



**All Payer Hospital System Modernization
Performance Measurement Workgroup Meeting**

Meeting Agenda

**December 19, 2014
9:00 AM – 11:30 AM, Room 100
HSCRC
4160 Patterson Ave
Baltimore, MD 21215**

- 9:00 AM 1. Introductions and Opening Remarks
- 9:10 AM 2. FY 2017 MHAC Policy Draft Recommendation- Review and Discussion
- a) Update Benchmark and Threshold Modeling
 - b) Updated final PPC results
 - c) MHA Proposal and Modeling of:
 - PPC-specific benchmarks
 - Payment scale modifications
- 10:00 AM 3. FY2017 Readmission Reduction Incentive Policy Draft Recommendation- Review and Discussion
- 10:45 AM 4. Aggregate Amount-at-Risk for Quality Policy Draft Recommendation- Review and Discussion
- 11:20 AM 5. Update on Performance Measurement Work plan for 2015
- 11:30 AM Adjourn

**ALL MEETING MATERIALS ARE AVAILABLE AT THE MARYLAND ALL-PAYER HOSPITAL SYSTEM
MODERNIZATION TAB AT HSCRC.MARYLAND.GOV**

Draft Recommendation for Modifying the Maryland Hospital Acquired Conditions Program for FY 2017

**Health Services Cost Review Commission
4160 Patterson Avenue Baltimore, MD 21215
(410) 764-2605**

**December 10, 2014
(Updated December 16, 2014)**

This document contains the draft staff recommendations for updating the Maryland Hospital Acquired Conditions (MHAC) Program for FY 2017. Comments may be submitted via hard copy mail to the Commission's address or email to Dianne.feeney@maryland.gov and are due by COB Monday, 12/22/14.

A. Introduction

The HSCRC quality-based payment methodologies are important policy tools for providing strong incentives for hospitals to improve their quality performance over time.

The MHAC program was implemented in state FY 2011. In order to enhance our ability to incentivize hospital care improvements and meet the MHAC reduction targets in the CMMI All-payer model demonstration contract that began on January 1, 2014, Commission staff developed recommendations with significant changes to the MHAC existing policy within the context of the Performance Measurement and Payment Models Workgroup activity. The Commission approved the updated recommendations at the April 2014 meeting that modified the measurement, scoring and payment scaling methodologies to translate scores into rate adjustments for the MHAC initiative. These updates were effective for performance in calendar year 2014 (beginning January 1, 2014) and are to be applied to FY 2016 rates for each hospital. Among these changes were measuring hospital performance using observed to expected ratio values for each PPC rather than the additional incremental cost of the PPCs measured at each hospital, and shifting from relative scaling to pre-established PPC performance targets for payment adjustments. The revised approach also established a statewide MHAC improvement target with tiered amounts of revenue at risk based on whether or not the target is met, and the allocation of rewards for FY 2016 consistent with the amount of revenue in penalties collected.

This recommendation proposes to continue with the current MHAC initiative methodology for FY 2017 with updates to the policy that allow for rewards not limited to the penalties collected, and to the statewide improvement target for applying tiered scaling amounts.

B. Background

1. Centers for Medicare & Medicaid Services (CMS) Hospital Acquired Conditions (HAC) Program

The federal HAC program began in FFY 2012 when CMS disallowed an increase in DRG payment for cases with added complications in 14 narrowly defined categories. Beginning in FFY 2015, CMS established a second HAC program, which reduces payments of hospitals with scores in the top quartile for the performance period on their rate of Hospital Acquired Conditions as compared to the national average. In FY 2015, the maximum reduction is one percent of total DRG payments.

The CMS HAC measures for FY 2016 are listed in Appendix I.

2. MHAC Measures, Scaling and Magnitude at Risk to Date

The MHAC program currently uses 65 Potentially Preventable Complications (PPCs) developed by 3M Health Information Systems.

In the process of developing the MHAC updated recommendations for FY 2016, staff vetted several guiding principles for the revised MHAC program that overlap significantly with those identified by the MHA. They include:

Draft Recommendation for Modifying the Maryland Hospital Acquired Conditions Program

- Program must improve care for all patients, regardless of payer.
- Breadth and impact of the program must meet or exceed the Medicare national program in terms of measures and revenue at risk.
- Program should identify predetermined performance targets and financial impact.
- First year target for the program must be established in context of the trends of complication reductions seen in the previous years as well as the need to achieve the new All-payer model goal of a 30% cumulative reduction by 2018.
- Program should prioritize high volume, high cost, opportunity for improvement and areas of national focus.
- Program design should encourage cooperation and sharing of best practices.
- Program scoring method should hold hospitals harmless for lack of improvement if attainment is highly favorable.
- Hospitals should have ability to track progress during the performance period.

To achieve a policy that supports the guiding principles, staff's approved recommendations effective for CY 2014 performance and applied to rate year FY 2016(see detailed description in Appendix II) included:

- Using Observed (O)/Expected (E) value for each PPC to measure each hospitals' performance
- Establishing appropriate exclusion rules to enhance measurement fairness and stability.
- Prioritizing PPCs that are high cost, high volume, have opportunity to improve, and are of national concern in the final hospital score through grouping the PPCs and weighting the scores of PPCs in each group commensurate with the level of priority.
- Calculating rewards/penalties using preset positions on the scale based on the base year scores.
- Based on performance trends and CMMI contract goals, establishing annual statewide targets with tiered scaling, with a statewide target set at 8% improvement with 1% of permanent revenue at risk if the target is met, and 4% at risk and no rewards paid if the target is missed; penalties were limited to 0.5% of permanent inpatient revenue statewide.

C. Assessment

HSCRC continues to solicit input from stakeholder groups comprising the industry and including payers to determine appropriate direction regarding areas of needed updates to the programs. These include the measures used, and the program's methodology components.

The Performance Measurement Workgroup has deliberated pertinent issues and potential changes to Commission policy for FY 2017 that may be necessary to enhance our ability to continue to improve quality of care and reduce costs caused by hospital acquired complications, as well as to achieve the reduction target set forth in the contract with CMMI— a 30% reduction in MHACs over five years. In its October and November meetings, the Workgroup discussed issues related to:

- PPC measurement trends,
- Present on admission (POA) auditing,
- The stability of the PPC measures themselves over time,

Draft Recommendation for Modifying the Maryland Hospital Acquired Conditions Program

- The appropriate time period for establishing benchmarks for FY 2017,
- The reward and penalty structure of the program, and,
- A revised annual statewide reduction target for the MHAC program on which to base tiered payment of rewards and penalties.

