The Effect of Health Care System Administrator Pay-for-Performance on Quality of Care

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Baylor Health Care System Corporate Director, Quality Measurement, Improvement, & Consulting Services
Overview

- Introduction
- *Baylor Health Care System’s 1\textsuperscript{st} and 2\textsuperscript{nd} Century of Care*
  - Functional Lines of Business
  - Access Points
  - Financial Strength
- Accountability - Board of Trustees
The Effect of Health Care System Administrator Pay-for-Performance on Quality of Care

- Background
- Methods
- Setting
- Data Collection
- Outcome Measures
- Results
- Discussion & Conclusion
  - “From the Trenches” Perspective

P4P 2008
BHCS Service Areas in Texas
1903: Founded as renovated 14-room home
The History of Baylor Health Care System

- 1981: Becomes a multi-hospital system
HealthTexas Provider Network (HTPN) was formed in 1994 – an employed-physician group.

HTPN has since grown to become one of the most effective physician-hospital organizations in the nation.
BHCS: Functional Lines of Business

- Adult Acute Care Hospitals
- Specialty Hospitals
- Outpatient Services
- Ambulatory Surgical Centers/Short Stay Hospitals
- Physician Clinics
- Post-Graduate Medical Education
- Baylor Research Institute
- Foundations
- Construction
Baylor Health Care System

146 Access Points

- 15 Owned, Leased, and Affiliated Hospitals
- 20 Ambulatory Surgery Centers
- 5 Short Stay Surgical Hospitals
- 101 Physician Centers & Practices
- 5 Senior Centers
- Baylor Research Institute
- 3 Philanthropic Foundations
- Children’s Medical Center Member
- 1 Biotech Company
- 16,000 employees
- Over 3,000 physicians
Excellent financial strength as per bond ratings:
- Moody’s Aa3 (Positive)
- S & P AA- (Stable)

As of June 30, 2007
- Total Assets $3.6 billion
- Annual Net Operating Revenue $3 billion
- Annual Net Operating Margin > 6%
- > $200 million

FY 2008 Capital Budget $465 million
As it begins its 2nd century of service, BHCS remains steadfastly devoted to:

- Improving quality of health care provided to its patients
- Improving the tools available to and the training standards of those who provide medical care
- Improving the operational health of the organization itself to ensure that it will be capable of delivering superior health care to those in need for the next 100 years.

As such, BHCS has been, and continues to be, a local, national, and global leader in its commitment to improving health care quality.
• 1981 “Baylor” became Baylor Health Care System and first introduced its Performance Award Program (PAP), linking employee compensation to performance.

• Approximately 350 people (2% of BHCS employees) were eligible for performance-based compensation which was linked to fiscal operating margin and patient satisfaction.

• Compensation took the form of placing a performance component at risk, determined as a percentage of the employees base salary, ranging from 5% for clinical managers to 40% for the chief executive officer.
• **1990 → 1997:**
  Formed a Leadership Center – TQM, CQI principles, PDSA

• **1998:**
  BHCS formed a Quality Improvement Coordinating Council comprised of Health Care Improvement Directors and Medical Directors. ("Yours truly" was one of the original members)
• **1999:**
  - David J. Ballard, a Mayo-trained internist joins BHCS as Chief Quality Officer via…
    - President of the Kerr L. White Institute for Health Services Research
    - Professor of Medicine at the Emory University School of Medicine
    - Professor of Epidemiology in Emory’s Rollins School of Public Health
BHCS Quality Improvement Journey (1990-2000)

• U.S. National Academies Institute of Medicine
  • 2001 *Crossing the Quality Chasm*
    Six Aims for 21st Century Health Care Systems
    • Safe
    • Timely
    • Effective
    • Efficient
    • Equitable
    • Patient Centered
• 1999

Joel Allison, BHCS CEO founded the new strategic plan around the vision to become the most trusted source of comprehensive health services by 2010.

