Advancing Target-focused Care Transformation and Learning Health Systems

Initiative Launch

Summit at AMIA Symposium and Virtual
11/14/23

Session Recording Consent

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- Your Zoom profile details such as your name and avatar / photo will be captured by this recording, along with any comments you make.
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Agenda

Time	Speaker	Title
10 min	Jerry Osheroff	Goals and background
10 min	Jonathan Nebeker	VA Approach to Care Transformation and LHS
60 min *Lightning Showcase Talks* *(Sample 'Puzzle Pieces')*	Chuck Friedman	LHS activities supported by UofM Dept of Learning Health Sciences and the Learning Health Community, Inc.
	Marc Overhage	LHSs Business implications for payers
	Josh Richardson / Maria Michaels	Supporting the LHS with Standards
	Dave Little	LHS Care Transformation: EHR/Epic Perspective
	Brian Levy	The Cerner Approach to Opioid Management
	Jerry Osheroff	CKD Care Transformation Leveraging Health Service Design / Blueprints
40 min	== Group Discussion / Next steps ('Assembling the Puzzle') ==	

Foundations for the Event / Initiative

2005-6: ONC / AMIA Roadmap for National Action on Clinical Decision Support

- Form Steering Group to coordinate/accelerate transformation for a few priority targets

2018-21: AHRQ evidence-based Care Transformation Support (ACTS) Initiative

- 10 yr Roadmap to LHSs/Quintuple Aim: Form Steering Group to coordinate / accelerate …

Nov '21: LHS Collaborative formed (no funding or support)

- Plan: pick targets, form learning communities
- Build on ACTS work, coordinate / cross-fertilize efforts within / across targets

Dec '21: Pain/Opioid LHS Learning Community (POLLC) formed (no funding or support)

- 4 other target-focused efforts: HTN, SCD, CKD, VTEP/TBI (all 5 now have public or private support)

10/3/23: POLLC Proposal to catalog/advance LHS efforts presented at MCBK Global '23

- LHS Collaborative/POLLC, VA, HL7 LHS WG, MCBK now driving this work

Today's Goals

Expand **engagement** and **enthusiasm** for this initiative:

- Evolve and use the Care Transformation / LHS Activity Catalog to accelerate cross fertilization, value delivery, progress on high priority targets

Get there because *You* leave this Summit with

- **New strategies, tools** and **potential collaborators** to accelerate YOUR Care Transformation / LHS efforts and results

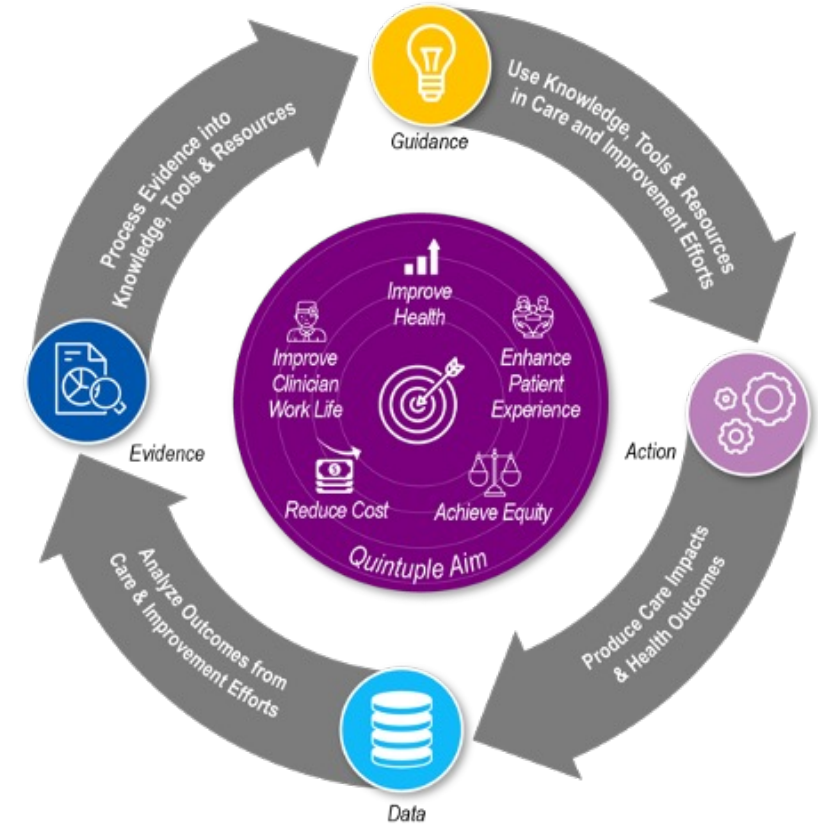

Diagram from: LHS Cycle from ACTS Future Vision
Osheroff JA (Project Lead; project participants here). ACTS Learning Health System (LHS) Concept Demonstration [Internet]. Rockville (Maryland): Agency for Healthcare Research and Quality (AHRQ), AHRQ evidence-based Care Transformation Support (ACTS) Initiative; [2021 Oct]. See here

Care Transformation/LHS Activity Catalog: Intro/Targets

List of Target-focused and cross-target CT/LHS Activities:

- Springboard to connect people with ideas, resources and other people to accelerate progress

Target-Focused Care Transformation / LHS Activity Catalog

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What is this Target-Focused Care Transformation / LHS Activity Catalogue?

This spreadsheet is a tool to accelerate broad progress on target-focused care transformation and LHSs to achieve the Quintuple Aim. It is a key component of an ini... these goals jointly led by the LHS Collaborative, VA, HL7 LHS WG, and MCBK.

This tool helps achieve these goals by connecting organizations working toward similar care transformation goals in mutually beneficial ways. For example, by supporting refining and spreading valuable tools and approaches and connecting needs with resources that can address them.

Organizations / initaitives are entering into this Catalog information about their:

•Care transformation / LHS activities
•Needs they have in this work that others can potentially
•Resources and other offerings they can provide to help

Related Prior Work

This initiative emerged from LHS Collaborative efforts and related work by other initiative leads. In 2022, POLLC (one of the LHS Collaborative's learning communities) created a tool similar to this one to cross fertilize efforts on pain management, opioid use, and opioid use disorder (see here).

Tool Structure

Each tab aggregates transformation / LHS efforts/offerings/needs related to specific targets. The last tab catalogues activities that are not specific to targets. This tab includes is not limited to LHS-related data exchange standards, informatics workforce development, and tools such as the Health Service Blueprint. If you have questions or suggestions about this tool, please email Jerry Osheroff (josheroff@tmitconsulting.com)

Introduction | Pain/Opioids | CKD | HTN | Diabetes | Sickle Cell Disease | VTEP - TBI | Multiple Chronic Conditions | Not Target-speci

Initiatives by target

- *Aim for limited starter set*

Target agnostic initiatives

- *Data exchange standards*
- *Workforce development*
- *Health Service Blueprint Tools*

Care Transformation/LHS Activity Catalog: Info on Tabs

Embryonic content on Pain/Opioid tab

Target-Focused Care Transformation / LHS Activity Catalog

File Edit View Insert Format Data Tools Extensions Help

Organization Name

Organization Name	Org Type (CDO, other [details])	LHS / Care Transformation Innovations Implemented see templates in Not Target-specific Tab for sample items	LHS / Care Transformation Innovations in Development	Standards Leveraged in Innovations e.g., as mentioned here	Pressing Obstacles / Needs	Support Offered	[Other Headers Needed?]
POLLC	Learning Community	See POLLC overview and material below this table	See POLLC overview and material below this table		funding/support to scale/sustain intaitive; strategies for getting engagement and support from c-suite to advance pain/opioid care transformation efforts (need multi-component strategy and toolbox for this: ROI analysis, synergies with other care transformation targets [e.g., apply gap analysis tools to other targets, leverage interventions to reduce burnout across targets]; open 'textbook' that others can contribute to and leverage)	peer support, tool sharing/developing for pain/opioid care transformation / LHS	
Pima County HD	Local public health department		linkages to care; sharing of data with HC systems		DUA; ROI for HC systems	local award OD2A; working on linakges to care	
IPRO	Quality Innovation Network-Quality Improvement Organization	Working on implementing the opioid/pain management care gap report, pain management OneSheet implementation					
CHIME	Professional Society for Healthcare CIOs	Opioid Task Force Playbook					
National Academy of Medicine	National Academy	Action Collaborative on Combatting Substance Use and Opioid Crisis					
RTI International	Contract Research Organization	CDS4CPM patient and provider-facing apps that integrate patient-reported data from an mHealth app into an EHR (Epic) w/CDS	guidance to action; action to data	CDC opioid prescribing guidelines, SMART on FHIR, CPG-on-FHIR, LOINC, RxNorm	implementation sites	technical advising	
American Hospital Association	Association	AHA Stem the Tide Resources for addressing the opioid epidemic. E.g., Opioid Stewardship Measurement Implementation Guide and Addressing the Opioid Epidemic toolkit					

Standard Headers on Tabs

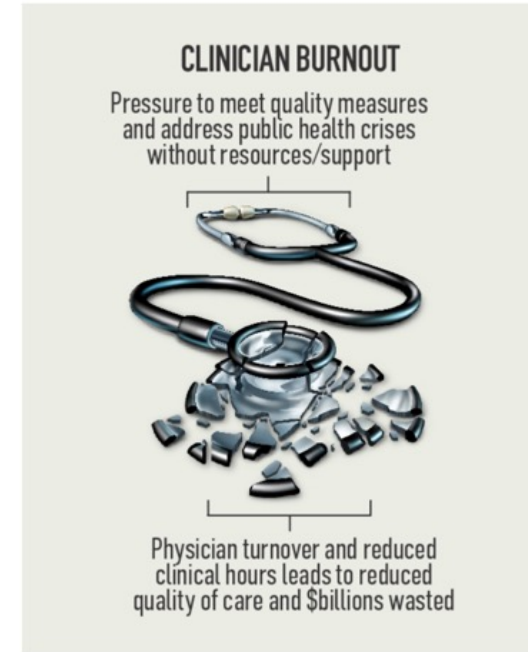
Organizations / Initiatives and their activities / needs / offers

('Puzzle Pieces')

VA Approach to Care Transformation / LHS

Jonathan Nebeker, MD; National CMIO and Executive Director of Clinical Informatics, VA

