

Value-based Purchasing Legislation, Methodology, and Challenges

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Agenda

- Background
- HQID: Lessons learned
- The current plan for implementing VBP
- Legislative agenda

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A Brief Timeline

1998

2004

2012/13



1997: TJC Oryx Initiative (Non-Core)
2002: TJC Oryx Core Measures / public reporting
2004: NHQM reporting for Medicare APU
2012/13: P4P for part of all MS-DRG Medicare payments



Pay For Reporting

- At stake: 2% of annual payment update
- Hospitals must report
 - 30 clinical measures
 - AMI, HF, PN, Surgical infection prevention, 30-day post-d/c mortality
 - HCAHPS – patient satisfaction



Hospital Quality Incentive Demonstration Project (HQID)

- First major P4P pilot project for hospitals
- Pilot underway while P4-reporting in place
- Underscores methodological challenges of P4P schemes
- Explains the design of the proposed model for nationwide implementation



HQID - Overview

- Three-year project with three-year extension
- 272 participating hospitals
- Covered five clinical domains
 - AMI, CABG, HF, PN, Knees & Hips
 - Outcome and process measures
- Results for the top 50% of hospitals for each condition published on CMS website
- Provided additional funds on top of IPPS



HQID: Use of CMS Composite Score

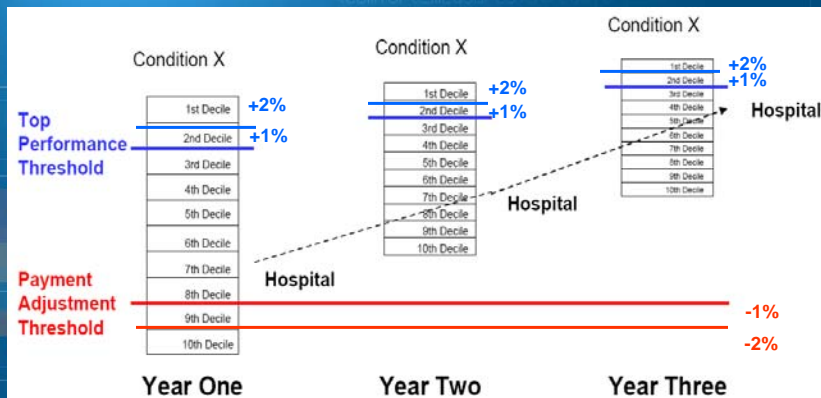
- Sums numerators and denominators across measures to create composite score
- Awards points based on composite score
- No differentiation between “topped-out” and “non-topped-out measures”
- Bonuses awarded to hospitals in top two deciles of performance
- *Reductions* for hospitals in bottom two deciles

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Payment



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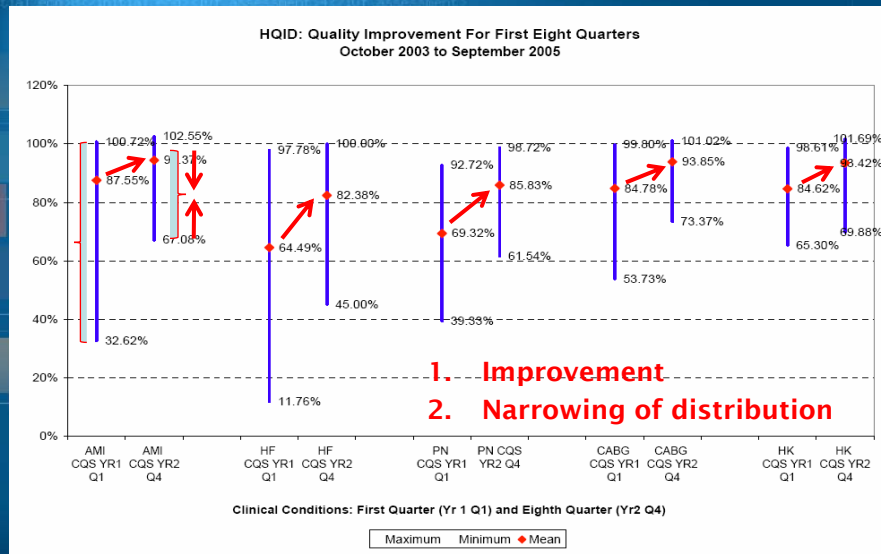


