Demonstrating Meaningful Use through Quality Measures

NENIC Conference

Friday, May 21, 2010

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National Quality Forum

Agenda

1. **The Re-Evolution of Quality Measurement**
   - The Role of NQF on the Quality Landscape
   - Evolving the Portfolio of NQF Endorsed Measures
2. **Quality Measurement and the Transition to EHRs**
   - The Role of Informatics and Health Information Technology (HIT)
   - Quality Data Set (QDS)
   - Retooling initiative
3. **What it Means for You**

The Opportunity

There are 20 medical conditions identified by the CMS account for over 95% of Medicare's costs.

The Goal


Quality Measurement
Informatics
Nursing

Re-Evolution

NQF
National Quality Forum

A journey into where we're from

and where we're going


Some Essential
HISTORY

Quality Measurement Leaders

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Florence Nightingale RN Collecting Mortality Data 19th Century

1914 Address to Nurses of The Nightingale School at St. Thomas's Hospital

"For us who nurse, our nursing is a thing which unless in it we are making progress every year, every month, every week, take my word for it, we are going back"

Quality Measurement Leaders

Ernest Codman MD
Outcomes Hypothesis
20th Century

- Advocate for tracking outcomes and making them public
- 1914 Defined a plan for evaluating surgeon competence
- Lost privileges
- Opened his own hospital "End Result Hospital"
- 337 patients between 1911 – 1916 he recorded and published 123 errors

Quality Measurement Leaders

NQF
National Quality Forum

Florence Nightingale RN
Collecting Mortality Data
19th Century

Ernest Codman MD
Outcomes Hypothesis
20th Century

Avedis Donabedian MD
Structure Process Outcome
20th Century

NQF Mission

Improve the quality of American healthcare by *setting national priorities and goals* for performance improvement

Endorse national consensus standards for measuring and publicly reporting on performance

Promote the attainment of national goals through *education and outreach programs*

Progress Has Been Slow

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- **The National Health Care Quality Report**
  - Showed an average annual *improvement* of only *1.9% on* a selected set of *performance measures* between 2000 and 2004.
  - By contrast, the rate of healthcare *expenditures grew 7.6%* during the same time period.
- **Entrenched overuse, misuse and underuse of services**
  - These gaps in quality affect everyone, but place the greatest burden on minorities.
  - Efforts to close the disparities gap have had little impact.

Quality Measurement and the EHR – Historically Separate Worlds

1960

1980

Today

Typical Question for the IT Department

What's the percentage of *heart failure patients* discharged home with *written instructions or educational material* given to patient or caregiver *at discharge*

Quality Measure

numerator

(received discharged education)

---

denominator – exclusions – exceptions

(all heart failure patients)

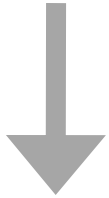
A given measure contains a numerator, denominator, exclusions, and exceptions.

Anatomy of a Quality Measure

numerator

---

denominator – exclusions – exceptions



Should be able to get from the EHR so action can be taken

Some group of people (or person) who meet some criteria

–

Evidence or documentation that some other exclusion or exception criteria are met

HIT Hasn't Helped

Case Example - Using the EHR to assess performance against the following quality measure?

- Percentage of *heart failure patients* discharged home with *written instructions or educational material* given to patient or caregiver *at discharge*

HIT Hasn't Helped

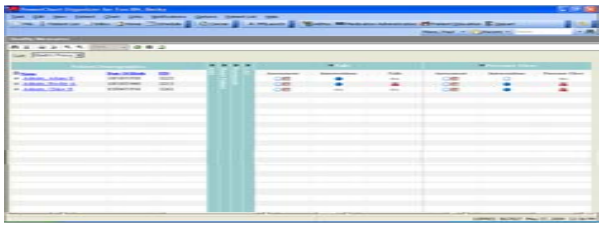
Retrieving Information for Quality Management

