



Blue Cross Blue Shield of Michigan

2012 Hospital Pay-for-Performance Program

Peer Groups 1 – 4

November 2011



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Program Overview

The Blue Cross Blue Shield of Michigan Hospital Pay-for-Performance Program recognizes short-term acute care hospitals in peer groups 1 through 4 for achievements and improvements in quality and efficiency. In 2012 the program will pay hospitals, in aggregate, an additional 5 percent of statewide inpatient and outpatient operating payments - more than \$190 million statewide.

Sixty percent of each hospital's P4P score is based on quality, including participation in selected collaborative quality initiatives. The remaining forty percent is based on efficiency. Hospitals must also meet a patient-safety prequalifying condition to be eligible to participate in the program. The following table summarizes the program structure and weights.

2012 Program Components and Weights	
Prequalifying condition	0%
Quality: 60%	
• Quality indicators	20.0% - 52.0%
• Collaborative quality initiatives	8.0% - 40.0%
Efficiency: 40%	
• Cost-per-case	
– Comparison to statewide mean	25.0%
– Comparison to inflation index	15.0%

The P4P program structure and measures are developed with input from hospitals via a P4P Hospital Workgroup. Hospital performance on most program measures is evaluated on a calendar-year basis. The P4P rate a hospital earns, based on its 2012 performance, will be applied to its inpatient and outpatient operating payments effective July 1, 2013.

P4P Payment Methodology

In 2011 BCBSM changed its methodology for determining total P4P payout. As a result, hospital P4P rates increased for all hospitals.

Previously, the amount each hospital earned was determined by simply multiplying its individual P4P score by 5 percent. No further adjustments were made. The average P4P score was 85 percent and the majority of hospitals earned a P4P payment rate between 4 and 5 percent. As a result, BCBSM did not pay out a full 5 percent statewide.

The new payment methodology ensures the statewide *aggregate* P4P payout is equal to the full 5 percent value of the program. To achieve this amount, a uniform statewide multiplier is calculated each year. This multiplier is applied to each hospital's individual P4P score so that, in aggregate, statewide P4P payments are equal to 5 percent. Although some hospitals will continue to earn a P4P rate less than 5 percent, some high-performing hospitals will earn P4P rates greater than 5 percent.¹

What's New in 2012?

The following changes were made to the program measures effective January 1, 2012:

- The introduction of a measure for readmissions into the quality indicator component
- Elimination of the quality indicator for central-line associated blood stream infection
- Elimination of the acute myocardial infarction perfect care measure
- Elimination of the measure for pneumococcal vaccine
- Elimination of the original surgical care infection prevention indicator
- Re-categorization of indicators from the "test" category to the "active" category

These changes are described in detail in the applicable sections of this document.

¹ If a hospital's reimbursement arrangement does not comply with the formula established within the BCBSM Participating Hospital Agreement its payout is limited to 4 percent of its inpatient operating payment only. It is also not eligible for the statewide multiplier.

Prequalifying Condition

To be eligible to participate in the P4P program in 2012, hospitals must first demonstrate an active commitment to patient safety. To meet this condition, hospitals must fully comply with the following three requirements:

1. Conduct regular patient safety walk-rounds with hospital leadership.
2. Assess and improve patient safety performance by fully meeting *one* of the following options:
 - Complete and submit the National Quality Forum Safe Practices section of the Leapfrog Hospital Survey at least once every 18 months.
 - Complete the Joint Commission Periodic Performance Review of National Patient Safety Goals at least once every 18 months.
 - Review compliance with the Agency for Healthcare Research Patient Safety indicators at least once every 18 months.
 - Participate in a federally-qualified patient safety organization.
3. Ensure results of the patient safety assessment and improvement activities are shared with the hospital's governing body and incorporated into a board-approved, multidisciplinary patient safety plan that is regularly reviewed and updated.

Hospital compliance with this prequalifying condition is determined via CEO attestation.

