



MHAC Report Static User Guide for Rate Year 2025

By CRISP, last updated 2/7/2023

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RY 2025 MHAC Report User Guide

Overview

The Maryland Hospital Acquired Conditions (MHAC) program is based on a system developed by 3M Health Information Systems to identify potentially preventable complications (PPCs) using present-on-admission codes available in claims data. 3M originally developed specifications for 65 PPCs, which are defined as harmful events that develop after the patient is admitted to the hospital and may result from processes of care and treatment rather than from the natural progression of the underlying illness. For example, the program holds hospitals accountable for respiratory failure and pulmonary embolisms that occur during inpatient stays. These complications can lead to 1) poor patient outcomes, including longer hospital stays, permanent harm, and death; and 2) increased costs. Thus, the MHAC program is designed to provide incentives to improve patient care by adjusting hospital budgets based on PPC performance. The maximum penalty remains at 2 percent, and the maximum reward is increased to 2 percent.

For more information on the MHAC policy, please visit the following HSCRC website page: https://hscrc.maryland.gov/Pages/init_qi_MHAC.aspx

Methodology

The MHAC methodology assesses attainment only. The attainment score is calculated by comparing hospital performance to a statewide threshold benchmark. For RY2025, hospitals are now evaluated on 15 clinically significant PPCs, weighted by 3M cost weights as proxy for patient harm. The MHAC program uses a point-based system for converting PPC results to standardized scores, and the weighted PPC scores are converted to revenue adjustment. For RY 2025, 24 months of data (July 2020- June 2022) is used to establish the normative values that are used to calculate a hospital's expected PPC rate, and to determine the threshold and benchmark for scoring hospital performance. The RY 2025 scale uses a full distribution of potential scores (scale of 0-100%), with a hold harmless zone between 60 and 70 percent. The performance period data for RY2025 is CY 2023 and CY2022-2023 for small hospitals; data will be reported via the CRS portal as it becomes available.

For RY 2025, data will be used during the COVID Public Health Emergency to assess performance standards. With the performance standards determined post-COVID, that reduces any concerns that may arise about using a pre-COVID period. The v40 grouper has clinic logic that determines if a COVID-related discharge can be assigned a PPC.

Grouper Version

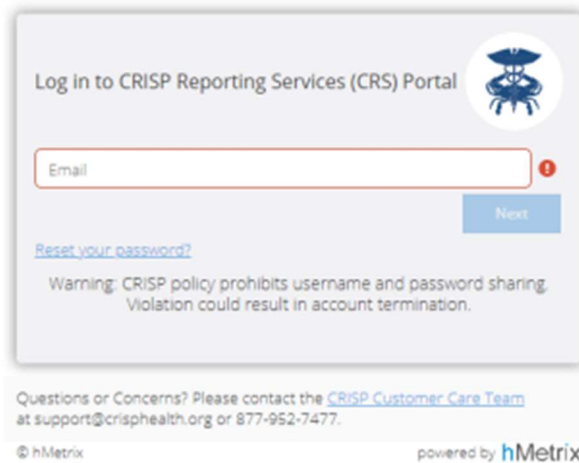
The APR-DRG and PPC Grouper Version 40 will be used for RY 2025.



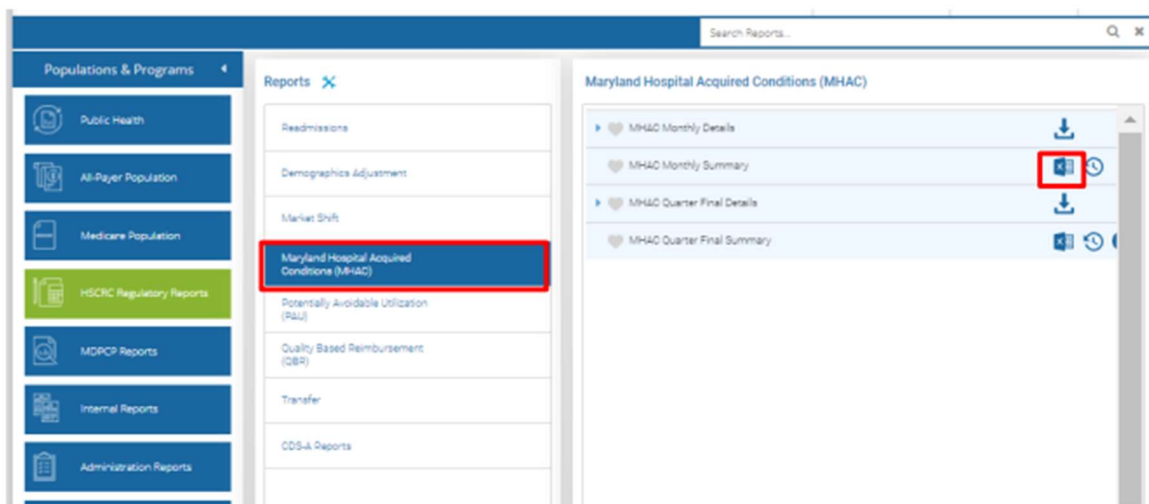
MHAC Report Access/Card

The MHAC Static Report can be accessed by visiting reports.crisphealth.org and logging-in with a CRS username and password.