- It is conservatively estimated that centers spend *22.2 minutes per heart failure case* **to abstract the data**, which in aggregate amounts to more than *400,000 person-hours* spent each year by US hospitals.
  - Mostly retrospective
  - Humans are "creating" the data
  - Data are in different sources in different levels of granularity, with varying definitions (requires mapping)
  - *Everyone speaks a different language*

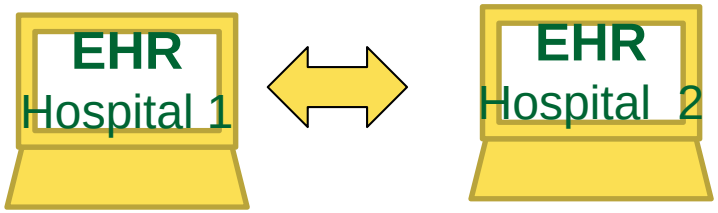
Fonarow, G., & Peterson, E. (2009). *Heart Failure Performance Measures and Outcomes: Real or Illusory Gains*. *JAMA, 7*, 792-794.

HIT Goals for Quality

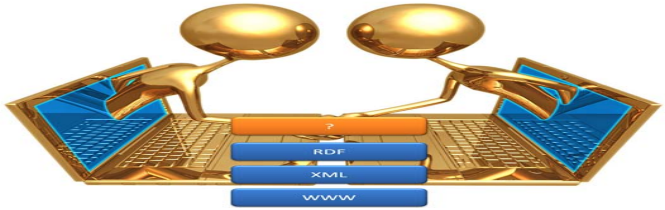
Quality measurement as a byproduct of documentation



Comprehensive exchange of information



Common language between developers of guidelines, quality measures, HIT and users



