The Role of Health Information Exchange (HIE) in Helping Providers Assess Their Performance on the AQA Starter Set

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Speakers:

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The Role of HIE in Helping Providers Assess Their Performance on the AQA Starter Set

Thomas Fritz, CEO

Inland Northwest Health Services

Ambulatory care Quality Alliance (AQA) Starter Set Overview

- A proposed starter set of measures for ambulatory care
- Clinical importance and scientific validity
- Feasibility
- Relevance to physician performance
- Care is delivered electronically as well as in person
- Consumer and purchaser relevance
- Addressed the Institute of Medicine's priority areas

AQA Starter Set

- Prevention measures
- Coronary artery disease
- Heart failure
- Diabetes
- Asthma
- Depression
- Prenatal care
- Overuse or misuse of services

Consistent with the National Vision for Health Care

- Fewer medical errors
- Less variation in care
- Consumer-centric care
- Medical information moves with consumers
- Care is delivered electronically as well as in person
- Medical records are protected from unauthorized access
- Clinicians can spend more time on patient care

National Strategic Framework

- Goal 1 – Inform Clinical Practice
- Goal 2 – Interconnect Clinicians
- Goal 3 – Personalize Care
- Goal 4 – Improve population health

Realities for many patients/consumers

- Expect and believe that practitioners are appropriately sharing clinically appropriate information to take care of them
- Believe that practitioners keep all clinical records in a computer-based system
- Have a high level of trust with doctors and hospitals managing their data

The Role of HIE in preparation of implementing the AQA Starter Set

- Clinical Performance Measures for Ambulatory Care is a significant undertaking
- Health Information technology can enable clinical performance measurement
- Development of HIEs has created the foundation and building blocks for clinical performance measures

National Strategic Framework

- Physician office adoption is the Achilles heel of the ambulatory care system in collecting accurate, comparable, and comprehensive data
- Due to our community-wide efforts we have been able to raise physician office EMR adoption to 40%
- We have been a partner with one of our hospitals and AHRQ to study the ROI for physician office EMR
- We are also working with our state-wide critical access hospitals and AHRQ on developing appropriate performance measures unique to Critical Access Hospitals (CAHs)

RURAL HEALTH INFORMATION TECHNOLOGY (RHIT) AHRQ GRANT

- Performance Indicators:
  - Acute Myocardial Infarction
    - Aspirin at arrival
    - Beta blocker at arrival or during ER stay
    - EKG at arrival
    - Collection of cardiac enzymes during ER admission
    - Median time to thrombolysis
    - Thrombolytic agent received within 30 minutes of arrival in the ER
    - Date and time patient was transferred to facility providing a higher level of care

I N H S
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RURAL HEALTH INFORMATION TECHNOLOGY (RHIT) AHRQ GRANT

- Performance Indicators:
  - Community-Acquired Pneumonia
    - Initial antibiotic receiving within 4 hours of hospital arrival
    - Antibiotic timing (median)
    - Initial antibiotic selection for non-ICU community-acquired pneumonia in immunocompetent patients
    - Oxygenation assessment
    - Influenza vaccination
    - Pneumococcal vaccination
    - Adult smoking cessation advice/counseling

I N H S
INLAND NORTHWEST HEALTH SERVICES

RURAL HEALTH INFORMATION TECHNOLOGY (RHIT) AHRQ GRANT

- Performance Indicators:
  - Heart Failure
    - Discharge instructions
    - Evaluation of left ventricular systolic (LVS) function
    - Angiogenesis converting enzyme inhibitor (ACEI) or angiotensin receptor blocker (ARB) for left ventricular systolic dysfunction
    - Adult smoking cessation advice/counseling

RURAL HEALTHCARE QUALITY NETWORK DATA COLLECTION OPTIONS

- Existing Customer Network
  - UB92 billing data – patient-level demographic data
  - Abstracting module – hospitals enter patient-level data required for the performance measures
- INHS Performance Measurement System Web Site
  - Non-system hospitals enter patient-level demographic and clinical data via secured web site