Sixty percent of each hospital's total P4P score is based on quality. This includes:

1. Participation and performance in selected hospital-based collaborative quality initiatives
2. Performance on specific clinical quality indicators

1. Collaborative Quality Initiatives

8% to 40%

In 2012 each CQI is weighted at 4 percent. The total weight of the CQI component for an individual hospital is determined by the number of CQIs in which it is eligible to participate, up to a maximum of 10. For example, if a hospital is eligible for three CQIs, its total weight for this component is 12 percent (3 CQIs x 4% = 12%).

A list of the CQIs scored under the P4P is provided in Appendix A. To find out whether your hospital is eligible for a specific CQI and its potential impact on your P4P score, please contact the BCBSM CQI program administrator, Rozanne Darland at rdarland@bcbsm.com or 313-448-5573. Recruitment efforts are made annually to enroll eligible hospitals into the CQI programs.

CQI Performance Index

A hospital's P4P score for each CQI is determined by its performance on specific measures related to that CQI. These measures are referred to as the hospital's CQI performance index.

The measures in each CQI performance index are developed by the corresponding CQI coordinating center. Some measures are related to the quality of participation, such as meeting attendance and the accuracy and timeliness of the data a hospital submits. Some CQIs also have measures related to quality improvement and outcomes, such as composite morbidity or reductions in surgical complications.

The measures in each CQI index may change each year. Over time, the relative weight given to quality improvement and outcome measures (versus participation measures) will increase. The most recent performance index for each CQI is available from the corresponding CQI coordinating center. They are also available on our website:

http://www.bcbsm.com/provider/value_partnerships/hpp/

Hospital scores on each CQI performance index is determined by the coordinating center. If a hospital participates in multiple CQIs BCBSM will combine its scores for each CQI into one overall score. An example of how the combined score is calculated is provided in Appendix B.

The measures within each index apply to a hospital only if it is eligible to participate in the corresponding CQI. The weights and measures may be adjusted for newly participating hospitals.

Specific questions on the index measures should be directed to the applicable coordinating center.

CQI Scoring Maximum

The maximum number of CQIs scored within the P4P is 10 per hospital.

Several of the CQIs listed in Appendix A are designated as “required” for P4P scoring purposes. This means if a hospital is eligible to participate in one of these CQIs, but chooses *not* to participate, its index score will be zero for that CQI.

Four new CQIs are designated as “non-required.” This means a hospital may choose not to participate and no index score will be calculated. Therefore, there will be no negative impact on its P4P score.

If a hospital participates in more than 10 CQIs, its overall CQI score will be based on its ten highest individual CQI index scores.

Alternative CQIs

A hospital eligible for 10 or more CQIs (the index maximum) may petition BCBSM to substitute up to two “alternative CQIs” into the index for P4P scoring purposes. An alternative CQI is a hospital-developed initiative that is not sponsored by BCBSM but meets minimum criteria for scientific rigor, potential to improve quality, and applicability to other hospitals. Appendix C outlines the criteria an initiative must meet and the application process to request BCBSM’s recognition as an alternative CQI.

Alternative CQIs will not be recognized by the P4P if a hospital is eligible for fewer than 10 BCBSM-sponsored CQIs. For example, if a hospital is eligible for eight BCBSM-sponsored CQIs it may not substitute one or more of those eight CQIs with an alternative hospital-developed CQI.

CQI Participation Payments

Eligible hospitals participating in BCBSM-sponsored CQIs receive an additional annual payment, *outside of the P4P*, for a portion of the costs they incur to participate. These

additional payments are designed to minimize potential cost barriers to participation. The payments are based on the costs of abstracting medical record data for BCBSM, Medicare, Medicaid and uninsured cases. This equates to approximately 80 percent of the total data abstraction costs of each CQI. In addition, payments for some CQIs may include a portion of the contracting fees or professional association fees a hospital incurs to participate in national data registries. The participation costs for each CQI are calculated by its respective coordinating center.

In return for these additional payments, hospitals are expected to maintain compliance with all participation expectations agreed to upon joining the initiative. A hospital's compliance status with the expectations of each CQI is determined by the respective coordinating center.