Guided by
Baylor Values
➢ Integrity
➢ Servanthood
➢ Quality
➢ Innovation
➢ Stewardship
In January 2000, the BHCS Board of Trustees established an ad hoc Quality Measurement Review Committee, which:

A. Drafted a quality resolution setting the stage for accountability with respect to health care quality

B. Recommended that performance-based compensation be modified to include a component of compensation related to clinical quality performance.
RESOLUTION
BOARD OF TRUSTEES
BAYLOR HEALTH CARE SYSTEM
September 26, 2000

WHEREAS, Baylor Health Care System’s Vision Statement includes “the most trusted source of comprehensive health services”; and

WHEREAS, Baylor Health Care System’s Mission Statement includes “serve all people through exemplary health care”; and

WHEREAS, one of the primary responsibilities we have as Trustees is continuous improvements in quality patient care and safety; and

WHEREAS, maintaining the status quo or achieving quality and safety levels only equal to or slightly better than national, regional, or local norms is not compatible with the BHCS Vision and Mission Statements; and

WHEREAS, regulatory and legislative changes and a growing number of more informed patients support better quality patient care and safety;

THEREFORE, BE IT RESOLVED, that the Board of Trustees of Baylor Health Care System hereby challenges itself and everyone involved in providing health care throughout the System to give patient safety and continuous improvement in the quality of patient care the highest priority in the planning, budgeting and execution of all activities in order to achieve significant, demonstrable and measurable positive improvement in the quality of patient care and safety; and

FURTHER RESOLVED, that the Board requests that periodic reports be made to the Board on planning, budgeting, execution and results of activities to improve patient safety and quality of patient care in Baylor Health Care System.

E. R. Brook, Chairman
Board of Trustees

September 26, 2000
September 26, 2000

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In January 2000, the BHCS Board of Trustees established an ad hoc quality measurement review committee, which:

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B. Recommended that performance-based compensation be modified to include a component of compensation related to clinical quality performance.
“FURTHER RESOLVED, that the Board requests that periodic reports be made to the Board on planning, budgeting, execution and results of activities to improve patient safety and quality of patient care at BHCS.

“…In this way, administrator bonuses were linked to specific clinical indicators beginning in July, 2001.”
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SALES

"I must say, Simms, when you're hot you're HOT but when you're NOT you're NOT!"
• Rather than an “all or nothing” award, eligible employees have the potential to earn larger levels of compensation through better performance:
  • 25% awarded if threshold level met
  • 50% awarded if intermediate target met
  • 100% awarded if primary target met
  • 125% awarded if “stretch goal” met
• The Effect of Health Care System Administrator Pay-for-Performance on Quality of Care

• P4P program for administrators based on clinical indicators (Quality of care)
  • Journal on Quality and Patient Safety submitted for publication to The Joint Commission in February, 2008.
• Health care quality improvement tactic that has been deployed with increasing frequency in recent years is the implementation of P4P programs.

• Attention has been primarily directed towards those programs that track performance of individual physicians, physician groups or hospitals.
The focus has been on specific clinical indicators and rewards them according to either their ability to reach a benchmark level of performance or on their performance relative to their peers.

Despite the mixed success of such programs shown by their clinical trials, their popularity with health care payers is growing, and is likely to continue to do so.

- Centers for Medicare and Medicaid Services (CMS)
- Premier Hospital Quality Incentive Demonstration Project
- The Leapfrog Hospital Rewards Program

References:
- Centers for Medicare and Medicaid services. Premier Hospital quality incentive demonstration. Vol. 2006
- The leapfrog Group. The Leapfrog Hospital Rewards Program. Vol. 2006
• Preliminary results of the CMS/Premier demonstration project appear positive

• Comparison of Catholic Healthcare Partners Hospitals that did and did not participate in the demonstration project found that, for quality indicators included in the incentive program (AMI, HF, PNE), greater and more rapid improvements were seen in participating hospitals.

• The 2007 New England Journal of Medicine recently compared 207 hospitals that participated in the CMS P4P demonstration project with 406 hospitals voluntarily reporting performance on quality indicators but not participating in the demonstration project.

• NEJM found the P4P hospitals showed greater improvement on all the composite quality measures examined (HF,AMI, PNE) and on a composite of 10 measures spanning all 3 clinical areas.

Although pay for performance (P4P) programs for physicians or hospitals are being investigated as quality improvement tools, most health care systems have implemented some form of P4P program for administrators:

- based on financial performance
- reward and recognition
- performance award programs
- NOT external P4P.

Increase in:

- frequency and administrator compensation being linked to clinical performance.
- Proportion of administrators total income placed “at risk” based on clinical performance.
• “Reward and Recognition programs that differentiate from external P4P can be an effective tool in improving quality of care – endorsed by the inclusion of “compensation incentives” as evidence that “senior administrative leaders and leaders of clinical service lines and units are held accountable to close patient safety performance gaps” in the leapfrog Group’s Hospital Quality and Safety survey

• Based on NQF’s safe practices

• Not aware of any formal evaluations in peer reviewed literature of the effect of adding a clinical performance component to the Administrator P4P programs on the quality of care provided in the hospitals and health care systems.
• A great deal less attention has been received in quality P4P for health care administrators based on their organizations performance on clinical indicators (quality of care).

