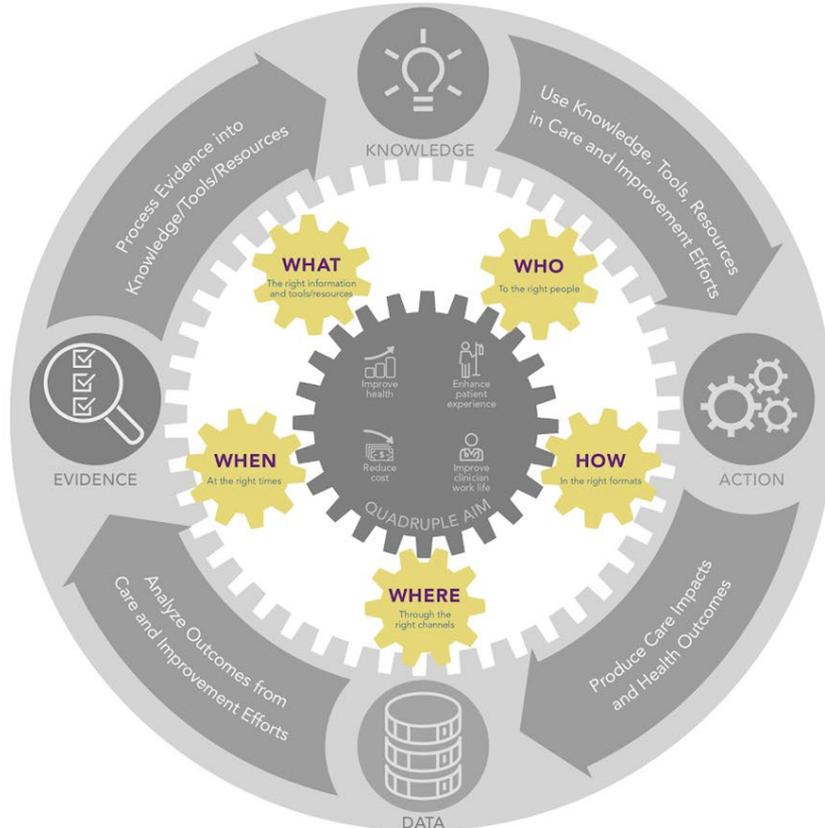
National LHS Future Vision



National LHS approaches will:

- Be guided by [LHS Core Values](#)
- **Harmonize policies and incentives** from payers/others to support an LHS virtuous cycle without silos/fragmentation of effort and information/tools/resources
- Be a **national healthcare priority** for policymakers, collaborative agencies and federal and foundational funders, and result in **achieving the Quadruple Aim**
- Prioritize inter- and intraorganizational **continuous learning and improvement as a workforce imperative**
- **Facilitate easy access to curated, actionable tools/resources/data for continuous learning and improvement that are adaptable/customizable, and optimized for use when, where, and how they are needed**

5 Roadmap Goals to Achieve Future Vision



A Roadmap for Making the Cycle work to Achieve the Quadruple Aim

1. **Shared vision and collaborative approach** used to build the National LHS
2. **Portals and marketplaces** enable discovery, access and implementation for evidence-based LHS content
3. **Standards and interoperability infrastructure** support seamless information flow for the LHS cycle
4. **LHS tools, expertise and best practices** are part of routine training and care delivery for patients, clinicians, and systems
5. **Payments, incentives and policies** encourage LHS and drive care transformation toward quadruple aim

