



Connecting America
for Better Health

PQA Quality Forum Lecture Series: A Beacon Communities Update

October 13, 2011



Program Aims

- 1. Build and strengthen**
- 2. Improve**
- 3. Innovate**



What Are They Doing?

Transitions of Care

- Information flow; hospital discharge process improvement and standardization; transitions coordinators (work with patients on medication reconciliation and self-care plans through transitions); includes PCPs, hospitals, specialty practices, and long-term care settings

Care Management

- Trained individuals using standardized protocols for identifying and managing high risk patients and others needing follow-up and services, and working with patients and PCPs in creating self-care plans, including medication management.

Computerized Clinical Decision Support

- Embedded within EHR and/or HIE systems and Utilized by multiple members of the care team (e.g. physicians, care managers, etc.)

Physician Data Reporting & Performance Feedback

- QI reports informing providers of actionable items to maintain the highest standard of care in their patient population (e.g., guidelines and/or specific cost, quality, population health measure outcomes and/or analytics)

Public Health Registry-Based Management

- Registries could target preventative services and could be disease-based; often in partnership with public health departments

Others (e.g., PHRs, telemedicine, telehealth)

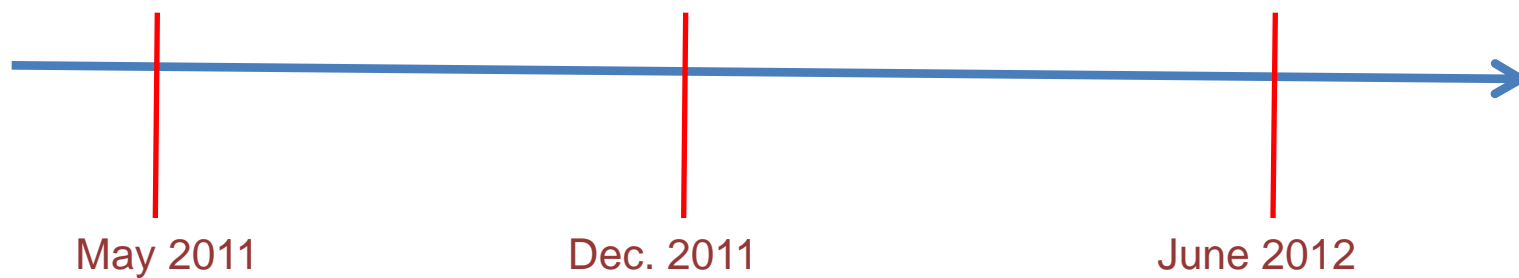


Summary of “Core” Interventions in 2011

Intervention	# of BCs	~# of patients “touched” in 2011	~# of providers “touched” in 2011
Transitions of Care	12	250,000	~50 settings (including hospitals, SNFs, etc.)*
Care Management/PCMH	13	300,000	2,500
Computerized Clinical Decision Support	13	350,000	1,800
Physician Data Reporting and Performance Feedback	12	550,000	1,900*
Public Health Registry-Based Management	11	200,000	700*



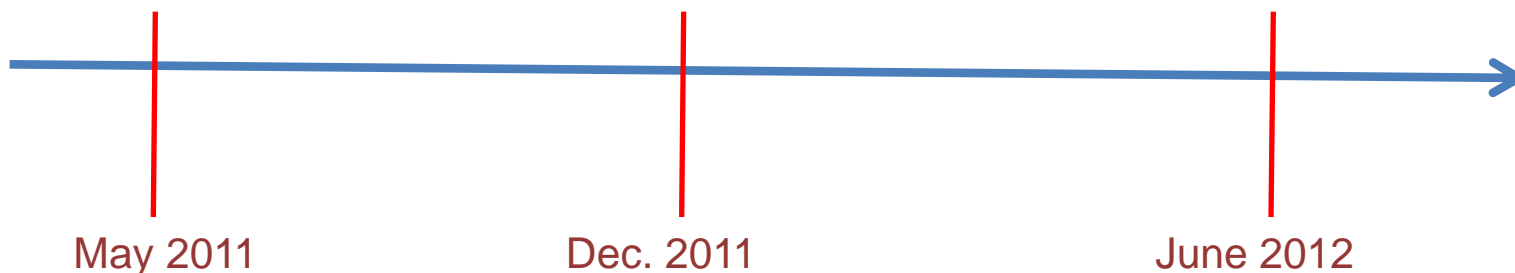
“Show Us The Path”





