

**BCBSM Michigan Value Collaborative Pay-for-Performance (P4P)  
Technical Document  
(Program Years 2020 and 2021)**

**Developed by**

Michigan Value Collaborative

**March 2020**

## Table of Contents

<b>Executive Summary</b>	1
<b>I. Program Overview</b>	1
<b>II. Earning Points</b>	1
<b>III. Conditions</b>	1
<b>IV. Timeline</b>	1
<b>Introduction</b>	2
<b>I. Purpose</b>	2
<b>II. Background</b>	2
<b>III. MVC Guiding Principles</b>	2
<b>P4P Measure Methodology</b>	3
<b>I. MVC Measure</b>	3
<b>II. Data Sources</b>	3
<b>III. Program Timeline</b>	4
<b>IV. MVC Cohorts</b>	4
Cohort Methodology	4
Joint, Pneumonia, CHF, COPD, and Colectomy	5
CABG	5
Spine	6
<b>V. Conditions</b>	7
Selection of Conditions	7
Minimum case requirements	7
<b>Program Scoring</b>	7
<b>I. Quality Thresholds</b>	7
<b>II. Improvement</b>	8
Shifting Targets	8
<b>III. Achievement</b>	8
<b>IV. MVC Bonus Point</b>	9
<b>MVC Registry</b>	9
<b>I. P4P Registry Reports</b>	9
<b>Updates to P4P Program</b>	10
<b>I. Program Year 2020 and 2021 Changes</b>	10
<b>MVC Coordinating Center Support</b>	10

<b>I. Engagement Events</b>	10
<b>II. Analytic Support</b>	11
<b>III. Coordinating Center</b>	11
<b>Appendix A: Glossary</b>	13
<b>Appendix B: Value-based incentive programs from the Centers for Medicare &amp; Medicaid Services (CMS)</b>	14
<b>Appendix C: Cohort Designation</b>	15
<b>Appendix D: Sample Scorecard</b>	18
<b>Appendix E: Scoring Example</b>	19
<b>Appendix F: MVC P4P Registry Reports</b>	21

## Executive Summary

### I. Program Overview

Beginning in 2018, Blue Cross Blue Shield of Michigan (BCBSM) allocated 10% of its Pay-For-Performance (P4P) program to an episode of care spending metric based on MVC data. This metric measures hospital performance using price-standardized, risk-adjusted 30-day episode payments for BCBSM Preferred Provider Organization (PPO), Medicare fee-for-service patients, and from program year 2020 onwards, BCBSM Medicare Advantage, Blue Care Network (BCN) Health Maintenance Organization (HMO), and BCN Medicare Advantage.

### II. Earning Points

Each hospital's condition-specific total episode payment will be assessed for year-over-year improvement compared to its baseline year and its achievement respective to the appropriate MVC cohort. Hospitals must meet the minimum in-hospital mortality/readmission rate quality threshold for the selected condition in order to earn points. Provided the threshold is met, hospitals can earn 0 – 6 points for each selected condition for a total of 12 points. While 12 points can be achieved, the program will be scored out of 10 points. Points are earned based on the following criteria:

- Higher of improvement or achievement points (0-5 points)
- Five percent cohort reduction bonus point (0-1 points)

### III. Conditions

Each hospital previously chose two conditions for measurement. The available conditions for the 2020-2021 program years are shown below.

- Chronic obstructive pulmonary disease (COPD)
- Congestive heart failure (CHF)
- Colectomy (non-cancer)
- Coronary artery bypass graft (CABG)
- Joint replacement (Hip and knee)
- Pneumonia
- Spine surgery

### IV. Timeline

The MVC Coordinating Center will assess the performance year data during the program year and will provide a final score for the MVC-based measure to BCBSM for payment in 2021 and 2022, respectively. See Table 2 below for the full program timeline.

## Introduction

### I. Purpose

The purpose of this document is to provide information on the Michigan Value Collaborative (MVC) component of the Blue Cross Blue Shield of Michigan (BCBSM) Hospital Pay-for-Performance Program (P4P) for program years 2020 and 2021. Information on program years 2018 and 2019 can be found in the previous [technical document](#). Information regarding future program years will have separate documentation.

### II. Background

Blue Cross Blue Shield of Michigan’s (BCBSM) Hospital Pay-for-Performance Program (P4P) recognizes hospitals that excel at care quality, cost-efficiency, and population health management. Beginning in 2018, BCBSM allocated 10% of its P4P program to an episode of care spending metric based on MVC data. The Michigan Value Collaborative (MVC) is a Collaborative Quality Initiative (CQI) funded by Blue Cross Blue Shield of Michigan’s (BCBSM) Value Partnerships program. **MVC’s purpose is to improve the health of Michigan through sustainable, high-value healthcare.** MVC works to achieve this purpose by adhering to the Value Partnerships philosophy of using high quality data to drive collaborative quality improvement. Table 2 shows where MVC falls in the breakdown of program components for the BCBSM Pay-for-Performance Program.

**Table 1: BCBSM Pay-for-Performance Program**

2020 Program Components and Weights	
Prequalifying Condition	0%
Collaborative Quality Initiatives	40%
Hospital Cost Efficiency	5%
<b>Michigan Value Collaborative</b>	<b>10%</b>
All-Cause Readmissions Domain	30%
Health Information Exchange	15%

\*The 10% of the incentive pot which is allocated to MVC is separate from the 40% assigned to the CQIs.

### III. MVC Guiding Principles

In designing and implementing the MVC component of the BCBSM P4P program, the MVC Coordinating Center has been guided by the following core principles:

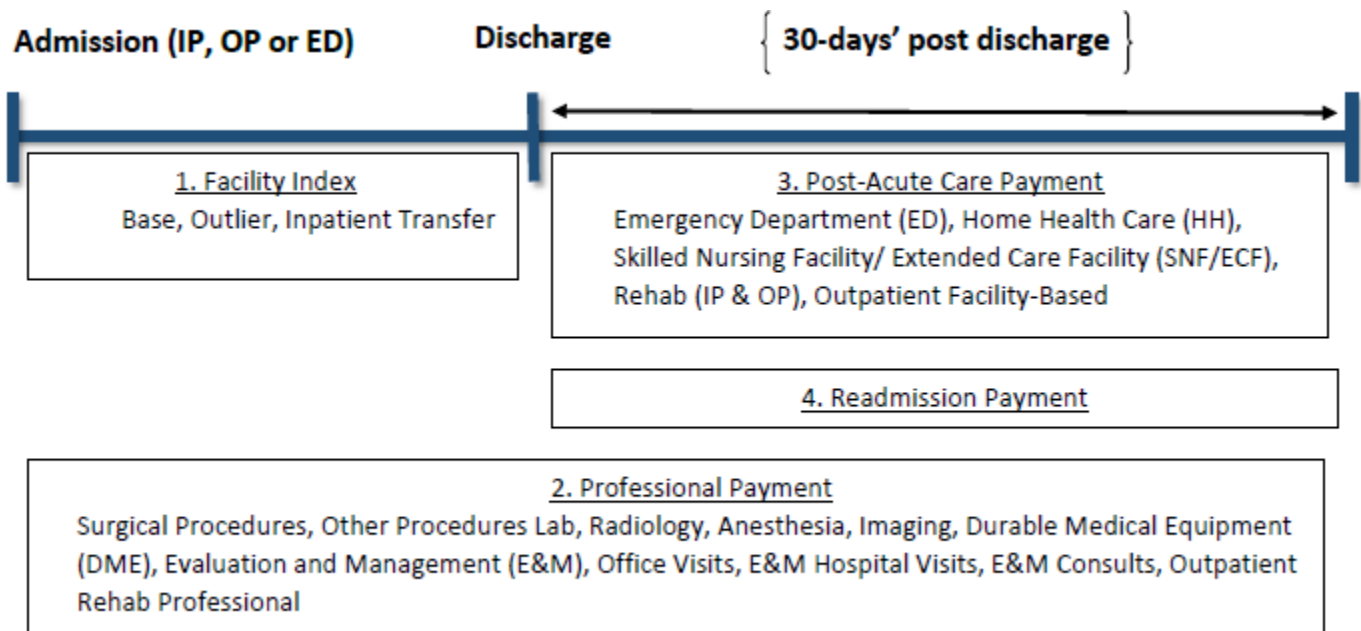
1. The measure will reflect the BCBSM Value Partnerships philosophy of using high-quality data to drive collaborative quality improvement.
2. The measure will be fair, valid, and transparent.
3. The measure will align with existing BCBSM and CMS hospital quality measures when possible and be consistent with Value Partnerships' CQI principles.
4. The measure will encourage examination and use of MVC data to drive value improvement and reward those efforts.

## P4P Measure Methodology

### I. MVC Measure

In the MVC component of the BCBSM P4P program, hospitals are evaluated on their average 30-day episode spending for selected conditions. This 30-day episode measure is price standardized to the Medicare Fee for Service (FFS) schedule, and risk adjusted for age, gender, history of prior high spending, end-stage renal disease, as well as 79 comorbidities based on hierarchical condition categories and condition specific risk adjusters. For more information regarding the MVC's price standardization and risk adjustment methodology, as well as the breakdown of the episode structure, please see the [MVC Data Guide](#).

**Figure 1: Anatomy of an MVC episode**



### II. Data Sources

The 2020 and 2021 program years utilize all available claims from the providers below:

- Commercial BCBSM Preferred Provider Organization (PPO)
- BCBSM Medicare Advantage Preferred Provider Organization (PPO)

- Commercial Blue Care Network (BCN)
- Medicare Advantage Blue Care Network (BCN)
- Medicare Fee for Service (FFS)

As additional payers are added to the MVC registry, the Coordinating Center may incorporate them into the program with the permission of BCBSM and the Quarterly Hospital P4P Workgroup. Any changes that are made to the program will start at the beginning of the two-year reporting cycle.

### III. Program Timeline

Hospitals will be assessed on their average 30-day episode payment in the performance period compared to their baseline period. The performance and baseline periods include index admissions occurring between January 1 and December 31 for that calendar year. The MVC Coordinating Center will compare performance and baseline years during the assessment year, and final scores on the MVC-based measure will be sent to BCBSM for payment during the payment year. Table 1 outlines the timeline for each stage in program years 2020 and 2021.

**Table 2: Timeline for Program Years 2020 and 2021**

	Baseline Year	Performance Year	Assessment Year	Payment Year
<b>Program Year 2020</b>	2017	2019	2020	2021
<b>Program Year 2021</b>	2018	2020	2021	2022

### IV. MVC Cohorts

MVC cohorts were created to compare hospitals with similar characteristics for specific conditions. Recognizing that episode spending may vary across cohorts, we will compare achievement to hospitals within their assigned cohort. All hospitals are assigned to cohorts for each individual condition regardless of the hospital's condition selections. Hospitals will not be assigned to a cohort if they do not provide that service within their hospital. In general, each MVC cohort is comprised of structurally similar hospitals identified by case mix index (CMI), bed size, and teaching status.

#### *Cohort Methodology*

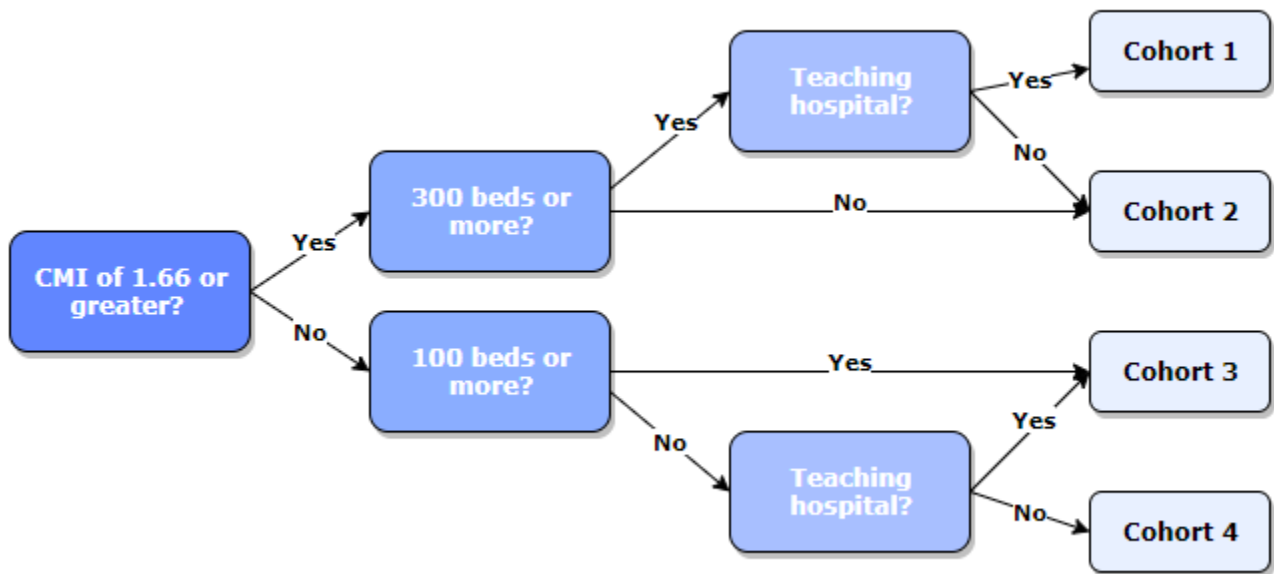
Cohorts were reassigned in January of 2020 to apply to the 2020 and 2021 program years. Cohort designations can be found in the resource section of the [MVC Registry](#) under P4P Documents. Case mix index was defined based on hospital index admissions for all of the P4P conditions using all payers and included patients with index admissions in 2017 and 2018. For the purposes of classification, episodes without a Medicare Severity-Diagnosis Related Group (MS-DRG) associated with the index admission were excluded. The Centers for Medicare and Medicaid Services (CMS) MS-DRG relative weights from the 2018 release were applied to all inpatient admissions to calculate the mean relative case mix index weight for each hospital. Using the calculated mean relative case mix index weights, hospitals were sorted from highest