1. Updated PPC Measurement Trends

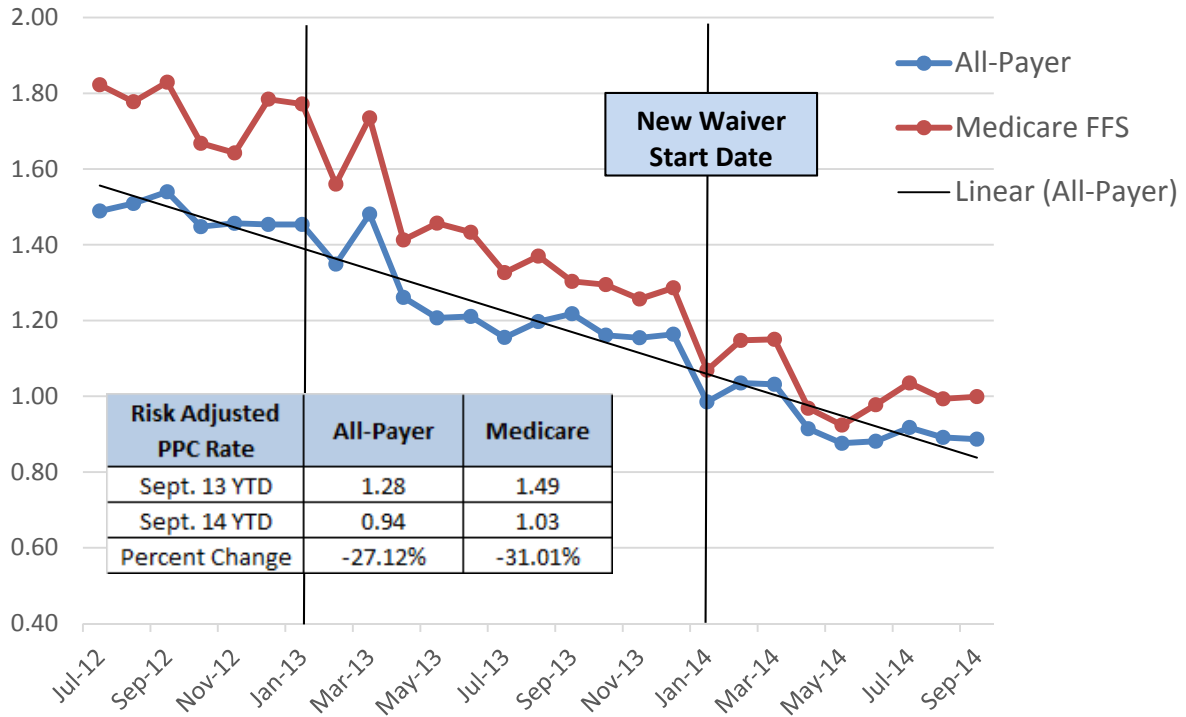
As illustrated in Figure 1 below, Maryland has seen a significant drop from year to year from 2010 to 2014 in the statewide PPC rates with a total rate per 1,000 decrease of 60.8% unadjusted, and an average annual risk adjusted decrease of 13.9%.

Figure 1. PPC Reduction Trends FY 10 to FY 14

Potentially Preventable Complication (PPC) Rates in Maryland- State FY2010-FY2014														
	PPC RATES (FY2010 NORMS, vs. 30)				PPC RATES (CY2013 NORMS, vs. 31)			Annual Change (FY2010 Norms, vs. 30)				Annual Change (CY2013 Norms, vs. 31)	FY2010 Norms, vs. 30	
	FY10	FY11	FY12	FY13	FY13	FY14		FY11	FY12	FY13	FY14	Annual Change	Total Change	
TOTAL NUMBER OF COMPLICATIONS	53,494	48,416	42,118	34,200	34,143	26,900		-9.5%	-13.0%	-18.8%	-21.2%		-15.6%	50.4%
UNADJUSTED COMPLICATION RATE PER 1,000 AT RISK CASES	1.92	1.82	1.65	1.41	1.40	1.16		-5.2%	-9.3%	-14.5%	-17.1%		-11.6%	60.8%
RISK ADJUSTED COMPLICATION RATE PER 1,000 AT RISK CASES	1.92	1.77	1.58	1.30	1.40	1.13		-7.8%	-10.7%	-17.7%	-19.3%		-13.9%	54.7%

In addition to the annual change in PPC rates, staff also analyzed monthly year to date PPC Medicare and all-payer changes and discussed the findings at a public Commission meeting and with the Workgroup. As Figure 2 below illustrates, there was a sharp decrease in the rate in January 2014, but the linear trend line decrease is constant and consistent for September 2013 year to date (YTD) compared to September 2014 YTD.

Figure 2. 2013 and 2014 Monthly YTD PPC Rate Comparisons



Note: Based on final data for January 2013 - September 2014.

2. Present on Admission (POA) Auditing

To a very large extent, POA coding drives MHAC assignment. Auditing POA, then, is important in order to validate or discover to what extent that change in PPC rates is related to clinical care rather than hospital coding practices. Staff discussed with the Workgroup modifying the plans for auditing POA in 2014.

- For FY 2014, the HSCRC is primarily focusing on auditing 10 hospitals that have had significant improvements in PPC rates.
- Cases selected for audit (N = 230)
 - 50% random sample for ICD-9 Audits
 - 50% for POA audits (used to be 30%); select from a file of discharges at-risk for PPC's with large improvements and those where the PPC status changed between the preliminary and final data submission.
- Other hospital selection factors include hospital size, date of last audit (not auditing in 2013 or 2014), percent change between preliminary and final data submission.

Staff will present findings of the POA audits in public Workgroup meetings and discuss any implications for considering adjustments to the MHAC program based on the findings.

3. Stability of PPC Measures Over Time

Workgroup members expressed concern over the stability of individual PPC measures, in particular noting that some PPCs rates could potentially increase rather than decrease over time as definitions for the PPCs are potentially interpreted differently from hospital to hospital, and

measurement practices evolve over time. “The more you look, the more you find” was an example raised for infection PPCs, as an example.

To explore the question of hospital-specific PPC stability and also that of hospital PPC scores, staff analyzed the correlations for the following performance results:

- Individual PPC rates for FY2012, FY2013, FY2014
- Hospital PPC scores for FY2013 and FY2014, for both improvement and attainment.

Appendix III contains the individual PPC rates per 1,000 correlation results that indicate majority of the PPC rates for hospitals were statistically significantly correlated from FY2012 through FY2014. Figure 3 below illustrates the correlation in improvement and attainment scores that the staff modelled. The results indicate that there was statistically significant correlation for attainment but not for improvement. Based upon these results, staff are less concerned about the stability of measurement of the PPCs but this must continue to be monitored to ensure that the measure is reliable and valid.

Figure 3. Correlation of FY2013 and FY2014 Improvement and Attainment Scores

	Correlation Coefficient	p-value
Attainment Scores FY13 and FY14	0.6248	<0.0001
Improvement Scores FY13 and FY14	-0.03931	0.7977

4. Setting PPC Benchmarks for FY 2017

The Workgroup discussed issues to consider in setting the base year performance benchmarks. Because of the sharp decrease in PPC rates in January 2014, staff supported the position of setting PPC benchmarks using FY 2014 performance data with an adjustment that recognized the sharp one month decrease; this would entail weighting more heavily the results in the latter 6 months of the fiscal year in setting the benchmarks. However based upon Workgroup concerns with lowering the benchmarks and the sustainability of the current improvement results, the staff will use FY 2014 rates to set benchmarks for FY2017.

5. MHAC Reward and Penalty Structure

Staff reviewed with the Workgroup modeling of the rewards and penalties for FY 2016 using data for the first 6 months of CY 2014 (FY2014 Qtrs 3 and 4). A table with hospital specific results can be found in Appendix IV. Workgroup members discussed the impact of a revenue neutrality adjustment to the MHAC program, specifically noting that limiting the rewards to the penalties collected did not recognize the effort expended to achieve the performance levels for the better performing hospitals. As was discussed, Figure 4 below illustrates that total

rewards are reduced to ~10% of what would have been earned if they were not capped at the penalties collected.

Staff will be discussing possibility of removing the cap on rewards at the payment and performance work group meetings in December and provide a final recommendation to the Commission at January meeting.