Disconnected World

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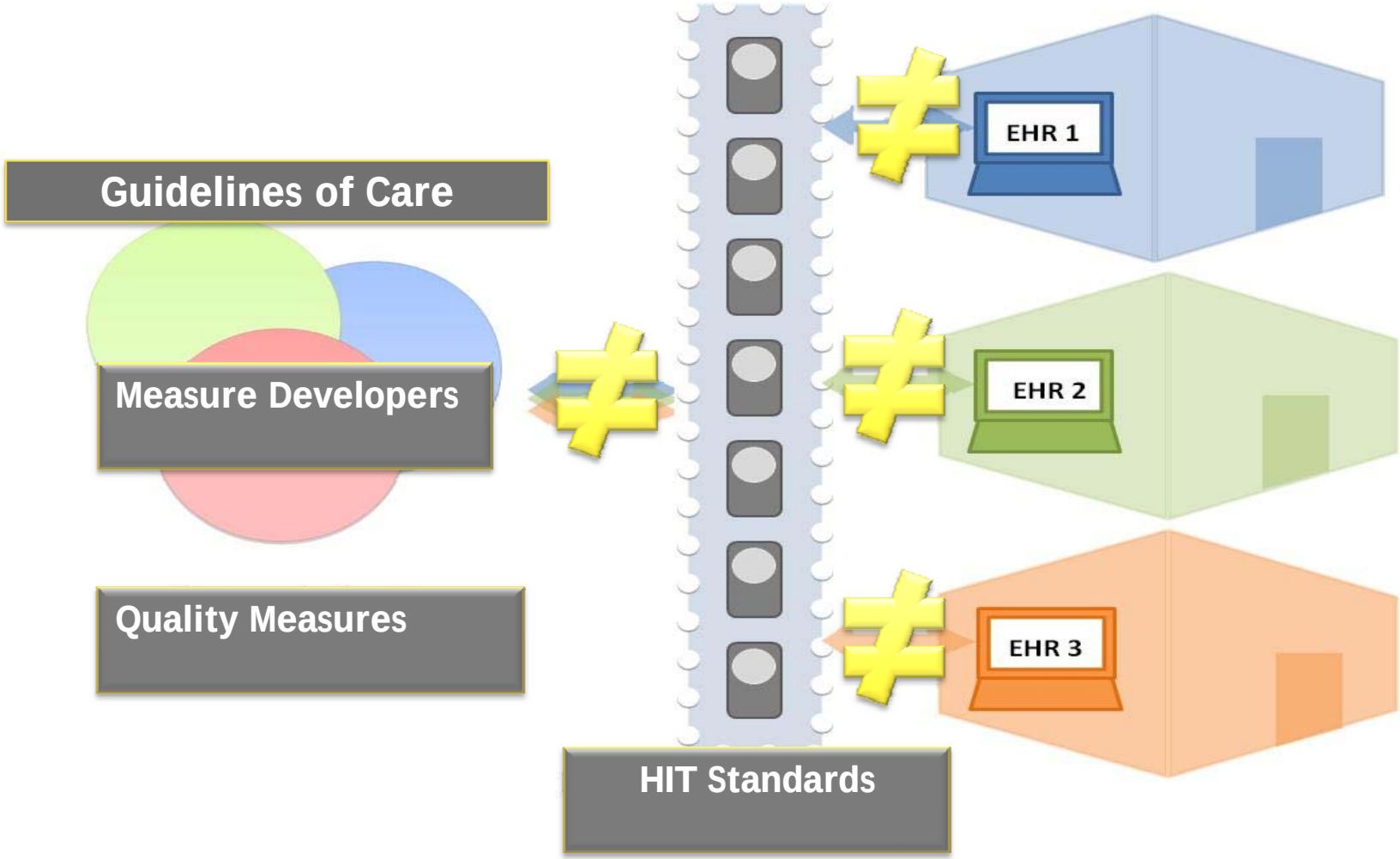
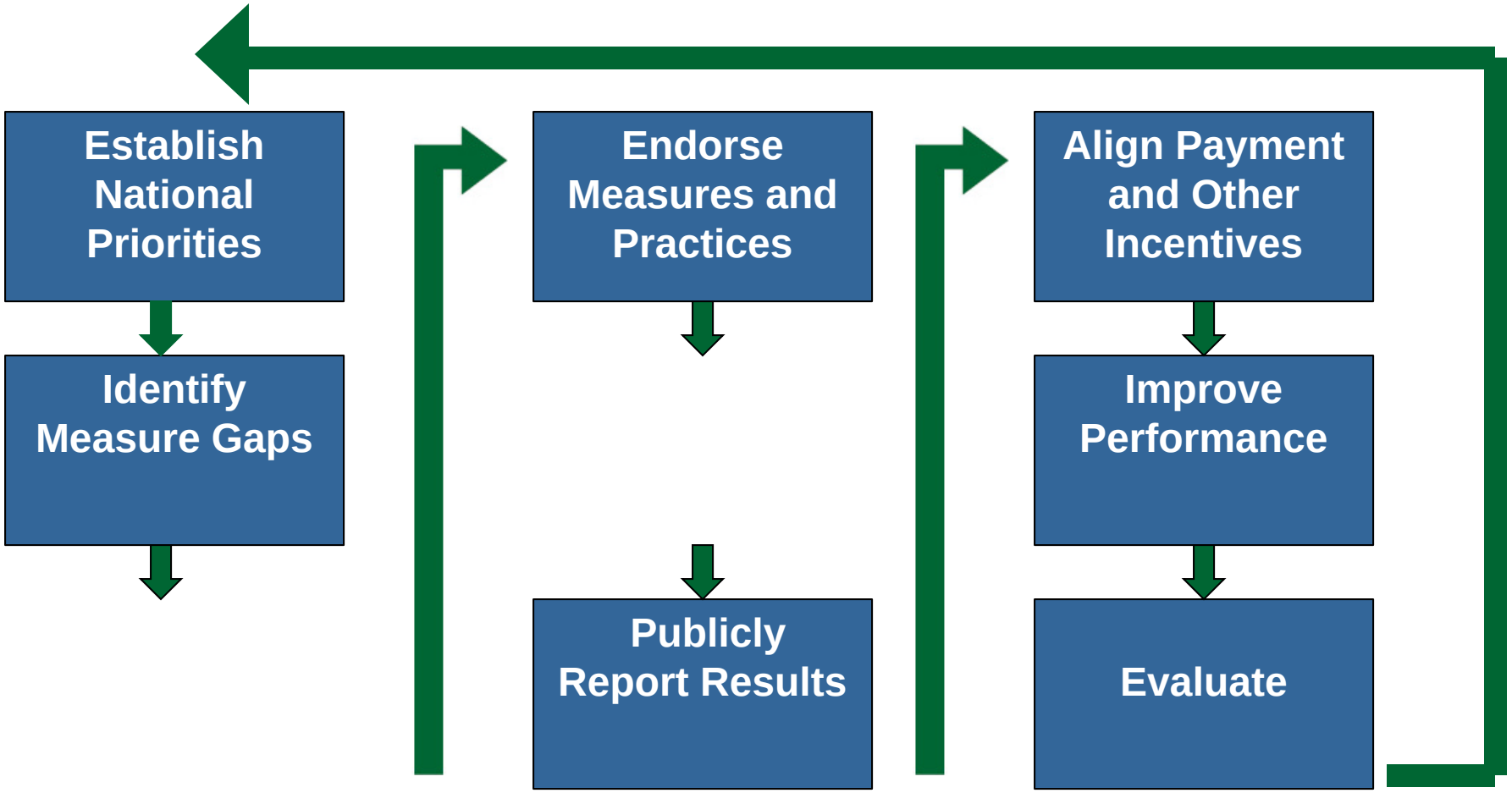
Gaps in Information Flow