to lowest to establish a median threshold. The median case mix index was 1.66; therefore, this was used as a cut off to separate hospitals into two groups as the first step for establishing cohorts for joint, pneumonia, CHF, COPD, and colectomy. Separate cohort groups were created for spine and CABG. See Figures 2-4 for the breakdown of hospital cohort assignment.

*Joint, Pneumonia, CHF, COPD, and Colectomy*

The median case mix index divided hospitals into two groups. The presence of 300 or more beds and teaching status were used to distinguish between cohorts 1 and 2. A hospital had to meet both criteria to be categorized as cohort 1. The presence of 100 beds or more and teaching status were used to differentiate between cohorts 3 and 4. Unlike distinguishing between cohorts 1 and 2, a hospital only needed to meet one of these criteria to be classified as cohort 3 to ensure balance in the grouping dispersion.

**Figure 2. Cohorts designation for the conditions of: Joint, Pneumonia, CHF, COPD, and Colectomy.**

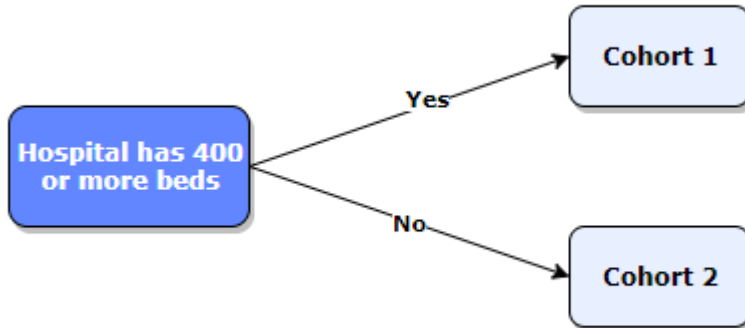


*CABG*

The CABG cohort was based solely upon bed size. This decision was made because nearly half of MVC hospitals do not offer CABG services, and the case mix index distributions did not produce distinct clusters of hospitals.



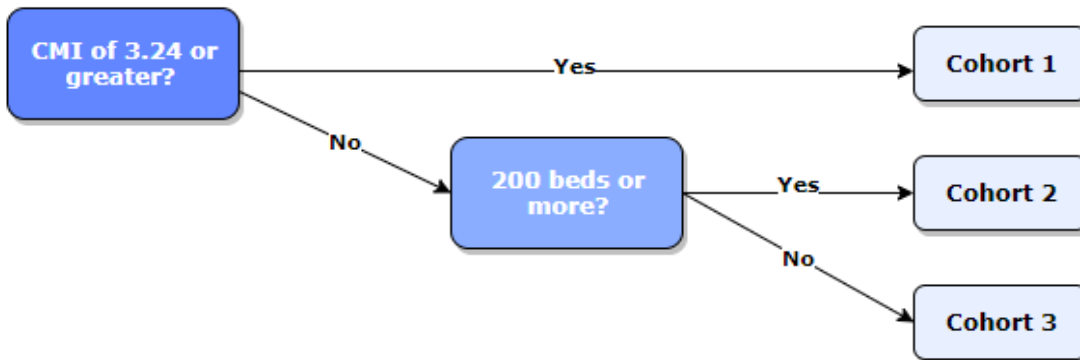
**Figure 3: CABG Cohort Designation**



*Spine*

The spine cohort groups were based upon the complexity of spine surgeries performed by a hospital (as determined by the case mix index for spine surgery), as well as the structural characteristics of bed size and teaching status. The median spine case mix index for hospitals was 3.24 and this was used as the first branching point for the spine cohort. Bed size was used to further divide hospitals into cohorts 2 and 3.

**Figure 4. Spine Cohort Designation**



**Table 3. Number of MVC hospitals assigned to each cohort.**

Cohort	Main	CABG	Spine
1	25	18	23
2	18	15	16
3	25		8
4	18		

\*See Appendix C for examples of how hospitals were assigned cohorts.

## V. Conditions

### *Selection of Conditions*

Hospitals are required to select two of seven condition options (Table 3). The selection of eligible conditions reflects the dual goals of 1) maximizing the hospital's choice in terms of where to focus its efforts, and 2) alignment of MVC measures with existing cost and quality improvement initiatives from CMS and BCBSM. Hospitals selected two conditions in 2019 on which they will be evaluated during the 2019 and 2020 performance periods.

**Table 4. Condition options for the MVC P4P Program.**

Program Year 2020 and 2021
Chronic obstructive pulmonary disease (COPD)
Congestive heart failure (CHF)
Pneumonia
Joint replacement (Hip and knee)
Colectomy (non-cancer)
Coronary artery bypass graft (CABG)
Spine surgery

### *Minimum case requirements*

The Coordinating Center selected the minimum episode volume requirements of 20 cases based on several empirical analyses. Ultimately, we selected minimum case thresholds that simultaneously maximize the reliability of the episode cost metric and the number of eligible hospitals for each condition. Hospitals are eligible for a condition based on their baseline year episode count.

## Program Scoring

Hospitals can earn P4P points in three ways (1) improvement (2) achievement, and (3) collaboration bonus point. Hospitals will earn the higher of their improvement or achievement points. In order to be eligible for points, a hospital must first meet the quality thresholds.

