

Medicare Quality Programs Reference Guide

Version 1, October 2017

Indiana

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Value Based Purchasing (VBP) Overview: FFY 2018 Program

Measures, Performance Standards, Evaluation Periods, and Other Program Details for the FFY 2018 VBP Program

	Measure ID	Measure Description	Achievement Threshold ¹	Benchmark ²	Minimum Standards ⁴	Total Performance Score: Original Domain Weighting ⁵		
						Weighting	Score	
Safety of Care	HAI_1* (CLABSI)	Central Line-Associated Blood Stream Infection (CLABSI) (ICU only)	0.3690	0.0000		Safety of Care 25%	100%	
	HAI_2* (CAUTI)	Catheter-Associated Urinary Tract Infection (CAUTI) (ICU only)	0.9060	0.0000	1 Predicted Infection Each			
	HAI_5* (MRSA)	Methicillin-resistant Staphylococcus Aureus (MRSA) Blood Laboratory-identified Events	0.7670	0.0000				
	HAI_6* (C.diff)	Clostridium difficile (C.diff.)	0.7940	0.0020				
	PSI-90*	Patient Safety Indicator Composite (AHRQ Software v5.0.1)	0.964542	0.709498	3 Cases			
	PC-01* (MOVED)	Elective Delivery Prior to 39 completed Weeks Gestation	2.0408%	0.0000%	10 Cases			
	Pooled Surgical Site Infection (SSI) Measure**:							
	HAI-3 * (SSI - Colon)	Surgical Site Infection - Colon	0.8240	0.0000	1 Predicted Infection on One of the Two Strata			
	HAI-4* (SSI - Abd. Hyst.)	Surgical Site Infection - Abdominal Hysterectomy	0.7100	0.0000				
Clinical Care	MORT-30-AMI	Acute Myocardial Infarction (AMI) 30-Day Mortality Rate (converted to survival rate for VBP)	85.0916%	87.3053%		Clinical Care 25%	90%	
	MORT-30-HF	Heart Failure (HF) 30-Day Mortality Rate (converted to survival rate for VBP)	88.3421%	90.7656%	25 Cases Each			
	MORT-30-PN	Pneumonia (PN) 30-Day Mortality Rate (converted to survival rate for VBP)	88.2860%	90.7900%				
	Removed Measures From Clinical Care: AMI-7a: Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival; IMM-2: Patients Assessed and Given Influenza Vaccination							
Patient Experience of Care		Communication with Nurses	55.27%	78.52%	86.68%	Patient Experience of Care 25%	80%	
		Communication with Doctors	57.39%	80.44%	88.51%			
		Responsiveness of Hospital Staff	38.40%	65.08%	80.35%			
		Communication about Medicines	43.43%	63.37%	73.66%			
		Hospital Cleanliness & Quietness	40.05%	65.60%	79.00%			
		Discharge Information	62.25%	86.60%	91.63%			
		Overall Rating of Hospital	37.67%	70.23%	84.58%			
	CTM-3 (NEW)	3-Item Care Transitions Measure	25.21%	51.45%	62.44%			
	Removed Measures from Patient Experience of Care: Pain Management							
	Efficiency and Cost	MSPB-1*	Spending Per Hospital Patient With Medicare	Median Ratio Across All Hospitals	Mean Ratio of Lowest Decile of Hospitals			25 Cases

FFY 2018 VBP Program Timeframes

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
					Patient Experience of Care: Baseline Period ⁶		Patient Experience of Care: Performance Period ⁷		FFY 2018 Payment Adjustment
	Clinical Care: Baseline Period ⁶				Clinical Care: Performance Period ⁷				
		Safety of Care (PSI-90): Baseline Period ⁶			Safety of Care (PSI-90): Performance Period ⁷				
					Safety of Care (All other): Baseline Period ⁶		Safety of Care (All other): Performance Period ⁷		
					Efficiency and Cost Reduction: Baseline Period ⁶		Efficiency and Cost Reduction: Performance Period ⁷		

Notes:

The Affordable Care Act (ACA) of 2010 mandated the implementation of an inpatient hospital value-based purchasing (VBP) Program. The VBP Program is a pay-for-performance program that links Medicare payment to quality performance for acute care hospitals paid under the Inpatient Prospective Payment System (IPPS). Under the VBP Program, using a subset of the quality data reported from the Hospital Inpatient Quality Reporting (IQR) Program grouped into quality domains, hospitals can earn points towards a Total Performance Score (TPS). The TPS will serve as the basis for determining hospitals' VBP payments or gain/loss under the program. In calculating the TPS, the scoring methodology provides points to hospitals that achieve high quality standards as well as points to hospitals that improve in the quality measures evaluated. As required by the ACA, a pool of funds, to be redistributed to hospitals based on their TPS, will be funded through an across-the-board reduction to Medicare IPPS base operating payments. The reduction has been capped at 2.0%. Critical Access Hospitals (CAHs), hospitals in Maryland and Puerto Rico, and small hospitals with insufficient numbers of measures and/or cases are excluded from the program.