Step 1. To access the HSCRC Regulatory Report tile, login to the CRISP Reporting Services Portal by visiting <https://reports.crisphealth.org>. Once in the CRS Portal, a dashboard of different blue report “cards” will appear. Availability of reports is based on the access of the user. Clicking the card named “HSCRC Regulatory Report” will bring up the available reports for this category. The following screenshots represent the user’s workflow.



Step 2. By clicking the Static Report icon as shown below, you will either access the MHAC Summary or MHAC Details Report. Users with PHI-level access to this report will have the MHAC Details report option. Users who can only see the MHAC Summary report (and not the MHAC Details report) are configured for summary level access (cannot see PHI reports).





Report Tabs

- Cover Sheet
- 3M Cost Weights
- Benchmarks
- Percent At-Risk Scaling
- Excluded PPCs
- Hospital Results by PPC
- Hospital Scores
- Statewide PPC Norms
- Calculation Sheet
- By Hospital by PPC
- Statewide by PPC
- By Hospital By PPC By Quarter

Cover Sheet

The cover sheet provides an overview of each sheet available in the MHAC report. It also lists the base year, performance year methodology version, and CGS.

RY2025		
BASE PERIOD	July 2020- June 2022	
PERFORMANCE YEAR	CY2023 (small hospitals will have CY2022+ CY2023)	
METHODOLOGY VERSION	PPC and APR version 40	
CGS		
INCLUDED IN THIS EXCEL WORKBOOK:	Sheet Name	Description
	2. 3M Cost weights	V40 3M cost weights as proxy for patient harm used for weighing PPCs.
	3. Attainment Standards	Benchmarks and Thresholds for each PPC based on Base Period (July 2020- June 2022) data.
	4. Percent At-Risk Scaling	This scale allows hospitals to "estimate" revenue adjustments.
	5. Excluded PPCs	List of PPCs excluded from calculations for each Hospital. Hospitals not listed on the sheet have all payment PPCs included.
	6. Hospital Results by PPC	Hospital PPC results: At-risk, Observed, Expected, O/E ratio, and weighted attainment points.
	7. Hospital Scores	Hospital scores for attainment only.
	8. Statewide Norms	PPC Norms based on Base Period (July 2020- June 2022) data
	9. Calculation Sheet	Calculation Sheet for hospitals
10. PPC Monitoring Tabs	10A. By Hosp by PPC by Year	This tab provides annual by hospital and by PPC results for all payment and non-payment PPCs. HSCRC will monitor the non-payment program PPCs and use this data to track overall PPC performance. Hospitals should monitor this data to fully assess patient complications. There is a flag that indicates payment program PPCs, as well as the previously defined serious reportable events.
10. PPC Monitoring Tabs	10B. Statewide by PPC	This tab provides statewide PPC results for all payment and non-payment PPCs. HSCRC will monitor the non-payment program PPCs and use this data to track overall PPC performance.
10. PPC Monitoring Tabs	10C. By Hosp by PPC by Quarter	This tab is updated quarterly and provides quarterly by-hospital and by PPC results for all payment and non-payment PPCs. HSCRC will monitor the non-payment program PPCs and use this data to track overall PPC performance. Hospitals should monitor this data to fully assess patient complications. There is a flag that indicates payment program PPCs as well as the previously defined serious reportable events.
Updates:		
12/10/21: Per HSCRC regulatory guidance, these reports have removed cases from specifically designated Alternative Care Sites and PODs; these are generally defined as cases at applicable hospital campuses where R_FLAG = 'A'. For more information, please contact hscrc.quality@maryland.gov		



3M Cost Weights

This sheet displays each 3M cost weights as proxy for patient harm used for weighing PPCs (using cost weights assigned under v40 of the APR Grouper).

