

Preparing for Measurement with EHR and HIE Data



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Phil Renner
Senior Research Scientist



NCQA: A Brief Introduction

- Private, independent non-profit health care quality oversight organization founded in 1990
- Committed to measurement, transparency and accountability
- Unites diverse groups around common goal: improving health care quality

Who does NCQA measure?

- Health Plans
 - 2/3 of HMOs in U.S. are NCQA Accredited
 - Covering 75% of HMO lives
 - Only Accreditation program that scores programs on quality of care
- Physicians/physician groups
 - HEDIS for Physician Measurement
 - NCQA Physician Recognition programs (diabetes, heart/stroke, back pain, use of practice systems, medical home)

What does NCQA measure?

- HEDIS®
 - Cancer screening, diabetes, cardiac care
 - Measures of effective, appropriate care
 - HEDIS measure criteria: valid, relevant, feasible
 - Specifications vetted by committee of health care stakeholders, thought leaders
 - Results are rigorously audited
- CAHPS®
 - Access, timeliness, satisfaction

Outline of Presentation

- Creating eMeasures
- Enhancing NCQA capabilities
- Developing new eMeasures

Current Measurement and Data Environments

- Measurement setting and characteristics
 - Retrospective review (after clinical services)
 - Single point in time or over set time period
 - Single threshold (BP < 140/90)
 - Multiple levels (plan, MD, hospital) require multiple versions of same measure due to data sources
- Current Data Sources
 - Claims (visit, procedure, lab, pharmacy)
 - Electronic lab results (sometimes)
 - Clinical data
 - lab and radiology results, CPT-II codes
 - Medical records (Paper chart review)
 - Patient survey data from paper or phone surveys

The Future

- Measurement setting and characteristics
 - Concurrent with clinical services
 - Linked to use of “real time” clinical decision support tools
 - Same data sources available across settings (MD, site, group, hospital, plan)
 - More clinically relevant measures
 - change over time
 - actual levels (not thresholds)
 - average of multiple values
 - treatment intensification

The Future

- Data sources
 - Claims-combined from multiple health plans
 - Lab, radiology--more complete capture
 - Electronic medical records
 - Electronic patient surveys
 - Personal health records
- Dream environment
 - Claims data from all plans and electronic clinical data from all providers
 - Linked to rich clinical decision support environment
 - No one there yet- Kaiser research data warehouse and Indiana-Reigenstrief probably closest
 - All web-based or e-survey data collection

What is Needed from Measure Developers and Evaluators?

- **Measurement**
 - Conversion of existing measures into measures that can be used in all electronic environment
 - Creation of new measures that fully capitalize on full range of electronic data
- **Evaluation**
 - Move to evaluation models based on use of electronic data collection (like PCMH) and outcome measures

The Challenges to creating E-Measures

Many New Players in the New Environment

- NQF
 - Setting standards for eMeasure evaluation
- Office of the National Coordinator
 - Definition of Meaningful Use (with CMS)
- HL-7 group
 - Interoperability standards
- HIT Standards Panel (HITSP)
 - Standards alignment
- Certification Committee on HIT (CCHIT)
 - Incorporating standards in EHRs
- And just about everyone else

EHRs in NCQA programs

- Currently accepted in some programs...
 - Supplemental Registry in MCO reporting, and some P4P
 - Reporting from EHRs for DPRP
- ...but it's time to review
 - Is it a medical record, or a registry, or does it even matter?
 - Prescribed, if dispensing data not available?
 - General exclusion categories, instead of specific exclusions?
 - Concurrent or retrospective, or both?