Some hospitals are eligible for a payment of \$20,000 for their participation in selected MHA Keystone collaboratives. In 2012, a hospital is eligible for this payment if it meets all three of the following conditions:

- The hospital actively participates in the MHA Keystone: Hospital Associated Infection collaborative.
- The hospital actively participates in the MHA Keystone: Surgery collaborative.
- The hospital is not eligible to participate in the BCBSM-sponsored Michigan Surgery Quality Collaborative.

Active participation in the two MHA Keystone collaboratives is determined by the MHA Keystone Center.

Hospitals will receive their 2012 CQI participation payment as a lump-sum add-on to their BCBSM bi-weekly interim payment during the first quarter of 2012. If a hospital is not on the BIP system it will be issued a check for the total amount. Hospital CEOs, CFOs and other stakeholders will be notified via email when the payment is issued.

2. Quality Indicators

20% to 52%

The combined program weight of the CQI component and the quality indicator component is 60 percent. As described previously, the weight of a hospital's CQI component is determined by the number of initiatives in which it is eligible to participate. Therefore, the weight of each hospital's quality indicator component is determined by subtracting the weight of its CQI component from 60 percent, as follows:

Relationship of CQI and Quality Indicator Weights		
CQI Weight	Quality Indicator Weight	Total Quality Weight
8%	52%	60%
12%	48%	60%
16%	44%	60%
20%	40%	60%
24%	36%	60%
28%	32%	60%
32%	28%	60%
36%	24%	60%
40%	20%	60%

2012 Quality Indicators

For the 2012 program year hospitals are scored on the following quality indicators:

Readmissions – This is a new measure in 2012 (see description on Page 11).

Acute myocardial infarction—percutaneous coronary intervention

- AMI-8a: Timing of the procedure (percent of patients receiving the procedure within 90 minutes)

Pneumonia

- PN-6b: Initial antibiotic selection (for non-ICU patients) consistent with current recommendations

List of 2012 quality indicators continued on next page

Surgical care infection prevention

There are four SCIP indicators, one for each of the following surgery types:

1. CABG and cardiovascular
2. Hip and knee
3. Colon
4. Hysterectomy.

Each of the four SCIP indicators is scored on a perfect-care basis. This methodology requires a hospital meet the requirements for *all* of the following measures for each patient. If one or more of the measures is not met and the measure is not contraindicated, the hospital will not receive credit for that patient.

- SCIP-Card-2: Surgery patients on beta-blocker therapy prior to arrival who received a beta blocker during the preoperative period
- SCIP-VTE-1: Surgery patients with recommended venous thromboembolism prophylaxis ordered
- SCIP-VTE-2: Surgery patients who received appropriate VTE prophylaxis within 24 hours prior to surgery and 24 hours after surgery
- SCIP-INF-1a: Prophylactic antibiotic received within one hour prior to surgical incision
- SCIP-INF-3a: Prophylactic antibiotics discontinued within the appropriate time after surgery

Elective induction of delivery between 37 and 39 weeks

This was a new measure in 2011. Specific requirements for this measure, including sampling criteria and other criteria specifications, can be found on the Joint Commission's website:

<http://manual.jointcommission.org/releases/TJC2012A/MIF0166.html>

New Readmission Indicator in 2012

In 2012 a new readmission indicator is introduced. In the first year the focus of the indicator is on information sharing. Hospitals will earn credit for completing a survey on the following processes, which were identified by a hospital committee specifically formed to provide input to BCBSM on readmissions:

- Does the hospital complete a risk assessment for logistical and psychosocial issues for post-hospital needs? This includes an evaluation for substance abuse, neglect, cognitive status, support circle, home environment, and transportation arrangements.
- Does the hospital perform an assessment and analysis of why patients believe they are readmitted? If so, how is the information used to create hospital specific improvements?
- What is the hospital's process for the transfer of care and communication to the next caregiver? Does the communication include the principle diagnosis, contact information, patient's cognitive status and existing or pending test results?
- Does the hospital conduct medication reconciliation for the next caregiver as part of the patient discharge plan?
- Does the hospital, prior to discharge, establish a follow-up visit with the patient's primary care physician? If the patient does not have a primary care physician does the hospital help the patient establish such a relationship?
- Does the hospital have a process to obtain confirmation from the primary care physician that relevant discharge information has been received?
- Does the hospital conduct a last check of vital signs prior to actual discharge? This includes weight checks for heart failure patients and pulse oximetry check for pneumonia patients.