Payment Summary

- DRG specific
- Always rewards top 20% of hospitals
- Gives bottom 20% hospitals a reasonable chance to improve—only deducts payment in Year 3
- Provided additional funds (*not* budget neutral)
- Names top 50% of hospitals



What the Data Showed



Challenges and Methodological Flaws

- Assessing performance on composite score rather than on individual measures
- Combining process and outcome measures in same composite score problematic
- No differentiation between topped-out and non-topped-out measures
- Distributions narrow over time—difficult to differentiate between high performers



Challenges and Methodological Flaws

- Scoring does not take improvement over past performance into consideration
- Hospitals do not know in advance at what performance levels they will score



CMS Approach to Value-Based Purchasing

U.S. Department of Health and Human Services

REPORT TO CONGRESS: Plan to Implement a Medicare Hospital Value-Based Purchasing Program

November 21, 2007



Measures Proposed for VBP

Clinical Quality – Process-of-Care Measures		Initial Hospital Compare Inclusion
Acute Myocardial Infarction (AMI)		
AMI-1	Aspirin at arrival*	4/2005
AMI-2	Aspirin prescribed at discharge*	4/2005
AMI-3	ACE inhibitor (ACE-I) or Angiotensin receptor blocker (ARBs) for left ventricular systolic dysfunction*	4/2005
AMI-4	Adult smoking cessation advice/counseling*	4/2005
AMI-5	Beta blocker prescribed at discharge*	4/2005
AMI-7a	Fibrinolytic (thrombolytic) agent received within 30 minutes of hospital arrival	4/2005
AMI-8a	Primary percutaneous coronary intervention (PCI) received within 120 minutes of hospital arrival	4/2005
Heart Failure (HF)		
HF-1	Discharge instructions	4/2005
HF-3	ACE inhibitor (ACE-I) or Angiotensin receptor blocker (ARBs) for left ventricular systolic dysfunction	4/2005
HF-4	Adult smoking cessation advice/counseling*	4/2005
Pneumonia (PN)		
PN-2	Pneumococcal vaccination status	4/2005

Measures Proposed for VBP

Pneumonia (PN)		
PN-2	Pneumococcal vaccination status	4/2005
PN-3b	Blood culture performed before first antibiotic received in hospital	4/2005
PN-4	Adult smoking cessation advice/counseling	4/2005
PN-6	Appropriate antibiotic selection	9/2005
PN-7	Influenza vaccination status	1/2006
Surgical Care Improvement / Surgical Infection Prevention (SCIP/SIP)		
SCIP-Inf-1	Prophylactic antibiotic received within 1 hour prior to surgical incision	9/2005
SCIP-Inf-3	Prophylactic antibiotics discontinued within 24 hours after surgery end time	9/2005
Clinical Quality – Outcome Measures		
	30-day AMI mortality	6/2007
	30-day HF mortality	6/2007
Patient-Centered Care Measures		
	HCAHPS	3/2008

Measures Proposed for VBP

- Process and satisfaction measures
- Predominantly evidenced-based
- Address a subset of clinical conditions, although payment affects overall update
- Many already topped-out
- Data are audited

Proposed VBP Scoring Approach

- At individual measure level
- Summarized in two composite scores:
 - First for 17 clinical measures
 - Second for 8 satisfaction dimensions



VBP Scoring Methodology

- Hospital receives 0 to 10 points per measure based on either
 - Attainment: Points given for scores above the attainment threshold—the higher the score, the greater the number of points, up to a maximum of 10 points, or
 - Improvement: Points awarded for score in performance year (year 2), which is greater than the hospital's score in the baseline year (year 1)
- For each measure the higher of earned attainment points or improvement points is awarded to hospital.



