Using Performance Measurement to Motivate Practice Change: Opportunities and Pitfalls
Value in Cancer Care Summit 2018
Eve A. Kerr, MD, MPH
VA Center for Clinical Management Research &
University of Michigan Institute for Healthcare Policy and Innovation
@ekerr_ccmr
"Not everything that can be counted counts, and not everything that counts can be counted."

- Albert Einstein (1879-1955)

*From a sign hanging in Albert Einstein's office at Princeton*

How can we measure what counts to motivate practice change?
Mr. B and the Case of the Performance Report

- 71 year-old man with COPD, CHF, DJD who is due for colorectal cancer screening
- Lives alone
- Has no family history of colorectal cancer
- Takes aspirin 81 mg daily, metoprolol, inhalers
- Last screening colonoscopy 10 years ago was normal

HEDIS Measure: % of patients aged 50-75 who got a screening test

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Mr. B and the Screening Decision

- He did not have a good experience with past colonoscopy and is worried about complications
- He wants to maximize his time playing golf and not at doctors’ offices
- How much will a colonoscopy help me?
• How did we get here: a little bit of US history of performance measurement
• Where are we now: some pitfalls of current measurement approaches
• The way forward: how can performance measurement drive patient-centered, high value care
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How Did We Get Here:
A Little Bit of History of Performance Measurement

Dr. Ernest Codman, a surgeon at Massachusetts General Hospital, suggested the “end-result system of hospital standardization” in 1910.
How Did We Get Here:
A Little Bit of History of Performance Measurement

- American College of Surgeons – 1913 – developed “Minimum Standards for Hospitals”
- Joint Commission on Accreditation of Hospitals – 1951
- Professional Standard Review Organization – 1960s-70s
- National Committee on Quality Assurance – 1991
- National Quality Forum – 1999
- Centers for Medicare and Medicaid Services (CMS)
The Quality of Health Care Delivered to Adults in the United States

Elizabeth A. McGlynn, Ph.D., Steven M. Asch, M.D., M.P.H., John Adams, Ph.D., Joan Keeseey, B.A., Jennifer Hicks, M.P.H., Ph.D., Alison DeCristofaro, M.P.H., and Eve A. Kerr, M.D., M.P.H.

DOI: 10.1056/NEJMc022615

Table 3. Adherence to Quality Indicators, Overall and According to Type of Care and Function.

<table>
<thead>
<tr>
<th>Variable</th>
<th>No. of Indicators</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>Preventive</td>
<td>58</td>
<td>6711</td>
<td>55,268</td>
<td>54.9 (54.3-55.5)</td>
</tr>
<tr>
<td>Acute</td>
<td>153</td>
<td>2318</td>
<td>19,815</td>
<td>53.5 (52.0-55.0)</td>
</tr>
<tr>
<td>Chronic</td>
<td>248</td>
<td>3387</td>
<td>23,566</td>
<td>56.1 (55.0-57.3)</td>
</tr>
</tbody>
</table>

CONCLUSIONS
The deficits we have identified in adherence to recommended processes for basic care pose serious threats to the health of the American public. Strategies to reduce these deficits in care are warranted.
Improving Care through Performance Measurement: Experiences in VHA

Measurement and public reporting of performance results:

• Program started in 1995
• Measures focused on a limited number of conditions with evidence-based practices
• Improvement at the local level was encouraged
• Performance on the measures was linked to financial rewards for VISN directors
Eve Kerr and Barbara Fleming

Presentation from HICOR Value in Cancer Care Summit 2018 -
Please cite author when referencing content
Diabetes Care Quality in the Veterans Affairs Health Care System and Commercial Managed Care: The TRIAD Study

Eve A. Kerr, MD, MPH; Robert O. Gerzoff, MS; Sarah L. Krein, PhD, RN; Joseph V. Selby, MD, MPH; John D. Piette, PhD; J. David Curb, MD, MPH; William H. Herman, MD, MPH; David G. Marrero, PhD; K.M. Venkat Narayan, MD, MSc, MBA; Montika M. Safford, MD; Theodore Thompson, MS; and Carol M. Mangione, MD, MSPH

Comparison of Quality of Care for Patients in the Veterans Health Administration and Patients in a National Sample

Steven M. Asch, MD, MPH; Elizabeth A. McGlynn, PhD; Mary M. Hogan, PhD; Rodney A. Hayward, MD; Paul Shekelle, MD, MPH; Lisa Rubenstein, MD; Joan Keesey, BA; John Adams, PhD; and Eve A. Kerr, MD, MPH

An Explosion of Quality Measures

- US quality measurement development and tracking activities are pursued by at least 27 organizations and 36 programs, using 1,235 individual measures*

- An inventory of measures used or promoted by CMS, National Quality Forum, National Committee for Quality Assurance and the Joint Commission numbers over 1000*
## Topics/Conditions for Reported Measures by CMS