National Agenda for Change

Quality Enterprise Functions



Congress specified three types of requirements for meaningful use

1. Use of certified EHR technology in a meaningful manner
2. Electronic exchange of health information to improve care quality
3. Submission of clinical quality measures

Perform quality measurement as a byproduct of meaningful use

Proposed

2011

- Detailed specs for electronic submission are ***not*** ready, target date is April 1, 2010
- *Attestation methodology* for submitting quality measure summary information to CMS
- Demonstrate use of certified EHR to capture data elements and calculate results for applicable quality measures

2012

- Electronic submission of information on clinical quality measures
- Publish technical specifications for EHR vendors for obtaining certification of their systems.

Attestation

- Clinical quality measures are generated as *output from a certified EHR*
- The *information is accurate to the best of the knowledge* of the official submitting
- The information submitted *includes all patients to whom the measure applies*.
- The *numerators, denominators, and exclusions* for each clinical quality measure is *reported*

Eligible Professionals (EP)

- **Close to 90 quality measures**
  - Endorsed by NQF, AQA, and PQRI (6 not endorsed)
  - Includes a Core Set and Specialty Group Set
  - Specialty Group Set
  - Domains in the Core Set
    - Medical conditions and treatment, preventive care screening, documentation blood pressure, tobacco use, and BMI

Eligible Hospitals (EHs)

- **35 quality measures (endorsed by NQF)**
  - ED throughput, stroke, VTE, AMI, heart failure, pneumonia, prophylactic antibiotics, ventilator bundle, central line bundle, urinary catheter associated infections, central line infection, and readmission rates.
- Measures endorsed by NQF or selected fro the RHQDAPU program
- Overlap with existing core measures (approximately 7)

National Agenda for Change

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- **NQF with support from AHRQ established the Health Information Technology Expert Panel (HITEP)**
  - To accelerate ongoing efforts defining how (HIT) can evolve to effectively support performance measurement.