2. 3M PPC Cost Weights

As of 1/09/2023		
PPC NUMBER	PPC Description	3M v40 PPC Marginal Costs
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	0.5005
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	1.5519
7	Pulmonary Embolism	1.1248
9	Shock	1.0478
16	Venous Thrombosis	1.5503
28	In-Hospital Trauma and Fractures	0.3379
35	Septicemia & Severe Infections	1.4394
37	Post-Operative Infection & Deep Wound Disruption without Procedure	1.5936
41	Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D	0.9745
42	Accidental Puncture/Laceration During Invasive Procedure	0.4264
47	Encephalopathy	0.7724
49	Iatrogenic Pneumothorax	0.4717
60	Major Puerperal Infection and Other Major Obstetric Complications	0.8978
61	Other Complications of Obstetrical Surgical & Perineal	0.2099
67	Pneumonia Combo (with and without Aspiration)	1.1330

Metric	Description
3M v40 PPC Marginal Costs	Weighting the 15 PPCs differentially using 3M cost weights as a proxy for degree of patient harm.



Benchmarks

This sheet displays the benchmarks and thresholds for each PPC, based on base period July 2020 – June 2022 data. These metrics are used to assign attainment points, comparing the base period with CY 2023 performance; small hospitals will be assessed on CY 2022- 2023 for performance.

3. Benchmarks and thresholds for Payment Program PPCs

As of 1/25/2023

PPC Number	PPC Description	Threshold	Benchmark
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	1.8412	0.3688
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	1.6823	0.3746
7	Pulmonary Embolism	1.9105	0.3419
9	Shock	1.9497	0.3746
16	Venous Thrombosis	1.7583	0.0928
28	In-Hospital Trauma and Fractures	1.8455	0.4319
35	Septicemia & Severe Infections	1.6128	0.5586
37	Post-Operative Infection & Deep Wound Disruption Without Procedure	2.1254	0.1655
41	Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc	1.8211	0.3251
42	Accidental Puncture/Laceration During Invasive Procedure	1.4303	0.3886
47	Encephalopathy	1.8960	0.2459
49	Iatrogenic Pneumothrax	1.8156	0.3213
60	Major Puerperal Infection and Other Major Obstetric Complications	2.0890	0.0000
61	Other Complications of Obstetrical Surgical & Perineal Wounds	2.1321	0.3002
67	Combined Pneumonia (PPC 5 and 6)	1.6123	0.3541

Metric	Description
Threshold	The value of the observed to expected ratio at the 10th percentile of hospital performance.
Benchmark	The value of the observed to expected ratio at the 90th percentile of hospital performance.



Percent At-Risk Scaling

This scale allows hospitals to estimate revenue adjustments. The RY 2025 scale uses a full distribution of potential scores (scale of 0-100%), with a hold harmless zone between 60 and 70 percent.

Metric	Description
Final MHAC Score	PPCs are calculated by summing the total weighted points earned by a hospital, divided by the total possible weighted points.
Revenue Adjustment	Revenue adjustment scale with a maximum penalty at 2 percent and maximum reward at 2 percent and continuous linear scaling with a hold harmless zone between 60 and 70 percent.

4. RY 2025 Pre-Set Revenue Adjustment Scale*
between 60 and 70 percent
*Subject to change due to potential retrospective adjustments.

Full Scale		Abbreviated Version	
Final MHAC Score	% Revenue Adjustment	Final MHAC Score	% Revenue Adjustment
0%	-2.00%	0%	-2.00%
1%	-1.97%	5%	-1.83%
2%	-1.93%	10%	-1.67%
3%	-1.90%	15%	-1.50%
4%	-1.87%	20%	-1.33%
5%	-1.83%	25%	-1.17%
6%	-1.80%	30%	-1.00%
7%	-1.77%	35%	-0.83%
8%	-1.73%	40%	-0.67%
9%	-1.70%	45%	-0.50%
10%	-1.67%	50%	-0.33%
11%	-1.63%	55%	-0.17%
12%	-1.60%	60%	0.00%
13%	-1.57%	65%	0.00%
14%	-1.53%	70%	0.00%
15%	-1.50%	75%	0.33%
16%	-1.47%	80%	0.67%
17%	-1.43%	85%	1.00%
18%	-1.40%	90%	1.33%
19%	-1.37%	95%	1.67%
20%	-1.33%	100%	2.00%
21%	-1.30%		
22%	-1.27%		
23%	-1.23%		
		Penalty Cut-point	60%
		Reward Cut-point	70%



Excluded PPCs

Under MHAC, the attainment score is measured on 15 PPCs. The sheet provides a list of PPCs excluded from calculations for each hospital based on the MHAC inclusion/exclusion criteria, which can be found in the MHAC memo on the HSCRC website. Hospitals not listed on the sheet have all 15 PPCs included.

5. List of Excluded PPCs by Hospital, based on Base Period Data

Hospitals not listed have no excluded PPCs.

