Thoughts on measuring and quality of health care in 2014

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UC Davis Center for Healthcare Policy and Research
Division of General Medicine

FTC Workshop on US Health Care Competition
March 21, 2014
Disclosures

- No commercial relationships
- Hired gun for public agencies developing, validating, refining quality measures
  - Agency for Healthcare Research and Quality
  - Centers for Medicare & Medicaid Services
  - Federal Trade Commission
  - Organization for Economic Co-operation and Development
  - California Office of the Patient Advocate, Office of Statewide Health Planning and Development
UC Davis again ranks top in the world for agriculture and forestry

February 26, 2014

For the second consecutive year, the University of California, Davis, ranks No. 1 in the world for teaching and research in the area of agriculture and forestry, according to rankings released today by QS World University Rankings.

The organization — which provides annual rankings in 29 other subject areas — also ranked UC Davis among the top 15 in environmental sciences and among the top 35 in civil and structural engineering.

“We are proud to receive these outstanding rankings because they reflect both the long-established and emerging strengths of our university,” said UC Davis Chancellor Linda P.B. Katehi.
What is quality?

- **Institute of Medicine (1990):**
  “Quality of 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.”

- **Brook and McGlynn (1991):**
  “High quality care...produces positive changes, or slows the decline, in health; low quality care fails to prevent or accelerates a decline in a person’s health.”

- **Pauly (2004):**
  “anything and everything about some good or service relevant to consumers’ (actual and perceived) well-being that is not measured by quantity” (or price).
## Institute of Medicine, 2010

### Components of Quality Care vs Type of Care

<table>
<thead>
<tr>
<th>Crosscutting Dimensions</th>
<th>Components of Quality Care</th>
<th>Type of Care</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Preventive Care</td>
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<td>Effectiveness</td>
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<td>Safety</td>
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<td>Timeliness</td>
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<td>Patient/family-centeredness</td>
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<td>Access</td>
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<td>Efficiency</td>
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<td>Care Coordination</td>
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<td></td>
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<td>Health Systems Infrastructure Capabilities</td>
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</tbody>
</table>
Producing health care versus producing eggs
Lessons from agriculture about comprehensive measurement:
Iowa’s inspection of Wright County Egg

Iowa Department of Inspections & Appeals
Egg Handler Inspection

QUALITY EGG LLC #1 AMS - USDA ED00-0001264
2731 265TH ST GALT 50101 Wright County
Routine Inspection on 4/15/2010, from 2:45 PM to 3:00 PM by DUDEN, D. SCOTT
Owner: J GLESSNER (515)832-3300
Person In Charge: TONY WASMUND No

Inspection Summary (IN=IN Compliance, OUT=Out of Compliance, NO=Not Observed, NA= Not Applicable C=critical, S=Critical & non-Critical)

Buildings, Storage & Processing Areas
1) Building: good repair, clean, adequately vented N/O
2) Free from presence of birds, insects, rodents N/O
3) Adequate system/removal of refuse N/O
4) Floors of cleanable materials, floor drains provided N/O
5) Floors, walls and ceilings clean N/O
6) Plumbing and sewage disposal system adequate N/O
7) Hand Sink: convenient, hot/cold water, sanitary towels provided N/O
8) Storage and use of toxic items N/O
9) Storage of cartons and cases: clean and dry N/O

Shell Egg Washing, Grading and Packing Operations
10) Adequate supply of potable water N/O
11) Current water test on file for private system, date tested N/O
12) Shell washer clean and sanitary condition N/O
13) Wash temperature 90 degrees F or above, rinse water 10 degrees warmer than wash water N/O

14) Sanitizer spray rinse at 50ppm to 200ppm of chlorine N/O
15) Egg drying equipment: clean and maintained N/O

Equipment
16) Candling device, adequate N/O
17) Scales adequate to determine net weight N/O
18) Refrigeration units: 45 degrees F or below, clean, free of objectionable odors, good repair N/O
19) Thermometers: provided and accurate N/O
20) Transportation vehicles: refrigerated, clean and good repair N/O

Labeling and Packaging
21) Loose-packed egg cases properly labeled: firm name/USDA Plant license or number N/O
22) New egg cartons for sales to retail food stores N/O
23) Labeling of egg cartons: grade/size/pack date/name/address/plant or license number N/O
24) Adequate records maintained N/O
25) Restricted/Inedible eggs properly handled N/O