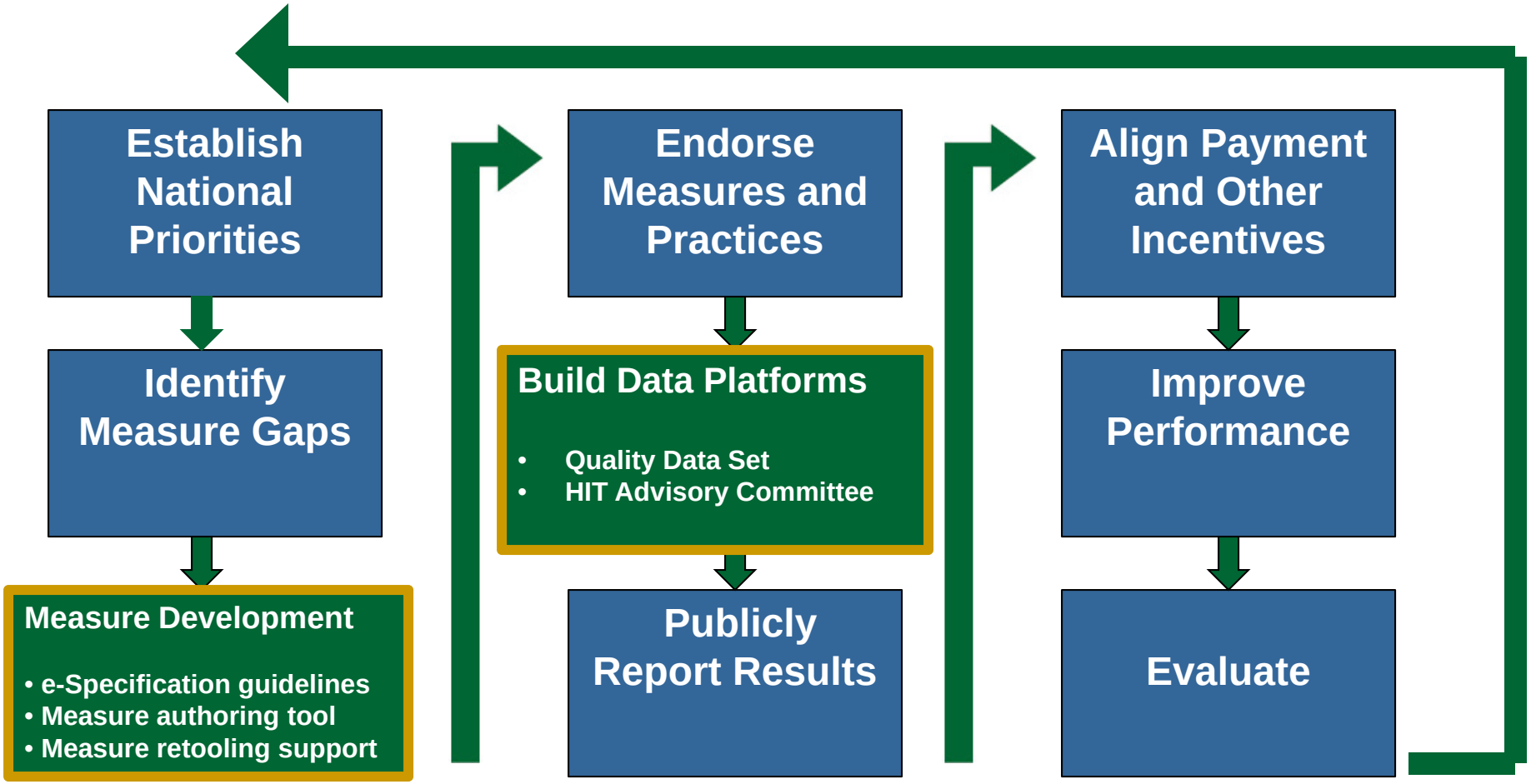
- *Their Work*

  1. **Created definition for a 'well defined quality measure'**
  2. **Recommended Common Data Types and Prioritized Performance Measures** for EHR's to collect and report
  3. Created the first draft of a *quality data set (QDS)* to empower automated quality measurement

