Identification and Prioritization of Health IT Patient Safety Measures

HIT Safety Committee Meeting

September 16-17, 2015

NATIONAL QUALITY FORUM

Welcome

Meeting Objectives: Goals for Day 1

- Receive updates on recent project activity, including updates on the conceptual framework and revisions to the measure concept list,
- Discuss opportunities to align the framework with the AHRQ Common Formats for Patient Safety Reporting and the HIT Safety Center Roadmap
- Begin prioritization of measure concepts through breakout group work

Day 1: Wednesday, September 16, 2015 (Morning Session)

- 9:00 am **Welcome and Introduction of Staff & Co-Chairs**
- 9:20 am **Project Update**
- 9:30 am **Common Formats – Opportunities for Alignment**
- 10:30 am **Introduction to Measure Concepts – Expectations for Breakout Groups**
- 10:50 am **Break-Out Group Sessions – Prioritization of Measure Concepts**
  - ***Group A: HIT Design and Development 1***
  - ***Group B: HIT Design and Development 2***
  - ***Group C: HIT Implementation and Use 1***
  - ***Group D: HIT Implementation and Use 2***

Day 1: Wednesday, September 16, 2015 (Afternoon Session)

- 12:15 pm **Working Lunch – Continue Break-Out Sessions**
- 3:00 pm **RTI Roadmap for the HIT Safety Center**
- 3:30 pm **Report-out and Discussion of Breakout Sessions**
- 4:45 pm **Public and Member Comment**
- 5:00 pm **Adjourn**
- 6:00 pm **Committee Dinner** *(Optional)*

NQF Project Staff

- Jason Goldwater
  - Senior Director
- Andrew Lyzenga
  - Senior Project Manager
- Ann Phillips
  - Project Analyst
- Jesse Pines
  - NQF Consultant

HIT Safety Committee

- Elisabeth Belmont, JD (Co-chair)
- Hardeep Singh, MD, MPH (Co-chair)
- Jason Adelman, MD, MS
- Gregory Alexander, PhD, RN, FAAN
- Gerard Castro, PhD, MPH
- David Classen, MD, MS
- Linda Dimitropoulos, PhD
- Lisa Freeman
- Tejal Gandhi, MD, MPH, CPPS
- Andrea Gelzer, MD, MS, FACP
- Kevin Haynes, PharmD, MSCE
- Laura Heermann-Langford, PhD, RN
- George Hripcsak, MD, MS
- Jason Jones, PhD
- Adjhaporn (Nana) Khunlertkit, PhD
- William Marella, MBA
- Dena Mendelsohn, JD, MPH
- James Russell, RPh
- Eric Schneider, MD, MSc
- Mark Segal, PhD
- Karen Paul Zimmer, MD, MPH, FAAP

Project Update

Goals of This Project

- Develop a conceptual framework for measurement of HIT safety
- Identify gaps in measurement related to HIT safety and make recommendations for filling those gaps
- Identify the highest priorities with respect to HIT safety measurement
- Identify best practices and challenges around HIT safety measurement

Project Timeline and Milestones

Appointing the Multistakeholder Committee (Sep 2014-Dec 2014)

- Seat Multistakeholder Committee

Environmental Scan and Development of Conceptual Framework (Dec 2014-Aug 2015)

- Preliminary Environmental Scan and Gap Analysis
- Draft Conceptual Framework
- Finalize Environmental Scan
- AHRQ Common Formats Panel review of draft framework

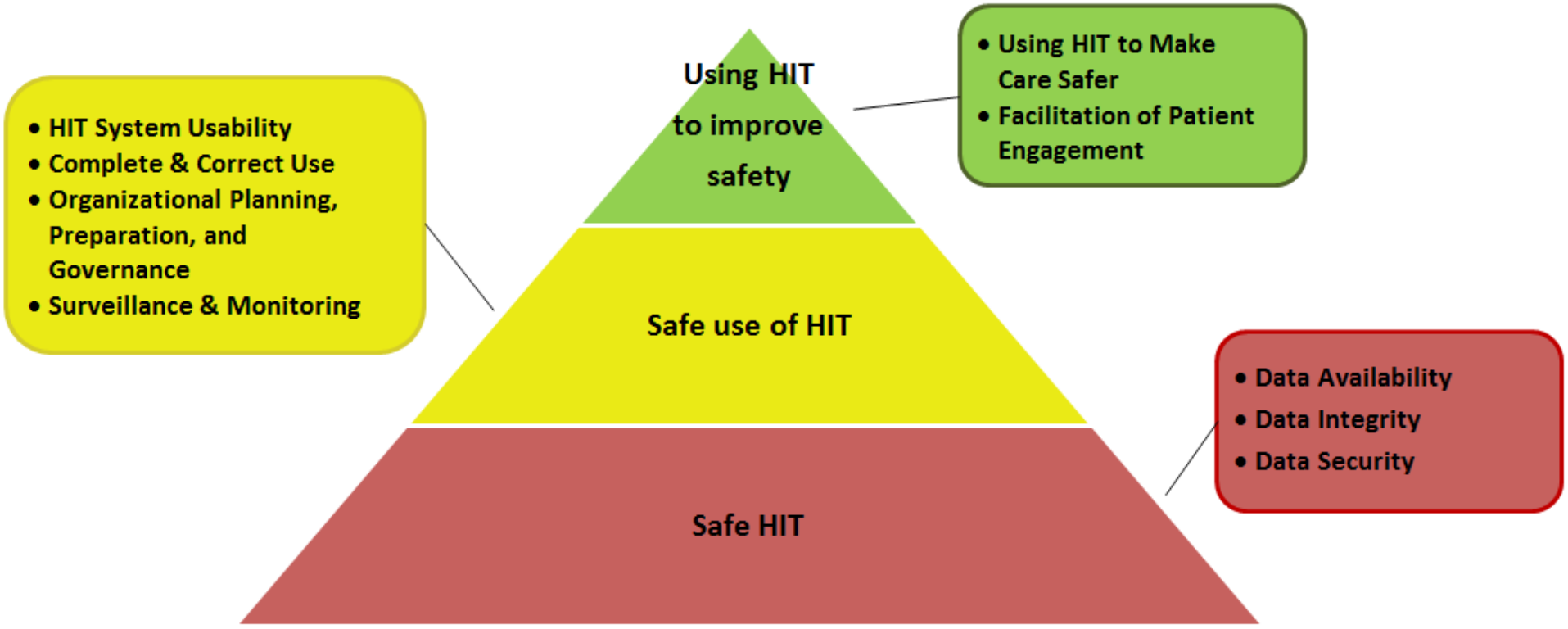
Prioritizing Measures and Gaps, Identifying Best Practices & Challenges (Aug 2014-Dec 2015)

- Incorporate Committee feedback and revisions
- Submit draft report for CMS review
- Draft written report, final conceptual framework, and final environmental scan

Public and Member Comment and Final Report (Dec 2015-Feb 2016)

- Submit final report as revised based on comments

Framework for Measurement of HIT Safety



HIT Safety Project

NQF *Common Formats Expert Panel Input*
August 10, 2015

David C. Classen, MD, MS (co-chair)

NATIONAL QUALITY FORUM

Common Formats

Authorized by Patient Safety and Quality Improvement Act of 2005

Developed by AHRQ – first set released in 2008

Purpose:

- Standardize patient safety event data collection
- Permit aggregation of collected data for analysis, learning, & trending of events

Current State:

- Common Formats for Event Reporting – Hospital
- Common Formats for Event Reporting – Nursing Home
- Common Formats for Retail Pharmacy
- Common Formats for Surveillance – Hospital

Hospital Common Formats - Version 1.2

General

- About Hospital Common Formats
- Clinical Release Notes
- ZIP File (All Event Descriptions, Sample Reports, and Forms)
- Users Guide & Glossary

Generic Formats

- HERF / PIF / SIR

Event-Specific Formats

- Blood or Blood Product
- Device or Medical/Surgical Supply, including HIT
- Fall
- Healthcare-associated Infection
- Medication or Other Substance
- Perinatal
- Pressure Ulcer
- Surgery or Anesthesia
- Venous Thromboembolism

Technical Specifications

- Overview
- Technical Release Notes
- Data Submission Specifications
- Appendix A: Resources Workbook
- Appendix B: Flow Charts
- Appendix C: CDA XML File Sample
- Data Dictionary
- Paper Forms Including Data Element Notations
- Local Specifications
- Report Specifications
- ZIP Files (All Tech Specs)

https://www.psoppc.org/web/patientsafety/commonformats

Modularized Common Formats

Healthcare Event Reporting Form (HERF)
- Identity
- Date, Time
- Location
- Reporter
- Narrative
- Link to other forms

Patient information Form (PIF)
- Demographics
- Harm
- Interventions

Summary of Initial Report (SIR)
- Assessment of preventability
- Final narrative
- Contributing factors
- Encoding

Event-specific forms
- Eight types of events, e.g.,
- Fall
- HAI
- Medication

HEALTHCARE EVENT REPORTING FORM (HERF)

Use this form to report either a patient safety event or unsafe condition. The term event includes both an incident that reached the patient and a near miss (close call) that did not. Highlighted fields are collected for local facility and PSO use. This information will not be forwarded to the Network of Patient Safety Databases (NPSD).

1. Report Date: ___ ___ / ___ ___ / ___ ___ ___ ___
MM DD YYYY

2. What is being reported? CHECK ONE:

a. ☐ **Incident:** A patient safety event that reached the patient, whether or not the patient was harmed.

b. ☐ **Near Miss:** A patient safety event that did not reach the patient.

c. ☐ **Unsafe Condition:** Any circumstance that increases the probability of a patient safety event.

3. Event Discovery Date:
___ ___ / ___ ___ / ___ ___ ___ ___
MM DD YYYY

4. Event Discovery Time: ___ ___ ___ ___ HOURS
☐ Unknown
H H M M
(MILITARY TIME)

5. Briefly describe the event that occurred or unsafe condition:

6. Briefly describe the location where the event occurred or where the unsafe condition exists:

7. Which of the following categories are associated with the event or unsafe condition? CHECK ALL THAT APPLY:
FOR EACH CATEGORY SELECTED BELOW, EXCEPT "OTHER", PLEASE COMPLETE THE CORRESPONDING CATEGORY-SPECIFIC FORM. ALL CATEGORIES INCLUDE REPORTING OF INCIDENTS. ANY CATEGORY WITH + ALSO INCLUDES REPORTING OF NEAR MISSES. ANY CATEGORY WITH * ALSO INCLUDES REPORTING OF UNSAFE CONDITIONS.

a. ☐ Blood or Blood Product*+
b. ☐ Device or Medical/Surgical Supply, including Health Information Technology (HIT)*+
c. ☐ Fall
d. ☐ Healthcare-associated Infection
e. ☐ Medication or Other Substance*+
f. ☐ Perinatal
g. ☐ Pressure Ulcer
h. ☐ Surgery or Anesthesia (includes invasive procedure)+
i. ☐ Venous Thromboembolism
j. ☐ Other*+: PLEASE SPECIFY _____

PATIENT INFORMATION FORM (PIF)

Use this form only if you are reporting an incident. (When reporting a perinatal incident that affected a mother and a neonate, complete a PIF for the mother and a separate PIF for the neonate.) Highlighted fields are collected for local facility and PSO use. This information will not be forwarded to the Network of Patient Safety Databases (NPSD).

