Blue Cross Blue Shield of Michigan

2013 Hospital Pay-for-Performance Program

Peer Groups 1 – 4

Updated May 2013
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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 2013 the program will pay hospitals, in aggregate, an additional 5 percent of statewide inpatient and outpatient operating payments – more than $180 million statewide.

Sixty percent of each hospital’s P4P score is based on quality, including participation in selected collaborative Quality initiatives and the CQI survey. The remaining 40 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:

<table>
<thead>
<tr>
<th>2013 Program Components and Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prequalifying condition</td>
</tr>
<tr>
<td>Quality: 60%</td>
</tr>
<tr>
<td>• Quality indicators</td>
</tr>
<tr>
<td>• Collaborative quality initiatives</td>
</tr>
<tr>
<td>Efficiency: 40%</td>
</tr>
<tr>
<td>• Cost-per-case</td>
</tr>
<tr>
<td>- Comparison to statewide mean</td>
</tr>
<tr>
<td>- Comparison to inflation index</td>
</tr>
</tbody>
</table>

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 2013 performance, will be applied to its inpatient and outpatient operating payments effective July 1, 2014.
P4P Payment Methodology

The 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 2013?

The following changes were made to the program measures effective January 1, 2013:

- Readmission quality indicator component
- Collaborative Quality Initiative Survey

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

Prequalifying Condition

To be eligible to participate in the P4P program in 2013, 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.

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.
• 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. Performance on specific quality indicators

2. Participation and performance in selected hospital-based collaborative quality initiatives and CQI survey

### Quality Indicators 20% to 48%

The combined program weight of the quality indicator component and the CQI component is 60 percent. Each of the quality indicators that a hospital is eligible to participate in will be evenly distributed from the balance of 60 percent after the CQI component is subtracted, as follows:

<table>
<thead>
<tr>
<th>CQI Weight</th>
<th>Quality Indicator Weight</th>
<th>Total Quality Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>12%</td>
<td>48%</td>
<td>60%</td>
</tr>
<tr>
<td>16%</td>
<td>44%</td>
<td>60%</td>
</tr>
<tr>
<td>20%</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>24%</td>
<td>36%</td>
<td>60%</td>
</tr>
<tr>
<td>28%</td>
<td>32%</td>
<td>60%</td>
</tr>
<tr>
<td>32%</td>
<td>28%</td>
<td>60%</td>
</tr>
<tr>
<td>36%</td>
<td>24%</td>
<td>60%</td>
</tr>
<tr>
<td>40%</td>
<td>20%</td>
<td>60%</td>
</tr>
</tbody>
</table>

### 2013 Quality Indicators

The quality indicators cover the reporting period of the first quarter 2013 through third quarter 2013 unless otherwise specified. The information will be due on or before January 17, 2014. The 2013 Quality Indicator Performance report and 2013 CEO/President Certification Form will be sent by the end of October 2013. For the 2013 program year hospitals are scored on the following quality indicators:
Readmissions – This is a new quality indicator in 2013. Hospitals will get full credit for reporting only. Hospital should submit a copy of its ReWaRD Readmission report covering data from July 1, 2012 – June 30, 2013. This report will be sent to hospitals from MHA / MPRO by November 2013. In the event MHA or MPRO notifies BCBSM of a delay in receipt, hospitals will forward as soon as possible.

Acute myocardial infarction–percutaneous coronary intervention

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

Pneumonia

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

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 Perioperative Period
- 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 measure is based on criteria specifications from the Perinatal Care 01 of The Joint Commission. Below are the recommendations for hospitals to follow:
**Denominator** = deliveries between 37.0 – 38.6 weeks less TJC medical exclusions found in table 11.07 and 11.061. You can combine vaginal deliveries and c-sections. Those sending information to the MHA Keystone Center for Patient Safety and Quality can send the information according to these same requirements that are based on TJC guidelines; however, Keystone does request that the c-sections be reported separately.

Below are a couple common mistakes with the denominators from last year:
- *Some hospitals captured all of the hospital’s deliveries*
- *Some hospitals captured the deliveries between 37.0-38.6 weeks but did not exclude the medical exclusion from TJC Table 11.07*

**Numerator** = denominator less patients in active labor with regular uterine contractions with cervical change before medical induction and/or cesarean section (follow the TJC guidelines). *The cases in numerator will represent elective deliveries based on TJC guidelines.* Hospitals following the ACOG guidelines for exclusions will also exclude medical or obstetrical indications that are not in the TJC Table 11.07 and 11.061 (see note below).

Note: if your hospital follows the ACOG guidelines for exclusions you must provide the number of cases that were excluded that were not listed on the TJC exclusion table and the reason for each excluded case. This will help the Scoring Committee establish a threshold for all hospitals regardless of the method used.

Hospitals will report January – September 2013 on the score card that you will receive in October 2013 and that is due by January 18, 2014. You will be asked to show your data in a table similar to the one below to help ensure all hospitals are reporting the same data.

