

Best Practices for eMeasure
Implementation

***Breakout Session #5: Innovative
Considerations for eMeasure
Implementation***

Track Leaders:

Dwight Brown, NREMT-P

Sharon Hibay, RN

David Stumpf, MD

April 26, 2012



NATIONAL
QUALITY FORUM

eMeasure Learning Collaborative: What Are We All About?

- Public initiative convened by the NQF to bring together diverse stakeholders from across the quality enterprise.
- Promote shared learning across key eMeasure stakeholders including understanding of major drivers and barriers.
- Advance knowledge and best practices related to the development and implementation of eMeasures.
- Project consisting of interactive webinars and in-person meetings – spearheaded by Collaborative members and focused on array of relevant topics, tools, and resources.

eMeasure Collaborative Deliverables

1. Identification of current best practices (repeatable models)
2. Identification of gap areas
3. Development of recommendations for the future (to expand use of best practices and to address gap areas)

April 26th In-Person Collaborative Meeting

Best Practices for eMeasure Implementation

Four Questions for the Collaborative to Answer

- 1. *What are best practices examples*** related to the development and implementation of eMeasures?
- 2. *What are the mechanisms to enhance data and workflow capability?***
- 3. *What are the recommendations*** for future use of health IT and standards to enable performance measurement?
- 4. *How can we “rethink”*** what we are looking for?

Breakout Session Objectives

- Share experiences with new, innovative methods to enhance the value of structured data and to interpret unstructured data for use in quality measurement and reporting from EHRs and other current and newly developing data sources.
- Identify common threads among various innovative methods.
- Develop criteria to evaluate innovative methods.
- Provide recommendations to address inclusion of such methods in the quality measurement data workflow.

Breakout Session Agenda

10:45am – 2:00pm with working lunch

- 10:45 – 11:15am
- 11:15 – 11:35am
- 11:35 – 11:55am
- 11:55am – 12:15pm
- 12:15pm to 2:00 pm
- 2:00pm
- 2:00 – 2:30pm
- 2:30pm
- Presentation of use example(s) or vignette(s)
- Group discussion of presentation(s)
- Begin response to vignette questions
- **Break: Lunches distributed, restrooms, phone calls**
- Working lunch, continue group discussion, vignette questions
- Summarize key points for report out
- Breakout session ends
- **Break**
- Large group re-convenes

Use Examples for Innovative Considerations for eMeasure Implementation

- Mayo Clinic in Rochester, Minnesota
- Blackstone Valley Community Health Care in Pawtucket, Rhode Island

Mayo Clinic
Rochester, MN

Implementing Heart Failure eMeasures at Mayo Clinic

Dorinda Leutink, RN, BSN
RN Quality Specialist
Dwight Brown, NREMT-P, MIM,
CPHIMS
Manager of Quality
Measurement

Mayo Clinic

- Mayo Clinic is a nonprofit worldwide leader in medical care, research and education for people from all walks of life. It is the first and largest integrated, not-for-profit group practice in the world and has been serving the needs of patients for more than 100 years.
- The organization cares for 1.1 million patients annually among sites in Minnesota, Arizona, Florida and the integrated Mayo Clinic Health System serving 70 communities in Minnesota, Iowa, and Wisconsin.
- Mayo is staffed by more than 58,000 employees; including 3,600 physicians, scientists, and research associates, and 3,600 residents, fellows, students, and temporary staff.