¹The Achievement Threshold is the minimum performance standard for each measure and reflects the median performance score (50th percentile) for all hospitals in the nation during the baseline period. The threshold is used in combination with other factors to calculate hospital-specific achievement points.

²The Benchmark is the top performance standard for each measure reflects the average performance score for the top 10% of all hospitals in the nation during the baseline period. The benchmark is used in combination with other factors to calculate hospital-specific achievement and improvement points.

³The Floor is for Patient Experience of Care measures only and each measure reflects the lowest measure score in the nation during the baseline period. The floor is used in combination with other factors to calculate hospital-specific consistency points.

⁴Hospitals must meet minimum case and survey counts to be included in the VBP Program. In addition to the case count criteria, hospitals must have a minimum of 2 measures to obtain a Clinical Care Domain score and 3 measures to obtain a Safety of Care domain score.

⁵The Domain Weight is a weight applied to each domain to calculate a hospital-specific TPS. A hospital's weighted TPS is compared to TPSs for all hospitals to determine the hospital-specific gain or loss under the program. If hospitals do not meet the minimum requirements on one or more domain, the other domains are proportionately reweighted to determine a TPS. For the FFY 2018 program, hospitals are required to be scored on 3 of the 4 domains to be eligible for the program.

⁶The Baseline Period is a specified period for which quality data collected under the IQR Program will be evaluated. The baseline period data is used for determining the floors, achievement thresholds, and benchmarks (excluding the efficiency measure) and is also used in combination with other factors to calculate hospital-specific improvement points.

⁷The Performance Period is a specified period for which quality data collected under the IQR Program will be evaluated. The performance period data is used in combination with other factors to calculate hospital-specific achievement and improvement points.

*For these measures, lower scores are better.

**The final SSI measure score is an aggregate of the calculated scores for HAI-3 and HAI-4, which are then weighted based on the predicted infections for each measure. For purposes of domain eligibility, CMS considers the two SSI measures as a single measure.

***Performance standards for the MSPB-1 measure are based on the performance period and are not released in advance of the program.

Value Based Purchasing (VBP) Overview: FFY 2019 Program

Measures, Performance Standards, Evaluation Periods, and Other Program Details for the FFY 2019 VBP Program

Measure ID	Measure Description	Achievement Threshold ¹	Benchmark ²	Minimum Standards ⁴	Total Performance Score: Original Domain Weighting ⁵	
Safety of Care	HAI_1* (CLABSI) (EXPANDED)	Central Line-Associated Blood Stream Infection (CLABSI) (ICU and Select Wards)	0.860	0.000		
	HAI_2* (CAUTI) (EXPANDED)	Catheter-Associated Urinary Tract Infection (CAUTI) (ICU and Select Wards)	0.822	0.000	1 Predicted Infection Each	
	HAI_5* (MRSA)	Methicillin-resistant Staphylococcus Aureus (MRSA) Blood Laboratory-identified Events	0.854	0.000		
	HAI_6* (C.diff)	Clostridium difficile (C.diff.)	0.924	0.113		
	PC-01*	Elective Delivery Prior to 39 completed Weeks Gestation	1.0038%	0.0000%	10 Cases	
	Pooled Surgical Site Infection (SSI) Measure**:					
	HAI-3* (SSI - Colon)	Surgical Site Infection - Colon	0.783	0.000	1 Predicted Infection on One of the Two Strata	
	HAI-4* (SSI - Abd. Hyst.)	Surgical Site Infection - Abdominal Hysterectomy	0.762	0.000		
Removed Measures From Safety of Care: PSI-90: Patient Safety Indicator Composite						
Clinical Care	MORT-30-AMI	Acute Myocardial Infarction (AMI) 30-Day Mortality Rate (converted to survival rate for VBP)	85.0617%	87.3263%		
	MORT-30-HF	Heart Failure (HF) 30-Day Mortality Rate (converted to survival rate for VBP)	88.3472%	90.8094%		
	MORT-30-PN	Pneumonia (PN) 30-Day Mortality Rate (converted to survival rate for VBP)	88.2334%	90.7906%	25 Cases Each	
	THA/TKA* (NEW)	Elective Primary Total Hip Arthroplasty (THA) and/or Total Knee Arthroplasty (THA) Complication Rate	3.2229%	2.3178%		
Person and Community Engagement		Communication with Nurses	28.10%	78.69%	86.97%	100 Surveys
		Communication with Doctors	33.46%	80.32%	88.62%	
		Responsiveness of Hospital Staff	32.72%	65.16%	80.15%	
		Communication about Medicines	11.38%	63.26%	73.53%	
		Hospital Cleanliness & Quietness	22.85%	65.58%	79.06%	
		Discharge Information	61.96%	87.05%	91.87%	
		Overall Rating of Hospital	28.39%	70.85%	84.83%	
	CTM-3	3-Item Care Transitions Measure	11.30%	51.42%	62.77%	
Efficiency and Cost Reduction	MSPB-1*	Spending Per Hospital Patient With Medicare	Median Ratio Across All Hospitals	Mean Ratio of Lowest Decile of Hospitals	25 Cases	