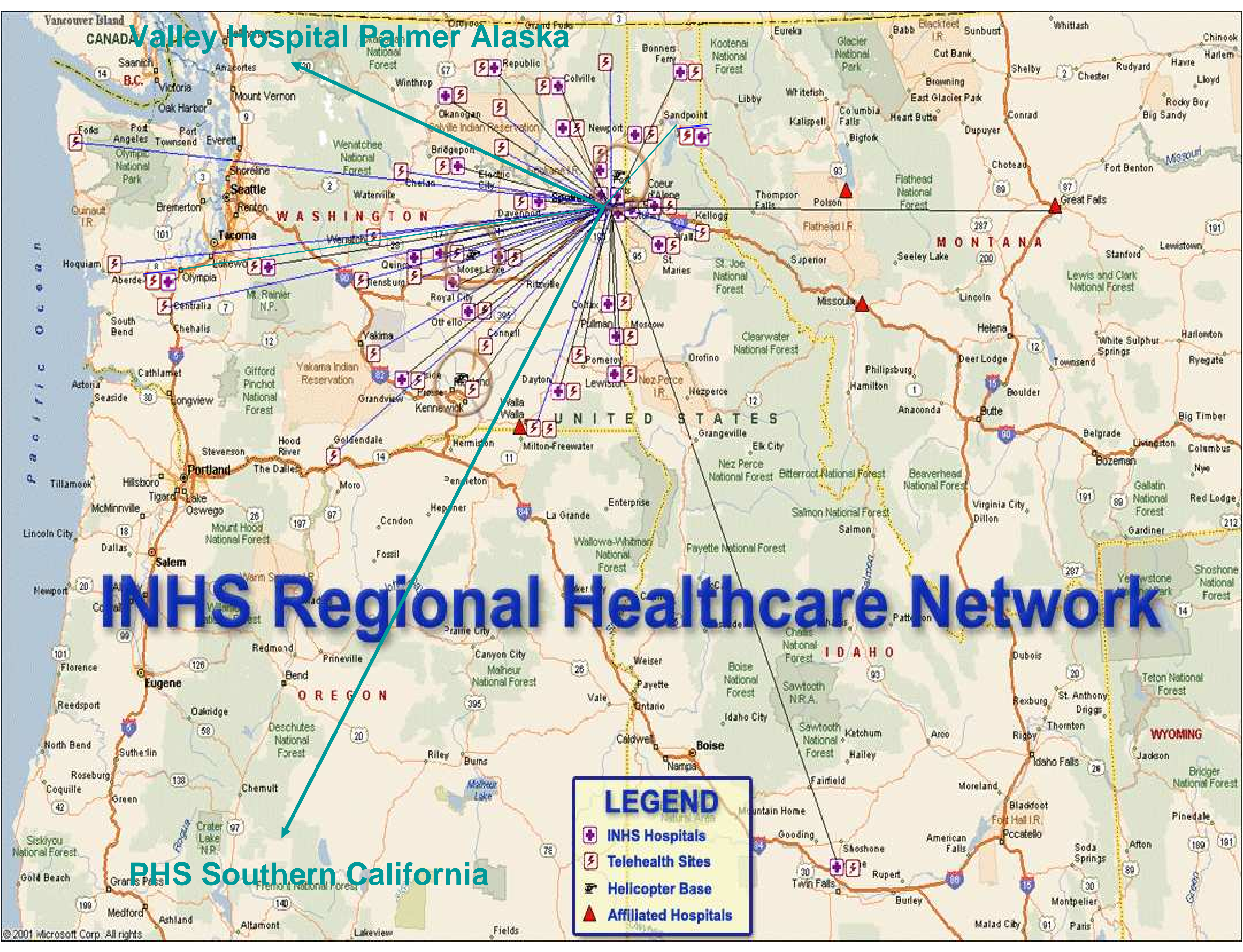
Physicians Clinic of Spokane

- 18 physicians; implemented EMR in 1999
- Results
  - Costs for transcription services reduced by more than 80% within two years (from $330,058 per year to $56,465)
  - Reduced number of FTEs in laboratory from 13.52 to 9.12, with a 25% increase in lab orders
  - Communication between providers and support staff improved dramatically

Inland Northwest Health Services

INHS is a not-for-profit 501(c)3 corporation, owned by the hospitals in Spokane and serving residents of WA, ID, CA, MT, OR, AK and Canada. We started with our own hospitals and today have:

- 38 hospitals, with over 4400 beds, participating in the integrated information system sharing a single client identifier
- More than 50 clinics and 400 physician offices (6,500+ physicians) able to view hospital, laboratory and imaging data
- More than 1,000 physicians accessing patient records wirelessly in hospitals via personal digital assistants (PDA's)
- Fairchild Air Force Base and the Spokane Veterans Hospital
- 76 hospitals, clinics and public health agencies connected to the INHS telehealth network providing 100's of clinical and educational programs



Valley Hospital Palmer Alaska
INHS Regional Healthcare Network
PHS Southern California
LEGEND
INHS Hospitals
Telehealth Sites
Helicopter Base
Affiliated Hospitals
WASHINGTON
OREGON
IDAHO
MONTANA
WYOMING
UNITED STATES
CANADA
Pacific Ocean
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Physician EMR Views per Month

PATIENT VIEW EPISODES per Month:
INHS/Meditech PCI

Physicians — Office Staff

EMR Views per Month
Office Staff = 36,000
Physicians = 60,000

# of Views: 0, 5,000, 10,000, 15,000, 20,000, 25,000, 30,000, 35,000, 40,000, 45,000, 50,000, 55,000, 60,000, 65,000

Year, Month: 1999,01 1999,04 1999,07 1999,10 2000,01 2000,04 2000,07 2000,10 2001,01 2001,04 2001,07 2001,10 2002,01 2002,04 2002,07 2002,10 2003,01 2003,04 2003,07 2003,10 2004,01 2004,04 2004,07 2004,10 2005,01 2005,04 2005,07 2005,10

Inland Northwest Health Services

Strategic Focus Areas

1. Community electronic medical record – single client identifier (MPI), structured & formatted data, standardized
2. Physician system adoption and usage
3. Patient safety, public health
4. Operational efficiency
5. Computerized physician order entry
6. Evidence based medicine adoption and acceptance
7. Decision support systems

Critical Success Factors of the INHS Model

1. Hospitals as “anchor tenants”; leverage assets & infrastructure, create momentum, provide leadership
2. Share clinical data for the benefit of the patient
3. The business model is a self sustaining, efficiency based model that provides value added services
4. INHS has become the trusted third party; managing shared assets, shared data, data security and provides the shared vision and leadership
5. The INHS system has evolved due to regional accountability involving the entire healthcare community including physicians, clinicians, and consumers

INHS
INLAND NORTHWEST HEALTH SERVICES

Results of Community Leadership

- Physician buy-in and dependence on real-time availability of complete clinical results/wireless
- 40% adoption rate of EMR
- Strengthens community protection role of our hospital mission i.e. disease surveillance
- Operational efficiencies through real-time data management and dashboards
- Efficient self-sustained business model

Community Systems for Emergency Services

R A M S E S :: Status - Microsoft Internet Explorer

Address: https://ramses.inhs.org/demo/main.php

Update Required **Deaconess (II) (IIP)** Open For All Services	Update Required **Deer Park (IV)** Open For All Services	Update Required **Holy Family (III)** Open For All Services ICU\CICU	Update Required **Sacred Heart (II) (IIP)** On Trauma ICU\CICU Med/Surg
Update Required **Valley Hospital (III)** ICU\CICU Telemetry\ACU	**Veterans Hospital** Open For Non-Emergent Services Emergency Dept ICU\CICU Operating Room Telemetry\ACU Equipment Status	Update Required **AMR Dispatch** Available For Transport - 10/31/2003	Update Required **Northwest MedStar** Available For Transport - 10/31/2003
Update Required **CCC** All Communications Operational - 10/31/2003	Update Required **DEM** Prepare because you care!!! National Threat Level Local Threat Level	Update Required **SRHD** Thursday, 30 October 2003 CDC's Fire Safety - Emergency Preparedness	Update Required **EMS Council** Udate Daily, Please.

2.

Data

1.

3.

4.

Sweep databases

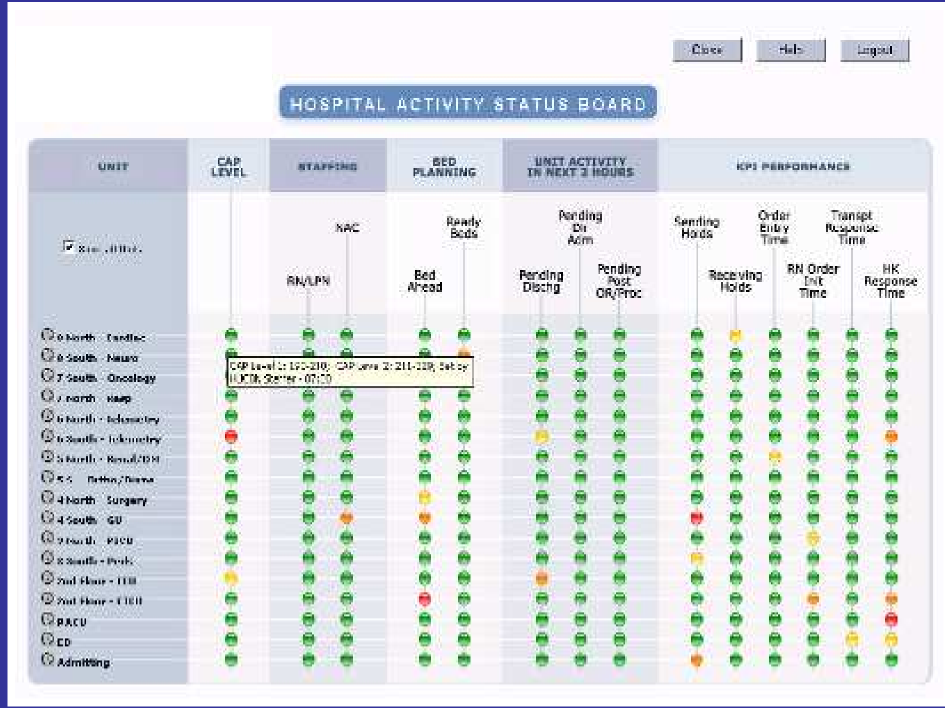
5.