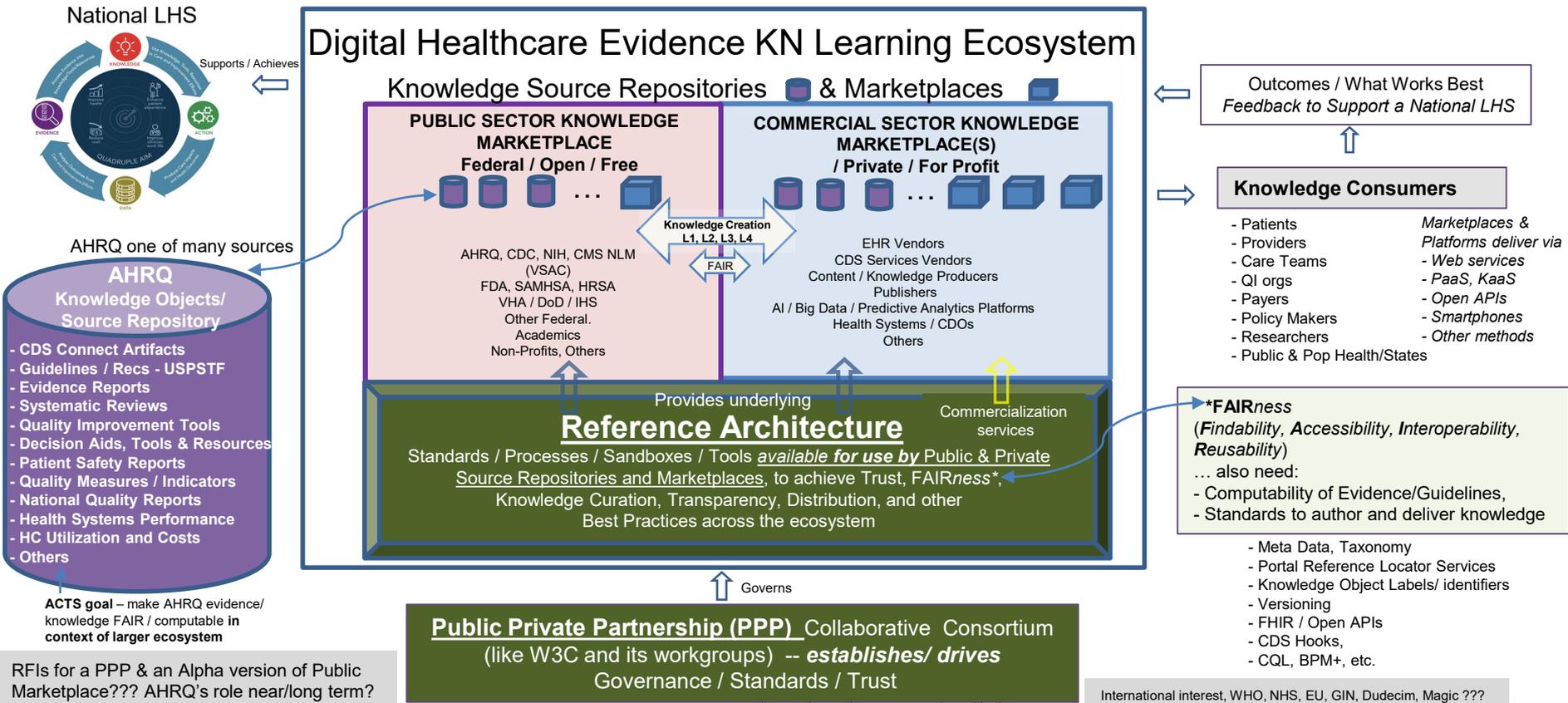
Roadmap Goals and Strategies/Objectives*



Goals	Strategies/Objectives
<p>1. Shared vision and collaborative approach used to build the LHS</p>	<ul style="list-style-type: none"> • Build on ACTS and other efforts to catalog, enhance, and cross-fertilize initiatives working to define and realize a shared future LHS vision • Establish public/private partnership to drive robust, collaborative efforts to execute Roadmap
<p>2. Portals and marketplaces enable discovery, access and implementation for evidence-based LHS content</p>	<ul style="list-style-type: none"> • Build on ACTS Marketplaces WG and other efforts to define, leverage, test, and scale indexes, taxonomies, portals, APIs, marketplaces, repositories, sandboxes, trusted curation, etc. to create "Knowledge Network" that makes content and resources from AHRQ and others FAIR
<p>3. Standards and interoperability infrastructure support seamless information flow for the LHS cycle</p>	<ul style="list-style-type: none"> • Build on ACTS Standards WG landscape analysis to drive industry consensus and adoption around standards for content representation, interoperability, and consumption needed to achieve future vision
<p>4. LHS tools, expertise and best practices are part of routine training and care delivery for clinicians and systems</p>	<ul style="list-style-type: none"> • Develop mechanism to share examples of future vision elements realized as models to accelerate best practice spread and refinement • Build on current tools and initiatives to create Care Plan Generators and Care Transformation Support Toolkits to make the right thing easy • Expand and coordinate training to support broad LHS implementation
<p>5. Payments, incentives, policies encourage LHS, drive care transformation to Quadruple Aim</p>	<ul style="list-style-type: none"> • Coordinate/accelerate efforts around LHS policies, incentives, contracts especially with regard to achieving the future vision and other roadmap elements • Support research to quantify and enhance value from LHS efforts

*RFIs and pilots are key mechanisms for addressing the objectives

National Digital Healthcare Knowledge Network (KN) Ecosystem (Future State Concept – Draft / Non-vetted) to Achieve a National LHS / Quadruple Aim / CDS 5 Rights



Roadmap Actions to Advance Business Needs and Future Vision—AHRQ* (Model for Others)



