Healthcare Today: A Leadership Primer

How did we get here?

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The US Healthcare System 2015

American health care "gets it right" 54.9% of the time.


Patterns of Variation in Hospitalization Rates

Well Known U.S. Healthcare Crisis

The Chain of Effect in Improving Health Care Quality

“The First Law of Improvement”
Every system is perfectly designed to achieve exactly the results it gets.
A Call to Action: Institute of Medicine

- To Err is Human, 2000
- Crossing the Quality Chasm, 2002
- Patient Safety: A New Standard of Care, 2004

To Err is Human: Medical Errors

- IOM: 44,000-98,000 deaths in US hospitals annually as a result of error
- Over 1 million serious preventable medication errors annually
- 3.7% of hospital admissions result in adverse events, 58% of these are from preventable errors
Rates of All Harms, Preventable Harms, and High-Severity Harms per 1000 Patient-Days, Identified by Internal and External Reviewers, According to Year.


Adverse Events in Hospitals National Incidence: Medicare Beneficiaries

- An estimated 13.5 percent of hospitalized Medicare beneficiaries experienced adverse events during their hospital stays

  **6,600 Preventable Medicare Deaths Monthly**
  
  Which projects to 15,000 patients in a month

- An additional 13.5 percent of Medicare beneficiaries experienced events during their hospital stays that resulted in temporary harm.

- Physician reviewers determined that 44 percent of adverse and temporary harm events were clearly or likely preventable

- Hospital care associated with ... harm events cost Medicare and estimated $324M in October 2010.

Types of Error

- **Underuse**: failure to provide a health service when it would have produced favorable outcomes: e.g. steroid in asthma exacerbation

- **Overuse**: health services provided under circumstances in which potential for harm exceeds benefits: e.g. prolonged urinary catheter

- **Misuse**: an appropriate service selected but preventable complications occur and the patient does not receive benefit of service: e.g. medication error

Types of Errors: Underuse

- Underuse errors in Asthma, Heart Failure, Hypertension, Diabetes, and Coronary Disease cause **57,000 preventable deaths annually**
  
  *(National Healthcare Quality Report, AHRQ)*
“Underuse” in Health Care...

- McGlynn, et al: The quality of health care delivered to adults in the United States:
  
  
  - 439 indicators of clinical quality of care
  - 30 acute and chronic conditions, plus prevention
  - Medical records for 6712 patients
  - Participants had received 54.9% of scientifically indicated care (Acute: 53.5%; Chronic: 56.1%; Preventive: 54.9%)
  
- Conclusion: The “Defect Rate” in the quality of American health care is approximately 45%

The Quality Gap: UNDERUSE

- Beta blockers after AMI
- HbA1c
- Influenza vaccination
- Pneumococcus vaccination
- Anticoagulants in A-fib
- Depression screening
- Mental health follow-up
- ACEIs in CHF
- Smoking Cessation
“Overuse”

- Up to 30% of healthcare spending goes to useless treatments
- Over treatment costs US $600B/year
- Expensive and risk for harm

Chart 1-8

Appropriateness of Procedures as Rated by Expert Consensus

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Inappropriate</th>
<th>Questionable potential overdose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hysterectomy</td>
<td>16</td>
<td>25</td>
</tr>
<tr>
<td>Cataract Surgery</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Bypass Surgery</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Angioplasty</td>
<td>4</td>
<td>38</td>
</tr>
<tr>
<td>Angiography</td>
<td>17</td>
<td>9</td>
</tr>
</tbody>
</table>

Over the past two decades, studies have found that about one-third of surgical procedures were performed for inappropriate reasons or had questionable benefits for patients.

Patterns of Variation in Hospitalization Rates

### Forearm Fracture
- 1.30 to 3.00 (30)
- 1.10 to <1.30 (54)
- 0.90 to <1.10 (88)
- 0.75 to <0.90 (69)
- 0.44 to <0.75 (59)
- Not Populated

### Hip Fracture
- 1.30 or More (0)
- 1.10 to <1.30 (56)
- 0.90 to <1.10 (204)
- 0.75 to <0.90 (45)
- 0.65 to <0.75 (1)
- Not Populated

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**The New Yorker**

**The Cost Conundrum**

What a Texas town can teach us about health care.

by Atul Gawande

JUNE 15, 2015

It is spring in McAllen, Texas. The morning sun is warm. The streets are lined with palm trees and pickup trucks. McAllen is in Hidalgo County, which has the highest household income in the country, but it's a border town, and a thriving international trade has kept the unemployment rate below 4 percent. McAllen calls itself the Square Dance Capital of the World. "Lonesome Dove" was set around here.