Issues to be Addressed

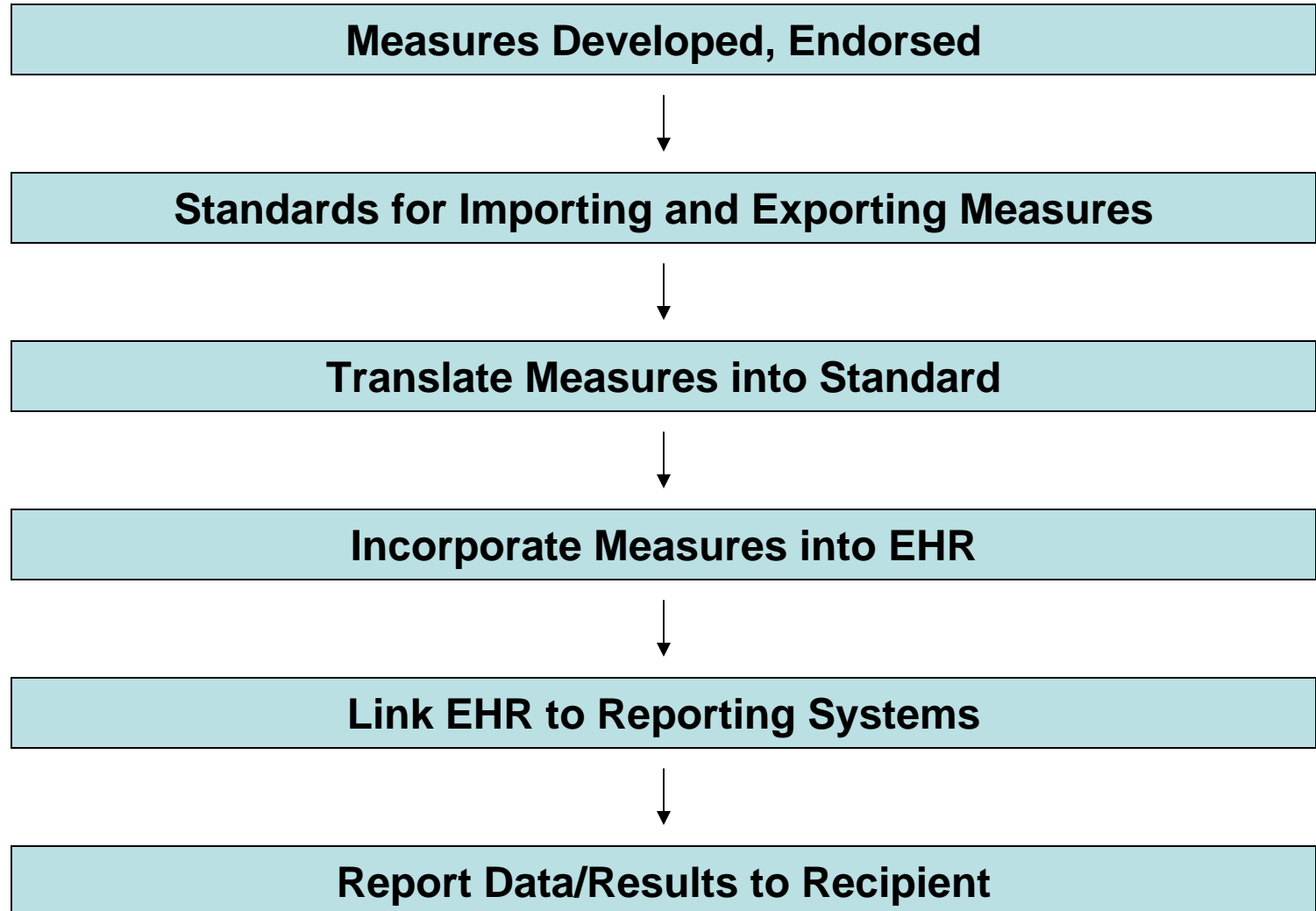
- What formats for EHR-based measures?
 - Where to “look” for data (what field)
 - Hierarchy for data searches (does the problem list trump medication list, or claims?)
 - What code sets should be used? (SnoMED, LOINC, RxNorm)
- Concurrent or retrospective or both
- Visit- or population-based or both
- Updating process (measures, codes, etc)

Conversion of Existing Measures

Supporting ARRA and Meaningful Use

- ARRA legislation authorizes payment for meaningful use of EHR (and then penalties)
- Meaningful use being defined by ONC, with input from other agencies
 - ONC convened advisory panels, identified 27 NCQA measures to demonstrate meaningful use
 - Also proposed escalating standardization in use of codes, structured data
- Requires coordinated activities to field eMeasures

Steps in Quality Measure Reporting Using Standardized Measures



Measure “Retooling”

- Collaborative effort with NQF
- Convert claims/MR measures to EHR-ready
- Deliverables (Level 1 EHR specification)
 - QDS data elements (data element, source, codes, location in EHR)
 - Flowchart
 - Equation to calculate measure
- Provides EHR vendors standardized and encoded measure specifications (machine-ready)

eMeasure, or HQMF

- HL7 draft standard
 - Sponsored by NQF, based on work of AMA/NCQA/EHRA Collaborative
- Structured representation of performance measures, using XML to tag elements
- Will enable import of data elements and measure logic into EHRs
- At end of process, will have up to 27 measures specified and tested for use in EHRs

Example XML Translation

FROM THIS



TO THIS

◆Measure #1: Hemoglobin A1c Poor Control in Type 1 or 2 Diabetes Mellitus

DESCRIPTION:

Percentage of patients aged 18 through 75 years with diabetes mellitus who had most recent hemoglobin A1c greater than 9.0%

INSTRUCTIONS:

This measure is to be reported a minimum of once per reporting period for patients with diabetes mellitus seen during the reporting period. The performance period for this measure is 12 months. The most recent quality code submitted will be used for performance calculation. This measure may be reported by clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

This measure is reported using CPT Category II codes:

ICD-9 diagnosis codes, CPT E/M service codes, G-codes, and patient demographics (age, gender, etc.) are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting the measure, submit the listed ICD-9 diagnosis codes, CPT E/M service codes or G-codes, and the appropriate CPT Category II code **OR** the CPT Category II code **with** the modifier. The reporting modifier allowed for this measure is: 8P- reasons not otherwise specified.