**Note:** if you report via Leapfrog and are a year behind, e.g., for 2012 P4P you reported 2011 instead of Jan. 1, 2012 – Sept. 30, 2012; please indicate that on the form.

<table>
<thead>
<tr>
<th></th>
<th>Complete these columns only if you are reporting ACOG Exclusions</th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 2013   | A1 Numerator
        Equals Denominator less active labor or spontaneous deliveries per TJC guidelines
        Number of ACOG exclusions
        List the diagnoses that represent the ACOG exclusions (not necessary to repeat same Dx for multiple exclusions)
        A2 Numerator
        Equals A1 with ACOG exclusions
        B
        Denominator
        Equals Deliveries 37.0-38.6 (vaginal and c-section) less medical exclusions from TJC Table 11.07 and 11.061
        Rate
        Equals A1/B or A2/B |

For the latest information and all exclusions for the Joint Commission Elective Deliveries (PC01) use the following link: [http://manual.jointcommission.org/releases/TJC2013A1](http://manual.jointcommission.org/releases/TJC2013A1)
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. This category represents 5 percent of total each hospitals Quality Indicator weight.

- **Active indicators:** These are established indicators with continued potential for improvement. This category represents 80 percent of the total of each hospitals Quality Indicator weight.

- **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. This category represents 15 percent of total each hospitals Quality Indicator weight.

In 2013 the readmission quality indicator will be in the “test” category and there are no indicators in the “sustained” categories. Therefore, all remaining quality indicators will be categorized as “active” with a total weight of 95 percent distributed equally among all of the hospitals eligible quality indicators.

Performance Score Thresholds

Performance thresholds for all indicators will be established and communicated to hospitals during the first quarter of 2013. 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.
Collaborative Quality Initiatives 12% to 40%

In 2013 each CQI and CQI survey 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 nine plus the survey. If a hospital is eligible for 10 CQIs, BCBSM will use its top nine CQI performance scores plus the survey. For example, if a hospital is eligible for three CQIs, its total weight for this component is 16 percent ((3 CQIs x 4%) + (1 completed survey x 4%) = 16%).

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 Survey

As part of your facility’s participation in the BCBSM P4P program, BCBSM will be releasing an online survey to all P4P participating hospitals to gather feedback on the BCBSM Collaborative Quality Initiatives (CQIs). The survey will allow BCBSM to identify all facilities eligible to participate in any of our Hospital CQIs as well as provide any feedback from hospitals related to administrative efficiencies and interaction between BCBSM, the Coordinating Center, and the participants. This feedback will help BCBSM expand the program and develop improvement opportunities for the program going forward.

The survey will be distributed during the first quarter of 2013. Respondents will have 4-6 weeks to respond. Responses will be tallied and shared in the second or third quarter 2013. The online survey will be sent to administrative leadership and/or executive hospital leadership that provide oversight of the BCBSM Pay-for-Performance Program; however, you can request the survey be sent to another representative at your hospital by contacting Marc Cohen by December 15, 2012 at mcohen@bcbsm.com. To earn the full 4% weight of the survey it must be returned by the specified date and must be thorough and accurate. If not returned by the specified date or incomplete, the hospital will earn 0%.

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:


The 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 2013 P4P is nine per hospital plus the CQI Survey.

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 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 nine CQIs, its overall CQI score will be based on its nine best individual CQI index scores plus the survey score.
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 2013, 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 (HAI) 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 2013 CQI participation payment as a lump-sum add-on to their BCBSM bi-weekly interim payment (BIP) during the first quarter of 2013. 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.

Contact: Amanda Harrier, (313) 448-7589, P4Phospital@bcbsm.com
Efficiency 40%

Forty points of each hospital’s P4P score is determined by efficiency. In 2013 this includes two cost-per-case measures:

- 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:

<table>
<thead>
<tr>
<th>Hospital standardized inpatient cost-per-case relative to statewide mean</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 0.5 standard deviation below</td>
<td>30 points</td>
</tr>
<tr>
<td>Within 0.5 standard deviation of statewide mean</td>
<td>25 points</td>
</tr>
<tr>
<td>Between 0.5 and 1.0 standard deviation above</td>
<td>15 points</td>
</tr>
<tr>
<td>More than 1.0 standard deviation above</td>
<td>0 points</td>
</tr>
</tbody>
</table>

Total points are subject to an overall scoring maximum (see below)

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 C.

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 NHIPI is provided in the box below). Specifically, the actual change in a hospital’s cost-per-case is compared to what it would have been if

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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.
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 ÷ $240 = 43%).

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

<table>
<thead>
<tr>
<th>Increase in hospital’s cost-per-case relative to the NHIPI-based target</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual ≤ 25% of target</td>
<td>20.0 points</td>
</tr>
<tr>
<td>Actual more than 25% but ≤ 50% of target</td>
<td>17.5 points</td>
</tr>
<tr>
<td>Actual more than 50% but ≤ 75% of target</td>
<td>15.0 points</td>
</tr>
<tr>
<td>Actual more than 75% but ≤ 100% of target</td>
<td>12.5 points</td>
</tr>
<tr>
<td>Actual more than 100% but ≤ 125% of target</td>
<td>10.0 points</td>
</tr>
<tr>
<td>Actual more than 125% but ≤ 175% of target</td>
<td>7.5 points</td>
</tr>
<tr>
<td>Actual more than 175% of target</td>
<td>0 points</td>
</tr>
</tbody>
</table>

Total cost-per-case points are subject to an overall scoring maximum.