McAllen has another distinction: it is one of the most expensive health care markets in the country. Only Hanoi—which has much higher labor and living costs—spends more per person on health care. In 2008, Medicare spent fifteen thousand dollars per enrollee here, almost twice the national average. The income per capita is twelve thousand dollars. In other words, Medicare spends three thousand dollars per person here than the average person earns.

The explosive trend in American medical costs seems to have occurred here in an especially unique form.
Unwarranted Variation

Variations that cannot be explained on the basis of illness, scientific evidence or well-informed patient preferences

Preference Sensitive Care

In Southern California, a patient is 6 times more likely to have back surgery for a herniated disk than in NYC

Supply Sensitive Care

Per-capita spending per Medicare enrollee in Miami, FL is almost 2.5 times greater than in Minneapolis, MN

Effective Care

Beta blocker use among patients post heart attack varies from 5-92% when it should be 100%

Is More Supply-Sensitive Care Better?

The Implications of Regional Variations in Medicare Spending, Part 1: The Content, Quality, and Accessibility of Care

The Implications of Regional Variations in Medicare Spending, Part 2: Health Outcomes and Satisfaction with Care
Association Between Local Supply and Visits to Cardiologists

Supply-Sensitive Care

Physician visits per decedent during last 6 months of life among patients assigned to academic medical centers

- 80.0: NYU Medical Center 76.2
- 70.0: Cedars-Sinai Medical Center 66.2
- 60.0: Mount Sinai Hospital 53.9
- 50.0: UCLA Medical Center 43.9
- 40.0: NY Presbyterian Hospital 40.3
- 30.0: Mass. General Hospital 38.8
- 20.0: Brigham & Women's Hospital 31.9
- Boston Medical Center 31.5
- Beth Israel Deaconess 29.2
- UCSF Medical Center 27.2
- Stanford University Hospital 22.6
Supply-Sensitive Care

Days in hospitals per decedent during last six months of life among patients assigned to the 77 “best” U.S. Hospitals

Is More Supply-Sensitive Care Better?

Conclusions: Medicare enrollees in higher-spending regions receive more care than those in lower spending regions but do not have better health outcomes or satisfaction with care. Efforts to reduce spending should proceed with caution, but policies to better manage further spending growth are warranted.

Conclusions: Regional differences in Medicare spending are largely explained by the more hospital-based and specialty-oriented pattern of practice observed in high-spending regions. Neither quality of care nor access to care appear to be better for Medicare enrollees in higher-spending regions.
What is the Quality Chasm?

The “Quality Chasm,” or the need for quality improvement, is the difference between what is scientifically sound and possible and the actual practice and delivery of health services.

IOM-2: Why is the Healthcare System Struggling to Provide Quality Care?

- **Information:**
  - Multiple standards
  - Increasing pace
  - Not available at point of care

- **Fragmented System:**
  - Communications issues
  - Multiple points of patient contact
  - Variation in practice

- **Misaligned Incentives:**
  - Volume vs. Quality
  - Acute vs. Chronic care model
Crossing the Quality Chasm: Institute of Medicine (IOM) Aims

- **Safe:** No patient is injured by care
- **Effective:** 100% adherence to science in care; no needless deaths or suffering
- **Patient-Centered:** Customized care; “Every patient is the only patient.”
- **Timely:** No unwanted waiting anywhere
- **Efficient:** No waste, new models of care
- **Equitable:** Race and wealth do not predict care or outcomes

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Among Medicare Beneficiaries Enrolled in Managed Care Plans, African Americans Receive Poorer Quality of Care.

(Schneider et al., JAMA, March 13, 2012)

![Bar chart showing percent receiving services for breast screening, eye exams, beta blockers, and follow-up by race. The chart indicates disparities in care between Whites and Blacks.]
What is the Challenge?

- Healthcare spending is growing at an unsustainable rate.
- US Healthcare expenditures projected to reach 20% GDP by 2020.
- Cost per individual ($8,820) is > 2X the average of other developed countries.
- Half of healthcare spending is used to treat 5% of the population.


Benefit for the COST

Life expectancy in years

Health spending per capita (USD PPP)

R² = 0.69
Why Healthcare is Expensive?
Why PROVIdERS Think Healthcare is so Expensive

- Insurance Companies
- Trial Lawyers
- Pharma
- Patients
- Medical Devices

Why Healthcare *REALLY* is so Expensive

- Fee for service reimbursement
- Fragmented care delivery
- Administration burden on providers, payers and patients
- Insurance benefit design
- Lack of transparency about cost and quality, limited data to inform consumer choice
- Population aging, rising rates of chronic disease
- Advances in medical technology
- Tax treatment of health insurance
- Consolidation and competition
- High unit prices of medical services
- Medical malpractice and fraud and abuse laws
- Structure and supply of healthcare professionals.