• In 2001, BHCS an integrated health care delivery system in Dallas-Fort Worth, Texas, began linking supervisor compensation to performance on the Joint Commission’s Core Measures.
• Over the following 4 years, BHCS hospitals reported a substantial improvement in performance on Joint Commission (JC) Core Measures, from approximately 70% delivery of indicated measures to eligible patients system-wide in 2001 to 95% in 2005.

• When compared to all hospitals nationwide reporting 13 core measures to the JC for July 2004-March 2005, the BHCS acute hospitals all ranked in top quartile.
• To investigate the extent to which the administrator P4P program was instrumental in these achievements, we examined the effect of exposure to this program on performance of individual JC Core Measures during the first 4 years following implementation.

• BHCS compared the performance rates for each indicator before and after administrator P4P implementation,

• And the trend in rates for each indicator to the trend in rates for random sample of hospitals reporting the same measures.
This was a prospective interventional analysis of the staggered implementation of a new payment schedule. Administrative P4P within a single Health Care System. The effect of the P4P on the quality of care was assessed two ways and using two different sources.

- Changes in performance rates on JC measures before and after program initiation were assessed using internal BHCS data.
- In a separate analysis, time trends in performance on JC measures were compared between BHCS hospitals reporting the same measures to the JC during the period following implementation of Administrator P4P within BHCS using data provided by JC.
BHCS

• > 103,000 admissions per year
• > 100 primary care and senior centers with > 500,000 visits annually
• Employs > 15,000
• > 3000 physicians
• > 400 employed by the outpatient physician component (HTPN)

Of the 15 owned, leased and affiliated hospitals, eight acute care facilities providing care in all four clinical areas covered by the JC core measures and reporting all of the 13 measures

• For consistency 5 hospitals were included in the analysis
Beginning in FY2002, compensation-at-risk was defined for eligible employees at the acute care facilities according to performance on 3 categories of indicators:

- 1/3 Fiscal Operating Margin
- 1/3 Clinical “Quality Index”
  - Surgical Infection Prevention
    - Antibiotic within 1 hr. of incision
    - Appropriate antibiotic
    - Antibiotic discontinued within 24 hours
  - Mortality - reduction in Risk-Adjusted Mortality
- 1/3 Patient Satisfaction
  - Inpatient
  - Outpatient
  - Emergency Department
BHCS FY2005 Quality Index Goals & Performance: Surgical Infection Prevention Perfect Care Bundle

<table>
<thead>
<tr>
<th>BHCS Actual Performance</th>
<th>July 1, 2004 – June 30, 2005</th>
<th>95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Percentage</td>
<td>Recommended FY2005 Index</td>
<td></td>
</tr>
<tr>
<td>Threshold</td>
<td>25%</td>
<td>87%</td>
</tr>
<tr>
<td>Intermediate Target</td>
<td>50%</td>
<td>88%</td>
</tr>
<tr>
<td>Target</td>
<td>100%</td>
<td>89%</td>
</tr>
<tr>
<td>Maximum Stretch Goal</td>
<td>125%</td>
<td>91%</td>
</tr>
</tbody>
</table>
• Time periods over which 13 indicators for 4 conditions have been exposed to Administrator P4P.

• As indicators for the 4 conditions have been exposed for varying lengths of time, they have different payment “weights”.

• All indicators were tracked for all patients at the 5 facilities over a period of 3-36 months prior to exposure and 12-45 months after exposure.
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Jul 01 - Sep 01</th>
<th>Oct 01 - Jun 02</th>
<th>Jul 02 – Jun 03</th>
<th>Jul 03 – Jun 04</th>
<th>Jul 04 – Jun 05</th>
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</thead>
<tbody>
<tr>
<td><strong>Acute Myocardial Infarction</strong></td>
<td></td>
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<td></td>
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<tr>
<td>aspirin at admission</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>aspirin at discharge</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>beta blockers at admission</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>beta blockers at discharge</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>ACE-inhibitor for LVSD*</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td><strong>Community Acquired Pneumonia</strong></td>
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<tr>
<td>antibiotics within 4 hours</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>oxygenation assessment</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>pneumococcal vaccination</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td><strong>Congestive Heart Failure</strong></td>
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<td>assessment of left ventricular function</td>
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<td>X</td>
<td>X</td>
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<td></td>
<td>X</td>
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<tr>
<td><strong>Surgical Infection Prevention</strong></td>
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<tr>
<td>antibiotic received within 1 hour prior to surgical incision</td>
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<td></td>
<td>X</td>
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<tr>
<td>antibiotic selection for surgical patients</td>
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<tr>
<td>antibiotic discontinued within 24 hours of surgery end time</td>
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<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Data Collection