### I. Quality Thresholds

Hospitals will not be eligible to receive P4P points for a condition if they are ranked in the bottom 10<sup>th</sup> percentile in the performance year for condition-specific, in-hospital mortality or related

readmissions. The Coordinating Center will evaluate discharge disposition to assess inpatient mortality and presence of readmission payments to calculate readmissions rates. Confidence intervals will be used to ensure that hospitals not meeting the thresholds are true statistical outliers.

## II. Improvement

Hospitals can earn up to five points per condition by reducing spending in the performance period over their baseline spending. To earn one P4P point, a hospital must have equal or lower average episode costs during the performance year compared to the baseline year for the selected condition. Subsequent points are calculated based on the ratio of each individual hospital's total episode payment to the MVC total episode payment, multiplied by a proportion of the MVC standard deviation. Each calculated reduction target will be subtracted from the hospital's mean cost for the baseline year.

$$\text{Baseline Mean} - \left[ \frac{\text{Hospital Baseline Mean}}{\text{MVC Mean Cost}} * \text{MVC Winsorized STD} * X \right]$$

\*Where X is a multiplier indicating the amount of reduction required for each point target. X ranges from 5% through 20% (see Table 5)

The intent of the formula is to account for each hospital's baseline mean costs and the condition-specific variability. The MVC mean and standard deviation will include all cases, and the MVC standard deviation will be winsorized at the 99<sup>th</sup> percentile, meaning any values above the 99th percentile will be given the value of the 99th percentile. The utility of winsorization is to mitigate the impact of extreme outlier cases. The percentage reduction of the MVC standard deviation required to earn P4P points was determined based on extensive internal modeling and comparisons to provider performance in the BPCI Model 2 program.

### *Shifting Targets*

Over time, a hospital's P4P targets may shift for two reasons related to the continual addition of data into the MVC registry. First, incorporating new Medicare data into the MVC registry may result in small changes to standardized prices, which are calculated based on all available Medicare data. Second, risk-adjustment also uses all available data, which will provide more accurate risk-adjustment models. For more information on MVC risk-adjustment, please refer to the [MVC Data Guide](#). Hospitals will be scored using the targets shown on the registry when the full performance year of data is available. It is important to note that these targets will be captured by the Coordinating Center and any changes to the targets after this time will not affect improvement scoring.

## II. Achievement

Hospitals can earn up to five points per condition by having an average episode cost that is lower than their peers. Hospitals will be ranked against those in their assigned cohort that had at least

20 cases in the baseline year in the condition being evaluated. Hospitals ranked in the 50th percentile or greater will earn achievement points. See Table 5 for achievement point breakdown.

**Table 5. Targets for P4P points for Improvement and Achievement.**

Points Earned	Year-Over-Year Improvement	Absolute Achievement
1 Point	Baseline Mean	50 <sup>th</sup> Percentile
2 Points	Baseline Mean - $(5\% * \frac{A}{B} * C)$	60 <sup>th</sup> Percentile
3 Points	Baseline Mean - $(10\% * \frac{A}{B} * C)$	70 <sup>th</sup> Percentile
4 Points	Baseline Mean - $(15\% * \frac{A}{B} * C)$	80 <sup>th</sup> Percentile
5 Points	Baseline Mean - $(20\% * \frac{A}{B} * C)$	90 <sup>th</sup> Percentile

\*Hospital Mean represented by A, MVC Mean represented by B, MVC winsorized standard deviation represented by C.

#### IV. MVC Bonus Point

A hospital may be eligible for a bonus point if two conditions are met. First, a hospital's mean episode payment does not increase from the baseline year. Second, all hospitals choosing that condition within the same cohort decrease their aggregate average episode payment by five percent or greater. The purpose of the bonus point is to encourage hospitals to reduce costs through collaboration, rather than competition. Please note that the maximum points a hospital may receive for the MVC measure is 10, even if the hospital is eligible for the bonus point. The MVC Coordinating Center is happy to facilitate connections between hospitals to improve collaboration.

### MVC Registry

The MVC registry has a series of P4P reports that allow hospitals to assess their improvement and achievement points throughout the program year. These reports show combined Medicare FFS and all BCBSM data, and reflect the patient population included in P4P. The reports can be found in the P4P menu.

#### I. P4P Registry Reports

1. **Comparison with the MVC All:** This report shows how a hospital's rank compares to the whole collaborative. While this report does not show how a hospital is scoring, it allows benchmarking of episode payments and episode components of combined Medicare and BCBSM data.
2. **P4P Year-Over-Year Performance Comparison:** This report shows a hospital's improvement targets and current improvement points for all P4P conditions.

- 3. P4P Achievement Comparison 30 Day Episodes:** This report shows a hospital's ranking compared to its cohort. A hospital's percentile can be calculated from their episode cohort ranking through the following equation:

$$\frac{\text{Cohort Demonstrator} - \text{Hospital Ranking}}{\text{Cohort Denominator}}$$

Currently, the registry P4P reports do not show a hospital's cohort bonus point or whether it is meeting the quality threshold. The Coordinating Center will continue to make improvements to the reports with the long term goal of having the registry reports replace the scorecards sent by the Coordinating Center. Until then, the Coordinating Center will send a mid-year scorecard and a final scorecard. See Appendix G for examples of the P4P registry reports.

## Updates to P4P Program

The MVC Coordinating Center continues to look for ways to improve the MVC component of the BCBSM P4P program. Changes to the program affect the two-year cycle and are required to be approved by the BCBSM Hospital Pay-for-Performance Quarterly Workgroup.

### I. Program Year 2020 and 2021 Changes

The 2020-2021 P4P program has been updated to include the following changes:

- Discontinue the acute myocardial infarction (AMI) as a condition option, and replace it with chronic obstructive pulmonary disease (COPD)
- Reclassify episodes of coronary artery bypass grafting (CABG) previously in the AMI condition into the CABG condition
- Exclude episodes with transfers in the index admissions from eligible episodes
- Include BCN Commercial and BCBSM PPO and BCN Medicare Advantage plans in addition to the previous payers

If you have suggestions for future changes to the program, please email them to [MichiganValueCollaborative@gmail.com](mailto:MichiganValueCollaborative@gmail.com). All proposed changes to the 2022 program year must be submitted to the MVC Coordinating Center by September 2020.