As of 1/25/2023

Hospital ID	Hospital	Excluded PPC Number
210010	UM-Cambridge	7
210010	UM-Cambridge	9
210010	UM-Cambridge	16
210010	UM-Cambridge	28
210010	UM-Cambridge	35
210010	UM-Cambridge	37
210010	UM-Cambridge	41
210010	UM-Cambridge	42
210010	UM-Cambridge	47
210010	UM-Cambridge	49
210010	UM-Cambridge	60
210010	UM-Cambridge	61
210010	UM-Cambridge	67
210011	Ascension Saint Agnes Hospital	60
210011	Ascension Saint Agnes Hospital	61
210012	Sinai	60
210015	MedStar Fr Square	60
210016	Adventist White Oak	60
210016	Adventist White Oak	61
210017	Garrett	4
210017	Garrett	7
210017	Garrett	16
210017	Garrett	28
210017	Garrett	35
210017	Garrett	37



Hospital Results by PPC

Hospital PPC results based on Policy Modeling: At-risk, Observed, Expected, O/E ratio, and weighted attainment points. The policy modeled using June 2020-July 2022 data to establish norms and performance standards and CY2023 performance period data. These results are provided for reference only.

HOSPITAL PERFORMANCE RESULTS BY PPC: CY2022 -- through 30Nov2022 (Prelim) Excluded ACS/POD cases and Palliative Care cases										
HOSPITAL ID	HOSPITAL NAME	Minimum # of Years of Performance Data	PPC NUMBER	PPC DESCRIPTION	THRESHOLD	BENCHMARK	AT RISK	OBSERVED PPCs	EXPECTED PPCs	O/E RATIO
20084	Holy Cross	5	41	Post-Operative Hemorrhage II: Hemostatic/ Hemostatic Control	1448	0.407	504	1	2474	6.407
20084	Holy Cross	5	42	Accidental Pharmacological Drug Invasive	1525	0.4434	832	6	6305	6.948
20084	Holy Cross	5	43	Isotretinoin Prescriptions	1754	8.26	8780	2	1574	1257
20084	Holy Cross	5	44	Major Pulmonary Infection and Other Major Obstetric Complications	2275	0	470	1	2367	6.424
20084	Holy Cross	5	45	Other Complications of Obstetrical Surgery	2430	0	780	2	4965	6.476
20084	Holy Cross	5	47	Combined Pneumonia (PPC 5 and 6)	1438	0.2436	1285	18	8047	1293
20085	Federick	5	7	Acute Pulmonary Edema and Respiratory Failure without Ventilation	2823	0.3067	736	9	8343	1088
20085	Federick	5	4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	1898	0.2771	720	4	333	1288
20085	Federick	5	7	Pulmonary Embolism	1908	0.2581	820	4	2837	1488
20085	Federick	5	9	Shock	1807	0.3681	874	7	3268	6752
20085	Federick	5	8	Without Thrombolysis	2302	0	545	4	1743	2283
20085	Federick	5	28	In-Hospital Trauma and 28 Procedures	1302	0	852	1	1478	6378

Metric	Description
Threshold	The value of the observed to expected ratio at the 10th percentile of hospital performance.
Benchmark	The value of the observed to expected ratio at the 90th percentile of hospital performance.
At Risk	Number of discharges at risk for PPCs.
Observed PPCs	Observed number of PPCs.
Expected PPCs	Expected number of PPCs are calculated using historical data on statewide PPC rates APR-DRG SOI.
O/E Ratio	Observed PPCs/Expected PPCs.
Unweighted Attainment Points	Points before adjusting with 3M cost weight.
Total Possible Points	Total possible weighted points (100 per PPC * 3M cost weight).
3M Cost Weight	Weight for each of the 15 PPCs using 3M cost weights as a proxy for degree of patient harm.
Weighted Points	Points for each PPC multiplied by the associated 3M Cost weight for the PPC.
Weighted Denominator	Total number of weighted points associated for each PPC.



Hospital Scores

Hospital scores for attainment only based on policy modeling. The policy modeled using June 2020 – July 2022 data to establish norms and performance standards and CY2023 as performance period data. These results are provided for reference only.

