Reducing Clinical Variation in Healthcare - Why It matters

Emerging Issues in U.S. Healthcare Policy
Washington, DC
March 2017
Objectives

• Define the various types of variation
• Gain an understanding of the impact of variation on cost, quality and safety
• Provide examples of variation reduction
• Identify obstacles to reducing variation
• Provide examples of collaboration

I have no financial interests or disclosures related to this topic material
If somebody were to ask, “Can you explain, in three words or less, what’s wrong with our healthcare system?” the answer would be easy: unexplained clinical variation

David B. Nash, MD, MBA
Sanjaya Kumar, MD, MSc, MPH
‘I’ve been told that I need a hip replacement . . .’

51 year-old healthy female with traumatic arthritis, left hip

‘When should I have it done?’

‘What implant material is best for me?’

‘What can I do after it is replaced?’

Average cost of a hip replacement in the U.S. is $30,000
Variation is expected and necessary when there is experimentation, hopefully leading to future consensus.

Unexplained variation does not equate to inappropriate variation. What portion of unexplained variation is appropriate or inappropriate is unknown.

Report of the Task Force on Variation in Health Care Spending, American Hospital Association, 2011
Variation

- Exists at all levels of the health care system
- Exists across multiple performance dimensions
- Occurs in both private-pay and Medicare populations
- Exists in all settings - hospitals, home health, ASCs, etc
- Affected by many factors
- Exists regardless of payment incentives, organizational structure
- Financial incentives matter
- Providers respond to data even without financial incentives
- The link between quality and spending is disputed

Report of the Task Force on Variation in Health Care Spending, American Hospital Association, 2011
‘Clearly some variation is expected (evolving medical science, variation in patient population, etc) and some is appropriate . . . [but] nearly any health care professional looking across all providers in their own organization would say that there are differences in practice patterns that cannot be justified by differences in patient needs and, therefore represent inappropriate variation’

30%

Excess Medicare Spending
30% of all Medicare clinical care spending is unnecessary or harmful and could be avoided without worsening health outcomes

$700 billion

Reducing Waste in Health Care, Health Policy Brief
Health Affairs, December 2012 (www.healthaffairs.org)

Price-adjusted Medicare expenditures per beneficiary by hospital referral region (2008)

Price-adjusted Medicare expenditures per beneficiary by hospital referral region (2008)

A New Series of Medicare Expenditure Measures by Hospital Referral Region: 2003-2008,
The Dartmouth Atlas
(http://www.dartmouthatlas.org/downloads/reports/PA_Spending_Report_0611.pdf)
## Factors Influencing Variation

<table>
<thead>
<tr>
<th>Societal Factors</th>
<th>Market/Provider Factors</th>
<th>Regulatory Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Health status/disease prevalence</td>
<td>• Quality of care</td>
<td>• Medicare payment policies</td>
</tr>
<tr>
<td>• Health behavior</td>
<td>• Efficiency per unit of service</td>
<td>• Medical liability environment</td>
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<tr>
<td>• Income/poverty</td>
<td>• Practice patterns</td>
<td>• Scope of practice regulations</td>
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<td>• Urban/rural location</td>
<td>• Access to care</td>
<td>• Other state and federal regulations</td>
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<tr>
<td>• Level of uninsurance</td>
<td>• Training of clinicians</td>
<td>• CON relationships</td>
</tr>
<tr>
<td>• Unemployment</td>
<td>• Costs of doing business</td>
<td>• Medicaid/CHIP policies</td>
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<tr>
<td>• Age/sex</td>
<td>• Penetration of IT</td>
<td>• Insurance regulatory environment</td>
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<tr>
<td>• Race/Ethnicity</td>
<td>• Prevalence of physician ownership of hospitals, ASCs, etc</td>
<td>• Other</td>
</tr>
<tr>
<td>• Local culture</td>
<td>• Mix of physician specialties</td>
<td></td>
</tr>
<tr>
<td>• Environmental factors - housing, air quality, etc</td>
<td>• Supply</td>
<td></td>
</tr>
<tr>
<td>• Other</td>
<td>• Physician payment model</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Payer mix</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Other</td>
<td></td>
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</tbody>
</table>
Explaining Geographic Variation in Spending per Medicare Beneficiary