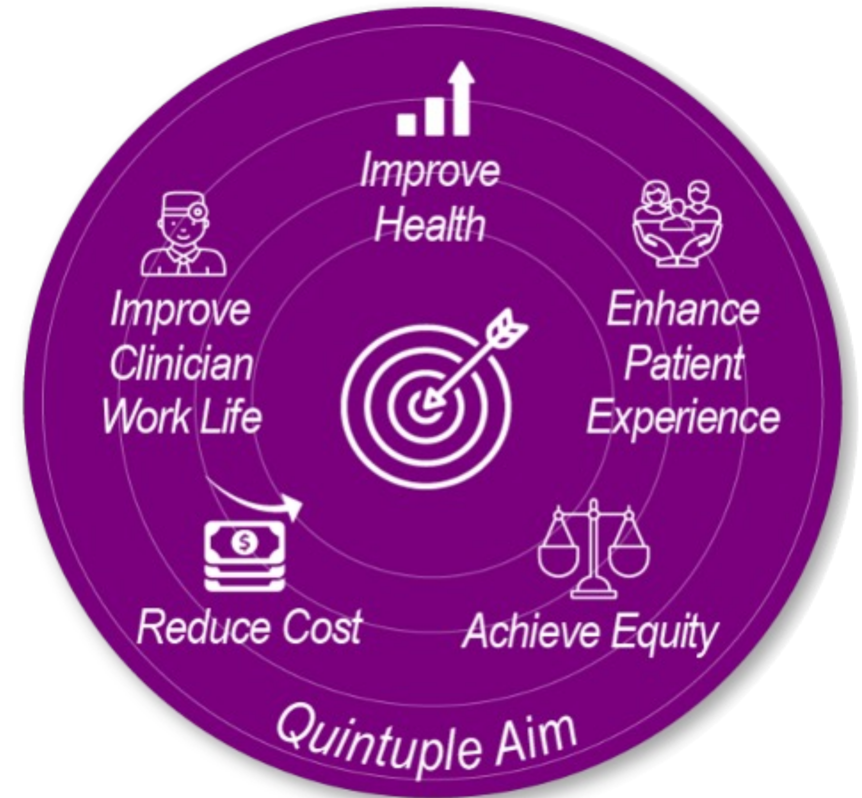
The Care Transformation/Care Delivery Challenge



True in VA as well;
Let's achieve the Quintuple Aim faster by working together!

The VA is on a journey …

- Become a leading Learning Health System
  - Evidence-driven continuous improvement
  - High reliability organization
  - Standardization with standard optionality
- Achieve the *Quintuple Aim* for Veterans, Care Teams, VA



Integrated Health Practice: Foundation for Care Transformation

- Human Systems Integration
- User validation
- Labels/Language
- Visual design
- BPM+

- EHR
- Apps
- Modules

Design

Technology

Multi-disciplinary approach to rapid solution delivery

Process

Change Management

- Systems Engineering
- User-centered design
- BPM+

- Training
- Adoption
- Evaluation

VA Perspective

What we're doing	What we need	What we can offer

• **Governance based on capability management versus technology**
 	
• **Defining and Using Health Service Design / Health Service Blueprints** to identify and align opportunities, drive care transformation (CKD pilot)
 	
• **Executing via the Integrated Health Practice (IHP) Program using Scaled Agile Framework** (SAFe)
 	
• **Developing other enablers**
  • Informatics workforce development
  • CDS Platform
  • “EHR Modernization”
	• LHS / CT Insights, Strategies, Tools, Lessons Learned – to reduce effort duplication, re-inventing wheels
	
	• Oracle Health-specific partnerships related to above
	
	• Collaboration driven by sharing Health Service Blueprints on targets (CKD, others)
		• Our LHS / CT Insights, Strategies and Lessons learned
		
		• Health Service Design / Health Service Blueprint resources, guidance, collaboration

Other Showcase Teasers

- **Chuck Friedman (U of Michigan)**
- **Marc Overhage (Elevance Health)**
- **Josh Richardson / Maria Michaels (HL7 LHS WG)**
- **Dave Little (Epic)**
- **Brian Levy (Oracle Health)**
- **Jerry Osheroff (VA – CKD Care Transformation)**

LHS Activities based in or supported by the Department of Learning Health Sciences at the University of Michigan

Charles P. Friedman, PhD
Professor and Chair
Gretchen A. Piatt, PhD
Professor and Vice Chair

https://medicine.umich.edu/dept/learning-health-sciences

Activities of the Learning Health Community, Inc.

Joshua C. Rubin, JD, MPH, MPP, MHA
Chief Executive Officer
Charles P. Friedman, PhD
Chair of the Board

https://www.learninghealth.org

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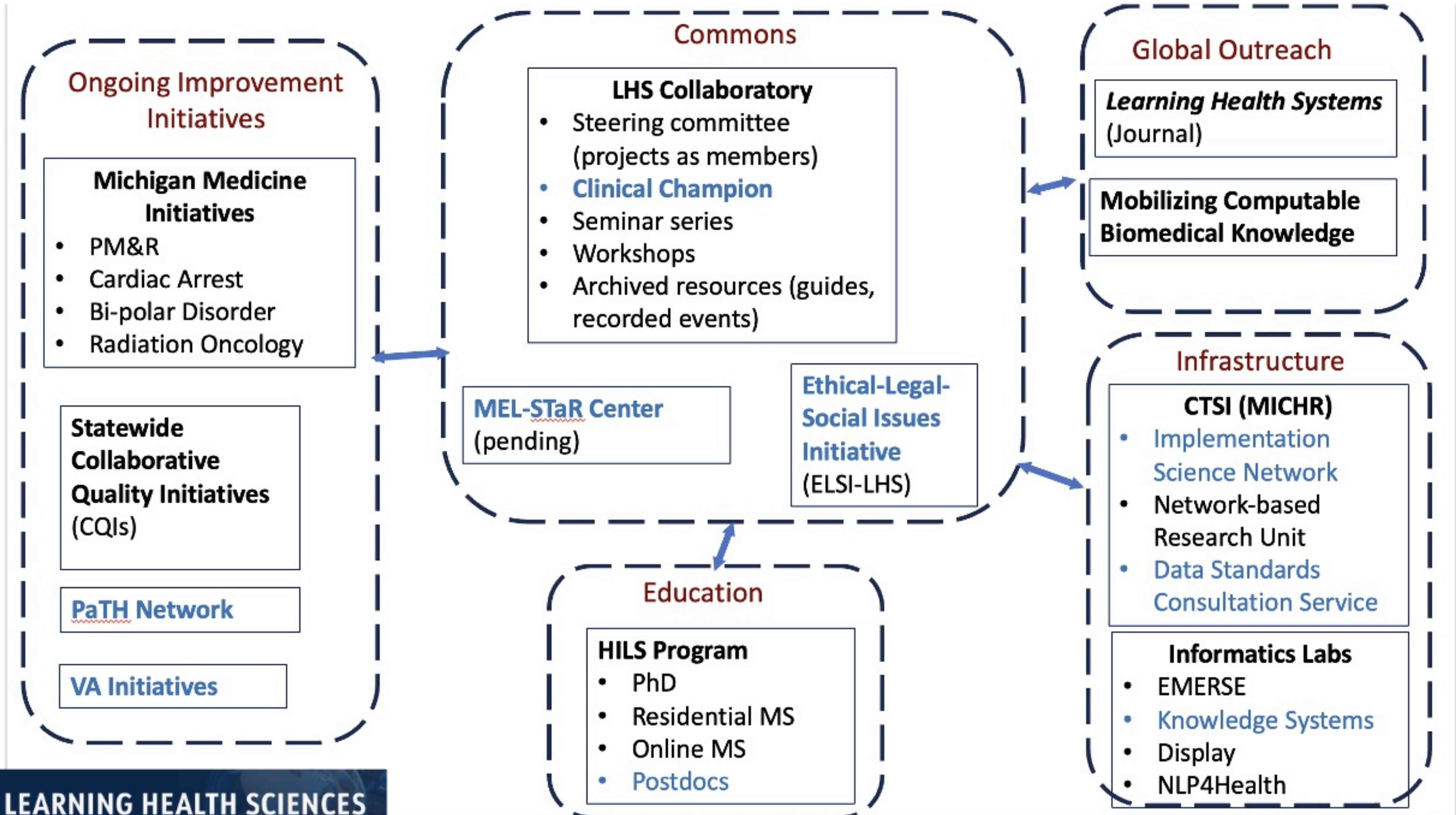


The Learning Health Community, Inc.

- Grounded in the LHS Core Values
  - Developed by consensus at the 2012 LHS Summit
  - Endorsed by ~150 stakeholders

- Active collaborations and initiatives
  - LHS Organizational Maturity Model, collaboration with AcademyHealth
  - LHS Education for Clinical Research, collaboration with CDISC
  - Global Public Health, emphasizing personally controlled health records
  - LHS Tool Kit, collaboration with group based at George Washington University
  - eSource symposium

MCBK

MobilizingComputableBiomedicalKnowledge

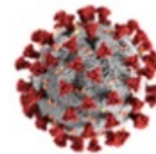
A multi-stakeholder global movement to mobilize FAIR and trusted computable knowledge to improve health and health care

- Meetings to Date:
  - Organizing meeting (Ann Arbor: 2017)

  - Open in-person meetings (NIH: 2018, 2019)

  - U.K. Meeting (London: 2019)

  - Open virtual meetings (2020, 2021)



  - Virtual *global* meetings (2022, 2023)

- North America Chapter Meeting, Feb 28-29, 2024 (free and virtual)

Learning Health Systems

Open Access

lhsjournal.com

WILEY

- Edited at the University of Michigan
- Published by John Wiley & Sons
- Fully open access and online (articles immediately accessible in EarlyView)
- Distinguished global editorial board
- Rigorous peer review
- Initial impact factor (2023): 3.11
- 110K full article views in 2022 (56% outside U.S.)
- *Currently publishing Volume 8*

MCBK

MobilizingComputableBiomedicalKnowledge

LHS Business Implications for Payers

J. Marc Overhage, MD, PhD
Elevance Health

Gather data

- **Opportunities**
  - Enrollment
  - Claims are broad but somewhat shallow
- **Challenges**
  - Limited longitudinally
  - Clinical data completeness

- Health OS (Internal HIE)
- Clinical Intelligence Platform – Expert System
- AI Platform

Analyze

- Quality
  - Mainly aligned with quality measures
- Efficiency
  - Core requirement
- Challenges
  - Limited time horizon

- Classic Analytics today

Make Decisions

- Sustainability
  - ASO
- High cost members/patients
- Only a few conditions (e.g. Breast Cancer with big influence)

Implement

- Payors can’t directly deliver care
  - CDS to members
  - CDS to providers
- Member incentives
- Third party programs
- Provide incentives and support to providers
- Implement disincentives
- Opportunities to engage members

Close the loop

- Monitoring at scale
- Hundreds of programs in place
- Overlapping programs
- Attribution
- Programs vary by LOB
- Data from “external programs” difficult to obtain
- Varied programs implemented by providers➔ monitor providers (VBC)

Elevance Health Summary

- Our Key Activities
  - Building a comprehensive understanding of individuals' health to improve quality, integrate care, and control costs

- What we need
  - **Process to move needle on *many targets* simultaneously *across many practices***
    - Without providing direct care
  - Collaboration/cooperation about clinical data sharing to achieve this goal
  - Approaches to large scale data analytics and program evaluation
    - What's the best focus to move the cost needle? Are our interventions working?