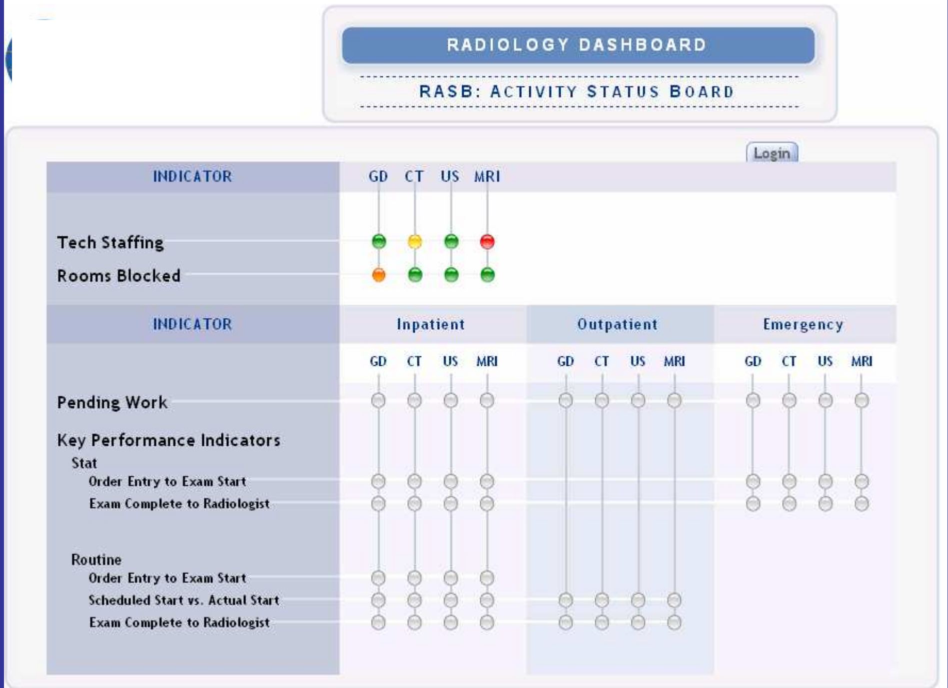
View on the Web

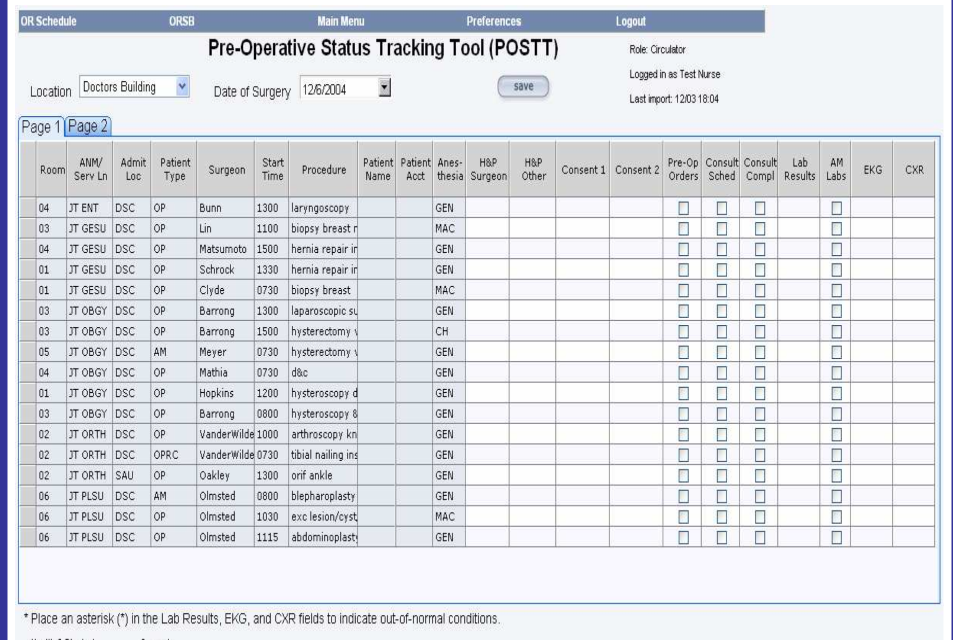
Influenza Virus Counts by LOINC

Inland Northwest Health Services

1. Patient Lab work is drawn either at a local hospital, or at a physician's office
2. Lab results are available in INHS system – including 26 hospitals, 250 Physician offices, PAML and Quest outpatient Reference Lab patients
3. Continuous sweep of facility databases for data
4. Lab tests indexed by LOINC codes available to be fed into CDC algorithm
5. Graphic results available by Web View






OR Schedule | ORSB | Main Menu | Preferences | Logout

Pre-Operative Status Tracking Tool (POSTT)

Role: Circulator
Logged in as Test Nurse
Last import: 12/03 18:04

Location: Doctors Building Date of Surgery: 12/6/2004 save

Page 1 | Page 2

Room	ANM/ Serv Ln	Admit Loc	Patient Type	Surgeon	Start Time	Procedure	Patient Name	Patient Acct	Anes-thesia	H&P Surgeon	H&P Other	Consent 1	Consent 2	Pre-Op Orders	Consult Sched	Consult Compl	Lab Results	AM Labs	EKG	CXR
04	JT ENT	DSC	OP	Bunn	1300	laryngoscopy			GEN					☐	☐	☐		☐		
03	JT GESU	DSC	OP	Lin	1100	biopsy breast r			MAC					☐	☐	☐		☐		
04	JT GESU	DSC	OP	Matsumoto	1500	hernia repair ir			GEN					☐	☐	☐		☐		
01	JT GESU	DSC	OP	Schrock	1330	hernia repair ir			GEN					☐	☐	☐		☐		
01	JT GESU	DSC	OP	Clyde	0730	biopsy breast			MAC					☐	☐	☐		☐		
03	JT OBGY	DSC	OP	Barrong	1300	laparoscopic su			GEN					☐	☐	☐		☐		
03	JT OBGY	DSC	OP	Barrong	1500	hysterectomy v			CH					☐	☐	☐		☐		
05	JT OBGY	DSC	AM	Meyer	0730	hysterectomy v			GEN					☐	☐	☐		☐		
04	JT OBGY	DSC	OP	Mathia	0730	d&c			GEN					☐	☐	☐		☐		
01	JT OBGY	DSC	OP	Hopkins	1200	hysteroscopy d			GEN					☐	☐	☐		☐		
03	JT OBGY	DSC	OP	Barrong	0800	hysteroscopy &			GEN					☐	☐	☐		☐		
02	JT ORTH	DSC	OP	VanderWilde	1000	arthroscopy kn			GEN					☐	☐	☐		☐		
02	JT ORTH	DSC	OPRC	VanderWilde	0730	tibial nailing ins			GEN					☐	☐	☐		☐		
02	JT ORTH	SAU	OP	Oakley	1300	orif ankle			GEN					☐	☐	☐		☐		
06	JT PLSU	DSC	AM	Olmsted	0800	blepharoplasty			GEN					☐	☐	☐		☐		
06	JT PLSU	DSC	OP	Olmsted	1030	exc lesion/cyst			MAC					☐	☐	☐		☐		
06	JT PLSU	DSC	OP	Olmsted	1115	abdominoplasty			GEN					☐	☐	☐		☐		