FFY 2019 VBP Program Timeframes

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
						Person and Community Engagement: Baseline Period ⁶		Person and Community Engagement: Performance Period ⁷		FFY 2019 Payment Adjustment
	Clinical Care (Mortality Measures): Baseline Period ⁶					Clinical Care (Mortality Measures): Performance Period ⁷				
	Clinical Care (THA/TKA): Baseline Period ⁶					Clinical Care (THA/TKA): Performance Period ⁷				
						Safety of Care: Baseline Period ⁶		Safety of Care: Performance Period ⁷		
						Efficiency and Cost Reduction: Baseline Period ⁶		Efficiency and Cost Reduction: Performance Period ⁷		

- Notes:**
- The Affordable Care Act (ACA) of 2010 mandated the implementation of an inpatient hospital value-based purchasing (VBP) Program. The VBP Program is a pay-for-performance program that links Medicare payment to quality performance for acute care hospitals paid under the Inpatient Prospective Payment System (IPPS). Under the VBP Program, using a subset of the quality data reported from the Hospital Inpatient Quality Reporting (IQR) Program grouped into quality domains, hospitals can earn points towards a Total Performance Score (TPS). The TPS will serve as the basis for determining hospitals' VBP payments or gain/loss under the program. In calculating the TPS, the scoring methodology provides points to hospitals that achieve high quality standards as well as points to hospitals that improve in the quality measures evaluated. As required by the ACA, a pool of funds, to be redistributed to hospitals based on their TPS, will be funded through an across-the-board reduction to Medicare IPPS base operating payments. The reduction has been capped at 2.0%. Critical Access Hospitals (CAHs), hospitals in Maryland and Puerto Rico, and small hospitals with insufficient numbers of measures and/or cases are excluded from the program.
 - ¹The Achievement Threshold is the minimum performance standard for each measure and reflects the median performance score (50th percentile) for all hospitals in the nation during the baseline period. The threshold is used in combination with other factors to calculate hospital-specific achievement points.
 - ²The Benchmark is the top performance standard for each measure reflects the average performance score for the top 10% of all hospitals in the nation during the baseline period. The benchmark is used in combination with other factors to calculate hospital-specific achievement and improvement points.
 - ³The Floor is for Patient Experience of Care measures only and each measure reflects the lowest measure score in the nation during the baseline period. The floor is used in combination with other factors to calculate hospital-specific consistency points.
 - ⁴Hospitals must meet minimum case and survey counts to be included in the VBP Program. In addition to the case count criteria, hospitals must have a minimum of 2 measures to obtain a Clinical Care Domain score, 2 measures to obtain a Safety of Care domain score, and 1 measure to obtain an Efficiency and Cost Reduction domain score.
 - ⁵The Domain Weight is a weight applied to each domain to calculate a hospital-specific TPS. A hospital's weighted TPS is compared to TPSs for all hospitals to determine the hospital-specific gain or loss under the program. If hospitals do not meet the minimum requirements on one or more domain, the other domains are proportionately reweighted to determine a TPS. For the FFY 2019 program, hospitals are required to be scored on 3 of the 4 domains to be eligible for the program.
 - ⁶The Baseline Period is a specified period for which quality data collected under the IQR Program will be evaluated. The baseline period data is used for determining the floors, achievement thresholds, and benchmarks (excluding the efficiency measure) and is also used in combination with other factors to calculate hospital-specific improvement points.
 - ⁷The Performance Period is a specified period for which quality data collected under the IQR Program will be evaluated. The performance period data is used in combination with other factors to calculate hospital-specific achievement and improvement points.
 - *For these measures, lower scores are better.
 - **The final SSI measure score is an aggregate of the calculated scores for HAI-3 and HAI-4, which are then weighted based on the predicted infections for each measure. For purposes of domain eligibility, CMS considers the two SSI measures as a single measure.
 - ***Performance standards for the MSPB-1 measure are based on the performance period and are not released in advance of the program.

Value Based Purchasing (VBP) Overview: FFY 2020 Program

Measures, Performance Standards, Evaluation Periods, and Other Program Details for the FFY 2020 VBP Program