1. At the time of the event what was the patient's age? CHECK ONE:

a. ☐ Neonate (0-28 days)
b. ☐ Infant (>28 days <1 year)
c. ☐ Child (1-12 years)
d. ☐ Adolescent (13-17 years)
e. ☐ Adult (18-64 years)
f. ☐ Mature adult (65-74 years)
g. ☐ Older adult (75-84 years)
h. ☐ Aged adult (85+ years)
i. ☐ Unknown

2. Is the patient's ethnicity Hispanic or Latino? CHECK ONE:

a. ☐ Hispanic or Latino
b. ☐ Not Hispanic or Latino
c. ☐ Unknown

3. What is the patient's race? CHECK ONE:

a. ☐ American Indian or Alaska Native
b. ☐ Asian
c. ☐ Black or African American
d. ☐ Native Hawaiian or Other Pacific Islander
e. ☐ White
f. ☐ More than one race
g. ☐ Unknown

4. Enter the patient's ICD-9-CM or ICD-10-CM principal diagnosis code at discharge (if available):

ICD-9-CM OR ICD-10-CM CODE

H SUMMARY OF INITIAL REPORT (SIR)

Use this form after all other forms applicable to this event (incident or near miss [close call]) or unsafe condition reported on the Healthcare Event Reporting Form (HERF) have been reviewed. Highlighted fields are collected for local facility and PSO use. This information will not be forwarded to the Network of Patient Safety Databases (NPSD).

1. What is the date of the summary of the initial report?

__ __ / __ __ / __ __ __ __
MM DD YYYY

2. Where did the event occur, or, if an unsafe condition, where does it exist? (PLEASE REFER TO HERF QUESTION 6) CHECK ONE:

a. ☐ Inpatient general care area (e.g., medical/surgical unit)

l. ☐ Unknown
m. ☐ Other: **PLEASE SPECIFY** _____

3. Who reported the event or unsafe condition? (PLEASE REFER TO HERF QUESTION 20) CHECK ONE:

a. ☐ Healthcare professional
b. ☐ Healthcare worker, including nursing assistant, patient transport/retrieval personnel, assistant/orderly, clerical/administrative personnel, interpreter/translator, technical/laboratory personnel, pastoral care personnel, biomedical engineer, housekeeping, maintenance, patient care assistant, or administrator/manager
c. ☐ Emergency service personnel, including police officer, fire fighter, or other emergency service officer
d. ☐ Patient, family member, volunteer, caregiver, or home assistant
e. ☐ Unknown
f. ☐ Other: **PLEASE SPECIFY** _____

4. What is the type of healthcare professional? CHECK ONE:

a. ☐ Doctor, dentist (including student)
b. ☐ Nurse, nurse practitioner, physician assistant (including student or trainee)
c. ☐ Pharmacist, pharmacy technician (including student)
d. ☐ Allied health professional (including paramedic, speech, physical and occupational therapist, dietician)

H DEVICE OR MEDICAL/SURGICAL SUPPLY, INCLUDING HEALTH INFORMATION TECHNOLOGY (HIT)

Use this form to report any patient safety event or unsafe condition involving a defect, failure, or incorrect use of a device, including an HIT device. A device includes an implant, medical equipment, or medical/surgical supply (including disposable product). An HIT device includes hardware or software that is used to electronically create, maintain, analyze, store, or receive information to aid in the diagnosis, cure, mitigation, treatment, or prevention of disease and that is not an integral part of (1) an implantable device or (2) an item of medical equipment.

For defects or events discovered prior to market approval or clinical deployment, do not use this form. If the event also involves a medication or other substance, please complete the Medication or Other Substance form in addition to this form. Narrative detail can be captured on the Healthcare Event Reporting Form (HERF). Highlighted fields are collected for local facility and Patient Safety Organization (PSO) use. This information will not be forwarded to the Network of Patient Safety Databases (NPSD).

1. Which of the following best describes the event or unsafe condition? CHECK ONE:

a. ☐ Device defect or failure, including HIT
b. ☐ Use error
c. ☐ Combination or interaction of device defect or failure and use error
d. ☐ Unknown

2. What type of device was involved in the event or unsafe condition? CHECK ONE:

a. ☐ Implantable device (i.e., device intended to be inserted into, and remain permanently in, tissue)
b. ☐ Medical equipment (e.g., walker, hearing aid)
c. ☐ Medical/surgical supply, including disposable product (e.g., incontinence supply)
d. ☐ HIT device

3. At the time of the event, was the device placed within the patient's tissue? CHECK ONE:

a. ☐ Yes
b. ☐ No
c. ☐ Unknown

4. Did the event result in the device being removed? CHECK ONE:

a. ☐ Yes
b. ☐ No
c. ☐ Unknown

5. **What is the name (brand or generic) of the device, product, software, or medical/surgical supply?**

_____

6. **What is the name of the manufacturer?**

_____

Initial Report Date (HERF Q1) _____

7. Which of the following identifiers are known? CHECK ALL THAT APPLY:

a. ☐ Model number

8. What is the model number?

_____

b. ☐ Software version

9. What is the software version?

_____

c. ☐ Firmware version

10. What is the firmware version?

_____

d. ☐ Serial number

11. What is the serial number?

_____

e. ☐ Lot or batch number

12. What is the lot or batch number?

_____

f. ☐ Other unique product identifier

13. What is the type of other unique product identifier?

_____

14. What is the other unique product identifier?

_____

g. ☐ Date of expiration

15. What is the expiration date?

__ __ / __ __ / __ __ __ __
MM DD YYYY

h. ☐ Unique Device Identifier

16. What is the Unique Device Identifier (UDI)?

_____

i. ☐ Asset tag

17. What is the asset tag number?

_____

j. ☐ No identifiers known

18. Was a device intended for single use involved in the event or unsafe condition (including use of a reprocessed single-use device)? CHECK ONE:

a. ☐ Yes
b. ☐ No
c. ☐ Unknown

19. Was a device intended for a single use reused in the event or unsafe condition? CHECK ONE:

a. ☐ Yes
b. ☐ No
c. ☐ Unknown

20. Did the event or unsafe condition involve a medication or other substance? CHECK ONE:

a. ☐ Yes → **ALSO COMPLETE THE MEDICATION OR OTHER SUBSTANCE FORM**
b. ☐ No
c. ☐ Unknown

IF THE EVENT OR UNSAFE CONDITION DID NOT INVOLVE AN HIT DEVICE

STOP This form is complete.

IF THE EVENT OR UNSAFE CONDITION INVOLVED AN HIT DEVICE, ANSWER QUESTIONS 21-26

21. Which of the following best characterizes the type of HIT device related to the event or unsafe condition?

CHECK ONE:

a. ☐ Administrative/billing or practice management system

b. ☐ Automated dispensing system

c. ☐ Electronic health record (EHR) or component of EHR

d. ☐ Human interface device (e.g., keyboard, mouse, touchscreen, speech recognition system, monitor/display, printer)

e. ☐ Laboratory information system (LIS), including microbiology and pathology systems

f. ☐ Radiology/diagnostic imaging system, including picture archiving and communications system (PACS)

g. ☐ Other: **PLEASE SPECIFY** _____

22. Which component of the administrative/billing system?

CHECK ONE:

a. ☐ Master patient index

b. ☐ Registration/appointment scheduling system

c. ☐ Coding/billing system

d. ☐ Unknown

e. ☐ Other: **PLEASE SPECIFY** _____

23. Which type or component of the EHR? CHECK ONE:

a. ☐ Computerized provider order entry (CPOE) system

b. ☐ Pharmacy system

c. ☐ Electronic medication administration record (e-MAR)

d. ☐ Clinical documentation system (e.g., progress notes)

e. ☐ Clinical decision support (CDS) system

f. ☐ Unknown

g. ☐ Other: **PLEASE SPECIFY** _____

24. Which of the following describes the circumstances involving the HIT device in the event or unsafe condition?
CHECK ALL THAT APPLY:

a. ☐ Incompatibility between devices
b. ☐ Equipment/device function
c. ☐ Equipment/device maintenance
d. ☐ Hardware failure or problem
e. ☐ Network failure or problem
f. ☐ Ergonomics, including human/device interface issue
g. ☐ Security, virus, or other malware issue
h. ☐ Unexpected software design issue
i. ☐ Unknown
j. ☐ Other: **PLEASE SPECIFY**

_____

25. Which problem(s) resulted from the equipment/device function problem? CHECK ALL THAT APPLY:

a. ☐ Loss or delay of data
b. ☐ System returns or stores data that does not match patient
c. ☐ Image measurement/corruption issue
d. ☐ Image orientation incorrect
e. ☐ Incorrect test results
f. ☐ Incorrect software programming calculation
g. ☐ Incorrect or inappropriate alert
h. ☐ Other: **PLEASE SPECIFY**

_____

26. Which ergonomics or human/device interface issue(s)?
CHECK ALL THAT APPLY:

a. ☐ Hardware location (e.g., awkward placement for use)
b. ☐ Data entry or selection (e.g., entry or selection of wrong patient, wrong provider, wrong drug, wrong dose)
c. ☐ Information display or interpretation (e.g., font size, color of font, location of information in display screen)
d. ☐ Alert fatigue/alarm fatigue
e. ☐ Other: **PLEASE SPECIFY**

_____

Common Formats Expert Panel
Roles and Responsibility

NATIONAL QUALITY FORUM

Common Formats Expert Panel Members

Present at Discussion of HIT Safety

- David C. Classen, MD, MS (Co-Chair)
- Henry Johnson, MD, MPH (Co-Chair)
- Gerard M. Castro, MPH
- John Clarke, MD, FACS
- Nancy Donaldson, RN, PhD, FAAN
- Richard P. Dutton, MD, MBA; Peter Elkin, MD, MACP, FACMI
- Matthew Grissinger, RPh, MS, FISMP, FASHP
- Helen Lau, RN, MHROD, BSN, Bmus
- Lori Payne, RN, MS
- Shannon Phillips, MD, MPH, FAAP
- Heather Sherman, PhD
- David C. Stockwell, MD, MBA
- Richard H. White, MD, VTE Advisor
- Liaison Member, William Munier MD, MBA

Role of the Expert Panel

Receive and review comments made by health care stakeholders and make recommendations to AHRQ for evolving the Common Formats sets and supporting documentation

Ad hoc - Input to HIT Safety work

Common Formats Expert Panel
Discussion of HIT Safety

NATIONAL QUALITY FORUM

Process for Considering HIT Safety

Presentation of Request for Input

Review of HIT Safety Framework

- Three-Level Health IT Quality and Safety Improvement Model
- Crosswalk of draft HIT Safety Framework and Measure Concepts identified by HIT Safety Committee
- Background provided by staff and co-chair

Discussion Points

- **Clarification of Scope**
  - HIT events vs HIT as factor contributing to event
  - Work appears EHR centered vs considering issues with devices such as monitors, smart pumps, clinical decision support systems, CPOE
  - Future work could move into issues related to devices, patient portals, personal health records, health information exchange…

Discussion Points
cont.