eMeasure Development Framework

Retrospective Review

Administrative
Data

Core Measure
Sampling

Concurrent Analysis & Review

Clinical Data -
Amalga

Review Team

NLP

eMeasure
Specifications

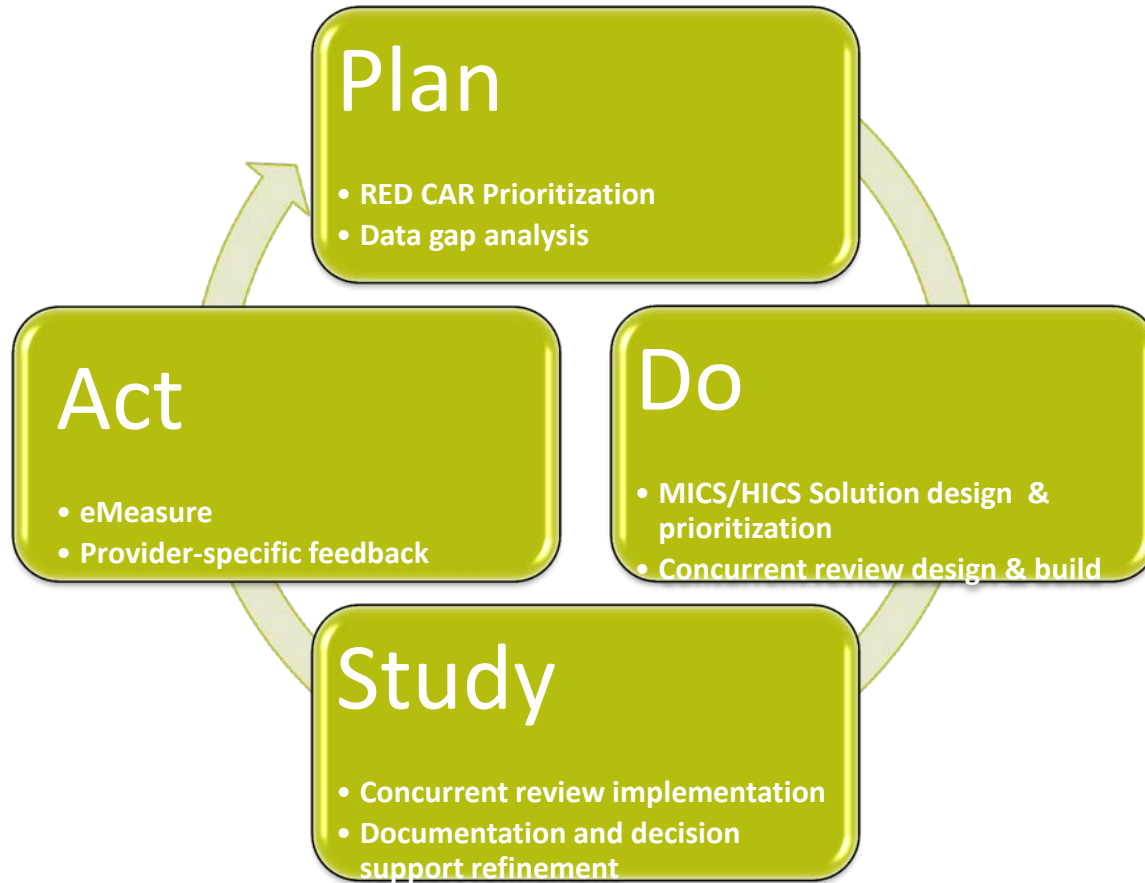
Bedside Support

Decision Support

Discrete Data Capture

Real-Time Analytics

Mayo Clinic eMeasure Cycle



History of Addressing HF

- 2005 Heart Failure Concurrent Review
 - Daily Review: 3 RNs
 - Monthly Onsite-Resident Education
 - » “Feed them they shall come!”

- 2006 Heart Failure DMAIC Project

95% of inpatients with a primary diagnosis of HF are receiving all core measure services by 12/1/2006

 - Nurse Educator Pager Pilot
 - Heart Failure Prompts for Direct Admissions
 - HRS Dismissal Summary Rollout
 - Nursing checklist
 - Letters to Providers

Facilitating Workflow With the EMR

- Heart Failure prompts added to Dictation system
- Addition of the orderable item “Receipt of Dismissal Summary” to the Nursing Education Plan
- EMR – Adjustments to the Allergy module
- P-Cares Pharmacy system implemented tracking of ACE/ARB compliance
- Blaze Rules:
 - Discharge Instructions
 - ACE/ARB compliance

Concurrent Review

- Learning from NLP research
- Using Amalga for Concurrent Review
 - Validation of System
 - » Testing trigger elements
 - Concurrent Review Unit-Specific Pilot
 - Roll-out
 - » Include in-box prompts

Next Steps

- Refine the process of identifying the HF population.
- Use feedback and lessons from concurrent review:
 - Inform development of decision support rules.
 - Drive EMR changes.

Global Application

- Understand your available data through elemental analysis.
- Develop a practice-driven strategy for elemental data collection.
- Investigate options for tools which facilitate population identification.
- Use the concurrent review feedback loop to inform decision support development and clinical documentation changes.
- Leverage “bread crumbs” for near-time analytics and EHR-based reporting.

Blackstone Valley Community Health Care Pawtucket, RI

The Role of eMeasurement in Total Accountability for Cost and Quality

Heather Budd
Chief Operating Officer
Blackstone Valley Community
Health Care

Blackstone Valley Community Health Care (BVCHC)

- Blackstone Valley Community Health Care (BVCHC) was formed in 1990 by the joining of smaller health clinics in Pawtucket and Central Falls, Rhode Island. Since that time BVCHC has expanded services and practice sites in Pawtucket and Central Falls, as well as a separate Dental facility in downtown Pawtucket.
- Recognizing the needs of residents in Pawtucket, Central Falls and the surrounding areas, BVCHC now offers a medical home to patients of all ages. Services range from prenatal and women's health care to pediatric, adolescent and adult preventative and acute care. Behavioral Health and Dental services are available to BVCHC registered medical and pediatric patients. Additional staff now includes case managers, diabetic and asthma educators.
- In 2007, BVCHC eliminated paper records and converted to Electronic Medical and Dental Record systems as well as digital Radiology for Dental patients. BVCHC serves as the home and support center for a network of health centers advancing Health Information Technology in Rhode Island. BVCHC now provides 60,000 medical and dental patient visits per year to approximately 10,000 unique users.