The survey will also ask hospitals whether they have in place one or more of the three initiatives listed below. These less common initiatives may be eligible for specific P4P recognition in a subsequent program year:

- Does the hospital conduct post-discharge medication reviews for patients with 8 or more medications?
- Does the hospital provide or arrange home health care services, free of charge, to high-risk BCBSM members who do not have home health care coverage?
- Does the hospital provide high-risk patients with a 30 day supply of medications upon discharge?

The survey will ask hospitals whether or not they have these specific processes or initiatives in place, in what units and for what patients, and other relevant details.

Hospitals will also be asked to share blinded examples of any applicable tools they use, such as discharge surveys or other documentation.

BCBSM expects to distribute the survey to hospitals during the first quarter of 2012 with responses due in April. Hospitals who complete the survey will earn full credit for this measure.

BCBSM will reciprocate the information sharing process by giving hospitals comprehensive baseline readmission rates based on its claims data. This baseline data is intended to help hospitals prepare for the implementation of a rate-based measure in 2013 (see next section).

Readmissions in 2013

It is BCBSM's intent to implement a measure based on readmission rates beginning January 2013. The specifics of this rate-based measure are not yet determined and will be developed with input from hospitals. As stated above, BCBSM may also implement a measure to recognize hospitals that have in place one or more of the three initiatives identified above.

For additional information on the readmission survey, please contact Laurie McIntee, LMcintee@bcbsm.com, 313-448-8092.

Quality Indicators Eliminated in 2012

Three quality indicators were eliminated in 2012:

1. The perfect care indicator for AMI, which includes AMI-1, AMI-2, AMI-3 and AMI-5. This indicator is eliminated because statewide performance has been very high over several years and there is little opportunity for continued improvement. In addition, CMS no longer requires hospitals to report on these measures.
2. The measure for pneumococcal vaccine screening or administration (PN-2). This measure is eliminated because it has been redefined by CMS and is no longer focused specifically on pneumonia patients.
3. The original surgical infection prevention indicator, which included SCIP-INF 1a and 3a. This measure is being replaced by the more comprehensive indicator listed above for all selected surgery types.
4. The indicator for central-line associated blood stream infection rates. This indicator is eliminated because statewide performance has been very high over several years and there is little opportunity for continued improvement.

Indicator Categories and Weights

In 2011 BCBSM introduced a weighting system that classifies quality indicators into the following three categories:

- Test indicators: These are new indicators with insufficient performance data to establish a scoring threshold. Hospitals are typically given full credit for reporting on these indicators so appropriate performance thresholds can be established in a subsequent measurement year.
- Active indicators: These are established indicators with continued potential for improvement.
- Sustained indicators: These are seasoned indicators with limited potential for continued improvement. Indicators in this category are likely to be eliminated in the near future.

In 2012 there are no indicators in the “test” or “sustained” categories. Therefore, all remaining quality indicators will be categorized as “active” and weighted equally. This includes the readmission survey measure, described above.

Performance Score Thresholds

Performance thresholds for all indicators will be established and communicated to hospitals during the first quarter of 2012. Thresholds are determined for each program year by the P4P Hospital Scoring group, which includes representatives from hospitals, the Michigan Health and Hospital Association and BCBSM. Thresholds are expected to increase each year. The amount of the increase is based largely on the prior year’s statewide median performance. Minimum performance thresholds do not exceed 95 percent for any given measure.

If a hospital does not provide the services associated with a particular quality indicator or has fewer than 20 cases it will not be scored on that indicator and its weight will be reallocated across the remaining quality indicators. For example, if a hospital does not have enough cases for the SCIP indicator for colon surgery, the weight of this indicator will be reallocated equally across all other indicators.