- **Framework Collection Goals**
  - Consider reality of what framework is looking to collect
    - » Frontline staff will not have all the information or time to obtain
    - » Alternatives to how and by whom framework will be used
    - » Importance of systems speaking same language

Discussion Points
cont.

- **Patient Identification Error**
  - Ensure correct patient record is before the clinician
  - Fundamental needs
    - Data availability
    - Integrity
    - Security

Discussion Points
cont.

- **Systems with Capacity to Predict**
  - Push toward capacity to synthesize data elements
    - » Analysis of patterns of data to alert users of potential concern

- **Data Integrity**
  - Building in correlations such as data elements with established scope standards

Discussion Points
cont.

- **Checks and Balances**
  - Consider including in the framework tools to provide checks and balances against unsafe conditions
    - » Workflow Engines
    - » Critical Guideline Engines
    - » Solutions for Pre-visit Planning Errors
    - » Data Collection/Dissemination/Use from Clinical Measures

- **System Standards**
  - Press for HIT system industry standards

Discussion Points
cont.

- **Patient Engagement**
  - Consider HIT system uses that could facilitate engagement
    - » Adherence to treatment plans and medications, reduction of ER visits and unplanned readmission

- **Consider cost of all approaches to achieving higher levels of patient safety work**

Break

Introduction to Measure Concepts

Expectations for Breakout Groups

Review of Measure Concepts

Measure Concepts

- The list of measure concepts identified by the Committee has been refined and trimmed down slightly by staff in coordination with the co-chairs
  - The Committee will continue this work as part of their prioritization activities
- While most concepts fall into multiple domains of the framework, for ease of categorization and analysis, each concept is currently assigned a 'primary' framework domain
- Staff has also tentatively assigned each concept one or more levels of accountability: vendor, facility, and/or clinician

Review of Measure Concepts

For purposes of breakout work, measures have been assigned to two main categories, each with two sub-groups based on measurement themes:

- Design, development, and configuration of HIT systems
  - **Group A:** *Data availability, data security, data integrity, interoperability, system downtime, user-centered design, system surveillance, monitoring, & improvement*
  - **Group B:** *System usability, user-centered design, system installation & configuration, workflow design, patient portal design & implementation, system surveillance, monitoring, & improvement*
- Implementation and use of HIT systems
  - **Group C:** *Organizational planning and preparation for HIT, maintenance of data security, user training & competency, complete & correct use of HIT, system installation & configuration, workflow design & implementation, alert effectiveness, surveillance & monitoring*
  - **Group D:** *Information transfer for transitions in care, complete & correct use of HIT, workflow design & implementation, implementation & use of patient portals*

Review of Measure Concepts

Each breakout group will:

1. Review assigned measure concepts to determine if any concepts should be added or eliminated

2. Rate remaining concepts for **importance** and **feasibility**: High/Moderate/Low

3. Select the five highest-priority concepts

Concept Review
Rating For Importance **[Scale: High/Moderate/Low]**

When rating the <u>importance</u> of each concept, groups should consider the following:

Degree of impact on patient safety

- If a vendor, organization, or clinician (as appropriate) had poor performance on this measure, what would be the effect on patient safety?

Evidence supporting measurement of this issue

- What is the strength of evidence that this measure concept reflects real and meaningful concerns related to the safety and safe use of HIT systems?

"Actionability" (i.e., the likelihood that measuring this issue will drive changes in organizational or individual behavior)

- If this concept were to be developed and implemented, would its application drive improvement in performance among measured entities?

Concept Review
Rating For feasibility **[Scale: High/Moderate/Low]**

When rating the feasibility of each concept, groups should consider the following:

Availability and ease of capturing data

- What information would be required to calculate this measure, and is that information readily available and/or feasible to collect?

General 'measurability' of the issue in question

- Is this concept something that can be defined and specified in such a way that it could be measured consistently and accurately across measured entities?

Readiness of organizations to tackle the problem

- Given the focus of this concept, would it be reasonable to expect organizations or individuals to have the resources and capabilities necessary to address the problem in question?

Concept Review
Measure Concept Details

Once the group has selected its 'top five' measure concepts, group members should provide, if possible, the following for each of the five concepts:

- Brief description
- Accountable entity or entities
- Possible data sources and/or data collection methods
- Key considerations for measurement of this concept (e.g., barriers, challenges, opportunities, etc.)

Break-Out Sessions

The Office of the National Coordinator for Health Information Technology

RTI INTERNATIONAL

A Roadmap for a National Health IT Safety Collaboratory

Linda Dimitropoulos, PhD
National Quality Forum

HIT and Patient Safety Meeting

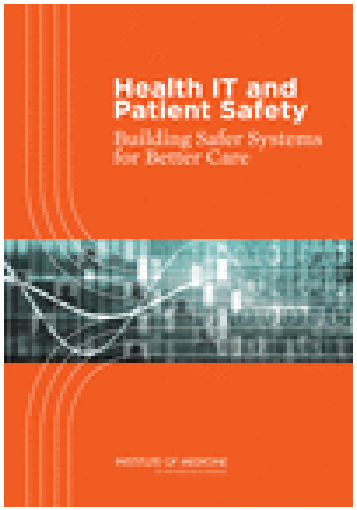
September 16, 2015

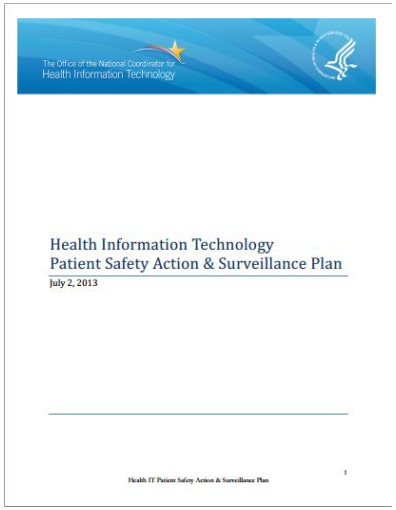
Why We Need a Health IT Safety Collaboratory

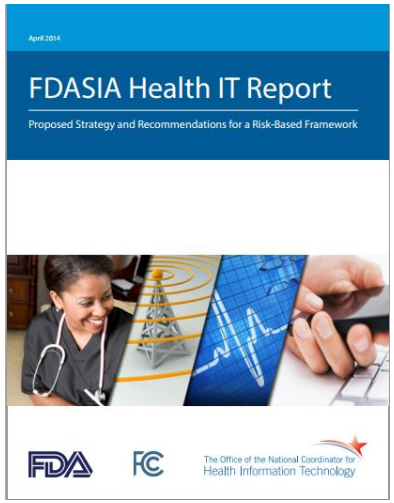
- Recommendations from prior HHS health IT safety initiatives
- Growing evidence base on health IT safety risks and hazards
- Need for solutions to identified safety risks
- Commitment to support and build upon private-sector efforts

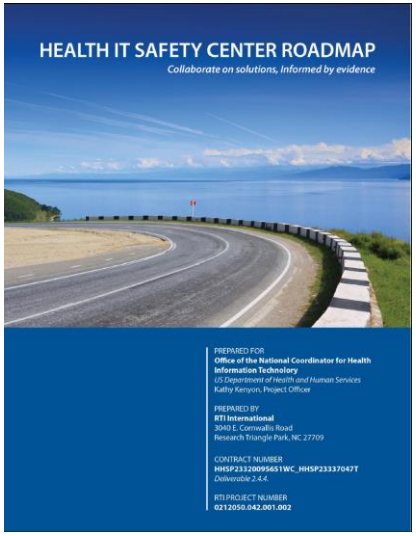
Shared Learning, Shared Responsibility

Background









2011 2013 2014 2015

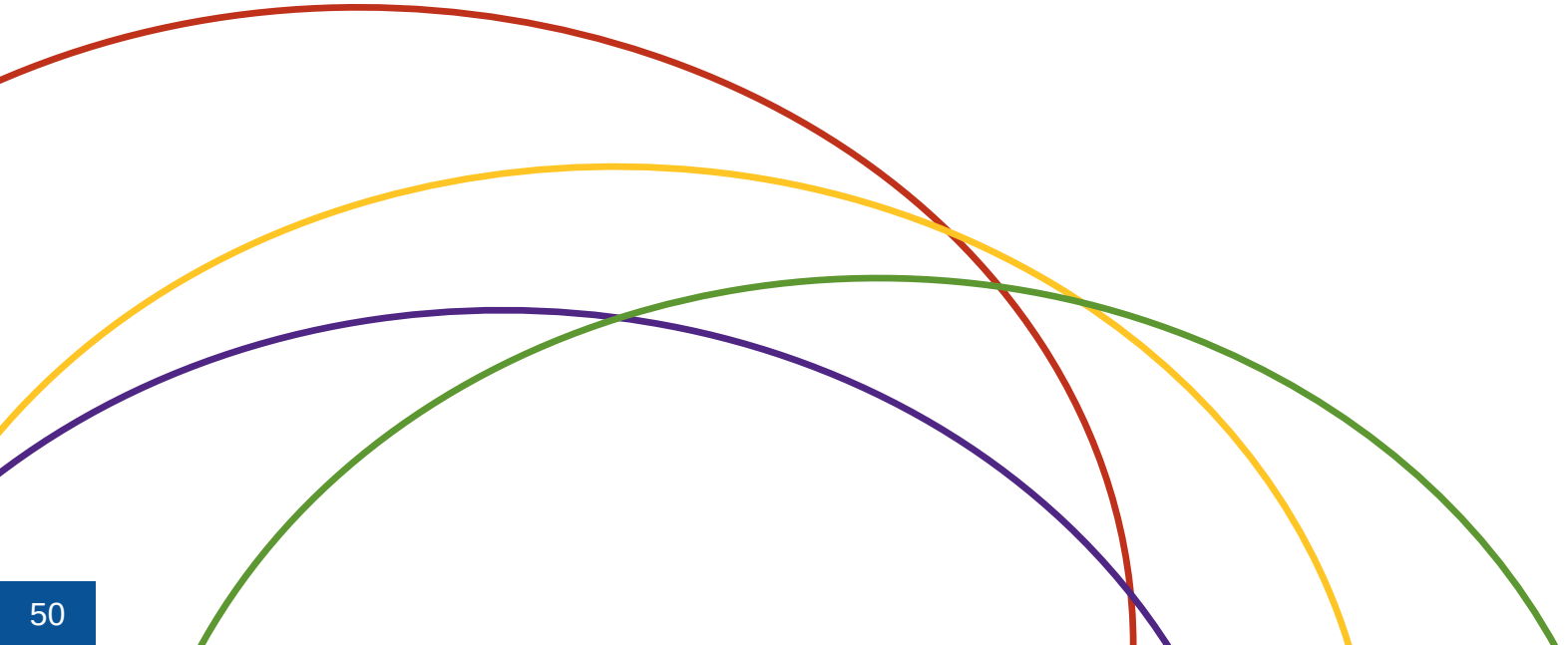
Health IT Safety Center (*Collaboratory*) Roadmap Project

- Funded by the Office of the National Coordinator for Health IT (ONC)
- One year scope of work, followed by one option year
- Three main task groups on this contract:
  1. Task Force and Roadmap
  2. Education and Engagement
  3. Analysis and Research

Project Goals and Objectives

- Produce a Roadmap for a national Health IT Safety Collaboratory using a planning process that solicits private sector stakeholder input
- Conduct programs and analyses for immediate advancement of health IT safety. Purposes include:
  - Improving safety and safe use of health IT;
  - Raising awareness of health IT safety-related initiatives, research and best practices; and
  - Collecting information on stakeholder acceptance and uptake for potential health IT safety Collaboratory activities.