56% remains unexplained - differences in practice patterns, patient preferences and other local factors

Report of the Task Force on Variation in Health Care Spending, American Hospital Association, 2011
Inappropriate Variation - the Consequences

Underusing needed services

Lower standard of care

- Worse outcome
- Higher costs

Overusing unwarranted services

- Wasted dollars
- False positive test result
- Complications
- Hospital-acquired condition
- Higher costs
- Worse outcome
“In America, there is no guarantee that any individual will receive high-quality care for any particular health problem. The healthcare industry is plagued with over-utilization of services and errors in healthcare practice.”

The Quality of Healthcare Delivered to Adults in the United States, New England Journal Medicine, 2003; 348:2635-2645

Can this be true? What about now?
Employers believe that $600-850 billion is wasted each year.

The New England Healthcare Institute has defined waste in healthcare as “healthcare spending that can be eliminated without reducing the quality of care.”

$325bn
$175bn
$150bn
$100bn
$50bn
$50bn
$325bn

Administrative Inefficiencies
Provider Inefficiency/Errors
Lack of Care Coordination
Unwarranted Use
Preventable Conditions
Fraud and Abuse

“I think of healthcare as a $2.7 trillion tank rumbling down the road. Hundreds of people have their hands on the wheel, pulling in different directions, and shouting in different languages. The windshields are smudged over with Vaseline. The tank is providing decent protection for a lot of people, but it is smashing into trees and houses (and it certainly does not meet California’s emissions standards)”

David Eddy, MD, PhD
## Price Variation - Spine Surgery (Washington State)

### Price Variation for Fusion of Back Vertebrae (DRG 460)

<table>
<thead>
<tr>
<th>CITY</th>
<th>HOSPITAL</th>
<th>DISCHARGES</th>
<th>AVG BILLED BY HOSPITAL</th>
<th>AVG PAID BY MEDICARE</th>
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<tr>
<td>Olympia</td>
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<td>21</td>
<td>$61,712</td>
<td>$22,650</td>
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</table>

**Sources:** CMS 2013 price data release for fiscal year ending Sept. 30, 2012  **Important:** these billing and payment data are not indicators of clinical quality and should not be viewed as such.

www.wahealthalliance.org
Geographic Variation - Knee and Hip Replacement

- High volume, high quality facilities with geographic dispersion were charging less than $30,000


‘Reference Pricing’ used to direct subscribers
The Price Ain’t Right? Hospital Prices and Health Spending on the Privately Insured. Cooper et al (at http://www.healthcarepricingproject.org/sites/default/files/pricing_variation_manuscript_0.pdf)
Figure 1: Cost Variation for Knee Replacement Procedures Across the Country
Appendix A contains a list of plotted markets showing the Minimum Cost, Average Cost, Maximum Cost and Percent Differential between the Minimum and Maximum.

Cost Variations in Each Market
- Greater than $18,701
- $11,501-$18,700
- $5,501-$11,500
- $0-$5,500

Figure 2: Cost Variation for Hip Replacement Procedures Across the Country
Appendix A contains a list of plotted markets below, showing the Minimum Cost, Average Cost, Maximum Cost, and Percent Differential between the Minimum and Maximum.

Cost Variations in Each Market
- Greater than $17,301
- $9,601-$17,300
- $4,401-$9,600
- $0-$4,400

Source: Analysis of Blue Health Intelligence® (BHI) data
Major Joint Replacement (BCBS, Mississippi)
Combined (all sites)

% of Episodes with SNF

Average Episode Cost for MS-DRG 470
The Experts Were Wrong About the Best Places for Better and Cheaper Health Care

By KEVIN QUEALY and MARGOT SANGER-KATZ DEC. 15, 2015

These maps look nothing alike. Their big differences are forcing health experts to rethink what they know about health costs in Birmingham, Ala. and across the country.