<table>
<thead>
<tr>
<th>Condition/Topic</th>
<th>Number of Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>45</td>
</tr>
<tr>
<td>Cardiovascular and stroke</td>
<td>137</td>
</tr>
<tr>
<td>Central nervous system (dementia, Parkinson’s, epilepsy)</td>
<td>19</td>
</tr>
<tr>
<td>Chronic and elder care</td>
<td>57</td>
</tr>
<tr>
<td>Communicable diseases (immunizations, meticillin-resistant staphylococcus aureus [MRSA], influenza)</td>
<td>53</td>
</tr>
<tr>
<td>Dental</td>
<td>4</td>
</tr>
<tr>
<td>Diabetes</td>
<td>40</td>
</tr>
<tr>
<td>Mental health and substance abuse</td>
<td>59</td>
</tr>
<tr>
<td>Musculoskeletal (osteoarthritis, rheumatoid arthritis, back pain)</td>
<td>29</td>
</tr>
<tr>
<td>Patient experience</td>
<td>47</td>
</tr>
<tr>
<td>Patient safety</td>
<td>97</td>
</tr>
<tr>
<td>Respiratory conditions</td>
<td>34</td>
</tr>
<tr>
<td>Surgical procedures</td>
<td>54</td>
</tr>
</tbody>
</table>

US Physician Practices Spend More Than $15.4 Billion Annually To Report Quality Measures


2016; 35(3):401-406

EXHIBIT 1

Hours spent per physician per week dealing with external quality measures, 2014

SOURCE Authors’ analysis of responses to web-based survey of physician practices conducted for this research.
The Quality of Outpatient Care Delivered to Adults in the United States, 2002 to 2013

David M. Levine, MD, MA; Jeffrey A. Linder, MD, MPH; Bruce E. Landon, MD, MBA, MSc

2016;176(12):1778-1790
Merit Based Incentive Payment System - MIPS

2017 MIPS Performance

- Quality (60%)
- Advancing Care Information (25%)
- Improvement Activities (15%)

MAXIMUM Adjustments

- 4% decrease in 2019
- 5% decrease in 2020
- 7% decrease in 2021
- 9% decrease in 2022 onward

Adjustment to clinician’s base rate of Medicare Part B payment (including Part B drugs)
• The American College of Physicians Performance Measurement Committee rated 86 CMS Quality Payment Program Measures related to ambulatory internal medicine

• Only 32 (37%) were found to be valid, while 30 (35%) were found to be not valid
BUT IF WE DIDN'T MEASURE THINGS WE WOULDN'T KNOW HOW GOOD WE WERE AT MEASURING THE THINGS THAT WE'RE MEASURING!
• How did we get here: a little bit of US history of performance measurement

• Where are we now: some pitfalls of current measurement approaches

• The way forward: how can performance measurement drive patient-centered, high value care
Some Pitfalls of Current Measure Approaches

- Are not scientifically or clinically valid
- Don’t adjust for clinical status
- Promote all-or-nothing thinking
- Ignore patients’ underlying risk and potential for benefit
- Don’t take into account patient preferences
Current Measures Drive “All-or-Nothing” Thinking: The Case of False Dichotomy

<table>
<thead>
<tr>
<th>BAD CARE</th>
<th>GOOD CARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>142/88</td>
<td>140/90</td>
</tr>
<tr>
<td>138/88</td>
<td></td>
</tr>
</tbody>
</table>
High Performance on BP Performance Measures is Associated with Overtreatment

<table>
<thead>
<tr>
<th>Proportion of Patients Per Facility Meeting the BP &lt;140/90-mm Hg Threshold Measure, by Quartile</th>
<th>Predicted Probability of Potential Overtreatment, % (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest quartile (53%-78%)</td>
<td>6 (5.7-6.3)</td>
</tr>
<tr>
<td>Second (78%-82%)</td>
<td>7 (6.7-7.4)</td>
</tr>
<tr>
<td>Third (82%-86%)</td>
<td>8 (7.6-8.4)</td>
</tr>
<tr>
<td>Highest quartile (86%-97%)</td>
<td>9 (8.1-9.0)</td>
</tr>
</tbody>
</table>
Role of quality measurement in inappropriate use of screening for colorectal cancer: retrospective cohort study

Sameer D Saini research scientist1,2, Sandeep Vijan research scientist1,2, Philip Schoenfeld research scientist1,2, Adam A Powell research scientist1,2, Stephanie Moser data analyst1, Eve A Kerr director and research scientist1,2

BMJ 2014;348:g1247 doi: 10.1136/bmj.g1247 (Published 26 February 2014)

Fig 2 Screening at age 75 v age 76 (n=21 499)
• How did we get here: a little bit of US history of performance measurement

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• The way forward: how can performance measurement drive patient-centered, high value care
The quality-measurement enterprise in U.S. health care is troubled. Physicians, hospitals, and health plans view measurement as burdensome, expensive, inaccurate, and indifferent to the complexity of care delivery. Patients and their caregivers believe that performance reporting misses what matters most to them and fails to deliver the information they need to make good decisions. In an attempt to overcome these troubles, measure developers are creating ever more measures, and payers are requiring their use in more settings and tying larger financial rewards or penalties to performance. We believe that doing more of the same is misguided: the time has come to reimagine quality measurement.
1. Be integrated with care delivery rather than existing as a parallel, separate enterprise;