- Ways we could support others
  - ***Craft payment models to drive transformation***
  - ***Share information about care gaps with health systems and providers***
  - De-identified data sandbox (30M claims) to validate models, learn from
  - Share analytics methods and results

Supporting the Learning Health System (LHS) with Standards

Josh Richardson and
Maria Michaels
HL7 LHS WG

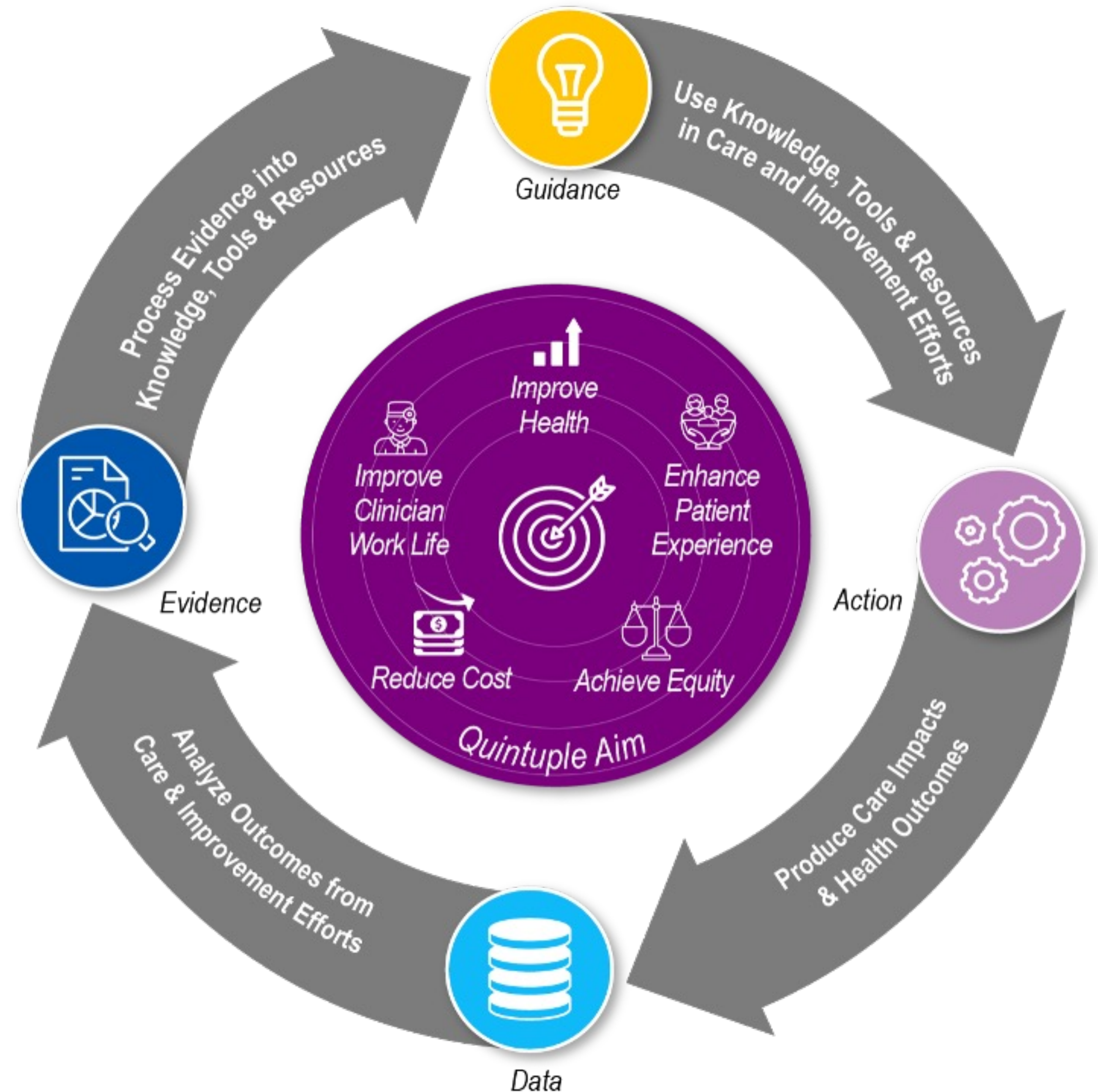


Diagram from: LHS Cycle from ACTS Future Vision
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Developing a Running Inventory of Existing Standards that Support the LHS

- Leading up to the September 2022 HL7 Working Group Meeting (WGM), the HL7 LHS WG identified existing standards that support the LHS:
  - Entire LHS
    - Foundational/Data Models
  - “Quadrants” of the LHS (e.g., based on the ACTS LHS virtuous cycle)
    - Knowledge to Action
    - Action to Data
    - Data to Evidence
    - Evidence to Knowledge
- The standards inventoried represented multiple standards communities
- **Goal:** A seamless standards-based virtuous LHS cycle
- **Objective:** Apply these standards to connect LHS quadrants and demonstrate multiple use cases using the same standards to encourage reuse and consideration for the entire LHS cycle

The following 7 slides were originally presented at HL7 Sep 2022 WGM

Foundational / Data Models – Part 1

- FHIR Implementation Guide (IG) Registry - list of all FHIR IGs
- Clinical Reasoning Module - analytic portion of FHIR
- FHIR IG: International Patient Summary
- USCDI/USCDI+ - data requirements – v1 in regulation (implementation by 12/31/2022, remaining versions part of standards version advancement process [SVAP])
- FHIR IG: U.S. Core - includes implementation of USCDI
- FHIR IG: QI Core
- FHIR IG: Public Health Common Profiles Library
- FHIR IG: Canonical Resource Management Infrastructure - use case agnostic - supporting knowledge artifact lifecycle, supporting terminologies, reusing knowledge
    - o Project page: https://confluence.hl7.org/display/CDS/CRMI+-+Canonical+Resource+Management+Infrastructure+IG
    - o PSS: https://confluence.hl7.org/display/FHIR/Content+Management+Infrastructure+IG (PSS-1959)
- FHIR Accelerator: FHIR At Scale Taskforce (FAST) (infrastructure) – multiple projects
- FHIR Accelerator: Gravity (social determinants of health)
- BPM+ Readiness Assessment and Maturity Model

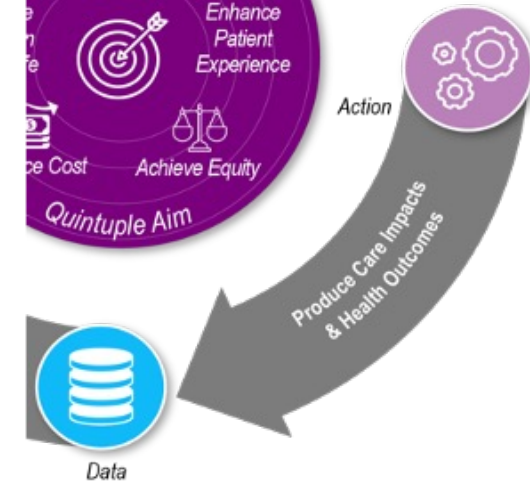
Foundational / Data Models – Part 2

- FHIR as data model
- FHIR IG: Common Data Model Harmonization (CDMH)
- FHIR Accelerator: CodeX / mCODE (oncology)
  - CardX / mCARD (Cardiology)
  - GenomeX (Genetics)
- SNOMED-on-FHIR
- OMOP-on-FHIR
- Bidirectional OMOP to dQMs
- PCORnet CDM – FHIR communicator
- Mobilizing Computable Biomedical Knowledge (MCBK)
- Graphite Health
- LHS Collaborative - stakeholder-driven follow-up from AHRQ's ACTS initiative
- Standardized Endpoints
- Medication Knowledge Resources & Medication Definition Resources (more detailed)

Knowledge to Action

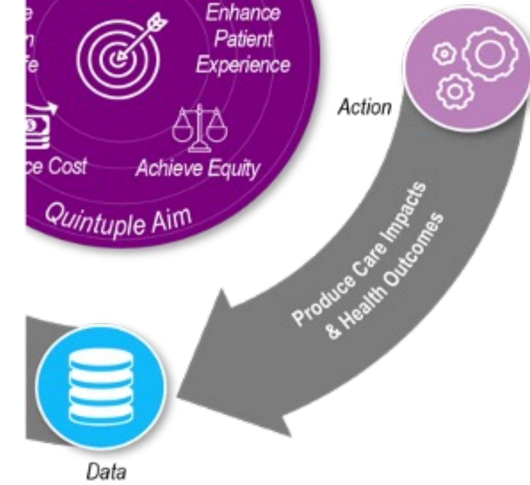
- FHIR IG: FHIR Clinical Guidelines aka CPG-on-FHIR IG
- FHIR IG: Quality Measure IG
- FHIR IG: Multiple Chronic Conditions eCarePlans
- CDS Hooks including Hook Definitions, Triggers, Maturity Assessment/Model
- SMART
- Business Process Modeling (BPM)+