Medicare spending per capita

Grand Junction, Colo.

Low Medicare, High Private

High Medicare, High Private

Low Medicare, Low Private

Birmingham, Ala.

Private insurance spending per capita

But a new study suggests that places spending less on Medicare do not necessarily spend less on health care over all.

THE COST CONUNDRUM

What a Texas town can teach us about health care.

BY ATUL GAWANDE

McAllen - $15,000 per year per beneficiary
Nat’l Average - $7,500 per year per beneficiary
Where people live matters: it influences their ability to access care as well as the quality of care they receive.

Rising to the Challenge: Results from a Scorecard on Local Health System Performance, 2012, The Commonwealth Fund
(http://www.commonwealthfund.org/publications/fund-reports/2012/mar/local-scorecard)
Rates of Inpatient Lumbar Decompression and Fusion for Lumbar Spinal Stenosis by Hospital Referral Regions (per 100,000 Medicare Beneficiaries, 2001-2011)

‘The purpose of variation reduction is to determine the appropriate level of care and to ensure that all patients receive care that is needed - no more and no less. Addressing variations in care supports the triple bottom line - improved quality, increased efficiency, and a better patient experience’
There will not be blood: Big opportunity to cut blood use in hip and knee cases, Advisory Board, June 2015, https://www.advisory.com/research/physician-executive-council/prescription-for-change/2015/06/there-will-not-be-blood
Average TXA Rate and Transfusion Rate by Institution for Joint Replacement Cases (quartiles)

There will not be blood: Big opportunity to cut blood use in hip and knee cases, Advisory Board, June 2015, https://www.advisory.com/research/physician-executive-council/prescription-for-change/2015/06/there-will-not-be-blood
Benefits

- Lower risk of postoperative infections
- Shorter length of stay
- Average institutional savings of $1M

The larger the program, the lower the transfusion rate

Needed - a focus on the objective of reducing this undesirable care variation
Transfusion Practices, Cardiac Surgery - Patients Transfused (%)

American Association of Blood Banks

View all recommendations from this society

Released April 24, 2014
Don't transfuse more units of blood than absolutely necessary.

Each unit of blood the vast majority of oxygenation (even cardiovascular and hemoglobin with non-bleeding, high reassessment of)

American College of Obstetricians and Gynecologists

View all recommendations from this society

March 14, 2016
Don't routinely transfuse hemoglobin levels less than

Society of Hospital Medicine – Adult Hospital Medicine

View all recommendations from this society

Multiple factors need to clinical status and oxygen thresholds should not be blood cells.

Critical Care Societies Collaborative – Critical Care

View all recommendations from this society

Don't transfuse red blood cells in hemodynamically stable, non-bleeding ICU patients with a hemoglobin concentration greater than 7 g/dL.

American Society of Anesthesiologists

View all recommendations from this society

Most red blood cell transfusion is better when that causes has been studied, through similar or improved studies. Higher transfusion trigger of a scarce resource. It patients with acute co harms of aggressive transfusion

Blood Utilization and Management

17 years?
You’ve got to be kidding!

Managing clinical knowledge for health care improvement
Sources of Variation in Clinical Care

Increasingly complex healthcare environment
- 10,000 biologicals
- 300,000 OTC products
- Sophisticated care settings
- Transplant services
- Catheter-based option

Exponentially increasing medical knowledge
- 22,000 RCTs per year
- 16,000 new articles per week

Lack of valid clinical knowledge
- Only about 20% of medical practice has a basis in scientific research
- Much of clinical practice is based on tradition or opinion

Over-reliance on subjective judgement
- Beliefs of experts as to a clinical condition can vary over a very wide range that is often poor across groups over time

Clinical Variation in Your Medical Organization
(at https://www.healthcatalyst.com/role-clinical-variation-medical-practice)
“Art” of Medicine
How you were trained
Culture of own practice environment
Own experiences with your patients

Huge gaps in the scientific evidence guiding physician decision-making

- Based on Less Reliable Studies, Guesswork, etc
- Solid Evidence Exists
How have most doctors and administrators been trained?