Figure 4. MHAC Modeling of Total Rewards and Penalties Using FY 2014 Qtrs 3 and 4 Data

	Count of Hospitals receiving Reduction or Reward	Total Revenue	Revenue Neutral Adjustment
Total Reduction	2	\$ (449,188)	\$ (449,188)
Total Reward	18	\$9,468,894	\$449,188

6. Annual Statewide MHAC Reduction Target and Score Scaling FY 2017

The Workgroup discussed options for the revised annual MHAC reduction target. Some participants noted that the state has achieved ~23% of that required by the All-payer Model contract with CMMI in the first year. Staff noted the need to continue to improve care and reduce cost. Staff also noted that using FY 2014 to set benchmarks does not account for the additional 6 months from July to December 2014 where the MHAC rates would continue to improve. Therefore, staff advocates for a target of 7% improvement from FY2015 to CY2015, which is equal to 5% annual improvement rate and on par with the improvement trends the state has been observing.

Staff also advocates for no change in the scaling approach by keeping constant the tiered score scaling with no rewards if the statewide target is not met (Appendix V).

D. Recommendations

Based on the work completed to date on updating the MHAC program for FY 2017, staff makes the following draft recommendations:

1. The statewide reduction target should be set at 7 % comparing FY2014 to CY2015 risk adjusted PPC rates.
2. The program should continue to use a tiered approach where a lower level of revenue at risk is set if the statewide target is met versus not met as modelled in FY2016 policy
3. Rewards should be distributed only if the statewide target is met, and should not be limited to the penalties collected.

Appendix I. CMS HAC Measures for FY 2016

CMS HAC MEASURES Implemented Since FY 2012

HAC 01: Foreign Object Retained After Surgery
HAC 02: Air Embolism
HAC 03: Blood Incompatibility
HAC 04: Stage III & Stage IV Pressure Ulcers
HAC 05: Falls and Trauma
HAC 06: Catheter-Associated Urinary Tract Infection
HAC 07: Vascular Catheter-Associated Infection
HAC 08: Surgical Site Infection - Mediastinitis After Coronary Artery Bypass Graft (CABG)
HAC 09: Manifestations of Poor Glycemic Control
HAC 10: Deep Vein Thrombosis/Pulmonary Embolism with Total Knee Replacement or Hip Replacement
HAC 11: Surgical Site Infection – Bariatric Surgery
HAC 12: Surgical Site Infection – Certain Orthopedic Procedure of Spine, Shoulder, and Elbow
HAC 13: Surgical Site Infection Following Cardiac Device Procedures
HAC 14: Iatrogenic Pneumothorax w/Venous Catheterization

CMS HAC Measures Implemented FY 2015

- Domain 1- the Agency for Health Care Research and Quality (AHRQ) composite PSI #90 which includes the following indicators:
 - Pressure ulcer rate (PSI 3);
 - Iatrogenic pneumothorax rate (PSI 6);
 - Central venous catheter-related blood stream infection rate (PSI 7);
 - Postoperative hip fracture rate (PSI 8);
 - Postoperative pulmonary embolism (PE) or deep vein thrombosis rate (DVT) (PSI 12);
 - Postoperative sepsis rate (PSI 13);
 - Wound dehiscence rate (PSI 14); and
 - Accidental puncture and laceration rate (PSI 15).
- Domain 2- two healthcare-associated infection measures developed by the Centers for Disease Control and Prevention's (CDC) National Health Safety Network:
 - Central Line-Associated Blood Stream Infection and
 - Catheter-Associated Urinary Tract Infection.

Appendix II: PPC Measurement Definitions, Points Calculation, PPC Tiers and Weighting

Definitions

The PPC measure would then be defined as:

Observed (O)/Expected (E) value for each measure

The threshold value is the minimum performance level at which a hospital will be assigned points and is defined as:

Weighted mean of all O/E ratios (O/E =1)

(Mean performance is measured at the case level. In addition, higher volume hospitals have more influence on PPCs' means.)

The benchmark value is the performance level at which a full ten points would be assigned for a PPC and is defined as:

Weighted mean of top quartile O/E ratio

For PPCs that are never events, the benchmark will be set at 0.

Performance Points

Performance points are given based on a range between "Benchmark" and a "Threshold", which are determined using the base year data. The Benchmark is a reference point defining a high level of performance, which is equal to the mean of the top quartile. Hospitals whose rates are equal to or above the benchmark receive 10 full Attainment points.

The Threshold is the minimum level of performance required to receive minimum Attainment points, which is set at the weighted mean of all the O/E ratios which equals to 1. The Improvement points are earned based on a scale between the hospital's prior year score (baseline) on a particular measure and the Benchmark and range from 0 to 9.

The formulas to calculate the Attainment and Improvement points are as follows:

- Attainment Points: $[9 * ((\text{Hospital's performance period score} - \text{threshold}) / (\text{benchmark} - \text{threshold}))] + .5$, where the hospital performance period score falls in the range from the threshold to the benchmark
- Improvement Points: $[10 * ((\text{Hospital performance period score} - \text{Hospital baseline period score}) / (\text{Benchmark} - \text{Hospital baseline period score}))] - .5$, where the hospital performance score falls in the range from the hospital's baseline period score to the benchmark.

Draft Recommendation for Modifying the Maryland Hospital Acquired Conditions Program

PPC Tiers: Tier A Scores Weighted 60%, Tier B 40% and Tier C 20%

Tier A	Tier C
Selected as high cost, high volume statewide plus those that match CMS HAC policy of AHRQ Patient Safety Indicators	Remaining PPCs
3 Acute Pulmonary Edema and Respiratory Failure without Ventilation	1 Stroke & Intracranial Hemorrhage
4 Acute Pulmonary Edema and Respiratory Failure with Ventilation	2 Extreme CNS Complications
5 Pneumonia & Other Lung Infections	12 Cardiac Arrhythmias & Conduction Disturbances
6 Aspiration Pneumonia	13 Other Cardiac Complications
7 Pulmonary Embolism	15 Peripheral Vascular Complications Except Venous Thrombosis
9 Shock	20 Other Gastrointestinal Complications without Transfusion or Significant Bleed
14 Ventricular Fibrillation/Cardiac Arrest	21 Clostridium Difficile Colitis
16 Venous Thrombosis	23 GU Complications Except UTI
24 Renal Failure without Dialysis	25 Renal Failure with Dialysis
28 In-Hospital Trauma and Fractures	26 Diabetic Ketoacidosis & Coma
31 Decubitus Ulcer	29 Poisonings Except from Anesthesia
35 Septicemia & Severe Infections	30 Poisonings due to Anesthesia
37 Post-Operative Infection & Deep Wound Disruption Without Procedure	32 Transfusion Incompatibility Reaction
38 Post-Operative Wound Infection & Deep Wound Disruption with Procedure	33 Cellulitis
40 Post-Operative Hemorrhage & Hematoma without Hemorrhage Control Procedure or I&D Proc	34 Moderate Infectious
42 Accidental Puncture/Laceration During Invasive Procedure	36 Acute Mental Health Changes
49 Iatrogenic Pneumothrax	39 Reopening Surgical Site
54 Infections due to Central Venous Catheters	43 Accidental Cut or Hemorrhage During Other Medical Care
65 Urinary Tract Infection without Catheter	44 Other Surgical Complication - Mod
66 Catheter-Related Urinary Tract Infection	45 Post-procedure Foreign Bodies
	46 Post-Operative Substance Reaction & Non-O.R. Procedure for Foreign Body
	47 Encephalopathy
	50 Mechanical Complication of Device, Implant & Graft
Tier B	51 Gastrointestinal Ostomy Complications
Selected as remaining PPCs with high Medicare percentage (>60%) and high number of Maryland hospitals (>43)	52 Inflammation & Other Complications of Devices, Implants or Grafts Except Va Infection
8 Other Pulmonary Complications	53 Infection, Inflammation & Clotting Complications of Peripheral Vascular Catheter Infusions
10 Congestive Heart Failure	55 Obstetrical Hemorrhage without Transfusion
11 Acute Myocardial Infarction	56 Obstetrical Hemorrhage with Transfusion
17 Major Gastrointestinal Complications without Transfusion or Significant Bleeding	57 Obstetric Lacerations & Other Trauma Without Instrumentation
18 Major Gastrointestinal Complications with Transfusion or Significant Bleeding	58 Obstetric Lacerations & Other Trauma With Instrumentation
19 Major Liver Complications	59 Medical & Anesthesia Obstetric Complications
27 Post-Hemorrhagic & Other Acute Anemia with Transfusion	60 Major Puerperal Infection and Other Major Obstetric Complications
41 Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc	61 Other Complications of Obstetrical Surgical & Perineal Wounds
48 Other Complications of Medical Care	62 Delivery with Placental Complications
	63 Post-Operative Respiratory Failure with Tracheostomy
	64 Other In-Hospital Adverse Events

