Quality Measurement and Improvement in the Post-Meaningful Use Era

Health Administration Studies, Michael M. Davis Lecture Series, Univ. of Chicago May 19, 2015

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Disclosures

Employment: Northwestern University and Northwestern Medical Group
Grant support: public (NIH, AHRQ, HRSA) and private (Pfizer Inc.)

Will be discussing issues relevant to the medical group.
Won’t be discussing Pfizer products.
Will be discussing Federal Programs
Objectives

• Identify the central quality, cost problems in U.S.
• Discuss healthcare quality measurement as a tool to solve these problems
• Review federal initiatives to accelerate HIT adoption, the shift from volume towards quality and value, and towards greater use of eCQMs and HIT improvement strategies
• Discuss some ways EHR-based measurement and improvement may impact ambulatory care
Central Problems in U.S. Healthcare

• Inconsistent and often low quality of care
• Very high costs
• Wide variation
• Slow adoption of effective care
Recognition of Quality Problems

IOM 2001

The Quality of Health Care Delivered to Adults in the United States

<table>
<thead>
<tr>
<th>Function</th>
<th>No. of Participants Eligible</th>
<th>Total No. of Times Indicator Eligibility Was Met</th>
<th>Percentage of Recommended Care Received (95% CI)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening</td>
<td>6711</td>
<td>39,486</td>
<td>52.2 (51.3–53.2)</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>6217</td>
<td>29,679</td>
<td>55.7 (54.5–56.8)</td>
</tr>
<tr>
<td>Treatment</td>
<td>6707</td>
<td>23,019</td>
<td>57.5 (56.5–58.4)</td>
</tr>
<tr>
<td>Follow-up</td>
<td>2413</td>
<td>6,463</td>
<td>58.5 (56.6–60.4)</td>
</tr>
</tbody>
</table>

* CI denotes confidence interval.
Health Care Spending Per Capita ($US PPP)

OECD Average in 2011 = $3,302

Source: OECD Health Data 2013.
Data note: PPP = purchasing power parity.
Produced by Veronique de Rugy, Mercatus Center at George Mason University.
How U.S. Healthcare System Compares
Commonwealth Fund International Health Policy Survey

<table>
<thead>
<tr>
<th>Country Rankings</th>
<th>1.00-2.33</th>
<th>2.34-4.66</th>
<th>4.67-7.00</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OVERALL RANKING (2010)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality Care</td>
<td>4</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Effective Care</td>
<td>2</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Safe Care</td>
<td>6</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Coordinated Care</td>
<td>4</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Patient-Centered Care</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Access</td>
<td>6.5</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Cost-Related Problem</td>
<td>6</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Timeliness of Care</td>
<td>6</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Efficiency</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Equity</td>
<td>4</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Long, Healthy, Productive Lives</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Health Expenditures/Capita, 2007</td>
<td>$3,357</td>
<td>$3,895</td>
<td>$3,588</td>
</tr>
</tbody>
</table>

Note: * Estimate. Expenditures shown in US PPP (purchasing power parity).
Source: Calculated by The Commonwealth Fund based on 2007 International Health Policy Survey; 2008 International Health Policy Survey of Sicker Adults; 2009 International Health Policy Survey of Primary Care Physicians; Commonwealth Fund Commission on a High Performance Health System National Scorecard; and Organization for Economic Cooperation and Development, OECD Health Data, 2009 (Paris: OECD, Nov. 2009).
Variation in Diabetes Care Quality and Costs
NCQA Practice Data
Variation in Medicare FFS Quality and Costs

Quality and Resource Use Report (QRUR)
Time to Reliable Adoption of Effective Treatment—Painfully Slow

Data are from the National Committee for Quality Assurance.
Quality Measurement in Healthcare—Why Measure

• Internal
  − Poor judge of our own quality
  − Assess effects of improvement activities

• External
  − Provide incentives for healthcare providers to improve
  − Select high quality providers
Professionalism