It seems that something more is needed - individual transformation.

**White Coat Leadership**
- Exhibits an “all knowing” attitude
- Adopts an “in charge” posture
- Demonstrates autocratic tendencies
- Adopts a “buck stops here” approach
- Shows impatience
- Blames others
- Controls others

**Improvement Leadership**
- Demonstrates humility
- Exhibits curiosity
- Facilitates improvement efforts
- Teaches others
- Learns from others
- Communicates effectively
- Perseveres

*Understanding and Misunderstanding Variation in Healthcare: Case Study*
ThedaCare Center for Healthcare Value, March 2015 (at [www.createvalue.org](http://www.createvalue.org))
Practical Example of Variation (in cost)

Fictional analysis of cost/case for vascular procedures.

Dr J’s average cost is three times the $20,000 average. At 15 surgeries per year, a potential savings of $600,000

Wide variations in cost are usually associated with wide variations in cost.

Accurate and trusted information is essential!

Health Catalyst
www.healthcatalyst.com
“Ask fifty cardiovascular surgeons to estimate the probabilities of various risks associated with xenografts (animal-tissue transplant) versus mechanical heart valves and you’ll get answers to the same question ranging from zero percent to about 50 percent. (Ask about the 10-year probability of valve failure with xenografts and you’ll get a range of three percent to 95 percent).”

Challenges in Addressing Variation

- Data related to physician office activity and other care settings is not readily available
- ‘Gray areas’ of medicine still exist
- Dissemination of best practices lags behind their development
- Widespread adoption of effective EHRs and decision-support tools is lacking
- Legal and regulatory barriers exist to clinical integration
- Clinical training programs introduce variation
- The medical liability environment continues to encourage defensive medicine

Report of the Task Force on Variation in Health Care Spending, American Hospital Association, 2011
“The fool doth think he is wise, but the wise man knows himself to be a fool”

William Shakespeare

Diagnostic Failure Rate
- As high as 10-15%
- Highest in ER, IM, FP settings
- Principal cause: Cognitive Errors

From Mindless to Mindful Practice - Cognitive Bias and Clinical Decision Making
P Crosskerry. NEJM 2013; 368:2445-2448
Ignoring a known safety rule - What should be the consequence?

Run a STOP sign . . . get a ticket
Checklists - Why So Difficult?

- Johns Hopkins, Dr. Pronovost
- CLABSI Reduction
  - Hand washing
  - Chlorhexidine
  - Sterile drapes
  - Mask, hat, gown, gloves
  - Sterile dressing
  - 11% to ZERO infections

Help with the mundane (memory), reinforce the critical steps
But with 'complicated' controls
October 1935, Wright Air Field
Competition for next generation bomber
Boeing 'bet the company', Model 299
Stronger, faster, higher, farther

---

APPROVED B-17F and G CHECKLIST
REVISED 3-1-44

PILOT'S DUTIES IN RED
COPILOT'S DUTIES IN BLACK

BEFORE STARTING
1. Pilot's Preflight—COMPLETE
2. Form TA—CHECKED
3. Controls and Seats—CHECKED
4. Fuel Transfer Valves & Switch—OFF
5. Intercoolers—Cold
6. Gyros—UNCAGED
7. Fuel Shut-off Switches—OPEN
8. Gear Switch—NEUTRAL
9. Cowl Flaps—Open Right—OPEN LEFT—Locked
10. Turbos—OFF
11. Idle cut-off—CHECKED
12. Throttles—CLOSED
13. High RPM—CHECKED
14. Autopilot—OFF
15. De-icers and Anti-icers, Wing and Prop—OFF
16. Cabin Heat—OFF
17. Generators—OFF

STARTING ENGINES
1. Fire Guard and Call Clear—LEFT Right
2. Master Switch—ON
3. Battery switches and inverters—ON & CHECKED
4. Parking Brakes—Hydraulic Check—On—CHECKED
5. Booster Pumps—Pressure—ON & CHECKED
6. Carburetor Filters—Open
7. Fuel Quantity—Gallons per tank
8. Start Engines: both magneto on after one revolution
9. Flight Indicator & Vacuum Pressures CHECKED
10. Radio—On
11. Check Instruments—CHECKED
12. Crew Report
13. Radio Call & Altimeter—SET

