

The Office of the National Coordinator for
Health Information Technology



Consumer eHealth: Emphasizing Health and Safety... not just Health *Care*

SINI

2014 Summer Institute in Nursing Informatics

University of Maryland School of Nursing

July 17, 2014

SINI 24th Summer Institute in
Nursing Informatics 

2014

INFORMATICS ENABLING PATIENT-CENTERED
CARE ACROSS THE CONTINUUM

JULY 16-18, 2014

Putting the **I** in Health **IT** 
www.HealthIT.gov

At the completion of the session, the participants will be able to:

1. Describe consumer eHealth
2. Give examples of variations on “health” care: provider based care, new care models, shared decision-making, self-care and well care.
3. List 3 safety reports and why they are important for nurses in all roles, especially informatics and research

Patient Engagement and Activation

Patient engagement

- Actions people take for their health and to benefit from care
- ***Use of tools, activities, and relationships*** (by and for ***both patients and care teams***) that promote shared decision-making and facilitate improved care outcomes for patients through empowerment
- Patient engagement spans the continuum of healthcare and therefore relates to those experiences within healthcare organizations, the community, and at home
[Institute for Healthcare Improvement]

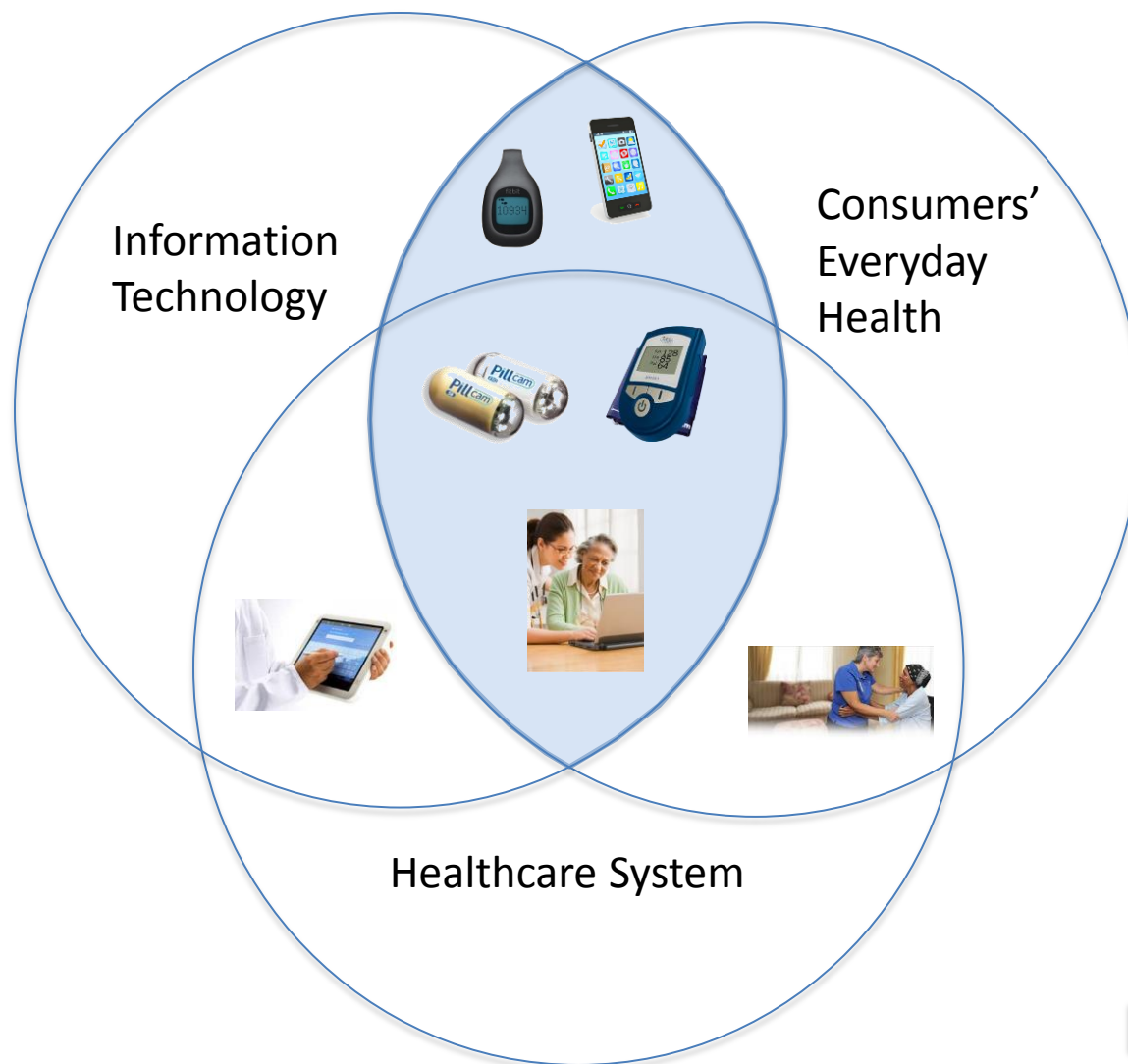
Patient activation is understanding one's role in the care process and having the knowledge, skill and confidence to manage one's health and healthcare.

[Judith Hibbard]

Patients are the most underused resource in healthcare. Patient engagement involves a shift in perspective, rights, and responsibilities. Rich conversations await us as patients and providers alike shifting away from the paternalistic past and toward the shared responsibilities of **participatory medicine**. Let patients help!

[ePatient Dave]

What is “eHealth”?