Key Terms for Awarding Points

- Benchmark: 95th percentile in the prior year - a “realistic standard of excellence”
- Threshold for Attainment: value for which points begin to be rewarded
 - Based on the distribution from the prior year
 - 0th, 50th (median), or 75th percentile from prior year



Key Concepts for Awarding Points

- A higher threshold for attainment means fewer attainment points awarded. To a large extent, this is compensated by more improvement points being awarded.
- “Topped out” measures use different criteria to determine threshold and benchmark values



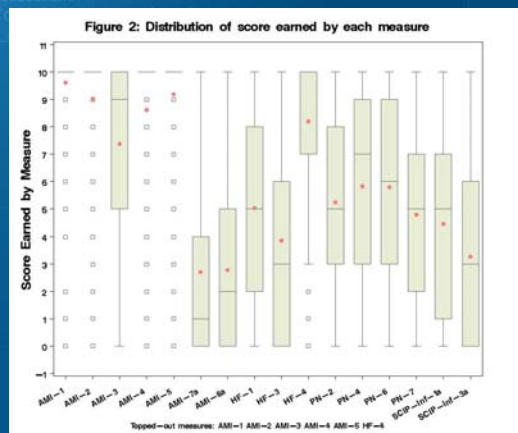
Statistical Properties Distinguish Two Types of Measures

- Non-topped out measures
 - Wide distribution of performance
 - Easy to differentiate between high and low performers
 - Example: Pneumonia vaccination
- Topped-out measures
 - Most hospitals have almost perfect performance
 - Difficult to differentiate between high performers
 - Some hospitals, however, still have an opportunity to improve on these measures
 - Example: Aspirin on Arrival



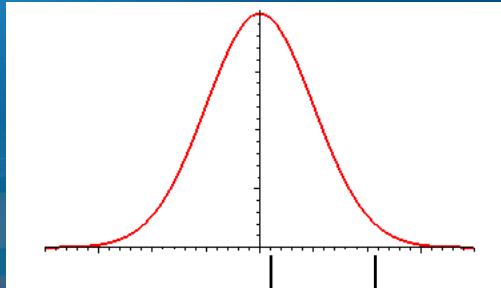
Topped Out Measures

- Measures where the 75th percentile is the same* as the 90th percentile



Scoring on Attainment

Baseline (e.g., 2008)



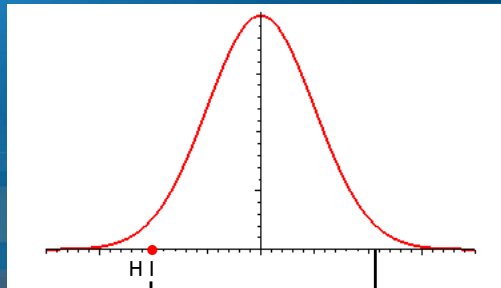
Performance (e.g., 2009)

1.....10 points



Scoring on Improvement

Baseline (e.g., 2008)



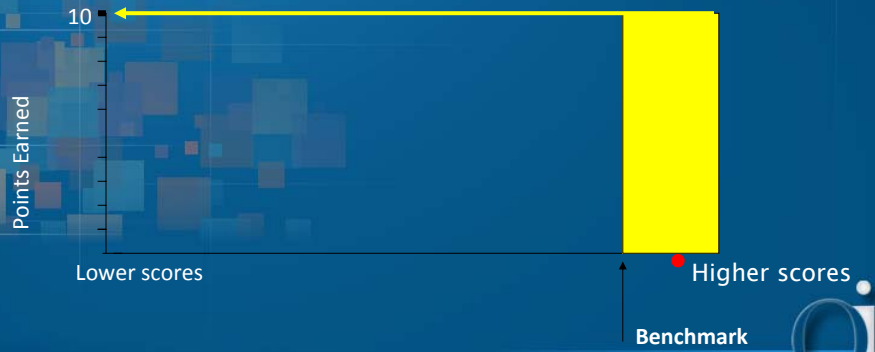
Performance (e.g., 2009)