Blackstone Valley Community Health Care *a Federally Qualified Health Center in Pawtucket, RI*

Our Data Foundation = Greatest Asset

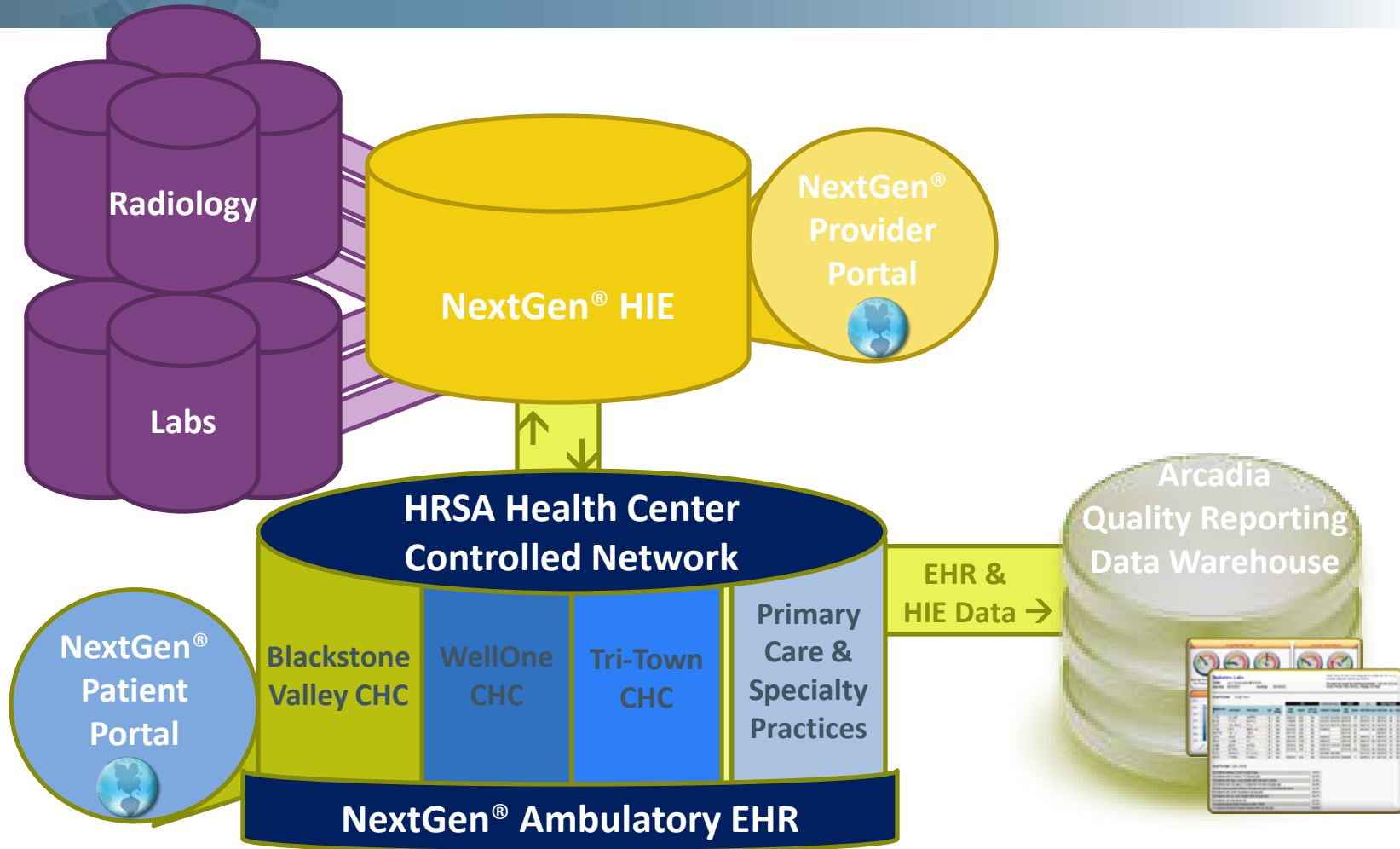
HRSA Health Center Controlled Network

EHR, local HIE and Quality Reporting Data Warehouse



EHR, Data Capture, and Warehousing

Blackstone Valley Network



Health Maintenance Reporting Decision Support

Health Maintenance: EHR Chart Review Summary



Practice: BVCHC, Inc.

Registry: *Established Pat Patients with a kept appointment

From: 1/1/11 To: 1/31/11

Usual Provider: **Dr. Blackstone**

MRN#	Last Name	First Name	Sex and Age Specific																	
			Sex	DOB	Age	Med. Rec.	Smok Date	Smok Stat	Smok Cess	Depr. Scrn	Depr Plan	BMI	BMI Adv.	BP Sys	BP Dia	LDL Date	LDL Res	Pap Date	Colon Ref.	Colon Comp.
			F	3/28/80	31		4/7/10	N			31.35		102 / 60			4/7/10	NA	NA	NA	NA
			M	10/12/91	19	2/15/11					24.33	NA	110 / 80	NA		NA	NA	NA	NA	NA
			F	11/27/89	21	4/1/11					21.29	NA	100 / 60				NA	NA	NA	NA
			F	12/7/51	59	2/23/11	9/2/10	N			37.07	2/23/11	110 / 70	10/12/10	100					5/13/10