	Measure ID	Measure Description	Achievement Threshold ¹	Benchmark ²	Minimum Standards ⁴	Total Performance Score: Original Domain Weighting ⁵	
						Weighting	Score
Safety of Care	HAI_1* (CLABSI)	Central Line-Associated Blood Stream Infection (CLABSI) (ICU and Select Wards)	0.828	0.000	1 Predicted Infection Each	25%	90%
	HAI_2* (CAUTI)	Catheter-Associated Urinary Tract Infection (CAUTI) (ICU and Select Wards)	0.784	0.000			
	HAI_5* (MRSA)	Methicillin-resistant Staphylococcus Aureus (MRSA) Blood Laboratory-identified Events	0.815	0.000			
	HAI_6* (C.diff)	Clostridium difficile (C.diff.)	0.852	0.091			
	PC-01*	Elective Delivery Prior to 39 completed Weeks Gestation	0.0000%	0.0000%			
	Pooled Surgical Site Infection (SSI) Measure**:						
	HAI-3* (SSI - Colon)	Surgical Site Infection - Colon	0.781	0.000	1 Predicted Infection on One of the Two Strata	25%	80%
	HAI-4* (SSI - Abd. Hyst.)	Surgical Site Infection - Abdominal Hysterectomy	0.722	0.000			
Clinical Care	MORT-30-AMI	Acute Myocardial Infarction (AMI) 30-Day Mortality Rate (converted to survival rate for VBP)	85.3715%	87.5869%	25 Cases Each	25%	60%
	MORT-30-HF	Heart Failure (HF) 30-Day Mortality Rate (converted to survival rate for VBP)	88.1090%	90.6068%			
	MORT-30-PN	Pneumonia (PN) 30-Day Mortality Rate (converted to survival rate for VBP)	88.2266%	90.9532%			
	THA/TKA*	Elective Primary Total Hip Arthroplasty (THA) and/or Total Knee Arthroplasty (THA) Complication Rate	3.2229%	2.3178%			
Person and Community Engagement		Communication with Nurses	51.80%	79.08%	100 Surveys	25%	40%
		Communication with Doctors	50.67%	80.41%			
		Responsiveness of Hospital Staff	35.74%	65.07%			
		Communication about Medicines	26.16%	63.30%			
		Hospital Cleanliness & Quietness	41.92%	65.72%			
		Discharge Information	66.72%	87.44%			
		Overall Rating of Hospital	32.47%	71.59%			
	CTM-3	3-Item Care Transitions Measure	20.33%	51.14%			
Efficiency and Cost Reduction	MSPB-1*	Spending Per Hospital Patient With Medicare	Median Ratio Across All Hospitals ***	Mean Ratio of Lowest Decile of Hospitals ***	25 Cases	25%	20%

FFY 2020 VBP Program Timeframes

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
						Person and Community Engagement: Baseline Period ⁶		Person and Community Engagement: Performance Period ⁷		FFY 2020 Payment Adjustment
						Clinical Care: Baseline Period ⁶		Clinical Care: Performance Period ⁷		
						Safety of Care: Baseline Period ⁶		Safety of Care: Performance Period ⁷		
						Efficiency and Cost Reduction: Baseline Period ⁶		Efficiency and Cost Reduction: Performance Period ⁷		

Notes:

The Affordable Care Act (ACA) of 2010 mandated the implementation of an inpatient hospital value-based purchasing (VBP) Program. The VBP Program is a pay-for-performance program that links Medicare payment to quality performance for acute care hospitals paid under the Inpatient Prospective Payment System (IPPS). Under the VBP Program, using a subset of the quality data reported from the Hospital Inpatient Quality Reporting (IQR) Program grouped into quality domains, hospitals can earn points towards a Total Performance Score (TPS). The TPS will serve as the basis for determining hospitals' VBP payments or gain/loss under the program. In calculating the TPS, the scoring methodology provides points to hospitals that achieve high quality standards as well as points to hospitals that improve in the quality measures evaluated. As required by the ACA, a pool of funds, to be redistributed to hospitals based on their TPS, will be funded through an across-the-board reduction to Medicare IPPS base operating payments. The reduction has been capped at 2.0%. Critical Access Hospitals (CAHs), hospitals in Maryland and Puerto Rico, and small hospitals with insufficient numbers of measures and/or cases are excluded from the program.

¹The Achievement Threshold is the minimum performance standard for each measure and reflects the median performance score (50th percentile) for all hospitals in the nation during the baseline period. The threshold is used in combination with other factors to calculate hospital-specific achievement points.

²The Benchmark is the top performance standard for each measure reflects the average performance score for the top 10% of all hospitals in the nation during the baseline period. The benchmark is used in combination with other factors to calculate hospital-specific achievement and improvement points.

³The Floor is for Patient Experience of Care measures only and each measure reflects the lowest measure score in the nation during the baseline period. The floor is used in combination with other factors to calculate hospital-specific consistency points.

⁴Hospitals must meet minimum case and survey counts to be included in the VBP Program. In addition to the case count criteria, hospitals must have a minimum of 2 measures to obtain a Clinical Care Domain score, 2 measures to obtain a Safety of Care domain score and 1 measure to obtain an Efficiency and Cost Reduction domain score.

⁵The Domain Weight is a weight applied to each domain to calculate a hospital-specific TPS. A hospital's weighted TPS is compared to TPSs for all hospitals to determine the hospital-specific gain or loss under the program. If hospitals do not meet the minimum requirements on one or more domain, the other domains are proportionately reweighted to determine a TPS. For the FFY 2020 program, hospitals are required to be scored on 3 of the 4 domains to be eligible for the program.

⁶The Baseline Period is a specified period for which quality data collected under the IQR Program will be evaluated. The baseline period data is used for determining the floors, achievement thresholds, and benchmarks (excluding the efficiency measure) and is also used in combination with other factors to calculate hospital-specific improvement points.