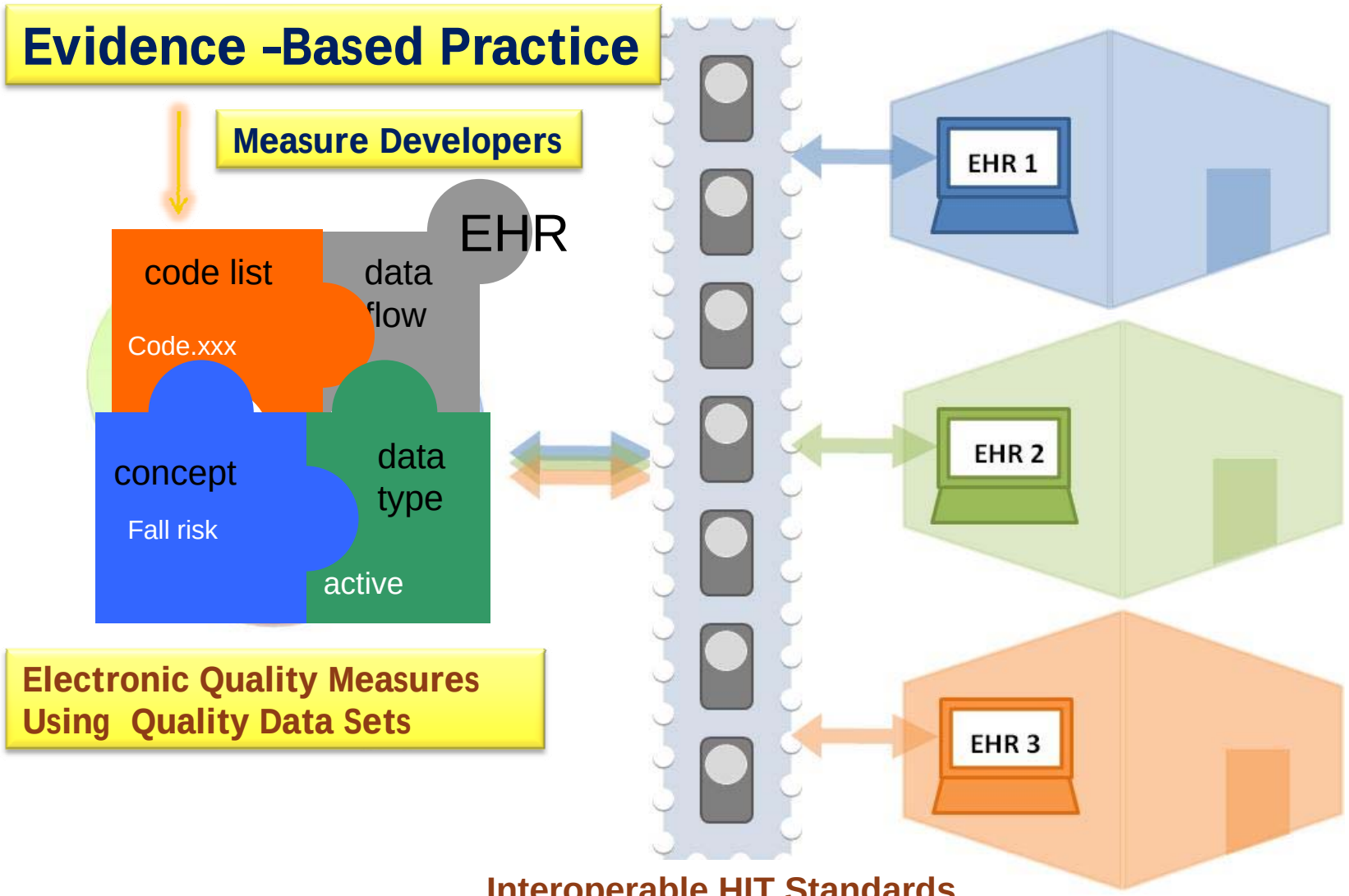
Quality and HIT

- A "*well-defined quality measure*" is composed of a set of common data elements, encoded using *standard taxonomies*, *structured logically into a standardized expression* that can be shared and applied to patient data and reported