- June 2001-June 2002
  - Quarterly list of patients discharged (completed/closed)
  - Administrative data base using ICD-9 codes for DC diagnosis
  - Hospital had at least 90 cases qualify
    - > 90 cases
    - Random sample was chosen
  - Chart review completed by trained nurse abstractors using the CMS MedQuest tool to establish eligible patients/process of care measures.
● July 2002- June 2005
  • MIDAS-certified core measure vendor
  • Data entered by quality improvement nurses, care coordinators
  • Concurrent/retrospective
  • Inclusion/exclusion criteria logic
  • Updated automatically by MIDAS via criteria defined by CMS/JC
Data Collection

- Included all eligible patients for any one of the 13 included exposed core measure admitted to one of the 5 Baylor acute facilities

- Data abstracted from the medical record for each patient included:
  - Eligibility criteria
  - Indicator results
  - Age
  - Sex
  - Condition
Originally 13 measures defined with these exclusions

- Angiotensin converting enzyme inhibitor (ACE) for LVSD changed
- SIP indicators changed
- Oxygen assessment not done for CAP pre-exposure

7 exposed measures included and tracked over a total of 48 months (binary measure of care).
Based on core measure data provided by JC

BHCS time trends in performance of core measures were compared to those of other hospitals nationwide for July 2002 - June 2005.

BHCS removed from the population of hospitals reporting AMI, CAP & HF measures to JC in 2004.

Random sample of 200 non-BHCS hospitals was selected for comparison.
• In addition to the 7 exposed quality indicators examined, three were NOT exposed to P4P
  • Percutaneous coronary intervention (PCI) within 120 minutes
  • Thrombolytics within 30 minutes for AMI
  • Discharge instructions for HF

• JC provided data for BHCS/non-BHCS for comparison for validation
• Patients could have multiple admissions
• Each admission opportunity to assess one or more indicators
• Used quality indicator as the unit of analysis.
Analysis: Basic Overview

• Within BHCS

• Calculated summary rates for each process measure, both separately for each of the pre-post exposure periods and overall.

• To assess if administrator P4P had a differential effect on quality indicators hierarchical logistic model was used.
• Since the goal of including core measures performance in the Administrator P4P Program was sustained compliance, we also informally compared the most recent performance data available for these BHCS hospitals to Texas and National performance.
• In-hospital mortality
  • Investigate the concern that the P4P focus on JC may have compromised other areas of care. Secondary analysis of adjusted acute care in-hospital mortality was conducted using the Texas Inpatient Administrative Public Use Data File (PUDF).
  • BHCS not engaged in the administrative P4P over the entire measurement period were excluded from the mortality analysis.
    • 12 million admissions across 407 hospitals
    • Patient-level risk score – overall death rate (AP-DRG) by risk of mortality.
    • 95% confidence interval
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unexposed</th>
<th>Exposed</th>
<th>Model 1 *</th>
<th>Model 2 †</th>
<th>Model 3 ‡</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute Myocardial Infarction</strong></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>aspirin at admission</td>
<td>89.8% (194/216)</td>
<td>97.3% (3068/3152)</td>
<td>4.10 (2.52, 6.65)</td>
<td>4.08 (2.50, 6.65)</td>
<td>1.70 (0.95, 3.07)</td>
<td>0.08</td>
</tr>
<tr>
<td>aspirin at discharge</td>
<td>88.6% (225/254)</td>
<td>97.1% (3802/3917)</td>
<td>4.26 (2.76, 6.57)</td>
<td>4.28 (2.77, 6.61)</td>
<td>2.94 (1.70, 5.11)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>beta blockers at admission</td>
<td>75.1% (130/173)</td>
<td>91.5% (2398/2620)</td>
<td>3.55 (2.45, 5.14)</td>
<td>3.67 (2.52, 5.35)</td>
<td>1.07 (0.69, 1.66)</td>
<td>0.75</td>
</tr>
<tr>
<td>beta blockers at discharge</td>
<td>85.2% (173/203)</td>
<td>93.9% (3308/3524)</td>
<td>2.61 (1.74, 3.92)</td>
<td>2.65 (1.76, 3.98)</td>
<td>1.35 (0.84, 2.16)</td>
<td>0.22</td>
</tr>
<tr>
<td><strong>All AMI</strong></td>
<td>85.3% (722/846)</td>
<td>95.2% (12576/13213)</td>
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<tr>
<td><strong>Community Acquired Pneumonia</strong></td>
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</tr>
<tr>
<td>antibiotics within 4 hours</td>
<td>61.0% (539/883)</td>
<td>73.0% (3237/4434)</td>
<td>1.82 (1.55, 2.13)</td>
<td>1.83 (1.56, 2.14)</td>
<td>1.03 (0.82, 1.29)</td>
<td>0.80</td>
</tr>
<tr>
<td>pneumococcal vaccination</td>
<td>32.5% (276/848)</td>
<td>77.2% (1939/2512)</td>
<td>7.64 (6.40, 9.11)</td>
<td>5.88 (4.78, 7.24)</td>
<td>1.53 (1.14, 2.04)</td>
<td>0.005</td>
</tr>
<tr>
<td><strong>All CAP</strong></td>
<td>47.1% (815/1731)</td>
<td>74.5% (5176/6946)</td>
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<tr>
<td><strong>Congestive Heart Failure</strong></td>
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</tr>
<tr>
<td>assessment of left ventricular function</td>
<td>91.7% (2600/2835)</td>
<td>95.2% (3609/3790)</td>
<td>1.73 (1.46, 2.06)</td>
<td>1.74 (1.46, 2.07)</td>
<td>0.90 (0.65, 1.26)</td>
<td>0.55</td>
</tr>
<tr>
<td><strong>All ‡</strong></td>
<td>76.4% (4137/5412)</td>
<td>89.2% (21361/23949)</td>
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</tbody>
</table>