Hospital scores CY2022 YTD Excluded ACS/POD cases and Palliative Care cases						
HOSPITAL ID	HOSPITAL NAME	Number of Years of Performance Data	TOTAL NUMBER OF PPCs (max 14)	WEIGHTED FINAL HOSPITAL POINT	WEIGHTED DENOMINATOR	WEIGHTED SCORE
210001	Meritus	1	13	931.18	1367.09	68%
210002	UMMC	1	14	646.48	1460.22	44%
210003	UM-Capital Region Medical Center	1	9	608.7	1021.28	60%
210004	Holy Cross	1	14	910.47	1460.22	62%
210005	Frederick	1	13	472.76	1367.09	35%
210006	UM-Harford	2	5	287.28	502.18	57%
210008	Mercy	1	13	475.62	1411.29	34%
210009	Johns Hopkins	1	14	314.02	1460.22	22%
210011	Ascension Saint Agnes Hospital	1	12	775.46	1345.78	58%
210012	Sinai	1	13	635.37	1367.09	46%
210015	MedStar Fr Square	1	13	740.38	1367.09	54%
210016	Adventist White Oak	1	12	740.42	1345.78	55%
210017	Garrett	2	3	315.88	330.82	95%
210018	MedStar Montgomery	1	6	603.8	625.76	96%
210019	Peninsula	1	13	1084.34	1367.09	79%
210022	Suburban	1	12	584.92	1345.78	43%
210023	Anne Arundel	1	14	1064.38	1460.22	73%
210024	MedStar Union Mem	1	12	751.66	1345.78	56%
210027	Western Maryland	1	11	1050.39	1241.72	85%
210028	MedStar St. Mary's	1	8	791.78	846.88	93%
210029	JH Bayview	1	12	629.22	1345.78	47%
210032	ChristianaCare, Union	2	5	173.9	502.18	35%

Metric	Description
Total Number of PPCs (max 15)	Number of PPCs included for each hospital based on MHAC inclusion methodologies.
Weighted Final Hospital Points	Total points hospitals received after the 3M Cost Weight adjustments.
Weighted Denominator	Total number of weighted points associated for each hospital based on the PPCs included.
Weighted Score	Weighted final hospital points/weighted denominator.



Statewide PPC Norms

This sheet shows each PPC Norm value based on June 2020 – July 2022 data.

ADMISSION APR-DRG +SOI	ADMISSION APR-SOI revised +SOI	NUMADM	ATRISK1	ATRISK2	ATRISK3	ATRISK4	ATRISK5	ATRISK6	ATRISK7	ATRISK8	ATRISK9	ATRISK10	ATRISK11	ATRISK12	ATRISK13	ATRISK14	ATRISK15	ATRISK16	ATRISK17	ATRISK18	ATRISK19	ATRISK20
1	3	2																				
1	3	42																				
1	3	92																				
1	4	18																				
2	3	13																				
2	2	21																				
2	3	93																				
2	4	96																				
4	1	1																				
4	2	2																				
4	3	16																				
4	4	38																				
5	2	9																				
5	3	75																				
5	4	202																				
6	1	1																				
6	2	18																				
6	3	38																				
7	1	35																				
7	2	96																				
7	3	96																				
7	4	96																				
9	1	15																				
9	2	88																				
9	3	15																				
9	4	28																				
9	5	7																				
9	2	16																				
9	3	37																				
9	4	19																				

Metric	Description
NUMADM	Number admitted with the APR-DRG and APR SOI.
ATRISK1-ATRISK67	Risk status indicates whether a discharge is at-risk or eligible to be assigned a specific PPC (i.e., only obstetrical cases could be at-risk for an obstetrical PPC) The sum indicates a total number of at-risk discharges.
PPC1-PPC67	Number of PPCs that occurred for each APR-DRG and APR SOI.
NORMPPC1-NORMPPC67	The normative values are the statewide rate for each PPC during the base period.



Calculation Sheet

This sheet gives the opportunity for hospitals to estimate their attainment score. All the information to calculate attainment score is provided in the sheet. If a hospital is not measured on a PPC, then it should be removed from the calculation.

3. Calculation Sheet for Estimating Hospital Scores

As of 3/18/2023

If your hospital is not measured on a specific PPC (i.e., it is excluded because the hospital does not have +20 at-risk discharges or +2 expected PPC), then you can delete that PPC row and the score should calculate correctly.