1.....10 points



Scenario 1 Attainment above Benchmark

- Hospital exceeds benchmark and earns 10 points

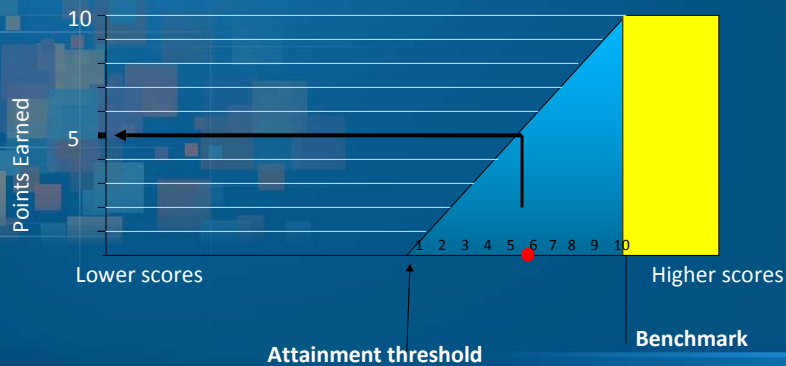


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Scenario 2 Attainment beyond threshold but below benchmark

- Hospital earns 5 points due to attainment

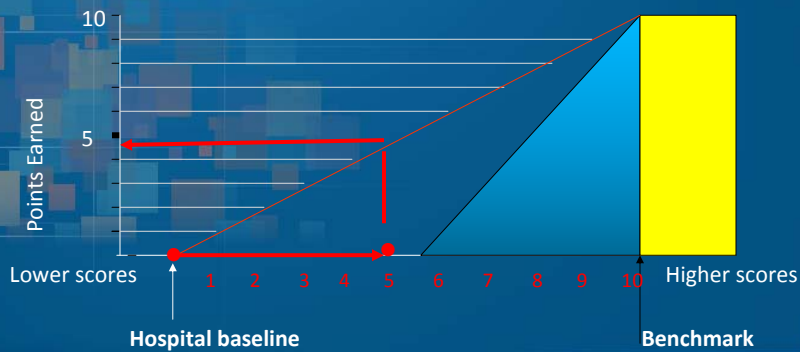


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Scenario 3 Performance below Attainment Threshold

- Hospital earns 5 points due to improvement



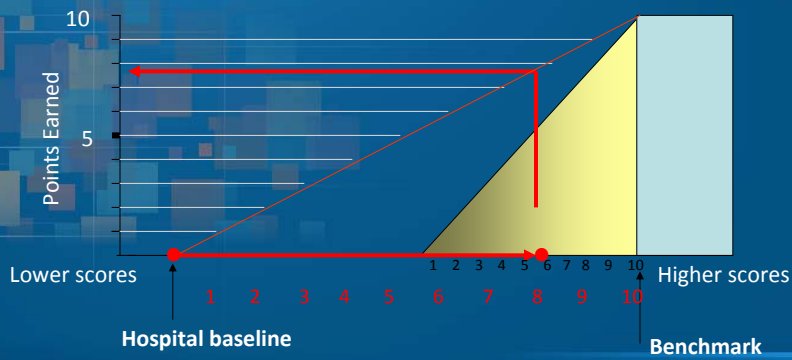
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Scenario 4 The Greater of Attainment or Improvement

- Hospital attains the same level as hospital under scenario 1
- But, hospital earns about 8 points due to improvement



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Attainment Threshold and Benchmark

Measure Designation	Benchmark	Attainment Threshold
Non topped- out	Mean of top decile	50 th percentile
Topped-out	90% performance	60% performance
HCAHPS	95 th percentile	50 th percentile



Calculating the Overall Score

- Any given hospital might report on some or all of the individual measures
- Each hospital has its own maximum potential points (measures reported x 10)
- Overall score for each hospital is the number of earned points as a percentage of its maximum potential points