Measures
- Clinical Care
- Patient Experience
- Systems
- Standards

Providers
- Benchmarks
- Quality Improvement

Selection

Incentives

Choice-Tiers

Purchasers
Consumers
Information

Better, Higher Value Healthcare

Market Place
Quick Review of Quality Measurement in Healthcare

- Administrative data sources (claims)
- Administrative data supplemented by manual chart review
- Big initial use: assess health plans HEDIS (E was for employer)
- Mostly processes of care (some outcomes)
- Occasional uses of structural measures (e.g., Leapfrog: intensivist staffing, electronic order entry, high volume centers)
- Limits to what could be measured
- Manual data collection costly
- Long time lag between care delivered and availability of measurement
The Impetus to Move to Electronic Health Records

**Systematic Review: Impact of Health Information Technology on Quality, Efficiency, and Costs of Medical Care**

Basit Chaudhry, MD; Jerome Wang, MD; Shinya Wu, PhD; Margaret Maglione, MPP; Walter Mojica, MD; Elizabeth Roth, MA; Sally C. Morton, PhD; and Paul G. Shekelle, MD, PhD

**Conclusions:** Four benchmark institutions have demonstrated the efficacy of health information technologies in improving quality and efficiency. Whether and how other institutions can achieve similar benefits, and at what costs, are unclear.

*Ann Intern Med. 2006;144:742-752.*

- Benefits in quality and costs shown in pioneer settings
Federal Initiatives to Accelerate HIT Adoption and the Movement from Volume to Value

• HITECH Act 2009—Meaningful Use of electronic health records
• PQRI → PQRS
• Medicare Value Modifier
• Accountable Care Organizations
HITECH 2009 and Meaningful Use

- Large incentives to promote the “Meaningful Use” of electronic health records and promote clinical data exchange ($44,000 per eligible clinician)

**Stages of Meaningful Use**

These objectives will evolve in three stages over the next five years:

- **2011-2012 Stage 1**: Data capture and sharing
- **2014 Stage 2**: Advance clinical processes
- **2016 Stage 3**: Improved outcomes
Percentage of Office-Based Physicians with Electronic Health Record (EHR) Systems — National Ambulatory Medical Care Survey,* United States, 2006–2013 (MMWR)

* A sample survey of office-based physicians.
† A medical or health record system that is either all or partially electronic.
§ A system with the following functionalities: patient history and demographics, patient problem lists, physician clinical notes, comprehensive list of patient medications and allergies, computerized orders for prescriptions, and the ability to view laboratory and imaging results electronically.

During 2006–2013, the percentage of physicians using any EHR system increased 168%, from 29.2% in 2006 to 78.4% in 2013. Nearly half of physicians (48.1%) were using the more comprehensive "basic system" by 2013, up from 10.5% in 2006.
Physician Quality Reporting System (PQRS)

- Evolving from payments for measurement to payments (or penalties) for performance
- Applying penalties to those who do not report 2015
- Will be part of value based modifier
- Current plan for 2015 data to influence 2017 payments
CMS Quality Tiers and Value Modifier Adjustments

**CMS 2016 VM (based on 2014 Performance)**

<table>
<thead>
<tr>
<th>Cost/Quality</th>
<th>Low Quality</th>
<th>Average Quality</th>
<th>High Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low cost</strong></td>
<td>+2.0x*</td>
<td>+1.0x*</td>
<td>+0.0%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>+1.0x*</td>
<td>+0.0%</td>
<td>-1.0%</td>
</tr>
<tr>
<td><strong>High</strong></td>
<td>+0.0%</td>
<td>-0.5%</td>
<td>-2.0%</td>
</tr>
</tbody>
</table>

* Eligible for an additional +1.0x if reporting clinical data for quality measures and average beneficiary risk score in the top 25% of all beneficiary risk scores


**CMS 2017 VM (based on 2015 Performance)**

<table>
<thead>
<tr>
<th>Cost/Quality</th>
<th>Low Quality</th>
<th>Average Quality</th>
<th>High Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Cost</strong></td>
<td>+0.0%</td>
<td>+2.0x*</td>
<td>+4.0x*</td>
</tr>
<tr>
<td><strong>Average Cost</strong></td>
<td>-2.0%</td>
<td>+0.0%</td>
<td>+2.0x*</td>
</tr>
<tr>
<td><strong>High Cost</strong></td>
<td>-4.0%</td>
<td>-2.0%</td>
<td>+0.0%</td>
</tr>
</tbody>
</table>