* Adjusted for clustering by visit, patient, and facility. All P-values < 0.0001
† Adjusted for clustering by visit, patient, and facility, age>65 years, and sex. All P-values < 0.0001
‡ Adjusted for clustering by visit, patient, and facility, age>65 years, sex, and calendar time.
§ No p-value estimated because of highly significant interaction between P4P exposure and quality indicator (P<0.0001).
Results

- Final cohort consisted of 13,673 patients with 17,114 admissions at 5 facilities.
  
  - 4,035 admissions prior to the intervention
  - 13,079 were after the intervention.

- Improved performance was associated with exposure to administrator P4P for all individual indicators, both unadjusted and adjusted for age and gender (all p-values <0.0001).

- Aspirin at discharge and pneumococcal vaccination performance remained significant following adjustment for calendar time.
• BHCS hospitals exposed to P4P, increased performance on all P4P indicators more rapidly than a random sample of hospitals reporting the same measures, with 3 indicators increasing significantly faster.

• These hospitals also showed a slightly greater decrease in inpatient mortality at BHCS hospitals compared to all other Texas acute care hospitals

• Suggests the focus placed on Core Measures performance by P4P did not unintentionally compromise other areas of quality of care.
To date, what have been the effects of the BHCS accountability and outcome assessment journey?

- Dramatic Improvement in Joint Commission
- Core Measure Performance:

- BHCS: 96%
- U.S.: 85%
- Texas: 83%
<table>
<thead>
<tr>
<th>Measure</th>
<th>State of Texas</th>
<th>Nat'l CMS</th>
<th>BHCS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AMI Indicators</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Aspirin within 24 Hours of Arrival</td>
<td>91%</td>
<td>93%</td>
<td>99%</td>
</tr>
<tr>
<td>Aspirin at Discharge</td>
<td>89%</td>
<td>90%</td>
<td>98%</td>
</tr>
<tr>
<td>Beta Blockers within 24 Hours of Arrival</td>
<td>86%</td>
<td>87%</td>
<td>98%</td>
</tr>
<tr>
<td>Beta Blockers at Discharge</td>
<td>86%</td>
<td>90%</td>
<td>98%</td>
</tr>
<tr>
<td>ACEI for LVSD</td>
<td>86%</td>
<td>83%</td>
<td>94%</td>
</tr>
<tr>
<td><strong>CAP Indicators</strong></td>
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<tr>
<td>Oxygenation Assessment</td>
<td>99%</td>
<td>99%</td>
<td>100%</td>
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<tr>
<td>Antibiotic within 4 hours of Arrival</td>
<td>79%</td>
<td>80%</td>
<td>90%</td>
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<tr>
<td>Pneumococcal Vaccination if Needed</td>
<td>71%</td>
<td>71%</td>
<td>88%</td>
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<td><strong>CHF Indicators</strong></td>
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<tr>
<td>Assessment of Left Ventricular Function</td>
<td>82%</td>
<td>84%</td>
<td>97%</td>
</tr>
<tr>
<td>ACE Inhibitors For LVSD</td>
<td>83%</td>
<td>82%</td>
<td>93%</td>
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<tr>
<td><strong>SIP Indicators</strong></td>
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<tr>
<td>Antibiotic Within 1 Hour of Incision</td>
<td>69%</td>
<td>78%</td>
<td>96%</td>
</tr>
<tr>
<td>Antibiotic Selection</td>
<td>86%</td>
<td>89%</td>
<td>92%</td>
</tr>
<tr>
<td>Antibiotic Discontinued Within 24 Hours</td>
<td>69%</td>
<td>74%</td>
<td>90%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>83%</td>
<td>85%</td>
<td>96%</td>
</tr>
</tbody>
</table>
Results