Quality Measurement and Informatics



The Goal


Evidence –Based Practice
Measure Developers
EHR
code list
Code.xxx
data flow
concept
Fall risk
data type
active
Electronic Quality Measures Using Quality Data Sets
EHR 1
EHR 2
EHR 3
Interoperable HIT Standards Using Quality Data Sets

STANDARD CATEGORIES	QDS DATA TYPES
Care experience	**Patient** care experience **Provider** care experience
Care goal	Care **goal** Care **plan**
Communication	Communication **provider to provider** Communication **to patient** Communication **from patient**
Device	Device **adverse event** Device **applied** Device **intolerance** Device **ordered** Device **offered** Device **declined**
Diagnosis/condition/problem	Diagnosis **active** Diagnosis **family history** Diagnosis **past history** Diagnosis, **risk of** Diagnosis, **factored risk**
Diagnostic study	Diagnostic study **adverse event** Diagnostic study **intolerance** Diagnostic study **order** Diagnostic study **result** Diagnostic study **offered** Diagnostic study **declined**

QDS and Retooling

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Datatype / Context of Use

- diagnosis active
- diagnosis family history
- diagnosis past history
- diagnosis, factored risk
- diagnosis, risk of

HINT: double-click for quick add

Relative to other QDS element (optional)

- before
- before or simultaneously to
- after
- after or simultaneously to
- during

4	aminoglycocide	medication adn
3	cephalosporin	medication adn
1	diabetes	diagnosis activ
2	general surgery	procedure perf
5	measurement enddate	end: today m/d,
6	measurement period	start of measur

comparatee attribute for comparison

optional time constraint

number

unit

Datatype Specific Attributes

datetime

What additional information do you need from this element? For example: datetime, dose, route, endtime.

Comments

Dataflow Attributes *(optional)*

Ctrl-click to select multiple individual choices for each; Shift-click to select a section of choices

source(s)

- [ANY]
- Any Clinician
- Care Manager
- Certified Nurse Assistant (CN
- Certified Nurse Midwife (CNM
- Certified Registered Nurse Ar
- Clinical Medical Assistant (CM
- Clinical Nurse Specialist (CNS
- Clinical Trial Coordinator
- CROF

recorder(s)

- [ANY]
- Any Clinician
- Care Manager
- Certified Nurse Assistant (CN
- Certified Nurse Midwife (CNM
- Certified Registered Nurse Ar
- Clinical Medical Assistant (CM
- Clinical Nurse Specialist (CNS
- Clinical Trial Coordinator
- Dentist

setting(s)

- [ANY]
- Acute Care Facility
- Ambulatory
- Ambulatory Community Base
- Ambulatory Hospital Based
- Ambulatory Surgicenter
- Emergency Department
- EMS Entity
- Home
- Home Care

health record field(s)

- [ANY]
- Administering Agent/Vendor
- ADT
- Advanced Directives
- Allergy List
- Allergy Repository
- Allergy Service
- Ambulatory e-Pharmacy Mana
- Anesthesia Record
- Autopsy Record

Ok

Quality and Information Technology

3 Actions for You to Take

What You Can Do

Data Sources

- **Capture the right data** (**standardized terminology and use evidence-based content**)

Performance Measures

- **Calculate the performance measure** (**vendor support for eMeasure**)

EHRs and HIT tools

- Provide real-time information to the clinician with decision support

E-Infra structure

- Publicly report for secondary uses: accountability, payment, public health, and comparative effectiveness

Measures for Eligible Professionals (EP)