* Eligible for an additional +1.0x if reporting measures and average beneficiary risk score in the top 25 percent of all beneficiary risk scores

### QUALITY MEASURES

- GPRO reported PQRS measures
- 3 claims-based outcome measures
  - Acute preventable quality indicators composite (preventable admissions)
    - PQI 10: Dehydration Admission Rate
    - PQI 11: Bacterial Pneumonia Admission Rate
    - PQI 12: Urinary Tract Infection Admission Rate
  - Chronic prevention quality indicators composite (preventable admissions)
    - PQI 01: Diabetes Short-Term Complications Admit Rate
    - PQI 03: Diabetes Long-Term Complications Admit Rate
    - PQI 14: Uncontrolled Diabetes Admit Rate
    - PQI 16: Rate of Lower-Extremity Amputation Diabetes
    - PQI 05: COPD or Asthma in Older Adults Admit Rate
    - PQI 08: Heart Failure Admit Rate
  - All cause readmissions

### COST MEASURES

- Not condition based
  - Total cost per capita
  - Medicare Spending per Beneficiary
- Condition-based (per capita costs)
  - COPD
  - HF
  - CAD
  - Diabetes
<table>
<thead>
<tr>
<th>GPRO Measures 2014</th>
<th>GPRO Measures 2015: Additions or Removals</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARE-1: Med Reconciliation</td>
<td>Removed. Does not align with med rec measure in MU program (NQF#0419)</td>
</tr>
<tr>
<td>CARE-2: Screening for Future Fall Risk</td>
<td>No change.</td>
</tr>
<tr>
<td>CARE-3: Documentation of Current Meds in Medical Record</td>
<td>Added. Aligns with MU. Note: this measure is performed on all visits not just visits occurring after hospital discharge.</td>
</tr>
<tr>
<td>CAD-7: ACE/ARB Therapy with CAD &amp; Diabetes or LVSD</td>
<td>No change.</td>
</tr>
<tr>
<td>DM-2: HBA1C Poor Control &gt;9% (lower is better)</td>
<td>No change</td>
</tr>
<tr>
<td>DM-13: High Blood Pressure Control</td>
<td>Removed DM-13, 14, 15 &amp; 17 because: (a) not the best measures of DM quality care; (b) duplicative of other measures; (c) new or updated clinical guides.</td>
</tr>
<tr>
<td>DM-14: LDL-C Control</td>
<td></td>
</tr>
<tr>
<td>DM-15: HBA1C Control &lt;8%</td>
<td></td>
</tr>
<tr>
<td>DM-16: Daily Aspirin Use for Diabetes with IVD</td>
<td>Removed DM-16 because (a) other metrics of DM composite also removed; (b) somewhat duplicative of IVD-2 measure.</td>
</tr>
<tr>
<td>DM-17: Tobacco Non Use</td>
<td>Added. Of note, previously reported in 2010 and 2011.</td>
</tr>
<tr>
<td>DM-COMPOSITE (All or Nothing): DM-2 and DM-7</td>
<td>New composite components for GPRO 2015</td>
</tr>
<tr>
<td>HF-6: Beta-Blocker Therapy for LVSD</td>
<td>No change</td>
</tr>
<tr>
<td>HTN-2: Controlling High Blood Pressure</td>
<td>No change</td>
</tr>
<tr>
<td>IVD-1: Complete Lipid Panel and LDL-C Control</td>
<td>Removed because of new clinical guidelines.</td>
</tr>
<tr>
<td>IVD-2: Aspirin or Another Antithrombotic Use</td>
<td>No change. Proposed but not removed as CMS determined it did not conflict with updated ATP-4 cholesterol guidelines and to maintain alignment with Millions Hearts Initiative.</td>
</tr>
<tr>
<td>GPRO Measures 2014</td>
<td>GPRO Measures 2015: Additions or Removals</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>PREV-5: Breast Cancer Screening</td>
<td>No change</td>
</tr>
<tr>
<td>PREV-6: Colorectal Cancer Screening</td>
<td>No change</td>
</tr>
<tr>
<td>PREV-7: Influenza Immunization</td>
<td>No change</td>
</tr>
<tr>
<td>PREV-8: Pneumonia Vaccination for Older Adults</td>
<td>Modified to align with new ACIP guidelines</td>
</tr>
<tr>
<td>PREV-9: BMI Screening and Follow-up Plan</td>
<td>No change</td>
</tr>
<tr>
<td>PREV-10: Tobacco Screening and Cessation Intervention</td>
<td>No change</td>
</tr>
<tr>
<td>PREV-11: High Blood Pressure Screening and Follow-up Plan Documented</td>
<td>No change</td>
</tr>
<tr>
<td>PREV-12: Depression Screening and Follow-up Plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>MH-1: Depression Remission at 12 months</td>
<td>Added – new Mental Health (MH) Disease Module. Represents an important outcome and effects patient adherence with treatment for other chronic conditions.</td>
</tr>
</tbody>
</table>
Party on SGR's grave may end in hangover