Patient Satisfaction - HCAHPS Dimensions

- Nurse communication
- Cleanliness and quiet
- Doctor communication
- Responsiveness of hospital staff
- Pain management
- Discharge information
- Communication about medications
- Overall rating of hospital



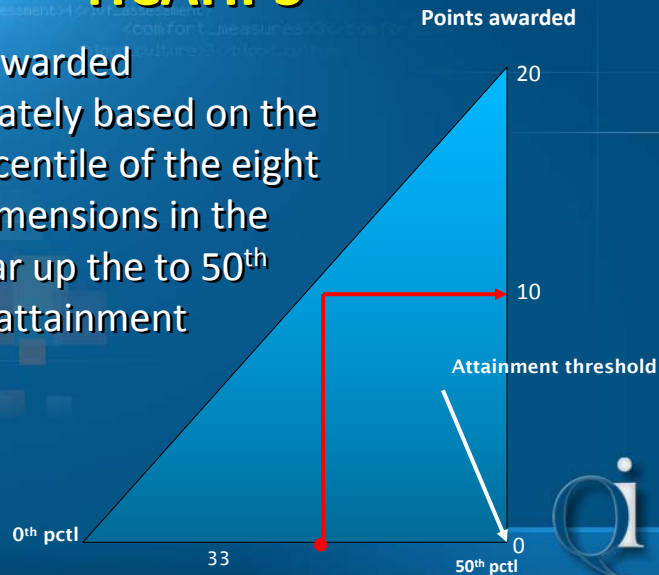
HCAHPS

- Separately scored on attainment and improvement for 8 dimensions, 7 specific areas and overall satisfaction, exactly the way the clinical measures are scored
- Additional 20 points awarded for having all eight dimensions above a minimum threshold



HCAHPS

- 20 points awarded proportionately based on the lowest percentile of the eight HCAHPS dimensions in the current year up to the 50th percentile attainment threshold



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HCAHPS

- Total earned points = Sum of points earned across all dimensions + Minimum performance points earned
- Total earned points (100 max) = Up to 10 for each of 8 dimensions + Up to 20 minimum performance points

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Final Score

- 3 proposed options
 - 60 percent clinical process + 40 percent HCAHPS
 - **70 percent clinical process + 30 percent HCAHPS**
 - 80 percent clinical process + 20 percent HCAHPS

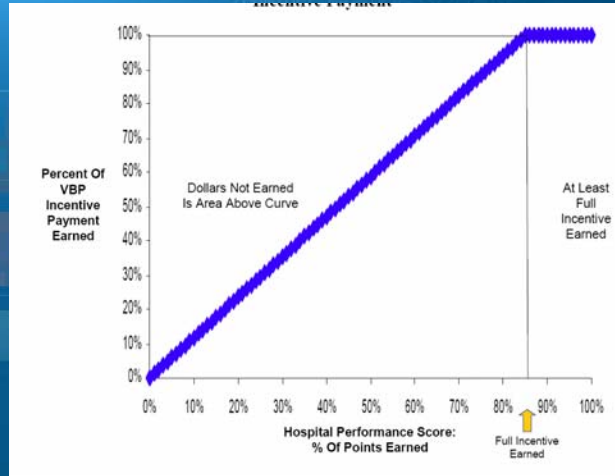


Converting Score into Payment

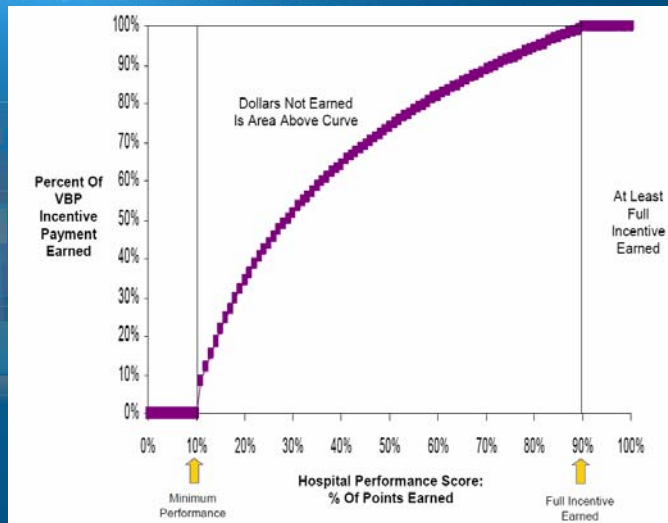
- Not based on DRGs or Procedures for measures – AMI, PN, HF, SCIP
- Percentage of overall baseline DRG payment
- Measures capture limited conditions, but performance affects overall payment



