The Role of Quality
Building a Better Health Care System
Eric Jacobson

Multiples sources including Dr. Harvey Fineberg’s presentation at “The Quality Colloquium” – Harvard University, Aug 2003, Dr. Fineberg is the President of the Institute of Medicine and Former Provost of Harvard University
Pathways to Progress in Health Care

• Develop better things to do for patients
  – Scientific discovery
  – Product development
  – Clinical trials

• Devise better ways to do what we already know should be done for patients
  – Access to services
  – Efficiencies of production
  – Improved quality
Health Care Errors – Not a New Problem

“...Serious and widespread quality problems exist throughout American medicine. These problems...occur in small and large communities alike, in all parts of the country, and with approximately equal frequency in managed care and fee-for-service systems of care. Very large numbers of Americans are harmed as a direct result....”

IOM National Roundtable on Health Care Quality, 1998
Most basic concepts

• Basic problems: underuse, overuse, misuse/errors, not just errors!!
• Quality measurements focus on: structure, process, outcomes
Systems in Health Care
(from the IOM Quality Chasm Report)

• **Social-level (Level D):** finance, litigation organization, social policy, etc.

• **Institutional-level (Levels B & C):** cardiac surgical team, IT, form of provider reimbursement, institutional data-bases, provider profiling, etc.

• **Individual-level:** physician practices, patient-care decisions, (overuse/underuse/misuse) etc.
“Medicine used to be simple, ineffective and relatively safe. Now it is complex, effective and potentially dangerous.”

Sir Cyril Chantler, former Dean Guy’s, King and St. Thomas’s Medical and Dental School, *Lancet* 1999
Code Words for Medical Errors

- Adverse event, adverse outcome
- Medical mishap; unintended consequence
- Unplanned clinical occurrence; unexpected occurrence; untoward incident
- Therapeutic misadventure; bad call
- Complication/ injury
- Hospital acquired complication
Geographic Variations in Medicare

Taken From a Medicare Payment Advisory Commission (MEDPAC) Report to Congress
June 2003
"In some regions of the United States Medicare pays more than twice as much per person for health care as it pays in other regions. For example, age-, sex-, and race-adjusted spending for traditional, fee-for-service (FFS) Medicare in the Miami hospital referral region in 1996 was $8,414—nearly two and a half times the $3,431 spent that year in the Minneapolis region.

Even after differences in price levels across regions are adjusted for, there are no obvious patterns that suggest why some areas spend more than others. Spending in urban areas in the Northeast tends to be higher than average, but spending in rural regions in the South and urban areas in Southern California is as high or even higher. And the dollar transfers involved are enormous. The difference in lifetime Medicare spending between a typical sixty-five-year-old in Miami and one in Minneapolis is more than $50,000, equivalent to a new Lexus GS 400 with all the trimmings.”

(Health Affairs, Feb 13 2002 Web Exclusive, “Geography And The Debate Over Medicare Reform,” by John E. Wennberg, Elliott S. Fisher, and Jonathan S. Skinner)
Why do we care about variations in Medicare spending?

• Beneficiaries in low-expenditure areas may not be getting the care that they need

• High-expenditure areas may be using too much care or are being overcompensated for the care that they provide

• There is evidence that higher costs do not necessarily translate into a higher quality of care

• Bottom line: Medicare is a half-trillion dollar program; perhaps as much as 30% of Medicare spending is being wasted on spending that does not generate better health care
EXHIBIT 3
Comparison Of Medicare Spending, Supply-Sensitive Care, Preference-Sensitive Care, And Effective Care For Orange County, Miami, Minneapolis, And Portland Hospital Referral Regions, 1995–1996

Ratio to Minneapolis region

- Orange County (CA)
- Miami (FL)
- Minneapolis (MN)
- Portland (OR)

NOTE: Rates are given as ratio to Minneapolis hospital referral region (valued as 1.0).
- Care provided per decedent in the last six months of life.
- See Exhibit 2 for definitions.

### Sources of Variation

Geographic differences due to ...

<table>
<thead>
<tr>
<th>The cost of providing care</th>
<th>Quantity of care provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>wages</td>
<td>health status</td>
</tr>
<tr>
<td>office rents</td>
<td>propensity to use care (due to characteristics such as age, sex, education, and income)</td>
</tr>
<tr>
<td>liability insurance</td>
<td>physician practice patterns</td>
</tr>
<tr>
<td>mix of providers in area</td>
<td></td>
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</tbody>
</table>

After controlling for the effects of the cost of providing care, much of the variation in Medicare spending that remains is due to the *quantity* of care that beneficiaries use ...
But does using more care mean better quality? Not exactly. Higher service use is correlated with lower quality of care....

**FIGURE 1-4** States’ adjusted service use and quality of care, 2000

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**Note:** The measure of both adjusted service use and quality is ordinal. For example, the state with the highest quality has a quality measure of 51 and the state with the second-highest quality has a measure of 50, and so on down to 1.

And to explain the variation in service use ...

Demographics matter ....

... but so does the supply of health care resources.