NUMERATOR:

Patients with most recent hemoglobin A1c level > 9.0%

Numerator Instructions: This is a poor control measure. A lower rate indicates better performance (e.g., low rates of poor control indicate better care)

Numerator Coding:

Most Recent Hemoglobin A1c Level > 9.0%

CPT II 3046F: Most recent hemoglobin A1c level > 9.0%

OR

If patient is not eligible for this measure because hemoglobin A1c not performed, report:

Hemoglobin A1c not Performed

```
<?xml version="1.0" encoding="utf-8"?>
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Name="PQRI-1" Version="0.1" VersionDate="2007-12-31">
  <TopicType>Diabetes (Type I and II)</TopicType>
  <MeasureDeveloper>NCQA</MeasureDeveloper>
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Percentage of patients aged 18 through 75 years with diabetes mellitus who had most
recent hemoglobin A1c greater than 9.0%</MeasureStatement>
  <MeasurementUnit>Measurement Year</MeasurementUnit>
  <Copyright>©2008 National Committee for Quality Assurance, all rights
reserved.</Copyright>
  <NoticeOfUse>This performance measure was developed and is owned by the National
Committee for Quality Assurance ("NCQA").</NoticeOfUse>
  <Information Type="Denominator">
    <Statement>Patients aged 18 through 75 years of age as of December 31 of the
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    <MaxAge>75</MaxAge>
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    <LogicalExpression LogicalOperator="AND">
      <NumberOfLogicalElements>2</NumberOfLogicalElements>
      <LogicalElement LogicalOperator="OR">
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Quality Reporting Data Architecture

- HL7 Draft Standard for Testing Use
- Category 1 – Patient-Level Reports
 - Raw patient-level data
- Category 2 – Summary Reports
 - Multi-patient summary with flags for denominator, numerator
- Category 3 – Calculated Reports
 - Number meeting numerator, denominator

Creating New Measures for E-Environments

New Measure Opportunities Unleashed

- Overuse and appropriateness, which require clinical detail
- Coordination of care