Forty points of each hospital’s P4P score is determined by efficiency. In 2012 this includes two cost-per-case measures²:

- A comparison of each hospital’s cost-per-case to the statewide mean. This measure is weighted at 25 points.
- A comparison of the change in a hospital’s cost-per-case compared to a target inflation factor. This measure is weighted at 15 points.

1. Cost-per-case Compared to Statewide Mean

25%

The first cost-per-case measure compares each hospital’s standardized inpatient cost-per-case to the statewide mean. The following table shows how many points a hospital will earn on this measure, based on its position relative to the statewide mean:

Hospital standardized inpatient cost-per-case relative to statewide mean	Score	
More than 0.5 standard deviation below	30 points	Total points are subject to an overall scoring maximum (see below)
Within 0.5 standard deviation of statewide mean	25 points	
Between 0.5 and 1.0 standard deviation above	15 points	
More than 1.0 standard deviation above	0 points	

This comparison will be made using the most recently available cost data. A detailed description of the calculations used to determine the statewide mean and standard deviation is provided in Appendix D.

2. Cost-per-case Compared to Inflation

15%

The second cost-per-case measure compares the *change* in each hospital’s cost-per-case to a target inflation amount.

Each hospital’s target inflation amount is calculated using the National Hospital Input Price Index (a description of the NHPI is provided in the box, on the next page).

² Cost-per-case refers to standardized inpatient cost-per-case, which is adjusted for a hospital’s case mix index, GME and capital expense, bad debt, etc.

Specifically, the actual change in a hospital’s cost-per-case is compared to what it would have been if the change were equal to the NHIPI. For example, if the increase in a hospital’s cost-per-case for a given period is \$103 and its targeted increase (based on the NHIPI for the same period) is \$240, the hospital’s increase is 43 percent of its target ($\$103 \div \$240 = 43\%$).

The following table shows how many points a hospital will earn on this measure based on this comparison.

Increase in hospital’s cost-per-case relative to the NHIPI-based target	Score	
Actual ≤ 25% of target	20.0 points	Total cost-per-case points are subject to an overall scoring maximum
Actual more than 25% but ≤ 50% of target	17.5 points	
Actual more than 50% but ≤ 75% of target	15.0 points	
Actual more than 75% but ≤ 100% of target	12.5 points	
Actual more than 100% but ≤ 125% of target	10.0 points	
Actual more than 125% but ≤ 175% of target	7.5 points	
Actual more than 175% of target	0 points	

Appendix D provides a comprehensive example of how this measure will be scored.

The National Hospital Input Price Index

The NHIPI is published each year by *IHS Global Insights*. It measures the inflationary increase in the cost of providing hospital services. *IHS Global Insights* produces the NHIPI on both a prospective and a retrospective basis. The prospective (projected) NHIPI is used to calculate the annual update factor for inpatient services using the formula specified in the Participating Hospital Agreement.

Because the P4P cost-per-case measure is based on past performance, the *retrospective* NHIPI for the payment period in question will be used to determine each hospital’s inflation target, as illustrated in Appendix D. The NHIPI will be taken from the most recently published *IHS Global Insights* report available at the time the calculation is made.

Cost-per-case Scoring Maximum

As the scoring tables in the preceding sections indicate, hospitals have an opportunity to earn more points on each of the cost-per-case measures than the total value of each measure. For example, the first cost-per-case measure is weighted at 25 points, but high performing hospitals can earn up to 30 points on the measure. Similarly, the second cost-per-case measure is weighted at 15 points, but high-performing hospitals can earn up to 20 points on the measure. The ability to earn additional points gives a hospital that does not perform well on one measure an opportunity to improve its overall score by performing well on the other measure. However, the total points a hospital can earn is subject to an overall scoring maximum. Specifically, each hospital's *combined* score on the two cost-per-case measures is capped at 40 points.

Cost-per-case Measurement Period

Beginning in 2012, cost-per-case calculations are made using three years of cost data. Measuring cost-per-case across a three-year period levels out year-to-year variation in performance and better reflects long term trends. However, the calculation is weighted to put more emphasis on recent performance. For the 2012 program year (P4P payout beginning July 2013) the calculation will be made using cost data from 2009, 2010, and 2011, as follows:

- 2009 costs and cases will be weighted at 15 percent
- 2010 costs and cases will be weighted at 35 percent
- 2011 costs and cases will be weighted at 50 percent

The methodology for calculating the multi-year cost-per-case amounts is provided in Appendix D.