APPENDIX III. Hospital PPC Rate per 1,000 Correlation Results

PPC Number	PPC Description	Correlation Coefficient FY12-FY13	Correlation Coefficient FY13-FY14	Correlation Coefficient FY12-FY14
1	Stroke & Intracranial Hemorrhage	0.435	0.598	0.558
2	Extreme CNS Complications	0.043	0.345	0.154
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	0.770	0.695	0.656
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	0.806	0.866	0.760
5	Pneumonia & Other Lung Infections	0.524	0.453	0.317
6	Aspiration Pneumonia	0.592	0.397	0.362
7	Pulmonary Embolism	0.661	0.593	0.669
8	Other Pulmonary Complications	0.930	0.930	0.900
9	Shock	0.789	0.570	0.579
10	Congestive Heart Failure	0.908	0.870	0.754
11	Acute Myocardial Infarction	0.565	0.237	0.328
12	Cardiac Arrhythmias & Conduction Disturbances	0.933	0.830	0.848
13	Other Cardiac Complications	0.683	0.413	0.339
14	Ventricular Fibrillation/Cardiac Arrest	0.663	0.605	0.630
15	Peripheral Vascular Complications Except Venous Thrombosis	0.347	0.522	0.479
16	Venous Thrombosis	0.797	0.737	0.675
17	Major Gastrointestinal Complications without Transfusion or Significant Bleeding	0.583	0.609	0.524
18	Major Gastrointestinal Complications with Transfusion or Significant Bleeding	0.508	0.032	0.378
19	Major Liver Complications	0.437	0.276	0.149
20	Other Gastrointestinal Complications without Transfusion or Significant Bleeding	0.106	0.118	0.323
21	Clostridium Difficile Colitis	0.652	0.641	0.661
23	GU Complications Except UTI	0.372	0.231	0.431
24	Renal Failure without Dialysis	0.723	0.680	0.582
25	Renal Failure with Dialysis	0.132	0.193	0.426
26	Diabetic Ketoacidosis & Coma	0.568	0.810	0.825
27	Post-Hemorrhagic & Other Acute Anemia with Transfusion	0.685	0.583	0.518
28	In-Hospital Trauma and Fractures	0.242	0.167	0.142
29	Poisonings Except from Anesthesia	-0.074	0.029	-0.079
31	Decubitus Ulcer	0.715	-0.021	-0.068
32	Transfusion Incompatibility Reaction	1.000	-0.023	-0.023
33	Cellulitis	0.664	0.756	0.711

Draft Recommendation for Modifying the Maryland Hospital Acquired Conditions Program

34	Moderate Infectious	0.691	0.658	0.634
35	Septicemia & Severe Infections	0.503	0.399	0.303
36	Acute Mental Health Changes	0.681	0.705	0.584
37	Post-Operative Infection & Deep Wound Disruption Without Procedure	0.520	0.504	0.699
38	Post-Operative Wound Infection & Deep Wound Disruption with Procedure	0.647	0.275	0.563
39	Reopening Surgical Site	0.570	0.667	0.615
40	Post-Operative Hemorrhage & Hematoma without Hemorrhage Control Procedure or I&D Proc	0.643	0.559	0.517
41	Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc	0.396	0.346	0.131
42	Accidental Puncture/Laceration During Invasive Procedure	0.725	0.348	0.430
43	Accidental Cut or Hemorrhage During Other Medical Care	0.798	0.761	0.326
44	Other Surgical Complication - Mod	0.272	0.350	0.450
45	Post-procedure Foreign Bodies	0.226	0.126	-0.133
46	Post-Operative Substance Reaction & Non-O.R. Procedure for Foreign Body	0.275	0.359	0.689
47	Encephalopathy	0.610	0.735	0.385
48	Other Complications of Medical Care	0.400	0.443	0.240
49	Iatrogenic Pneumothrax	0.371	-0.014	0.066
50	Mechanical Complication of Device, Implant & Graft	-0.028	0.579	0.103
51	Gastrointestinal Ostomy Complications	0.566	0.856	0.492
52	Inflammation & Other Complications of Devices, Implants or Grafts Except Vascular Infection	0.571	0.273	0.434
53	Infection, Inflammation & Clotting Complications of Peripheral Vascular Catheters & Infusions	0.305	0.562	0.290
54	Infections due to Central Venous Catheters	0.679	0.272	0.368
55	Obstetrical Hemorrhage without Transfusion	0.798	0.831	0.586
56	Obstetrical Hemorrhage with Transfusion	0.820	0.653	0.790
57	Obstetric Lacerations & Other Trauma Without Instrumentation	0.770	0.753	0.496
58	Obstetric Lacerations & Other Trauma With Instrumentation	0.772	0.401	0.369
59	Medical & Anesthesia Obstetric Complications	0.378	0.368	-0.107
60	Major Puerperal Infection and Other Major Obstetric Complications	0.620	0.456	0.478
61	Other Complications of Obstetrical Surgical & Perineal Wounds	0.497	0.495	0.435
62	Delivery with Placental Complications	0.613	0.561	0.621
63	Post-Operative Respiratory Failure with Tracheostomy	0.864	0.559	0.857
64	Other In-Hospital Adverse Events	0.838	0.791	0.686

Draft Recommendation for Modifying the Maryland Hospital Acquired Conditions Program

65	Urinary Tract Infection without Catheter	0.663	0.861	0.618
66	Catheter-Related Urinary Tract Infection	0.365	0.301	0.209
Statistically Significant at $p < 0.05$				

Results for PPC30 not presented and McGready was removed from analysis.

APPENDIX IV.