- Measures of change over time linked to patient-clinician choices
- Treatment Intensification
- Measures linked to clinical guidelines and decision support
- Risk adjusted outcome measures (propensity scores etc)

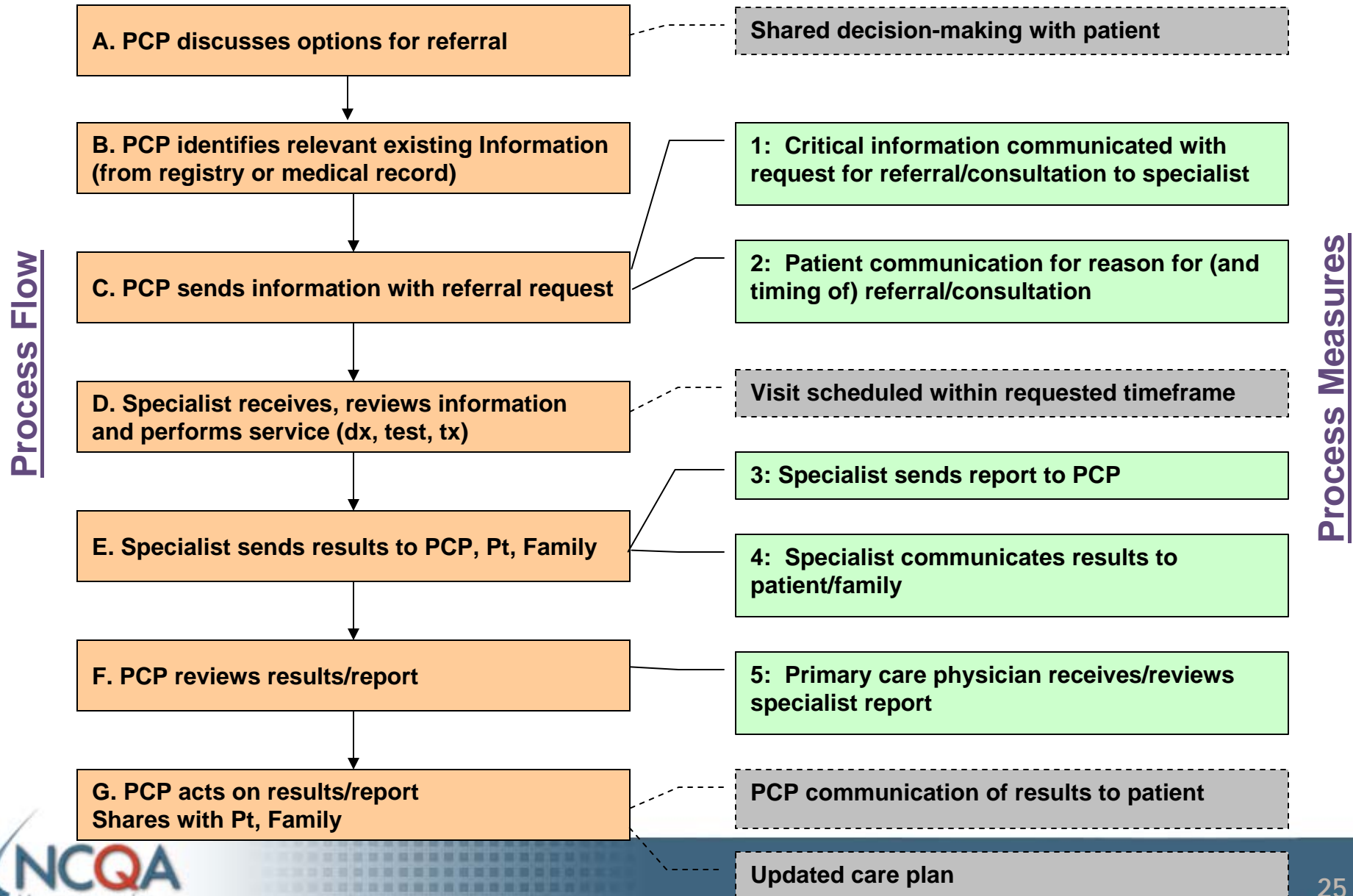
Overuse and Appropriateness

- Sponsored national working meeting in June
 - Key conclusion: proceed, but with caution
- Overuse
 - Sinusitis (imaging), Perinatal (induction <39 weeks), Stenting-PCI, others under consideration
- Appropriateness
 - Research on applying existing criteria of ACR and ACC

Care Coordination Measurement: Where to Focus?

- **Structure**
 - a feasible starting place
 - articulating expectations of individuals and organizations
- **Process**
 - evaluate whether information is being exchanged and used to support an evidence-based, efficient care plan that address patient and family needs
- **Outcomes**
 - more relevant for families and policymakers
 - Starting point for quality improvement
 - require risk adjustment
 - difficult to attribute to particular actions or players

Model for Ambulatory Care Coordination



Archimedes

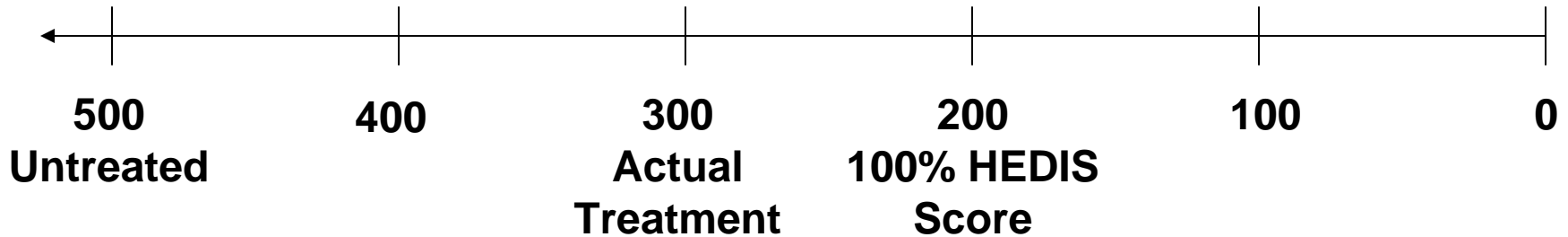
- Combines clinical decision support (total CV risk calculation for individual patients) with measurement of outcomes (reduction in risk) over time
 - Specification and testing of Global Outcomes Score beginning in 2010
 - Incorporates patient-specific data to calculate overall cardiac risk
- Testing in one site in early 2010, other sites later in the year

Example

300 Avoided with treatment to 100% on HEDIS



200 Avoided with actual treatment levels



Expected number of MIs and Strokes

Other Work under Consideration

- Creation of new outcome measures with built in risk adjustment for MD level (BP, A1c, Cholesterol etc)
- Direct linkage of CDS to measurement – measuring treatment intensification if patient not in control
- Exploration of electronic survey modes for patient experience surveys

Questions?

Contact

Phil Renner, MBA

Senior Research Scientist

National Committee for Quality Assurance

renner@ncqa.org

202.955.5192