Appendix C 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 C. 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**

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 2013 program year (P4P payout beginning July 2014) the calculation will be made using cost data from 2010, 2011, and 2012, as follows:

- 2010 costs and cases will be weighted at 15 percent
- 2011 costs and cases will be weighted at 35 percent
- 2012 costs and cases will be weighted at 50 percent

The methodology for calculating the multi-year cost-per-case amounts is provided in Appendix C.
Collaborative Quality Initiatives

A hospital is scored on participation and performance in up to nine CQIs. If a hospital participates in more than nine CQIs, its overall CQI score will be based on its nine 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 2013 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)
- 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 Initiative

3 Only hospitals not eligible to participate in MSQC will be recognized for their participation in the MHA Keystone: Surgery Initiative
Non-required CQIs

The following four CQIs are categorized as “non-required.” 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 16 percent (3 CQIs x 4% = 12% plus 4% for CQI survey)
- Its performance on CQI #1 is 94%
- Its performance on CQI #2 is 90%
- Its performance on CQI #3 is 85%
- Survey is completed by specified date

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

<table>
<thead>
<tr>
<th>Index Score</th>
<th>Weight</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQI #1</td>
<td>94%</td>
<td>X</td>
</tr>
<tr>
<td>CQI #2</td>
<td>90%</td>
<td>X</td>
</tr>
<tr>
<td>CQI #3</td>
<td>85%</td>
<td>X</td>
</tr>
<tr>
<td>CQI survey</td>
<td>100%</td>
<td>X</td>
</tr>
</tbody>
</table>

**Total CQI Score** 14.8%

In this example, Hospital A earned a total CQI score of 14.8 percent out of a possible 16.0 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.
### Cost-per-case Calculations

**Cost-per-case**\(^4\) 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:

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

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:

\[
\text{Standard Deviation} = \sqrt{\frac{\sum (\text{hospital CPC} - \text{statewide average CPC})^2}{\text{number of hospitals}}}
\]

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

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

\(^4\) 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:

$$8,103 - 8,000 = 103$$

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

$$103 ÷ 240 = 43\%$$

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 for the 2013 program, as described in a subsequent section of this appendix.
<table>
<thead>
<tr>
<th>Increase in hospital’s cost-per-case Relative to the NHIPI-based target</th>
<th>Score</th>
<th>Total cost-per-case points are subject to an overall scoring maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual ≤ 25% of target</td>
<td>20.0 points</td>
<td></td>
</tr>
<tr>
<td>Actual more than 25% but ≤ 50% of target</td>
<td>17.5 points</td>
<td></td>
</tr>
<tr>
<td>Actual more than 50% but ≤ 75% of target</td>
<td>15.0 points</td>
<td></td>
</tr>
<tr>
<td>Actual more than 75% but ≤ 100% of target</td>
<td>12.5 points</td>
<td></td>
</tr>
<tr>
<td>Actual more than 100% but ≤ 125% of target</td>
<td>10.0 points</td>
<td></td>
</tr>
<tr>
<td>Actual more than 125% but ≤ 175% of target</td>
<td>7.5 points</td>
<td></td>
</tr>
<tr>
<td>Actual more than 175% of target</td>
<td>0 points</td>
<td></td>
</tr>
</tbody>
</table>

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 2013, 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 2013 program year (payout July 2014) the calculation will be made using data from 2010, 2011, and 2012.
  - 2010 costs and cases will be weighted at 15 percent
  - 2011 costs and cases will be weighted at 35 percent
  - 2012 costs and cases will be weighted at 50 percent

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

\[
\text{2013 hospital cost-per-case} = \frac{(0.15 \times 2010 \text{ costs}) + (0.35 \times 2011 \text{ costs}) + (0.50 \times 2012 \text{ costs})}{(0.15 \times 2010 \text{ cases}) + (0.35 \times 2011 \text{ cases}) + (0.50 \times 2012 \text{ cases})}
\]

The weighted statewide mean cost-per-case for each measurement period will be calculated in the same manner. For the 2013 program year (P4P rate effective July 2014), the hospital-specific inflation targets will be calculated using the same rolling averages, as shown in the following formulas:

\[
\text{3-yr weighted target inflation} = \frac{(0.15 \times 2009 \text{ costs} \times 2009 \text{ NHIPI}) + (0.35 \times 2010 \text{ costs} \times 2010 \text{ NHIPI}) + (0.50 \times 2011 \text{ costs} \times 2011 \text{ NHIPI})}{(0.15 \times 2009 \text{ cases}) + (0.35 \times 2010 \text{ cases}) + (0.50 \times 2011 \text{ cases})}
\]
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.