Committee on Future Directions for the National Healthcare Quality and Disparities Reports
Feb. 10, 2009

Karen Kmetik, PhD
Director, Clinical Performance Evaluation, AMA and PCPI
"Measures for improvement have learning as their goal. They are the videotapes we watch after the game.....the stop watches of the coaches who help us with our stride."
Don Berwick, 2004

“during the stride”
data on measures at the point of care

“after the game”
National Healthcare Quality and Disparities Reports
Game plan…

- H.R. 1 “stimulus” (January 23, 2009)

- Incentives to providers for “meaningful EHR use”
  - Using certified EHR technology
  - Enabling exchange of health information
  - Enabling reporting on clinical quality measures [to CMS, medical boards, private plans, AHRQ]
  - And [personal addition]...
  - Enabling review of performance on quality measures at point of care….for each patient
Game plan...

- Clinical performance measures

- Data at point of care and for external reporting to AHRQ via EHRS

- For each patient:
  - Measure met?
  - If not, why not?
  - Link to patient demographics.
Playbook
Ex: PCPI/ACC/AHA amb. cardiovascular measures
2009: will span episodes/inpatient and outpatient

<table>
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<th>EHRS specs/ xml</th>
<th>NQF- endorse</th>
<th>Test results</th>
<th>CMS PQRI</th>
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Coronary Artery Disease and Heart Failure

- % Providers
  - with EHRS systems with these measures integrated and validated
  - with EHRS/practice management systems integrated for patient demographics
  - have access to data on these measures at point of care
  - exporting data to AHRQ, CMS, others (directly or through intermediary)

- % Patients
  - for whom measure met by patient demographics
  - for whom measure not met by reason and patient demographics
  - Reasons: none given, patient preference, allergy, insurance....
2 projects and 1 collaboration

**Cardio-HIT**
- EHRS for data at point of care and for data export
- Measure met? If not, why not? (variation)
- AMA, IFMC, NCQA, 5 practice sites with EHRS
- Funded by AHRQ
- PI, Karen Kmetik, PhD

**ADVANCE**
- EHRS for data at point of care and for aggregate analysis
- Measure met? Measure met by patient race/ethnicity?
- Alliance of Chicago Community Health Services, AHA HRET, AMA
- Funded by the Commonwealth Fund and RWJF
- PI, Romana Hasnain-Wynia, PhD
- Fred Rachman, MD

**AMA—NCQA—EHRA Collaborative**
- Measure developers and EHRS vendors working together
Cardio-HIT Phase II (2008-2009)

- 5 physician practices; 4 Rx CAD measures

- Midwest Heart Specialists
  - Lombard, IL
  - Homegrown EHRS

- North Ohio Heart Center
  - Lorain, OH
  - Allscripts Touchworks™

- Univ. of Pittsburgh Medical Center
  - Pittsburgh, PA
  - Epic

- Fox Prairie Medical Group
  - St. Charles, IL
  - NextGen

- Physicians Health Alliance
  - Scranton, PA
  - GE Centricity
Warehouse Data and Abstraction Sample, preliminary findings

- Warehouse Data, Q3 2006 – Q2 2007
  - 46,737 eligible patients

- Abstraction Sample, Q1 2007 – Q2 2007, n=1,130
  - 545 reported records with exceptions
  - 585 reported records with opportunities for improvement

- Sample Size Determinations
  - “Powered” at level of network (all sites)
  - 80% power, 5% margin of error, 50% population proportion for valid exceptions and true quality failures
  - Stratified probability sampling

*(preliminary findings; please do not quote)*
Preliminary Findings, CAD

- Overall Performance Rate (across 4 measures) – 76% (measure met?)

- Overall Exception Rate (across 4 measures) – 3% (if not, why not?)

- Overall Exception Reporting Agreement – 96% (validation)

- Location of data in EHR varies across measures

- Majority of exceptions (based on verbatim abstraction) fall into a priori categories defined by Cardio-HIT clinicians and most were medical reasons
  - Medical (not indicated, contraindication, ...)
  - Patient (preference, economic, ...)
  - System (supply, insurance ...)

*(preliminary findings, please do not quote)*
Exception Rates *(if not, why not?)* for CAD Measures – All Reasons

- All CAD Measures – 3%

- Exception Rates, all reasons, all sites, by measure
  - 2% - Antiplatelet Therapy
  - 4% - Drug Therapy for Lowering LDL
  - 6% - Beta-blocker Therapy for Prior MI
  - 5% - ACE/ARB Therapy

- Range of Exception Rates, all reasons, by sites, by measure
  - Antiplatelet Therapy: 1% - 16%
  - Drug Therapy for Lowering LDL: 2% - 14%
  - Beta-blocker Therapy for Prior MI: 4% - 26%
  - ACE/ARB Therapy: 2% - 11%

*(preliminary findings; please do not quote)*
### Exception Rates - CARDIO HIT***, 2007 PQRI*, U.K. Quality and Outcomes Framework Exception Rates**

<table>
<thead>
<tr>
<th>Measure</th>
<th>CARDIO-HIT</th>
<th>2007 PQRI</th>
<th>UK</th>
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<tbody>
<tr>
<td>Antiplatelet Therapy</td>
<td>1.9%</td>
<td>4.2%</td>
<td>3.5%</td>
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<tr>
<td>Drug Therapy for Lowering LDL</td>
<td>3.9%</td>
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<td>7.3%</td>
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<tr>
<td>Beta-blocker Therapy for Prior MI</td>
<td>6.1%</td>
<td>8.1%</td>
<td>25.3%</td>
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<tr>
<td>ACE/ARB Therapy</td>
<td>4.9%</td>
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<td>10.1%</td>
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</tbody>
</table>

Exceptions for Medical Reason
(if not, why not)

Beta-blocker Therapy

- End of Life Issues
- Hypotension
- History of 2/3rd AV block
- Fatigue
- Other documentation
- Bradycardia
- Adverse reaction
- Sick sinus syndrome
- Lung/Pulmonary
- Remote MI & gt
Location of Data in EHR by Measure—Usable in Practice?

Antiplatelet Therapy
Location of Exceptions

- Free Text/Dict: 28.1%
- Drug List: 42.5%
- Allergy List: 11.4%
- Past Med Hx: 9.0%
- Oth Structured: 7.2%
- Lab: 1.2%
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ADVANCE Project

Alliance of Community Health Services; 4 centers, 32 clinical sites

- HRSA and BPHC – EHRS implementation
- AHRQ – performance measure integration into EHRS
- Commonwealth Fund and RWJF – link performance and patient demographics

- Integrated patient race/ethnicity collected during the registration process and stored in the practice management system with clinical data stored in the EHRS
- Daily downloads to warehouse
Collaboration

- American Medical Association
- HIMSS Electronic Health Record Association
- National Committee for Quality Assurance

What can performance measure developers and EHR vendors do together to promote the implementation of measures within EHRS?

- 2008 work product: XML-based measure specifications
- 2009: testing and users’ groups
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Don Berwick, 2004

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National Healthcare Quality and Disparities Reports
AHRQ National Reports 2010....
Progress on the game plan

- Coronary Artery Disease and Heart Failure

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