2b. CY2014 Jan-September Final Data- MHAC Scaling Modeling

HOSPITAL ID	HOSPITAL NAME	Estimated Inpatient Revenue (FY15*2.6%)	Base Year Score	Final Score Jan-Sept	% Improvement in Base Scores	% Scaling Adjustment	\$ Scaling Adjustment	\$ Revenue Neutral Scaling Adjustment	% Revenue Neutral Adjustment
210062	SOUTHERN MARYLAND	\$ 163,208,213	0.29	0.40	38%	-0.21%	\$ (337,672)	\$ (337,672)	-0.21%
210016	WASHINGTON ADVENTIST	\$ 161,698,669	0.42	0.44	4%	-0.07%	\$ (111,516)	\$ (111,516)	-0.07%
210051	DOCTORS COMMUNITY	\$ 136,225,391	0.33	0.46	39%	0.00%	\$ -	\$ -	0.00%
210023	ANNE ARUNDEL	\$ 310,117,075	0.37	0.46	24%	0.00%	\$ -	\$ -	0.00%
210022	SUBURBAN	\$ 181,410,188	0.17	0.46	170%	0.00%	\$ -	\$ -	0.00%
210033	CARROLL COUNTY	\$ 138,209,278	0.40	0.48	19%	0.00%	\$ -	\$ -	0.00%
210048	HOWARD COUNTY	\$ 167,386,497	0.22	0.48	118%	0.00%	\$ -	\$ -	0.00%
210034	HARBOR	\$ 124,002,220	0.45	0.48	7%	0.00%	\$ -	\$ -	0.00%
210044	G.B.M.C.	\$ 201,533,345	0.26	0.49	87%	0.00%	\$ -	\$ -	0.00%
210055	LAUREL REGIONAL	\$ 77,501,975	0.47	0.51	9%	0.00%	\$ -	\$ -	0.00%
210043	BALTIMORE WASHINGTON MEDICAL CENTER	\$ 223,155,126	0.29	0.52	79%	0.00%	\$ -	\$ -	0.00%
210005	FREDERICK MEMORIAL	\$ 189,480,763	0.40	0.52	30%	0.00%	\$ -	\$ -	0.00%
210004	HOLY CROSS	\$ 319,596,342	0.29	0.52	81%	0.00%	\$ -	\$ -	0.00%
210049	UPPER CHESAPEAKE HEALTH	\$ 148,917,096	0.36	0.53	48%	0.00%	\$ -	\$ -	0.00%
210057	SHADY GROVE	\$ 228,731,775	0.51	0.54	5%	0.00%	\$ -	\$ -	0.00%
210017	GARRETT COUNTY	\$ 18,724,074	0.69	0.54	-22%	0.00%	\$ -	\$ -	0.00%
210018	MONTGOMERY GENERAL	\$ 87,652,208	0.39	0.54	38%	0.00%	\$ -	\$ -	0.00%
210024	UNION MEMORIAL	\$ 242,505,500	0.26	0.54	110%	0.00%	\$ -	\$ -	0.00%
210015	FRANKLIN SQUARE	\$ 285,691,170	0.39	0.55	40%	0.00%	\$ -	\$ -	0.00%
210010	DORCHESTER	\$ 25,127,935	0.45	0.55	21%	0.00%	\$ -	\$ -	0.00%
210006	HARFORD	\$ 47,089,618	0.37	0.56	51%	0.00%	\$ -	\$ -	0.00%
210002	UNIVERSITY OF MARYLAND	\$ 863,843,449	0.30	0.56	88%	0.00%	\$ -	\$ -	0.00%
210027	SYSTEM	\$ 184,484,266	0.35	0.58	66%	0.00%	\$ -	\$ -	0.00%
210056	GOOD SAMARITAN	\$ 180,861,011	0.57	0.58	3%	0.00%	\$ -	\$ -	0.00%
210008	MERCY	\$ 233,163,594	0.34	0.59	75%	0.00%	\$ -	\$ -	0.00%
210038	UMMC MIDTOWN	\$ 133,787,811	0.44	0.60	37%	0.00%	\$ -	\$ -	0.00%
210003	PRINCE GEORGE	\$ 177,243,165	0.45	0.61	35%	0.00%	\$ -	\$ -	0.00%
210011	ST. AGNES	\$ 239,121,556	0.38	0.61	62%	0.00%	\$ -	\$ -	0.00%
210009	JOHNS HOPKINS	\$ 1,292,515,919	0.18	0.62	244%	0.05%	\$ 680,272	\$ 32,271	0.00%
210019	PENINSULA REGIONAL	\$ 233,728,496	0.26	0.63	142%	0.11%	\$ 246,030	\$ 11,671	0.00%
210032	UNION HOSPITAL OF CECIL COUNT	\$ 67,852,189	0.34	0.65	91%	0.21%	\$ 142,847	\$ 6,776	0.01%
210012	SINAI	\$ 429,154,679	0.26	0.67	158%	0.32%	\$ 1,355,225	\$ 64,290	0.01%
210001	MERITUS	\$ 187,434,497	0.26	0.67	158%	0.32%	\$ 591,898	\$ 28,079	0.01%
210037	EASTON	\$ 94,828,132	0.43	0.67	57%	0.32%	\$ 299,457	\$ 14,206	0.01%
210035	CHARLES REGIONAL	\$ 76,338,049	0.54	0.68	26%	0.37%	\$ 281,245	\$ 13,342	0.02%
210058	REHAB & ORTHO	\$ 69,104,846	0.33	0.68	107%	0.37%	\$ 254,597	\$ 12,078	0.02%
210063	UM ST. JOSEPH	\$ 216,335,128	0.29	0.69	137%	0.42%	\$ 910,885	\$ 43,211	0.02%
210029	HOPKINS BAYVIEW MED CTR	\$ 356,396,901	0.33	0.69	110%	0.42%	\$ 1,500,619	\$ 71,187	0.02%
210061	ATLANTIC GENERAL	\$ 38,640,762	0.56	0.69	24%	0.42%	\$ 162,698	\$ 7,718	0.02%
210040	NORTHWEST	\$ 142,186,717	0.24	0.73	206%	0.63%	\$ 898,021	\$ 42,601	0.03%
210028	ST. MARY	\$ 69,520,305	0.56	0.74	33%	0.68%	\$ 475,665	\$ 22,565	0.03%
210013	BON SECOURS	\$ 78,212,787	0.58	0.75	29%	0.74%	\$ 576,305	\$ 27,339	0.03%
210030	CHESTERTOWN	\$ 29,416,674	0.80	0.76	-6%	0.79%	\$ 232,237	\$ 11,017	0.04%
210060	FT. WASHINGTON	\$ 17,776,133	0.45	0.77	72%	0.84%	\$ 149,694	\$ 7,101	0.04%
210039	CALVERT	\$ 67,385,287	0.48	0.80	66%	1.00%	\$ 673,853	\$ 31,966	0.05%
210045	MCCREADY	\$ 3,734,618	0.78	1.00	28%	1.00%	\$ 37,346	\$ 1,772	0.05%
						Total Reduct	\$ (449,188)	\$ (449,188)	
						Total Award	\$ 9,468,894	\$ 449,188	
							0.047438328		

Appendix V. MHAC Score Tiered Scaling of Final MHAC Scores

Final MHAC Score	Below State Quality Target	Exceed State Quality Target
Scores less than or equal to 0.17	-4.00%	-1.00%
0.18	-3.88%	-0.97%
0.19	-3.76%	-0.93%
0.20	-3.65%	-0.90%
0.21	-3.53%	-0.86%
0.22	-3.41%	-0.83%
0.23	-3.29%	-0.79%
0.24	-3.18%	-0.76%
0.25	-3.06%	-0.72%
0.26	-2.94%	-0.69%
0.27	-2.82%	-0.66%
0.28	-2.71%	-0.62%
0.29	-2.59%	-0.59%
0.30	-2.47%	-0.55%
0.31	-2.35%	-0.52%
0.32	-2.24%	-0.48%
0.33	-2.12%	-0.45%
0.34	-2.00%	-0.41%
0.35	-1.88%	-0.38%
0.36	-1.76%	-0.34%
0.37	-1.65%	-0.31%
0.38	-1.53%	-0.28%
0.39	-1.41%	-0.24%
0.40	-1.29%	-0.21%
0.41	-1.18%	-0.17%
0.42	-1.06%	-0.14%
0.43	-0.94%	-0.10%
0.44	-0.82%	-0.07%
0.45	-0.71%	-0.03%
0.46	-0.59%	0.00%
0.47	-0.47%	0.00%
0.48	-0.35%	0.00%
0.49	-0.24%	0.00%
0.50	-0.12%	0.00%
0.51	0.00%	0.00%
0.52	0.00%	0.00%
0.53	0.00%	0.00%
0.54	0.00%	0.00%