Action to Data – Part 1



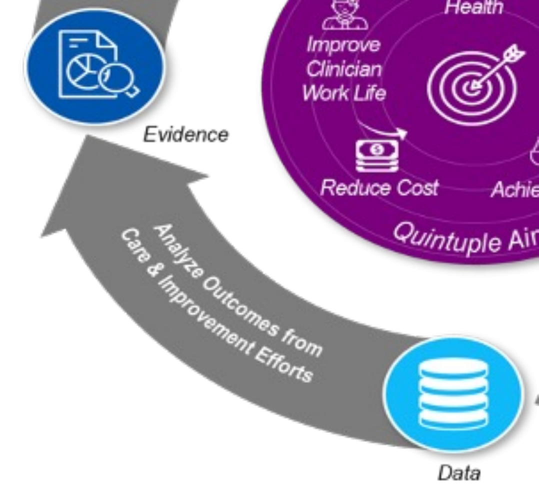
- FHIR IG: Bulk Data Access
- FHIR IG: MedMorph Reference Architecture + content IGs:
  - Research Data Exchange
  - Central Cancer Registry Reporting (also used for CodeX registry reporting use case)
  - Health Care Surveys
- FHIR IG: Electronic Case Reporting (eCR)
- FHIR IG: Clinical Registry Extraction and Data Submission (CREDS) and Project Repository
- FHIR Accelerator: Helios (public health)
  - Input: 2022 Use Cases
- FHIR Accelerator: Da Vinci (value-based care)
  - Output: FHIR IG: DEQM (Data Exchange for Quality Measurement)
  - Output: other FHIR projects
- FHIR Accelerator: Vulcan (clinical research)
  - Output: Real World Data
  - Output: Phenopackets - Vulcan Phenopackets, OHDSI/OMOP

Action to Data – Part 2



- HL7 DAM: Common Clinical Registry Framework
  - Common Clinical Registry Framework: Common Data Elements (CDEs) for Registries Interoperability (legacy project)
- Registries for Evaluating Patient Outcomes: A User's Guide: 4th Edition
- Qualified Clinical Data Registries (QCDRs)
- International Consortium for Health Outcomes Measurement (ICHOM)
- Cardiology registries
- MD (Medical Device) EpiNet (FDA)

Data to Evidence



- FHIR IG: Single Institutional Review Board (sIRB)
  - PSS
  - Sponsor: NIH/NCATS CTSA
- FHIR Accelerator: Da Vinci (value-based care)
  - Input: FHIR IG: DEQM (Data Exchange for Quality Measurement)
  - Input: other FHIR projects
- FHIR Accelerator: Vulcan (clinical research)
  - Input: Real World Data
  - Input: Phenopackets - Vulcan Phenopackets, OHDSI/OMOP
- FHIR Accelerator: Helios (public health)
  - Output: 2022 Use Cases
- Input: EBM-on-FHIR
  - Health Evidence Knowledge Accelerator (HEvKA)
  - Fast Evidence Interoperability Resources (FEvIR) Platform

Evidence to Knowledge

- Input: FHIR IG: FHIR Clinical Guidelines aka CPG-on-FHIR
- Output: EBM-on-FHIR
  - Health Evidence Knowledge Accelerator (HEvKA)
  - Fast Evidence Interoperability Resources (FEvIR) Platform

Standards Communities Represented

HL7 Learning Health System (LHS) Workgroup (WG)

- Our Key Activities
  - Identifying gaps and overlaps in standards to support the LHS virtuous cycle
  - Identifying reuse/collaborative opportunities among standards within each LHS “quadrant” (e.g., when multiple use cases can reuse the same standard)
  - Testing across LHS “quadrants” in multiple use cases in Connectathons
- Our Pressing Obstacles / Needs
  - Learning and understanding how existing standards are being used
  - Coordinating standards across the LHS, helping ensure smooth data transitions between quadrants
- Ways we could support others
  - Bring standards-related discussions to HL7 LHS WG meeting (Mondays 3-4pm ET)
    - Facilitate connections with other HL7 WGs
    - Facilitate connections with HL7 accelerator(s) (includes orgs beyond HL7) as appropriate to help with implementation
    - Work towards testing (in Connectathons or real-world pilots) new standards or new use cases for existing standards

HL7 LHS WG Welcomes Your Participation

- HL7 Learning Health Systems Site:
  - https://confluence.hl7.org/display/LHS/Learning+Health+Systems
- Meets Mondays from 3-4pmEST
- Co-chairs: Bruce Bray, Russell Leftwich, Maria Michaels
- Presenter Contacts:
  - Maria Michaels, CDC: ktx2@cdc.gov
  - Josh Richardson, RTI: jrichardson@rti.org

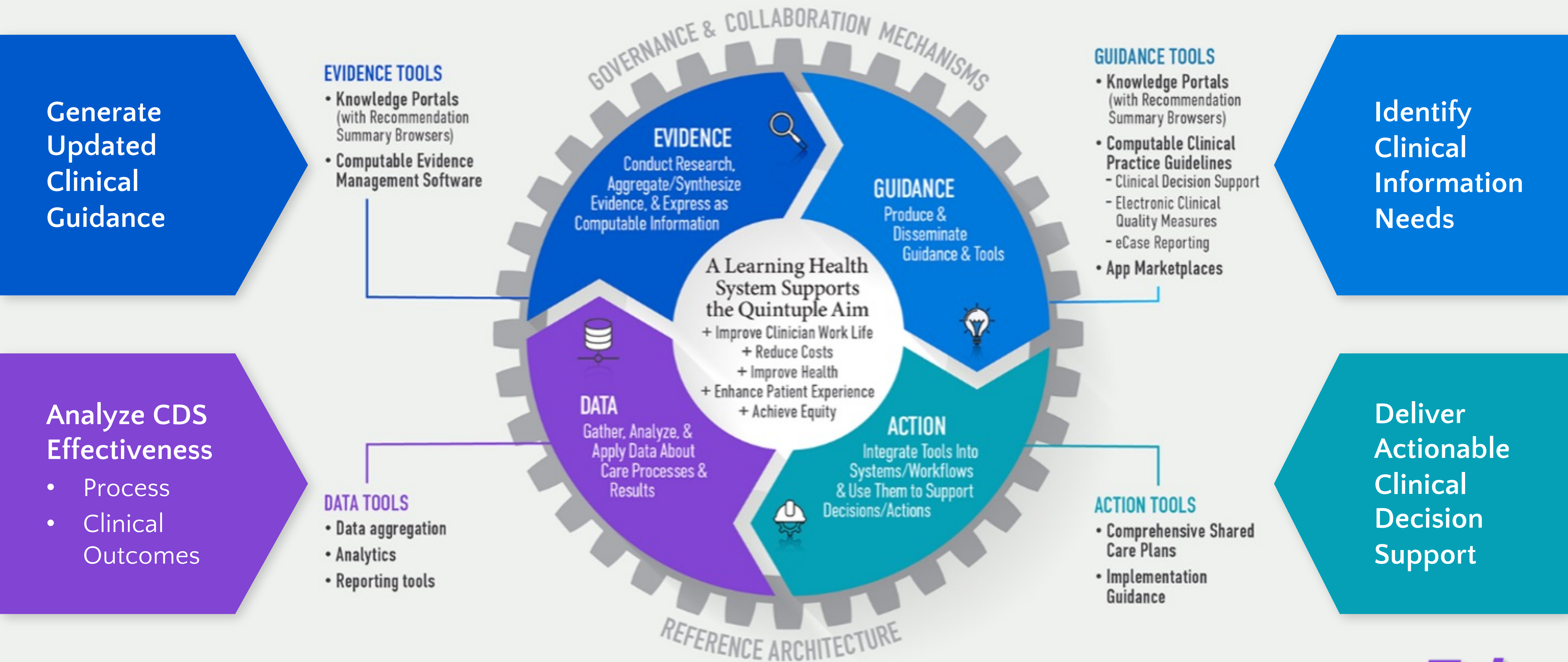
Learning Health System Care Transformation: EHR/Epic Perspective

AMIA Annual Symposium

NOVEMBER 14, 2023

Epic

The EHR facilitates all aspects of the Learning Health System

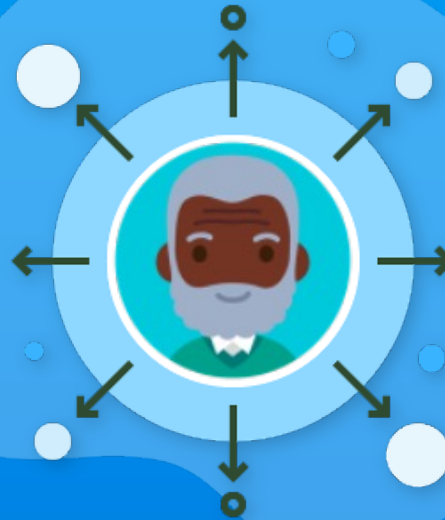


https://cmext.ahrq.gov/confluence/display/PUB/ACTS+LHS+Concept+Demonstration

Epic

Epic Rationale

Support *and* facilitate Epic organizations



Patient care-driven innovations

Advance *the* technology

Epic

Epic Collaboration

Innovative ways to integrate evidence-based PCCDS into EHRs and networking with other groups/individuals focused on the same

In a learning health system, each of these tools will be supported by a constant infusion of new evidence and information.

Pain/Opioid LHS Learning Community (POLLC)

Knowledge ecosystem enhancement efforts

Epic

By-Products

Pain Management Discharge Report

Pain Management Discharge Report

Pain History

Pain Problems

Pain Problems

Spinal stenosis of lumbar region at multiple levels

Chronic pain syndrome

Associated with chronic history of low back pain due to spinal stenosis. Pain resistant to multiple previous surgeries.