Elements of Engagement



VALUED



Let Patients Help



Continuing Professional Development
Center for Nursing Informatics



UNIVERSITY OF MINNESOTA

School of Nursing

Patient Engagement in Health Information

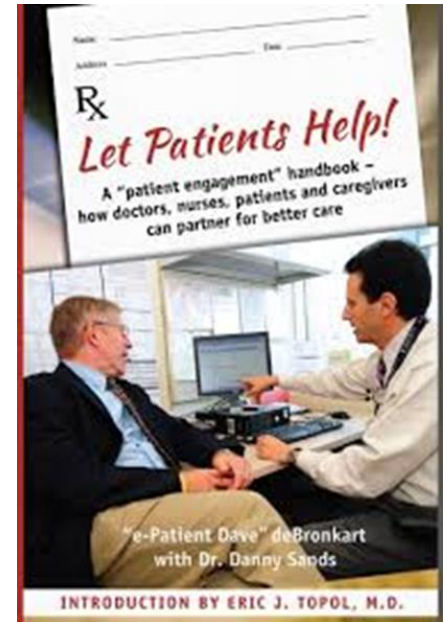
e-Patient Dave is a cancer survivor, the author of the highly rated *Let Patients Help: A Patient Engagement Handbook*, and one of the world's leading advocates for patient engagement

Featuring:
"e-Patient Dave"
Dave deBronkart



Bonnie L. Westra, PhD, RN, FAAN, FACMI
Associate Professor & Director Center for Nursing Informatics
University of Minnesota, School of Nursing

[Dave](#)



Health IT can lead to safer care by:

- Enabling patients/families to participate in care
- Helping patients and families become more knowledgeable re: treatments
- Improving communication among health care providers, patients, and families
- Facilitating shared decision making

“There are significant gaps in the literature regarding how health IT impacts patient safety overall “

The image shows the cover of a report. The top half is red with white text. The bottom half is black with a grid pattern and white lines. The text on the cover reads: "Health IT and Patient Safety", "Building Safer Systems for Better Care", and "INSTITUTE OF MEDICINE OF THE NATIONAL ACADEMIES".

Health IT and Patient Safety
Building Safer Systems
for Better Care

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

EFFICIENCY



“...Six Specific Aims for Improvement

March 2001

INSTITUTE OF MEDICINE

Shaping the Future for Health

CROSSING THE QUALITY CHASM: A NEW HEALTH SYSTEM FOR THE 21ST CENTURY

The U.S. health care delivery system does not provide consistent, high-quality medical care to all people. Americans should be able to count on receiving care that meets their needs and is based on the best scientific knowledge--yet there is strong evidence that this frequently is not the case. Health care harms patients too frequently and routinely fails to deliver its potential benefits. Indeed, between the health care that we now have and the health care that we could have lies not just a gap, but a chasm.



Health care should be:

1. Safe
2. Timely
3. Effective
4. Efficient
5. Equitable
6. Patient-Centered

Big Picture - The Triple Aim: Consumer Engagement to Better Health

Triple Aim:
Better health, better care, lower cost

Transformation Support

- Workflow redesign
- Consumer engagement facilitation
- Portal implementation
- Consumer access to information

New Payment Models/Practice Efficiencies

- Accountable Care Organizations ACOs
- Comprehensive Primary Care initiative CPCI
- Patient Center Medical Home PCMH
- Health Exchanges/ Private Plans/ HDMSA

Incentives MU Tools/Functionality

- (VDT) health information
- Clinical summaries
- Patient-specific education resources
- Use Secure Electronic Messaging

Wisdom of the Crowd

Flip the Clinic
New tools and strategies to improve the patient-doctor* encounter.

*or any care provider

TransformMED is transforming the practice of Primary Care



TransformMED is how primary care practices become high-performing Patient-Centered Medical Homes (PCMH). Using a transformative process practice redesign focused on patient care and practice team satisfaction, organized around the **TransformMED Patient-Centered Model**, TransformMED facilitators leverage best-practices from their experience guiding **transformation projects** across the country to provide clinical integration services, collaborative environments

DETAILED INFORMATION SEPTEMBER 2012

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES
Advising the nation • Improving health

For more information visit www.iom.edu/bestcare

Best Care at Lower Cost

The Path to Continuously Learning Health Care in America

The *Best Care at Lower Cost: The Path to Continuously Learning Health Care in America* report offers findings, conclusions, and recommendations for implementation by key stakeholders to achieve a health care system that is consistently reliable and that constantly, systematically, and seamlessly improves.

TABLE: Characteristics of a Continuously Learning Health Care System

Science and Informatics

- Real-time access to knowledge—A learning health care system continually captures and delivers the best available evidence to guide, support, tailor, and improve care safety and quality.

Digital capture of the care experience—A learning health care system employs digital platforms for real-time generation and application of knowledge for

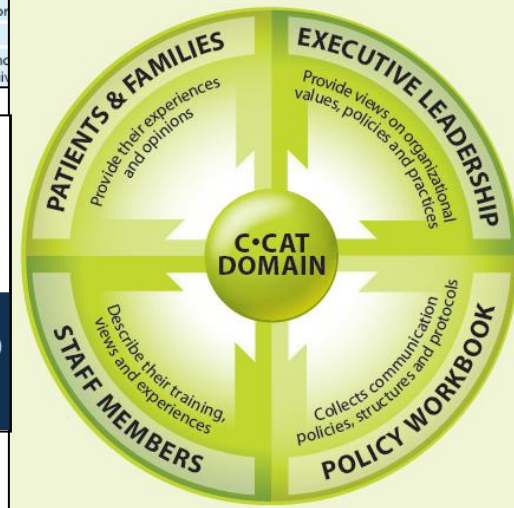
Patient-Clinician Relationships

Engaged, empowered patients—A learning health care system is anchored in and promotes the inclusion of patients, families, and other caregivers



FOSTERING SUCCESSFUL PATIENT AND FAMILY ENGAGEMENT: NURSING'S CRITICAL ROLE

C-CAT provides a 360-degree assessment using data from multiple sources



Engaging Consumers is Integral to the Federal Health IT Strategy



TRUST



Impact on health care:

Use services more

Increase of \$50 billion
to \$73 billion annually

PARTNER WITH PATIENTS

Clinicians should fully incorporate the needs and preferences of patients into care decisions.