Time Trends in Inpatient Mortality: BHCS vs. Rest of Texas, 1999-2005

[Graph showing the trend of inpatient mortality from 1999 to 2005 for BHCS and Texas, with BHCS showing a steady decrease and Texas showing a more fluctuating decrease.]
Discussion

- Evidence this study suggests would be stronger if randomized exposure – politically unfeasible in the setting of a non-academic health care system.

- Cannot eliminate the possibility that improvement seen on core measure performance was driven by some factor besides the introduction of Administrator P4P.
BHCS engaged in the following improvement initiatives during the same time period and could have impacted the results.

- Institute of Health Care Research and Improvement
- ABC-Baylor
- Physician Champions
- The Best Care Committee
The Institute of Health Care Research and Improvement

- Established in 1999 to improve health care across BHCS and to conduct and support research and analysis related to clinical effectiveness and quality throughout BHCS
  - Center for Health Care Improvement – System leadership of quality initiatives
  - Office of Patient Safety – System leadership and strategy for patient safety
  - Health care research and improvement – leads research in quality initiatives (Clinical Scholars Program)
  - Health care analysis and research – quantitative data support and analysis
  - Health Equity Research
  - Patient-centered care
BHCS engaged in the following improvement initiatives during the same time period and could have impacted the results.

- Institute of Health Care Research and Improvement
- ABC-Baylor
- Physician Champions
- The Best Care Committee
Accelerating Best Care (ABC) began in 2004
- Staffed and supported by IHCRI
- Rapid-Cycle Improvement Education
- There is a 7-day full course and a 2-day version
- Designed to facilitate the development of rapid-cycle improvement skills and competencies
- Participants include physicians, hospital administrators, nurse managers, and others
- Graduates lead, participate in, and direct quality improvement efforts (over 900 projects to-date)
BHCS engaged in the following improvement initiatives during the same time period and could have impacted the results.

- Institute of Health Care Research and Improvement
- ABC-Baylor
- Physician Champions
- The Best Care Committee
Physician Champions

• Practicing physicians serving as quality improvement leaders across BHCS
• >40 Physician Champions, >$3 M annual budget
• Both “System” and “Local Hospital” Champions
• Focused on key clinical areas and initiatives (e.g. cardiac, pneumonia, surgery, etc.)
• System Physician Leadership of these activities with specific goals and accountability
• Using tools and techniques of ABC Baylor and individual leadership and influence
BHCS engaged in the following improvement initiatives during the same time period and could have impacted the results.

- Institute of Health Care Research and Improvement
- ABC-Baylor
- Physician Champions
- The Best Care Committee
The Best Care Committee

• System-wide committee to align and drive quality initiatives

• Co-chaired by System CMO and Leader of Physician Champions

• Attended by Baylor Senior Executives, Hospital Presidents, CNOs, Physician Leaders (system & local “champions”), Health Care Improvement Directors

• Meets bimonthly for two hours

• Approves new initiatives; reports results; and shares best practices
1. Improved performance was associated with exposure to administrator P4P for all individual indicators, both unadjusted and adjusted for age and gender.

2. Aspirin at discharge and pneumococcal vaccination performance remained significant following adjustment for calendar time.
Results

3. BHCS hospital exposed to P4P increased performance on all P4P indicators more rapidly than a random sample of hospitals reporting the same measures, with 3 indictors increasing significantly faster.