Linear Exchange Model



Non-Linear Exchange Model



Options for Hospitals with Limited Data

- Rolling up data over multiple time periods
- Using a smaller financial incentive for hospitals with small numbers of measures to recognize that the reliability of the performance scores may be compromised
- Averaging performance across groups of similar hospitals – peer groups
- Providing a small number waiver



Methodological Challenges

- Measures capture only limited patient population but payment based on percentage of overall update
- Need for rapid expansion of measures to cover broader patient base



**SENATE FINANCE COMMITTEE
DELIVERY SYSTEM REFORM POLICY OPTIONS:
AN OVERVIEW OF OPTIONS OF INTEREST TO HOSPITALS**

- Establish a Medicare value-based purchasing program for hospitals and begin to pay hospitals for their actual performance on quality measures beginning in 2013;
- Reduce payments to hospitals with high readmission rates for certain conditions;
- Bundle payments for hospital and post-acute care services within 30 days of hospital discharge;
- Redistribute unused graduate medical education slots to increase access to primary care; and
- Ban physician self-referral to a hospital in which the physician has an ownership interest, subject to certain requirements.



Legislation Proposed by Max Baucus

- Proposed on 9/16/09
- Many elements likely to end up as part of final legislation
- Detailed outline of Pay for Performance program for hospitals



Key Elements

- VBP funding would be generated through reducing Medicare IPPS payments to hospitals
- Reductions (apply to all MS-DRGs under which a hospital provides services) would be used to fund an incentive pool and phased-in as follows:
 - 1.0 percent FY2013
 - 1.25 percent FY2014
 - 1.5 percent FY2015
 - 1.75 percent FY2016
 - 2.0 percent FY2017
- Hospitals would have to earn back the percentages based on their performance



Measures

- VBP measures would initially be selected from the measures currently used for public reporting and the payment update
 - Clinical measures
 - Acute myocardial infarction
 - Heart failure
 - Pneumonia
 - Surgical Infection Prevention
 - Patient satisfaction
 - HCAPHS
- Subsequent expansion of measures – additional clinical area, outcome and efficiency measures



Methodology

- All hospitals would be eligible to score both on maintaining high levels of performance (attainment) and improving performance from the baseline to the assessment year (improvement)



How Will VBP Affect Me?

- Recognize higher visibility/scrutiny of Quality Department (CEO/CFO focus)
- Understand scoring methodology to be able to select measures with greatest opportunity for scoring as focus for improvement
- Prepare for increasing demand for data collection and analysis
- Act as the data analysis champion with your organization



Becoming the Data Analysis Champion

- Become familiar with terminology
- Understand how scores are calculated
- Understand difference between topped out and non-topped out measures and that scoring will vary for both
- Learn how the exchange function will affect reimbursement



Additional Information

- Qi Project Whitepaper, Moving the Needle under CMS' Value-based Purchasing Initiative
 - http://data.qiproject.org/datacenter/download/QI%20Project%20Exec%20Brief%201_VBP.pdf
- CMS REPORT TO CONGRESS: Plan to Implement a Medicare Hospital Value-Based Purchasing Program
 - <http://www.cms.hhs.gov/AcuteInpatientPPS/downloads/HospitalVBPPlanRTCFINALSUBMITTED2007.pdf>
- CMS Hospital Center: Value-based Purchasing
 - <http://www.cms.hhs.gov/center/hospital.asp>