IN HEALTH CARE...



LESS THAN HALF

of patients receive clear information on the benefits and trade-offs of treatments for their conditions.



ALMOST HALF

of patients are not satisfied with their level of control in medical decision making.

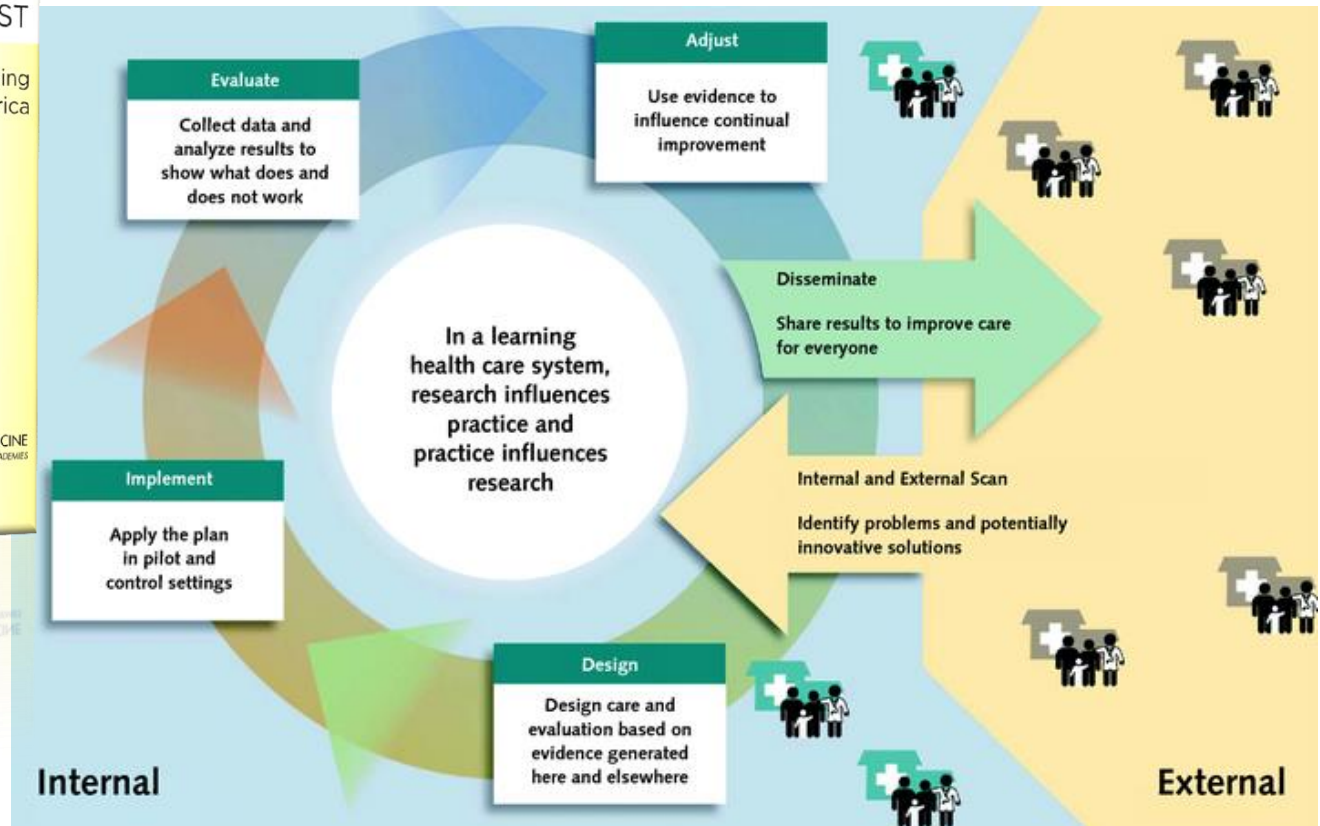
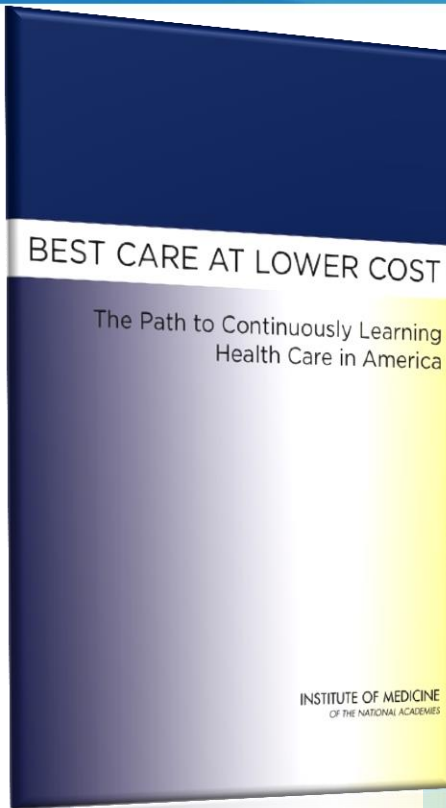
IN OTHER INDUSTRIES...