Developing the Collaboratory Roadmap



Process Overview

- Develop scoping document
- Convene a Task Force, Steering Committee, and Workgroups
- Develop Roadmap components for Collaboratory
  - Core Activities and Functions
  - Operations and Governance
  - Funding Mechanisms
- Produce Roadmap

Roadmap Scoping Document

- Outlines Task Force activities
- Provide Task Force guidance on:
  - Collaboratory functions and activities suggested in previous work.
  - Areas outside the realm of authority for a Collaboratory wholly or partially funded by ONC/AHRQ.
- Goal: produce a Roadmap outlining a 5 year plan for creating a national Collaboratory
- Initial suggestions intended to provide a starting point

The Office of the National Coordinator for Health Information Technology

RTI INTERNATIONAL

Health IT Safety Center Road Map Task Force

Introduction and Background

The mission of the Office of the National Coordinator for Health IT (ONC) includes developing a health IT infrastructure to promote safety, reduce medical errors, and increase quality and value in health care.

ONC supported that patient safety mission by commissioning the Institute of Medicine (IOM) to produce a report in 2011: *Health IT and Patient Safety: Building Safer Systems for Better Care*.[1] The report recommended a number of actions which, when implemented, would result in a learning health system that leverages health IT to provide safer, better care. The IOM stated that "shared responsibility" among public and private sector stakeholders for the safety and safe use of health IT is essential.

Building on the IOM Report, ONC released the Department of Health and Human Services' *Health IT Patient Safety Action and Surveillance Plan*[2] (Health IT Safety Plan) in July 2013, which identified strategies to achieve two core objectives: 1) use health IT to make care safer, and 2) continuously improve the safety of health IT.

In April 2014, ONC, the U.S. Food and Drug Administration (FDA), and the Federal Communications Commission (FCC) published the congressionally mandated *FDASIA Health IT Report, Proposed Strategy and Recommendations for a Risk-Based Framework*.[3] The draft report identified the potential creation of a Health IT Safety Center as a key non-regulatory component of an effective risk-based framework for health IT safety. For health IT not currently regulated by the FDA, the FDASIA draft report suggested four priorities: promote the use of quality management principles; identify, develop, and adopt standards and best practices; leverage conformity assessment tools; and create an environment of learning and continual improvement. The FDASIA draft report envisioned a Health IT Safety Center as a public-private entity that helps create a sustainable, integrated learning system for health IT safety that would promote innovation and leverage and complement existing and ongoing safety initiatives.

Health IT Safety Center Road Map Project

Based on this work, in September 2014, the ONC contracted with RTI International to develop a Road Map for a potential Health IT Safety Center. As a central component of this work, RTI has convened a Task Force of private-sector stakeholders to provide input into the development of the Road Map. Representatives from ONC, the Agency for Healthcare Research and Quality (AHRQ), the FDA, the FCC and, as appropriate, other Federal agencies will also participate in the Task Force.

Defining Core Health IT Safety Center Objectives and Functions in the Road Map

In developing the Road Map, the Task Force will be asked to prioritize the value of potential core activities, as well as to consider options for governance and for funding mechanisms/levels for a Health IT Safety Center. Initially, the focus will be on health IT-related clinical processes that rely upon interoperable certified electronic health record technology, although that focus may broaden over time. Table 1 provides a broad summary of operational considerations for a potential Health IT Safety Center. The Task Force may consider other factors that might strengthen the Health IT Safety Center's value proposition and engage private-sector stakeholders in ways that support (and do not supplant) private-sector health IT safety initiatives and responsibilities.

Access the Scoping Document:
www.healthitsafety.org

Roadmap Considerations

Define Core Activities

- Conduct educational programs
- Promote opportunities for engagement and research
- Analyze evidence
- Support tool/intervention development
- Identify health IT safety goals, priorities, and related measures
- Support measure and evaluate progress toward goals
- Collect and share learning/best practices
- Provide a forum

Operations and Governance

- Public-private partnership
- Build upon and compliment existing efforts; avoid duplication

Assess Funding Mechanisms

- Sustainable funding models
- Develop value proposition

Scope of Health IT Safety Collaboratory

- Limitations:
  - Will not engage in direct investigation or surveillance.
  - Will not include operating or funding the operations of a PSO.
  - Will not include direct data collection.
  - Will not include performing functions of Federal Advisory Committees.
  - Will not include activities that are exclusively the responsibility of Federal entities, and, therefore, cannot be delegated to outside parties, such as the exercise of regulatory authority, establishing government programs, and decision making related to Federal budget expenditures and priorities.

Task Force, Steering Committee and Workgroups

- Convened **Task Force** of health IT safety stakeholders
  - Identified through publications, discussions with health IT safety experts
  - Provide input into the Roadmap
  - Provide feedback on educational events and engagement activities
  - Review and comment on health IT safety related reports
- Formed **Steering Committee** of Task Force members
  - Advise and guide Task Force and Work Group meetings
  - Review and comment on early drafts of Roadmap sections
- Formed two **Workgroups** of Task Force Members
  - Core Functions and Activities Workgroup
  - Operations Workgroup

Task Force Stakeholder Representation

- National medical, hospital, and pharmaceutical associations
- Patient Safety Organizations (PSOs)
- Patient/consumer advocacy groups;
- EHR developers/vendors
- Researchers on human factors engineering, patient safety, and health IT safety
- Nursing informatics
- Hospital IT leadership
- Small provider practice
- Medical liability insurers
- Health care accrediting organization
- Health care payer
- Office of the National Coordinator for Health IT (ONC)
- Agency for Healthcare Research and Quality (AHRQ)
- Federal Drug Administration (FDA)
- Federal Communications Committee (FCC)
- Centers for Medicare & Medicaid Services (CMS)

Task Force Members

Emily Barey, R.N.
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Peggy Binzer, J.D.
Alliance for Quality Improvement and Patient Safety
Gerry Castro, M.P.H.
The Joint Commission
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Marilyn Neder Flack
Association for the Advancement of Medical Instrumentation
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Electronic Health Record Association (EHRA)
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Hackensack University Medical Center; (CHIME member)
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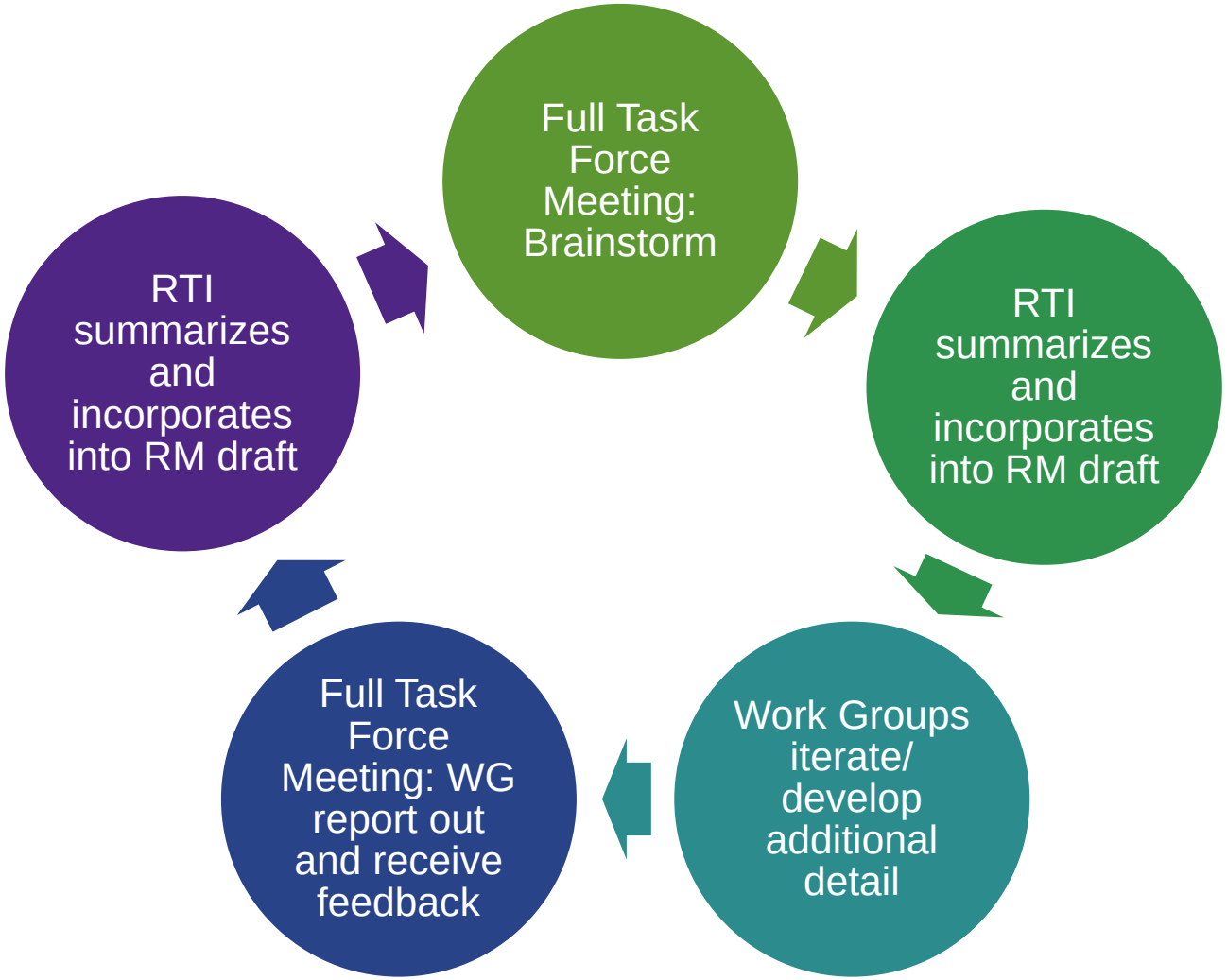
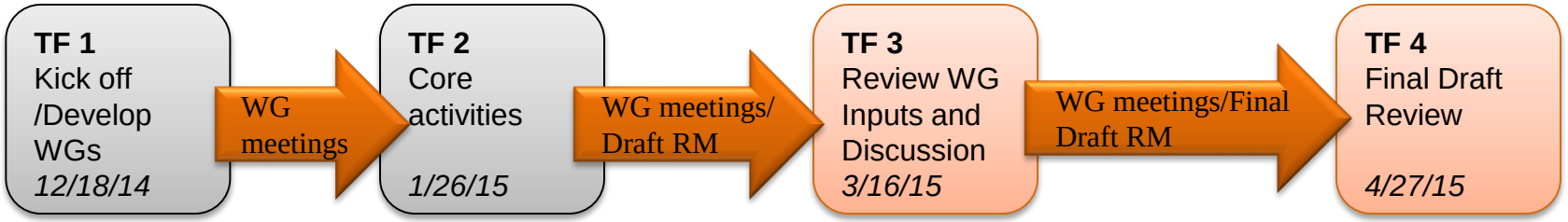
National Alliance of State Pharmacy Associations
Ronni Solomon, J.D.
ECRI Institute
Steven Stack, M.D.
American Medical Association
Stephanie Zaremba, J.D.
Athenahealth