* Place an asterisk (*) in the Lab Results, EKG, and CXR fields to indicate out-of-normal conditions.

Health & Physical
C — H&P Current
NC — H&P Not Current
NA — H&P Not Available

Consent
C — Complete
I — Incomplete

CSST Action Plan View

Go to Unit List

Unit: 4N

Week of Week of 10/10	Score	Target	Action Plans
Staff addressed emotional needs	67.9000	86.5000	Review scripts at four change of shifts during the week Post scripts for viewing on bulletin board Conduct manager walks on these items
Staff sensitivity to inconvenience	71.9000	87.8000	
Nurses kept you informed	81.3000	89.1000	
Overall	82.9000	87.40	

Week of Week of 10/3	Score	Target	Action Plans
Response concerns/complaints	80.4000	87.3000	Review scripts at four change of shifts during the week Post scripts for viewing on bulletin board Conduct manager walks on these items
Staff sensitivity to inconvenience	85.0000	87.8000	
Staff addressed emotional needs	84.8000	86.5000	
Overall	83.3000	87.40	

Reported Med Error Rate

Rate

2001 2002 2003 2004 05

SHMC Emergency Room Dashboard

Emergency Room Visits vs. Emergency Room Admissions

Target: 3,640 Visits per Month

Month	Number of ER Visits	Previous Year Visits	Number of ER Admissions	Previous Year Admits
July 04	3,952		740	
Aug 04	4,135		773	
Sept 04	4,093		795	
Oct 04	[illegible]		785	
Nov 04	[illegible]		789	
Dec 04	[illegible]		823	
Jan 05	[illegible]	3,767	959	817
Feb 05	4,589	[illegible]	956	700
Mar 05	[illegible]	[illegible]	1,010	834
April 05	[illegible]	3,917	883	742
May 05	5,141	4,116	992	801
June 05	4,817	3,845	909	758

Number of ER Visits (left axis, 0–6,000); Number of ER Admissions (right axis, 0–1,200)

2003 31 days of Diversion

2004 14 hours

Patient ED wait times 3+ hours to >30 minutes

Information for Decision-Making
Center of Occupational Health and Education

Demonstrated a 75% decrease, from 1.29 to 0.31, in time loss days per claim for patients of physicians enrolled in the program

1.0:: Virtual Case Manager :: St. Luke's Rehabilitation Institute - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address http://test.vcm.stlukesrehab.org/Main.aspx Go Links

VCM 1.0 Virtual Case Manager

11/7/2006 You are currently logged in as: lenartd LOGOUT

St. Luke's Rehabilitation Institute

Change Date: Today Tomorrow 11/7/2006 GO

Help Questions Report a problem

Schedule Reports Insurance | Patient Resource | All Inpatient Outpatient

Schedule - Inpatients

All

Patient	Status	10:00am	10:30am	11:00am	11:30am	12:00pm	12:30pm	1:00pm	1:3	RN	NAC
JB		...	...	...	PAIN	...	MEET	...		unassigned	unassigned
RH		PAIN	...	PAIN	PAIN	MEET	MEET	PAIN	P	unassigned	unassigned
CK		PAIN	PAIN	...	...	PAIN	...	...		unassigned	unassigned
MS		...	...	PAIN	PAIN	...	...	...	P	unassigned	unassigned
AH		PAIN	PAIN	...	...	...	...	PAIN		unassigned	unassigned
PT		...	PAIN	PAIN			...	...		unassigned	unassigned
CM		...	...	PAIN			...	...	P	unassigned	unassigned
GY		...	MEET	MEET			...	...		unassigned	unassigned
DS		PAIN	PAIN	...			...	...	P	unassigned	unassigned
SJ		...	...	PAIN			...	...		unassigned	unassigned
VB		...	MEET	MEET	...	...	...	...		unassigned	unassigned
AK		MEET	...	...	...	...	...	...		unassigned	unassigned
JK		...	PAIN	PAIN	...	...	...	PAIN		unassigned	unassigned
BP		MEET	MEET	MEET	...	...	...	...	P	unassigned	unassigned
CH		...	PAIN	...	...	...	...	...	M	unassigned	unassigned
MH		MEET	MEET	MEET						unassigned	unassigned

Status: BOOK
Patient:
Therapy: Wound Care Tx - OT
Resource: Star T, OT
Start Time: 11:00 AM
Duration: 30 minutes

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Clinical Example

- Rural hospital Rapid Response Teams tied into our trauma and air ambulance system
- Time of arrival to Lincoln ED: **1036**
- Time from arrival in ED to EKG: **1041**
- Time from EKG to Cardiologist called: **1055**
- Time of call to transfer service: **1043**
- Mode of transfer: **Med Star**
- Transfer team arrival to Lincoln: **Landed 1110**
- Out of door time: **1117**
- Arrival time to SHMC: **1132**
- Admit to: **Cath Lab 1137** ER____ CICU____
- Wire Across Lesion/Balloon time: **N/A**
- Was there a delay in transfer (greater then 120 min.) and Retavase or TNK was given: Yes___**No X**
- TOTAL ED DOOR TO BALLOON TIME: __ **61 minutes from Lincoln ED to SHMC Cath lab. Wire across lesion N/A,** (target is less than 120 minutes)

What we have learned

- Creating a sustainable business model:
  - Leverage assets – “Do More With Less” – RHQN, AHRQ, HRSA, Joint Commission ORYX/CMS
  - Provide a “fair”, efficient cost plus model – oppose fees
  - Maximize standardization – basis for savings
  - Assure value-added services – quality reporting
  - Assure quality of services – technology integration
  - Fight for lowest cost from vendors & share savings

What we have learned

- Clinical data needs to be shared and made available electronically to be most useful
- Collaboration in information systems has saved millions of dollars for our community
- A thoughtful strategic vision with the leadership and discipline to complete is essential
- Broad community involvement and support with everyone at the table (hospital, physicians, public health, insurance payers, lab, consumer community outreach)
- Strong technical expertise in a stable IT group

Lessons Learned

- We learned that physician champions were essential for acceptance and adoption
- We learned that we had to demonstrate trust in data management, integrity and security.
- We had to become a “neutral trusted party” for all concerned

The Challenge and Future

- Outpatient providers will need to address process redesign
- We are ready to track physician performance
  - Hospital utilization
  - Hospital procedures
  - Complications and death rates based upon appropriate outpatient care and management
- Ambulatory care focus will lead to the real issue of the full continuum of care
- Value improvements will no longer be discretionary or optional
- Best reward for outpatient clinicians will be more patients to increase the critical mass

THANK YOU!

