Quality, Transparency and Health Care Reform: Implications For Cardiologists And Primary Care Physicians

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No conflicts of interest to disclose
Transparency of Quality Data in Cardiology after Health Care Reform

- Key components of 2010 Health Care Reform
- Drivers for transparency of quality data
- Variation in Care (Dartmouth Atlas)
- Care improvement with transparency (No. New England CV Disease Study Group)
- How do you implement transparency?
Key Elements of Ideal Health Care Reform

- Universal coverage through market (insurance) reforms
  - Coverage for uninsured, health disparities, pre-existing conditions, etc

- Delivery system reform through payment reforms – integration of care and quality reform
  - Global payments for chronic disease (Medical Home)
  - Incent appropriate utilization
  - HIT key to integration

- Community/public health and prevention reforms
  - Promote wellness
  - Partner with public hospitals, community health centers, nonprofit organizations (eg AHA)
  - All plans should cover preventative services
Health Reform Bill of 2010

- Focused on insurance reform
  - Cover uninsured
  - State based insurance exchanges (risk pools)
  - Required participation by all or penalty (employers and individuals)
  - Eliminate pre-existing conditions
  - Fixes donut hole in Medicare D Rx coverage
  - Prevention services

- Funded through additional taxes, CMS sustainable growth formula and mandatory participation
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Key Elements in Health Care Reform to Drive Transparency

- 2012 – CMS will stop reimbursement for preventable readmission: CHF or pneumonia
- 2014 – CMS will expand to 4 other conditions
- 2012 – Payment tied to patient satisfaction and quality data (CHF, Pneumonia, nosocomial infections)
- 2015 – CMS will begin reporting individual hospital Medical errors and hospital infections in medicare pts.
- 2015 – Reduce medicare payments by 1% to those with highest rate of errors and infections
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- What are we doing at MUHC?
Causes of Variation in Spending: Content of Care

- **Effective Care**
  - Evidence based – all should receive
  - E.g. acute revascularization for AMI)

- **Preference Sensitive Care**
  - Treatment choices that trade risks and benefits.
  - Patients’ values and preference should determine treatment
  - E.g. CABG v PCI v Med Rx for stable angina

- **Supply Sensitive Care**
  - Services where utilization is strongly associated with local supply of resources
  - Frequency of MD visits, tests, ICU, etc.
Geographical Variation in Care (Dartmouth Atlas)

- Uses Medicare Data
- Major outcome is death
  - Looks back 6 mos prior
  - Looks back 2 yrs prior
- Resource Utilization
- Resource Availability (supply)
- Variations in use

Gained the attention of Federal and State Governments and Payer as well as Consumers!!!!
Dartmouth Atlas

The Quality of Medical Care in the United States:
A Report on...
Variation in Total Medicare Inpatient Discharges/1000 Medicare Enrollees in the US

Variation in Total Medicare Inpatient Discharges/1000 Medicare Enrollees in MO (2005)

Variation in Total Medicare Expenses per Enrollee in MO (2007)

Compared to US Average $8,682
- St. Louis is 2% less
- Columbia is 9% less
- Spfd is 15% less

Association Between Spending and Quality

Missouri
New Hampshire
Utah
California

Courtesy of Eugene Nelson, PhD. Dartmouth University
Medical Resources

Use of MD Visits by Type in Last 2 Years of Life

- **Specialty Visits**
  - Columbia
  - St. Louis
  - MO Avg
  - Nat'l Avg

- **PCP visits**
  - Columbia
  - St. Louis
  - MO Avg
  - Nat'l Avg

Total Medicare Costs v Quality

Analysis of Dartmouth Data Base April, 2010
If the Nation Were Like Columbia, MO – We Would Have…in the Last 2 Yrs of Life.

• Medicare population only!!
  – 1.58M fewer ICU bed days of care
  – 9.88M fewer hospital days of care
  – $57.8B saved from health care expenditures

• AND Columbia is not the lowest cost!
• This is what Congress is seeing
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Northern New England CV Disease Study Group (NNECVDSG)

Courtesy of Gene Nelson, DSc, MPH
The Union of Quality and Transparency: Performance Improvement
Definition of Transparency

Health care transparency provides consumers with the information necessary, and the incentive, to choose health care providers based on value.

