

HITECH: Opportunities to Demonstrate Population Level Health Improvement and Build Foundation for Learning Healthcare System

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"Meaningful Use" Trajectory

Improved outcomes
Advanced clinical

processes

Data capture and sharing



HIT as a Tool and Foundation for Population Level Improvement

Improved
Quality, Safety
& Efficiency

Care Delivery Innovations

Provider Feedback & Measurement

Payment Reform

HIT Foundation
Meaningful Use of EHRs



Principles...

- One data many uses
- Start with the outcome and work backwards
- Data for decisions
- Keep it simple
- Foster innovation



Meaningful Use Quality Reporting

- Eligible providers and hospitals report clinical quality measures from EHRs*
- Requires that electronic systems accurately calculate and report to CMS summary data (numerators/denominators) for each quality measure*
- Challenges
 - Need consistent methods to calculate and report measures
 - Yet... no common data model across electronic systems.
 How do you get the data out in a standardized form??

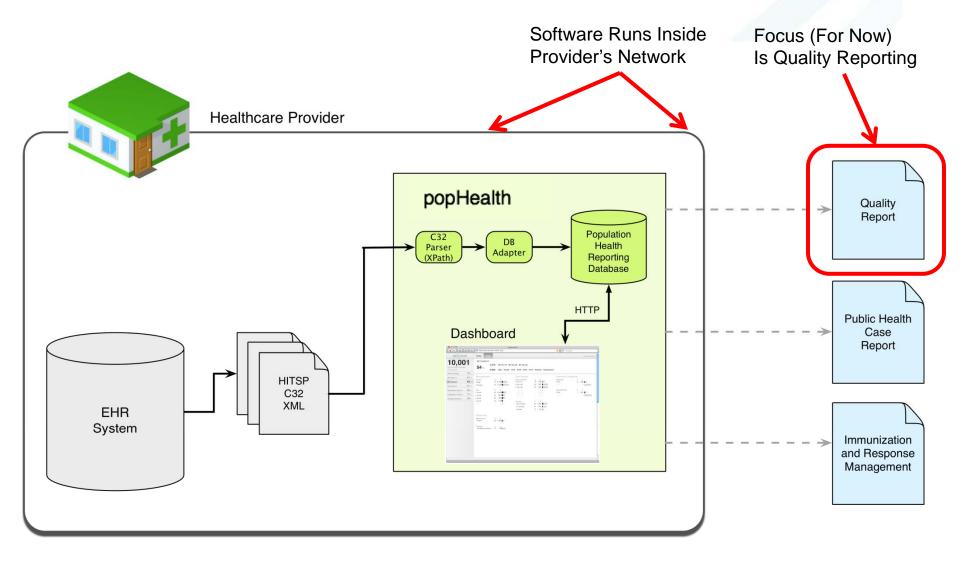


PopHealth

- An open source quality reporting tool that incorporates current definitions of quality measures
- Designed to operate within a provider's infrastructure
- A web-based service, that currently relies on the HITSP C32 data standard to extract and report data from patients' continuity of care records
 - Addresses privacy and security concerns
 - Providers can drill down on detailed patient data
 - Software has been designed to be flexible and permissive, so that it can support various data standards both for input and output



PopHealth Workflow



Beacon Community Program: Overview

15 Beacon Communities

Extend advanced health IT and exchange infrastructure

Leverage data to inform specific delivery system, provider feedback, and payment strategies Demonstrate a vision of the future where:

- Hospitals, clinicians and patients are meaningful users of health IT; and,
- Communities achieve measurable & sustainable improvements in health care quality, safety, efficiency, and population health.



Beacon Communities

Lead Organization	Location
Community Services Council of Tulsa	Tulsa, OK
Delta Health Alliance	Stoneville, MS
Eastern Maine Healthcare System	Brewer, ME
Geisinger Clinic	Danville, PA
HealthInsight	Salt Lake City, UT
Indiana Health Information Exchange	Indianapolis, IN
Inland Northwest Health Services	Spokane, WA
Louisiana Public Health Institute	New Orleans, LA
Mayo Clinic College of Medicine	Rochester, MN
The Regents of the University of California, San Diego	San Diego, CA
Rhode Island Quality Institute	Providence, RI
Rocky Mountain Health Maintenance Organization	Grand Junction, CO
Southern Piedmont Community Care Plan	Concord, NC
University of Hawaii at Hilo	Hilo, Hawaii
Western New York Clinical Information Exchange	Buffalo, NY



Performance Improvement Domains/Goals

Care Quality

Focus area	# of Beacon communities
Type II Diabetes	14
Vascular Disease (Cerebrovascular, Cardiovascular, Hyperlipidemia)	4
Asthma	4
Hypertension	3
Congestive Heart Failure	3
Chronic Obstructive Pulmonary Disease	2
Patient Safety (Adverse Drug Events, Hospital acquired complications)	2
Other (Medication reconciliation, Post-surgical outcomes)	2

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Health Information Technology

^{*} Preliminary goals are based on Beacon applications and will be refined in the next 15-60 days.

Performance Improvement Domains/Goals

Cost Efficiency

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Focus area	# of Beacon communities
Reduce Emergency Department visits for chronic diseases and ambulatory care sensitive conditions (e.g., asthma, diabetes, COPD)	12
Reduce preventable hospital readmissions	10
Improve rates of smoking cessation	7
Reduce or eliminate redundant or inappropriate testing, imaging, diagnostic services, and/or referral rates	4

Population Health

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Focus area	# of Beacon communities
Reduce health disparities	8
Improve immunization rates	8
Improve public health surveillance/reporting	4
Improve rates of smoking cessation	2
Improve cancer screening	2



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SHARP - Strategic Health IT Advanced Research Projects: Summary

To establish targeted research projects focused on areas where breakthrough improvements can greatly enhance the transformational effects of health IT and address problems that have been barriers to adoption and progress along the pathway to Meaningful Use

"We are asking that these sites bring to bear the absolute highest level of expertise that can be assembled in the nation."

SHARP Research Focus Areas

- Security of Health IT: Address challenges of developing security and risk mitigation policies and technologies necessary to build public trust as health IT systems use proliferates – University of Illinois: Urbana-Champaign (Gunter)
- Patient-Centered Cognitive Support: Address the challenges of harnessing the power of health IT so that it integrates with, enhances, and supports clinicians' reasoning and decision making – University of Texas-Houston (Zhang)



SHARP Research Focus Areas

- Healthcare Application and Network Platform
 Architectures: Focus on development of new and
 improved architectures for EHRs and health information
 exchange Harvard University (Kohane)
- Secondary Use of EHR Data: Focus on strategies to enhance re-use of EHR data in analytics and informed decision-making applications to improve the overall quality of health care - Mayo Clinic (Chute)