Thomas Fritz, CEO
fritzt@INHS.Org
www.INHS.Org

MASSACHUSETTS eHEALTH COLLABORATIVE

Mickey Tripathi
President & Chief Executive Officer
Massachusetts eHealth Collaborative (MAeHC)

AGENDA

- MAeHC Background
- MAeHC Quality Measurement Initiatives

MAeHC ROOTS ARE IN MOVEMENT TO IMPROVE QUALITY, SAFETY, EFFICIENCY OF CARE

- Universal adoption of electronic health records
- MA-SAFE

- $50M commitment to heath information infrastructure
- Recognition of "systems" problem

- Company launched September 2004
  - Non-profit registered in the State of Massachusetts
- CEO on board January 2005
- Backed by broad array of 34 MA health care stakeholders

33 ORGANIZATIONS ON MAeHC BOARD

Hospitals and hospital associations

- Baystate Health System
- Beth Israel Deaconess Medical Center
- Boston Medical Center
- Caritas Christi
- Fallon Clinic, Inc.
- Lahey Clinic Medical Center
- Massachusetts Hospital Association
- Massachusetts Council of Community Hospitals
- Partners Healthcare
- Tufts-New England Medical Center
- University of Massachusetts Memorial Medical Center

Governmental agencies

- Executive Office of Health and Human Services

Health plans and payer organizations

- Blue Cross Blue Shield of Massachusetts
- Fallon Community Health Plan
- Harvard Pilgrim Health Care
- Massachusetts Association of Health Plans
- Tufts Associated Health Maintenance Organization

Healthcare purchaser organizations

- Associated Industries of Massachusetts
- Massachusetts Business Roundtable
- Massachusetts Group Insurance Commission

Non-voting members

- Center for Medicare & Medicaid Services

Healthcare professional associations

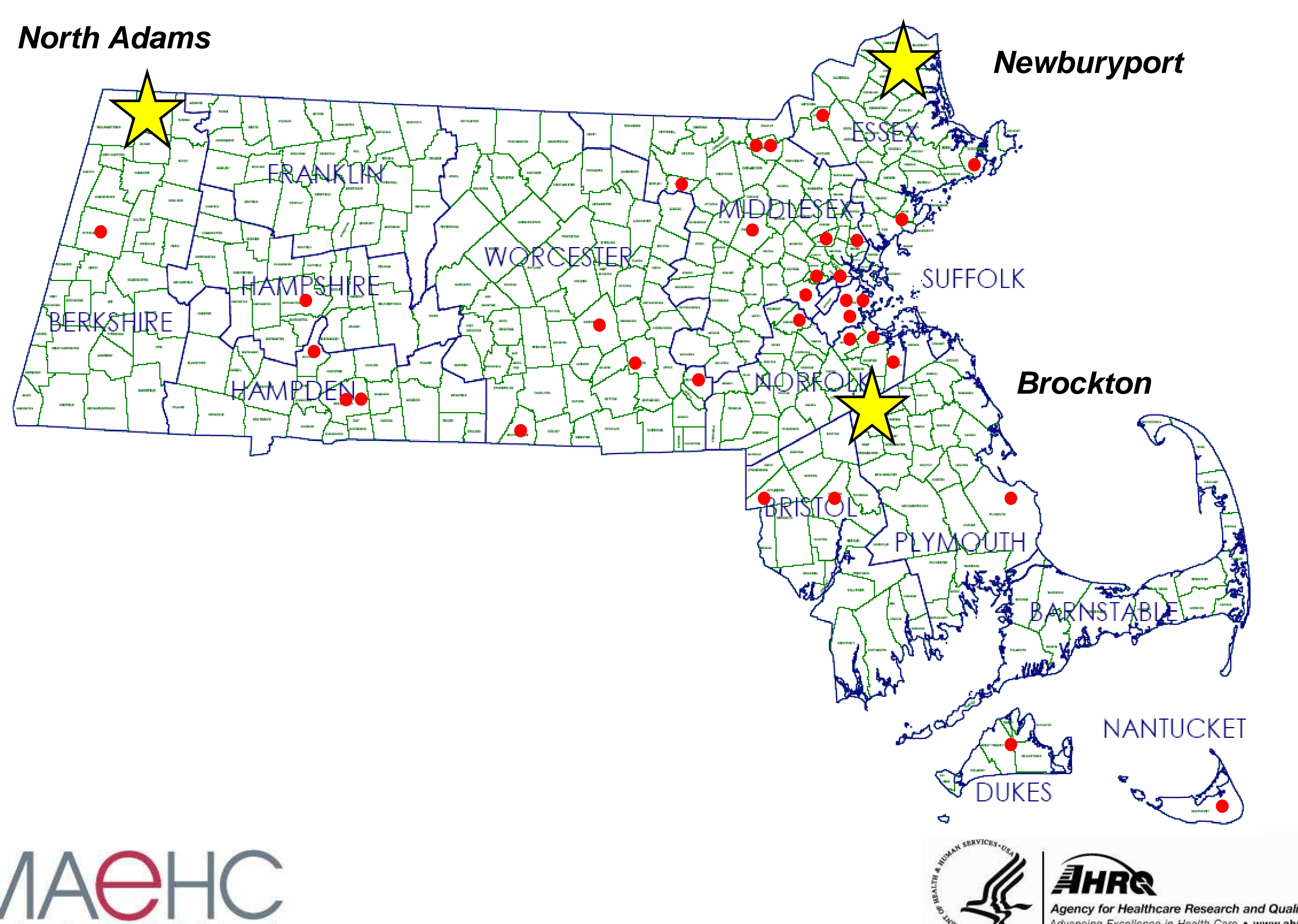
- American College of Physicians
- Massachusetts League of Community Health Centers
- Massachusetts Medical Society
- Massachusetts Nurses Association

Consumer, public interest, and at-large

- Health Care for All
- Massachusetts Coalition for the Prevention of Medical Errors
- Massachusetts Health Data Consortium
- Massachusetts Taxpayers Foundation
- Massachusetts Technology Collaborative
- MassPRO, Inc.
- New England Healthcare Institute
- Massachusetts Health Quality Partners
- Tufts University Medical School
- UMass Medical School

AHRQ
Agency for Healthcare Research and Quality
Advancing Excellence in Health Care • www.ahrq.gov