(Source: http://www.hhs.gov/valuedriven/index.html)

Committee addendum: In addition, each health care worker has the right information at the right time to care for the patients to the best of their abilities.
How to Accelerate Improvement

- **Transparency** of data and process change strategies
- **Variation** – a treasure of information – but takes time to analyze and understand
- **Benchmarking** – used to learn from high performers and disseminate best practices
- **Microsystem team engagement** – clinical care teams are the most powerful and efficient agents of change
- **Collaborative learning** system - NNECVDSG
NNECVDSG Adjusted In-Hospital Mortality Rates 1987-2003

Initial intervention-data feedback, site visits and CQI training

Mode of death study- low output heart failure major cause of in-hospital mortality

Low output heart failure intervention- AHA Grant

Process mapping and identification of high leverage areas

Year

87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03

0 1 2 3 4 5 6 7 8

Rate (%)

Courtesy of Gene Nelson, DSc, MPH
NNECVDSG: Key Was
Transparency of Data

Rate of Overall Bypass Surgery Mortality by 1992 Mortality Outcomes

High Mortality - Limited Improvement

High Mortality - Large Improvement

Low Mortality - Limited Improvement

Low Mortality - Large Improvement

Adjusted Yearly Decline in Mortality Risk from 1987 to 1992

Adjusted Medicare Mortality

Courtesy of Gene Nelson, DSc, MPH
Key Learnings from NNECVDSG

• “We’re all in this together” mentality
• Benchmarking results was key
• Transparency to results and process improvements spread impact quicker
• Report outcomes and understand process completely

This is the prototype for regional and system wide improvement strategies
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Why Implement Transparency?
Patients, Providers, Payers Have Access to Significant Data Already

**Key Question:** Shouldn’t our own clinicians and non-clinicians have access to these data before the public?

**Answer:** Definitely **YES**!!
What Type of Information is Publicly Available NOW??

- Took 3 minutes to obtain the following
  - Much longer to copy/past and crop for slides!
- Google search: Hospital Compare
- Website for Medicare data came up first
  - www.hospitalcompare.hhs.gov/
- Put in zip code
- You have a lot of data to review
<table>
<thead>
<tr>
<th>Hospital Process of Care Measures Tables</th>
<th>Average for all reporting hospitals in the U.S.</th>
<th>Average for all reporting hospitals in Missouri</th>
<th>ST MARYS HEALTH CENTER</th>
<th>BOONE HOSPITAL CENTER</th>
<th>UNIVERSITY OF MISSOURI HOSPITAL &amp; CLINICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Attack Patients Given Aspirin at Arrival</td>
<td>95%</td>
<td>93%</td>
<td>100% (107 of 107 patients)</td>
<td>100% (178 of 178 patients)</td>
<td>99% (113 of 114 patients)</td>
</tr>
<tr>
<td>Heart Attack Patients Given Aspirin at Discharge</td>
<td>94%</td>
<td>92%</td>
<td>100% (100 of 100 patients)</td>
<td>100% (383 of 383 patients)</td>
<td>100% (247 of 247 patients)</td>
</tr>
<tr>
<td>Heart Attack Patients Given ACE Inhibitor or ARB for Left Ventricular Systolic Dysfunction (LVSD)</td>
<td>92%</td>
<td>91%</td>
<td>100% (15 of 15 patients) (^1)</td>
<td>98% (101 of 103 patients)</td>
<td>100% (46 of 46 patients)</td>
</tr>
<tr>
<td>Heart Attack Patients Given Smoking Cessation Advice/Counseling</td>
<td>96%</td>
<td>96%</td>
<td>100% (35 of 35 patients)</td>
<td>100% (129 of 129 patients)</td>
<td>100% (114 of 114 patients)</td>
</tr>
<tr>
<td>Heart Attack Patients Given Beta Blocker at Discharge</td>
<td>94%</td>
<td>91%</td>
<td>100% (104 of 104 patients)</td>
<td>100% (388 of 388 patients)</td>
<td>100% (242 of 242 patients)</td>
</tr>
<tr>
<td>Heart Attack Patients Given Fibrinolytic Medication Within 30 Minutes Of Arrival</td>
<td>45%</td>
<td>71%</td>
<td>Not Available (^\d)</td>
<td>Not Available (^\d)</td>
<td>Not Available (^\d)</td>
</tr>
<tr>
<td>Heart Attack Patients Given PCI Within 90 Minutes Of Arrival</td>
<td>82%</td>
<td>87%</td>
<td>100% (27 of 27 patients)</td>
<td>90% (43 of 48 patients)</td>
<td>80% (30 of 34 patients)</td>
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What is available now (FFY 2009)? CHF