Personnel
26) Personnel in contact with shell eggs: good hygienic practices, clean clothes N/O
27) Demonstration of knowledge: candling, grading, weighing, washing and sanitation N/O
Lessons from agriculture about comprehensive measurement: USDA “grader” inspection of shell egg plant

<table>
<thead>
<tr>
<th>III. Cooler and Storage Areas</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>A. Unprocessed egg coolers clean and free from odors and mold.</td>
<td>X</td>
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<tr>
<td>B. Processed egg coolers clean and free from odors and mold.</td>
<td>X</td>
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<tr>
<td>C. Packing and packaging storage areas clean and dry.</td>
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<td>X</td>
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<td>D. Chemical compound storage areas clean.</td>
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<table>
<thead>
<tr>
<th>IV. Buildings, Premises, and Refuse Handling Areas</th>
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<tbody>
<tr>
<td>A. Buildings in good repair.</td>
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<td>B. Outside premises, shipping, and receiving areas clean, well maintained, and properly drained.</td>
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<td>X</td>
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<td>C. Outside premises free of trash, rubbish, weeds, and surplus equipment.</td>
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<td>D. Refuse removed and stored in designated area that is maintained in a clean and sanitary manner.</td>
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<td>E. Restrooms and lunchrooms clean and sanitary.</td>
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<tr>
<td>F. USDA grader's office and candling booth clean and sanitary.</td>
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<td>G. Inspection of premises indicates rodent and pest control program is effective.</td>
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**PLANT MANAGEMENT INITIALS**

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Center for Healthcare Policy and Research

UCDAVIS
Lessons from agriculture about comprehensive measurement: What did the inspectors miss?
What does the market need?

Who are the decision makers?

- Consumers, families
- Physicians and other health professionals (agents)
- Health insurance plans (payers)
- Employers/unions and coalitions (purchasers)
An efficient market
An efficient market
A well-informed market

Price range: $1,529.72 - $1,799.00

Summary: This LG freestanding electric smoothtop range has the following:
- 4 surface cooking elements
- Among surface elements, 2 high-powered element(s).
- Warming element on cooktop
- One or more expandable cooktop elements.
- Convection oven mode.
- Double ovens.
- Touchpads for setting oven temperature.
- Touch controls instead of dials for cooktop settings.
- Oven has “steam clean” function for light cleaning.

Type: Smoothtop, double oven (30-inch)

CR overall score: 89 out of 100

Recommended Models:
- LG LDE3037SB $1,529.72 - $1,799.00
- Maytag MET888SXS $1,574.10 - $1,849.00
- Frigidaire FGEF302TNG $1,253.10 - $1,449.00
- GE Profile PS978STSS $1300

You have chosen to compare:
- LG LDE3037SB

Ratings Report Card

The model report card shows the Ratings the model received for each of the tests our experts performed upon it. Learn more

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<table>
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<tbody>
<tr>
<td>Cooktop high</td>
<td>3</td>
</tr>
<tr>
<td>Cooktop low</td>
<td>1</td>
</tr>
<tr>
<td>Baking</td>
<td>1</td>
</tr>
<tr>
<td>Broiling</td>
<td>1</td>
</tr>
<tr>
<td>Oven capacity</td>
<td>1</td>
</tr>
<tr>
<td>Self-cleaning</td>
<td>1</td>
</tr>
</tbody>
</table>
So what do we need to know?

- Accessibility ("how soon can I get it?")
- Service quality ("does it do what I need? does it work? does it provide good service?")
- Safety ("is it safe?")
- Reliability ("how long will it last? what are the long-term outcomes?")
- Value ("is it worth the money?")
What do we actually know?

- Accessibility (C) – but Yelp?
- Service quality (B)
- Safety (B) – mostly just hospitals, LTC
- Reliability (D)
- Value (D)
What do the Feds tell us?