Draft Recommendation for Modifying the Maryland Hospital Acquired Conditions Program

0.55	0.00%	0.00%
0.56	0.00%	0.00%
0.57	0.00%	0.00%
0.58	0.00%	0.00%
0.59	0.00%	0.00%
0.60	0.00%	0.00%
0.61	0.00%	0.00%
0.62	0.00%	0.05%
0.63	0.00%	0.11%
0.64	0.00%	0.16%
0.65	0.00%	0.21%
0.66	0.00%	0.26%
0.67	0.00%	0.32%
0.68	0.00%	0.37%
0.69	0.00%	0.42%
0.70	0.00%	0.47%
0.71	0.00%	0.53%
0.72	0.00%	0.58%
0.73	0.00%	0.63%
0.74	0.00%	0.68%
0.75	0.00%	0.74%
0.76	0.00%	0.79%
0.77	0.00%	0.84%
0.78	0.00%	0.89%
0.79	0.00%	0.95%
Scores greater than or equal to		
0.80	0.00%	1.00%

Penalty threshold:	0.51	0.46
Reward Threshold	No rewards	0.61

*Minimum and maximum scaling scores based on CY 2013 Final Data Attainment Scores. Not changed for RY17 MHAC Program.

Draft Recommendation for Updating the Hospital Readmission Reduction Incentive Program for FY 2017

**Health Services Cost Review Commission
4160 Patterson Avenue Baltimore, MD 21215
(410) 764-2605**

**December 10, 2014
(Updated December 16, 2014)**

This document contains the draft staff recommendations for updating the Maryland Hospital Readmission Reduction Incentive Program for FY 2017. Comments may be submitted via hard copy mail to the Commission's address or email to Dianne.feeney@maryland.gov and are due by COB Monday, 12/22/14

A. Introduction

The United States health care system currently experiences an unacceptably high rate of unnecessary hospital readmissions. These excessive readmissions are a symptom of our fragmented payment system and result in considerable unnecessary cost and substandard care quality.

Maryland's readmission rates are high compared to the national levels for Medicare. The Center for Medicare and Medicaid Innovation All-Payer Model Agreement (or "waiver"), which began on January 1, 2014, has established readmission reduction targets that require Maryland hospitals to be equal or below rates of Medicare readmissions by 2018, with annual progress toward this goal. In order to enhance our ability to incentivize hospital care improvements and meet the target, the Commission approved the Hospital Readmission Reduction Incentive Program policy to be applied to FY 2016 rates where hospitals achieving at least a 6.76% inter-hospital readmission reduction target for CY 2014 performance compared to CY2013 performance would earn an additional 0.5% in revenue.

The purpose of this document is to describe the proposed updated Readmission Reduction Incentive Program for FY 2017 designed to provide incentives for hospitals to improve overall care coordination and substantially reduce readmissions.

B. Background

Our fragmented system for reimbursing health services in this country, for the most part, has provided large disincentives for hospitals and other providers to construct efficient and effective coordinated care models.

Since the inception of hospital rate regulation in Maryland, the HSCRC has experimented with innovative methods of hospital reimbursement. Pursuant to the provisions of Health-General Article, Section 19-219 and COMAR 10.37.10.06, the Commission may approve experimental payment methodologies that are consistent with the HSCRC's legislative mandate to promote effective and efficient health service delivery and primary policy objectives of cost containment, expanded access to care, equity in payment, financial stability, improved quality, and public accountability.

. The Global Budget Revenue (GBR) and Total Patient Revenue (TPR) arrangements now in place for all hospitals in the State provide for a fixed amount of revenue a hospital may generate during a particular year. These revenue arrangements provide incentives to construct efficient and effective coordinated care models. (Prior to the GBR, most hospitals participated in an episode payment program that bundled readmissions into the index DRG payment levels.) In May 2013, the Commission approved a Shared Savings Policy where hospital inpatient revenues are reduced by 0.3% of inpatient revenues to provide similar cost savings as the federal Medicare Readmission Reduction program. This amount was scaled based on observed versus expected readmissions levels within each hospital.

In April 2014, the Commission approved a second readmission program to provide a positive adjustment for high performing hospitals that meet pre-determined reduction targets for readmissions.

Based on the discussions at the Performance Measurement Workgroup in 2014, the guiding principles vetted for the Hospital Readmission Reduction Program include:

- Measurement used for performance linked with payment must include all patients regardless of payer.
- Measurement must be fair to hospitals.
- The initial and subsequent years’ targets must be established to reasonably support the overall goal of achieving the reductions needed to be equal or lower than the national Medicare readmission rate by CY 2018.
- Measure specifications used for the program should be consistent with the CMS/CMMI measure of readmissions.

The detailed definitions and key methodology components for RY 2017 are described in Appendix I.

C. Assessment

1. Maryland’s High Readmission Rates

Since access to national Medicare data has been delayed, HSCRC staff was not able to verify trends in Maryland and national readmission rates. CMMI staff is also working on revisions to the proposed Medicare readmission rate for the waiver test to remove planned readmissions from the measure and improve the algorithm to account of breaks in Medicare coverage. We hope to receive updated information during the next several months.

Staff analyzed CMS data comparing Maryland hospitals rates to all US hospitals using CMS’ Hospital Readmissions Reduction Program data for 30-day readmission of patients with pneumonia, heart failure (CHF), heart attack (AMI), hip/knee arthroplasty and chronic obstruction pulmonary disease (COPD). This comparison reveals that the majority of Maryland hospitals have readmission rates above the national average for all conditions measured in the CMS program (Figure 1). Hospital specific rates were also presented to the Performance Measurement Workgroup (Appendix II).

Figure 1: Maryland Hospitals Excess Readmission Ratios as Measured by the CMS’ Hospital Readmissions Reduction Program and Applied to FFY 2015 Medicare Rates Outside of Maryland

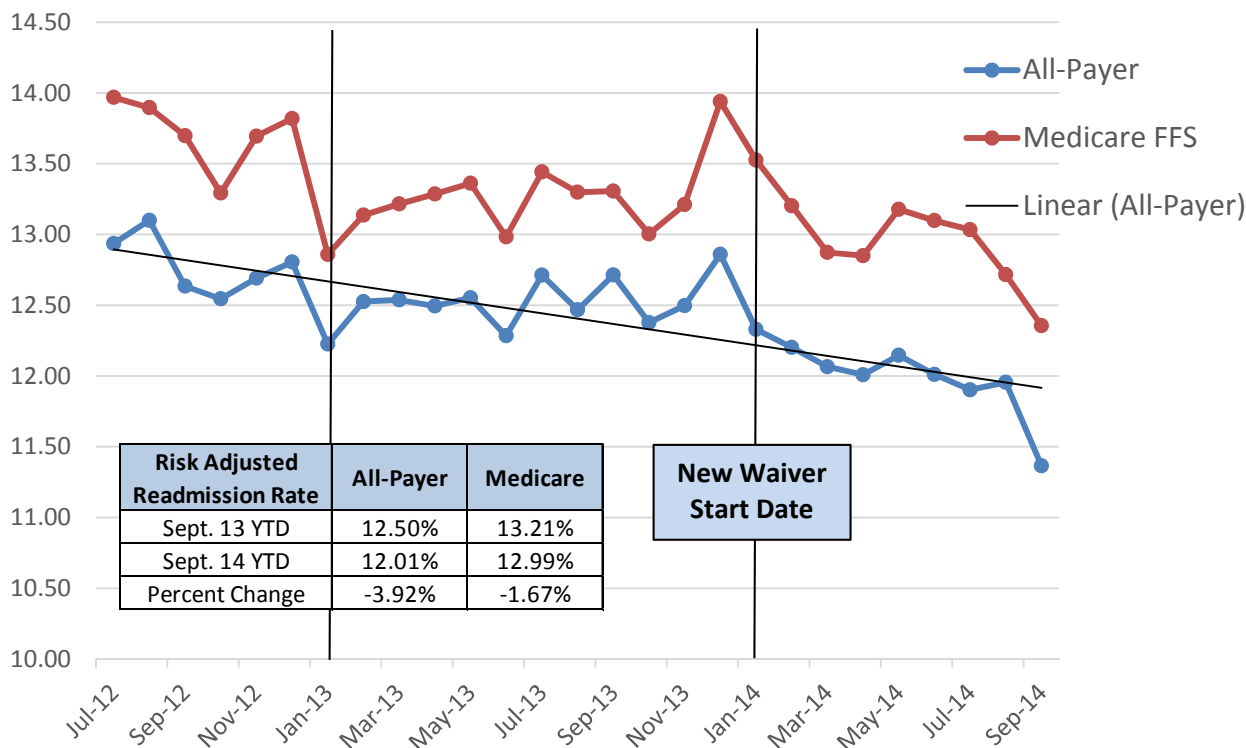
Hospital Name	Pneumonia	Heart Failure	Acute Myocardial Infarction	Hip/Knee Arthroplasty	Chronic Obstructive Pulmonary Disease
Number of Total Cases	19,363	26,474	9,002	18,204	20,666
Hospital Average Ratio	1.04	1.04	1.02	1.09	1.02
Percent of Hospitals Above National Average	61%	70%	61%	59%	59%