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<tr>
<td>Heart Failure Patients Given Discharge Instructions</td>
<td>79%</td>
<td>78%</td>
<td>100% (187 of 187 patients)</td>
<td>96% (406 of 423 patients)</td>
<td>84% (129 of 153 patients)</td>
</tr>
<tr>
<td>Heart Failure Patients Given an Evaluation of Left Ventricular Systolic (LVs) Function</td>
<td>90%</td>
<td>89%</td>
<td>100% (229 of 229 patients)</td>
<td>99% (401 of 406 patients)</td>
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<td>Heart Failure Patients Given Smoking Cessation Advice/Counseling</td>
<td>93%</td>
<td>93%</td>
<td>100% (26 of 26 patients)</td>
<td>100% (77 of 77 patients)</td>
<td>93% (39 of 42 patients)</td>
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## What is available now (FFY 2009)?

### Nurse Communication

<table>
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<tr>
<th></th>
<th>Nurses &quot;always&quot; communicated well</th>
<th>Nurses &quot;usually&quot; communicated well</th>
<th>Nurses &quot;sometimes&quot; or &quot;never&quot; communicated well</th>
</tr>
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<tbody>
<tr>
<td>Average For All Reporting Hospitals In The United States</td>
<td>75%</td>
<td>19%</td>
<td>6%</td>
</tr>
<tr>
<td>Average For All Reporting Hospitals In Missouri</td>
<td>76%</td>
<td>19%</td>
<td>5%</td>
</tr>
<tr>
<td>ST MARYS HEALTH CENTER</td>
<td>81%</td>
<td>15%</td>
<td>4%</td>
</tr>
<tr>
<td>BOONE HOSPITAL CENTER</td>
<td>84%</td>
<td>13%</td>
<td>3%</td>
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<tr>
<td>UNIVERSITY OF MISSOURI HOSPITAL &amp; CLINICS</td>
<td>71%</td>
<td>22%</td>
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<th>Survey Response Rate</th>
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<td>ST MARYS HEALTH CENTER</td>
<td>300 or more</td>
<td>41%</td>
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<td>BOONE HOSPITAL CENTER</td>
<td>300 or more</td>
<td>54%</td>
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## What is available now (FFY 2009)?

### Physician Communication

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<td>15%</td>
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<tr>
<td>BOONE HOSPITAL CENTER</td>
<td>86%</td>
<td>12%</td>
<td>2%</td>
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<td>69%</td>
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How do you start with organizational transparency? (1)

• Needs to be staged
  – Internal transparency first
  – Then, external

• Develop a process to determine what is reported internally and externally
  – Be mindful of currently reported information

• Align data reporting with strategic direction (or measures)

• Create leadership accountability for the measures
How do you start with organizational transparency? (2)

• Educate staff regarding what the measures are and how they can impact the performance. Organizational Culture of PI (Performance Improvement)
• Reporting needs to have ‘push’ function for overview and ‘pull’ for more information
• Data needs to be current and relevant
Develop a Process for Data