By Paul Demko | April 15, 2015

WASHINGTON — The permanent “doc-fix” deal that cleared the Senate overwhelming margin on Tuesday night ends a perennial fight over Medicare payments that's dragged on for more than a decade.

But Kramer argues that the shift away from fee-for-service and toward alternatives such as accountable care organizations and bundled-payment initiatives is the most important development. Starting in 2019, doctors who have at least 25% of their patients in value-based payment models will be eligible for 5% bonus payments through 2024. After that they'll receive annual payment bumps of 0.75%, three times the level of increase for physicians that remain on the fee-for-service track.
EHR-Based Measurement and Improvement
Quality Measurement and Improvement Moving Forward

• Increasingly integral role of electronic quality measurement and HIT-enabled improvement techniques

• Challenges to apply these across a range of practices, EHRs and settings
eCQMs in Major U.S. Reporting Programs

• Where do they come from
  – NCQA—Revised versions of existing claims-based measures
  – Professional organizations (AMA-PCPI, American Heart Association, etc.)
  – Other private entities
  – CMS increasingly building own measures
  – Many undergo National Quality Forum Endorsement
Quality Measurement with Electronic Health Records

• Theoretical advantages
  – More available clinical data than with claims
  – Cheaper than manual review
  – Can be directly linked to clinical systems to influence the delivery of care (computerized clinical decision support, reminders, etc.)
Quality Measurement with Electronic Health Records

• Limitations
  – EHRs not designed with this function in mind
    • Reproduction of the paper record
  – Lack of standards for data capture
  – Care often appears worse than it is
  – Apparent differences may be from documentation rather than true quality
  – Measures designed for large populations (health plans) now being applied to individual practices
Limitations EHR-Based Quality Measures

• Examples:
  - Absent standardized data: LVEF, BMI follow up plan, smoking brief intervention
    • Standardization—Improvement or distraction?
  - Insufficient clinical detail: e.g. anticoagulation in IVD
    • Potential to incentivize inappropriate or dangerous care
  - Rarely address what level of achieved quality is desirable
  - Problems with timeliness—measures lag the science (example cholesterol and PCV13)
Using EHRs to Improve Ambulatory Quality

• Applying what has been learned by researchers in pioneering organizations will need to be applied to the universe of small and medium sized practices with a range of commercial EHRs to truly transform care; many uncertainties about effects on outcomes

Annals of Internal Medicine

Effect of Clinical Decision-Support Systems
A Systematic Review
Tiffani J. Bright, PhD; Anthony Wong, MTech; Ravi Dhurjati, PhD; Erin Bristow, BA; Lori Bastian, MD, MS; Remy R. Coeytaux, MD, PhD; Gregory Samsa, PhD; Vic Hasselblad, PhD; John W. Williams, MD, MHS; Michael D. Musty, BA; Liz Wing, MA; Amy S. Kendrick, RN, MSN; Gillian D. Sanders, PhD; and David Lobach, MD, PhD

Conclusion: Both commercially and locally developed CDSSs are effective at improving health care process measures across diverse settings, but evidence for clinical, economic, workload, and efficiency outcomes remains sparse. This review expands knowledge in the field by demonstrating the benefits of CDSSs outside of experienced academic centers.