Medicare.gov | Hospital Compare
The Official U.S. Government Site for Medicare

Home → Hospital Results → Compare Hospitals

Compare Hospitals

SUTTER GENERAL HOSPITAL
2801 L STREET
SACRAMENTO, CA 95816
(916) 733-8999

MERCY GENERAL HOSPITAL
4001 J ST
SACRAMENTO, CA 95819
(916) 453-4545

UNIVERSITY OF CALIFORNIA DAVIS MEDICAL CENTER
2315 STOCKTON BOULEVARD
SACRAMENTO, CA 95817
(916) 734-2011

Center for Healthcare Policy and Research
## What do accreditors tell us?

### Quality Measure Set Comparison

**Reporting Period: July 2012 - June 2013**

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Sutter Medical Center, Sacramento, CA</th>
<th>Mercy General Hospital, Sacramento, CA</th>
<th>University of California, Davis Medical Center (UCDMC), Sacramento, CA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National Quality Improvement Goals</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Heart Attack Care</strong></td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><strong>Heart Failure Care</strong></td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><strong>Hospital-Based Inpatient Psychiatric Services</strong></td>
<td>-</td>
<td>WD ¹</td>
<td>WD ¹</td>
</tr>
<tr>
<td><strong>Pernatal Care</strong></td>
<td>WD ¹</td>
<td>WD ⁸</td>
<td>WD ¹</td>
</tr>
<tr>
<td><strong>Pneumonia Care</strong></td>
<td>+</td>
<td>+</td>
<td>+</td>
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<tr>
<td><strong>Surgical Care Improvement Project (SCIP)</strong></td>
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<tr>
<td><strong>SCIP - Infection Prevention</strong></td>
<td>WD ¹</td>
<td>WD ¹</td>
<td>+</td>
</tr>
<tr>
<td><strong>Blood Vessel Surgery</strong></td>
<td>WD ¹</td>
<td>WD ¹</td>
<td>+</td>
</tr>
<tr>
<td><strong>Colon/Large Intestine Surgery</strong></td>
<td>WD ¹</td>
<td>WD ¹</td>
<td>+</td>
</tr>
</tbody>
</table>

*WD ¹: Weak Deliverable*
What do states and coalitions tell us?

Hospital Utilization, Quality, and Potentially Avoidable Stays

Hospital Quality
- Ratings for the Public
- Detailed Quality Statistics
  - Find and compare hospitals in your area. Some hospitals provide better quality care than others. Learn more.

Utilization
- Inpatient Hospital Utilization
  - Find and compare hospitals by the number of patients they treat for different medical conditions and procedures.

Avoidable Hospital Stays
- Map and compare counties by rates of potentially avoidable hospital stays. Compare cost savings from reducing avoidable stays.

County Rates of Hospital Use
- Map and compare counties by rates of inpatient medical conditions and procedures.
What do employers tell us?

Leapfrog Hospital Ratings

PROGRESS TOWARD MEETING LEAPFrog STANDARDS:
- Willing to Report
- Some Progress
- Substantial Progress
- Fully Meets Standards

Search Results: Zip Code 95817 - Radius: 5 Miles

General Information
Maternity Care
High-Risk Surgeries
Hospital-Acquired Conditions
Resource Use
Hospital Safety Score

Click to Compare
- Kaiser Foundation Hospital - Sacramento
  Sacramento, CA
- Mercy General Hospital
  Sacramento, CA
- Sutter General Hospital
  Sacramento, CA
- Sutter Memorial Hospital of Sacramento
  Sacramento, CA
- University of California Davis Medical Center
  Sacramento, CA

Preventing Medication Errors
Appropriate ICU Staffing
Steps to Avoid Harm
Managing Serious Errors
Safety-Focused Scheduling
Survey Results Submitted

- 8/30/2013
- 8/23/2013
- 6/20/2013
- 6/28/2013
- 6/19/2013
What does Yelp tell us?

1. Sutter Memorial Hospital
   - 32 reviews
   - East Sacramento
   - 5151 F St
   - Sacramento, CA 95819
   - (916) 454-3333
   - and evening hours so you can get a little comfort. The hospital is a huge dysfunctional machine. People that truly care will see to it that you are cared for appropriately and will remind...

2. Mercy General Hospital
   - 39 reviews
   - East Sacramento
   - 4001 J St
   - Sacramento, CA 95819
   - (916) 453-4545
   - to the hospital we sped. It was quite possibly the scariest experience we’ve had in the recent past. To see someone you love being kept alive with machines is not an ideal situation. I...