“Show Us The Path”

“So far, our Beacon care managers have ‘touched’ 1,800 chronic disease patients deemed to be ‘high risk.’ We identified 500 care gaps, including 30 serious medication errors. We will continue to track this and by the winter will be able to say with more confidence how many readmissions we think we have avoided in the first cohort.” (Keystone Beacon)



Results

Some communities with small-N results with right “sign”, mostly anecdotal.

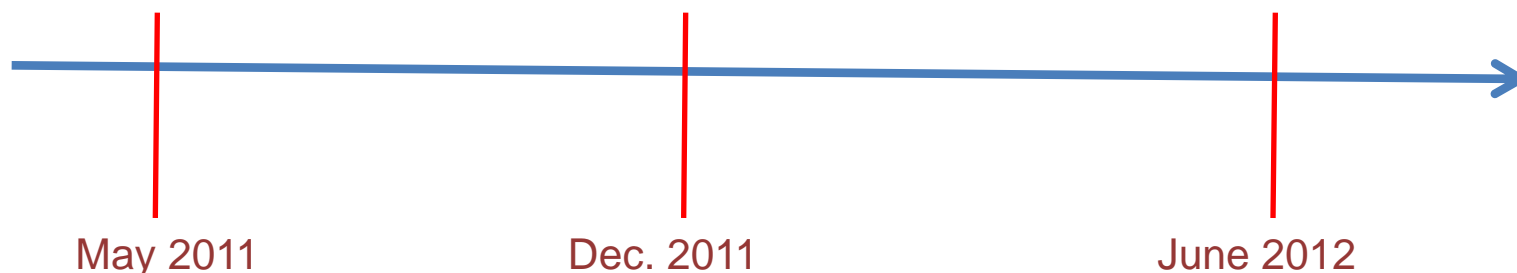
Implementation

“Here is what we are trying to accomplish and how we’re trying to accomplish it.”



“Show Us The Path”

“By December 2011, we will have 15% (202) of our target (new) docs (1440) using our Doc-2-Doc specialty referral system. We will be able to report counts of communications between referrals and report outcome measures for these interactions. This will get local stakeholders’ attention because it will suggest important cost impacts.” (Tulsa)



Results

Some communities with small-N results with right “sign”, mostly anecdotal/stories.

All communities with very early, tentative results from first 2 cohorts. Weak statistical power and small N.

Implementation

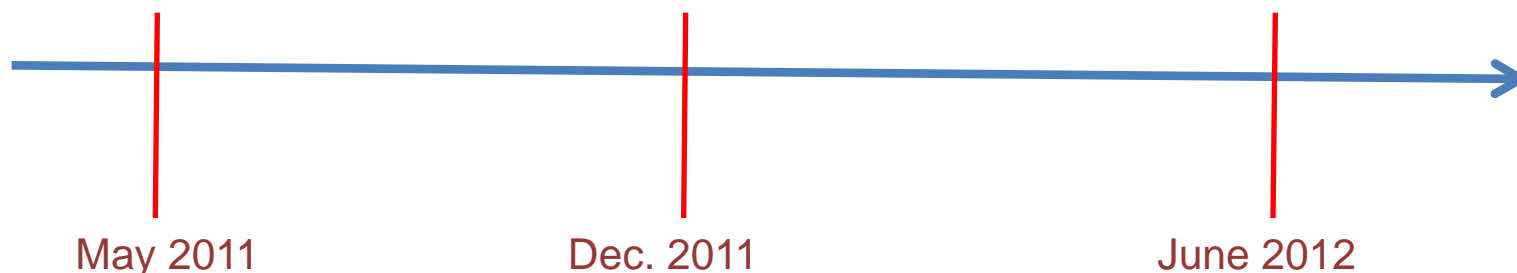
“Here is what we are trying to accomplish and how we’re trying to accomplish it.”