Data Source: [FY 2015 IPPS Hospital Readmissions Reduction Program Supplemental Data File \(Final Rule and Correction Notice\)](#)

2. Maryland's Progress in Meeting Readmission Reduction Target

Using HSCRC data, staff and the Commission monitor Maryland all-payer and Medicare fee for service monthly readmission trends to assess year to date progress in meeting the established first year hospital specific reduction target of 6.76%. As Figure 2 below illustrates, Maryland's all-payer risk adjusted readmission rate for calendar YTD August 2014 is 3.37% lower than the calendar YTD August 2013 rate.

Figure 2. All-Payer and Medicare FFS Monthly YTD Readmission Trends



Note: Based on final data for January 2013 - June 2014, and preliminary data through

3. Factors Considered in Updating Annual Target

Staff analyzed data on readmission rates for potential correlations with other factors that may be considered in setting updated hospital-specific and statewide targets. In reevaluating the discussion of setting different targets for hospitals with varying readmission rates, staff found no correlation between readmission rate reductions in the performance and base periods. In examining hospital specific reductions, staff noted that one of the two hospitals with the lowest readmission rates, improved significantly, while the other hospital experienced an increase in readmission rate.

Staff considered patient socioeconomic – e.g., income, education, and occupation – and demographic – e.g., age, race, ethnicity, primary language – (SES/D) factors for making adjustments to the readmission targets that could be applied at the hospital level since these factors influence outcomes through a variety of pathways. There is growing emphasis on SES/D factors as overall

quality has improved, but disparities have not, and there are increasing financial stakes for improving quality and disparities. The passage of the IMPACT bill on September 18, 2014 mandates SES-related studies. Ann Greneir, Vice President at the National Quality Forum presented the national developments on using SES/D adjustments in readmission rates at the Performance Measurement Workgroup October meeting. Although support for using SES/D adjustments is growing, there is not broad consensus on use SES/D adjustment in quality and payment. On one hand, adjusting for SES factors will mask disparities, and on the other hand, there is growing sentiment that adjusting for SES factors is necessary to avoid making incorrect inferences in the context of comparative performance assessment. Staff is committed to working on analyzing the feasibility of adding SES/D adjustments to the readmission reduction incentive policy in the near term and creating a payment adjustment rewarding hospitals with lower readmission rates (based on attainment). In the meantime, staff used percent Medicaid adjustments as a proxy to evaluate the impact of SES on improvements in readmission rates and found no correlation between the two factors. Although SES may impact the absolute readmission rates, evidence on how these factors impact the change in readmission rates is not well developed.

Another factor that staff examined is the relationship between all-payer and Medicare readmission rates. There continues to be a reasonably significant correlation between all-payer and Medicare readmission rates, therefore, setting an all payer target will likely be effective in reducing Medicare readmissions as well. These findings are displayed in Appendix II.

The last factor analyzed is the impact of changes in the denominator on readmission rates. The percent changes in the index admissions appear to have no correlation with the changes in readmission rates. In fact, hospitals that had greatest declines in readmission rates also had greater declines in their denominators (Appendix III).

Changes in inpatient and observation stays due to two-midnight rule continues to be an issue in assessing the trends in national and Maryland readmission rates. In the absence of national claims data, it is difficult to predict the impact and compare Maryland and national trends. The current timelines to receive national claims data is February 2015.

4. Readmission Reduction Target

Setting targets annually through 2018 continues to be problematic as there are no national projected numbers for admissions or readmissions nor are there projected reduction targets.

According to the all-payer model demonstration contract, "If in a given Performance Year Regulated Maryland Hospitals, in aggregate, fail to outperform the national Readmissions Rate change by an amount equal to or greater than the cumulative difference between the Regulated Maryland Hospital and national Readmission Rates in the base period divided by five, CMS shall follow the corrective action and/or termination [of the exemption from the national Medicare readmissions reduction program] provisions of the Waiver of Section 1886(q) as set forth in Section 4.c and in Section 14."

Staff and stakeholders are concerned with the accuracy of readmission estimates in CMMI data and will work with CMMI to finalize and verify the readmission rates to accurately determine the statewide Medicare readmission reduction target.

5. Payment Incentive Structure

FY 2016 approved policy provided 0.5 % positive adjustment for hospitals that met or exceeded the improvement target of 6.76%. Appendix IV provides trends in risk adjusted readmission rates through August 2014. Approximately, one third of the hospitals improved beyond the target. As a result, it is projected that these hospitals will be eligible to receive the reward subject to an confirmation that the improvement is not achieved through a substantial increase in observation cases. On the other hand, one third of hospitals experienced increases in the readmission rates, which is concerning to both staff and stakeholders. Staff is recommending increasing the financial impact of the readmission program by instituting both positive and negative adjustments and placing higher amounts of revenue at risk. In order to align the program with the All-Payer Model Agreement requirements, staff proposes for the payment policy to use a cumulative improvement rate that establishes CY 2013 readmission rates as the base.

In addition, staff is recommending a tiered scaling approach where the financial impact differs based on the State's progress in achieving a Medicare readmission reduction annual target. Figure 3 provides two options for scaling that will be discussed at the Payment and Performance Measurement Workgroup meetings in December.