Coupling eCQM with Organizational Improvement Activities Across Multiple Conditions

Utilizing Precision Performance Measurement to Improve Quality: the UPQUAL Study

Alerts become more accurate and actionable

Feedback becomes more accurate

Decision Support
- Reminders
- Time saving tools
- Recording exceptions and External data

Performance Measurement and Feedback

Raise expectations
- More accountability
- Provide motivation to use decision support

Changes in Quality During the Pre and Post-Intervention Years (16 measures)

• Improvement following intervention
  • More rapid improvement (9 measures)
  • Ongoing improvement similar to previous (4)
• Less improvement following intervention than in year prior (2)
• No change in quality in either year (1)
CHD Measures that Improved More Rapidly After Intervention

- Antiplatelet drug
- Lipid drug
- ACE/ARB

Pre-intervention Quarterly reports
Intervention period

Months

%
HbA1c < 8.0
LDL < 100
Aspirin
Nephropathy

Diabetes Measures Improved More Rapidly — Processes Much More than Outcomes
Sustainability and Scalability—Adding New Goals

- Tdap 19-64
- Pneumonia v 19-64
- Fall Screening
- AAA screening
- Antiplt in CAD
- PVX 65+
- CRC screening/surveillance

%
Meaningful Use Makes a Difference

- Providers who used EHR quality improvement tools had better care among office practices in Hudson valley NY State
  - Clinician alerts, order sets
- Practices with EHRs who were advanced users (evidenced by Patient Centered Medical Home Level III achievement) had greater quality improvement, lower utilization and lower costs compared to those who remained on paper or EHR users without PCMH achievement over a 3-year period

Outcomes Are Much Harder to Improve than Processes

• Simple outpatient EHR improvement tools are unlikely to produce big improvements in disease outcomes or complex processes

• Many outpatient studies of decision support have shown little or no impact on controlling disease states like diabetes or hypertension

• EHRs can support effective strategies (team-based management, facilitated relay of clinical information, registries) but may require other resources to fully realized the benefits
Effects of EHR Implementation on Cost and Utilization in Routine Practice

- Evidence from pioneer organizations that HIT can reduce unnecessary care
- Some recent evidence of small reductions in utilization in more “real world” settings (Massachusetts and New York State)
- Largest effects may be on reducing radiology testing
- Health consequences of these reductions (if any) are not known
### Table 4. Pre- and Postimplementation Cost Trends and Difference in Change in Trend

<table>
<thead>
<tr>
<th>Cost</th>
<th>Monthly Preimplementation Trend, %</th>
<th>Monthly Postimplementation Trend, %</th>
<th>Difference in Change in Trend (95% CI), percentage points</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>0.32</td>
<td>1.10</td>
<td>−0.30 (−0.70 to 0.09)</td>
<td>0.135</td>
</tr>
<tr>
<td>Control</td>
<td>0.14</td>
<td>1.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inpatient</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>−0.59</td>
<td>0.48</td>
<td>0.18 (−2.51 to 2.94)</td>
<td>0.90</td>
</tr>
<tr>
<td>Control</td>
<td>0.30</td>
<td>1.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ambulatory</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Intervention</td>
<td>0.41</td>
<td>−0.35 (−0.63 to −0.08)</td>
<td>0.012</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>0.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pharmacy</td>
<td>Intervention</td>
<td>0.15</td>
<td>−0.35 (−0.84 to 0.14)</td>
<td>0.167</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laboratory</td>
<td>0.73</td>
<td>−0.38 (−0.79 to 0.02)</td>
<td>0.061</td>
</tr>
<tr>
<td></td>
<td>Intervention</td>
<td>0.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>1.27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiology</td>
<td>Intervention</td>
<td>1.03</td>
<td>−1.61 (−2.26 to −0.95)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>−0.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Intervention</td>
<td>0.30</td>
<td>−0.11 (−0.42 to 0.20)</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>0.09</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Includes inpatient and ambulatory costs.