Collaborative Quality Initiatives

A hospital is scored on participation and performance in up to 10 CQIs. If a hospital participates in more than 10 CQIs, its overall CQI score will be based on its ten highest individual CQI scores.

Required CQIs

Several CQIs are categorized as “required.” If a hospital is eligible to participate in a required CQI, but chooses not to participate, its index score will be zero for that CQI.

In 2012 the following CQIs are categorized as required:

- Blue Cross Blue Shield of Michigan Cardiac Consortium – Percutaneous Coronary Intervention (BMC2-PCI)
- Blue Cross Blue Shield of Michigan Cardiac Consortium - Vascular Interventions Collaborative (BMC2-VIC)
 - Prior to 2012 this CQI was referred to as Peripheral Vascular Interventions (BMC2-PVI). The name was changed to reflect an optional surgical component of the initiative.
- Michigan Society of Cardiovascular and Thoracic Surgeons Quality Improvement Initiative (MSTCVS)
- Michigan Bariatric Surgery Collaborative (MBSC)
- Michigan Surgery Quality Collaborative (MSQC)
- Michigan Breast Oncology Quality Initiative (MiBOQI)
- Michigan Trauma Quality Improvement Project (MTQIP)
- MHA Keystone: Hospital Associated Infections (HAI)
- MHA Keystone: Surgery Initiative³

Continued on Next Page

³ Only hospitals not eligible to participate in MSQC will be recognized for their participation in the MHA Keystone: Surgery initiative

Non-required CQIs

In 2012 the following four CQIs are categorized as “non-required.” These are newly implemented CQIs and currently have a limited capacity for new participants. Therefore, an eligible hospital will *not* forfeit any P4P points if it chooses not to participate.

- Hospital Medicine Safety (HMS)
- Perioperative Interventions (MSQC-POI)
- Michigan Arthroplasty Registry Collaborative for Quality Improvement (MARCQI)
- Michigan Radiation Oncology Quality Consortium (MROQC)

For more information on a specific CQI or your hospital’s eligibility to participate, please contact the BCBSM CQI program administrator, Rozanne Darland, at rdarland@bcbsm.com or 313-448-5573.

CQI Scoring Process

The tables in this appendix list the measures used to score hospital performance on each CQI. The measures within each index apply to a hospital only if it is eligible to participate in the corresponding CQI. Each CQI index is scored on a 100-point basis.

A hospital participating in multiple CQIs will have its index scores combined into one overall score. For example, assume the following:

- Hospital A participates in three CQIs
- Its total CQI weight is 12 percent (3 CQIs x 4% = 12%)
- Its performance on CQI #1 is 94%
- Its performance on CQI #2 is 90%
- Its performance on CQI #3 is 85%

Hospital A’s overall CQI score is calculated as follows:

	Index Score		Weight		Score
CQI #1	94%	X	4%	=	3.8%
CQI #2	90%	X	4%	=	3.6%
CQI #3	85%	X	4%	=	3.4%
Total CQI Score					10.8%

In this example, Hospital A earned a total CQI score of 10.8 percent out of a possible 12.0 percent.

All index measures and weights are established by the CQI coordinating centers. The weights and measures of a specific CQI index may be adjusted for newly participating hospitals. The coordinating center for each CQI will evaluate hospital performance on the measures and submit each hospital’s score to BCBSM.

The measurement period for each CQI index measure is January through December, unless otherwise noted.

Specific questions on the index measures should be directed to the respective CQI coordinating center.

Alternative CQI Criteria and Application Process

A hospital eligible for 10 or more CQIs may petition BCBSM to substitute up to two “alternative CQIs” into the index for P4P scoring purposes. An initiative must meet the following 10 criteria to be considered for substitution:

Risk Assessment:

1. The initiative should focus on high-volume or high-cost services with clear practice variation.
2. The initiative should have prospectively established and measurable quality improvement goals.