4. A slightly greater decrease in inpatient mortality at BHCS hospitals compared to all other Texas acute care hospitals.
BHCS Experience with Accountability & Outcomes Assessment

BHCS results suggest that, in a health care organization with a major commitment to quality improvement training and implementation in which clinical quality indicators are routinely and reliably tracked, fostering accountability by linking employee compensation to clinical quality performance can support quality improvement efforts.
• Administrator performance was most effective in improving performance on indicators for which there was low baseline compliance (PNE vaccination) and showed diminishing impact with increasing compliance.

• May be subject to ceiling effect below 100% compliance when new or supplemental strategies to achieve further improvement.

• Raises an interesting question as to whether once an indicator has passed the point of compliance at which the Administrator P4P fails to support further improvement. Continued inclusion of that indicator is necessary to maintain a level of performance.
• Further research is needed to verify and extend the results
  • Randomized trial which would provide corroboration that the effects we observed were primarily due to the Administrator P4P and did not extend to external forces, controlling for confounding effects of concurrent quality improvement projects, is needed to clarify the impact of Administrator P4P.
Our results cannot definitively support a cause and effect relationship between Administrator P4P and improved compliance with clinical quality indicators. Further research controlling for the possible confounding effects of other concurrent quality improvement efforts is needed.

Health care organizations that routinely and reliably track information should consider linking administrator compensation to performance on specific clinical quality measures as a strategy to support improved compliance on those measures.
"Looks like someone’s awarded themself another bonus."
"How did the staff take the news that you gave yourself another raise?"
“Worked all weekend to finish the report, and all I get is a stupid Pat on the back.”
From the Trenches

- History
- Feedback
The National Quality Forum (NQF) has named Baylor Health Care System recipient of the 2008 NQF National Quality Healthcare Award. The award recognizes exemplary health care organizations that are role models for achieving meaningful, sustainable quality improvement in health care.

“NQF’s panel of judges was deeply impressed by Baylor Health Care System’s focus on quality measurement and improvement and their commitment to building a culture of transparency,” said National Quality Forum President and CEO Janet Corrigan. “In a strong pool of applicants, Baylor stood out as an exemplary model for raising the bar of health system performance to achieve higher levels of quality, safety and efficiency for the patients they serve.”
Baylor Health Care System

recently was named the inaugural recipient of the

Leapfrog Patient-Centered Care Award.

The award is given to a hospital or health system whose board has most successfully driven the creation of a true partnership between patients and their caregivers.

Baylor is being recognized for excellence in such areas as: how informed the board is on quality, safety and patient experience within the organization; how well integrated are patient advocates into the organization at every level; and for having a policy in place for disclosing medical errors to patients and/or their families.
Approved FY 2008
BHCS System P4P Goals
Nominating and Governance Committee approved a more “simple” and straightforward PAP program for 2008:

- Elimination of funding goals
- Added a “People” measure
- Weighting priority changed for FY2008
  - Financial = 25%
  - Quality = 30%
  - Patient Satisfaction = 35%
  - People = 10%
- Increase the maximum performance measurement range to 150% to continue rewarding above target performance (has been 125%)
### FY2008 Financial Goal—Net Operating Margin @ 25% Total Weight

<table>
<thead>
<tr>
<th>Improvement in Net Operating Margin Percentage</th>
<th>Award Percentage</th>
<th>Recommended FY2008 Performance Requirements</th>
<th>Percentage Increase Over FY2008 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threshold (budget)</td>
<td>25%</td>
<td>3.5%</td>
<td>-</td>
</tr>
<tr>
<td>Intermediate Target</td>
<td>50%</td>
<td>3.8%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Target</td>
<td>100%</td>
<td>4.0%</td>
<td>14.3%</td>
</tr>
<tr>
<td>Maximum</td>
<td>150%</td>
<td>5.0%</td>
<td>41.7%</td>
</tr>
</tbody>
</table>

Current BHCS actual performance through June 2007 = 5.6%.
### FY2008 PAP Quality Index Goals—SCIP @ 15% (1/2 of Quality)

<table>
<thead>
<tr>
<th>15% Weighting for SCIP</th>
<th>Award Percentage</th>
<th>Recommended FY2008 SCIP Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Scores</td>
</tr>
<tr>
<td>Threshold</td>
<td>25%</td>
<td>77.7%</td>
</tr>
<tr>
<td>Intermediate Target</td>
<td>50%</td>
<td>80.2%</td>
</tr>
<tr>
<td>Target</td>
<td>100%</td>
<td>82.8%</td>
</tr>
<tr>
<td>Maximum</td>
<td>150%</td>
<td>87.9%</td>
</tr>
</tbody>
</table>