Table 2  Relative differences in rates of health care utilization by type of health record (EHR vs. paper) over time (N = 328)

<table>
<thead>
<tr>
<th>Utilization Measure</th>
<th>Incidence Rate Ratios (IRRs)*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unadjusted</td>
</tr>
<tr>
<td></td>
<td>IRR (95% CI)</td>
</tr>
<tr>
<td>Primary Care Visits</td>
<td>1.002 (0.98, 1.02)</td>
</tr>
<tr>
<td>Specialist Visits</td>
<td>0.99 (0.97, 1.01)</td>
</tr>
<tr>
<td>Radiology and Other Diagnostic Tests</td>
<td>0.97 (0.94, 1.01)</td>
</tr>
<tr>
<td>Laboratory Tests</td>
<td>0.98 (0.95, 1.01)</td>
</tr>
<tr>
<td>Emergency Department Visits</td>
<td>1.08 (1.01, 1.14)</td>
</tr>
<tr>
<td>Hospital Admissions</td>
<td>1.05 (0.95, 1.16)</td>
</tr>
<tr>
<td>Hospital Readmissions</td>
<td>1.02 (0.82, 1.26)</td>
</tr>
</tbody>
</table>

eClinical Quality Measures New Constructs

• Care Coordination
• “Version 1.0” is very primitive
  – CARE-3 for CMS: Proportion of the time a patient's current medications were documented, updated, or reviewed at an office/clinic visit
  – “Check the Box” quality measurement
eClinical Quality Measures and Care Coordination

• Next generation
  – May start to capture actual information exchange
  – Initial results likely to reflect system capabilities and nature and size of the healthcare system rather than individual clinician performance
  – Should motivate system improvements
  – Will be most challenging for non-integrated systems
  – Examples under development—Emergency medicine care coordination
    • Proportion of ED visits for asthma or chest pain for which the ED notifies the patient’s primary care provider or his or her relevant specialist about the patient’s visit to the ED within 24 hours of discharge
Other Potential or Emerging Areas for Measurement and Improvement

• Fully support case management, team-based care and population health

• Use complex algorithms to drive improvement for select populations
  - Cardiovascular disease risk reduction
  - High risk for hospitalization/readmission

• Use EHRs to collect patient reported outcomes

• Merge with external data sources: vaccination registries, pharmacy benefits claims, payer claims data
• Clinical quality measurement will increasingly be done using EHRs
• Payers will increasingly expect this data from providers and penalize when it is not available or when quality is low
• Healthcare systems and vendors will increasingly use EHR and other improvement tools to attempt to boost performance on what is measured
• Could accelerate adoption of effective therapies
• May generate some unintended consequences if not done thoughtfully
Questions?
Thank You
Meaningful Use Stage 2 Objectives

Report on all 17 Core Objectives:

1. Use computerized provider order entry (CPOE) for medication, laboratory and radiology orders
2. Generate and transmit permissible prescriptions electronically (eRx)
3. Record demographic information
4. Record and chart changes in vital signs
5. Record smoking status for patients 13 years old or older
6. Use clinical decision support to improve performance on high-priority health conditions
7. Provide patients the ability to view online, download and transmit their health information
8. Provide clinical summaries for patients for each office visit
9. Protect electronic health information created or maintained by the Certified EHR Technology
10. Incorporate clinical lab-test results into Certified EHR Technology
11. Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research, or outreach
12. Use clinically relevant information to identify patients who should receive reminders for preventive/follow-up care
13. Use certified EHR technology to identify patient-specific education resources
14. Perform medication reconciliation
15. Provide summary of care record for each transition of care or referral
16. Submit electronic data to immunization registries
17. Use secure electronic messaging to communicate with patients on relevant health information
Meaningful Use Stage 2 Objectives

Report on 3 of 6 Menu Objectives:
1. Submit electronic syndromic surveillance data to public health agencies
2. Record electronic notes in patient records
3. Imaging results accessible through CEHRT
4. Record patient family health history
5. Identify and report cancer cases to a State cancer registry
6. Identify and report specific cases to a specialized registry (other than a cancer registry)