“We are still new at this but here are some concrete learnings so far.”



“Show Us The Path”

“By April 2012, 7,000 asthmatic children will have received documented asthma action plans from providers, obtained consent and registered across all 47 school districts in our community; achieving 25% population target. This number will grow to 18,000 by April 2013.” (Southeast Minnesota)



Results

Some communities with small-N results with right “sign”, mostly anecdotal/stories.

All communities with very early, tentative results from first 2 cohorts. Weak statistical power and small N.

All communities with early, tentative results from waves 1-3 with growing statistical confidence, larger N’s, and deeper impacts.

Implementation

“Here is what we are trying to accomplish and how we’re trying to accomplish it.”

“We are still new at this but here are some concrete learnings so far.”

“Here is how we are refining our work to reflect our early learning.”



Examples: Consumer eHealth in the Beacons

Remote Patient Monitoring	<ul style="list-style-type: none">• Indianapolis has set up a RN call center and is aiming to reduce readmissions for 1,500 – 3,000 high-risk CHF & COPD patients through the use of Intel’s Health Guide• Buffalo is wiring the home of 100 multi-CC patients with a number of remote monitoring devices (CardioCom, Bluetooth Scale, Health Buddy) and aiming to reduce readmissions
PHRs/ Patient Portals	<ul style="list-style-type: none">• 5+ Beacons will have patient portals and PHR functionality operational by the end of the year; will have more than 10,000 patients signed up• For instance, Keystone is implementing PHR that uses aggregate HIE data from all providers, allows patients to input notes that become part of their clinical record, and includes 2-way messaging services with care managers.
mHealth	<ul style="list-style-type: none">• NOLA, Detroit, Cincinnati, and NC are considering mHealth as a public engagement “campaign” (see below)• San Diego is using a mHealth application to improve accuracy/use of an immunization registry (N=2000)• North Carolina is piloting Asthmapolis with five providers, and harnessing its population level data for use by their care managers
Patient engagement (and mHealth)	<ul style="list-style-type: none">• We are interacting with ADA and CDC to launch an mHealth-enabled patient activation campaign targeted to at-risk diabetic individuals, which will cut across multiple Beacons and connect with local resources (includes Voxiva, Secretary’s Text4Health Taskforce, and 2-4 Beacons)
Patient-reported outcomes	<ul style="list-style-type: none">• Several Beacons (e.g., Mayo, Geisinger, perhaps CO) are testing the uses of PRO measures embedded in EHRs to inform MU2/3



Technical Assistance – Priorities by Domain

In 2011 the primary objective of the domain will be to:

Affinity Group/Meeting Topics include:

Clinical Transformation

- Support successful implementation of clinical interventions
- Enhance QI skills

- Care Transitions and Practice Transformation
- Skills training for managers/staff
- Improvement coaching for leaders

HIT/MU

- Identify and resolve technology obstacles in achieving clinical transformation and meaningful use

- Cross ONC collaboration to support adoption and sustainability of technology
- HIT/Clinical transformation alignment
- Interoperability with S&I Framework

Measurement

- Build and strengthen performance measurement infrastructure

- Strategic and implementation planning
- Utilization measurement development
- Data to drive performance feedback/QI

Leadership and Stewardship

- Ensure strategic alignment with local and national stakeholders and priorities
- Support common operational issues (e.g., governance and communication)

- State/national delivery system reform efforts
- Regional governance
- Local and national communication
- Project Managers/Beacon “advisors”

Sustainability

- Better understand “business models” for services that can enable QI and help communities coalesce around paying for these services

- Sustainable business planning: modeling ROI, pricing, achieving scale
- Planning for health reform and the new accountable environment



What are we learning?

It's early but...