Intervention

3. The initiative should have access to clinical, statistical and analytical expertise.
4. The initiative should have expertise or relevant experience at the coordinating center level in implementing rapid, continuous quality improvement interventions.
5. The initiative should collaborate with clinical champions from participating hospitals to implement continuous learning and improvement by either analyzing the links between processes and outcomes of care to generate new knowledge about what works, or analyzing systematic approaches of applying existing knowledge to determine best practices for QI implementation.

Measurement

6. The initiative should measure quality of care within or across systems to promote assessment and improvement.
7. The initiative should use clinical data registries that do not address the same service as a BCBSM CQI or have clear differentiation from issues being addressed by an existing CQI.
8. The initiative should employ rigorous data collection methods, valid case sampling and systematic processes to ensure completeness and accuracy.

Communication and Dissemination

9. The initiative should be able to demonstrate to consumers and purchasers of care that quality and outcomes are being optimized.
10. The initiative should result in the active dissemination of learning and best practices to Michigan hospitals.

BCBSM will score each application by determining how fully the initiative meets each of the criteria. The following scale will be used:

- Criterion not met: 0 point
- Criterion partially met: 1 point
- Criterion fully met: 2 point

An initiative must obtain a total score of at least 15 points to be recognized by BCBSM as an alternative CQI. In addition, each individual criterion must score at least one point (that is, all the criteria must be at least “partially” met). If any one criterion does not score at least one point, the initiative will not be recognized.

Any application not meeting the scoring criteria outlined above will be further reviewed by a subgroup of the MHA Keystone Center’s Advisory Board. If warranted, adjustments to the score will be made. Final scoring determinations will be made by BCBSM. You will be advised of BCBSM’s determination, including reasons for any non-approvals.

Hospitals interested in submitting an initiative for consideration should contact Ellen Ward, eward@bcbsm.com or (313) 448-5223.

Cost-per-case Calculations

Cost-per-case⁴ Compared to the Statewide Mean (25 points)

One portion of each hospital’s efficiency score is based on the number of standard deviations its cost-per-case is away from the statewide mean. This is also referred to as the hospital’s “standard normal score” and is calculated as follows:

$$\text{Hospital Standard Normal Score} = \frac{\text{hospital cost-per-case} - \text{statewide average (mean) cost-per-case}}{\text{standard deviation of statewide average cost-per-case}}$$

The statewide average (mean) cost-per-case is calculated by totaling each hospital’s cost-per-case and dividing by the number of hospitals participating in the P4P program:

$$\text{Statewide Average (Mean)} = \sum (\text{hospital cost-per-case}) / \text{number of participating hospitals}$$

The standard deviation in the above calculation is defined as the square root of the average squared deviation from the mean, as shown in the following formula:

$$\text{Standard Deviation} = \text{SQRT} \left(\sum (\text{hospital CPC} - \text{statewide average CPC})^2 / \text{number of hospitals} \right)$$

The amount each hospital earns for this measure is shown in the following table:

Hospital standardized inpatient cost-per-case relative to statewide mean (standard normal score)	Score	
More than 0.5 standard deviation below (Standard normal score ≤ -0.5)	30 points	Total points are subject to an overall scoring maximum
Within 0.5 standard deviation of statewide mean (Standard normal score > -0.5 and ≤ 0.5)	25 points	
Between 0.5 and 1.0 standard deviation above (Standard normal score > 0.5 and ≤ 1.0)	15 points	
More than one standard deviation above (Standard normal score > 1.0)	0 points	

⁴ Cost-per-case refers to standardized inpatient cost-per-case, which is adjusted for a hospital’s case mix index, GME and capital expense, bad debt, etc.

Applying this calculation to a single hypothetical hospital, assume the following:

- Hospital A’s cost-per-case = \$8,103
- Overall statewide average cost-per-case is \$7,700
- Standard deviation of the statewide average cost-per-case is \$1,000
- Standard normal score for this hospital is calculated as follows:

$$\text{Hospital A standard normal score} = \frac{(\$8,103 - \$7,700)}{\$1,000} = 0.403$$

Hospital A’s standard normal score is between -0.5 and 0.5. Therefore, Hospital A earns 25 points for this measure.

