How Good Is the Quality of Care in the United States?

Elizabeth A. McGlynn, Ph.D.
March 24, 2006
What Do We Know About Quality?

• Researchers have found deficits in quality for more than four decades
  – Morehead (1962): 57% of hospital care optimal
  – Payne (1970): 41% of ambulatory care acceptable
  – Schuster, McGlynn, Brook (1998 review): 50%-70% of recommended care received
• But, most people do not believe there is a quality problem
  – Little information on quality routinely available
  – Information is poorly presented
  – Bad care doesn’t always produce bad results
What Did We Set Out to Do?

• Develop a more comprehensive method for measuring quality of care for the population: QA Tools

• Use this method to estimate the quality of care nationally, by community, by population characteristics

• Translate findings into information accessible to different audiences

• Calibrate the likely effects of quality deficits on the health and well being of the American public
QA Tools: Developing a Comprehensive Measure of Technical Quality

- Selected 30 clinical areas representing about half of reasons people seek care
<table>
<thead>
<tr>
<th>QA Tools Clinical Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol dependence</td>
</tr>
<tr>
<td>Asthma</td>
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<tr>
<td>Atrial fibrillation</td>
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<tr>
<td>Breast cancer</td>
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<tr>
<td>Benign prostatic hyperplasia</td>
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<tr>
<td>Cataracts</td>
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<tr>
<td>Chronic lung disease</td>
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<tr>
<td>Colorectal cancer</td>
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<tr>
<td>Congestive heart failure</td>
</tr>
<tr>
<td>Coronary artery disease</td>
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<tr>
<td>Depression</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
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<tr>
<td>Dyspepsia/peptic ulcer</td>
</tr>
<tr>
<td>Family planning</td>
</tr>
<tr>
<td>Headache</td>
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<tr>
<td>Hip fracture</td>
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<tr>
<td>Hyperlipidemia</td>
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<tr>
<td>Hypertension</td>
</tr>
<tr>
<td>Hysterectomy</td>
</tr>
<tr>
<td>Low back pain</td>
</tr>
<tr>
<td>Menopause management</td>
</tr>
<tr>
<td>Orthopedic conditions</td>
</tr>
<tr>
<td>Osteoarthritis</td>
</tr>
<tr>
<td>Pain &amp; palliative care for cancer</td>
</tr>
<tr>
<td>Pneumonia</td>
</tr>
<tr>
<td>Prenatal care &amp; delivery</td>
</tr>
<tr>
<td>Preventive care</td>
</tr>
<tr>
<td>Prostate cancer</td>
</tr>
<tr>
<td>Sexually transmitted diseases</td>
</tr>
<tr>
<td>Stroke</td>
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<tr>
<td>Urinary tract infection</td>
</tr>
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QA Tools: Developing a Comprehensive Measure of Technical Quality

• Selected 30 clinical areas representing about half of reasons people seek care

→ • Developed specific standards, or indicators, within each clinical area based on literature reviews
Sample Standards (Chronic Care)

- (Asthma) Patients presenting to the physician’s office or ER with an FEV1 or PEF < 70% of baseline should be treated with beta2-agonists before discharge.

- (Benign prostatic hyperplasia) Patients diagnosed with BPH who report symptoms of moderate prostatism should have treatment options discussed or offered within one month of the note of symptoms.

- (Hyperlipidemia) Patients with pre-existing coronary disease with an LDL > 130mg/dl should begin diet or drug therapy within 3 months.
QA Tools: Developing a Comprehensive Measure of Technical Quality

- Selected 30 clinical areas representing about half of reasons people seek care
- Developed specific standards, or indicators, within each clinical area based on literature reviews
- Convened 45 experts, each nominated by specialty societies to evaluate proposed standards
QA Tools: Developing a Comprehensive Measure of Technical Quality

- Selected 30 clinical areas representing about half of reasons people seek care
- Developed specific standards, or indicators, within each clinical area based on literature reviews
- Convened 45 experts, each nominated by specialty societies to evaluate proposed standards
- Developed computer-assisted medical record abstraction software to collect necessary data
Example: Data Needed to Evaluate Adherence to Standards

<table>
<thead>
<tr>
<th>Concept</th>
<th>How to Identify the Data Element</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eligibility</strong></td>
<td></td>
</tr>
<tr>
<td>Type 2 diabetics</td>
<td>• History of diabetes</td>
</tr>
<tr>
<td></td>
<td>• Visit where problem is diabetes</td>
</tr>
<tr>
<td></td>
<td>• Type 2 specified or type not specified</td>
</tr>
<tr>
<td>Failed dietary therapy</td>
<td>• Note in medical record or 2 elevated HbA1c (&gt;8.5) and not on oral hypoglycemics</td>
</tr>
<tr>
<td><strong>Scoring</strong></td>
<td></td>
</tr>
<tr>
<td>On oral hypoglycemics</td>
<td>• Match to list of eligible drugs</td>
</tr>
<tr>
<td></td>
<td>• Date ≥ failure date</td>
</tr>
<tr>
<td>Refused treatment</td>
<td>• Note in medical record</td>
</tr>
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• Calibrate the likely effects of quality deficits on the health and well being of the American public
Where Was the Study Done?