THREE COMMUNITIES SELECTED FROM 35 APPLICANTS

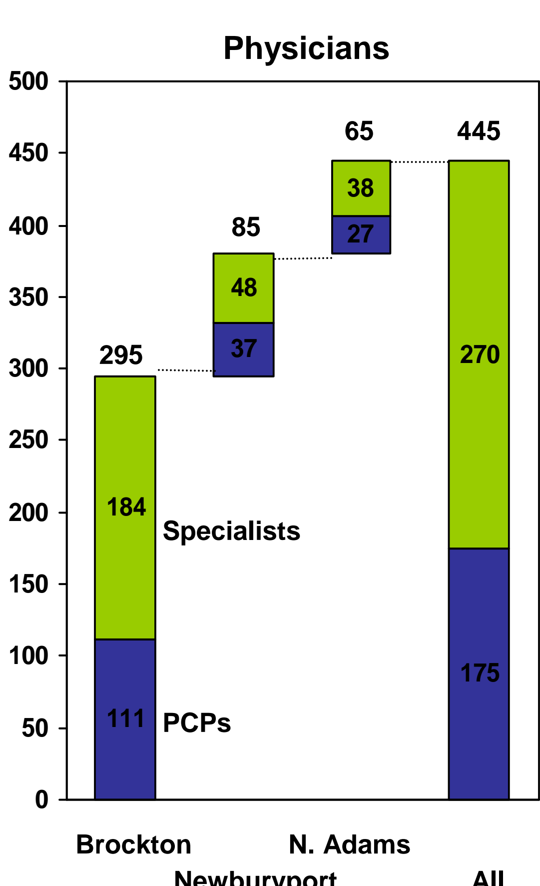


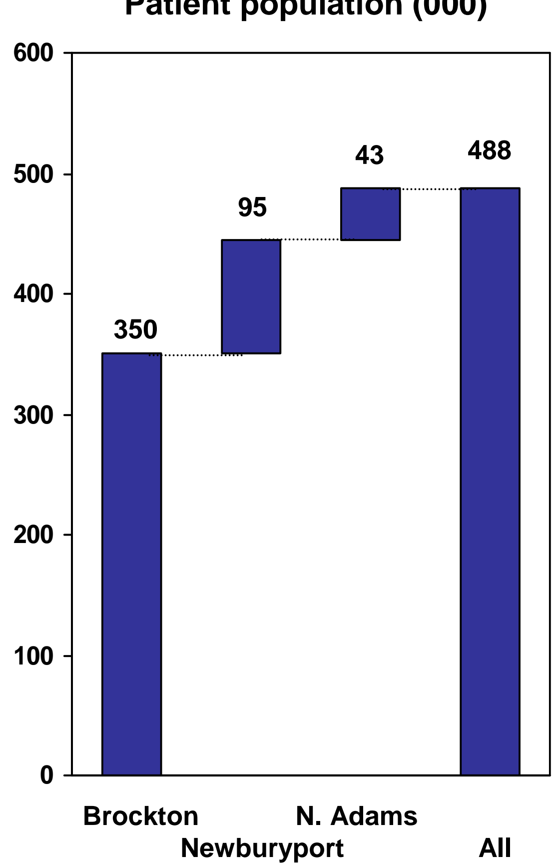
SCOPE OF PILOT PROJECTS

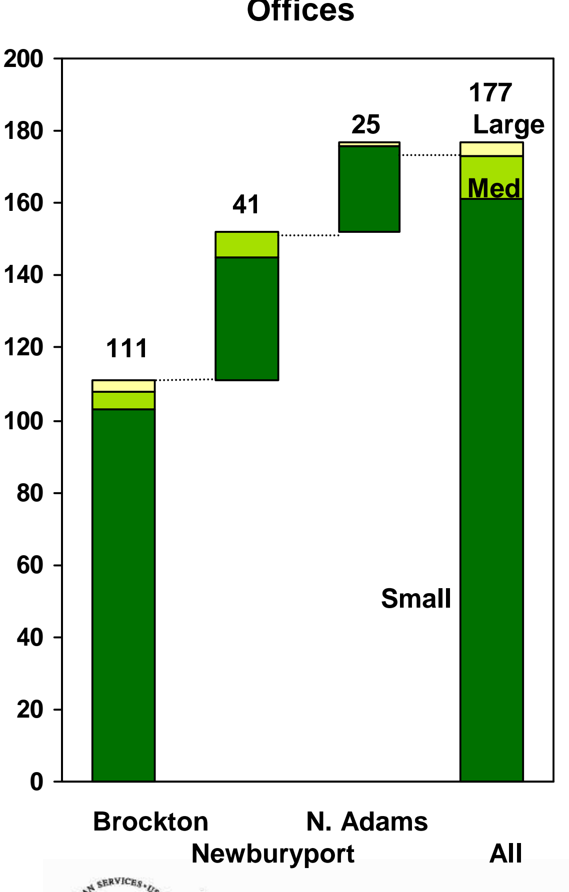
Almost 450 physicians…

…who care for ~500K patients…

…in almost 200 offices.







PILOT PROJECTS HAVE FOUR MAIN PIECES

ICCC

PSC | PSC | PSC

- Quality
- Cost
- Productivity
- Etc.

Intra-community connectivity

Rx

H

Management & coordination
- Joint oversight and decision-making bodies
- Multi-stakeholder governance

Evaluation
- Quality measurement
- Pilot evaluation

Connectivity
- Clinical access to data
- Data gathering and aggregation
- Communication

Clinical IT implementation/ support
- Hardware/software
- Implementation/tech support
- Systems integration
- Workflow redesign
- Decision support

MAeHC PILOT PROJECTS SLATED TO END IN JULY 2008
Pilot Extension To Continue To July 2010

Activities	2004	2005	2006	2007	2008
ACP-MA summit	▲				
MAeHC launch	▲				
Community RFA launch	▲				
Pilot communities announced		▲			
EHR vendor RFP		▲			
EHR vendor finalization		▲			
Physician recruitment					
EHR implementation					
HIE implementation					
Evaluation					
Formal pilot completion					▲

PILOT COMMUNITIES WILL BE THE FIRST IN THE COUNTRY TO BE COMPLETELY "WIRED" FOR HEALTHCARE

Hope, challenges in computerizing medical records

The Boston Globe

North Adams blazes a trail

By Liz Kowalczyk, Globe Staff | January 30, 2007

NORTH ADAMS -- This old textile city is about to become the first in the United States where residents have electronic medical records that in an instant can be viewed by any physician and many nurses in the community, from their offices, the local hospital, or the visiting nurses association.