GENERAL CONTRACTORS

work with customers to build homes tailored to fit their needs and meet their specifications.

The Learning Health System 9/2012



CONSISTENCY



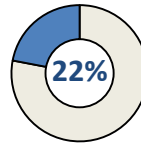
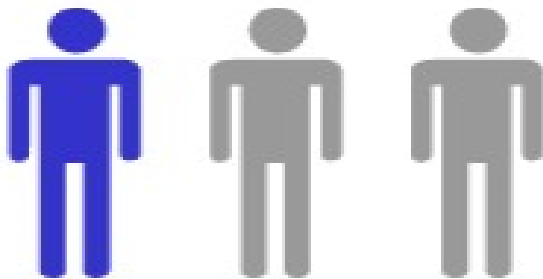
Perceptions + Experiences = Level of Trust

- What are consumer perceptions and experiences with Health Information Exchange?

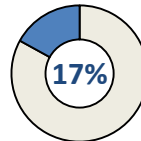


Consumers are experiencing HIE gaps

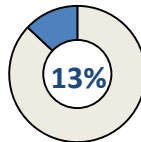
Approximately 1 in 3 consumer experienced at least one gap in health information within the last year



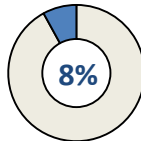
Provide medical history again because provider hadn't received records from another provider



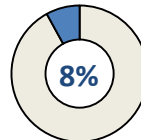
Bring the results of medical exam/test result to a provider



Wait longer than reasonable for the results of a test

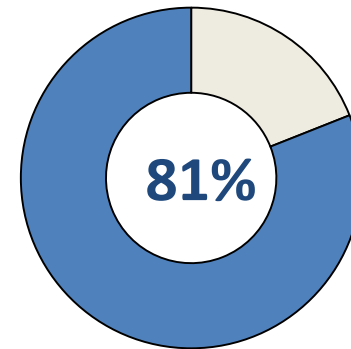
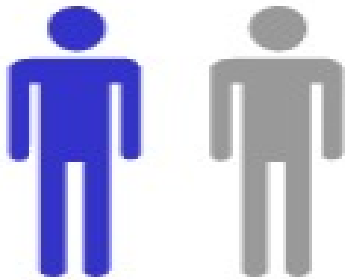


Redo a test or procedure because no longer available



Had to provide medical history again because chart could not be found

- Consumers think HIE is already happening
- They want their providers to have this capability



Over half of consumers believe that their healthcare provider shares their medical record with other providers treating them

Among those who don't believe their provider has the capability, most believe that they should have the capability

Consumers' Access to their Data is Limited and Inconsistent

Half of providers have capability to provide electronic copy of health information



Four in five hospitals have capability to provide electronic copy of health information



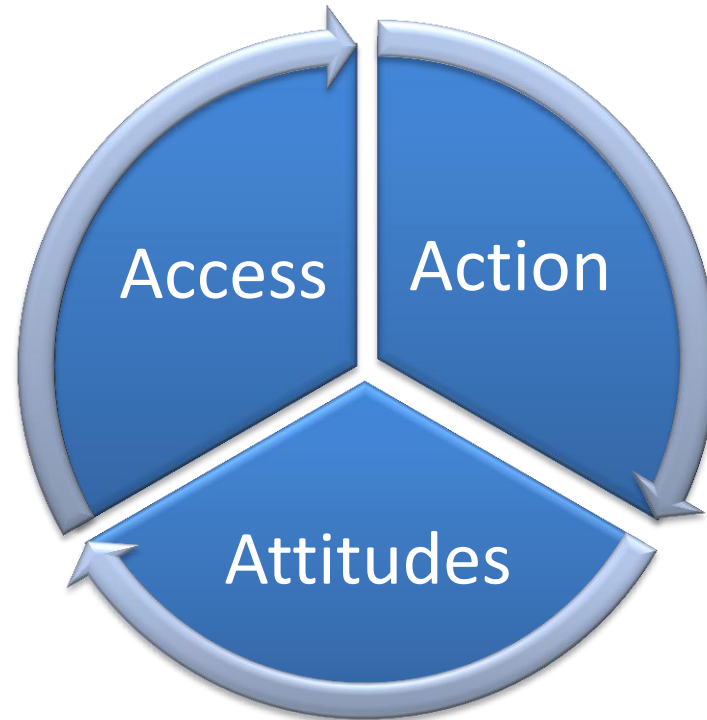
One-quarter of hospitals have capability to provide patients the ability to electronically view, download, or transmit their health information



One in five of consumers was given online access by any health care provider within the last 12 months

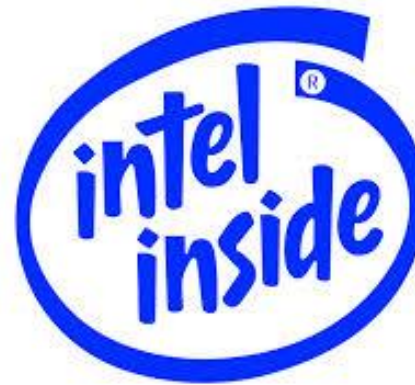


Blue Button and the 3 “A”s



Blue Button Brand Value

Putting the I in HealthIT 
www.HealthIT.gov



RELEVANCE



Unintended Consequences Work Group 9/2012

Strategies to overcome unintended consequences:



- Provide options other than computer usage: text messaging to phones, and use of smart phone applications.
- Tailor interventions to language, culture, and literacy of patients and lay caregivers.
- Shift to service delivery and payment models, such as accountable care organizations and pay for performance.
- Research needs- Many questions for further research

Blue Button Connector

What is Blue Button?