PPC Number	PPC Description	Performance Standards		PERFORMANCE PERIOD RESULTS				ATTAINMENT POINTS	POSSIBLE DENOMINATOR	3M Cost Weight	WEIGHTED TOTAL POINTS BY TIER	TOTAL WEIGHTED DENOMINATOR
		Threshold	Breakback	AT RISK	OBSERVED	EXPECTED	RATIO					
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	1.0412	0.3683				#DIV/0!	#DIV/0!	100	0.5005	#DIV/0!	50.05
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	1.6823	0.3745				#DIV/0!	#DIV/0!	100	1.5519	#DIV/0!	155.19
7	Pulmonary Embolism	1.9165	0.3479				#DIV/0!	#DIV/0!	100	1.1248	#DIV/0!	112.48
8	Shock	1.0437	0.3745				#DIV/0!	#DIV/0!	100	1.0478	#DIV/0!	104.78
16	Venous Thromboembolism	1.7183	0.6929				#DIV/0!	#DIV/0!	100	1.6523	#DIV/0!	165.23
20	In-Hospital Trauma and Fractures	1.0455	0.4719				#DIV/0!	#DIV/0!	100	0.3379	#DIV/0!	33.79
35	Sepsisemia & Sepsis Infections	1.6128	0.5599				#DIV/0!	#DIV/0!	100	1.4394	#DIV/0!	143.94
37	Open Abdominal Surgery Without Procedure	2.1254	0.1655				#DIV/0!	#DIV/0!	100	1.5936	#DIV/0!	159.36
41	Open Abdominal Surgery with Hemorrhage Control Procedure or I/O	1.8211	0.3251				#DIV/0!	#DIV/0!	100	0.9745	#DIV/0!	97.45
42	Accidental Medication Administration during Invasive Procedures	1.4383	0.3895				#DIV/0!	#DIV/0!	100	0.4264	#DIV/0!	42.64
47	Prehospital Death	1.896	0.3459				#DIV/0!	#DIV/0!	100	0.7724	#DIV/0!	77.24
49	Septicemic Pneumonia	1.8158	0.3213				#DIV/0!	#DIV/0!	100	0.4117	#DIV/0!	41.17
60	Septic Intra-abdominal Abscess and Other Septic Complications	2.089	0				#DIV/0!	#DIV/0!	100	0.8078	#DIV/0!	80.78
61	Septic Complications of Urinary Tract	2.1321	0.3882				#DIV/0!	#DIV/0!	100	0.2099	#DIV/0!	20.99
67	Combined Pneumonia	1.6123	0.3541				#DIV/0!	#DIV/0!	100	1.1338	#DIV/0!	113.38
TOTAL WEIGHTED SCORE												#DIV/0!

Metric	Description
At Risk	Number of patients at risk for a PPC
Observed	Observed number of PPCs that occurred
Expected	Calculated using historical data on statewide PPC rates by APR-DRG SOI
Ratio	Observed/Expected PPC values
Attainment Points	Attainment Points that can be earned for each PPC
Possible Denominator	Total number of points possible in the denominator for each PPC
3M Cost Weight	Weight for each of the 15 PPCs using 3M cost weights as a proxy for degree of patient harm.
Weighted Total Points	Total number of points that can be earned after the 3M Cost Weight is applied
Total Denominator	Total possible denominator after the 3M Cost Weight Adjustment is applied



PPC Monitoring Tabs (10a, 10b, 10c)

The following metrics are used for the PPC Monitoring Tabs (10a, 10b, 10c).

Metric	Description
At Risk	Number of patients at risk for a PPC
Observed PPC	Observed number of PPCs that occurred
Expected PPC	Calculated using historical data on statewide PPC rates by APR-DRG SOI
O/E Ratio	Observed/Expected PPC values
Case-mix Adjusted Rate	Used to calculate expected PPC values
Flag for one of the 15 Payment PPCs	Indicates PPCs defined by MHAC
Flag for Serious Reportable Events	Indicates serious events that should be reported
State Average Rate	State average for PPC observed

By Hospital by PPC (10a)

This sheet provides by hospital and PPC results for all payment and non-payment PPCs. HSCRC will monitor the non-payment program PPCs and use this data to track overall PPC performance. Hospitals should monitor this data to fully assess patient complications. There is a flag that indicates payment program PPCs as well as the previously defined serious reportable events.