- **Portals/Marketplaces/Knowledge Network** to Improve Information Access
 - ▶ Fund development/pilots to make AHRQ/HHS/other resources 'FAIR' (Federal/Free Marketplace)
 - ▶ Seed initiative to collaboratively develop Knowledge Network that includes support for vendor subscription services; RFI for details
- Support for **Routine Use of Best Tools/Resources/Practices**
 - ▶ Foster demos/pilots/scaling of Care Plan Generator and Care Transformation Support Toolkit
- Standards/Infrastructure to **Support Interoperability**
 - ▶ Support follow-on work to vet and implement consensus standards recs re: above items
- **Shared Vision/Collaboration** to Build LHS
 - ▶ Leverage ACTS stakeholder engagement to seed public private partnership to drive efforts above
- Payments/Incentives/Policies to Drive Transformation
 - ▶ Support studies to define value from LHS efforts

*This is placeholder only - a more vetted and detailed AHRQ Roadmap is under development

Draft/High Level Timeline (AHRQ/Others)*



	Year 1	Years 2-4	Years 5-10
PPP for KN Ecosystem	RFI; build on ACTS/other collaborations to address shared needs and seed PPP	Launch/leverage PPP to support rows below	Enhance/evolve PPP to meet changing ecosystem needs
Portal/ Mktplace	RFI, design (metadata, governance, curation, etc.), concept demos/pilots (initial portal to make AHRQ evidence assets FAIR)	Implement/refine with core additional offerings from AHRQ/HHS/VA/others interested	Expand content/functionality based on evolving market need
Standards/ Infrstrctre	Shared industry vision of enterprise architecture (build on ACTS S/I appendix)	Implement standards/architecture, refine to address new priority use cases	Ongoing refinement/ enhancement
New Tools	Define/vet pilot portfolio; begin concept demos for nextgen/integrated offerings (AHRQ/others) care plan generator, transformation support toolkit, etc.	Broad pilot implementation and early scaling; leverage new approaches (AI/ML)	Broad scaling of successful tools and approaches
Drivers/ Research	Outline plan to define and advance LHS value through incentives, policy, research	Leverage PPP to begin executing plan	Deliver/document major strides in achieving LHS/Quad Aim

*Vetting, details, budget underway

Organizations Receiving This Roadmap



Participants in Roadmap development will present it to their organizations to trigger discussion on possible steps to achieve organization and Roadmap goals.

Goal is to generate action toward broadly realizing the shared future vision as an immediate byproduct of Roadmap development/vetting.

Organizations Receiving Roadmap Presentations



Federal Agencies (6)	Care Delivery Organizations (13)	Health IT Vendors (9)	Specialty Societies/ Associations (3)	Other (10)
AHRQ	Hennepin Healthcare	EBSCO	ACEP	IPRO
NIH (NIDDK)	Rutgers/RWJBarnabas Health	IMO	AAFP	PCCDS Learning Network
CDC	University of Chicago	Microsoft	American Hospital Ass	Logica/HSPC
Veterans Health Admin	University of Connecticut	Cognitive Medical Systems		Health Information Alliance Inc - CT HIE Agency
ONC	UT Southwestern	Healthwise, Incorporated		Accreditation Council for Continuing Medical Education (ACCME)
NLM	Intermountain Healthcare	Apervita		OMG/BPM+ Health
	Ochsner Health System	Cerner		MCBK Steering Committee
	Northwestern Medicine	Wolters Kluwer		BlueCross Blue Shield CA
	City of Hope National Med Center	Epic		NCQA
	4 Virginia Ambulatory Care Outcomes Research Network (ACORN) practices: VCU Health System practices; Fairfax Family Practice Centers; Tidewater Physicians Group; Carilion Health System practices			Cochrane US Network

Discussion

- Q&A about presentation
- Comments from ACTS participants/presenters
- Open discussion
- Potential next steps

Discussion Questions

- To what extent is the Future Vision aligned with where you're trying to go? What additions/modifications would increase this alignment?
- Are you involved in any activities that could represent major steps toward addressing the Roadmap goals/strategies for broadly achieving the future vision? If so, how to cultivate?
- Likewise, are there activities outlined in the Roadmap that could support our care transformation efforts (**pilots beneficial to us**)? If so, which ones, and how might these synergies be cultivated?

Map of Roadmap Sections



NOTE: These Documents are Still Undergoing Active Editing:

- Roadmap Summary Presentation
- Roadmap Report
 - Executive Summary
 - Report Body
 - Appendices
- Future Vision Appendix/Overview
 - Care Delivery
 - Care Delivery Future Vision Vetting
 - Learning Health Systems (National and Organizational)
 - Resource Developer
 - Marketplaces Appendix
 - Standards/Infrastructure Appendix

Contact Info



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