Ethel Roy, 81, visited earlier this month with Dr. Stephen St. Clair, her urologist, at his office in North Adams. (Stephen Rose for the Boston Globe)

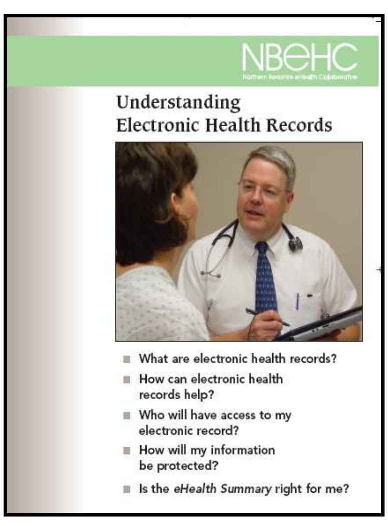
HEALTH INFORMATION EXCHANGE
Northern Berkshire Example

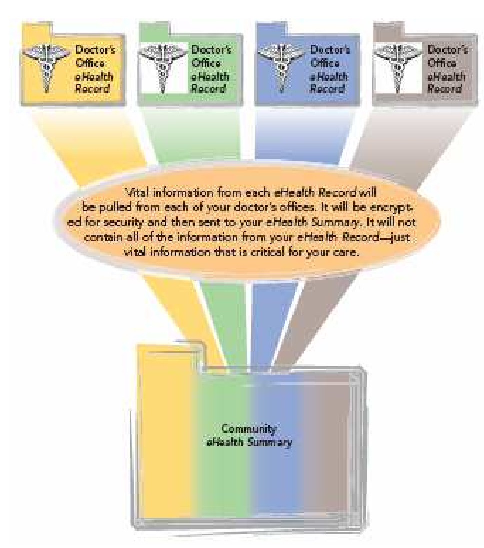
Patient recruitment

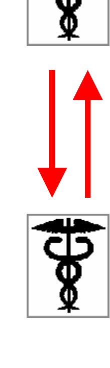
Health data exchange

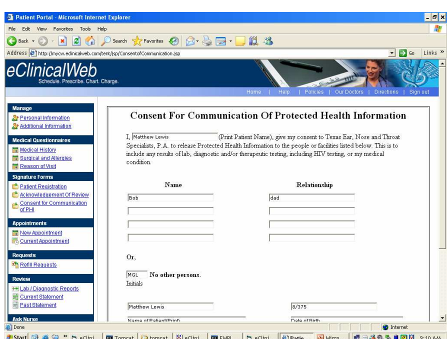
Referrals mgmt

Patient portal







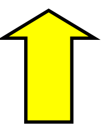


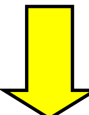
DISTINGUISHING THE OFFICE RECORD FROM THE COMMUNITY RECORD

Vital information from each eHealth Record will be pulled from each of your doctor's offices. It will be encrypted for security and then sent to your eHealth Summary. It will not contain all of the information from your eHealth Record—just vital information that is critical for your care.

<u>Reside only in individual doctor's office record:</u>

- Private Office Notes
- Consultation Letters
- Scanned Reports
- Non-consented items





<u>Also reside in clinical repository – *eHealth Summary*</u>

- Medication List
- Problem List
- Procedures
- Social History (limited)
- Allergies
- Past Medical History
- Family History (limited)
- Lab Results
- Radiology Results
- Immunizations

eClinicalWorks eHX - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://172.16.100.90:8080/mobiledoc/jsp/empi/Patients.jsp?ptSearchFlag=0&tabOnId=1

eClinicalWeb
Schedule. Prescribe. Chart. Charge.

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test, opi

General | eHS | Referrals | Lab Results | Permission

Merged view by: Date from ... to ... Facility All Name Go

Problems

Type	Date	Code	Description	Status	Source

Procedures

Type	Date	Code	Description	Location	Substance	Method	Position	Site	Status	Source
	Service Date: Aug 26, 2006	99391 (CPT-4)	**Well Child to Age 1**						Active	Robert Hertzig
	Service Date: Aug 26, 2006	99391 (CPT-4)	**Well Child to Age 1**						Active	Robert Hertzig

Medications

Medication	Date		Form	Strength	Quantity	SIG	Indications	Instruction	Refills	Source
Advair Diskus	Prescription Date:	Aug 26, 2006	enteric coated tablet	250	60	1 0 mcg-50 mcg inhaled BID		Continue Amox for 2 more days to finish 7 day course as ears look good	0	Robert Hertzig
acetaminophen	Prescription Date:	Aug 26, 2006	enteric coated tablet	160	90	5 0 mg/5 mL orally Q4H		Continue Amox for 2 more days to finish 7 day course as ears look good	0	Robert Hertzig
Adderall XR	Prescription Date:	Aug 26, 2006	enteric coated tablet	15		15 mg orally QAM		Continue Amox for 2 more days to finish 7 day course as ears look good	0	Robert Hertzig