Usual Provider: **Dr. Blackstone**

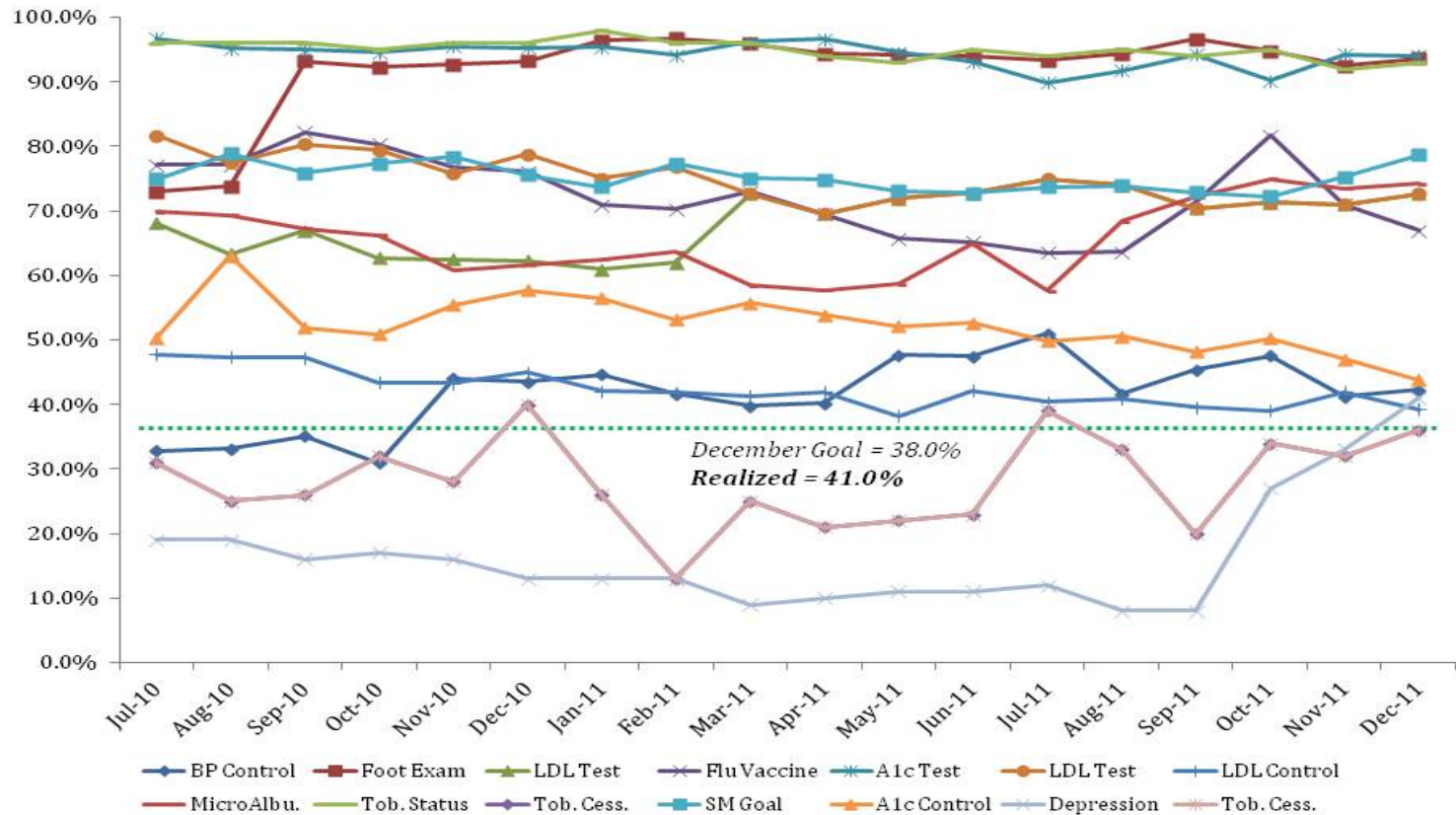
% of patients who have had Medication Reconciliation in the last year:	90%
% of patients >=13 who had Smoking Status documented in the last year:	34%
% of patients whose last BMI calculated was less than 1 year ago:	99%
% of patients <18, who have received BMI Advice in the last year:	
% of patients >=18, who have received BMI Advice in the last year:	89%
% of patients >=20 whose last LDL Test was less than 5 years ago:	44%
% of patients >50, whose last Colonoscopy Referral was less than 10 years ago:	22%
% of patients >50, whose last Colonoscopy was less than 10 years ago:	9%
% of patients >= 21 and <= 64, whose last Pap Test was less than 2 years ago:	44%
% of patients >= 40 and <= 69, whose last Mammogram Referral was less than 2 years ago:	58%
% of patients >= 40 and <= 69, whose last Mammogram was less than 2 years ago:	44%

# of Patients:	293	# of Patients >=21 and <= 64:	248	# of Patients >=40 and <= 69:	160
----------------	-----	-------------------------------	-----	-------------------------------	-----

DOB = Date of Birth	Med Rec = Medication Reconciliation	Smok Date = Smoking Status Date	Smok Stat = Smoking Status	Smok Cess = Cessation Education
Depr Screen = Depression Screen	Depr Plan = Depression Advice/Plan	BMI Adv = BMI Advice	LDL Date = LDL Test Date	LDL Res = LDL Test Result
Pap Date = Pap Smear Test Date	Colon Ref = Colonoscopy Referral Date	Colon Comp = Date of Colonoscopy	Mammo Ref = Mammo Referral Date	Mammo Comp = Date of Mammo