Blue Button is a way to get your health records electronically so you can..



Be Secure

that your records are protected under HIPAA. We do not store or collect your records but send you to organizations do.



Recall

your health records to be reminded when you had your last shot, or the exact date of a procedure.



Check

the accuracy of your records, monitor changes, and stay aware of your health status.



Share

with your doctor or someone else you trust, when traveling, seeking a second opinion, moving, switching insurance, or in case of emergency.

 Blue Button

Get my records  Use my records 

Find my health records

Select a source

Tip: You may have records in more than one source. One in three Americans has data available in their health insurance.

Start here 

Health Insurance

This is an organization that provides financial coverage of health services for members.

Physician or Hospital



Pharmacy or Lab



Immunization Registry



Get my health records

BLUE BUTTON PROFILE

UnitedHealth Group

www.unitedhealthgroup.com
P.O. Box 1459
Minneapolis, MN 55440-1459
800.328.5979



Get my health records

After clicking here, you will be redirected to your organization's website where you can get your health records.

Don't forget to come back once you have your health records to find apps and services that help you stay at your best.

Features

- Using the Blue Button logo on website
- View your records online
- Download your records
- Securely send your records to your preferred application
- Automatically receive updates to your health records

Ask your organization to participate!
If some of these features are not available, ask them why and request it now.

[REQUEST](#)

 Blue Button

Get my records  Use my r...

Use my health records

Take your records with you. Plug it into apps and other services that help you reach your health goals and receive recommendations to keep you at your best.

iBlueButton



Microsoft HealthVault



NoMoreClipboard



CONTROL



What Matters

Putting the I in HealthIT 



Have you heard



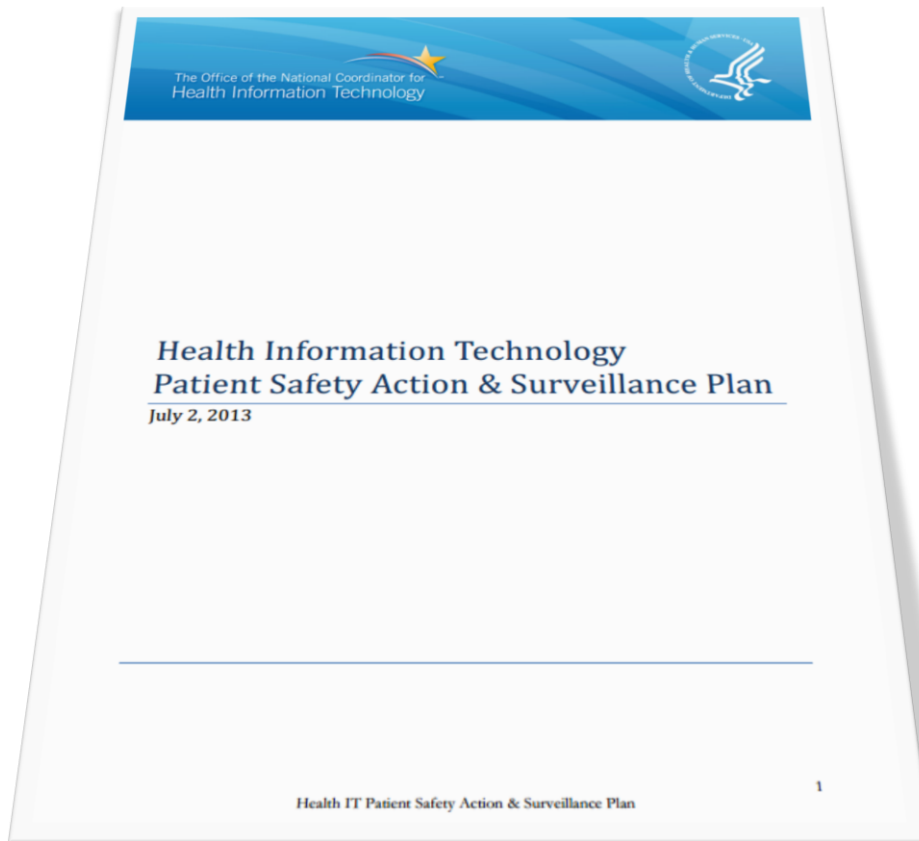
About OpenNotes ?

- 69-80% felt better prepared for visits
- 77-87% felt more in control of their care
- 60-78% among those taking medications reported “doing better with taking my medications as prescribed”
- 70-72% of patients across the three sites reported taking better care of themselves
- 77-85% reported better understanding of their health and medical conditions
- 76-83% reported remembering the plan for their care better

DHHS, HIT Patient Safety Action & Surveillance Plan, 7/2013

Plan Highlights :