2. Acknowledge and address the challenges that confront doctors and patients every day — common and uncommon diseases, multiple coexisting illnesses, and management of symptoms even when diagnosis is uncertain;

3. Reflect individual patients' preferences and goals for treatment and health outcomes and enable ongoing development of evidence on treatment heterogeneity.
A Different Way to Think About Quality Goals

<table>
<thead>
<tr>
<th>Illustrative Quality-Measurement and Care Delivery Matrix for Two Women between the Ages of 65 and 69 Years with the Same Medical Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Care Opportunities</strong></td>
</tr>
<tr>
<td>Hypertension</td>
</tr>
<tr>
<td>Diabetes</td>
</tr>
<tr>
<td>Knee osteoarthritis</td>
</tr>
<tr>
<td>Depression</td>
</tr>
<tr>
<td>Preventive care</td>
</tr>
<tr>
<td>Acute care</td>
</tr>
</tbody>
</table>

*The body-mass Index is the weight in kilograms divided by the square of the height in meters.*
Mr. B:
- 71 year-old man with COPD, CHF, DJD
- Lives alone
- No family history, takes aspirin 81 mg daily
- Negative screening colonoscopy 10 years

**What Might a Patient-Centered Performance Measure for Colorectal Cancer Screening Look Like?**
Screening a patient like this will prevent about 3 cancer deaths per 1,000 patients screened.

This is a small benefit that may warrant further discussion before ordering a screening test.
Making a Decision about Colon Cancer Screening

A Guide for Older Adults
What are the **benefits** and **harms** of screening?

Screening has the potential to benefit you, but it can also cause harm.

**Screening can benefit you by...**
- Preventing you from developing colon cancer.
- Preventing you from dying from colon cancer.
- Giving you a sense of well being from having done something to protect your health.

**Screening can harm you by...**
- Leading to complications from a colonoscopy.
- Leading to side effects and complications from unnecessary or excessive cancer treatment.
- Causing unnecessary worry due to positive test results that turn out not to be cancer.

In the pages ahead, you’ll learn more about these benefits and harms from stories about patients who got screened.
Your Personal Estimated Benefit and Harm of Colon Cancer Screening

The 65-year-old and the 85-year-old in this graph represent people who are otherwise similar to you in terms of overall health and prior screening history.
Screening Benefit Continuum

- Very High Benefit Care
- Low to Moderate Benefit Care
- Very Low (or Neg.) Benefit Care

Preference Sensitive

65 yo healthy man

85 yo man
A Patient-Centered Performance Measure for Colorectal Cancer Screening Would:

• Define necessary, inappropriate and preference sensitive services

• Be balanced across the continuum of care

• Integrate incentives and tools to promote patient-centered care
What About Decreasing Overuse?
• Target root-causes of low value care
• Use meaningful measures and evaluation techniques
• Promote collaborative implementation and dissemination
Breast Cancer Surveillance: Use of Breast Cancer Marker or Imaging

Utilization by Clinic

Clinic variation in the use of testing (advanced imaging or tumor markers) for breast cancer during the surveillance period ranges from no use at all to use in over 75% of patients.

Regional average: 46%
Anxiety, Culture, and Expectations: Oncologist-Perceived Factors Associated With Use of Nonrecommended Serum Tumor Marker Tests for Surveillance of Early-Stage Breast Cancer

Erin E. Hahn, PhD, MPH, Corrine Munoz-Plaza, MPH, Jianjin Wang, MS, Jazmine Garcia Delgadillo, MPH, Joanne E. Schottinger, MD, Brian S. Mittman, PhD, and Michael K. Gould, MD, MS

2017 Jan;13(1):e77-e90
- Lack of knowledge
- Beliefs that testing will decrease patient, and their own, anxieties
- Fear of patient dissatisfaction or lawsuits
- Patient demand
- Lack of time to explain
- Low confidence in explanations
- Routine use
Physicians generally know what constitutes best practices and show up every day to do the best for their patients, but reliably and consistently offering those services at the point of care delivery requires a systems approach. This means integrating clinically meaningful measurement into care delivery at appropriates points of interaction with patients combined with specific actions to ensure delivery of optimal care.
Collaborative Implementation and Dissemination

Bring together academic partners with health systems, payers, patients, and communities to test, evaluate and disseminate successful approaches
Opportunities

• Define high value, low value and preference sensitive care

• Create meaningful, balanced measures that assess and track performance

• Assess barriers to improving performance
  – Patient
  – Clinician
  – System

• Tailor interventions to address barriers and root causes
Opportunities

• Test different approaches to maximizing quality across a statewide network
  – Benchmark reports and feedback
  – Justification for deviating from best practices
  – Incentives for maximizing high value care, minimizing low value care, and supporting shared decision making
  – Tools for facilitating shared decision making
  – More time for discussions

• Evaluate!
"Everything should be made as simple as possible, but not one bit simpler.”
Albert Einstein (1879-1955)

The time is right to advance performance measurement that promotes high-value, patient-centered care
QUESTIONS?