SCIP – 9 measures for Perfect Care:
1. Discontinuation of Antibiotic at 24 hours for most surgeries; CABG at 48 hours
2. Antibiotic started within 1 hour of incision
3. Appropriate antibiotic administered
4. Glucose (CABG)
5. Appropriate hair removal
6. Beta Blocker pre-op and post-op (CABG)
7. VTE (venous thromboembolism prophylaxis)
8. VTE given within 24 hrs. pre/post surgery
9. Post Op Normothermia (colon)

SCIP performance as of June 21, 2007 = 75.1% with a 65th percentile ranking
FY2008 PAP Quality Index—Mortality Reduction @ 15%  
(1/2 of Quality)

<table>
<thead>
<tr>
<th>15% Weighting for Mortality</th>
<th>FY 2008 Index</th>
<th>Mortality Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Percentage</td>
<td>Percentage Reduction BHCS</td>
<td></td>
</tr>
<tr>
<td>Threshold</td>
<td>25%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Intermediate Target</td>
<td>50%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Target</td>
<td>100%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Maximum</td>
<td>150%</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

To achieve this BHCS level performance, each acute care hospital will have quite different improvement goals, based upon its performance during this past year.

The above goals are to be achieved above FY 2007 year performance.
## Approved FY 2008 PAP Goals

### FY2008 Patient Satisfaction Goals and Performance @ 35% Total Weight

<table>
<thead>
<tr>
<th></th>
<th>FY 2008 Goal</th>
<th>Inpatient</th>
<th>Outpatient</th>
<th>Emergency Department</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Percentile Ranking</td>
<td>Percentile Ranking</td>
<td>Percentile Ranking</td>
</tr>
<tr>
<td><strong>Threshold</strong></td>
<td></td>
<td>76th percentile (Mean score = 89.9)</td>
<td>50th percentile (Mean score = 93.1)</td>
<td>50th percentile (Mean score = 81.0)</td>
</tr>
<tr>
<td>Award Percentage</td>
<td>25%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Intermediate Target</strong></td>
<td></td>
<td>80th percentile (Mean score = 90.3)</td>
<td>52nd percentile (Mean score = 93.2)</td>
<td>52nd percentile (Mean score = 81.4)</td>
</tr>
<tr>
<td>Award Percentage</td>
<td>50%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td></td>
<td>82nd percentile (Mean score = 90.6)</td>
<td>54th percentile (Mean score = 93.3)</td>
<td>54th percentile (Mean score = 81.8)</td>
</tr>
<tr>
<td>Award Percentage</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td></td>
<td>87th percentile (Mean score = 91.3)</td>
<td>56th percentile (Mean score = 93.4)</td>
<td>56th percentile (Mean score = 82.1)</td>
</tr>
<tr>
<td>Award Percentage</td>
<td>150%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The mean score is relative to the Press Ganey benchmark for Jan – Mar 2007

* The goal is expressed as a YTD average (or Keep Average in LEM)

Current performance as of July 22 = Inpatient 77th percentile, Outpatient 43rd percentile, and Emergency Dept. 42nd percentile.
## FY2008 PAP People Goals—First Year Retention @ 5% (1/2 of People)

<table>
<thead>
<tr>
<th>5% Weighting</th>
<th>FY 2008 Performance</th>
<th>First Year Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Award Percentage</td>
<td>Percentage Retention BHCS</td>
</tr>
<tr>
<td>Threshold</td>
<td>25%</td>
<td>79%</td>
</tr>
<tr>
<td>Intermediate Target</td>
<td>50%</td>
<td>81%</td>
</tr>
<tr>
<td>Target</td>
<td>100%</td>
<td>83%</td>
</tr>
<tr>
<td>Maximum</td>
<td>150%</td>
<td>85%</td>
</tr>
</tbody>
</table>

Current First Year Retention = 77%
## FY2008 PAP People Goals—Total People Retention @ 5% (1/2 of People)

<table>
<thead>
<tr>
<th>Award Percentage</th>
<th>FY 2008 Performance</th>
<th>Total BHCS Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threshold</td>
<td>25%</td>
<td>87.0%</td>
</tr>
<tr>
<td>Intermediate Target</td>
<td>50%</td>
<td>87.4%</td>
</tr>
<tr>
<td>Target</td>
<td>100%</td>
<td>87.7%</td>
</tr>
<tr>
<td>Maximum</td>
<td>150%</td>
<td>88.0%</td>
</tr>
</tbody>
</table>

Current total retention rate = 86.7%
Questions?