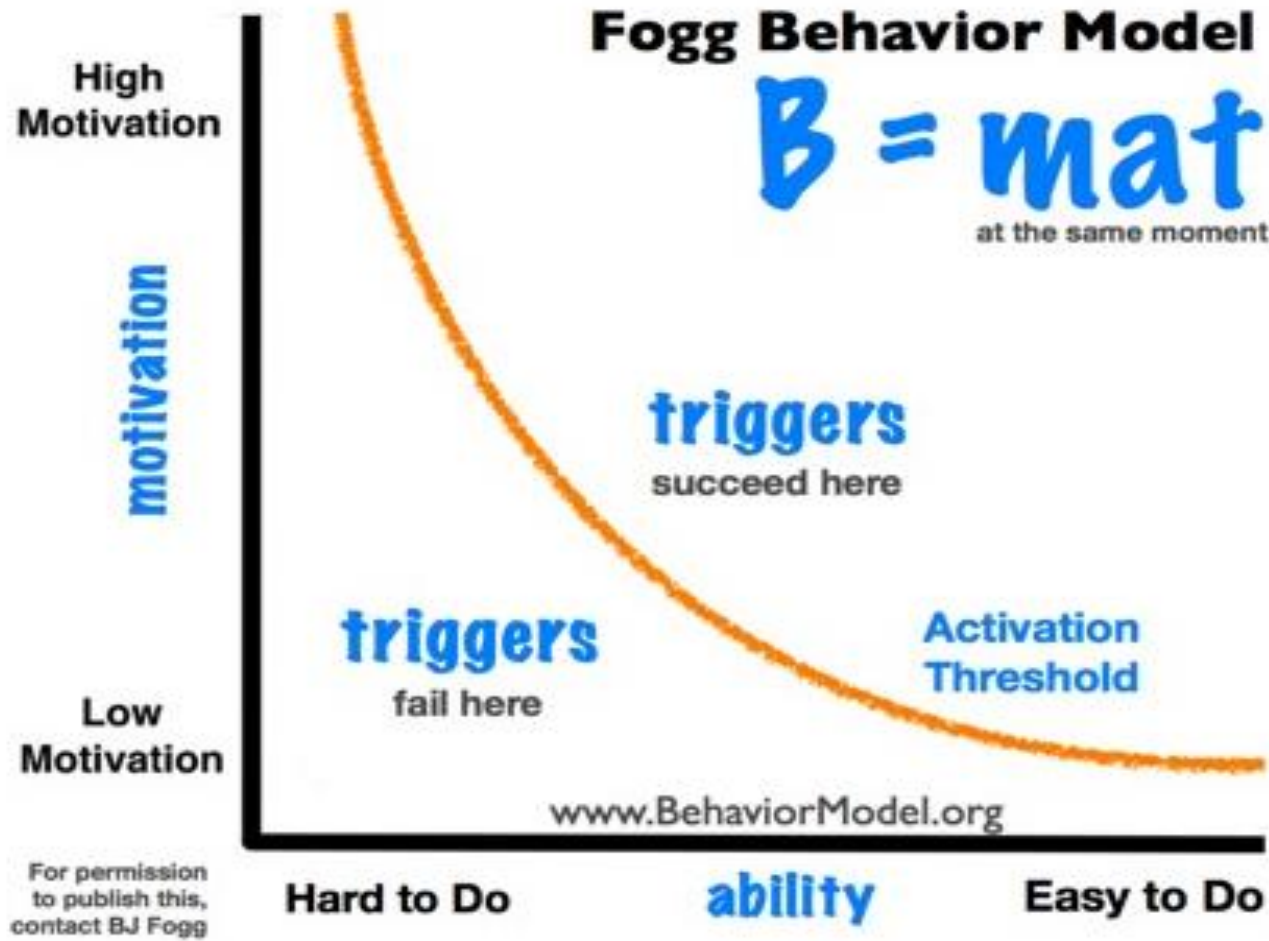
- Improve knowledge of health IT safety; make it easier for clinicians to report health IT-related events and hazards
- Encourage the use of Common Formats in hospital incident reporting programs
- Collect, aggregate, and analyze patient safety reports leverage the work of AHRQ
- Incorporate health IT safety in post-market surveillance of certified EHR technology (CEHRT)
- Support research and development of tools and best practices



Elements of Engagement



BJ Fogg Behavior Model



Having A Great Day

The screenshot shows the PatientsLikeMe website interface. At the top, there's a header with 'patientslikeme' and navigation links like 'Account', 'Settings', 'FAQ', 'Crisis', and 'Log out'. Below the header, there are tabs for 'My profile', 'Patients', 'Forums', 'Conditions', 'Treatments', 'Symptoms', and 'Research'. The main content area is titled 'Find Patients' and 'Patient search'. It shows 'Showing 1 to 15 of 274,242 patients' and a 'Sort by' dropdown set to 'Last update'. The search results are displayed in a table with columns 'Who', 'Conditions', and 'Connect'. The first result is for a patient named 'one_step_closer', updated 'half a minute ago', with conditions 'Borderline Personality' and 'Show 5 more'. The second result is for 'GregK', updated 'less than a minute ago', with conditions 'ALS' and 'Interests: Alternative Medicine, and Veterans' Issues'. On the left side, there are filters for 'Age' (a slider from 10 to 80) and 'Gender' (Any, Male, Female). At the bottom left, there's an 'Interests' section with a dropdown set to 'Any' and a note: 'You can now add interests to your profile'.

I'm 48, live very rural in NW Mt. Love the outdoors, simple living ,gardening, horses sheep my beautiful dogs, one being my service dog, and a very old cat.

Was very active training horses and raising rare breeds of livestock till lupus kicked in, now I do a bit less.

I alter the times I'm outside, I don't do well w groups of people anymore, the neuro-lupus seems to make the socialization harder for me. I used to love being around lots of people.

I like to advocate for disabled people. Our veterans, have a private food bank, help elderly, and am trying to implicate some changes in the service dog community and how they're accepted.

Life is just slower now, its better that way, Lupus can be a pain but I can work around the pain, I'm learning my limits and also learning that people don't understand what we go through, they don't have too, we know.

I don't do pain medications, I work around situations that cause pain, avoid frustration find things that make me happy.

Life is still really good just different.