Pain Assessment

The Last Documented Pain Score: 6 (1/20/2023 1:00 PM)

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By-Products

Opioid Care Gap Query / Report

Currently Available:

	PatientEpicId	Name	currentlyOnHighMME	hasPCPonFile	recentPCPVisit	twoHospitalizationsLastYear	longInpatientStayLastYear	hasNaloxoneLastTwoYears	pdmpReviewLastThreeMonths	twoEDVisitsLastYear	painAgreementOnFile	benzodiazepineCoPrescribed
43	Z560837	STEVEHSU,PATIENTAAD	Yes	No	No	No	No	No	No	No	No	No
44	Z650806	LEMKE,WILLOW AMB	No	No	No	Yes	Yes	No	No	No	No	Yes
45	Z682528	FRANO,EIGHTEENOPIOID	Yes	No	No	No	No	No	No	No	No	No
46	Z10385	MOON,KEONHEE	No	No	No	No	No	No	No	No	No	No
47	Z63111	JADB,HOMEINFUSED	No	No	No	No	Yes	No	No	No	No	No
48	Z608206	TUCKER,WINIFRED	No	No	No	No	Yes	No	No	No	No	No
49	Z581990	FOOTBALL,HOD	Yes	No	No	No	Yes	No	No	No	No	No
50	Z469606	SAUR,DINO	No	No	No	No	No	No	No	No	No	No
51	Z566223	AFONSO,JOJO	Yes	No	No	No	Yes	No	No	No	No	No
52	Z11230	PERSZYK,CHARLOTTE	No	No	No	Yes	Yes	No	No	No	No	No
53	Z419205	BRITT,DAPHNE	No	No	No	Yes	Yes	No	No	No	No	Yes
54	Z255644	ARMSTRONG,CYAN	Yes	No	No	Yes	Yes	No	No	No	No	Yes
55	Z629796	HAZLETT,FRANKIE	No	No	No	No	No	No	No	No	No	Yes
56	Z641127	LEMKE,TAKING DIFFERENTLY	No	No	No	No	Yes	No	No	No	No	No
57	Z62997	SHO,XENA	No	No	No	No	No	No	No	No	No	No
58	Z407172	STOKES,IGUANA	Yes	Yes	No	No	No	No	No	No	No	No
59	Z511879	STELLMACH,SHEPARD	No	No	No	No	Yes	No	No	No	No	Yes
60	Z77950	PETKU,BUDDY	Yes	No	No	Yes	Yes	No	No	No	No	No
61	Z62926	STOYER,PATRICK	No	No	No	Yes	Yes	No	No	No	No	No

November 2023 Release:

MRN	Patient ▲3	Age	Sex	Current MEDD ▼1	Last Drug Screen	Pain Agreement Provider	Pain Agreement Expiration ▲2	Prescribed Naloxone?
217608	Drltest, Pulmonary	53 y.o.	Male	180				Yes
222749	Drltest, Brian	67 y.o.	Male	90		Physician Family Medicine, CCC-A	11/07/2024	Yes

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Future Aspirational Goals

Chronic Opioid Management: Patient-Level Care Gaps

CARE GAPS
- Opioid Therapy: Current Pain...
- Opioid Therapy: Urine Drug S...
- Opioid Therapy: Pain Assess...

Chronic Opioid Management: Visit Navigator

Pain-Related Diagnoses & Medications

Quick Orders
UDS, naloxone, opioid alternatives, and referrals to MAT or other services

Appointment History

E-Consents and Treatment Agreements

Open INSPECT

Pain, Enjoyment, & General Activities (PEG) Scores

View, Update, and Set Goals

Urine Drug Screen (UDS) and Confirmation results

Treatment Tracker
Reviewing and documenting patient's response to chronic pain interventions

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Lessons Learned

Leverage existing tools and technologies

Leverage local resources

Standardization vs. configurability

- Across platforms
- Across organizations

Epic

Epic Care Transformation/LHS-related Activity / Need / Offering Summary

Our Key Activities

- Production of Pain Management Discharge Report in collaboration with QIO
- Production of Opioid Care Gap Report in collaboration with POLLC
- Future vision for additional provider tools

Our Pressing Obstacles / Needs

- Need to leverage available tools and resources
- Need for local development/build expertise
- Need for standardization across platforms/organizations

Ways we could support others

- Demonstrating the capabilities of EHR to support the LHS
- Model LHS support in generalizable ways

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The Cerner approach to opioid management

Brian Levy MD

Lead Physician Executive

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The Oracle Health approach to the opioid crisis

Opioid safety

Adherence to evidence-based opioid guidelines

Pain management

Close gaps in care for acute and chronic pain

Opioid use disorder

Effectiveness of referral to addiction treatment

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A Holistic Approach to Opioid Management

People

- Education plans related to OTA workflows, SBIRT screening, MOUD treatment, and naloxone provisioning across venues of care
- Enhance provider awareness of prescribing patterns
- Partner with opioid governance committee
- Ongoing change management support

Process

- Adherence to opioid prescribing guidelines
- Protocol for treating acute and chronic pain
- Protocol for managing chronic pain
- Protocol for treating and managing opioid use disorder patients
- Ongoing monitoring
- Monthly data review to inform governance

Technology

- PDMP Integration
- Opioid Review MPage
- Opioid treatment agreement *PowerForm*
- 90-day opioid treatment agreement alert
- High risk narcotic prescription alert
- Naloxone risk mitigation alert
- Opioid risk screening tools
- HeA Opioid Dashboard

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Cycle of improvement plan

Kickoff / current state review

Governance review

Future state review

Findings & recommendations

Future state validation & maintenance training

Change management

Opioid toolkit & PDMP solution go-live

Value achievement and ROI review

12-month engagement

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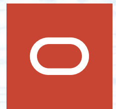
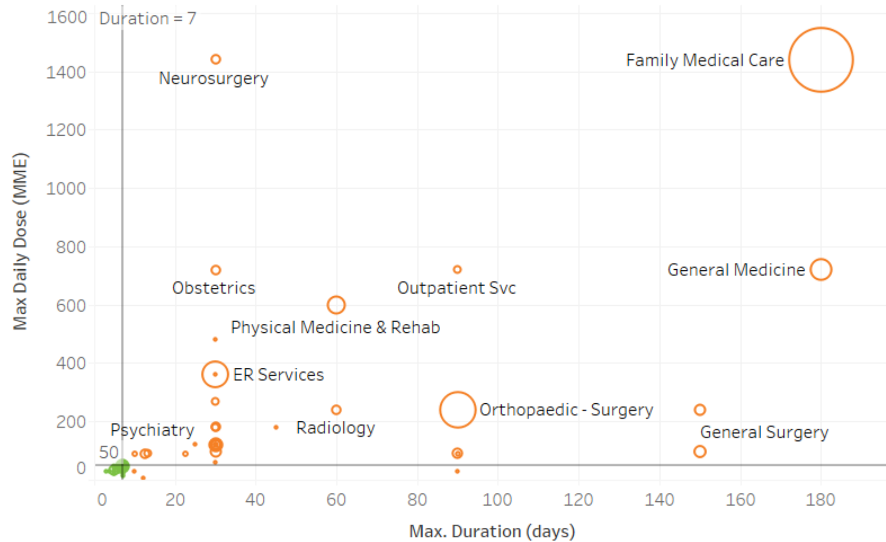
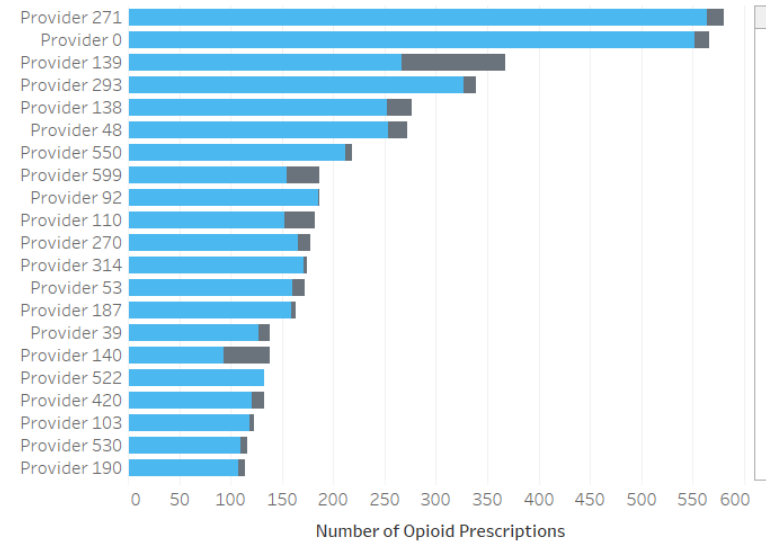
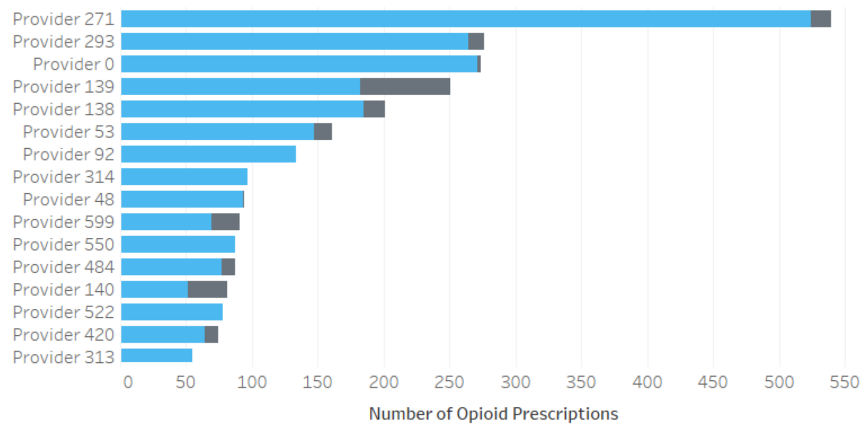
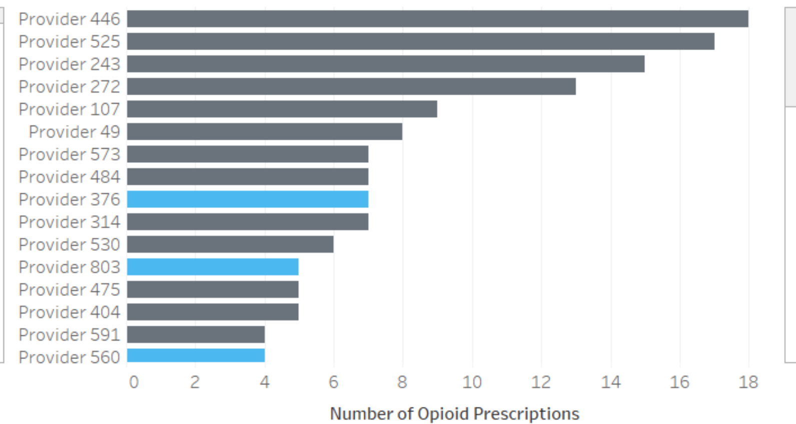