*** Steering Committee Members in blue**

Task Force/Workgroup Process



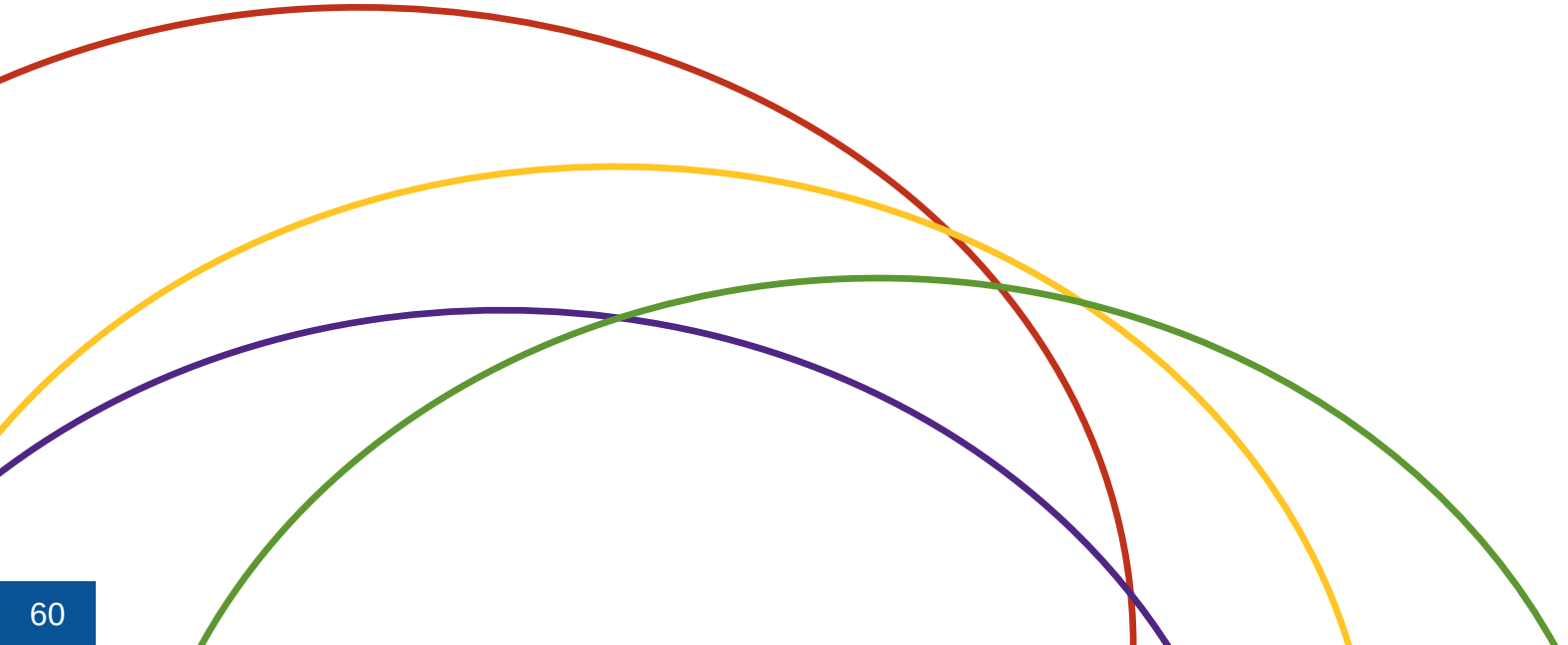
Timeline



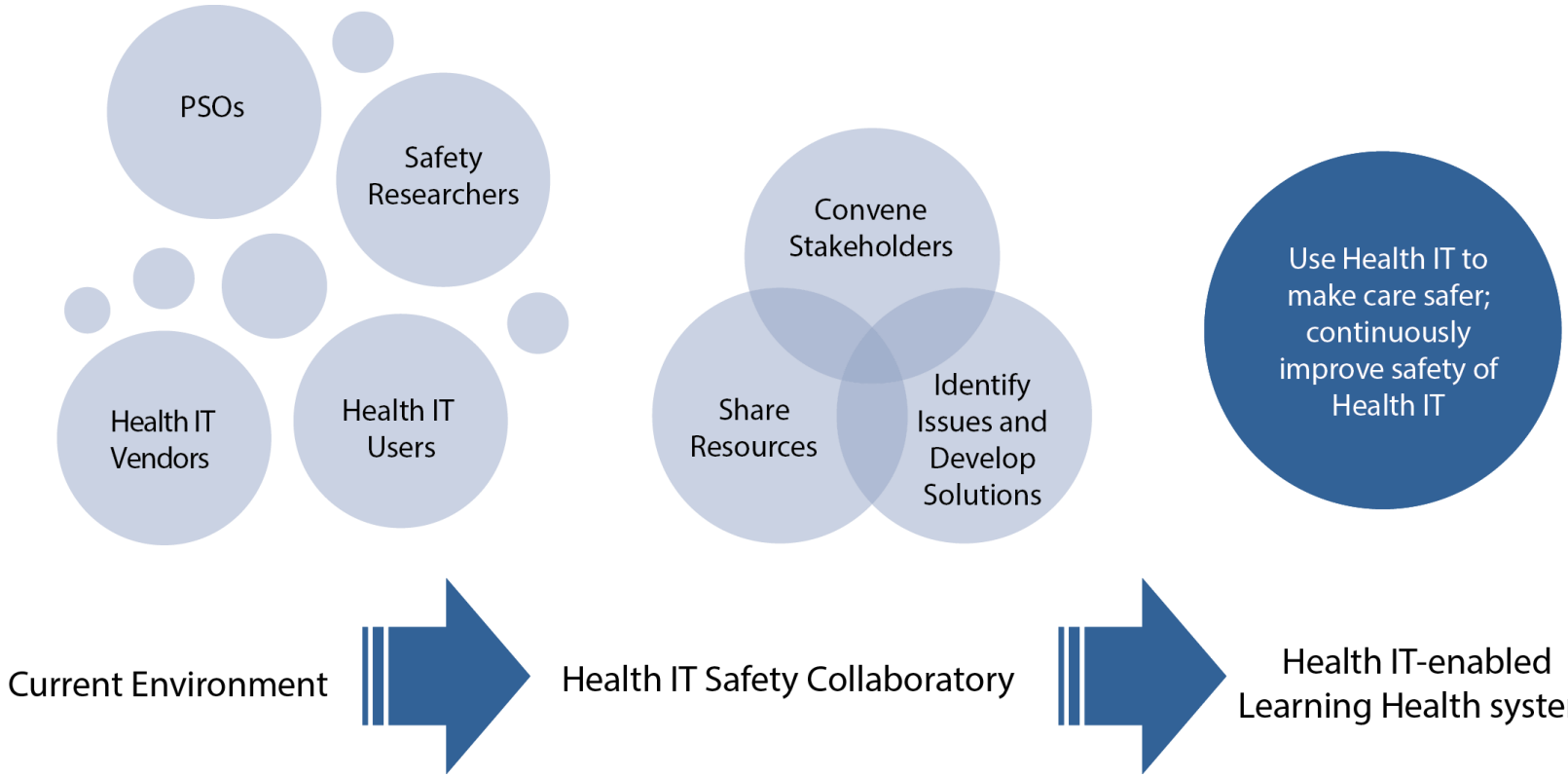
- December 2014 – April 2015
- 4 main Task Force meetings
- Steering Committee meet after full Task Force meeting
- Workgroups in-between Task Force meetings

Roadmap reflects consensus of Task Force members

Collaboratory Vision, Goals, Attributes, and Core Functions



Collaboratory Vision and Objectives



Safer systems, better care using health IT

Collaboratory Attributes

- Dedicated to shared learning, shared responsibility
- Solutions-focused
- Built upon private sector initiatives
- Committed to clinical users of health IT and their patients
- A public-private partnership
- A trusted, learning, nonpunitive environment
- Transparent

Collaboratory Stakeholders

- Patients and family caregivers
- Individual health care clinicians/providers
- Health IT developers/vendors
- Health care provider organizations
- Health IT professionals
- Health IT safety researchers and educators
- Safety organizations
- Accreditation organizations
- Medical liability insurers and health insurers
- Organizations that support electronic exchange of health information (HIE) and interoperability
- Government entities with responsibility for patient safety and health IT