“ Life is still really good just different. ”



pcori PCORI @PCORI · Jun 8

Snapshot 4: PCORI's improving healthcare systems funding. #ARM14

Funding Available: \$16 million

Seeks to fund large or small investigator-initiated research on effects of system changes on these outcomes:

- Patients' access to high quality, support for self-care, and coordination across healthcare settings.
- Decision making based on patients' values.
- Experiences that are important to patients and their caregivers, such as overall health, functional ability, quality of life, stress, and survival.
- The efficiency of healthcare delivery, as measured by the amount of ineffective, duplicative, or wasteful care provided to patients.

Important Dates*

Online System Opens
August 6, 2014

Letter of Intent Due
June 27, 2014

Application Due
November 4, 2014

Awards Announced
April 2015

Follow PCORI on Twitter



Get daily updates from @PCORI



pcornet

The National Patient-Centered Clinical Research Network

A Blueprint for Transforming Health Research

Get an update on our progress in building our national patient-centered clinical research network

FDASIA Draft Report, April 2014

“We believe a limited, narrowly-tailored approach that primarily relies on ONC-coordinated activities and private sector capabilities is prudent.

- HIT Safety Center. Health IT safety is integral to and inseparable from patient safety. Center will avoid “silo” separating health IT from patient safety.



- **Pennsylvania Patient Safety Authority Advisories-** Role of Electronic Health Record in Patient Safety Events, Dec. 2012; Spotlight on EHR Errors: Paper or Electronic Hybrid Workflows, June 2013
- **CRICO**, Malpractice Claims Analysis Confirms Risks in EHRs, February 2014, in www.psqh.com
- **ECRI** Institute PSO, Deep Dive: Health IT, Dec 2012
- **ONC sponsored research** from 2 PSO databases and The Joint Commission will be published this fall.
- **ONC's SAFER Guides** – 158 evidence-based HIT safety recommended practices in 9 areas, with references.
<http://www.healthit.gov/safer/safer-guides>

- In large adverse event databases, health IT events are **not** common.
 - IOM research found under 1% in databases before 2011
 - Some preliminary evidence suggests that overall events decline after adoption of EHRs with CPOE systems
- Why don't we see more health IT events in databases?
 - Health IT-related events are, in fact, not common (and/or)
 - People who report are not trained to see role of health IT
- Defining *health IT-related adverse events* is inconsistent.
- Research does not distinguish faulty health IT from health IT that could have prevented an event if it had been better

ONC: Rand – ECRI Study Health IT Risk Management 5/2014

Lessons learned:

- Organizations are more likely to address “known problems.”
- For success, need effective risk management leadership with executive level support.
- For success, health IT safety projects should align with other organizational priorities and initiatives, e.g. achieving “meaningful use.”
- Organizations have a poor understanding of how health IT introduces new risks.
- Limited resources (e.g. staff time) always a challenge
- Need for tools (to educate and suggest solutions) and metrics for monitoring.

research report

Promoting Patient Safety Through Effective Health Information Technology Risk Management

RAND Evaluation Team (Report Authors):

Eric C. Schneider, M. Susan Ridgely, Daniella Meeker, Lauren E. Hunter, Dmitry Khodyakov, Robert Rudin

Implementation Team: ECRI Institute

Co-Team Leads: Karen Zimmer, William Marella

Team Members (alphabetical): Chris Callahan, Stevie Davidson, Robert Giannini, Jean Harpel

Expert Consultants (alphabetical):

Baylor College of Medicine: Hardeep Singh
University of Texas: Dean Sittig

RAND Health

RR-654-DHHSNCH

May 2014

Prepared for the Office of the National Coordinator for Health Information Technology



Ga. hospital CEO resigns after bumpy EHR rollout

By Darius Tahir

Posted: May 27, 2014

Athens (Ga.) Regional Medical Center President and CEO James Thaw resigned amid complaints from the medical staff that his administration bungled the implementation of an electronic health-record system, according to local news reports.



On May 15, though, prominent local physicians sent a letter to Thaw and Senior Vice President and Chief Information Officer Gretchen Tegethoff complaining that the **system was causing “medication errors” and “orders being lost or overlooked,”** according to a report in the Athens Banner-Herald, which obtained a copy of the letter. **The timeline was “too aggressive” and users were unready,** the physicians said.

Modern Healthcare, Healthcare Business News

- Guide Instructions
- Worksheets-interactive and downloadable
- Checklist to rate the organization's status for each recommended practice
- Drop down lists and text entry
- Recommendations for staff to consult
- Examples and Rationale for each
- Team worksheet
- Save, Share, and Use

- ***Safety Assurance Factors for EHR Resilience (SAFER) Guides***

Foundational Guides

High Priority Practices
Organizational Responsibilities

Infrastructure Guides

Contingency Planning
System Configuration
System Interfaces

Clinical Process Guides

Patient Identification
Computerized Provider Order Entry with Decision Support
Test Results Reporting and Follow-Up
Clinician Communication

Safety Assurance Factors for EHR Resilience (SAFER) Guides, January 2014

Field Feedback:
Content helpful –
Usability- needs work!