Analyze Opioid prescribing patterns



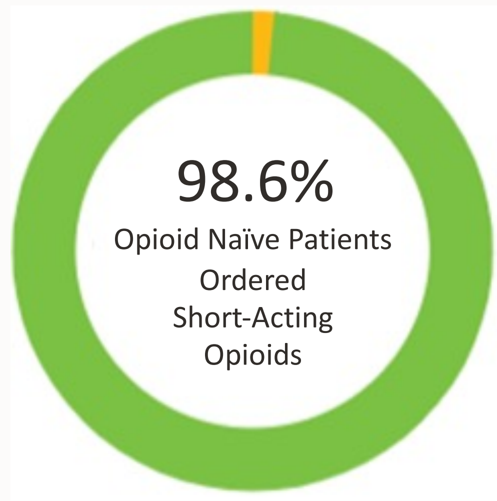


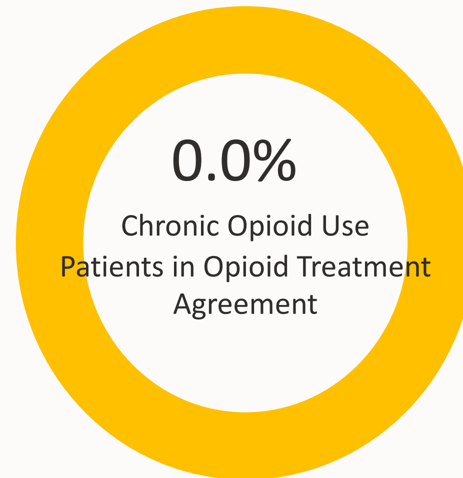


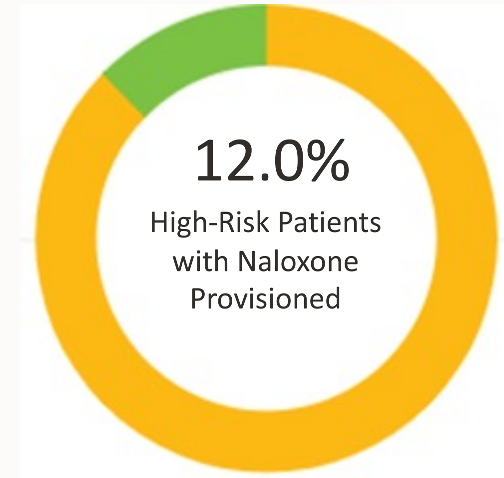


Analytics for prescribing – *Lights On Network®*

Past 30 days







1,426
Opioid Naïve Patients

1,085
Chronic Opioid Patients

961
High Risk Patients

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Monitoring outcomes

Executive Summary | Alternatives Trend View | Naloxone Trend View | SBIRT on File Trend View | Detail View Dash

Past 30 Days

Discharge Location of Encounter	Facility	Risk level	Prior Known OUD
(All)	(Multiple values)	(Multiple values)	(All)

157

Number of OUD Risk Encounters Prescribed an Analgesic

988

Number of OUD Risk Encounters

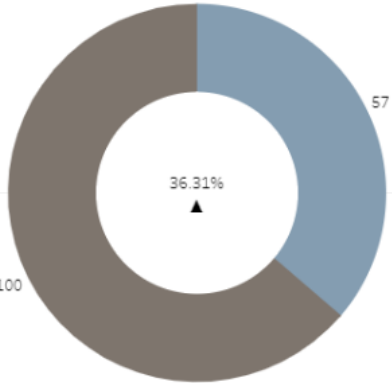
*Arrows indicate if the percentage has increased or decreased over the past 30 days

Alternatives to Opioids

% of encounters where only non-opioid analgesics were prescribed

Yes No

Click for Detailed View

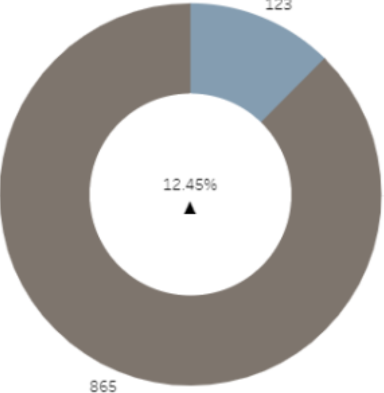


SBIRT on File

% of encounters with an SBIRT screening event documented

Yes No

Click for Detailed View

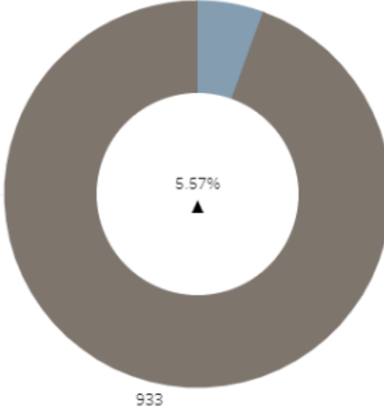


Naloxone Prescribed

% of encounters with a recent order for naloxone prescription or documented home med

Yes No

Click for Detailed View



Client achievements

236% increase in high-risk patients that had **Naloxone provisioned**

3 months after implementation

Reduced **Opioid prescribing** by

17%

Signed **Opioid Treatment Agreements** grew from

0%-35%

in 7 months

Increased number of PDMP **reports accessed** by providers by

19%

PDMP Integration Saved providers

58 hours

in the first month

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Summary

- What we're doing
  - Safe prescribing of opioids
  - Supporting providers with pain management
  - Identification of patients with opioid use disorder

- What we need
  - LHS insights, strategies, tools, lessons learned

- What we can offer
  - People, processes, and technology for management of Opioids
  - Community collaboration with Cerner clients on Opioid management

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CKD Care Transformation at VA

Leveraging Health Service Design / Blueprints

Jerome A. Osheroff, MD, FACP, FACMI

TMIT Consulting, LLC

University of Utah / VA

LHS Collaborative

Pilot Project: Target-Chronic Kidney Disease (CKD) Care in VA

Challenge:

- CKD is common in VHA: >10%
- High cost: $19B/year
- Extensive **preventable** Veteran suffering and VA expense
- Known Gaps:
  - Late diagnosis
  - Suboptimal management

Kidney Medicine Lead requested IHP support in late 2022

Care Transformation Approach: Health Service Design

- **Health Service Design: Finds problems that matter and creates solutions users want**
  - Goal-oriented: Toward the Quintuple Aim
  - Evidence-driven: Observe work in context
  - User Validated: Iterative testing ensures solutions work IRL
- **Health Service Blueprint aligns stakeholders on specific process problems and details of a desired future state.** Leverages:
  - CDS 5 Rights, Care Transformation 'Building Blocks'
  - Recommended state (VA CKD guidelines / directives)
  - Art of the possible
- **Agile execution:** Design, test and deliver quickly for incremental value to users

Health Service Design

- **Focus on people, experiences** and **outcomes**
- Reengineer or innovate processes and tools
- Use technology as an **enabler**, not **driver**

What Did We Actually Do?

- **Kick-off -** 12 slides(!) to propose Health Service Design transformation approach, benefits
  - Enthusiastic response from Nephrology and Primary Care sponsors
- **Weekly collaboration sessions** with sponsors/developers
  - Establish QI focus areas: Help PCPs screen / manage CKD, *reduce* burnout
  - Brainstorm, review and refine solution spaces and solution details
- **Ongoing Field Testing**
  - Usability and workflow validation via field observations with care teams
- **Developing and Delivering** solutions in 2023 and beyond
  - Using CKD Health Service Blueprint to guide and track efforts, monitor progress (next slide)
- **Measuring impact** from early solutions using value-stream mapping, other measures

CKD Care Transformation Status (HSB Overview Infographic)*

Revision Date: 10/12/2023
Business Owners : Drs. …

Business Goals: Prevent Veteran advanced kidney disease, save VA money, address PCP burnout.

Key:
- Implemented
- In Development
- In Backlog
- Handoff for Dev
- Not Addressed
- ★ = critical need / opportunity

		Patients Living Life	Before Encounter	During Encounter	After Encounter	Population Management
Health and Healthcare	*Generic Recommended Practices (Activities to Support)*	• Make Decisions and Take Actions • Engage with Data • Investigate & Inquire	• Gather, Review, & Share Data	• Negotiate Encounter Goals • Review Existing Data • Gather New Data During Visit • Review Evidence Based Pathway(s) • Make Shared Decisions • Execute Shared Decisions • Document visit data, decisions, actions	• Follow up	• Create and use Dashboards/Registries • Inform Care Teams • Conduct Patient Outreach • Address Reporting Needs
	Opportunity for Improvement Identified & Status		Enhanced Nephrology consult Note to support PCP Education (spans Before/During/After Encounter)	Add uACR & eGFR to Quick Order menu Enhanced HTN Reminder		CKD Focused Panel Mgmt Reports

Quality Improvement

Recommended Practices

Generic Recommended Practices – Consider:
Care Transformation Building blocks: Engage and empower patients; Use panel and population management reports; Ensure encounters are efficient/effective, including optimizing pre-encounter activities and post-encounter follow-up; Ensure that care teams have the appropriate knowledge, skills, attitudes, and tools
QI Levers: Workflow redesign, Training, Health IT infrastructure, Directives, Organizational structure, Leadership development, Staffing, Facilities

VA CKD Guidance: VHA Directive 1053; VA/DoD 2019 CKD Clinical Practice Guideline (see extract next slide; detailed draft summary in HSB format here [red=directive, green=guideline; see 5 tabs])

CKD-Specific QI Focus Areas: 1. If the CKD screening data is there be aware -> 2. If the CKD data is not there, get it. 3. Calculate Risk -> 4. Take action -> 5. Use population data to close care gaps

Opportunity for Improvement Identified & Status

- ★ Close Primary Care Provider CKD Knowledge Gaps
- Clinical Content White Papers (partially aligned with solutions in development)
- Unified/Enhanced Data Display
- PCP Education Based on + Deviance
- Patient Education
- Enhance eGFR lab result report
- Problematic Local Diabetic Renal Reminder
- Multiple CKD Reminders
- Explore CDS platform as infrastructure for other solutions

External Enablers

Generic Recommended Practices

- Consider/strengthen community organizations with programs or services that could help address your target
- Consider laws and regulations, national clinical guidelines, health IT systems and standards, and other external drivers that affect performance on your target and whether / how your organization might influence these in helpful ways – e.g., via professional societies and associations.

Opportunity for Improvement

* Supported by extensive underlying details in other HSB-related documents

CKD Health Service Blueprint Overview

CKD Care Transformation Status (HSB Overview Infographic)

Revision Date: 10/12/2023
Business Owners : Drs. ...

Business Goals: Prevent Veteran advanced kidney disease, save VA money, address PCP burnout.