Collaboratory Focus Areas and Activities

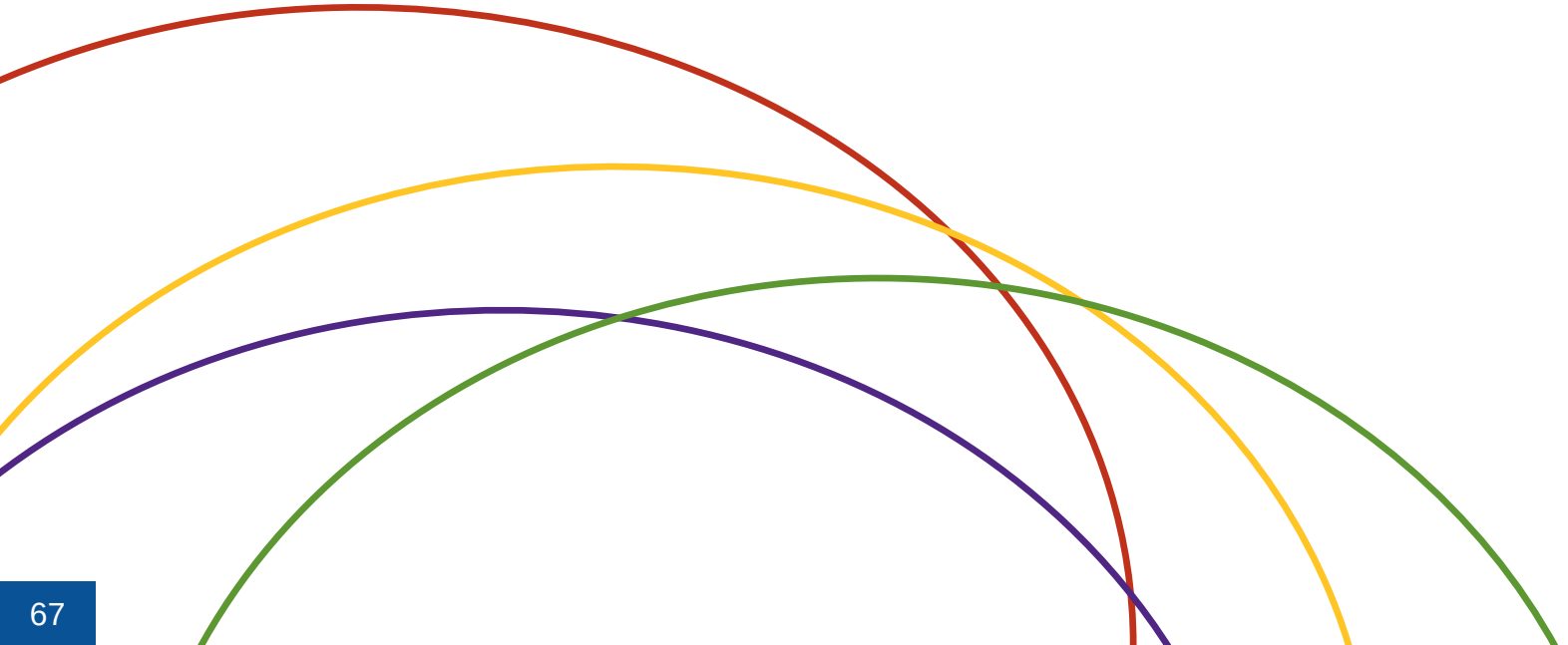
- **Collaborate on solutions** to address health IT safety-related events and hazards
  - Activity: support development of targeted solutions to health IT safety issues identified through evidence
  - Activity: dissemination, pilot testing, adoption, and evaluation of these solutions
- **Improve identification and sharing of information** on health IT-related safety events and hazards
  - Activity: strengthening and augmenting existing ways to identify and classify health IT-related safety events
  - Activity: identify ways to encourage better reporting of health IT-related events
  - Activity: identify and share advances in automated safety tools for adverse event detection and health IT-related safety improvements
- **Reporting evidence** on health IT safety and on solutions
  - Activity: produce reports summarizing current evidence of health IT safety
  - Activity: targeted examinations of specific issues and identify approaches to addressing these issues
- **Promoting health IT-related safety** education and competency
  - Activity: serve as a clearinghouse for health IT safety solutions and educational resources
  - Activity: develop new educational resources and training materials to build health IT-related competencies

Core Functions *Focus on Solutions*

- **Convening**: assemble stakeholders to find solutions to high-priority issues
  - Share analyses of safety event data, agree upon high-priority issues, identify or develop solutions, test and evaluate, train and educate
- **Research**: support development of solutions
  - Collect and assess existing analyses of health IT safety event data
  - Identify existing solutions (best practices, tools, initiatives, etc.)
  - Apply or improve methods to characterize health IT safety events
  - Evaluate impact of solutions and education
- **Dissemination**: promote and distribute Collaboratory work products
  - Solutions, evidence reports, event characterization methods, educational materials
  - Real world pilot testing and evaluation of solutions
  - Directory of health IT safety resources

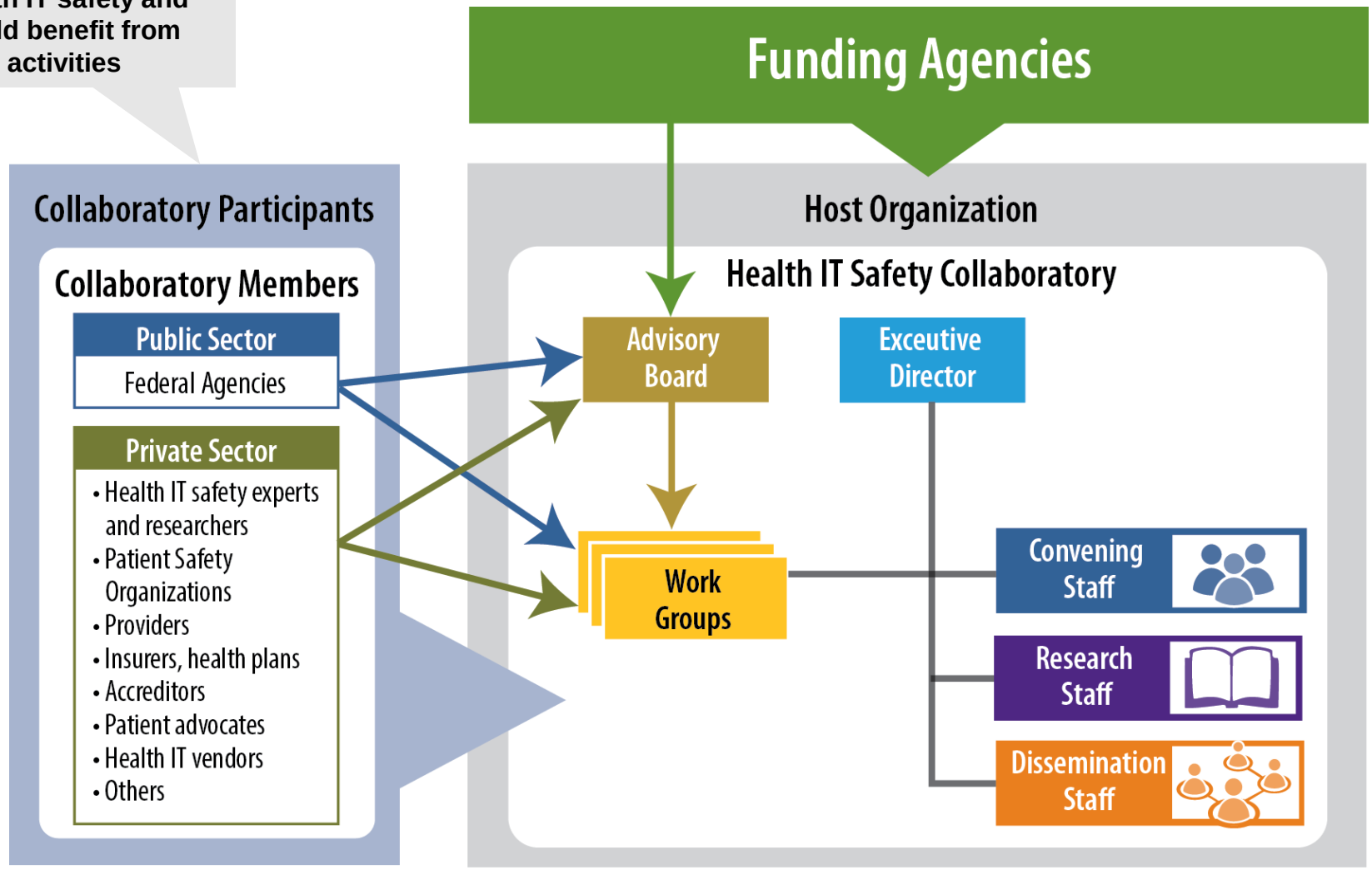
Proposed Health IT Safety Collaboratory Activities	Convening	Research	Dissemination
Support development of targeted solutions to health IT-related safety issues identified through evidence	✓	✓	
Dissemination, pilot testing, adoption, and evaluation of solutions	✓	✓	✓
Strengthen and augment existing ways to identify and classify health IT-related safety events	✓		
Identify ways to encourage better reporting of health IT-related events	✓	✓	✓
Identify and share advances in automated safety tools for adverse event detection and health IT-related safety improvements	✓		✓
Produce reports summarizing current evidence of health IT safety		✓	
Targeted examinations of specific issues and identify approaches to addressing issues		✓	
Serve as a clearinghouse for health IT safety solutions, evidence reports, and best practices			✓
Develop new educational resources and training materials to build health IT safety-related competencies	✓	✓	

Collaboratory Operations and Funding Model



Collaboratory would be inclusive – open to anyone interested in health IT safety and could benefit from activities