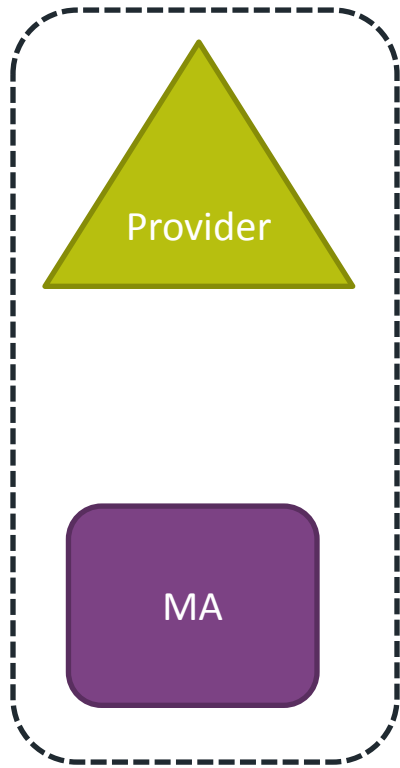
Metric of the Month Graph

Trending – Diabetic Quality Measures

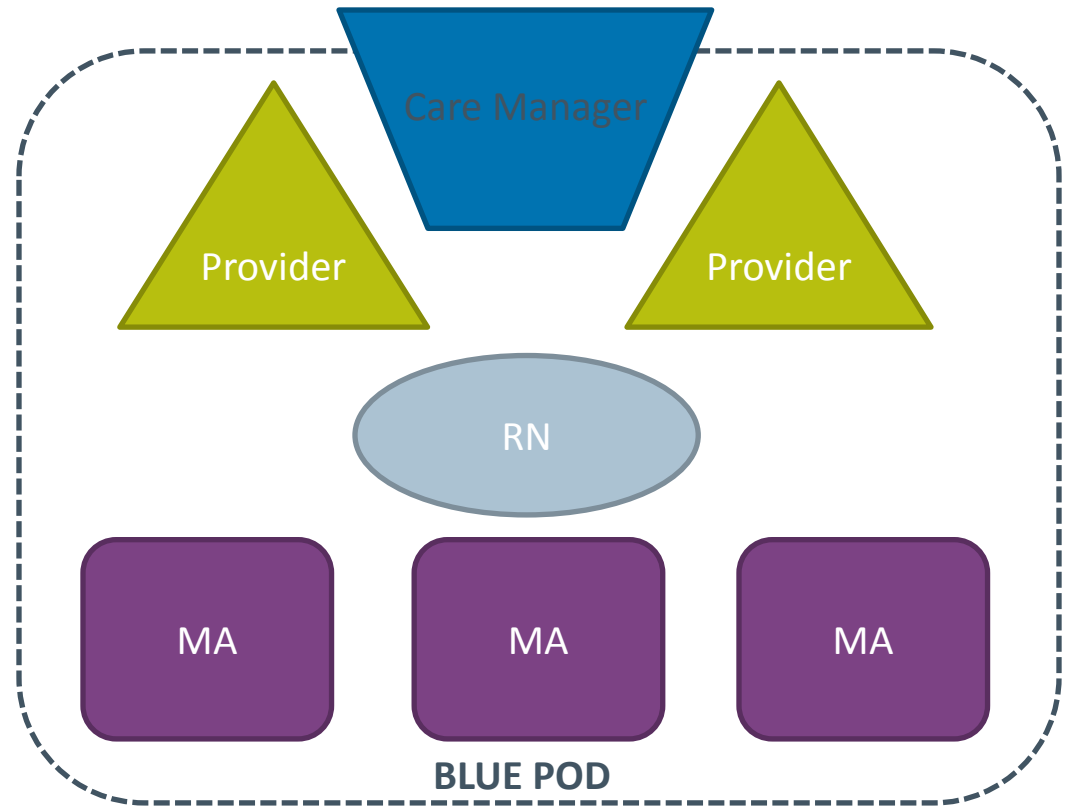


Care Team Re-Design

Original Model



Pilot Model

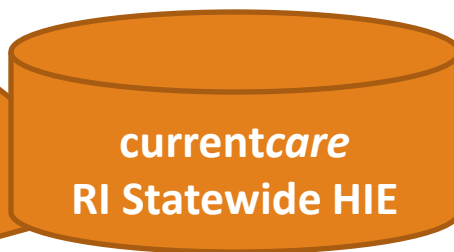


Data Capture 2.0

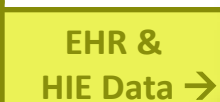
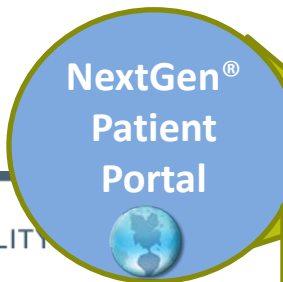
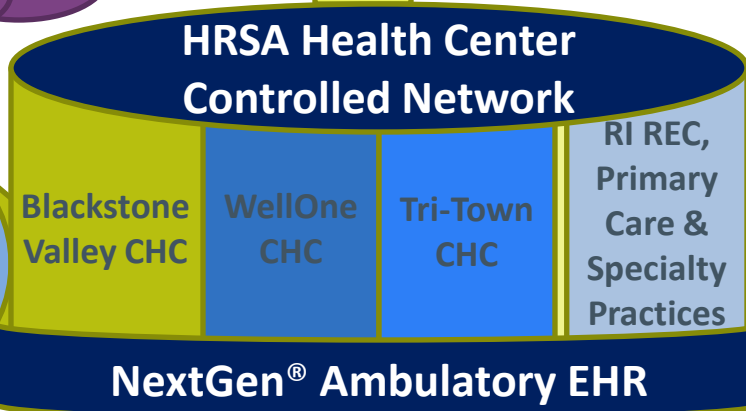
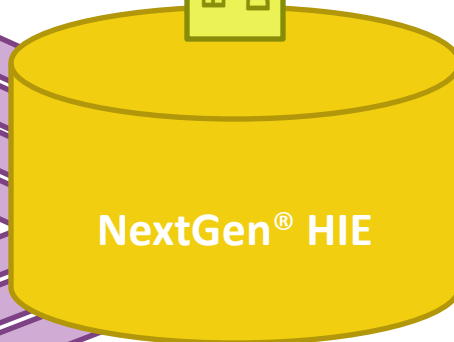