Cost-per-case Compared to a Statewide Inflation Factor (15 points)

The remainder of each hospital’s efficiency score is based on a comparison of the change in its cost-per-case to a target inflation amount, which is calculated using the National Hospital Input Price Index. For example:⁵

- Hospital A’s cost-per-case at the beginning of the measurement period is \$8,000
- The reported NHIPI for the same period is 3.0%
- Hospital A’s target cost-per-case increase is calculated as follows:

$$\$8,000 \times 0.03 = \$240$$

This target increase is compared to its actual increase, as follows:

- Hospital A’s actual cost-per-case at the end of the measurement period is \$8,103. Therefore, its actual cost-per-case increase is:

$$\$8103 - \$8000 = \$103$$

- Hospital A’s actual cost-per-case increase is divided by its target cost-per-case increase:

$$\$103 \div \$240 = 43\%$$

The following table shows the score a hospital will earn based on this comparison.

⁵ For simplicity this example uses a measurement period of only one year. However, the cost-per-case measurement period is based on a three-year measurement period in 2012, as described in a subsequent section of this appendix.

Increase in hospital’s cost-per-case relative to the NHIPI-based target	Score	
Actual ≤ 25% of target	20.0 points	Total cost-per-case points are subject to an overall scoring maximum
Actual more than 25% but ≤ 50% of target	17.5 points	
Actual more than 50% but ≤ 75% of target	15.0 points	
Actual more than 75% but ≤ 100% of target	12.5 points	
Actual more than 100% but ≤ 125% of target	10.0 points	
Actual more than 125% but ≤ 175% of target	7.5 points	
Actual more than 175% of target	0 points	

The increase in Hospital A’s cost-per-case is between 25 percent and 50 percent of its target amount. Therefore, Hospital A earns 17.5 points on this measure.

Cost-per-case Expanded Measurement Period

In 2012, the standardized inpatient cost-per-case is calculated using on a three-year rolling average. This longer measurement period is designed to minimize the effect of short-term variations on hospital cost-per-case scores. At the same time, the average is weighted to more heavily emphasize recent performance, as follows:

- For the 2012 program year (payout July 2013) the calculation will be made using data from 2009, 2010, and 2011.
 - 2009 costs and cases will be weighted at 15 percent
 - 2010 costs and cases will be weighted at 35 percent
 - 2011 costs and cases will be weighted at 50 percent

Using these weights, each hospital’s cost-per-case is calculated as follows:

$$\text{2012 hospital cost-per-case} = \frac{(0.15 \times 2009 \text{ costs}) + (0.35 \times 2010 \text{ costs}) + (0.50 \times 2011 \text{ costs})}{(0.15 \times 2009 \text{ cases}) + (0.35 \times 2010 \text{ cases}) + (0.50 \times 2011 \text{ cases})}$$

The weighted statewide mean cost-per-case for each measurement period will be calculated in the same manner.

For the 2012 program year (P4P rate effective July 2013), the hospital-specific inflation targets will be calculated using the same rolling averages, as shown in the following formulas:

$$\begin{array}{l} \text{3-yr weighted} \\ \text{target amount} = \end{array} \frac{\begin{array}{l} (0.15 \times 2009 \text{ costs} \times 2009 \text{ NHIPI}) \\ + (0.35 \times 2010 \text{ costs} \times 2010 \text{ NHIPI}) \\ + (0.50 \times 2011 \text{ costs} \times 2011 \text{ NHIPI}) \end{array}}{(0.15 \times 2009 \text{ cases}) + (0.35 \times 2010 \text{ cases}) + (0.50 \times 2011 \text{ cases})}$$

Cost-per-case Bonus Points

In the examples provided in this appendix, Hospital A earned 25 points on the first cost-per-case measure and 17.5 points on the second measure, for a total of 42.5 points. However, a hospital's total efficiency score is capped at a maximum of 40 points. Therefore, Hospital A's final efficiency score is 40 points.