## MVC Coordinating Center Support

The MVC Coordinating Center provides a number of reports and resources to help hospitals improve patient care and reduce costs:

### I. Engagement Events

- **Webinars:** The Coordinating Center hosts monthly Introductory and Advanced webinars to orient our members to the registry. To see the upcoming webinars please visit the [MVC Blog](#).
- **Workgroups:** Workgroups consist of a diverse group of representatives from Michigan hospitals and physician organizations (POs) that meet virtually to collaborate

and share ideas related to various topics. Please visit the [MVC Blog](#) to sign up for a workgroup. The current workgroup topics are:

- Chronic Obstructive Pulmonary Disease (COPD)
- Chronic Disease Management
- Congestive Heart Failure (CHF)
- Joint Replacement
- Sepsis
- **Site Visits:** The Coordinating Center offers site visits to all collaborative members. During these visits, the MVC team delivers information on any requested topics, provides an overview of the data available on the registry, and summarizes the benefits of being part of MVC.
- **Semi-Annual Meetings:** MVC holds meetings twice a year to bring quality leaders across the state together. The Coordinating Center invites speakers to share their stories of success, challenges, and barriers related to specific topics of interest to MVC members.
- **Regional Networking Dinners:** MVC hosts dinners around the state to engage hospital and PO leaders in discussions around chronic disease management and related data as well as provide networking opportunities.

## II. Analytic Support

- **MVC Registry:** The [Registry](#) houses over 20 reports for hospitals to identify cost opportunities and track utilization. To request access to the registry, please contact the Coordinating Center or complete the [Access Request Form](#).
- **P4P Condition Selection Reports:** When hospitals have the opportunity to select new conditions, the Coordinating Center sends out detailed reports on the condition options in addition to the information available on the registry. P4P Condition Selection Reports will be distributed prior to new condition selection mid-year 2021.
- **MVC Push Reports:** The Coordinating Center produces a series of reports to address specific areas of interest. If you would like to receive reports for your hospital, please contact the MVC Coordinating Center.
- **Custom Support:** The MVC analytic team supports our members with custom analytic reports and requests. If you are interested in receiving a custom report, please contact the MVC Coordinating Center.

## III. Coordinating Center

- **Facilitating Connections:** The Coordinating Center helps to connect members with high performing hospitals and/or others in their cohort as well as POs and other requested connections.
- **Questions/Consultations:** The Coordinating Center is happy to help hospital with data requests or other questions. Please submit requests through [MichiganValueCollaborative@gmail.com](mailto:MichiganValueCollaborative@gmail.com).



## Appendix A: Glossary

**MVC Measure:** 30-day risk adjusted, price standardized, hospital average episode payment used to evaluate hospital's P4P performance.

**Improvement Points:** Point earned by reducing performance payment over the baseline payment.

**Achievement Points:** Points earned by being less expensive than the other hospitals in the assigned cohort.

**Bonus Point:** A bonus point is earned if all hospitals working on the same condition within a cohort decrease their aggregate average episode payment by five percent or greater. Hospitals are only eligible for the bonus point if they do not increase from the baseline period.

**Quality Threshold:** A metric to ensure hospitals are not sacrificing the quality of care to reduce costs. Hospitals that are shown to be a statistical outlier in in-hospital mortality or related readmissions will not be eligible to earn P4P points.

**Cohort:** Group of hospitals deemed to be similar in bed size, teaching status, and case mix.

**Baseline Period:** The calendar year three years prior to the program year. The claims from this period will be used to compare to the performance period for assessing hospital improvement.

**Program Year:** Year that the program is being evaluated.

**Performance Year:** Calendar year of data that will be evaluated for improvement and achievement. This period is the year prior to the program year and two years after the baseline period.

**Payment Year:** The year after the performance year where a hospital will receive its scores and payment from BCBSM.

**Condition:** A medical or surgical condition with a homogenous group of patients to be tracked in the MVC data. The current eligible P4P conditions are chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), pneumonia, joint replacement (Hip and knee), colectomy (non-cancer), coronary artery bypass graft (CABG), and spine surgery.



## Appendix B: Value-based incentive programs from the Centers for Medicare & Medicaid Services (CMS)

### ***Bundled Payment for Care Improvements Advanced (BPCI Advanced)***

BPCI Advanced is a voluntary program developed and implemented by CMS to test bundled payments for 90-day clinical episodes of care related to 32 conditions or procedures. The goals of the model are: Care Redesign, Health Care Provider Engagement, Patient and Caregiver Engagement, Data Analysis/Feedback and Financial Accountability. The first round of the model has 1,299 participants nationwide.

### ***Condition-specific episode payment measures for AMI, Heart Failure (HF), and Pneumonia***

CMS recently designed and released episode payment measures for three common medical diagnoses. The measure calculates risk-adjusted payments for 30-day episodes of care. At present, these measures are not tied to value-based payments, however, they are publically reported as part of the Hospital Compare program.

### ***Comprehensive Care for Joint Replacement (CCJR)***

The proposed CCJR model was developed by CMS to test episode-based bundled payments for joint replacement surgery. Unlike BPCI (which is a voluntary program), CMS selected 75 geographic regions (metropolitan statistical areas) to participate in in CCJR. The participants include a wide range of hospitals with varying baseline costs. In this model, CMS will establish “target episode prices” and provide year-end reconciliation payments for hospitals that provide joint replacement at a lower cost. Hospitals that exceed the target price will be required to pay the difference back. To be eligible for reconciliation payments, hospitals must simultaneously meet quality standards for complications, readmissions, and patient satisfaction.

The table below provides additional details for each program.