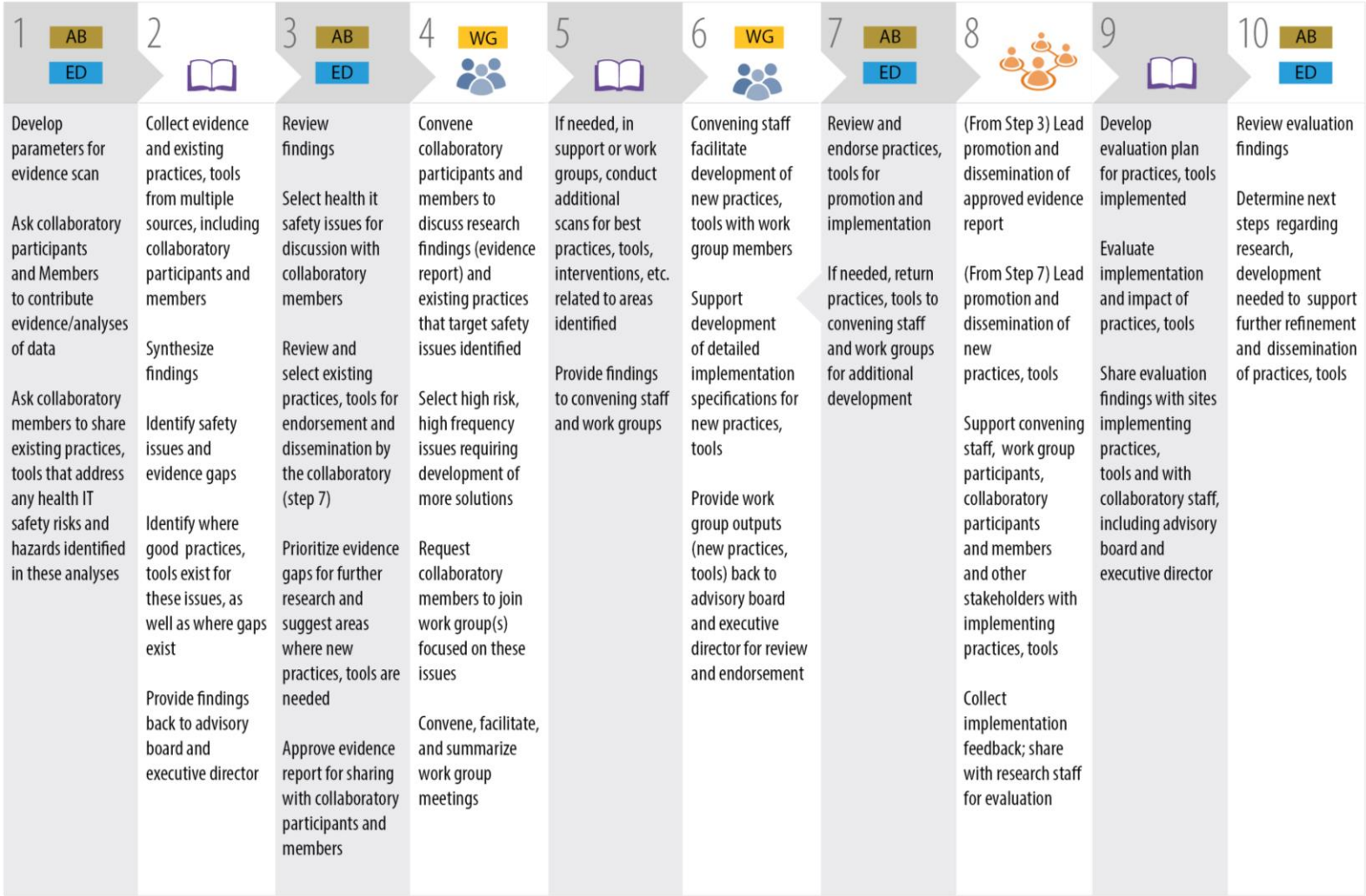
Operations: Organization Chart



Key Roles and Responsibilities

- **Collaboratory Participants:** provide input into the Collaboratory's activities, receive work products, and participate in education and training sessions.
- **Collaboratory Members:** agree to share evidence and analyses (de-identified of patient information) of health IT safety events and offer any solutions developed in addressing those events. Include public and private sector stakeholders.
- **Funding Agency:** One or more Federal agencies that provide initial seed funding and guidance for the proposed Collaboratory through a cooperative agreement.
- **Host Organization:** a single, existing organization that would operate the Collaboratory as program and be able to enter into a cooperative agreement with the funding agency.
- **Executive Director**: engage advisory board; oversee Collaboratory launch and day-to-day operations; develop and execute work plan; manage staff; secure engagement.
- **Advisory Board:** stakeholders to direct and prioritize Collaboratory activities.
- **Convening Staff**: Convene Collaboratory work groups to review evidence, identify issues, develop solutions, and for education.
- **Research Staff**: focus on methods and producing evidence scan, targeted analyses of safety issues
- **Dissemination Staff**: promote and distribute Collaboratory work products (evidence, solutions), assist with the implementation and evaluation of work products, develop and support Web-based directory.
- **Workgroups**: stakeholders to review evidence, develop solutions and work on projects prioritized by the Advisory Board.

Operations: Example Work Flow



Oversight and Accountability

- Host Organization:
  - Initially provide governance in accordance with terms of Cooperative Agreement
- Advisory Board:
  - Guide Executive Director on Collaboratory activities and priorities
  - Oversee execution of Collaboratory operational plan

Collaboratory Funding Model Objectives

- Charge from ONC:
  - Estimate funding needed to support all functions of an “optimal” Collaboratory (100%)
  - Estimate funding and functions for 75%, 50% of “optimal”
- Functions/Activities in order of priority
  - Convening Workgroups to focus on specific high priority areas
  - Research and Dissemination

Funding Models Considered

- Operations Workgroup – high level review of multiple organizational structures and associated funding models
- Highlighted Attributes:
  - Federal funding at least as a starting point
  - Independence desirable but multiple pieces required (Congressional approval or legislation, private funding, etc.)
  - Support for convening, research, and dissemination

Funding Source and Approach

- Proposed Funding Source
  - 5 year Cooperative Agreement to host organization
  - Awarded through open competition
  - Rapid launch to existing organization
  - Collaboratory function as a program
  - Mix of direct funding agency involvement and host organization flexibility to work towards sustainability and autonomy
- Phased Approach:
  - Phase 1: Year 1 – Start-Up
  - Phase 2: Years 2-3 – Establishment
  - Phase 3: Years 4-5 – Sustainability

Funding Model Inputs

- Staffing
  - Full time Executive Director across scenarios
  - Full time Convening Lead across scenarios
  - Partial FTEs for other positions at lower funding levels
- Other Costs
  - Infrastructure (facilities, telecommunications)
  - Travel
  - Meeting support
  - Consultants
- Collaboratory Participants & Members (***in kind***)
  - Advisory Board members – *volunteer, unpaid*
  - Workgroup participants – *volunteer, unpaid*

Funding model builds up from labor and other costs. Not start with a set figure.

5 Year Cost Estimates

Funding Scenario	5 Year Cost Estimate Range
100% (optimal)	$17.8 – $20.6M
75%	$12.9 – $14.9M
50%	$9.1 – $10.5M

Some Final Considerations

- **Roadmap intended as a starting point for a national Collaboratory**
  - Not cover all potential activities
  - Focus on those Task Force recommended as high value
- **Roadmap focuses on improving health IT safety**
  - Collaboratory functions and operational processes also apply to using health IT to make care safer
- **Convening a diverse mix stakeholders is paramount**
  - Safe space for stakeholders to work together on identifying health IT safety issues and developing solutions
- **Collaboratory could support development of safety cultures in participant and member organizations**
- **Roadmap process built foundation for Collaboratory**
- **Moving forward requires Congressional agreement and funding**

Webinar Series is online!

View the Series Online!

Please visit: www.healthitsafety.org/education

or contact healthitsafety@rti.org for more information on the entire webinar series:

1. The Role for the EHR in Patient Safety: What does the Evidence Tell Us?
2. The Role of e-Prescribing in Health IT Safety: Challenges and Solutions
3. Advancing Health IT Safety and Quality through Interoperability
4. Patient Safety Organizations (PSOs) and Health IT Safety
5. CPOE, CDS and Health IT Safety
6. How can we Improve Diagnosis and Safety Using Health IT?
7. EHR Usability and Health IT Safety
8. EHR Documentation and Health IT Safety
9. Information Transparency and Health IT Safety
10. A Roadmap for a National Health IT Safety Collaboratory

www.healthitsafety.org

Health IT Safety Center Roadmap

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Welcome to the Health IT Safety Center Roadmap Project Site

This site provides information regarding the development of a Roadmap for a potential national Health IT Safety Center.

READ MORE

Health IT Safety Center Roadmap Now Available
July 17, 2015

The Health IT Safety Center Roadmap is now available. Along with the Roadmap, RTI has developed a brief set of frequently asked questions available on the Q&A tab.

Health IT Safety Center Roadmap
Download File

Break

Break-out Groups: Report-Out

Group A: HIT Design and Development 1

Gerard Castro, PhD, MPH The Joint Commission, Oakbrook Terrace, IL

Group B: HIT Design and Development 2

William Marella, MBA Pennsylvania Patient Safety Authority, Plymouth Meeting, PA

Opportunity for Public Comment

Standing Committee Dinner

Additional Information

- Dinner Reservation 6:00PM
- Parties will have separate checks
- NQF will reimburse for dinner **up to $36** plus one alcoholic beverage

MIO

1110 Vermont Street NW

Washington, DC 20005

Day 2: Thursday, September 17, 2015

- 9:00 am **Welcome, Goals, Agenda Review, Recap of Day 1, Goals for Day 2**
- 9:45 am **Continue Discussion of Breakout Sessions**
- 11:00 am **Break**
- 11:15 am **Discussion: Final Prioritization of Measure Concepts**
- 11:45 am **Other ONC HIT Patient Safety Projects**
- 12:30 pm **Public and Member Comment**
- 12:45 pm **Lunch**
- 1:30 pm **Discussion: Final Prioritization of Measure Concepts cont.**
- 2:15 pm **Break**
- 2:45 pm **Next Steps/Wrap Up**
- 2:55 pm **Public and Member Comment**
- 3:00 pm **Adjourn**

Meeting Objectives
Goals for Day 2

- Final prioritization of measure concepts
  - Identify the ten highest-priority measure concepts or measurement areas related to HIT safety
    - these findings will inform the Committee's recommendations for future measure development and resource allocation related to the safety and safe use of HIT systems.
- Review NQF measure evaluation criteria to provide input on whether evaluation of HIT Safety measures requires special considerations.

Break-out Groups: Report-Out

Group B: HIT Design and Development 2
William Marella – Lead Discussant
Hardeep Singh
Gregory Alexander
Linda Dimitropoulos
George Hripcsak

Group D: HIT Implementation and Use 2
Karen Paul Zimmer
Tejal Gandhi
Andrea Gelzer
Dena Mendelsohn
Mark Segal

Workgroup B: Concept Review
Top 5 Concepts

1) Burden of data entry

2) Usability evaluation that promotes safety

3) Documentation quality

4) Risk-management infrastructure

5) Engaging patients in identifying safety problems

Workgroup B: Concept Review
Measure Concept Details

Concept 1) Burden of Data Entry

- Brief description
  - Burden of data entry is correlated to patient safety issues and is leading to workarounds; potential measures would assist in the identification of those workarounds and their risk to patient safety
- Accountable entity or entities
  - Facilities and practitioners

Workgroup B: Concept Review
Measure Concept Details

- Possible data sources and/or data collection methods
  - Metadata from the EHR system that lists user credentials, number of orders over a specific time period and proportion entered by someone else other than the ordering provider.
- Key considerations for measurement of this concept (e.g., barriers, challenges, opportunities, etc.)
  - Tying the order to the actual documentation; vendor dependent; assuming all entitles are discreetly identifiable through their user IDs

Workgroup B: Concept Review
Measure Concept Details

Concept 2) Usability evaluation that promotes safety

- Brief description
  - Assessments for the use of increasing EHR usability during all phases of the lifecycle for the purpose of increasing patient safety

- Accountable entity or entities
  - Pre-deployment – Vendor
  - Post-deployment- clinician users, physicians, vendors

Workgroup B: Concept Review
Measure Concept Details

- Possible data sources and/or data collection method
  - Formal usability instruments, such as the Simple Usability Scale as well as reported problems and direct observation of users

- Key considerations for measurement of this concept (e.g., barriers, challenges, opportunities, etc.)
  - The need to minimize the time burden of clinician participation in the evaluation

Workgroup B: Concept Review
Measure Concept Details

Concept 3) Documentation quality

- Brief description
  - All EHR stakeholders are obligated to assess the quality of clinical documentation, including its completeness, accuracy, and timeliness
- Accountable entity or entities
  - Providers, facilities, commissioned users and vendors

Workgroup B: Concept Review
Measure Concept Details

- Possible data sources and/or data collection methods
  - Vendors would need to obtain metadata from the EHR to calculate the timeliness of documentation; assess the content and quality of the notes through retrospective chart review (existing quality measure at NQMC “Medical record completeness and quality”)
- Key considerations for measurement of this concept (e.g., barriers, challenges, opportunities, etc.)
  - Difficulty of measuring quality of documentation; building in updates and training/retraining individuals on appropriate documentation and patient safety issues.