- Seattle
- Orange County
- Phoenix
- Little Rock
- Indianapolis
- Cleveland
- Lansing
- Syracuse
- Boston
- Greensville
- Miami
- New York

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Data Sources

• Telephone interviews (demographics, health history, some process measures)
• Medical records from all providers (i.e., physicians, facilities) for the two years preceding the date of the telephone interview
## Participants Differ from the General Population

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Participants</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>45.5</td>
<td>33.1</td>
</tr>
<tr>
<td>Female (%)</td>
<td>59.6</td>
<td>50.9</td>
</tr>
<tr>
<td>Education (years)</td>
<td>13.7</td>
<td>13.0</td>
</tr>
<tr>
<td>Nonwhite (%)</td>
<td>18.6</td>
<td>24.9</td>
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Constructing Quality Scores

\[
\text{Score} = \frac{\text{# of times recommended care was given}}{\text{# of opportunities to deliver recommended care}}
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Overall, About Half of Recommended Care Is Received

Care that meets quality standards

McGlynn et al, 2003
There Is Substantial Room for Improvement Across All Types of Care

McGlynn et al., 2003
Quality of Care for Cardiopulmonary Problems Varies Widely

Coronary artery disease
Hypertension
Heart failure
Stroke
Chronic lung disease
Asthma
High cholesterol
Pneumonia
Atrial fibrillation

% of standards passed

McGlynn et al., 2003
Significant Variation Exists in Management of Adults’ General Medical Problems

- Cataracts
- Low back pain
- Depression
- Osteoarthritis
- BPH
- Headache
- Diabetes
- Ulcers
- Alcohol dependence

% of quality standards passed

McGlynn et al., 2003
And You Aren’t Safe Anywhere…

Kerr et al., 2004
And You Aren’t Safe Anywhere…

% of recommended care received

Boston
Cleveland
Greenville
Indianapolis
Lansing
Little Rock
Miami
Newark
Orange Co
Phoenix
Seattle
Syracuse

Overall
Preventive

Kerr et al., 2004
And You Aren’t Safe Anywhere…

Kerr et al., 2004

% of recommended care received

Boston
Cleveland
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Orange Co
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Seattle
Syracuse

Overall
Preventive
Acute

Kerr et al., 2004

% of recommended care received

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And You Aren’t Safe Anywhere…

Kerr et al., 2004
No One Is Immune From Quality Deficits

- **Gender**
  - Male
  - Female

- **Race**
  - White
  - Black
  - Hispanic
  - Other

- **Age**
  - 18-30
  - 31-64
  - 65+

% of recommended care delivered

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Money Doesn’t Buy Quality

% of recommended care delivered

Income:
- >$50K
- $15-50K
- <$15K

Insurance:
- Private, nonmanaged
- Managed care
- Medicare
- Medicaid
- No insurance
What We Found Depends on What Part of Care You Are Looking At

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<tr>
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<th>Acute</th>
<th>Chronic</th>
<th>Preventive</th>
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<tr>
<td>Gender</td>
<td>M&gt;F</td>
<td>F&gt;M</td>
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</tr>
<tr>
<td>Age</td>
<td>31-64&gt;18-30</td>
<td>18-30&gt;31-64&gt;65+</td>
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<tr>
<td>Race</td>
<td>B&gt;W</td>
<td>B&gt;W, H&gt;W</td>
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<td>Insurance</td>
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But This Defies the Conventional Wisdom

Health Status → Access → Care Processes → Health Outcomes → Other Stuff
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**Does It Matter If Standards Are Met?**

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<td>Pneumonia</td>
<td>36% no vaccine</td>
<td>10,000 deaths</td>
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What’s Needed to Move the Nation Forward?

- Increased public awareness of problem
- Information on performance that is easy to access and understand
- Widespread adoption of information systems technologies
- Alignment of financial incentives
- Tools and skill building for patients and health professionals
Care Delivered in the VA More Frequently Meets Quality Standards

Care that meets quality standards

Asch et al, 2004
Greatest Differences Found in Metrics & Conditions Included in VA System

- **VA Metrics & Incentives**:
  - US
  - VA

- **Different Metrics for VA Conditions**: US versus VA

- **No VA Measure**: US versus VA

Asch et al., 2004

% of recommended care delivered: 0, 20, 40, 60, 80, 100