Key: Implemented; In Development; In Backlog; Handoff for Dev; Not Addressed; ★ = critical need / opportunity

		Patients Living Life	Before Encounter	During Encounter	After Encounter	Population Management
Health	Generic	• Make Decisions and Take Actions	• Gather, Review, & Share Data	• Negotiate Encounter Goals • Review Existing Data • Gather New Data During Visit • Review Evidence Based Pathway(s) • Make Shared Decisions • Execute Shared Decisions • Document visit data, decisions, actions	• Follow up	• Create and use Dashboards/Registries • Inform Care Teams • Conduct Patient Outreach • Address Reporting Needs
Health	Opportunity for Improvement Identified & Status		Enhanced Nephrology consult Note to Support PCP Education	Add uACR & eGFR to Quick Order menu Enhanced HTN Reminder		CKD Focused Panel Mgmt Reports
Quality Improvement	Recommended Practices	**Generic Recommended Practices** – Consider: *Care Transformation Building blocks:* Engage and empower patients; Use panel and population management reports; Ensure encounters are efficient/effective, including optimizing pre-encounter activities and post-encounter follow-up; Ensure that care teams have the appropriate knowledge, skills, attitudes, and tools. *QI Levers:* Workflow redesign, Training, Health IT infrastructure, Directives, Organizational structure, Leadership development, Staffing, Facilities **VA CKD Guidance:** VHA Directive 1053; VA/DoD 2019 CKD Clinical Practice Guideline (see extract next slide; detailed draft summary in HSB format here [red=directive, green=guideline; see 5 tabs]) **CKD-Specific QI Focus Areas:** 1. If the CKD screening data is there be aware -> 2. If the CKD data is not there, get it -> 3. Calculate Risk -> 4. Take action -> 5. Use population data to close care gaps				
Quality Improvement	Opportunity for Improvement Identified & Status	★ Close Primary Care Provider CKD Knowledge Gaps Clinical Content White Papers (partially aligned with solutions in development)	Unified/Enhanced Data Display PCP Education Based on + Deviance Patient Education	Enhance eGFR lab result report Problematic Local Diabetic Renal Reminder Multiple CKD Reminders	Explore CDS platform as infrastructure for other solutions	
...ers	Generic	•Consider/strengthen community organizations with programs or services that could help address your target ... and regulations, national clinical guidelines, health IT systems and standards, and other external drivers that affect performance on your target and whether / how your organization might influence these in ... e.g. professional societies and associations.				

Impact measures to be added

CKD Care Transformation goals

Care Transformation Building Blocks

Progress on Solutions (Color = status)

Driving and Tracking Status of CKD Solutions

Care Transformation Building Blocks	Status
Engage/Empower Patients	*Not Addressed Yet*
Create/Use Panel Management Reports	Working on design for panel management report; unclear path to produce tool
Optimize Encounters	------------------------
• Pre-visit planning/huddles	*Not Addressed Yet*
• During encounter data review, recs, SDM, actions	• CKD labs added to quick order menu • CKD info added to HTN reminder
• Post-encounter follow-up	• Nephrology CKD consult note template being field tested
Ensure Care Teams have knowledge/skills to optimize care	• Began brainstorming about a mnemonic job aid; plan to make plan for addressing this need and begin providing solutions in PI5
Other Transformation Enablers (e.g., policies, staffing)	• VA/DOD CKD guideline, directives in place – working to put into action via above

Interim Health Service Design / Blueprint-enabled Results

- **Prioritized** people over technology
  - Surfaced need / solutions to close PCP CKD knowledge gaps
- **Fostered focus** on *needed* solutions – facilitators vs. reminders
- **Driving solutions** that generalize beyond CKD, reduce burnout
  - CKD Panel management dashboard (***care gaps*** - extensible to other targets)
  - Unified disease management data / ***care gap display*** during visit
- **Enthusiasm** for approach from sponsors, development team due to:
  - Value of framework for guiding complex care transformation process
  - Contributions to transformation efficiency, effectiveness, communication

Early Recognition!

Award from VA Integrated Health Practice Leadership (10/30/23):

For an amazing innovation to help realize Agile principles:

*Designed and implemented a **health service design** process, using the **health service blueprint** to help drive care transformation for Chronic Kidney Disease.*

Eureka! Innovation Award

The Jets

For an amazing innovation to help realize Agile principles!

Designed and implemented a health service design process, using the health service blueprint to drive care transformation for Chronic Kidney Disease. The CKD blueprint is ensuring that Care Teams have the knowledge, skills, attitudes, and tools to provide patient-centered, evidence-based, best practice care and also identifies panel management reports (for care teams) and population management reports for primary care and nephrology to identify critical care gap.

Brenna Hatch, Release Train Engineer

Kathryn Gilleson, MD, Product Manager

Next Steps

Continue HSD/HSB-enabled CKD care transformation efforts

- Based on interim results and experience with precursor approaches, expect significant, measurable Quintuple Aim benefits

Apply HSD/HSB approach to other targets, e.g.,

- Pain management/opioid use, suicide prevention

Enhance HSD Approach

- Continue refining tools, methodology
- Cross-fertilize with external efforts (e.g., via this initiative!)

VA HSB/HSD-enabled CKD Care Transformation: Summary

What we're doing	What we need	What we can offer
• Applying HSD/HSB approaches to care transformation and becoming an LHS for CKD • Preparing to apply these approaches to additional targets, e.g., pain management / opioids, suicide prevention, others • Continually enhancing HSD/HSB tools and approaches and making them an engine for VA care transformation / LHS efforts	• Benefit from care transformation / LHS strategies and tools (including HSBs) from other organizations	• Share information about CKD activities (e.g., Blueprint) for others working on this target • Share HSD / HSB strategies and artifacts for use by and cross fertilization with other organizations

Advancing Target-focused Care Transformation and Learning Health Systems

Connecting Puzzle Pieces to get to the LHS / Quintuple Aim Picture on the Box

Plan for Next Steps

- **Begin Delivering Value ASAP**
  - Foster collaboration to drive progress:
    - Enhance ***Care Gap Reports*** within / across targets and platforms
    - Share ***Health Service Blueprints*** across organizations

- **Evolve** the **catalog**, **leverage** across organizations
  - Enrich content / structure to support cross-fertilization

- **Plan for longer-term value** and activities:
  - Engagement with AMIA (e.g., new LHS WG and synergies with current WGs)
  - Broaden engagement in HL7 LHS WG-led efforts on advancing / using LHS Standards
    - Identify participants for Jan HL7 FHIR Connectathon EBM Track to develop and test data exchange for longer term approaches to standards-based care gap reports
  - Plan follow-up Summits at upcoming conferences: MCBK NA Chapter, AMIA CIC, others?

Previous Trip Down this Road: Pain/Opioid Needs Offers in POLLC*

POLLC Cross-Fertilization Spreadsheet - work from 2022 Working offline

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fx Organization Type

Organization Type	Organization	Category	Clinical Focus	Need
CDO	Boston Medical Center	technology design/implementation	multiple	Enhanced registry analytics that can help with risk prediction
CDO	Boston Medical Center	technology design/implementation	OUD/SUD	Flexibility of tools to work with varied models of care in the Integrated BH-Primary care practice, nurse-run OBAT, OTP-ba
CDO	Boston Medical Center	technology design/implementation	OUD/SUD	GUI interface or workflow enhancements aimed at changing follow-up of patients living with various use disorders.
CDO	Boston Medical Center	technology design/implementation	multiple	Provide a MME calculator to permit rapid assessment of tota https://www.oregonpainguidance.org/opioidmedcalculator/
CDO	MetroHealth	technology design/implementation	OUD/SUD	Strategies to implement OUD risk calculation into EHR
CDO	MUSC	technology design/implementation	multiple	Interested in working on impact of different types of alerts
CDO	Univ. Michigan	technology design/implementation	pain manage	Need solutions to improve integration of pain mgt strategies Would be interested to see if anyone has an ambulatory pai
CDO	MUSC		multiple	Quality improvement expertise would help us to improve ou
CDO	Boston Medical Center	patient management strategies	multiple	Integrate Behavioral Health and MAT and Chronic Pain Mana
CDO	Boston Medical Center	patient management strategies	multiple	PDMP Data pulled into EHR automatically to reconcil prescri
CDO	Boston Medical Center	patient management strategies	multiple	Surescripts integration with EPIC medication management (F data updates pulled into EHR to enable prescribing/med list r
Evidence/Guidance	American Society of Hematology	evidence/guidance development	pain manage	Support the dissemination and implementation of ASH Clinic Chronic Pain Management
Evidence/Guidance	EBQ Consulting	evidence/guidance development	multiple	Make guideline development and implementation more effe
Evidence/Guidance	American Society of Hematology	scaling technology/resource use acr	pain manage	Support the dissemination and implementation of ASH Clinic Chronic Pain Management
HIT	Epic	collaboration across organizations	multiple	Collaboration with health care organizations to deploy, test, the EHR
HIT	Graphite	collaboration across organizations	multiple	There is a dialog between Graphite, Wes/Jan (CDC), Bryn etc FDA on the approach as well, as the project has a product lat
HIT	HL7	collaboration across organizations	multiple	Interested in stakeholder-driven formation of an LHS FHIR Ac
HIT	RTI	collaboration across organizations	multiple	Identify HCO best practices for system configuration and buil which HCO's have created
HIT	Epic	process/outcome measures	multiple	Better metrics for analyzing clinical outcomes (e.g., reduced domain
HIT	Miller And Miller Associates	process/outcome measures	multiple	Organizations need measures that are standardized and easi allow for use in their own practices
HIT	Microsoft	scaling technology/resource use acr	multiple	How can we scale technology to support any transformative principles like reducing clinician burnout, health equity, acce
HIT	OpiSafe	scaling technology/resource use acr	multiple	Interested in scaling our CDS platform to other states and he systems and how to best meet them; and collaborating with not duplicate other efforts.
HIT	Epic	technology design/implementation	multiple	Better processes for delivery of clinical decision support with

ReadMe | Needs | Offers | 2022 Goals | Connections | Value Delivered | Tool Inventory | Resources

Metadata

Sampling of Specific Needs

Tabs for Needs, Offers, Connections, Value Delivered

*Original spreadsheet here

Care Transformation/LHS Activity Catalog: Intro/Targets

List of Target-focused and cross-target CT/LHS Activities:

- Springboard to connecting people with ideas, resources and other people

Target-Focused Care Transformation / LHS Activity Catalog

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What is this Target-Focused Care Transformation / LHS Activity Catalogue?

This spreadsheet is a tool to accelerate broad progress on target-focused care transformation and LHSs to achie
these goals jointly led by the LHS Collaborative, VA, HL7 LHS WG, and MCBK.

This tool helps achieve these goals by connecting organizations working toward similar care transformation goals
and spreading valuable tools and approaches and connecting needs with resources that can address them.