Workgroup B: Concept Review
Measure Concept Details

Concept 4) Risk-management infrastructure

- Brief description
  - Organizations assess risks to patient safety using multiple sources, such as IT help desk tickets, risk management information systems, trigger tools, patient complaints/corrections
  - Organizations engage in formal processes for evaluating and responding to risks identified by other organizations, such as PSOs, vendor user groups, and the published literature
- Accountable entity or entities
  - Vendors and Facilities

Workgroup B: Concept Review
Measure Concept Details

- Possible data sources and/or data collection methods
  - Help desk tickets, risk management information systems, trigger tools, patient complaints, PSOs, vendor user groups, vendor issued hazards and recalls, and the published literature

- Key considerations for measurement of this concept (e.g., barriers, challenges, opportunities, etc.)
  - Expertise in investigating risks using these multiple sources. Understanding event investigation methods

Workgroup B: Concept Review
Measure Concept Details

Concept 5) Engaging patients in identifying safety problems

- Brief description
  - Do patient portals have mechanisms to identify errors, omissions and other safety problems and have corrections reflected in other information systems. Includes IT issues and other safety concerns
  - Structural measure: is feature present? Process measure: how often feature is used
- Accountable entity or entities
  - Vendor and facility

Workgroup B: Concept Review
Measure Concept Details

- Possible data sources and/or data collection methods
  - Patient portal data

- Key considerations for measurement of this concept (e.g., barriers, challenges, opportunities, etc.
  - Understanding technical language; effect on care if complaints are noted; responsiveness to the issues being raised

Workgroup D: Rating Concepts

Goal: Rate concepts against the criteria of importance and feasibility *[Scale: **High / Moderate / Low**]*

Concept: 2. Number of alert **overrides** and times when CDS (or alerts) modules are turned **on and off**

- Rating for **Importance**: 2
- Rating for **Feasibility**: 2

Concept:3. Identify number of records, data elements and type of fields for cut and paste

- Rating for **Importance: 3**
- Rating for **Feasibility: 1**

Workgroup D: Rating Concepts

Goal: Rate concepts against the criteria of importance and feasibility *[Scale: **High / Moderate / Low**]*

Concept: 11. Discharge and transition note quality and completeness

- Rating for **Importance**: 3
- Rating for **Feasibility**: 2

Concept:14. Medication reconciliation performed including patient verification either during the encounter or through technology (such as patient portals or HIE if available)

- Rating for **Importance: 3**
- Rating for **Feasibility: 2**

Workgroup D: Rating Concepts

Goal: Rate concepts against the criteria of importance and feasibility *[Scale: **High / Moderate / Low**]*

Concept: 7. Timely follow-up on diagnostic tests (labs, imaging)--Follow-up includes: communication to patient, ordering necessary tests or documentation

- Rating for **Importance**: 3
- Rating for **Feasibility**: 3

Concept:8. Percent of [number] charts with active problems/ allergies/meds/coding in free text vs not in structured designated fields

- Rating for **Importance: 3**
- Rating for **Feasibility: 1**

Workgroup D: Rating Concepts

Goal: Rate concepts against the criteria of importance and feasibility *[Scale: **High / Moderate / Low**]*

Concept: 12 and 16 Timely clinical documentation and timely transmission when there is a transition of care (post-visit or time of referral)

- Rating for **Importance**: 3
- Rating for **Feasibility**: 3

Concept:18. Review of all external sources (eg. care plan, transition record, HIE) to ensure appropriate care

- Rating for **Importance: 2**
- Rating for **Feasibility: 1**

Workgroup D: Rating Concepts

Goal: Rate concepts against the criteria of importance and feasibility *[Scale: **High / Moderate / Low**]*

Concept: 20. Use of barcode scanning in medication preparation and administration

- Rating for **Importance**: 2
- Rating for **Feasibility**: 3

22. Respond to patient electronic communication (telemedicine, portals) within 48 hours

- Rating for **Importance: 2**
- Rating for **Feasibility: 3**

Top 9 Measure Concepts

12 and 16 Timely clinical documentation and timely transmission when there is a transition of care (post-visit or time of referral)	3	3	6
7. Timely follow-up on diagnostic tests (labs, imaging)--Follow-up includes: communication to patient, ordering necessary tests or documentation	3	3	6
11. Discharge and tranistion note quality (ie. Reason for referral) and completeness ; Percent of [number] charts with active problems/ allergies/meds/coding in free text vs not in structured designated fields	3	2	5
14. Medication reconciliation performed including patient verification either during the encounter or through technology (such as patient portals or HIE if available)	3	2	5
20. Use of barcode scanning in medication preparation and administration	2	3	5
22. Respond to patient electronic communication (telemedicine, portals) within 48 hours	2	3	5
2. Number of alert overrides and times when CDS (or alerts) modules are turned on and off	2	2	4
3. Identify number of records, data elements and type of fields for cut and paste	3	1	4
18. Review of all external sources (eg. care plan, transition record, HIE) to ensure appropriate care	2	1	3

Workgroup D: Concept Review
Top 5 Concepts

1) #7. Timely follow-up on diagnostic tests (labs, imaging)--Follow-up includes: communication to patient, ordering necessary tests or documentation

2) Combined #12. and #16. Timely clinical documentation and timely transmission when there is a transition of care (post-visit or time of referral)

3) #20. Use of barcode scanning in medication preparation and administration

4) #22. Respond to patient electronic communication (telemedicine, portals) within 48 hours

5) #14. Medication reconciliation performed including patient verification either during the encounter or through technology (such as patient portals or HIE if available)

6) Combined #8 and #11. Discharge and transition note quality and completeness. Percent of [number] charts with active problems/ allergies/meds/coding in free text vs not in structured designated fields

Selection of Top 5 Measure Concepts

Concept	Brief Descriptions	Accountable Entity (V, F, C, P)	Possible Data Sources	Considerations for Measurement
(12 and 16) Timely clinical documentation and timely transmission when there is a transition of care (post-visit or time of referral)	Delays in documentation and access to documentation may have downstream pt. safety consequences	Facility and Clinician	• Admission discharge transfer file of sending and receiving systems • HIE • EHR	• Records closed within x time • timeline between physical disposition of patient and electronic disposition of data
(7) Timely follow-up on diagnostic tests (labs, imaging)--Follow-up includes: communication to patient, ordering necessary tests or documentation	Hit systems and associated workflows should be configured, implemented, and used in a way that ensures diagnostics test result results identified and communicated	Facility and clinician	EHR and interfaced systems	• Measure time from result availability to outcome, (eg: communication to patient or clinician followup, clinician response) • Percent of [number] charts with active problems/ allergies/meds/co

Selection of Top 5 Measure Concepts

Concept	Brief Descriptions	Accountable Entity (V, F, C, P)	Possible Data Sources	Considerations for Measurement
(20) Use of barcode scanning in medication preparation and administration				
(22) Respond to patient electronic communication (telemedicine, portals) within 48 hours				
(14) Medication reconciliation performed including patient verification either during the encounter or through technology (such as patient portals or HIE if available)				

Workgroup D: Concept Review
Measure Concept Details

Concept: Timely clinical documentation and timely transmission when there is a transition of care (post-visit or time of referral)

Brief description

Delays in documentation and access to documentation may have downstream pt. safety consequences

Accountable entity or entities

Facility and Clinician

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Measure Concept Details

Possible data sources and/or data collection methods

- Admission discharge transfer file of sending and receiving systems
- HIE
- EHR

Key considerations for measurement of this concept (e.g., barriers, challenges, opportunities, etc.)

- Records closed within X time
- Timeline between physical disposition of patient and electronic disposition of data

Workgroup D: Concept Review
Measure Concept Details

Concept: Timely follow-up on diagnostic tests (labs, imaging)--Follow-up includes: communication to patient, ordering necessary tests or documentation

Brief description

Hit systems and associated workflows should be configured, implemented, and used in a way that ensures diagnostics test result results identified and communicated

Accountable entity or entities

Facility and clinician

Workgroup D: Concept Review
Measure Concept Details

Possible data sources and/or data collection methods

EHR and interfaced systems

Key considerations for measurement of this concept (e.g., barriers, challenges, opportunities, etc.)

- Measure time from result availability to outcome, (eg: communication to patient or clinician followup, clinician response)
- Percent of [number] charts with active problems/ allergies/meds/coding in free text vs not in structured designated

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Measure Concept Details

Concept: Discharge and transition note quality (ie. Reason for referral) and completeness; (e.g Percent of [number] charts with active problems/ allergies/meds/coding in free text vs not in structured designated fields)

Brief description: All transition records need to be complete so essential information can be shared for timely and effective decision making

Accountable entity or entities: Facility and clinician

Workgroup D: Concept Review
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Possible data sources and/or data collection methods

EHR reporting

Key considerations for measurement of this concept (e.g., barriers, challenges, opportunities, etc.)

Necessary data elements need to be determined at a local level; Consider using NLP

Workgroup D: Concept Review
Measure Concept Details

Concept: Use of barcode scanning in medication preparation and administration

Brief description:

Systems and associated workflows should be designed, configured and implemented to enable and ensure proper delivery of care. Clinicians should use HIT features and functionality as intended

Accountable entity or entities: Facility; Clinician

Break

Discussion: Final Prioritization of Measure Concepts

Opportunity for Public Comment

Lunch

Discussion: Final Prioritization of Measure Concepts

Measurement concept/theme:
Data availability – system interface issues

Number of times key test results not available (e.g., for diagnosis) as a result of system-to-system interface issues

Measurement concept/theme: System downtime

- Unexpected downtime affecting clinical care and lasting >1 hour
- Rate of unilateral vendor lockout of clinicians?
- Availability of disaster preparedness plan supporting patient care processes and billing
- Frequency of drills on disaster recovery
- Frequency of security risk assessment

Patient Identification

- Percentage of potential duplicate patients in EHR
- Retract-and-reorder tool

Usability Testing

Time spent on testing/time spent on development (ratio)

Testing/simulation of systems to identify potential risks or problems is conducted prior to release

Testing conducted to assess usability

Break

Discussion: The NQF Measure Evaluation Criteria and HIT Safety

The NQF Measure Evaluation Criteria

Importance to Measure and Report – (this is not the same as "Important to do") Extent to which the specific measure focus is evidence-based and important to making significant gains in healthcare quality where there is variation in or overall less-than-optimal performance.

- This is a must-pass criterion. If a measure does not meet the importance criterion, then the other criteria are less meaningful.

The NQF Measure Evaluation Criteria

Reliability and Validity: Scientific Acceptability of the Measure Properties – Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented.

- This is a must-pass criterion. The goal of measuring performance is to make valid conclusions about quality; if a performance measure is not reliable and valid, there is a risk of misclassification and improper interpretation.

The NQF Measure Evaluation Criteria

Feasibility – Extent to which the specifications, including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

- Ideally, performance measurement should create as little burden as possible; however, if an important and scientifically acceptable measure is not feasible, alternative approaches and strategies to minimize burden should be considered.

The NQF Measure Evaluation Criteria

Usability and Use – Extent to which potential audiences (e.g., consumers, purchasers, providers, policymakers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

Wrap Up/Next Steps

Opportunity for Public Comment

Upcoming Events

- **April 21, 2015:** HIT Safety Committee web meeting to review and finalize environmental scan.
- **July 21, 2015:** HIT Safety Committee web meeting to review draft conceptual framework