"What is Driving U.S. Health Care Spending? America’s Unsustainable Health Care Cost Growth." Bipartisan Policy Center, September 2012
The Cost of Poor Quality

- Healthcare: error rates are orders of magnitude higher than in other industries
- Poor quality care accounts for 30% of healthcare expenditures ($700 B in 2010)
- Unnecessary Variation in Practice and ineffective care account for half of this.

Most Costly Quality Problems

- Medication Misuse
- Hospital Overuse/Readmissions
- Unnecessary Variation
- Preventable Hospital-Acquired Infections
- Poor Disease Management: diabetes, asthma, depression, myocardial infarction, CHF; influenza and pneumococcal vaccination
“Improvement in Value”
Needs to be Our Goal

- **Reduce the costs of care**
  - Removing waste, unnecessary treatment
  - Improving efficiency through redesign of care model

- **Care Redesign** to achieve improvement in value
  - Outcomes that matter
  - Costs over an entire episode

- **Measures** that capture quality-outcomes and costs that make sense

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“Value” Thinking: Michael Porter, *NEJM Dec 2010*

- **Value** = the health outcomes achieved per dollar spent:
  - This goal is what matters for patients and unites the interests of different providers in the system
  - Outcomes that matter to patients

- To improve value we must understand the quality and cost of an episode/condition

- The unit of reimbursement needs to be aligned with the unit of value

- We must be able to measure comprehensive value of all care in an episode
Porter Value Framework

- Outcomes: defined by patient, measured for an episode

- Patient Reported Outcomes coming?
- Costs: for a patient condition across an episode

Outcomes Hierarchy: Diabetes

- **Tier 1: Survival:**
  - Median age of survival
  - Number of co-morbidities and complications

- **Tier 2: Care Cycle:**
  - Time from Dx to mastering self-mgmt skills
  - Time to achieving stable state of glycemic control
  - Defects in care – poor quality, unrecognized Dx

- **Tier 3: Sustainability:**
  - Functional status
  - Physiologic measures: renal function, eye sight
Healthcare and Health

- Challenging what true stewardship of a healthcare organization is
- Asking leadership and boards to assume responsibility for a populations’ health and the use of common resources
- Improving healthcare delivery and seeing the boundaries of healthcare delivery
Healthcare and Health (2)

- Shift in accountability for overall health
- Understand social determinants of health
- Understand the health needs and assets of the community
- Reallocate strategic priorities and resources in the face of uncertainty

An Ethical Framework for Healthcare Organizations

- Establishing, implementing, and clarifying system-wide values and practices, including policies and procedures.
- Identifying, analyzing, and resolving ethics issues and questions regarding the organization’s management and operational decisions (in relationship to achieving the stated mission)
- A growing area of interest related to organizational ethics are the ethical standards for evaluating true value in healthcare.
There is a linkage between quality, ethics, and value. When quality problems occur they generally create ethics conflicts. Similarly, when ethical conflicts occur, they often result in value and quality issues.

<table>
<thead>
<tr>
<th>Ethics Principles</th>
<th>Application to Value and Quality</th>
<th>IOMs Aims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>Respect patient self-determination, promote shared decision making</td>
<td>Patient centered</td>
</tr>
<tr>
<td>Beneficence</td>
<td>Provide only effective care to meet patient’s best interest</td>
<td>Effective, safe, timely, patient centered</td>
</tr>
<tr>
<td>Non-maleficence</td>
<td>Avoid and protect the patient from harm</td>
<td>Safe, effective, patient centered</td>
</tr>
<tr>
<td>Social &amp; Distributive Justice</td>
<td>Provide fair allocation and of resources and equitable access to services</td>
<td>Equitable, efficient</td>
</tr>
</tbody>
</table>


**Current Reality**
...the current system of care is unsustainable

**New Normal**
A new health system based on access, integration, coordination.
- Focus on value not volume.
- Balance improved healthcare delivery, health and costs
Table Exercise

- What kind of issues are you worrying about regarding healthcare delivery in your system? Safety, experience, quality, costs, variation?
- Discuss an example of ethical conflict regarding healthcare delivery or payment models or community health in your system.

Nothing to Disclose

- I have no relevant financial or nonfinancial relationship(s) within the services described, reviewed, evaluated or compared in this presentation.