⁷The Performance Period is a specified period for which quality data collected under the IQR Program will be evaluated. The performance period data is used in combination with other factors to calculate hospital-specific achievement and improvement points.

*For these measures, lower scores are better.

**The final SSI measure score is an aggregate of the calculated scores for HAI-3 and HAI-4, which are then weighted based on the predicted infections for each measure. For purposes of domain eligibility, CMS considers the two SSI measures as a single measure.

*** Performance standards for the MSPB-1 measure are based on the performance period and are not released in advance of the program.

Value Based Purchasing (VBP) General Program Methodology

Hospital Scoring Methods and Other Program Details for the VBP Program

As required by the ACA, VBP eligible hospitals contribute a set percentage of their Medicare IPPS base operating payments to a national VBP pool of dollars. All VBP pool dollars are then paid out, in full, based on each hospital's performance under the program. Under the Program, hospitals are evaluated on a measure by measure basis and receive a score of 0-10 on each measure where they meet each measure's minimum requirement. Next, similar measures are grouped into domains and overall domain scores are calculated based on the average measure score in the domain. Domain scores are then combined to find a Total Performance Score (TPS). The TPS serves as the basis for determining hospitals' VBP payments or gain/loss under the program. Using all program-eligible hospitals' Total Performance Scores, CMS calculates a VBP slope that redistributes all VBP contributions and makes the program budget neutral nationally. Each hospital's TPS multiplied by the slope determines payout percentages. The basic program methodology is shown below:



Measure Score Calculation

For each measure, hospitals can receive a score of 0-10 depending on where they fall in relation to national performance standards (achievement points) and/or how much they have improved from historical rates/ratios (improvement points). After achievement and improvement points are calculated, the higher of the two determines final points for each measure.

$$\text{Achievement Points (all program measures)} = \left[9 \times \left[\frac{\text{Performance Period Score} - \text{Achievement Threshold}}{\text{Benchmark} - \text{Achievement Threshold}} \right] \right] + 0.5$$

$$\text{Improvement Points (all program measures)} = \left[10 \times \left[\frac{\text{Performance Period Score} - \text{Baseline Period Score}}{\text{Benchmark} - \text{Baseline Period Score}} \right] \right] - 0.5$$

$$\text{Final Points (all program measures)} = \text{Higher of Achievement or Improvement}$$

$$\text{Final Points (SSI Measure)} = \left[\frac{\text{Final Points}_{\text{HAI3}} \times \text{Predicted Infections}_{\text{HAI3}} + \text{Final Points}_{\text{HAI4}} \times \text{Predicted Infections}_{\text{HAI4}}}{\text{Predicted Infections}_{\text{HAI3}} + \text{Predicted Infections}_{\text{HAI4}}} \right]$$

Patient Experience of Care (Person and Community Engagement FFY 2019+) - Consistency Points Calculation

In addition to individual measure scores, the Patient Experience of Care domain scores hospitals based on how consistently they perform across all measures within the domain. Each hospital can receive between 0-20 consistency points based on the measure with the lowest Consistency Multiplier calculated as shown below:

$$\text{Consistency Points (patient experience of care)} = [20 \times \text{Lowest Measure Consistency Points Multiplier}] - 0.50$$

$$\text{Consistency Points Multiplier (patient experience of care)} = \left[\frac{\text{Performance Period Score} - \text{Floor}}{\text{Achievement Threshold} - \text{Floor}} \right]$$

Domain Score and Total Performance Score (TPS) Calculation

Individual measure scores for similar measures are combined to find overall Domain scores. On each domain, a minimum number of measures must be scored in order to be eligible for the domain. Once domain scores are calculated, a total performance score is calculated, combining domain scores based on the program year's applicable domain weights. Hospitals are required to be scored on 3 of the 4 domains. Domain weights are reweighted proportionally when hospitals are not eligible for one or more domains.

$$\text{Overall Domain Score} = \left[\frac{\text{Sum of Final Points Earned on Each Scored Measure}}{\text{Maximum Possible Points on Each Scored Measure}} \right]$$

$$\text{Proportionally Reweighted Domain Weight (FFY 2015+)} = \left[\frac{\text{Original Weight of Domain}}{\text{Sum of Original Weights for all Scored Domains}} \right]$$

$$\text{Total Performance Score (TPS)} = [\text{Domain}_1 \text{ Score} \times \text{Domain}_1 \text{ Weight} + \text{Domain}_2 \text{ Score} \times \text{Domain}_2 \text{ Weight} \dots \text{Domain}_N \text{ Score} \times \text{Domain}_N \text{ Weight}]$$

VBP Slope/Linear Function, Payout Percentage, Adjustment Factor, and Program Impact Calculation

Once TPS scores are calculated for all eligible hospitals, the VBP slope is calculated such that all program contributions are paid out, making the program budget neutral nationally. The VBP slope/linear function is used to determine each hospital's payout percentage (the amount of their contribution to the VBP pool they receive back) as well as final adjustment factors, and impacts under the program.