ENGINE RUN-UP
1. Brakes—Locked
2. Trim Tabs—SET
3. Exercise Turbos and Props
4. Check Generators—CHECKED & OFF
5. Run up Engines

BEFORE TAKEOFF
1. Tailwheel—Locked
2. Gyro—Set
3. Generators—ON

AFTER TAKEOFF
1. Wheel—PILOT'S SIGNAL
2. Power Reduction
3. Cowl Flaps
4. Wheel Check—OK right—OK LEFT

BEFORE LANDING
1. Radio Call, Altimeter—SET
2. Crew Positions—OK
3. Autopilot—OFF
4. Booster Pumps—On
5. Mixture Controls—AUTO-RICH
6. Intercooler—Set
7. Carburetor Filters—Open
8. Wing De-icers—Off
9. Landing Gear
a. Visual—Down Right—DOWN LEFT
   Tailwheel Down, Antenna in, Ball
   Turret Checked
b. Light—OK
   c. Switch Off—Neutral
10. Hydraulic Pressure—OK Valve closed
11. RPM 2100—Set
12. Turbos—Set
13. Flaps ½—¾ Down

FINAL APPROACH
14. Flaps—PILOT'S SIGNAL
15. RPM 2200—PILOT'S SIGNAL
Early Recognition is Imperative
- 100% screening in ER
- 100% screening in hospital
- Nurses encouraged to obtain initial lactate level
On accountability and deserving the trust of the public . . .

Illinois governor signs 'Gabby's Law,' new rules for treating sepsis

By Associated Press  |  August 18, 2016

Illinois Gov. Bruce Rauner has signed legislation named for a 5-year-old Illinois girl that will require hospitals to be better prepared to treat patients with sepsis or septic shock.

Rauner signed Gabby’s Law on Thursday morning at Presence Covenant Medical Center in Urbana, Ill. The legislation is named for Gabby Galbo of Monticello, who died in 2012 due to untreated sepsis. The measure received widespread support in the Illinois Legislature. Sepsis is a response to an infection that can lead to death. Gabby had an undetected tick bite that developed into sepsis.

The new law requires hospitals to adopt protocols for the early recognition and treatment of patients who have sepsis. It also requires that the protocols have certain components including those specific to treating children and adults.

Will physicians lead . . . or leave it to others?
What about surgical decision-making?

<table>
<thead>
<tr>
<th>Quality Improvement Initiative</th>
<th>Organization</th>
<th>Surgical Specialty</th>
<th>Focus</th>
<th>Funding</th>
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<tr>
<td>American College of Surgeons National Surgical Quality Improvement Initiative (ACS-NSQIP)</td>
<td>American College of Surgeons</td>
<td>Many</td>
<td>Measuring and reporting patient characteristics and outcomes</td>
<td>Hospitals</td>
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<tr>
<td>Veterans Affairs National Surgical Quality Improvement Program</td>
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<td>Measuring and reporting patient characteristics and outcomes</td>
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<td>Improving care of patients with vascular disease</td>
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Improvements in Surgical Decision-Making

**ACSM NSQIP® Surgical Risk Calculator**

**Procedure:** 27130 - Arthroplasty, acetabular and proximal femoral prosthetic replacement (total hip arthroplasty), with or without autograft or allograft

**Risk Factors:** 65-74 years, Partially dependent functional status, ASA Severe systemic disease, HTN, Dyspnea with moderate exertion, Over Weight