- What are the goals? – From Strategic Plan
- Leadership requirements and needs - Operations
- What is collected/reported? - Regulatory
- Does it meet your employee and customer demands? – From Strategic Plan
Quality Transparency Key Driver Diagram

Key Drivers

Secondary Drivers

Specific Interventions

- Develop widespread education and training throughout the organization in PI/QI skills
- Adopt ‘Lean’ mentality by engaging all employees in change and PI
- Develop methodology to hold managers and supervisors accountable.
- Create meso and macro-systems for collaboration across traditional silos
- Create a safe environment to report safety hazards

Influencing Clinical Outcomes and Quality Outcomes by Employees

Delivery System for Real-Time Communication with Staff and Providers Regarding Quality and PI

- Create intranet site for quality information and sharing
- Link all sites for quality and PI to central site
- Create an enterprise data warehouse
- Support for oversight, analysis and update of real-time data
- Educational methods for teaching all staff PI/QI tools
Key Leverage Points for Successful Transparency

Delivery System for Real-Time Communication with Staff and Providers Regarding Quality and PI

- Create intranet site for quality information and sharing
- Link all sites for quality and PI to central site
- Create an enterprise data warehouse
- Support for oversight, analysis and update of real-time data
- Educational methods for teaching all staff PI/QI tools
• What’s wrong with this flow of information?
  • Lack of usable information to ‘data generators’ (physicians, nurses, other HCW)
  • Feedback to ‘data generators’ not timely
  • Data is aggregated and/or not available for individual microsystems to improve performance
  • Staff feel the C-suite is hiding something
  • No information to those we want to influence (patients, ref MD’s, etc)
• This is **NOT TRANSPARENCY**
• Does not allow strategic use of clinical performance information to our advantage
Suggested Process for Data Reporting

**INTERNET (EXTERNAL)**
- Report to regulatory bodies, payers, others

**INTERNET (EXTERNAL)**
- Are Data for Public Reporting (e.g., CMS Core Measures, UHC, etc.)?
  - Yes: Release to public on Internet?
    - Yes: Mechanism for Dissemination (General Marketing, print, web) - SL specific Marketing (Print, web)
    - No: Data represent in process measurements
  - No: To Performance Improvement for Action

**INTERRANET (INTERNAL)**
- Are Data Valid, Reliable, and Appropriate for Dissemination?
  - Yes: Correct, modify data to ensure accuracy
  - No: Data to return to the units/service lines will be granular and in process measures as well as the global service line

**INTERRANET (INTERNAL)**
- Manager review
  - Managers will promptly review for action and distribute

**INTERRANET (INTERNAL)**
- C-Suite, Service Line and Medical Leadership
  - Data to C-Suite is likely to be in the format of balanced scorecards for a service line or unit

**INTERRANET (INTERNAL)**
- Source Aggregators (EMR, UHC, QA/PI Service, Department)

**INTERRANET (INTERNAL)**
- Data Generators (Providers, Nursing, other HCV)

However, these data would have been given back to unit levels for action/monitoring of performance.
Align Data Collection and Reporting

- Alignment with Strategic Vision and Goals
- Accountability for managers and leaders for achieving expected goals
  - Objective Leadership Evaluation Tool with metrics
  - This will translate to staff accountability
- Ultimately, accountability will be from each employee since they are empowered and data rich
Real-time and ‘Push’ Data

• Create an enterprise data warehouse
  – Clinical outcomes
  – Cost outcomes
  – Satisfaction outcomes

• Determine key reports
  – What is required by regulatory bodies?
  – What are you going to manage? Elements? Frequency? If not managing it, do not measure/collect/report it
  – Data collection, aggregation, reporting is not FREE. Est $1/element each time reported.

• Automate reports to send to key persons and intranet – ‘Push’ functionality
Decide When to Share on Internet

• When do you open your data to the public?
  – Is it already available?
• What data elements are best shown?
  – Some are in process measures and would not make sense
Education of Staff and Leaders

- Training in PI tools and data (variation)
- Appropriate for level of employees
- Highly trained data analysts (statistics) that can communicate meaning
Questions?