

HEALTHCARE QUALITY

CRASH 2014
Vail, Colorado

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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.
(Blumenthal 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

<p>Basic Consumer</p>	<p>Healthcare</p>
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Healthcare Marketplace

<p>Past (Circa 1900)</p>	<p>Current (Circa 2012)</p>
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Perception vs. Reality

<p>Product</p>	<p>Experience</p>
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Attributes of Quality

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

L. Wyszewianski

Stereotypical Perception of Quality

	Technical Performance	Interpersonal Relationships	Amenities	Access	Patient Preferences	Equity	Efficiency	Cost Effectiveness
Provider	+++	+	+	+	+	+	+	-
Patient	++	+++	+++	++	++	+	+	-
Payer	+	+	+	+	+	+	+++	+++
Admin	++	+	+++	+++	+	++	+++	+++
Society	+++	+	+	+++	++	+++	+++	+++

Clinics in Family Practice, Volume 5 (4), Wyszewianski, L. "Defining, Measuring, and Improving Quality Healthcare" 2003

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!

Why Should I Care? Making the Case

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

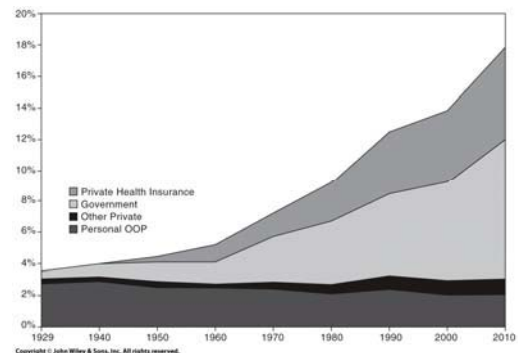
Spending Sources Over Time

TABLE I.3 Sources of Financing 1929, 1970, and 2012

Source	1929	1970	2012
Health Spending			
Total (millions of dollars)	\$3,656	\$74,894	\$2,823,587
Adjusted for inflation (2012 dollars)	\$40,070	\$357,047	\$2,823,587
Per capita (adjusted)	\$330	\$1,697	\$8,936
As a percentage of GDP	3.5%	7.2%	17.9%
Percentage Paid by			
Self (out-of-pocket)	81%	33%	11%
Third parties	19%	67%	89%
Government	13%	38%	50%
Private insurance	< 1%	21%	31%
Philanthropy; other	6%	8%	7%

Source: U.S. Office of the Actuary, National Health Projections, <http://www.cms.gov/NationalHealthExpendData/>.

Healthcare Spending as % GDP



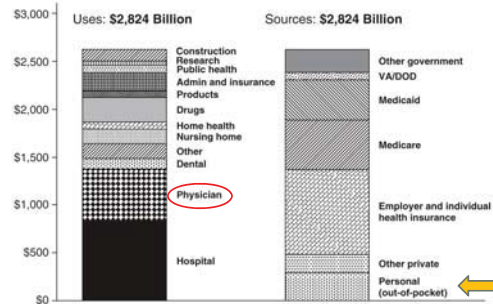
Healthcare Funds: Sources & Uses

TABLE I.2 U.S. Health Care Spending, 2012

Uses of Funds	Percentage of Total	Amount per Person	Sources of Funds	Percentage of Total	Amount per Person
Hospital	31%	\$ 2,763	Medicare	20%	\$ 1,790
Physician	19%	1,718	Paycheck deduction		590
Dental	4%	347	Medicaid	16%	1,446
Other	8%	706	VA & DOD	3%	291
Nursing home	5%	477	Other government	11%	966
Home health	3%	254	Total government	50%	
Drugs	10%	918			
Products	3%	269	Employer insurance	31%	2,799
Administrative costs	7%	635	Tax subsidy		455
Public health	3%	289	Self-paid	11%	1,019
Research	2%	179	Charity, etc.	7%	626
Construction	4%	381			
Total	100%	\$8,936	Total	100%	\$8,936

Based on a projected U.S. population of 316 million.
 Source: U.S. Office of the Actuary, National Health Projections, <http://www.cms.gov/NationalHealthExpendData/>.

Healthcare Funds: Sources & Uses



Source: CMS Office of the Actuary, www.cms.gov.

Healthcare: Personal Spending

TABLE I.1 Monthly Household "Out-Of-Pocket" Spending

	young <25	25 to 64	old >65
Total (All Goods & Services)	\$3,039	\$4,995	\$3,015
Prescription Drugs	\$ 13	\$ 33	\$ 72
Medical	\$ 37	\$ 89	\$ 70
Health Insurance	\$ 71	\$ 153	\$ 246
Health as % of Monthly Spending	4.0%	5.5%	12.9%

Source: U.S. Bureau of Labor Statistics, "Focus on Prices and Spending: Consumer Expenditure Survey," 1(8), August 2010.

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?



Return on Investment for Professional School

Profession	Length of Training (years)	Tuition (\$)	Annual Income (age 40) (\$)	Hours Worked (age 40)	Internal Rate of Return (%)
Business	2	34,452	135,579	2,448	26%
Law	3	32,317	139,616	1,959	23%
Dentistry	4	70,620	133,050	1,781	22%
Primary Medicine	4	74,504	132,592	2,565	16%
Specialty Medicine	4	74,504	219,733	2,707	18%

W.B. Weeks and A.E. Wallace, "The More Things Change: Revisiting a Comparison of Educational Costs and Incomes of Physicians and Other Professionals," *Academic Medicine* 77, no. 4 (2002): 312-319, 2002.

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:

Structure + Process ≈ 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, > 60mins, GA/NA, with either active warming or body temp ≥ 36 C within 30 mins before or 15 mins after anes stop time.

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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 = \uparrow 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