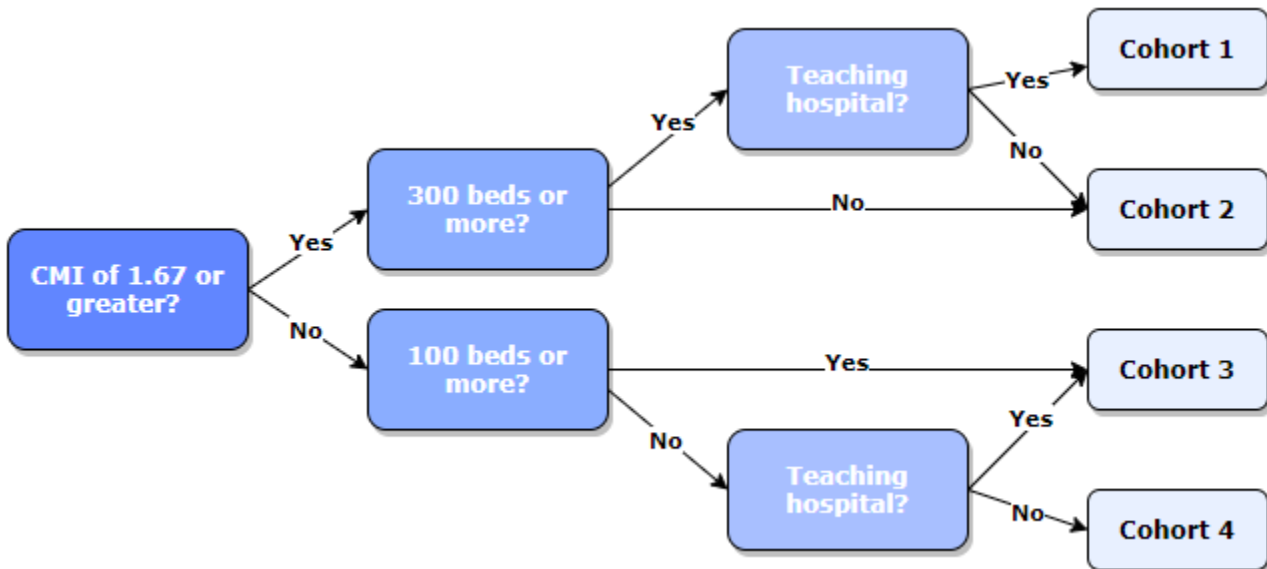
	<b>BPCI Advanced</b>	<b>AMI/HF/ Pneumonia Episode payment measure</b>	<b>CCJR</b>
<b>Episode Length</b>	90-days post discharge	30-day episode of care beginning with a hospitalization	90-day episode
<b>Episode Triggers</b>	Inpatient admission of eligible beneficiary to acute care hospital for one of the MS-DRGs or outpatient procedure identified by HCPCS code in a selected episode	Index admission for AMI/HF/Pneumonia	MS-DRG 469 or 470
<b>Episode Inclusion</b>	Captures payments for all care covered under Medicare Part A and Part B within time of episode	Captures payments for all inpatient, outpatient and post-acute care claims	Captures payments for all inpatient, outpatient and post-acute care claims
<b>Medical/Surgical</b>	Both	Medical	Surgical
<b>Readmissions</b>	Included	Included	Included

## Appendix C: Cohort Designation

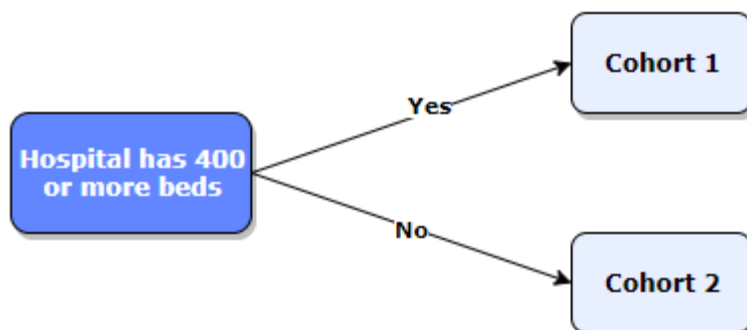
This appendix is meant to further illustrate how hospitals are assigned to cohorts. All hospitals will be assigned a cohort for each P4P condition regardless of the conditions the hospital selected. If a hospital does not perform a surgery they will not be assigned a cohort for that condition. There is one main cohort methodology for the majority of the P4P conditions: joint replacement, pneumonia, CHF, COPD, and colectomy. This means that a hospital will be in the same cohort for all of these conditions. Spine and CABG have a different set of cohort criteria.

### Example 1:

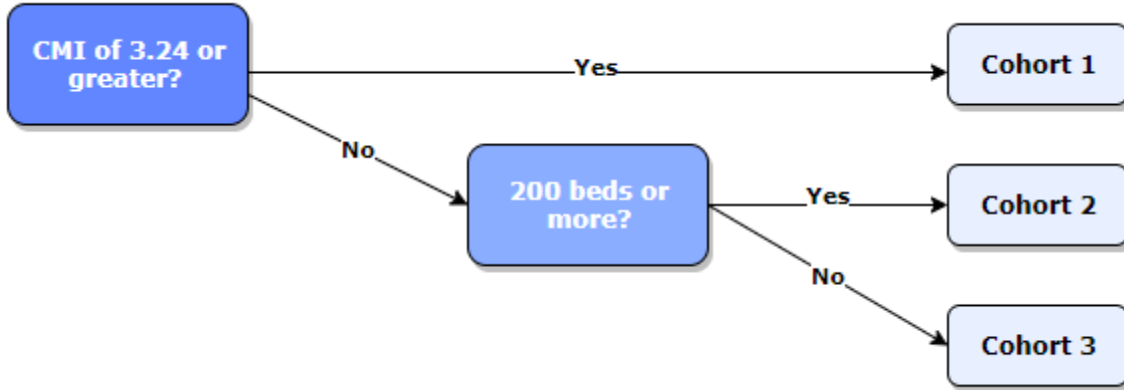
Hospital A has a case mix index of 2.18, is a teaching hospital, and has 350 beds. Following the map shown below Hospital A will be put in cohort 1 for joint replacement, pneumonia, CHF, COPD, and colectomy.



Hospital A performs CABGs so they will be assigned to a CABG cohort. As Hospital A has less than 400 beds, they will be assigned to cohort 2.



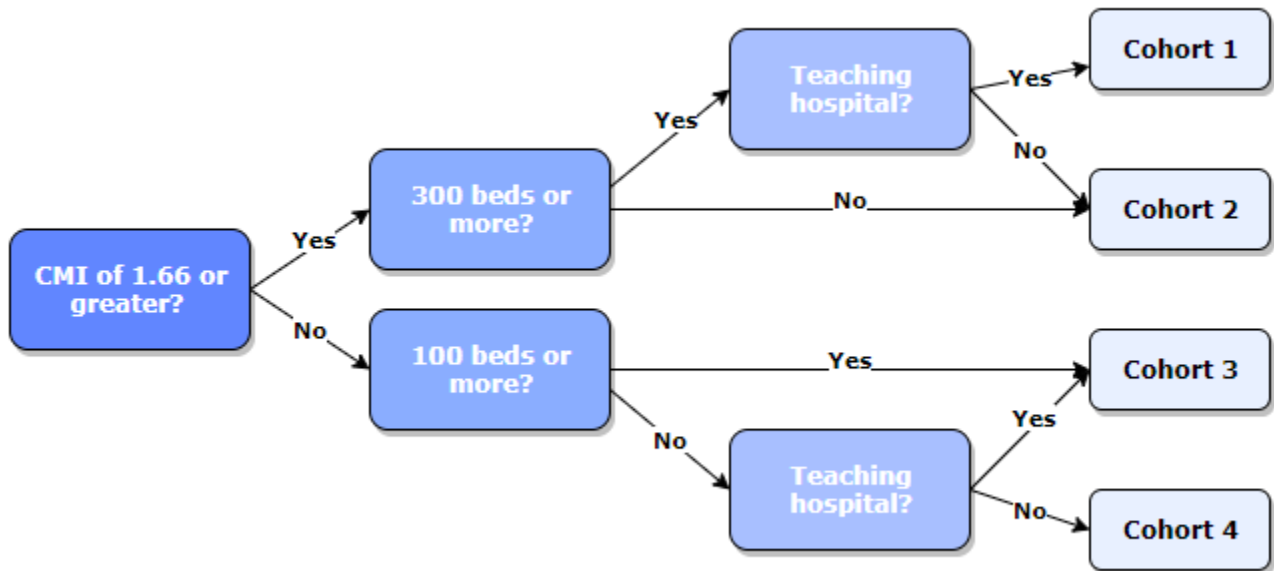
Hospital A also performs some spine surgeries and will be assigned to a spine cohort. Hospital A's case mix index for spine was 2.6 which is below the median of 3.24. Hospital A has more than 200 beds so they will fall into cohort 2 for spine.