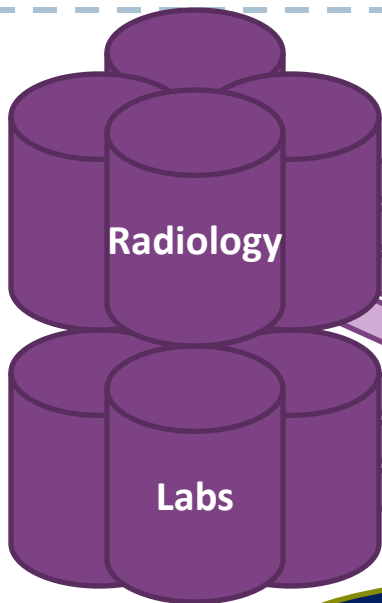
- Interoperability with Statewide HIEs
- Community / Population Reporting and Benchmarking
- Integrating Hospital and Claims Data

Incorporating REC, Beacon and State Infrastructure

RI Beacon
Community
& Statewide
HIE



Blackstone Valley Network



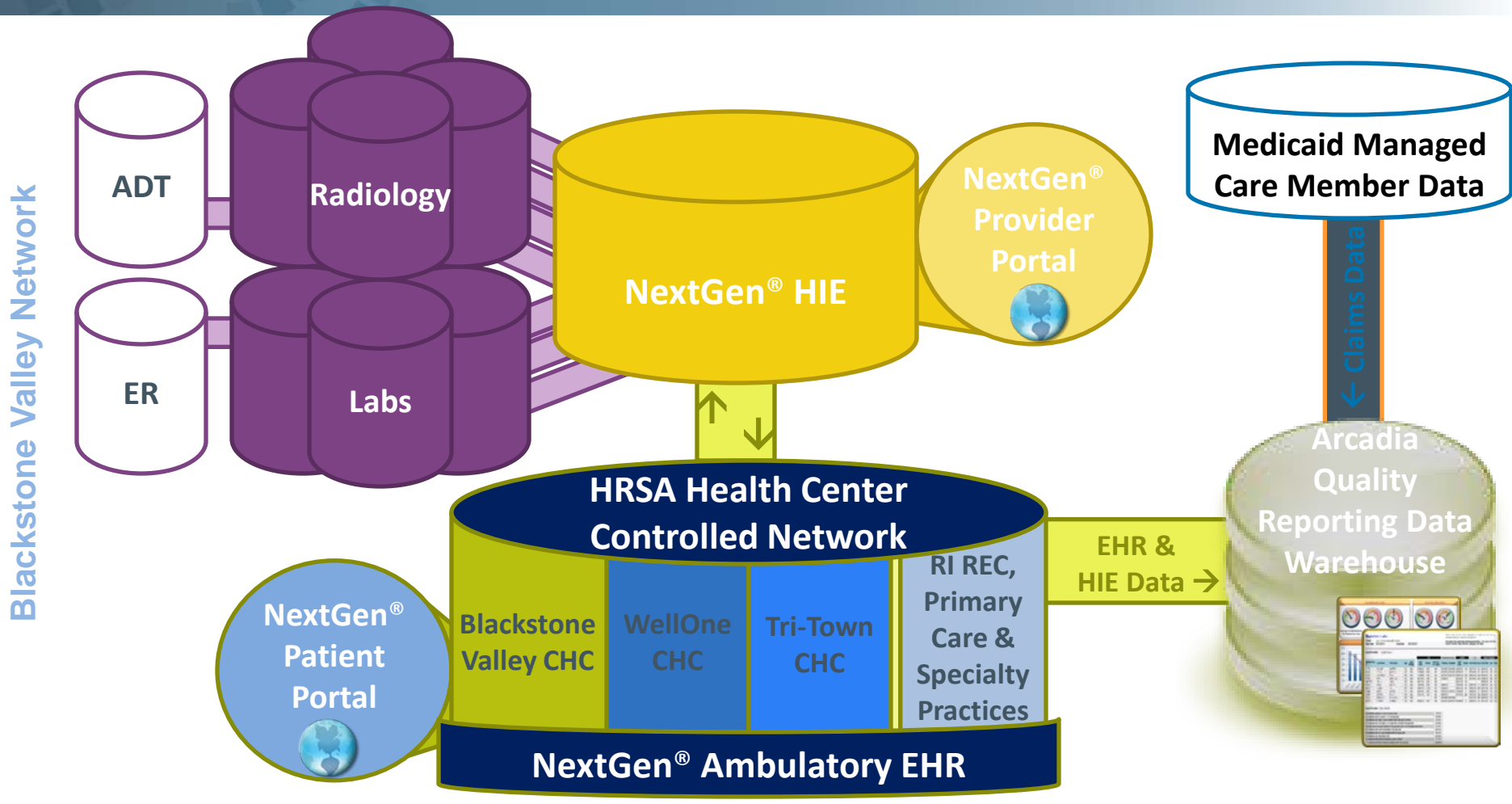
Health Information Exchange in the Rhode Island Beacon Community

