HEALTHCARE QUALITY

CRASH 2014
Vail, Colorado

Disclosures

None

Learning Objectives

1. Define quality in the healthcare setting (What)
2. Review the current healthcare marketplace (Why)
3. Highlight basic quality terminology, purpose, and theory (Who, When, Where)
4. Provide a context and foundation for practical application of quality (How)

Where do you fall?

How can we create a quality culture and sustain success?

Just tell me what I need to do right now!

What is “Quality” in Healthcare?

What is your definition?
Who’s definition matters?
Are you a quality provider?
Do you practice in a quality institution?
How would you prove your answers?

Definition: Quality in Healthcare

“Quality care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge…How care is provided should reflect appropriate use of the most current knowledge about scientific, clinical, technical, interpersonal, manual, cognitive, and organizational and management elements of healthcare.”

(Lohr 1990)

* IOM Committee to Design a Strategy for Quality Review and Assurance in Medicare
Six Aims for Improvement

1. Safety
2. Timeliness
3. Effectiveness
4. Efficiency
5. Equity
6. Patient-centeredness

*Aims also referred to as dimensions/domains

Crossing the Quality Chasm, IOM 2001

Perceptions of Quality

Although everyone values some part of each attribute of quality, different stakeholders attach varying levels of importance to individual attributes.

(Bluementhal 1996; Harteloh 2004)

There are stereotypical differences in how individuals value attributes of care in the context of quality

(Ransom, Joshi, et al 2008)

The Healthcare Marketplace

Buyers - “Customers”
- Businesses, government, patients, insurance*

Sellers
- Hospitals, physicians (providers), insurance*

Marketplace Differences

Basic Consumer

Healthcare

Healthcare Marketplace

Past (Circa 1900) | Current (Circa 2012)

Perception vs. Reality

Product | Experience
Attributes of Quality

- Technical Performance
- Interpersonal Relationships
- Amenities
- Access
- Patient Preference
- Equity
- Efficiency
- Cost-Effectiveness

L. Wyszewianski

Stereotypical Perception of Quality

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Technical Performance</th>
<th>Interpersonal Relationships</th>
<th>Amenities</th>
<th>Access</th>
<th>Patient Preference</th>
<th>Equity</th>
<th>Efficiency</th>
<th>Cost-Effectiveness</th>
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<tbody>
<tr>
<td>Provider</td>
<td>+++</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Patient</td>
<td>+</td>
<td>+++</td>
<td>+++</td>
<td>+</td>
<td>+++</td>
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<td>Payer</td>
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<tr>
<td>Admin</td>
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<td>+++</td>
<td>+</td>
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<td>+++</td>
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<tr>
<td>Society</td>
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<td>+++</td>
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</table>


Why Should I Care? Making the Case

Healthcare = 18% of GDP
Outcomes ≠ spending
PPACA (Patient Protection and Affordable Care Act 2010)
“Value-driven” context
- Value-Based Purchasing (VBP)
- Bundled payments
- Proven quality

Costs must come down
Physician services are costs!

Three numbers to note: 55 4 750

Only 55% of healthcare is evidence-based

Four-fold (4x) variation in geographic cost in the U.S.

$750,000,000,000 in unnecessary healthcare spending.
Institutes of Medicine

Spending Sources Over Time

<table>
<thead>
<tr>
<th>TABLE 1.3</th>
<th>Sources of Financing 1992, 1970, and 2012</th>
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</thead>
<tbody>
<tr>
<td>Health Spending</td>
<td></td>
</tr>
<tr>
<td>Total (trillions of dollars)</td>
<td>$3,656</td>
</tr>
<tr>
<td>Adjusted for inflation (2012 dollars)</td>
<td>$4,037</td>
</tr>
<tr>
<td>Per capita (adjusted)</td>
<td>$330</td>
</tr>
<tr>
<td>As a percentage of GDP</td>
<td>3.8%</td>
</tr>
<tr>
<td>Percentage Paid by</td>
<td></td>
</tr>
<tr>
<td>Self (out-of-pocket)</td>
<td>81%</td>
</tr>
<tr>
<td>Third parties</td>
<td>19%</td>
</tr>
<tr>
<td>Government</td>
<td>23%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Other</td>
<td>8%</td>
</tr>
</tbody>
</table>