$$\text{VBP Linear Function (Payout Percentage)} = [\text{Total Performance Score} \times \text{VBP Slope}]$$

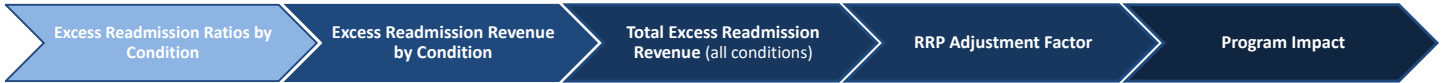
$$\text{VBP Adjustment Factor} = [1 + (\text{Program Contribution Percentage} \times \text{Payout Percentage}) - \text{Program Contribution Percentage}]$$

$$\text{Annual Program Impact} = [\text{IPPS Base Operating Dollars} \times \text{VBP Adjustment Factor} - \text{IPPS Base Operating Dollars}]$$

Readmission Reduction Program (RRP) Overview

Applicable conditions, performance timeframes, and other details for the FFY 2018, 2019, and 2020 programs

The Readmission Reduction Program (RRP) adjusts Medicare inpatient payments based on hospital readmission rates for several conditions. This program is punitive only and does not give hospitals credit for improvement over time or lower readmission rates than the nation. First, CMS compares hospital risk-adjusted readmission rates to national rates to calculate excess readmission ratios for each condition. Next, CMS applies the excess ratio to aggregate payments for each condition to find excess readmission dollars by condition. The sum of all excess readmission dollars for all applicable conditions divided by all inpatient operating revenue determines program adjustment factors/impacts under the program. For FFY 2019, CMS implemented an interim methodology to incorporate socio-demographic status (SDS) into the RRP program. CMS has not yet stated what the SDS adjustment will be for FFY 2020 and therefore FFY 2020 SDS methodology is not included. The basic program methodology is shown below:



FFY 2018 RRP Program Measure Scoring

Excess Readmission Ratio (ERR) (by condition) = $\frac{\text{Predicted Readmission Rate}^1}{\text{Expected Readmission Rate}^2}$

Total Excess Readmission Revenue (by condition) = $[\text{ERR}^3 - 1] \times \text{Condition Specific Base Operating Revenue}$

Total Excess Readmission Revenue⁴ = $\Sigma \text{Excess Readmission Revenue by Condition}$

Readmission Reduction Program (RRP) Adjustment Factor⁵ = $[1 - (\frac{\text{Total Excess Readmission Revenue}}{\text{Total IPPS Base Operating Revenue}})]$

Annual Program Impact = $[\text{IPPS Base Operating Revenue} \times \text{RRP Adjustment Factor} - \text{IPPS Base Operating Revenue}]$

FFY 2019 Program Measure Scoring (Interim Socio-Demographic Status Adjustment)

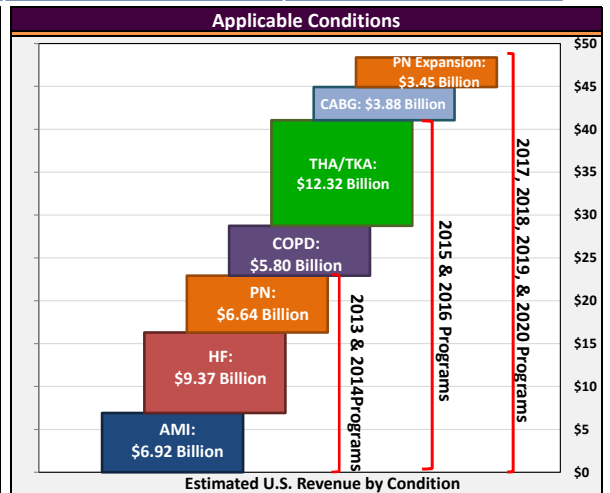
Excess Readmission Ratio (ERR) (by condition) = $\frac{\text{Predicted Readmission Rate}^1}{\text{Expected Readmission Rate}^2}$

Total Excess Readmission Revenue (by condition) = $[\text{ERR}^3 - \text{Quintile Median ERR}^6] \times \text{Condition Specific Base Operating Revenue}$

Total Excess Readmission Revenue⁴ = $\Sigma \text{Excess Readmission Revenue by Condition}$

Readmission Reduction Program (RRP) Adjustment Factor⁵ = $[1 - \text{Budget Neutrality Modifier}^7 \times (\frac{\text{Total Excess Readmission Revenue}}{\text{Total IPPS Base Operating Revenue}})]$

Annual Program Impact = $[\text{IPPS Base Operating Revenue} \times \text{RRP Adjustment Factor} - \text{IPPS Base Operating Revenue}]$



Applicable Conditions

Readmission rates, aggregate payments by condition, and excess readmission dollars by condition are all defined by a predetermined list of procedure and/or diagnoses codes specific to each condition, excluding certain planned readmissions or regular, scheduled follow up care. The following patients are also excluded from the rates/revenue estimates used to calculate program adjustments for all measures: patients who are not enrolled in Medicare fee-for-service (FFS); patients under the age of 65; patients without at least 30 days enrollment post-discharge in a Medicare FFS plan; patients who were discharged against medical advice (AMA); certain patients who were transferred to/from another inpatient hospital

A hospital must have an applicable period of three years of discharge data and at least 25 cases in order to calculate an excess readmission ratio for each applicable condition. Each additional condition added to the program increases the revenue exposed and the potential for excess readmissions that results in penalties under the program. The total estimated revenue across all hospitals for each condition is shown in the graph above to indicate the relative magnitude of each condition under the program.