HOSPITAL# ID	HOSPITAL NAME	PPC NUMBER	PPC DESCRIPTION	Year	All PPCs by Hospital Excluded ACS/POD cases and Palliative Care cases									
					AT RISK	OBSERVED P _t	EXPECTED P _t	O/E RATIO	Case-Mix Adjusted Rat.	Flag for one of 15 Payment PPC	Reportable events	State Average rate		
20001	Meritus	3	3 Failure without Ventilation	2016	9396	23	30,706	2.98%	3.93	1	0	0.0014728		
20001	Meritus	4	Acute Pulmonary Edema and Respiratory	2016	3051	7	3,420	1.00%	1.22	1	0	0.0001456		
20001	Meritus	5	Pneumonia & Other Lung Infections	2016	4725	30	4,430	1.00%	4.05	0	0	0.0002006		
20001	Meritus	6	Aspiration Pneumonia	2016	3625	7	4,997	0.80%	1.90	0	0	0.0014259		
20001	Meritus	7	Pulmonary Embolism	2016	1274	2	4,174	0.45%	3.22	1	0	0.0014374		
20001	Meritus	8	Other Pulmonary Complications	2016	3947	6	4,293	2.3%	1.97	0	0	0.0001810		
20001	Meritus	9	Shock	2016	4783	6	5,762	0.27%	1.27	1	0	0.0002099		
20001	Meritus	10	Congestive Heart Failure	2016	1367	4	1,310	1.0%	3.27	0	0	0.0001044		
20001	Meritus	11	Acute Myocardial Infarction	2016	1334	5	6,912	1.1%	1.0%	0	0	0.0001743		
20001	Meritus	12	Other Cardiac Complications	2016	3233	2	3,708	0.03%	0.98	0	0	0.0003204		
20001	Meritus	14	Ventricular Fibrillation/Cardiac Arrest	2016	6927	8	24,342	0.45%	1.32	0	0	0.0002285		
20001	Meritus	15	Peripartum Hemorrhage Complications Except Vena Thrombosis	2016	1077	1	0,450	0.20%	0.43	0	0	0.0004912		
20001	Meritus	16	Vena Thrombosis	2016	638	2	2,429	0.79%	3.26	1	0	0.0004207		
20001	Meritus	17	Major Gastrointestinal Complications without Transfusion or Significant Bleeding	2016	124	7	1,343	1.2%	8.73	0	0	0.0001716		
20001	Meritus	18	Major Gastrointestinal Complications with Transfusion or Significant Bleeding	2016	1236	2	4,243	0.17%	0.37	0	0	0.0004499		
20001	Meritus	19	Major Liver Complications	2016	1273	4	1,812	1.0%	3.95	0	0	0.0004639		
20001	Meritus	20	Other Gastrointestinal Complications without Transfusion or Significant Bleeding	2016	1207	5	8,421	0.09%	0.88	0	0	0.0002110		
20001	Meritus	21	Cerebral Thrombo Embolism	2016	438	11	1,844	1.7%	7.72	0	0	0.0017006		
20001	Meritus	22	Stroke/Concussion Excl. ICH	2016	1376	1	3,822	0.2%	0.1%	0	0	0.0003774		



Statewide by PPC (10b)

This tab provides statewide PPC results for all payment and non-payment PPCs by PPC. HSCRC will monitor the non-payment program PPCs and use this data to track overall PPC performance.

All PPCs by PPC Number Excluded ACS/POD cases and Palliative Care cases											
PPC NUMBER	PPC DESCRIPTION	Year	AT RISK	OBSERVED P	EXPECTED P	OE RATIO	Case-Mix Adjusted Rat	Flag for one of 14 Payment PPC	Reportable events	State Average rate	
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	2016	32647	608	403270	1.4932	2.847	1	8	0.0047230	
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	2016	322593	301	857.8076	1.8943	1.250	1	8	0.0003456	
5	Pneumonia & Other Lung Infections	2016	171754	308	214.7642	1.8066	2.277	0	8	0.0026036	
6	Aspiration Pneumonia	2016	249089	277	204.2634	1.2554	1.0605	0	8	0.00074255	
7	Pulmonary Embolism	2016	406005	229	177.6659	1.2363	8.6059	1	8	0.0004654	
8	Other Pulmonary Complications	2016	277200	152	147.5410	1.3993	8.7868	0	8	0.0004340	
9	Shock	2016	402080	418	373.9245	1.1025	1.3449	1	8	0.0023986	
10	Congestive Heart Failure	2016	208042	157	96.2481	2.7206	8.5481	0	8	0.0007844	
11	Acute Myocardial Infarction	2016	408065	277	303.2895	0.9121	8.5376	0	8	0.0005740	
12	Other Cardiac Complications	2016	379364	78	18.3484	0.5885	8.2031	0	8	0.0003234	
14	Ventricular Fibrillation/Cardiac Arrest	2016	288181	58	738.275	0.6575	2.0094	0	8	0.0028285	
15	Peripheral Vascular Complications Except Venous Thrombosis	2016	294786	78	137.8686	0.5879	8.2088	0	8	0.0004852	
16	Venous Thrombosis	2016	186742	143	83.7783	1.6723	0.797	1	8	0.0004827	
17	Major Gastrointestinal Complications without Transfusion or Significant Bleeding	2016	408002	78	183.3896	0.8435	8.3885	0	8	0.0005176	
18	Major Gastrointestinal Complications with Transfusion or Significant Bleeding	2016	402988	92	133.348	0.8183	8.2785	0	8	0.0004498	
19	Major Liver Complications	2016	408450	62	186.424	0.5372	0.224	0	8	0.0004838	
20	Other Gastrointestinal Complications without Transfusion or Significant Bleeding	2016	403323	208	333.4025	0.6229	8.7844	0	8	0.0021949	
21	Clostridium Difficile Colitis	2016	42901	398	284.852	1.4933	6.495	0	8	0.0047806	
22	GI Complications Except UTI	2016	412779	64	125.8890	0.523	8.3901	0	8	0.0003734	
24	Renal Failure without Dialysis	2016	254239	808	284.3584	0.5285	5.3801	0	8	0.0007025	
25	Renal Failure with Dialysis	2016	368520	43	37.3476	1.32	8.875	0	8	0.0004229	
26	Diabetic Ketoacidosis & Coma	2016	344449	21	45.4687	0.4619	8.0703	0	8	0.0005040	