<table>
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<th>Outcomes</th>
<th>Surgeon estimates higher risk</th>
<th>Your Risk</th>
<th>Average Risk</th>
<th>Chance of Outcome</th>
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<td>Serious Complication</td>
<td>10 20 30 40 50 60 70 80 90 100%</td>
<td>7.6%</td>
<td>3.7%</td>
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<td>Any Complication</td>
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<td>8.3%</td>
<td>4.2%</td>
<td>Above Average</td>
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<tr>
<td>Pneumonia</td>
<td>10 20 30 40 50 60 70 80 90 100%</td>
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<td>0.2%</td>
<td>Above Average</td>
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<td>Cardiac Complication</td>
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<td>6.7%</td>
<td>0.2%</td>
<td>Above Average</td>
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<tr>
<td>Surgical Site Infection</td>
<td>10 20 30 40 50 60 70 80 90 100%</td>
<td>1.3%</td>
<td>1.0%</td>
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<td>Urinary Tract Infection</td>
<td>10 20 30 40 50 60 70 80 90 100%</td>
<td>2.1%</td>
<td>0.8%</td>
<td>Above Average</td>
</tr>
<tr>
<td>Venous Thromboembolism</td>
<td>10 20 30 40 50 60 70 80 90 100%</td>
<td>0.9%</td>
<td>0.5%</td>
<td>Above Average</td>
</tr>
<tr>
<td>Renal Failure</td>
<td>10 20 30 40 50 60 70 80 90 100%</td>
<td>0.2%</td>
<td>0.1%</td>
<td>Above Average</td>
</tr>
<tr>
<td>Readmission</td>
<td>10 20 30 40 50 60 70 80 90 100%</td>
<td>5.7%</td>
<td>3.0%</td>
<td>Above Average</td>
</tr>
<tr>
<td>Return to OR</td>
<td>10 20 30 40 50 60 70 80 90 100%</td>
<td>2.3%</td>
<td>1.8%</td>
<td>Above Average</td>
</tr>
<tr>
<td>Death</td>
<td>10 20 30 40 50 60 70 80 90 100%</td>
<td>0.6%</td>
<td>0.1%</td>
<td>Above Average</td>
</tr>
<tr>
<td>Discharge to Nursing or Rehab Facility</td>
<td>10 20 30 40 50 60 70 80 90 100%</td>
<td>57.6%</td>
<td>18.0%</td>
<td>Above Average</td>
</tr>
</tbody>
</table>

**Predicted Length of Hospital Stay:** 4.5 days

**Variation in surgical decisions: BEFORE the evolution of registries, etc.**

Uncertainty regarding benefits and risks of surgery

Information for patients and surgeons to guide decisions

**Variation in surgical decisions: AFTER the evolution of registries, etc.**

Uncertainty regarding benefits and risks of surgery

Information for patients and surgeons to guide decisions
The ACS NSQIP Risk Calculator is designed to be used by surgeons, together with their patients, to help inform patients about their individual risks for surgery.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Your Risk</th>
<th>Average Risk</th>
<th>Chance of Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious Complication</td>
<td>1.6%</td>
<td>9.5%</td>
<td>Average</td>
</tr>
<tr>
<td>Any Complication</td>
<td>1.6%</td>
<td>9.5%</td>
<td>Below Average</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>0.0%</td>
<td>0.1%</td>
<td>Below Average</td>
</tr>
<tr>
<td>Cardiac Complication</td>
<td>0.0%</td>
<td>0.1%</td>
<td>Below Average</td>
</tr>
<tr>
<td>Surgical Site Infection</td>
<td>0.0%</td>
<td>0.1%</td>
<td>Below Average</td>
</tr>
<tr>
<td>Urinary Tract Infection</td>
<td>0.0%</td>
<td>0.1%</td>
<td>Below Average</td>
</tr>
<tr>
<td>Venous Thromboembolism</td>
<td>0.0%</td>
<td>0.1%</td>
<td>Below Average</td>
</tr>
<tr>
<td>Renal Failure</td>
<td>0.0%</td>
<td>0.1%</td>
<td>Below Average</td>
</tr>
<tr>
<td>Readmission</td>
<td>13.2%</td>
<td>13.3%</td>
<td>Below Average</td>
</tr>
<tr>
<td>Return to OR</td>
<td>0.2%</td>
<td>0.2%</td>
<td>Below Average</td>
</tr>
<tr>
<td>Death</td>
<td>2.5%</td>
<td>2.5%</td>
<td>Below Average</td>
</tr>
</tbody>
</table>