- Goals:
 - **Interoperability:** Exchange patient data to **improve care coordination across multiple providers**
 - **Aggregate data** across platforms and practices
 - **Report** on population health and quality to **drive performance** improvement **across the community**

- Approach:
 - **Automate** (trigger on lock of visit)
 - **Standardize** (CCD standard)
 - **Simplify Transport** (Direct protocol)



Integrating Hospital and Claims Data



Benefits of Hospital and Claims Integration

- **Non-Ambulatory Encounters**
 - » Awareness of non-ambulatory encounters, discharge summaries, can help reduce ER usage and re-admission rates.
- **Summary Cost**
 - » Leverage this measure to target high-risk/cost utilizers to assign them a care manager.
- **Risk Scoring**
 - » Proactively engaging high risk members in the medical home model can result in immediate savings.



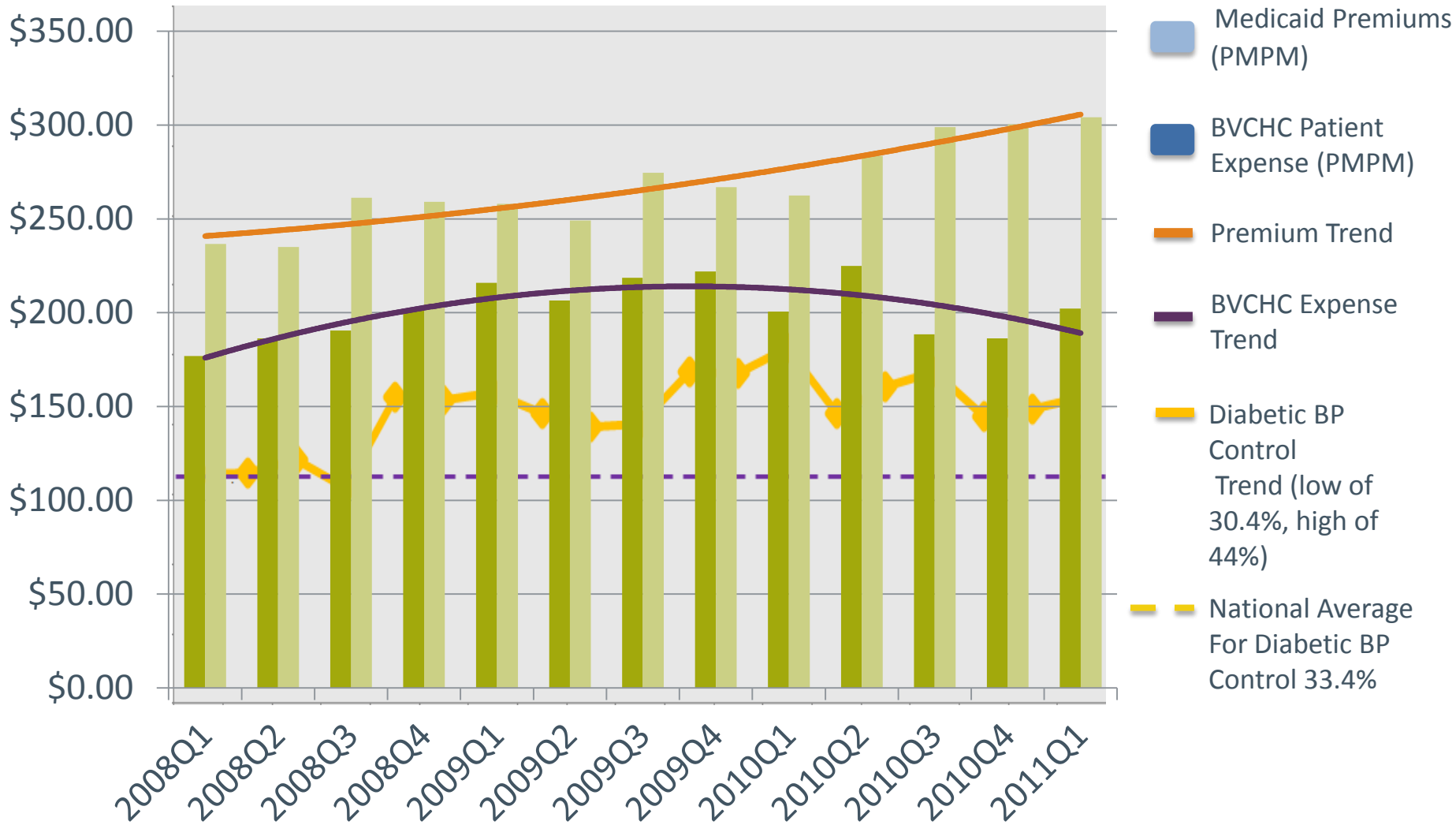
The Intersection of Cost and Quality

Managing quality without cost or cost without quality, will not deliver the reform we need in healthcare delivery.