Hospital A's Cohort Designations	
Chronic obstructive pulmonary disease (COPD)	Cohort 1
Congestive heart failure (CHF)	Cohort 1
Pneumonia	Cohort 1
Joint replacement (Hip and knee)	Cohort 1
Colectomy (non-cancer)	Cohort 1
Coronary artery bypass graft (CABG)	Cohort 2
Spine surgery	Cohort 2

*Example 2:*

Hospital B has a case mix index of 1.47, is a teaching hospital, and has 75 beds. They do not perform CABGs or spine surgeries. Following the map below, they will be assigned to cohort 3. While Hospital B has less than 100 beds, they are a teaching hospital.



Hospital B's Cohort Designations	
Chronic obstructive pulmonary disease (COPD)	Cohort 3
Congestive heart failure (CHF)	Cohort 3
Pneumonia	Cohort 3
Joint replacement (Hip and knee)	Cohort 3
Colectomy (non-cancer)	Cohort 3
Coronary artery bypass graft (CABG)	NA
Spine surgery	NA

## Appendix D: Sample Scorecard



### P4P Program Year 2020 Hospital A



Selected Condition	Baseline Payment	Year-Over-Year Payment Improvement		Absolute Achievement		Cohort Bonus		Quality Threshold Met	Points Per Line**	Total Points
		Performance Payment	Improvement Points	MVC Cohort Ranking Percentile	Achievement Points	Cohort % Reduction* (5% required)	Bonus Points			
CHF	\$18,400	\$17,240	3	73.9	3	0.1	0	Yes	3	6
Joint	\$18,575	\$18,371	2	47.8	0	5.5	1	Yes	3	

\*A % cohort reduction of zero indicates either no reduction or that cohort spending increased.

\*\*Total points are calculated using the higher of the absolute achievement or improvement points added to the bonus point.

Year-Over-Year Improvement Targets								
Selected Conditions	Baseline Payment <sup>1</sup>	Performance Payment <sup>1</sup>	1 Point	2 Points	3 Points	4 Points	5 Points	Point(s)
CHF	\$18,400	\$17,240	\$16,525	\$17,836	\$17,307	\$16,779	\$16,250	3
Joint	\$18,575	\$18,371	\$19,560	\$118,375	\$18,375	\$17,984	\$17,788	2

Absolute Achievement Ranking Targets								
Selected Service Line	MVC Cohort Ranking	Percentile	1 Point (50th Pctl)	2 Points (60th Pctl)	3 Points (70th Pctl)	4 Points (80th Pctl)	5 Points (90th Pctl)	Point(s)
CHF	6/23	73.9	11	9	6	4	2	3
Joint	12/23	47.8	11	9	6	4	2	0

## Appendix E: Scoring Example

### Program Years 2020 and 2021

The following is an illustration of how the scoring system will be applied for program year 2020. In this example, Hospital A, selected CHF and joint replacement as their two conditions. All dollar amounts provided below are for illustrative purposes only. For program year 2020, the performance period is calendar year 2019 and the baseline year is calendar year 2017. In program year 2020, Hospital A meets the quality requirement by performing above the 10<sup>th</sup> percentile of in hospital mortality and related readmissions. Meeting this requirement means the hospital will be eligible to earn P4P points for the MVC component of the BCBSM P4P Program.

#### Improvement:

Hospital A's 30-day mean episode costs, as well as their cost improvement targets for their selected conditions are outlined in the table below (see page 12 for the target cost reduction methodology):

Year-Over-Year Improvement Targets								
Selected Conditions	Baseline Payment <sup>1</sup>	Performance Payment <sup>1</sup>	1 Point	2 Points	3 Points	4 Points	5 Points	Point(s)
CHF	\$18,400	\$17,240	\$16,525	\$17,836	\$17,307	\$16,779	\$16,250	3
Joint	\$18,575	\$18,371	\$19,560	\$118,375	\$18,375	\$17,984	\$17,788	2

Hospital A's mean episode cost for joint replacement and CHF are lower in the performance period (CY 2019) compared to the baseline period (CY 2017), meaning the hospital will earn year over year improvement points. For CHF, the performance payment is reduced to meet the three-point target but does not reach the four-point target, meaning the hospital will earn three improvement points. The hospital reached the two-point target for joint replacement, earning them two improvement points.

#### Achievement:

Hospital A is also eligible for achievement points. For CHF, the hospital is ranked 6th out of 23 hospitals in their cohort, putting them in the 73rd percentile. Reaching the 70th percentile earns the hospital three achievement points. For joint replacement, the hospital is ranked 12th out of 23 hospitals in the cohort, putting them in the 47th percentile. In order to earn achievement points, the hospital would need to be in the top 50th percentile, ranking in at least 11th out of the cohort.

Absolute Achievement Ranking Targets								
Selected Service Line	MVC Cohort Ranking	Percentile	1 Point (50th Pctl)	2 Points (60th Pctl)	3 Points (70th Pctl)	4 Points (80th Pctl)	5 Points (90th Pctl)	Point(s)
CHF	6/23	73.9	11	9	6	4	2	3
Joint	12/23	47.8	11	9	6	4	2	0

The hospital will earn the greater of either their improvement or achievement points. For CHF the hospital earned 3 points in both improvement and achievement, meaning 3 points will be counted. For joint replacement, the hospital earned 2 improvement points and 0 achievements points, meaning they will be scored 2 points.