Healthcare Funds: Sources & Uses

<table>
<thead>
<tr>
<th>Use of Funds</th>
<th>Percentage of Total</th>
<th>Amount per Person</th>
<th>Source of Funds</th>
<th>Percentage of Total</th>
<th>Amount per Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>31%</td>
<td>$2,762 Medicare</td>
<td>Pharmacy</td>
<td>20%</td>
<td>$1,399</td>
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<tr>
<td>Physician</td>
<td>19%</td>
<td>1,718 Receipt</td>
<td>Medicare</td>
<td>14%</td>
<td>1,446</td>
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<tr>
<td>Dental</td>
<td>8%</td>
<td>917 Medical</td>
<td>Medicaid</td>
<td>11%</td>
<td>966</td>
</tr>
<tr>
<td>Other</td>
<td>9%</td>
<td>766 VA &amp; DOD</td>
<td>Other government</td>
<td>8%</td>
<td>294</td>
</tr>
<tr>
<td>Other care</td>
<td>6%</td>
<td>477 Other</td>
<td>Other government</td>
<td>11%</td>
<td>966</td>
</tr>
<tr>
<td>OTC &amp; med</td>
<td>4%</td>
<td>294 OTC</td>
<td>Other government</td>
<td>8%</td>
<td>1,446</td>
</tr>
<tr>
<td>Drugs</td>
<td>10%</td>
<td>918</td>
<td>Medicare</td>
<td>14%</td>
<td>1,446</td>
</tr>
<tr>
<td>Products</td>
<td>3%</td>
<td>269</td>
<td>Employer</td>
<td>31%</td>
<td>2,799</td>
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<tr>
<td>Administrative costs</td>
<td>7%</td>
<td>635</td>
<td>Tax collection</td>
<td>45%</td>
<td>455</td>
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<tr>
<td>Public health</td>
<td>3%</td>
<td>269 Self-paid</td>
<td>Other government</td>
<td>11%</td>
<td>1,019</td>
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<tr>
<td>Research</td>
<td>2%</td>
<td>176 Charity</td>
<td>Other government</td>
<td>8%</td>
<td>966</td>
</tr>
<tr>
<td>Construction</td>
<td>4%</td>
<td>581</td>
<td>Other government</td>
<td>8%</td>
<td>1,446</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>$8,900 Total</td>
<td>Medicare</td>
<td>14%</td>
<td>1,446</td>
</tr>
</tbody>
</table>


PPACA: Physician Implications

- Costs must come down (GDP 18% → 9.5%)
- We are system costs (19%)
- Asked to do “more” for less payment
- Focus on provider performance
  - Value (Quality / Cost), Prevention, Safety
- Cost of medical education not addressed
- Loan repayment?
- Education cost and financing?
- New entrants into specialty?


Physicians in Healthcare

- Direct flow of patients in healthcare system
  - “The most expensive thing in the healthcare system is...?”
  - Nearly all expenses start with a physician order!

- Powerful and specific bond (doctor-patient relationship)
  - Medical science
  - Ethics
  - Emotions
  - Economics
- Physician perspective:
  - Medical expenditures are not costs, they are revenues
  - One person’s cost is another person’s cash!
Quality & Cost Effectiveness
- Simplified ratio → Cost : Benefit
- Law of diminishing returns sets in
- Two perspectives:
  Maximization = spend until no benefits left!
    → Patients & Providers
  Optimization = stop spending at a “point” when benefits too small to justify added costs
    → Everyone else

Quality Management Efforts
- Structures
- Processes
- Outcomes
Relationship:
\[ \text{Structure + Process} \approx \text{Outcome} \]
(Donabedian 1988, 2003)

Structure + Process = Outcome

**Noun:** What we HAVE

Assumption → Good people, equipment & conditions will result in higher-quality care.

Structure + Process = Outcome

**Verb:** What we DO

Assumption → If the right things are done right, higher-quality is more likely.

Appropriateness → Right action completed?
Skill → Action completed right?

Structure + Process = Outcome

Achievement of GOAL

Assumption → Outcomes are under the system’s control (provider, patient, treatment)

Processes → Outcomes

- Relationship is not random or unpredictable.
- Forms basis for most quality research
  - What set of clinical processes leads to better defined outcomes?
  - How efficacious are sets of processes in relation to desired outcomes?
  - Common sense processes?
  - Guidelines, protocols, tasks, checklists, etc.

Efficacious processes = Improved outcomes
Quality Indicators: Anesthesia
(CMS: PQRI/S)

Timing of Prophylactic Antibiotics (#30):
- Within 1 hr. prior to surgical incision
- Contingent on order & necessity
- Acceptable reasons for not meeting requirements documented

Preventing catheter-related bloodstream infections (CRBSI)- (#76):
- CVC insertion with all elements of sterile technique utilized (cap, gown, large sheet, hand hygiene, 2% chlorhexidine)

Perioperative Temperature Management (#193)
- Surgery/procedure, > 60 mins, GA/NA, with either active warming or body temp ≥ 36°C within 30 mins before or 15 mins after anes stop time.

Quality Ala Carte

Clinical Anesthesia
- Pre-op preparation
- Hemodynamic stability
- Glucose control
- PONV prophylaxis
- Post-op pain control
- Care handoffs
- Injuries

Operational Anesthesia
- On-time starts/turnovers
- OR/medication costs
- Medical directorship
- NRVA Service
- Value-based purchasing
  - 45% Processes
  - 25% Outcomes
  - 30% HCAPHS

Anesthesia Quality

Examples

Success: Value, Efficiency, Safety

- Physicians are largely autonomous
- Variability in any process is costly and inefficient
- Solution = Value (Quality / Cost)
  1. Evidence-based medicine
  2. Cost-benefit analysis and action
  3. Population health/risk sharing (ACO capitation)
  4. Clinical pathways (frequent & high-cost)
  5. Reduce/eliminate errors
- Physicians have the power—if we wish to use it!

Future of Quality

- Practice, education, research
- Most is “cognitive common sense”
- Accelerated by EMR adoption
- Learning from other industries
  - Healthcare is far behind
  - Change is required throughout healthcare
- Pay-for-performance ($$$)
- Credentialing/Licensing application
- Physician projects abound
- Multidisciplinary vs. Specialty-specific