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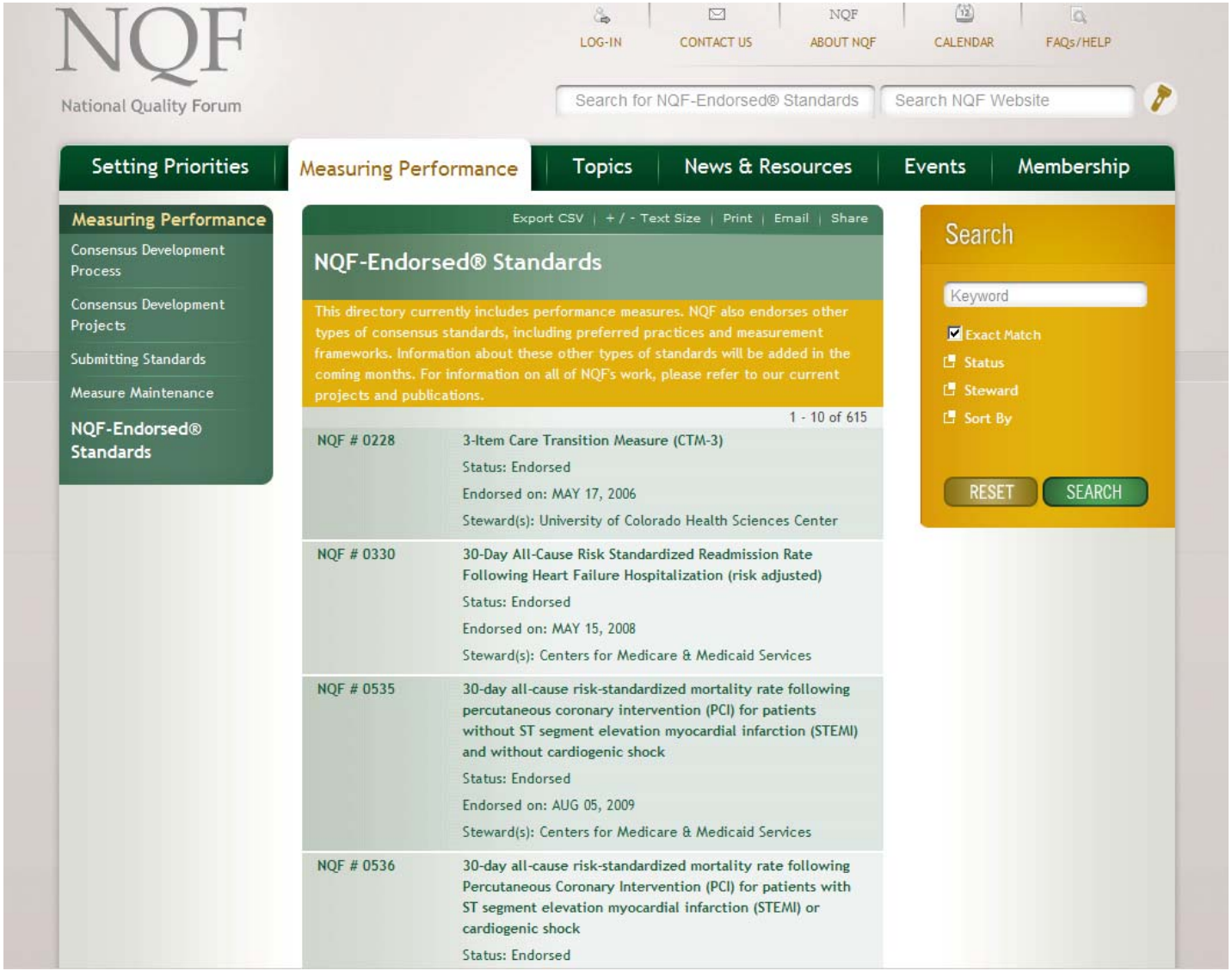
Top 20 high-impact conditions

1. Acute myocardial infarction (AMI)
2. Alzheimer's Disease
3. Atrial fibrillation
4. Breast cancer
5. Cataract
6. Congestive heart failure (CHF)
7. Chronic kidney disease
8. Colorectal cancer
9. COPD
10. Diabetes
11. Endometrial cancer
12. Glaucoma
13. Hip/pelvic fracture
14. Ischemic heart disease
15. Lung cancer
16. Major depression
17. Osteoporosis
18. Prostate cancer
19. Rheumatoid arthritis and osteoarthritis
20. Stroke/transient ischemic attack (TIA)

Searchable Database of Endorsed Measures



Thank You

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