Year-Over-Year Payment Improvement		Absolute Achievement	
Performance Payment	Improvement Points	MVC Cohort Ranking Percentile	Achievement Points
\$17,240	3	73.9	3
\$18,371	2	47.8	0

A bonus point may be earned if all hospitals working on the same condition achieve a five percent or greater improvement in total episode costs and the hospital’s own performance didn’t decline from the baseline year. In this illustrative example, all hospitals in the respective cohort working on CHF reduced spending by 0.1%, which does not meet the five percent threshold. For joint replacement, the collective reduction was 5.5%, meaning all hospitals who selected joint replacement in the cohort that did not increase their costs will receive a bonus point.

Cohort Bonus	
Cohort % Reduction* (5% required)	Bonus Points
0.1	0
5.5	1

Adding the bonus point to the joint replacement condition brings the total for each line to three points, giving the hospital a final collective score of six out of 10 possible points.

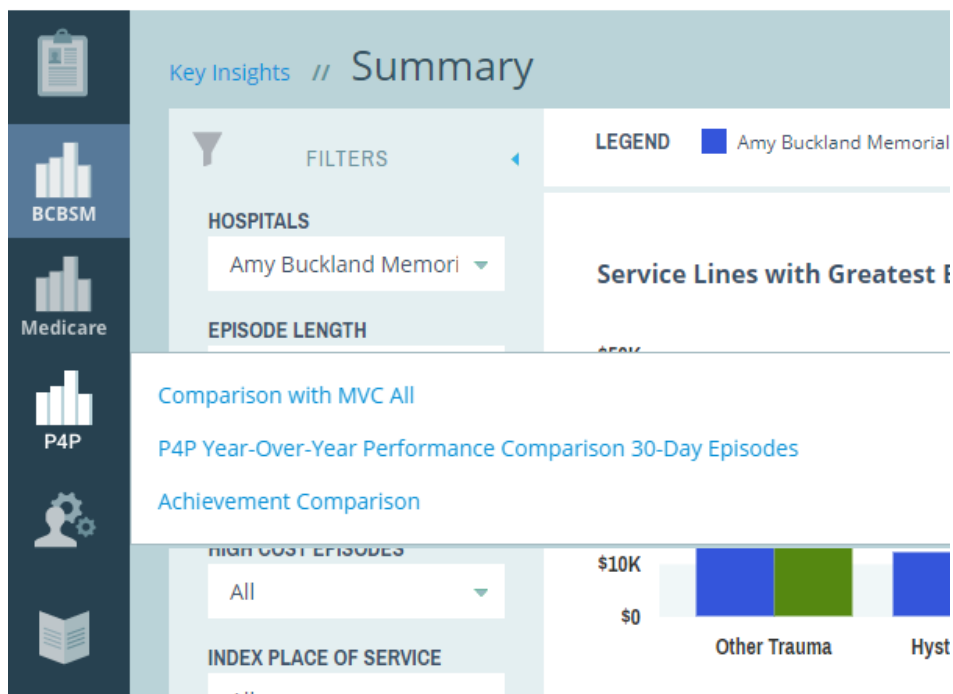
Year-Over-Year Payment Improvement		Absolute Achievement		Cohort Bonus		Quality Threshold Met	Points Per Line**	Total Points
Performance Payment	Improvement Points	MVC Cohort Ranking Percentile	Achievement Points	Cohort % Reduction* (5% required)	Bonus Points			
\$17,240	3	73.9	3	0.1	0	Yes	3	6
\$18,371	2	47.8	0	5.5	1	Yes	3	

## Appendix F: MVC P4P Registry Reports

This document illustrates how a hospital can assess their P4P scores using the MVC registry. The registry reports do not show a hospital’s cohort bonus point or whether they are meeting the quality threshold. The Coordinating Center will continue to make improvements to the reports with the aim of having all necessary information available on the registry.

### Registry Reports:

The MVC registry has three P4P reports that show combined Medicare and BCBSM data, and that reflect the patient population included in P4P. The reports can be found in the P4P menu shown below.



### Improvement Points:

To find your improvement points, navigate to the P4P Year-Over-Year Performance Comparison report and set the Performance Year filter to the year of data that you are evaluating. The table will show all seven condition options, your current average episode payment (Current Total (\$)), the improvement targets, and your current points for each line (Estimated Target).



P4P Year-Over-Year Performance Comparison Detail	Current Total (\$)	1 Point Target Payment	2 Point Target Payment	3 Point Target Payment	4 Point Target Payment	5 Point Target Payment	Estimated Target
AMI	\$27,276.22	\$22,459.51	\$21,888.36	\$21,317.21	\$20,746.06	\$20,174.91	0
CHF	\$20,778.43	\$18,730.74	\$18,222.72	\$17,714.69	\$17,206.67	\$16,698.65	0
Colectomy (non-cancer)	\$28,047.22	\$24,444.31	\$23,885.93	\$23,327.55	\$22,769.17	\$22,210.79	0
Joint Replacement	\$14,726.75	\$19,749.88	\$19,556.26	\$19,362.64	\$19,169.02	\$18,975.41	5
Pneumonia	\$11,807.48	\$16,985.18	\$16,579.10	\$16,173.03	\$15,766.95	\$15,360.88	5
Spine Surgery	\$34,065.55	\$39,155.73	\$38,245.34	\$37,334.95	\$36,424.57	\$35,514.18	5

**Achievement Points:**

To find your achievement points, navigate to the P4P Achievement Comparison 30-Day Episodes and set the condition filter to the desired condition and the performance year filter to the year of data you want to evaluate. This report shows the current average spending (Average Adjusted Payment), the cohort average payment, the difference between your hospital and the cohort average, your rank out of the cohort, and the number of hospitals in the cohort (Denominator).

P4P Achievement Comparison 30-Day Episodes	Average Adjusted Payment	Cohort Average Adjusted Payment	Difference	Rank	Denominator
Total Episode	27472.2	20687	6785.3	9	9

While this report shows the breakdown of the episode components, your hospital will only be scored on the total episode payment. To calculate your achievement score, compare your rank to the cohort denominator. To calculate your percentile, use the following equation:

$$\frac{\text{Cohort Denominator} - \text{Hospital Ranking}}{\text{Cohort Denominator}}$$

See the table below for the percentile benchmarks.

Percentile	Achievement Points
50	1
60	2
70	3
80	4
90	5