Predicted Length of Hospital Stay: 6 days

IOM’s Recommendations

• Improve providers’ capacity to collect and use data to advance science and improve care
• Involve patients and their families in care decisions
• Use clinical practice guidelines and provider decision support tools
• Promote partnerships and coordination between providers and the community
• Realign financial incentives to promote continuous learning and the delivery of high value, low cost care
• Improve transparency in provider performance, including quality, price, cost and outcomes
More recent initiatives . . . based on variability in outcome

Proposed Changes to the 2017 LEAPFROG Hospital Survey

Section 3: Inpatient Surgery
  • Structural Measure 1: Minimum volume standards for safety

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Hospital Minimum per 12 mos</th>
<th>Surgeon Minimum per 12 mos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bariatric surgery</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Esophageal resection</td>
<td>20</td>
<td>TBD</td>
</tr>
<tr>
<td>Lung resection</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Pancreas resection</td>
<td>20</td>
<td>TBD</td>
</tr>
<tr>
<td>Rectal cancer surgery</td>
<td>15</td>
<td>TBD</td>
</tr>
<tr>
<td>Carotid artery stenting</td>
<td>10</td>
<td>TBD</td>
</tr>
<tr>
<td>Complex AAA repair</td>
<td>20</td>
<td>TBD</td>
</tr>
<tr>
<td>Mitral valve repair</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Hip replacement</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>Knee replacement</td>
<td>50</td>
<td>25</td>
</tr>
</tbody>
</table>
More recent initiatives... based on variability in outcome

Proposed Changes to the 2017 LEAPFROG Hospital Survey

Section 3: Inpatient Surgery
  • Structural Measure 2: Hospital-wide surgical necessity monitoring policy

Key Elements
  • Patient engagement in shared decision making around harms, benefits and alternatives to surgery
  • Surgeons aware of specialty society’s clinical practice guidelines, including Choosing Wisely, others... and employ them in decision making
  • Necessity of surgery monitored at the hospital with periodic reporting alongside other quality and safety reports (4 key components of review)
  • Pre-defined, formal plan of action for accountability when inappropriate surgery is identified
Care-based cost management looks at lowering costs by improving the processes followed in providing patient care and preventing complications.

- One of 13 Highest Value Hospitals in 2008
- Only system in Alabama or Mississippi with AA rating (14 years)
- 35,000 inpatient admissions
- 24,200 surgeries
- 129,000 ER visits
- 610,000 clinical encounters
- $730 million net revenue

_Benchmarking for Hospitals, Achieving Best in Class Performance Without Having to Reinvent the Wheel_, Sower et al, ASQ Quality Press, 2008
Improving Outcomes - One Example

Statewide Collaborative Quality Initiatives (CQIs)

Health care providers across Michigan are coming together to improve quality and lower costs of health care. The University of Michigan Health System provides leadership and support of “Collaborative Quality Initiatives” (CQIs) which seek to address some of the most common, complex, and costly areas of surgical and medical care. CQI Coordinating Centers, led by UMHS faculty, work collaboratively with health care providers throughout Michigan to collect data to a centralized registry; analyze and share data to identify processes that lead to improved delivery of care and outcomes, and guide quality improvement interventions.

- Initial focus on cardiology, oncology, anesthesiology and spine surgery
- Analysis conducted for 250,000 patients/year
- Five most established initiatives have lowered costs by $793 million over 10 years
- Close engagement between physicians and the organizations

http://www.med.umich.edu/multi-hospitalQI/
“The long-term impact of higher costs for healthcare, housing and education has been to dampen Americans' productivity, consumption, quality of life, ambitions and career choices.”

See http://www.gallup.com/topic/category_healthcare.aspx
“As I use the term here, the job of a leader is to accomplish transformation of his organization. He possesses knowledge, personality, and persuasive power”

Opportunities Abound!

Your Leadership Essential (and expected)

Thank you

Dr. ‘Mark’