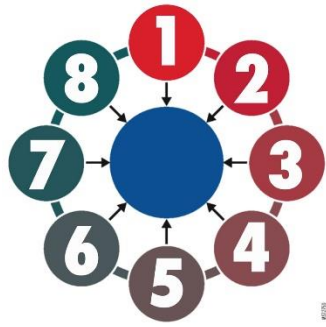
The screenshot shows the SAFER Self Assessment Test Results Reporting and Follow-Up Recommended Practice 11 Worksheet. The page is titled "SAFER Self Assessment Test Results Reporting and Follow-Up" and "Recommended Practice 11 Phase 2 – Using Health IT Safely". The navigation menu includes: > Table of Contents, > About the Checklist, > Team Worksheet, > About the Practice Worksheets, and > Practice Worksheets (dropdown). The main content area is divided into several sections:

- Recommended Practice:** 11 Written policies specify unambiguous responsibility for test result follow-up with a shared understanding of that responsibility among all involved in providing follow-up care. [4,6,9,13,14,27,28](#)
[Checklist](#)
- Implementation Status:** Off (dropdown menu)
- Rationale for Practice or Risk Assessment:** New workflows resulting from the introduction of EHRs can introduce new hazards related to miscommunication of responsibility for follow-up. Ambiguous responsibility increases the risk of follow-up failure.
- Suggested Sources of Input:** Clinicians, support staff, and/or clinical administration; Diagnostic services
- Examples of Potentially Useful Practices/Scenarios:**
 - In the outpatient setting, the ordering provider is responsible for follow-up unless he or she delegates this (e.g., to covering provider). Delegation should be documented and accepted by the delegate.
 - Ordering clinicians in any setting assume responsibility for follow-up care, unless that responsibility is unambiguously transferred to another clinician, who accepts responsibility.
- Assessment Notes:** (Large empty text area)
- Follow-up Actions:** (Empty text area)

ONC Contract: The Joint Commission Research

- Evaluate de-identified sentinel events for role of health IT. Develop educational materials by October 2014
- Study will inform TJC's root cause analysis framework, which asks 24 questions, including:
 - To what degree was all the necessary information available when needed? Accurate? Complete? Unambiguous?
 - Was available technology used as intended?
 - How might technology be introduced or redesigned to reduce risk in the future?
- Should consider 8 “sociotechnical” factors.

The Eight Dimensions of the Socio-Technical Model



- 1 Hardware and software
- 2 Clinical content
- 3 Human-computer interface
- 4 People
- 5 Workflow and communication
- 6 Internal organizational policies, procedures, environment, and culture
- 7 External rules, regulations, and pressures
- 8 System measurement and monitoring

- Health IT components associated with adverse events, by frequency
 - Computerized Provider Order Entry (CPOE) system
 - Clinical documentation systems
 - Electronic medication administration record (eMAR)
 - Laboratory Information system (LIS)
 - Pharmacy system
 - Human-computer Interface
 - Radiology/diagnostic imaging system



HRO- Sharing lessons learned

Putting the I in HealthIT 
www.HealthIT.gov



<http://theforum.sph.harvard.edu/events/boston-marathon-bombings/>

Manage for the unexpected and incorporate the 5 principles of mindfulness

1. Preoccupation with failure
2. Reluctance to simplify interpretations
3. Sensitivity to operations
4. Commitment to resilience
5. Deference to expertise

25.5



Is the private sector stepping up?

- **National Patient Safety Foundation (NPSF):** Health IT Safety Initiative, including healthcare providers, EHR developers, PSOs, patient safety and informatics experts and researchers.
- **ECRI Institute:** pilot Partnership for Promoting Health IT Patient Safety. Alliance of healthcare providers, EHR developers, PSOs to gather adverse events data and design follow-up, within protected space of patient safety organizations.
- **Athenahealth EHR/Quantros PSO** – EHR support for all-cause adverse event reporting
- **Pascal Metrics PSO** “Risk Trigger[®] Monitoring”
- **Institute for Healthcare Improvement (IHI)** Global Trigger Tool

- [Surescripts](#) e-prescribing “White Coat of Quality” Program. Works with EHR developers to improve e-prescribing in ambulatory practices. Best practices and standardized terminology for classifying e-prescribing problems.
- [CPOE Evaluation Tool](#) – available thru Leapfrog Group
- [ASHRM and AHLA](#) – Minimizing EHR-related Serious Adverse Events
- [EHRA](#) Code of Conduct

- Consumer Engagement
- Consumer eHealth
- Shared decision making
- Health
- Wellness
- Patient Experience

New technology: Baltimore



Selected Reading: Patient Safety and HIT

- Crossing the Quality Chasm: *A New Health System for the 21st Century*. 2001
 - http://books.nap.edu/download.php?record_id=10027
- IOM report, *Health IT and Patient Safety: Building Safer Systems for Better Care*. Nov. 2011
 - <http://www.iom.edu/Reports/2011/Health-IT-and-Patient-Safety-Building-Safer-Systems-for-Better-Care.aspx>
- Building Better Consumer eHealth. September 2012
 - http://www.healthit.gov/sites/default/files/final_report_building_better_consumer_ehealth.pdf
- DHHS, *Health IT Patient Safety Action & Surveillance Plan*. July 2, 2013
 - http://www.healthit.gov/sites/default/files/safety_plan_master.pdf
- FDASIA Health IT Report: *Proposed Risk-Based Regulatory Framework and Strategy for Health IT* April 2014
 - <http://www.fda.gov/downloads/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDRH/CDRHReports/UCM391521.pdf>
- Rand/ ECRI Study: Promoting patient safety Through Effective Health Information Technology Risk Management
 - http://www.healthit.gov/sites/default/files/rr654_final_report_5-27-14.pdf

Ellen Makar MSN, RN-BC, CCM, CPHIMS, CENP



“I’m from the
government and **I**
am here to help!”

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Stay Connected, Communicate, and Collaborate



- Browse the ONC website at: HealthIT.gov

- Signup for email updates: public.govdelivery.com/accounts/USHHSONC/subscriber/new?

- Visit the FACA page: <http://www.healthit.gov/facas/federal-advisory-committees-facas>

- Request a speaker at: healthit.gov/requestspeaker

- Subscribe, watch, and share:

-  @onc

-  @makarel5

- <https://www.linkedin.com/in/ellenmakar>

- Contact us at: onc.request@hhs.gov