By Hospital by PPC/by Quarter (10c)

This sheet provides by hospital and PPC results for all payment and non-payment PPCs by Quarter. HSCRC will monitor the non-payment program PPCs and use this data to track overall PPC performance. Hospitals should monitor this data to fully assess patient complications. There is a flag that indicates payment program PPCs as well as the previously defined serious reportable events.

All PPCs by Hospital by Quarter Excluded ACS/POD cases and Palliative Care cases													
HOSPITAL ID	HOSPITAL NAME	PPC NUMBER	PPC DESCRIPTION	Year	Quarter	AT RISK	OBSERVED P	EXPECTED P	OE RATIO	Case-Mix Adjusted Rat	Flag for one of 14 Payment PPC	Reportable events	State Average rate
20000	Hennepin	1	Stroke/Ischemic Hemorrhage	2016	Jan-Mar	376	1	2393	0.041	3.811	0	0	0.000010
20000	Hennepin	2	Stroke TIA/Complications	2016	Jan-Mar	2882	8	4374	0.182	0	0	0	0.0003826
20000	Hennepin	3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	2016	Jan-Mar	284	8	2138	0.378	3.288	1	0	0.0007228
20000	Hennepin	4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	2016	Jan-Mar	2512	2	6943	0.282	1.954	1	0	0.0003456
20000	Hennepin	5	Pneumonia & Other Lung Infections	2016	Jan-Mar	863	8	1762	0.456	3.176	0	0	0.0003036
20000	Hennepin	6	Aspiration Pneumonia	2016	Jan-Mar	2458	1	1287	0.028	8.901	0	0	0.0007425
20000	Hennepin	7	Pulmonary Embolism	2016	Jan-Mar	3207	1	1026	0.039	8.426	1	0	0.0004654
20000	Hennepin	8	Other Pulmonary Complications	2016	Jan-Mar	2982	2	1884	0.035	1.581	0	0	0.0004340
20000	Hennepin	9	Shock	2016	Jan-Mar	398	4	2495	0.008	1.032	1	0	0.0023986
20000	Hennepin	10	Congestive Heart Failure	2016	Jan-Mar	388	2	448	0.482	8.911	0	0	0.0007844
20000	Hennepin	11	Acute Myocardial Infarction	2016	Jan-Mar	373	2	2328	0.088	8.789	0	0	0.0005740
20000	Hennepin	12	Other Cardiac Complications	2016	Jan-Mar	389	8	688	0	0	0	0	0.0003234
20000	Hennepin	14	Ventricular Fibrillation/Cardiac Arrest	2016	Jan-Mar	272	2	6382	0.308	3.918	0	0	0.0028285
20000	Hennepin	15	Peripheral Vascular Complications Except Venous Thrombosis	2016	Jan-Mar	338	8	4374	0	0	0	0	0.0004852
20000	Hennepin	16	Venous Thrombosis	2016	Jan-Mar	178	8	848	0	0	1	0	0.0004827
20000	Hennepin	17	Major Gastrointestinal Complications without Transfusion or Significant Bleeding	2016	Jan-Mar	307	3	1484	0.02	1.988	0	0	0.0005176
20000	Hennepin	18	Major Gastrointestinal Complications with Transfusion or Significant Bleeding	2016	Jan-Mar	328	1	988	0.0474	3.426	0	0	0.0004498
20000	Hennepin	19	Major Liver Complications	2016	Jan-Mar	328	2	478	0.264	1.984	0	0	0.0004838
20000	Hennepin	20	Other Gastrointestinal Complications without Transfusion or Significant Bleeding	2016	Jan-Mar	388	2	2484	0.087	3.811	0	0	0.0021949
20000	Hennepin	21	Clostridium Difficile Colitis	2016	Jan-Mar	488	1	1884	0.053	2.887	0	0	0.0047806
20000	Hennepin	22	GI Complications Except UTI	2016	Jan-Mar	328	8	674	0.124	0	0	0	0.0003734