<table>
<thead>
<tr>
<th>Explanatory variable</th>
<th>Coefficient from regression</th>
<th>t-statistic from regression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uninsured, not eligible for Medicare</td>
<td>49.6*</td>
<td>7.2</td>
</tr>
<tr>
<td>Poverty rate, 65 and older</td>
<td>−42.0*</td>
<td>3.4</td>
</tr>
<tr>
<td>Percent African American, 65 and older</td>
<td>34.4*</td>
<td>7.6</td>
</tr>
<tr>
<td>Percent Asian American, 65 and older</td>
<td>−18.2*</td>
<td>2.9</td>
</tr>
<tr>
<td>Percent Hispanic, 65 and older</td>
<td>17.8*</td>
<td>4.0</td>
</tr>
<tr>
<td>HMO penetration</td>
<td>3.7</td>
<td>1.6</td>
</tr>
<tr>
<td>Hospital beds per 1,000 residents</td>
<td>69.6*</td>
<td>2.18</td>
</tr>
<tr>
<td>Percent of hospital beds in intensive care units</td>
<td>43.7*</td>
<td>2.18</td>
</tr>
</tbody>
</table>

\[ R^2 = 0.35 \]

Note: Sample for regression includes 322 metropolitan statistical areas and 46 statewide rural areas.* Statistically significant at 5-percent level.

Studies of Quality and Safety

• More than 70 studies document poor quality of care (Schuster et al, 1998; 2000)

• More than 30 studies document medication errors (IOM, 2000)

• Large gaps between the care people should receive and the care they do receive
  – true for preventive, acute and chronic
  – across all health care settings
  – all age groups and geographic areas
Quality of Health Care Delivered to Adults in the US – 2003 RAND Study

• Methods
  – Study of >6700 participants in 12 metropolitan areas
  – 439 indicators of quality for 30 conditions

• Selected Findings:
  – 46% did not receive recommended care
  – 11% received potentially harmful care
  – Only 24% of diabetics received 3 or more glycosylated Hgb tests over two-year period
  – 65% of hypertensives receive recommended care
  – Only 45% of persons with MI receive beta-blockers

Studies of Errors Among Hospitalized Patients

- New York State (1984 data)
  - 3.7% experience injury due to medical care
  - 13.6% of injuries are fatal
  - 58% of injuries are preventable

- Colorado and Utah (1992 data)
  - 2.9% experience injury due to medical care
  - 6.6% of injuries are fatal
  - 53% of injuries are preventable
Studies of Errors Among Hospitalized Patients

• Australia (1992 data)
  – 16.6% experience injury or longer stay due to medical care
  – 4.9% of injuries are fatal
  – 51% of injuries are preventable
Dimensions of Quality of Care
(see Berwick, p. 83)

Health care should be:
• Safe
• Effective
• Patient-centered
• Timely
• Efficient
• Equitable
Alternative Models to Apprehend Problems of Safety and Quality

- Moral Actor
- Rational Actor
- Psychological Actor
- Educated Actor
- SYSTEMS
System defined

“A regularly interacting or interdependent group of items forming a unified whole”
The new treatment, called aggressive rehabilitation, goes well beyond traditional physical therapy, taking the "no pain, no gain" approach to an excruciating level. After years of tentatively guarding their backs for fear of injury, back-pain sufferers who can barely walk or stand are subjected to grueling exercise, using their back muscles to stretch and push weight… *Intensive exercise has been slow to catch on.*

[resulting in unnecessary procedures such as spinal-fusion surgery for degenerating disks???

The therapy is *far less lucrative* than the pain pills, injections and surgical treatments that are the cornerstone of the back-pain industry. And patients, too, are reluctant to pursue the treatment, which takes more time and effort than passive therapies. But now, with growing evidence that spinal-fusion surgery doesn't work for most people, more patients are looking for nonsurgical options.

[Please don’t try this on your own!!]
Building Organizational Supports for Change

- Redesign care processes
- Make effective use of information technologies
- Aligning payment policies with quality improvement
- Measure and improve performance and outcomes

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- Develop effective teams
- Coordinate care across patient conditions, services and settings over time
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Redesign Care Processes

- System design using the 80/20 principle
- Design for safety
A New Environment for Care

• Applying evidence to health care delivery
Applying Evidence to Health Care Delivery

- Ongoing analysis and synthesis of medical evidence
- Delineation of specific practice guidelines
- Enhanced dissemination of evidence and guidelines to the public and professions
- Decision support tools for clinicians and patients
- Identification of best practices in processes of care
- Development of quality measures for priority conditions
A New Environment for Care

- Applying evidence to health care delivery
- Using information technology (e.g., CPOE)
A New Environment for Care

- Applying evidence to health care delivery
- Using information technology
- Aligning payment policies with quality improvement
Aligning Payment Policies

- Efforts may be hard to justify economically
  - Difficulty of measuring impact of quality improvement on the fiscal bottom line
  - Infrastructure investment required up front

- Adapt various existing payment methods (fee-for-service, capitation, blended, RBRVS) to support quality improvement: value-based reimbursement

- Experiment with payment for priority conditions
A New Environment for Care

- Applying evidence to health care delivery
- Using information technology
- Aligning payment policies with quality improvement
- Preparing the workforce
Preparing the Workforce

• Restructuring clinical education at first-stage, graduate, and continuing education for medical, nursing and other professionals.
Key Points

- Unremitting forces impinge on medicine and health care
- Quality of care is the central objective
- Systems are a key organizing principle, and process redesign is a key strategy
- Everyone has a stake in promoting patient safety and the quality of care