Organizations / initaitives are entering into this Catalog information about their:

•Care transformation / LHS activities
•Needs they have in this work that others can potentially hel
•Resources and other offerings they can provide to help othe

Related Prior Work

This initiative emerged from LHS Collaborative efforts and related work by other initiative leads. In 2022, POLLC (one of the LHS Collaborative's learning communities) created a tool similar to this one to cross fertilize efforts on pain management, opioid use, and opioid use disorder (see here).

Tool Structure

Each tab aggregates transformation / LHS efforts/offerings/needs related to specific targets. The last tab catalogues activities that are not specific to targets. This tab includes is not limited to LHS-related data exchange standards, informatics workforce development, and tools such as the Health Service Blueprint. If you have questions or suggestions about this tool, please email Jerry Osheroff (josheroff@tmitconsulting.com)

Introduction | Pain/Opioids | CKD | HTN | Diabetes | Sickle Cell Disease | VTEP - TBI | Multiple Chronic Conditions | Not Target-speci

Target agnostic initiatives

- *Data exchange standards*
- *Workforce development*
- *Health Service Blueprinting Tools*

Initiatives by target

- *Aim for limited starter set*

Care Transformation/LHS Activity Catalog: Pain/Opioid Tab

Target-Focused Care Transformation / LHS Activity Catalog

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Organization Name	Org Type (CDO, other [details])	LHS / Care Transformation Innovations Implemented see templates in Not Target-specific Tab for sample items	LHS / Care Transformation Innovations in Development	Standards Leveraged in Innovations e.g., as mentioned here	Pressing Obstacles / Needs	Support Offered
POLLC	Learning Community	See POLLC overview and material below this table	See POLLC overview and material below this table		funding/support to scale/sustain initaitive; strategies for getting engagement and support from c-suite to advance pain/opioid care transformation efforts (need multi-component strategy and toolbox for this: ROI analysis, synergies with other care transformation targets [e.g., apply gap analysis tools to other targets, leverage interventions to reduce burnout across targets]; open 'textbook' that others can contribute to and leverage)	peer support, tool sharing/developing for pain/opioid care transformation / LHS
Pima County HD	Local public health department		linkages to care; sharing of data with HC systems		DUA; ROI for HC systems	local award OD2A; working on linkages to care
IPRO	Quality Innovation Network-Quality Improvement Organization	Working on implementing the opioid/pain management care gap report, pain management OneSheet implementation				
CHIME	Professional Society for Healthcare CIOs	Opioid Task Force Playbook				
RTI International	Contract Research Organization	CDS4CPM patient and provider-facing apps that integrate patient-reported data from an mHealth app into an EHR (Epic) w/CDS	guidance to action; action to data	CDC opioid prescribing guidelines, SMART on FHIR, CPG-on-FHIR, LOINC, RxNorm	implementation sites	technical advising
American Hosptial Association	Association	epidemic. E.g., Opioid Stewardship Measurement Implementation Guide and Addressing the Opioid Epidemic toolkit				
National Academy of Medicine	National Academy	Action Collaborative on Combatting Substance Use and Opioid Crisis				

From POLLC:

- Pain/Opioids Recommended Practices
- Efforts by participants to make LHS cycle computable interoperable - see diagram below (active links in this version)

DRAFT FOR MCBK Lightning Talk - Towards LHSs in Action: Pain/Opioids*

Exploring synergies with ONC/CDC efforts to put 2022 CDC Clinical Practice Guideline for Prescribing Opioids for Pain into practice using CDS

BPM+ (John Svirbely) is modeling chronic pain mgt guidance, including buprenorphine use for chronic pain (VA

Exploring with the Knowledge Grid group the packaging of BPM+ knowledge artifacts to facilitate FAIRness of chronic pain guidance artifacts amongst stakeholders; leveraging packaging to explore the guideline lifecycle and

Exploring with CPGonFHIR Community ways to leverage that IG to develop living guidance/CDS on pain/opioids/buprenorphine, put it into action, and monitor care results

Health Service Blueprint Overview Infographic (Template available here)

Key:

Implemented
In Development
In Backlog
Handoff for Dev
Not Addressed

★ = critical need / opportunity

Revision Date:
Business Owners:

Business Goals:

		Patients Living Life	Before Encounter	During Encounter	After Encounter	Population Management
Health and Healthcare	*Generic Recommended Practices (Activities to Support)*	• Make Decisions and Take Actions • Engage with Data • Investigate & Inquire	• Gather, Review, & Share Data	• Negotiate Encounter Goals • Review Existing Data • Gather New Data During Visit • Review Evidence Based Pathway(s) • Make Shared Decisions • Execute Shared Decisions • Document visit data, decisions, actions	• Follow up	• Create and use Dashboards/Registries • Inform Care Teams • Conduct Patient Outreach • Address Reporting Needs
	Opportunity for Improvement Identified & Status					
Quality Improvement	*Recommended Practices*	**Generic Recommended Practices –** Consider: ***Care Transformation Building blocks:*** Engage and empower patients; Use panel and population management reports; Ensure encounters are efficient/effective, including optimizing pre-encounter activities and post-encounter follow-up; Ensure that care teams have the appropriate knowledge, skills, attitudes, and tools *QI Levers:* Workflow redesign, Training, Health IT infrastructure, Directives, Organizational structure, Leadership development, Staffing, Facilities **VA Guidance:** **QI Focus Areas:** 1.				
	Opportunity for Improvement Identified & Status					
External Enablers	*Generic Recommended Practices*	•Consider/strengthen community organizations with programs or services that could help address your target •Consider laws and regulations, national clinical guidelines, health IT systems and standards, and other external drivers that affect performance on your target and whether / how your organization might influence these in helpful ways – e.g., via professional societies and associations.				
	Opportunity for Improvement					

HSB Starter Tool Template (available here) [download/use locally]

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DURING ENCOUNTER

Recommended Practices

- Provide tools and resources to support patients and care teams as they:
  - **Negotiate Encounter Goals** within the context of broader patient health goals, preferences, current circumstances (e.g., social determinants of health (SDOH)), etc. and care team clinical concerns
  - **Review Existing Data** gathered prior to visit, e.g., key EHR data, PROMs, PGHD
  - **Gather New Data During Visit** e.g., subjective and objective patient data; risk assessments
  - **Review Evidence Based Guidance/Pathway(s)** in light of patient's goals and data to identify paths to achieving health and encounter goals
  - **Make Shared Decisions** about specific actions to achieve health and encounter goals
  - **Execute Shared** Decisions by taking initial actions, such as prescriptions and referrals; tee up support for after encounter actions - e.g., by discussing/providing digital health apps
  - **Document** key visit data, decisions, actions

Current State Activities

(producing suboptimal performance on the target)

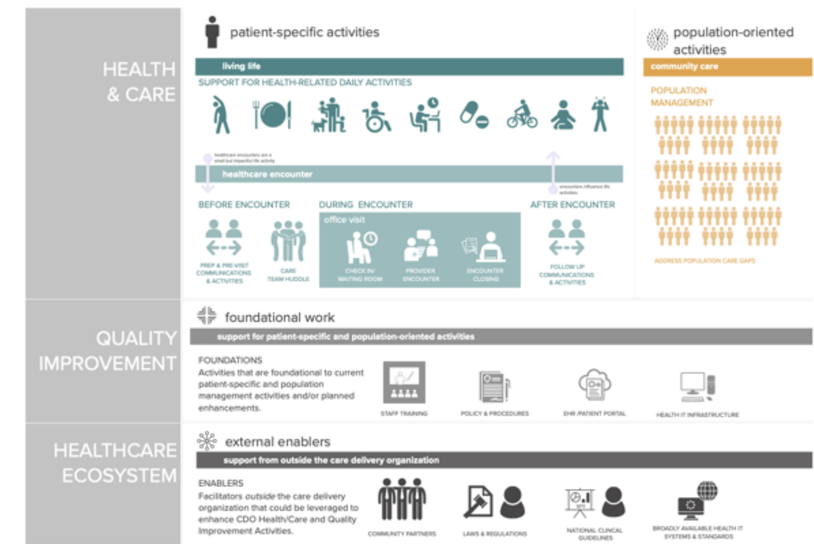
-

Desired State

(including potential solutions to deliver desired state)

-

return to Opportunity Menu



CARE TRANSFORMATION SOLUTION CATEGORIES[1]

- **Engage and empower patients** to play a key role in ensuring that the healthcare system efficiently/effectively help them achieve their health goals
- **Use panel and population management reports** (former for care teams and latter for CDO more broadly) to identify critical care gaps; develop/ apply/ continuously improve strategies, processes, and tools to close these gaps
- **Ensure encounters are efficient/effective**, e.g., by supporting their patient/outcomes focus, making it easy for patients and care teams to review and act on key data, supporting shared decision making, and easing contributors to patient dissatisfaction (e.g., failure to attend to needs) and provider burnout (e.g., information overload).
  - **Leverage pre-encounter activities** (e.g., huddles, patient communications) to ensure that the time during the upcoming patient encounter will be used to drive progress toward patient health goals
  - **Use post-encounter follow-up** to ensure that planned post-encounter actions happen and additional data generated is promptly and appropriately addressed; includes ensuring that care coordination/communication activities are efficient and effective.
- **Ensure that care teams have the appropriate knowledge, skills, attitudes, and tools** to ensure that they can provide patient-centered, evidence-based, best practice care for individual patients and panels they serve.
- **Provide other transformation enablers** (e.g., policies, staffing, leadership, facilities) needed to achieve goals.

Do you have CT / LHS:

- *Activities that others might find interesting/important?*
- *Offerings that others might need?*
- *Needs that others could help with?*

Actions you can take:

- Document items above in the catalog
- Leverage initiatives / meetings: HL7 LHS WG (Mondays 3-4 ET), POLLC
- Use / share Health Service Blueprints, help refine templates
- Help plan further summits (e.g., MCBK NA, AMIA CIC)
- Share ideas about how your organization can support this initiative

Teeing Up Discussion

- **Begin Delivering Value ASAP, e.g., connect people around:**
  - —Specific targets (share Blueprints)
  - —LHS cycle standards pilots – care gap reports, other
  - —other common interests to advance now?
- **Evolve and leverage the <u>catalog</u>** across organizations
- **Plan for longer-term value** and activities
  - —Collaborations, meetings, discussion forums, etc.
  - —Craft payment models to drive transformation
  - —Planning to make initiative scalable and sustainable
- **Other?**