Program Timelines

2013	2014	2015	2016	2017	2018	2019	2020
FFY 2018 Program Performance Period (All Conditions)				FFY 2018 Program Payment Adjustment			
FFY 2019 Program Performance Period (All Conditions)					FFY 2019 Program Payment Adjustment		
FFY 2020 Program Performance Period (All Conditions)						FFY 2020 Program Payment Adjustment	

- Notes:**
- Predicted Readmission Rate** - Reflects the hospital's risk-adjusted, observed 30-day readmission rate following inpatient discharges for each applicable condition. Rates are risk adjusted for age, sex, comorbidities, and other patient characteristics that may contribute to higher readmission rates. These rates also include exclusions for readmissions that are a result of planned follow up care, or unrelated readmissions that are never related to the index admission. Predicted rates reflect performance for the three year period shown above.
 - Expected Readmission Rate** - Reflects the U.S. 30-day readmission rate for each condition with hospital specific risk adjustments to estimate the expected U.S. readmission rate for each hospital's patient mix. Rates are risk adjusted for age, sex, comorbidities, and other patient characteristics that may contribute to higher readmission rates. These rates also include exclusions for readmissions that are a result of planned follow up care, or unrelated readmissions that are never related to the index admission. Expected rates reflect adjusted national performance for the three year period shown above.
 - Excess Readmission Ratio** - Calculated for each condition under the program, this ratio represents how each hospital's actual, observed readmission rate differs from the rate for all U.S. hospitals, adjusted for case-mix. An excess ratio greater than one indicates poorer performance than the country and results in payment penalties while an excess ratio less than one indicates better performance and has no effect on payment.
 - Excess Readmission Revenue** - Reflects the portion of revenue for each condition CMS believes was paid due to excess readmissions. Excess readmission revenue is a function of base operating revenue for the condition and the excess ratio on the condition. Base operating dollars reflects operating payments without adjustments for DSH, IME, or outlier payments.
 - Readmission Reduction Program Adjustment Factor** - Under the RRP program, adjustment factors are calculated by dividing total excess readmission dollars (all conditions) by total base operating dollars for all patients for the same three year performance period as measured by the readmission rates. Adjustment factors are used to reduce IPPS payments on a per-discharge basis for performance under the program. CMS currently sets an adjustment factor floor of 0.9700, or a 3.0% payment penalty.
 - Quintile Median Excess Readmission Ratio** - A hospital is placed into a quintile based on their ratio of full-benefit dual eligible patients to total Medicare patients (including Medicare Fee-For-Service and Medicare Advantage stays) over the three year program performance period. A median excess readmission ratio is calculated for each quintile for each condition. A hospital's own excess readmission ratio for each condition will be compared to the condition-specific quintile median excess readmission ratio to determine total excess readmission revenue.
 - Budget Neutrality Modifier** - A budget neutrality modifier is calculated such that the total Medicare savings using the FFY 2019 interim methodology are equal to what the total Medicare savings would have been if the previous RRP methodology was used. This budget neutrality modifier is applied to each hospital's RRP adjustment factor.

Readmission rates, aggregate payments by condition, and excess readmission dollars by condition are all defined by a predetermined list of procedure/diagnoses codes specific to each condition. For each condition, condition-specific exclusions and adjustments may apply. Full detail on measure methodology as well as applicable ICD-9 (FFY 2018) and ICD-10 codes (FFYs 2019 and 2020) for each condition are provided here: <https://www.qualitynet.org/dcs/ContentServer?c=Page&pageName=QnetPublic%2FPage%2FQnetTier4&cid=1219069585841>

Hospital Acquired Condition (HAC) Reduction Program Overview

Applicable conditions, performance timeframes, and other details for the FFY 2018, 2019, and 2020 programs

The Hospital Acquired Condition (HAC) Reduction Program sets payment penalties each year for hospitals in the top quartile (worst performance) of HAC rates for the country. The HAC reduction program is punitive only and does not give hospitals credit for improvement over time. Under the program, hospitals are compared to the nation measure by measure on their z-score. Scores for similar measures are combined into domain scores. Domain scores are then weighted together into a Total HAC score. The Total HAC score is used to determine the top quartile (worst performance) for payment penalty in each year. The HAC payment penalty is 1.0% of total Medicare Fee-For-Service (FFS) revenue and does not change year to year. The basic program methodology is shown below:



Domain 1: AHRQ Claims Based Measures			Domain 2: CDC Chart Abstracted Measures ²	
PSI-90: Patient Safety and Adverse Events Composite¹	Weight	Domain Weight		Domain Weight
PSI 11: Postop Respiratory Failure	30.5%	15%	Central Line Associated Blood Stream Infection (CLABSI)	85%
PSI 13: Postop Sepsis	21.6%		Catheter Associated Urinary Tract Infection (CAUTI)	
PSI 12: Periop PE or DVT	20.9%		Surgical Site Infection (SSI) Pooled SIR³	
PSI 9: Periop Hemorrhage or Hematoma Rate	8.5%		SSI from Colon Surgery	
PSI 3: Pressure Ulcer	6.0%		SSI from Abdominal Hysterectomy	
PSI 6: Iatrogenic Pneumothorax	5.3%		Clostridium difficile (C.diff.) SIR	
PSI 10: Postop Acute Kidney Injury Requiring Dialysis	4.1%		Methicillin-resistant Staphylococcus Aureus (MRSA)	
PSI 14: Postop Wound Dehiscence	1.3%			
PSI 8: In-Hospital Fall with Hip Fracture	1.0%			
PSI 15: Unrecognized Abdominopelvic Accidental Puncture/Laceration	0.7%			

Measure Scoring

HAC ratios for all program-eligible hospitals nationwide are assigned winsorized z-scores. A z-score represents how different a hospital performed compared to the national average, in terms of standard deviations from the mean: poor performance = positive z-score (worse than the national average) and good performance = negative z-score (better than the national average). Lower z-scores are better. Winsorization is intended to remove the effects of extreme outliers. CMS chose to do this by setting all z-score values below the 5th percentile, to the 5th percentile value and above the 95th percentile, to the 95th percentile value.

In order to receive a score on a measure, hospitals must meet minimum requirements. For Domain 1, a hospital must have 3 or more cases in at least one of the ten component PSI measures that make up the PSI-90 composite measure. For Domain 2, a hospital must have 1 or more predicted infections for each measure (1 or more pooled predicted infection for SSI).

*Measures not meeting the minimum scoring requirements are dropped from the domain score calculation. If a domain does not contain at least one eligible measure, then the Total HAC score is determined based solely on the other domain. Hospitals receive the maximum score for any Domain 2 measure that is not submitted, unless provided with a waiver.

Other Program Calculations

Pooled Standardized Infection Ratio (SIR) (SSI measures only) = $\frac{\text{Observed Infections for Abdominal Hysterectomy} + \text{Observed Infections for Colon}}{\text{Predicted Infections for Abdominal Hysterectomy} + \text{Predicted Infections for Colon}}$

Overall Domain Score = Average measure score for all scored measures

Total HAC Score⁴ = Domain₁ Score x Domain₁ Weight + Domain₂ Score x Domain₂ Weight

Annual Program Impact⁵ = Medicare FFS Inpatient Dollars x 1.0% - Medicare FFS Inpatient Dollars

Z-score⁶ = $\frac{\text{Hospital's Measure Performance} - \text{Mean Performance for All Hospitals}}{\text{Standard Deviation for All Hospitals}}$

Program Timelines

2014	2015	2016	2017	2018	2019	2020
J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D
	FFY 2018: Domain 1 Performance Period			FFY 2018 Program Payment Adjustment		
	FFY 2019: Domain 1 Performance Period				FFY 2019 Program Payment Adjustment	
	FFY 2019: Domain 2 Performance Period				FFY 2019 Program Payment Adjustment	
	FFY 2020: Domain 1 Performance Period		FFY 2020: Domain 2 Performance Period		FFY 2020 Program Payment Adjustment	

Notes:

¹The Domain 1 modified PSI-90 composite measure is calculated by combining performance on 10 individual Patient Safety Indicator (PSI) measures. While hospitals are scored on the overall PSI-90 composite measure, each component PSI and their weight towards the overall composite are shown above. Weights shown are based on version 6.0a of the AHRQ Quality Indicators software.

²CDC Measure Updates: Beginning in FFY 2018, CMS rebased rebase the CDC measure reference population data to calendar year 2015, resulting in changes to the denominators used to calculate the HAI SIRs. In addition, the CAUTI and CLABSI measures were expanded to include non-ICU medical, surgical, and medical/surgical wards.

³The pooled Surgical Site Infection (SSI) measure is made up of two individual SSI measures: SSI - Abdominal Hysterectomy and SSI - Colon. For the pooled SIR measure, observed infections for both SSI measures are divided by predicted infections to calculate a pooled SIR. Hospitals are then evaluated and assigned measure points based on their pooled SIR.

⁴Individual measure scores are combined into domain scores, and domain scores are combined into a Total HAC score.

⁵Unlike the Value Based Purchasing and Readmission Reduction Program, penalties under this program are applied to total Medicare payments, inclusive of Operating, Capital, Uncompensated Care payments, outlier payments, DSH, IME, and Value based purchasing (VBP)/Readmission Reduction Program (RRP) program adjustments.

⁶Using the formula, individual measure scores are assigned a z-score that represent how different a hospital performed relative to the national average in terms of standard deviation from the mean. Z-scores are winsorized to remove extreme outliers.