3. UC Davis Medical Center and Children’s Hospital
   - 35 reviews
   - 2315 Stockton Blvd
   - Sacramento, CA 95817
   - (916) 734-2011
   - Okay. So I work here so my reviews will obviously be biased. First of all, someone mentioned that this hospital is depressing and colorless. Yes, there is some truth to that. However, the UCD...
What have we learned about quality measurement?

- Quality measures are hard to develop and validate; what’s the gold standard?
  - Information bias (underreporting?)
  - Selection bias (who responds?)
  - Confounding bias (severity or risk)
- Quality measures are expensive to collect (except administrative data or crowdsourced)
- Quality does vary across providers
  - But not for all measures; gaps diminish over time
  - Quality is not a single construct
- Quality matters, but structural/process measures are weakly correlated with outcome measures
Life cycle of measures: AMA/PCPI

PCPI: CYCLE OF ACTIVITY

- Review of evidence, gaps, data for impact
- Measurement development/enhancement
- Measure specification (includes EHR specifications)
- Measure testing
- National endorsement selection
- Measure and specification reevaluation
- Implementation and integration for QI
- Feedback (from QI collaboratives, providers, consumers, public/private purchasers)
Choosing an ED

Average time patients spent in the emergency department before they were seen by a healthcare professional

Why is this important?

Hide Graph

A lower number of minutes is better

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Time (Minutes)</th>
</tr>
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<tbody>
<tr>
<td>Sutter General Hospital</td>
<td>46</td>
</tr>
<tr>
<td>University of California Davis Medical Center</td>
<td>43</td>
</tr>
<tr>
<td>California (Average for all reporting hospitals)</td>
<td>30</td>
</tr>
<tr>
<td>National (Average for all reporting hospitals)</td>
<td>27</td>
</tr>
</tbody>
</table>
Everything looks nice
<table>
<thead>
<tr>
<th>Date</th>
<th>Code Description</th>
<th>Service Code</th>
<th>Total Charges</th>
<th>Ins Co 1</th>
<th>Ins Co 2</th>
<th>Ins Co 3</th>
<th>Ins Co 4</th>
<th>Patient Amount</th>
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<tr>
<td>09/20/13</td>
<td>Psych Social Work</td>
<td>82200999 001</td>
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<td>09/20/13</td>
<td>Use of ER Level 4</td>
<td>74000738 001</td>
<td>371.00</td>
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<td>EKG Tracing Only</td>
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<td>CBC Auto + Reflex M</td>
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Sub-total of Current Charges: 11136.50
What’s changing post-ACA?

- New pay-for-reporting programs (long-term care hospitals, inpatient rehabilitation facilities, psychiatric and cancer hospitals, hospice)
- Value-based purchasing has started
  - PQRS 1% bonus turns to 2% penalty
  - Value Index with 1% payment adjustment
  - Hospital VBP 2% withhold (budget neutral)
  - Ambulatory Surgery Centers, SNFs, HHAs
- Up to 3% hospital penalty for excess readmissions
- Up to 1% hospital penalty for bottom quartile PSIs, CLABSI, CAUTI (hospital-acquired conditions)
- Voluntary bundled payment pilot (4 models)
- Value-based insurance designs in private sector
What am I worried about?

- Reliable and valid quality measures will increasingly drive competition among plans and providers, but...
  - Increasing incentives to “game” measures through underreporting and risk selection (“unintended consequences”)
  - Increasing disparities affecting those “left out”
  - Continuing tension between cost of collection and value to providers, between measure performance and desired discrimination
What am I worried about?

- Increased competition among plans in Federal and State marketplaces (but varies)
- Decreased competition among vertically and horizontally integrated providers
- Effects of consolidation on quality vary, but are often negative (versus effects on price)
- Very time-consuming to evaluate each prospective merger and to debunk quality claims that lack merit
- Impact of ICD-10 uncertain
Takeaways

- Health care markets desperately need information about quality, but much more is available (to all stakeholders) than 10 years ago.
- Many measures across multiple domains of performance are required, even if they are “rolled up” for presentation to consumers.
- Gradual shift from structural and process measures to outcome measures must continue, with attention to risk and disparities.
- Quality measurement is painful and costly (at least to do it right).
- Antitrust agencies must protect competition (or prices will increase with no quality benefit).