Clearly defined populations

Strong leadership & governance

Specific health care objectives

Performance measures and feedback systems

Evidence-based interventions

Strategies to learn from interventions

HEALTH INFORMATION TECHNOLOGY

By Aaron McKethan, Craig Brammer, Parastou Fatemi, Minyoung Kim, Janhavi Kirtane, Jason Kunzman, Shaline Rao, and Sachin H. Jain

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An Early Status Report On The Beacon Communities' Plans For Transformation Via Health Information Technology

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ABSTRACT The Beacon Community Program is part of a federal strategy for using health information technology as a foundation to improve the nation's health care system. In particular, Beacon Communities seek to increase the quality and efficiency of health care, improve the health of individuals and communities, and inform similar initiatives in other parts of the country. Each Beacon Community has set quality, efficiency, and health-related goals, and each is deploying multiple technology-enabled interventions to achieve them. Yet achieving large-scale and sustainable health care improvement also requires an implementation framework that can foster innovation and continuous learning from results. Based on the early experiences of the seventeen diverse Beacon Communities, this paper describes program design features that characterize how these initiatives are organized.

The Beacon Community Program, launched in May 2010 by the Office of the National Coordinator for Health Information Technology, is providing funding and technical support to seventeen communities from Maine to Hawaii, using health information technology (IT) to foster local health care improvement and innovation.¹ The aims of the program are to demonstrate that health IT can help improve the quality, cost, and efficiency of care; strengthen the ability of local stakeholders to design, implement, test, and refine innovations in health care; and trade ideas, evidence, and experiences with each other and with other communities.

The Beacon Communities have just begun to implement their first interventions, so empirical findings are not yet available. But work can begin now on the process of trading ideas and insights about the communities' strategies and early experiences with implementation. This paper outlines the structural features of the Beacon Communities as a model that leaders in other communities can adapt as they seek to unite their

local stakeholders around efforts to improve the performance of the health care system.

The features of the Beacon Communities will help the country prepare for new models of care delivery, such as accountable care organizations and patient-centered medical homes, and for new payment methods for providers, such as bundled payments, that are included in the Affordable Care Act of 2010. These innovations will require widespread implementation of the same types of health IT applications that the communities are now using—to, for example, coordinate the care of patients as they move from one care setting to another and measure changes in health care outcomes.

Program Features

One of the goals of the Beacon Community Program is to test whether individual providers or groups of providers within a Beacon Community can improve the quality of care by adopting different ways of making use of health IT. Examples of such interventions are cooperative arrange-



11 Big Ideas in 2011:

Special projects to help Beacons achieve their aims



Big Idea #1:

Support for FQHCs in pursuing Beacon aims

Draft 8/17/11

News Release

FOR IMMEDIATE RELEASE
August XX, 2011

Contact: HRSA Press Office
(301) 443-3376

HHS awards Affordable Care Act funds to improve quality of care and electronic reporting capabilities in "Beacon Communities"

\$8.5 million to fund 85 health centers in 17 Beacon Communities

HRSA Administrator Dr. Mary Wakefield and Dr. Farzad Moustashari, HHS' National Coordinator for Health Information Technology, announced today awards of \$8.5 million to 85 community health center programs located in the 17 Beacon Communities throughout the United States. These funds, made available by the Affordable Care Act, help support communities with the adoption of health information technology to support long-term improvements in quality of care, health outcomes and cost efficiencies.

The Beacon Community Program supports 17 communities to build and strengthen their health information technology (health IT) infrastructure to improve care coordination, increase the quality of care and slow the growth of health care spending. These communities located throughout the United States have already made inroads in the development of secure, private and accurate systems of electronic health record adoption and health information exchange.

Today's award is intended to enable existing health centers located in Beacon Communities to participate in community-wide health care improvement initiatives that include a strong information technology component.



Big Idea #2:

A Beacon-designed mobile health project

Fun/ Light/ Engaging
(people WANT to join)

V X I V A[™]



Healthy Living/ Diabetes
(applies to everyone)

Weight/ Risk/ Connections
(focuses on practical objectives)

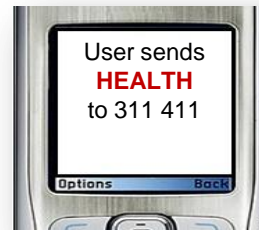


Local/ National
(tailored based on promoting organization)



Big Idea #2:

A Beacon-designed mobile health project



System collects:

HEIGHT
WEIGHT (BMI)
AGE
GENDER
FAMILY HISTORY
DIABETES DIAGNOSIS
CHOLESTEROL
HYPERTENSION
SMOKING STATUS

Enrollment

System categorizes:

DIABETIC
PRE-DIABETIC
HIGH/ MEDIUM RISK
LOW RISK

UNDERWEIGHT
NORMAL WEIGHT
OVERWEIGHT
OBESE

Development of Profile
(Risk Categorization)

Goal Setting/ Tracking
(Weight & Exercise)

Education/ Motivation
(According to Risk)

Local Connections
(Care & Activities)



Big Idea #3: CMS dialogue with Beacon Leaders about the intersection of HIT and payment reform

Event: Summer, 2011 in Indianapolis

Attendees: Jon Blum (CMS), Rich Baron (CMMI), representatives from three Beacons (Indy, Cinti, Geisinger) including hospital senior execs (CEO, CMIO, CFO), health plans, and HIT leaders (Regenstrief, Geisinger, HealthBridge)

Three Working Sessions focused on the proposed ACO rule and the information/HIT implications of the NPRM:

1. From the provider perspective
2. From the payer perspective
3. From the HIT/HIE perspective

Ongoing dialogue between CMS and meeting participants continues





Big Idea #4:

Real-time CMS Data Analytics for Improvement

- Design team: Booz Allen Hamilton, Brandeis University, Buccaneer, ONC
- Report description
 - Provide the 17 Beacon Communities with their Medicare performance data results on a select set of quality measures
 - Information will help the communities examine and analyze performance over time
 - Analysis results will be current (i.e., refreshed quarterly)
 - Provide valuable feedback to the Beacon Communities as they implement and modify their interventions
- Use of the measure results from this report is governed by a Measure Use Agreement between the Beacon Communities and ONC
- Report development process is supported by the CMS Measure Committee with feedback from the Beacon Data & Performance Measurement Community of Practice



Big Idea #4:

Real-time CMS Data Analytics for Improvement

- The measures are designed to capture both inpatient and ambulatory care experiences
- The measures were assessed against the following criteria:
 - Feasible for calculation using administrative data for the Medicare Fee for Service Part A and B populations
 - Used by other national program (preferable)
 - Endorsed by the National Quality Forum (NQF) (preferable)
 - Relevant to the Beacon Communities' target conditions

Core Measure Set



DIABETES	RESPIRATORY
Hemoglobin A1c (HbA1c) Testing	COPD Admission Rate (<i>AHRQ – PQI</i>)
LDL-Cholesterol Screening	UTILIZATION
Dilated Eye Exam in Diabetic Patients	Cost of Care (Descriptive Measures)
Short-term Complications Admission Rate (<i>AHRQ – PQI</i>)	Plan All-Cause Readmissions (HEDIS 2011)
Long-term Complications Admission Rate (<i>AHRQ – PQI</i>)	30-Day Post-Hospital HF Discharge Care Transition Composite Measure
Uncontrolled Diabetes Admission Rate (<i>AHRQ – PQI</i>)	30-Day Post-Hospital AMI Discharge Care Transition Composite Measure
Rate of Lower-Extremity Amputation (<i>AHRQ – PQI</i>)	Prevention Quality Indicators (AHRQ)
PREVENTIVE CARE	Ambulatory Care: Summary of Utilization of Ambulatory Care in Outpatient Visits and ED Visits (HEDIS 2011)
Breast Cancer Screening	Cost of care for chronic disease episodes
Colorectal Cancer Screening	
HEART HEALTH	
CHF Admission Rate (<i>AHRQ – PQI</i>)	Notes:
Hospital 30-Day Heart Failure Readmission	1) First quarterly report issued August 15, 2011 at community level
CAD: Angina Without Procedure Hospital Admission Rate (<i>AHRQ – PQI</i>)	2) No Part D data (which therefore excludes several good measures: filled Rx for lipid-lowering drugs, beta blocker post MI, aspirin use)
Hospital 30-Day AMI Readmission	
Lipid Profile	



Big Idea #4:

Real-time CMS Data Analytics for Improvement

- Single Beacon View*
 - Measure Results Tables (numerators, denominators and rates)
 - Trend Graphs (rates)
 - Comparator Group: Beacon Average (5% national sample in future iterations of the report)
- All Beacon View*
 - Scatter and Bar Graphs (rates)
 - Other communities are not identified
 - Comparator Group: Beacon Average, Other Beacon Communities (5% national sample in future iterations of the report)

* Current scope of Report views



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if cell size <11

Table Views of Measures

Selection | Admit/Re-Admit | All PQI | Cancer Screen | Diabetes Process | Diabetes PQI | Respiratory PQI | Cardiac Process | Cardiac PQI

Table 2: Prevention: AHRQ Prevention Quality Indicators (PQIs) [Submit for Print](#)

Show Beacon Average

Quarter	Cohort	Measure (Select Below)	Numer-ator	Denomi-nator	Observed Rate	RiskAdj. Rate
2011-Q1	CHF Cohort	PQI #15: Adult asthma admission rate	198	8,975	2.2061%	1.3915%
		Beacon Average:	1,414	70,351	2.0099%	1.2702%
2011-Q1	CHF Cohort	PQI #16: Rate of lower-extremity amputation among patients with diabetes	76	8,975	0.8468%	0.2267%
		Beacon Average:	498	70,351	0.7079%	0.1898%
2011-Q1	CHF Cohort	Composite PQI: Overall (PQIs)	5,651	8,975	62.9638%	6.6158%
		Beacon Average:	39,723	70,351	56.4640%	6.0420%
2011-Q1	CHF Cohort	Composite PQI: Acute (PQIs: 10, 11, and 12)	1,585	8,975	17.6602%	1.7682%
		Beacon Average:	10,599	70,351	15.0659%	1.5222%
2011-Q1	CHF Cohort	Composite PQI: Chronic (PQIs: 1,3,5,7,8,14,15, and 16)	4,066	8,975	45.3036%	6.0031%
		Beacon Average:	29,125	70,351	41.3996%	5.5525%
2011-Q1	COPD Cohort	PQI #1: Diabetes short-term complication admission rate	22	8,803	0.2499%	0.5448%
		Beacon Average:	242	68,714	0.3522%	0.7661%
2011-Q1	COPD Cohort	PQI #2: Perforated appendix admission rate				
		Beacon Average:	89	144	61.8056%	35.8620%
2011-Q1	COPD Cohort	PQI #3: Diabetes long-term complication admission rate	152	8,803	1.7267%	0.5320%
		Beacon Average:	1,104	68,714	1.6067%	0.4954%
2011-Q1	COPD Cohort	PQI #5: Chronic obstructive pulmonary disease admission rate	1,701	8,803	19.3230%	3.4666%

Record: 1 of 80 | No Filter | Search



The trend Line view contains a narrative with additional statistics

would be equal to -21.4960% and in relative term would be -22.1551%.
The analysis based on the beginning and the end point however is prone to seasonal changes and measurement errors always

	Min	Max	Mean	StDev.	
Your Beacon:	73.0650%	96.8370%	90.1197%	9.4649%	} Basic Statistics
Beacons' Average:	75.5290%	97.0250%	91.1150%	8.2919%	
	Beginning of Period	End of Period	Change (% Points)	Relative Change	
Your Beacon:	96.8370%	73.0650%	-23.7720%	-24.5485%	} Trend Analysis
Beacons' Average:	97.0250%	75.5290%	-21.4960%	-22.1551%	
Your Beacon:	Your Measure = 87.3953% - 0.0812 * Quarter				} Regression Analysis
Beacons' Average:	Beacons' Measure = 85.1707% - 0.0769 * Quarter				

HbA1C Testing; Diabetes Cohort



Future Report Releases

- Additional measures
 - Hospital readmission measures
 - 30-Day Post-Hospital HF (AMI) Discharge Care Transition Composite Measure
 - Proportion of Patients with a Chronic Condition that have a Potentially Avoidable Complication During a Calendar Year
 - Plan All-Cause Readmissions (HEDIS 2011)
 - Cost utilization measure
- Increasingly granular levels of aggregation
 - Hospital
 - Physician



Big Idea #5:

A Project on Care Transitions and HIT

The Headline: What do we know about care transitions and HIT enablement –what works, and where are the opportunities for innovation?