Immunizations

Code	Vaccine	Date	Route	Site	Source

Vital Signs

Vital Sign	Date	Result

AGENDA

- MAeHC Background

- **MAeHC Quality Measurement Initiatives**

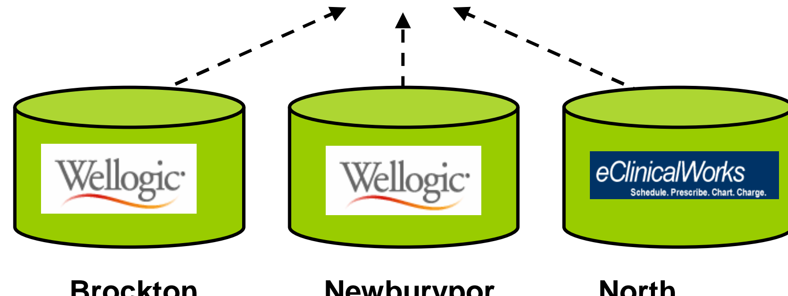
MAeHC QUALITY DATA WAREHOUSE DATA FLOWS

MAeHC-level: Analysis

Outcomes analysis

Benchmarking

MAeHC-level: QDW



Community-level: HIE

Brockton

Newburypor
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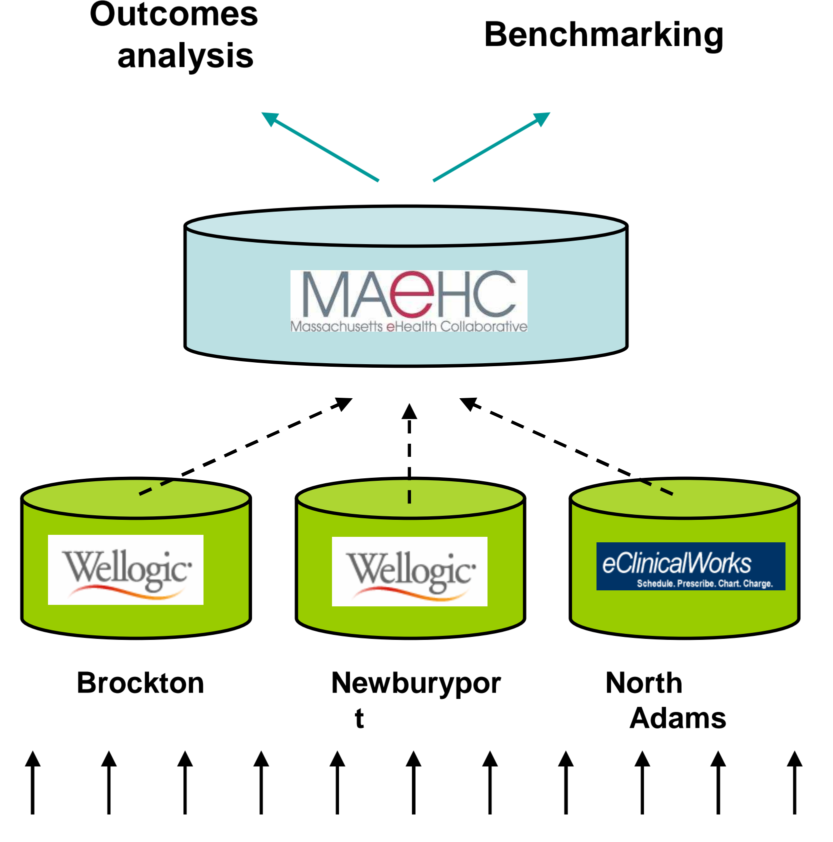
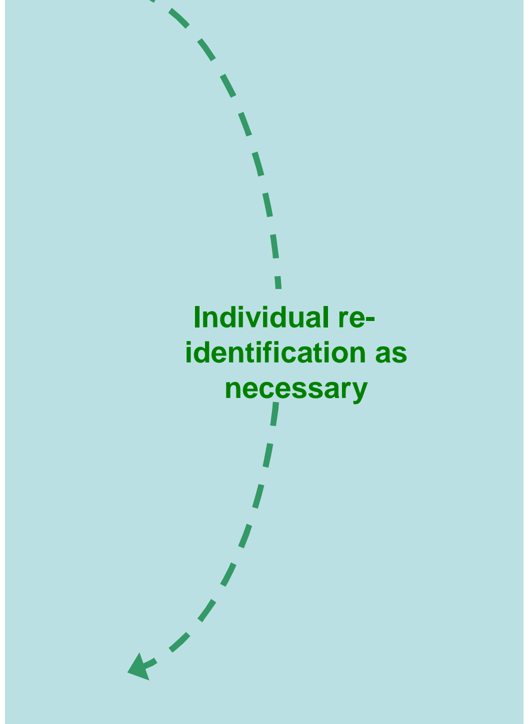
North
Adams

Provider-level: EHR

MAeHC QUALITY DATA WAREHOUSE PRIVACY APPROACH





MAeHC QUALITY DATA WAREHOUSE BENCHMARKING METRICS

Clinical data "superset"

Patient demographics

Medications

Problems

Procedures

Allergies

Lab Results

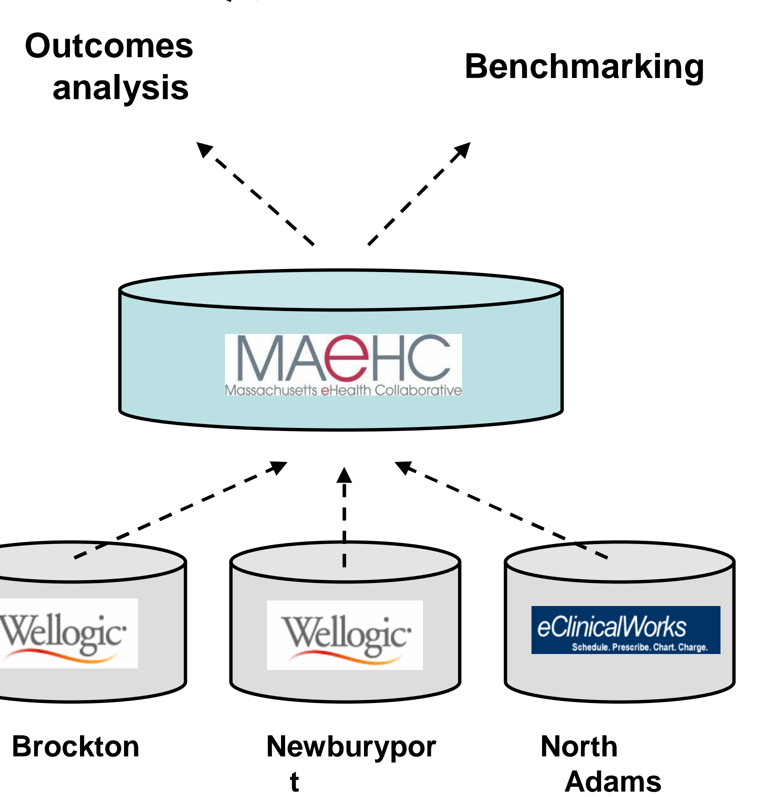
Radiology Results

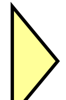
Immunizations

Vitals

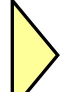
- 1. Breast Cancer Screening
- 2. Colorectal Cancer Screening
- 3. Cervical Cancer Screening
- 4. Tobacco Use #
- 5. Advising Smokers to Quit
- 6. Influenza Vaccination
- 7. Pneumonia Vaccination
- 8. Drug Therapy for Lowering LDL Cholesterol#
- 9. Beta-Blocker Treatment after Heart Attack
- 10. Beta-Blocker Therapy – Post MI
- 11. ACE Inhibitor /ARB Therapy#
- 12. LVF Assessment#
- 13. HbA1C Management
- 14. HbA1C Management Control
- 15. Blood Pressure Management#
- 16. Lipid Measurement
- 17. LDL Cholesterol Level (<130mg/dL)
- 18. Eye Exam
- 19. Use of Appropriate Medications for People w/ Asthma
- 20. Asthma: Pharmacologic Therapy#
- 21. Antidepressant Medication Management 1
- 22. Antidepressant Medication Management 2
- 23. Screening for Human Immunodeficiency Virus#
- 24. Anti-D Immune Globulin#
- 25. Appropriate Treatment for Children with Upper RI
- 26. Appropriate Testing for Children with Pharyngitis

QUALITY DATA WAREHOUSE CHALLENGES



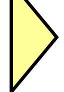


- What type of reporting will be done, and for whom, and by whom, and under what conditions?



- How will the data be stored?
- Where will the data be stored?
- Who will own the data?
- Who will have access, and to what, and how, and under what conditions?

- Can each HIE support the required privacy model?
- Can each HIE support the required extraction frequency?
- Is each HIE extracting the same data sets?
- Is each HIE storing the data consistently?



- Are providers entering the right data?
- Are providers entering it in the right way?
- Are they being comprehensive and consistent?
- How will providers be incented/compelled to use their EHR for quality reporting goals?
- Can we extract all of the data from each vendor, consistently and comprehensively?
- Can each vendor support the required privacy model?

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