The two must be evaluated together.



BVCHC's Total Cost and Quality Accountability



Contact Information

Heather Budd

Chief Operating Officer

hbudd@bvchc.org

401-312-9879

April 26th In-Person Collaborative Meeting

Best Practices for eMeasure Implementation

Questions for the Collaborative to Answer

- 1. *What are best practices examples*** related to the development and implementation of eMeasures?
 - Processes / Workflow with Existing Products
 - Code Systems (structured data)
 - Culture

April 26th In-Person Collaborative Meeting

Best Practices for eMeasure Implementation

Questions for the Collaborative to Answer

2. *What are the mechanisms to enhance data and workflow capability?*

Workflow

- How can understanding the data workflow enhance standards and define expectations for EHRs and other clinical applications?
- What clinical workflow challenges exist with existing products (hospital and/or ambulatory)? What are the recommendations ?
- Are there workflow or staffing issues that constrain implementation?

April 26th In-Person Collaborative Meeting

Best Practices for eMeasure Implementation

Questions for the Collaborative to Answer

2. *What are the mechanisms to enhance data and workflow capability?*

Data

- What are the challenges in using current code systems to express information required by eMeasures? What are the recommendations?
- What techniques are used to address unstructured data?

April 26th In-Person Collaborative Meeting

Best Practices for eMeasure Implementation

Questions for the Collaborative to Answer

3. ***What are the recommendations*** for future use of health IT and standards to enable performance measurement?
 - What concepts are needed to address requirements for future measurement and how do they align with other secondary use data analysis needs?
 - What innovative techniques are needed to capture structured data (or map unstructured data) and manage clinical workflow to enable performance reporting as a byproduct of care delivery?

Innovative Practices Discussion

- Is a best practice demonstrated in this case?
- What alternative techniques to manage data for secondary use, including quality measurement, were utilized?
- What strengths and opportunities are presented?
- How could these innovative techniques be deployed for general use?
- What recommendations would you make to evaluate performance with respect to readiness for these techniques?

Is there a role for innovative techniques for eMeasure implementation in today's hospital and ambulatory / small practice environments?

- Identify requirements for readiness for innovative techniques to be used in large scale implementations.
- Identify factors (or metrics) that will engender trust of data managed by innovative techniques.
- Identify criteria to evaluate improvements in both structured and unstructured data that innovative techniques can provide.
- Identify benefits for innovative techniques with respect to clinical workflow (including clinical decision support) and workforce constraints.

What opportunities come out of our present state of eMeasure readiness?

What recommendations would you make for future use of health IT and standards to enable | performance measurement?

- What concepts are needed to address requirements for future measurement?
- What innovative techniques are needed to capture structured data and manage clinical workflow to enable performance reporting as a byproduct of care delivery?
- What are the methods for MU Stage 2?

How can we rethink what we are looking for?

- What are some innovative ideas for the future?

Summary of key discussion points

Issues

- Workflow defect- problem list
- Don't have all data in EHR
- Payor/provider data merg
- Realization of how bad claims data is
 - » Provider to coder to payor
- Data compatibility
- Chart Review
- HIE
- How do you get understanding of data

Issues, cont'd

- Problem list- use and maintenance
- Behavioral health
- Understand the systems we're deriving data from
- Usability
- IT is often absent from these conversations
- Knowledge library for Value Sets

Solutions

- Train physicians on how to use EMR
- Identify and monopolize on high level data
- Expectations, common model (QDM)
- QMs need to be shareable and understandable by everyone
- eMeasures need to be designed to be fluid
- Needs simplicity
- Use understanding of data to move toward eMeasures (analysis to solution)
- Plug and play
- Multidisciplinary approach to eMeasure Development
 - » Have NQF support a workgroup on how to do this
- NLP

Best Practices

- MD-specific report cards
- Give providers access to their own data
- Professional society measurement of performance
- Benchmarking and sharing data
- Define measures of usability
- Plug and play CDA for every new rule

Innovative Examples

- All EMR vendors & measure developers have eMeasure Collaborative to come up with common data dictionary
- QDM as the common ontology for EHR, QDM, workflow
- Vendors have standardized area dedicated to QMs
- Registry-based reporting that is broader than speciality-specific
- Statutory requirements to require EHR vendors to standardize
- Integrate Population management and case management into EHR

Innovative examples, cont'd

- HIEs collect and report 1 measure per highest cost condition (standard opt-out)
- Vendors need single source of truth library
- Common interface devices to the EHR
- Patient-centered input
- Align quality data that will travel with the patient

High Level Innovative Concepts

- Unique personal health identifier
- Transparency of provider performance on QMs
- Knowledge library (including harmonization of existing measures) accessible at point of care
- Align with clinical decision support
- QDM as common ontology+
- Measures of patient goals and participation in care
- Standardization across EHR vendors- plug n play
- Capturing of QM should be incidental to care, not the goal
- Sustainable business model of HIT for measure developers (payors, providers, professional organizations, patient advocacy groups)
- Focus on value equation (decrease cost, increase quality)
- Make doing things right easy
- Be mindful of personal preferences and privacy
- Standardized Quality Reporting
- Transparency of Value Equation components
- Provide tools to help EHR vendors understand QMs