Partners: ONC, CMS/CMMI, Todd Park and others

The Event: October 14, 2011 at the Kaiser Center for Total Health

Attendees: Who's who on the policy, tech, provider, vendor, advocacy side of this story. Invitation only. 150 people. "Advanced ONC grantees" will be featured along with other national leaders.

Pre-work: A paper in partnership with Joanne Lynn describing current landscape (interviews, lit review, etc)



Big Idea #5:

A Project on Care Transitions and HIT

We'll be successful if: The process concludes with a clear, actionable agenda for public and private stakeholders on what they can do to, 1) accelerate adoption of what works; and, 2) focus on high-yield areas for innovation.





Big Idea #6:

Health 2.0 Challenge

The Headline: Beacons looking for innovative solutions don't always know where to find them.

Partners: Health 2.0

The Event: September, 2011 at the Health 2.0 Conference

Attendees: 5-6 Beacons

Pre-work: A brief write-up of the challenge the Beacon is facing. Health 2.0 pre-screens and arranges for a meet up



Big Idea #7:

A Project on Bending the Cost Curve

Aims:

- Inform national experts/leaders about the details behind some leading examples of care delivery improvement initiatives, including a “getting in the weeds” sessions in which all aspects of the interventions are carefully and rigorously explored
- Help Beacon Communities (including three Beacons represented in the meeting) develop the best-possible strategies for sustaining the performance improvements they are pursuing using health IT and care redesign activities
- Inform other non-Beacon providers and health care organizations to design and implement health IT and care redesign activities with key parameters, data elements, and principles in mind to improve the likelihood of influencing and documenting cost reductions.



Big Idea #7:

A Project on Bending the Cost Curve

Organized by: Brookings Institution, BAH and ONC

The Event: October/November at Brookings

Attendees: 12-15 leading actuaries from CMS, CBO, private health plans plus 3 Beacon Communities (Tulsa, Grand Junction & Geisinger)





Big Idea #8:

AcademyHealth Issue Briefs

Over the balance of the Beacon program, AcademyHealth will be producing 12-15 issue briefs featuring Beacons on a variety of topics featuring.

Examples include,

- Insights on the use of EHRs as a tool for quality improvement
- The state of clinical decision support tools: those offered by EHRs vs. HIEs
- HIT analytic tools for identifying and predicting high risk patients
- Moving towards broader sustainability: Update on Beacon Communities' plans for sustainability
- Beacons and FQHCs: safety net care
- Registry development and enhancement
- IT interface design: workflow and other implications
- The development and integration of patient reported outcomes
- Expanding patients' access to electronic information and tools
- IT enabled referral coordination and management systems





Big Idea #9:

Performance Measurement in the Real World

The Headline: We aim to showcase Reality vs. Vision for...

1. Data source/data flow to support measurement for QI
2. Feedback process and frequency
3. Patient reported information
4. Innovation: advanced analytics, risk stratification, etc

The Event: November, 2011 in Utah (Health Insight / Intermountain)

Attendees: Who's who on the policy, tech, provider, vendor, advocacy side of this story. Invitation only. 60 people. "Advanced ONC grantees" will be featured along with other national leaders.

We'll be successful if: The process concludes with a clear, actionable agenda for public and private stakeholders on what they can do to, 1) accelerate adoption of what works; and, 2) focus on high-yield areas for innovation.

Pre-work

Meeting

Paper



Big Idea #10:

Support for Beacon Researchers

A learning community of the researchers and evaluators associated with Beacon Communities.

Learning opportunities, technical assistance, convenings, etc.





Big Idea #11:

State Health Leadership Roundtable

- State health leaders from 7-9 states where Beacons are located.
- 1-day working session in NYC in Sept, 2011
- Aims:
 - Ensure that state leaders fully understand Beacon activities in their state and can freely discuss w/ONC
 - Provide state leaders with an opportunity to discuss their healthcare transformation strategies with a small group of peers
 - Help state leaders “connect the dots” and think through how their Beacon might serve as a proving grounds for testing new ideas and achieving broader state-wide aims