**Figure 3: Sample Payment Adjustments Scale using Cumulative Benchmark Examples:
 Example benchmark=(CY2014 benchmark+1)*(Cy2015 benchmark+1)-1=(6%+1)*(4%+1)-1=10%**

Option 1:			Option 2:		
All Payer Readmission Rate Change CY13-CY15	Payment Adjustments		All Payer Readmission Rate Change CY13-CY15	Payment Adjustments	
	Medicare Readmission Reduction Target Not Achieved	Medicare Readmission Reduction Target Achieved		Medicare Readmission Reduction Target Not Achieved	Medicare Readmission Reduction Target Achieved
-10% or LOWER	0.50%	1.00%	-10% or LOWER	0.50%	1.00%
-9.9%	0.00%	0.00%	-9.9%	-0.30%	0.00%
-8%	0.00%	0.00%	-8%	-0.48%	0.00%
-7%	0.00%	0.00%	-7%	-0.57%	0.00%
-6%	0.00%	0.00%	-6%	-0.67%	0.00%
-5%	0.00%	0.00%	-5%	-0.76%	0.00%
-4%	0.00%	0.00%	-4%	-0.86%	0.00%
-3%	0.00%	0.00%	-3%	-0.95%	0.00%
-2%	0.00%	0.00%	-2%	-1.05%	0.00%
-1%	0.00%	0.00%	-1%	-1.14%	0.00%
0%	0.00%	0.00%	0%	-1.24%	0.00%
1%	-0.25%	-0.125%	1%	-1.33%	-0.125%
2%	-0.50%	-0.250%	2%	-1.43%	-0.250%
3%	-0.75%	-0.375%	3%	-1.52%	-0.375%
4%	-1.00%	-0.500%	4%	-1.62%	-0.500%
5%	-1.25%	-0.625%	5%	-1.71%	-0.625%
6%	-1.50%	-0.750%	6%	-1.81%	-0.750%
7%	-1.75%	-0.875%	7%	-1.90%	-0.875%
8%	-2.00%	-1.000%	8%	-2.00%	-1.000%
Higher than 8%	-2.00%	-1.000%	Higher than 8%	-2.00%	-1.000%

D. Recommendations

Staff provides the following draft recommendations for a readmission reduction incentive program for CY 2015 performance applied to rate year 2017:

1. Adapt a payment incentive program with both rewards for hospitals achieving or exceeding the benchmark and payment reductions for hospitals with readmission rate increases or failure to make adequate improvements.
2. Use a tiered approach where a statewide Medicare readmission target must be met to avoid maximum penalties at risk for the program.
3. Continue to set a benchmark for a minimum required readmission rate reduction where rewards may be earned based on all payer readmission reductions.
4. Develop readmission reduction targets for CY 2015 compared to CY 2013 readmission rates by March 2014, taking into consideration the final Medicare rates obtained from CMMI.

Appendix I. HSCRC Methodology for Readmissions FY2017

READMISSIONS

CY 2013 inpatient data, with EIDs (base year), is used to calculate the readmission rates for all-payer and Medicare patients.

EXCLUSIONS

The following were removed from the readmission rate calculations:

1. Rehab hospitals (provider ids 213028,213029, 213300)
2. Cases with null or missing EIDs
3. Duplicates
4. Negative interval days
5. Newborn related APRDRGs.
6. For risk adjustment, based on admission DRGs, exclude DRG and SOI cells with < 2
7. Exclude those who have died (from denominator) and those with same day transfers (interval days = 0) (from readmissions)

RESULTS

1. Two numerators (readmissions within 30 days of a hospitalization)
 - a. Unadjusted readmissions (comparable to CMS)
 - b. Adjusted readmissions (exclude planned admissions, based on the Clinical Classification System (CCS) to flag planned admissions)
2. Denominator – Total number of discharges
3. Expected Readmissions based on Discharge DRG and Severity of Illness.
4. Calculate Ratio – Adjusted readmissions / expected readmissions
5. Risk Adjusted Readmission Rate – Ratio*Overall state rate

The key methodology components of the Readmission Reduction Incentive Program are described below.

- **Readmission definition-** Total readmissions/total admissions to any acute hospital¹
- **Broad patient inclusion-** For greater impact and potential for reaching the target the measure should include all payers and any acute hospital readmission in the state.

¹ Discharge can both be initial and readmission; one readmission within 30 days is counted; transfers are combined into a single stay; and the 30-day period starts at the end of the combined stay, Left against medical advice is also included in the index. Admissions with discharge status of "Died" are excluded.

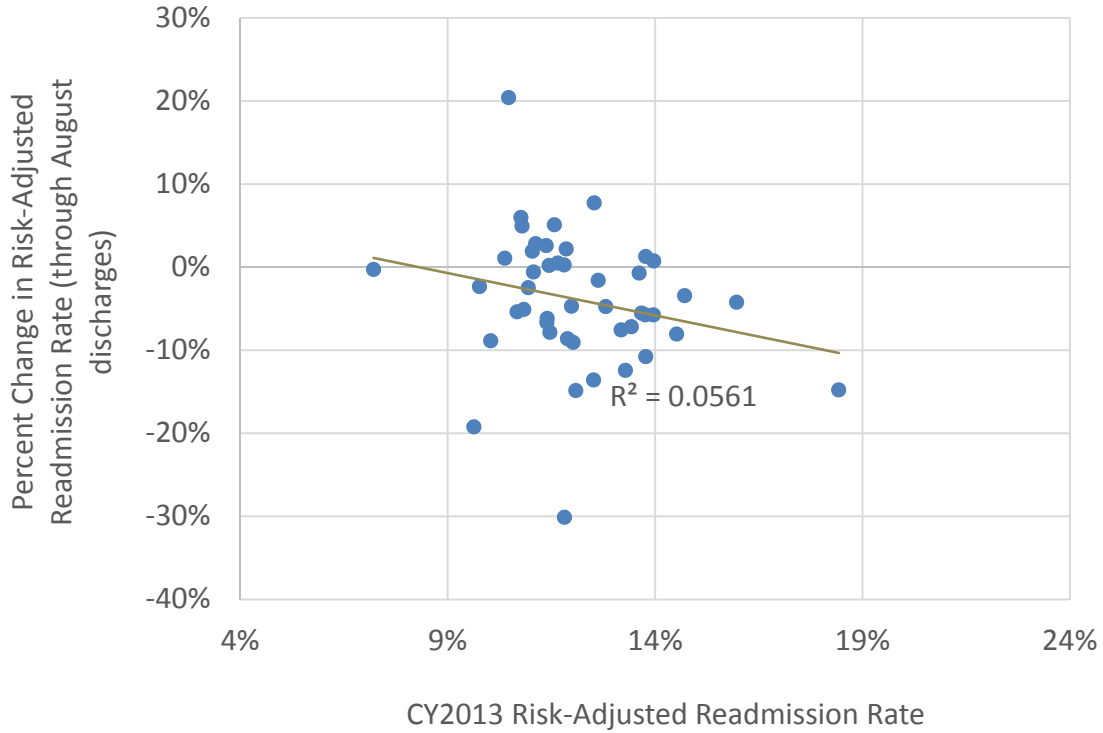
- **Patient exclusion adjustments**– To enhance fairness of the methodology, planned admissions (using the updated CMS Algorithm) and deliveries should be excluded from readmission counts.
 - **Scale positive and negative incentives**- If statewide Medicare readmission reduction target is met, hospitals that reach or exceed the hospital-specific improvement target have the opportunity to earn the incentives and hospital will be assessed penalties if they have an increase in readmission rates. If the statewide Medicare readmission reduction target is not met, hospitals will have an opportunity to earn a reduced incentive, and hospitals will be assessed penalties if they do not meet the minimum improvement target.
 - **Performance measurement consistent across hospitals**- A uniform improvement benchmark for all hospitals was established for the first year and will be evaluated annually. Given the debate whether socio-economic and demographic factors should be used in readmission risk adjustment and that arguments could be made to lower readmission targets for high readmission hospitals if they serve hard to reach populations, staff recommends using a uniform achievement benchmark for all hospitals.
- Monitor for unintended consequences**- Observation and ED visits within 30 Days of an inpatient stay will be monitored; adjustments to the positive incentive will be made if observation cases within 30 days increase faster than the other observations in a given hospital.

Appendix II. CMS Medicare Readmission Rates for FFY2015

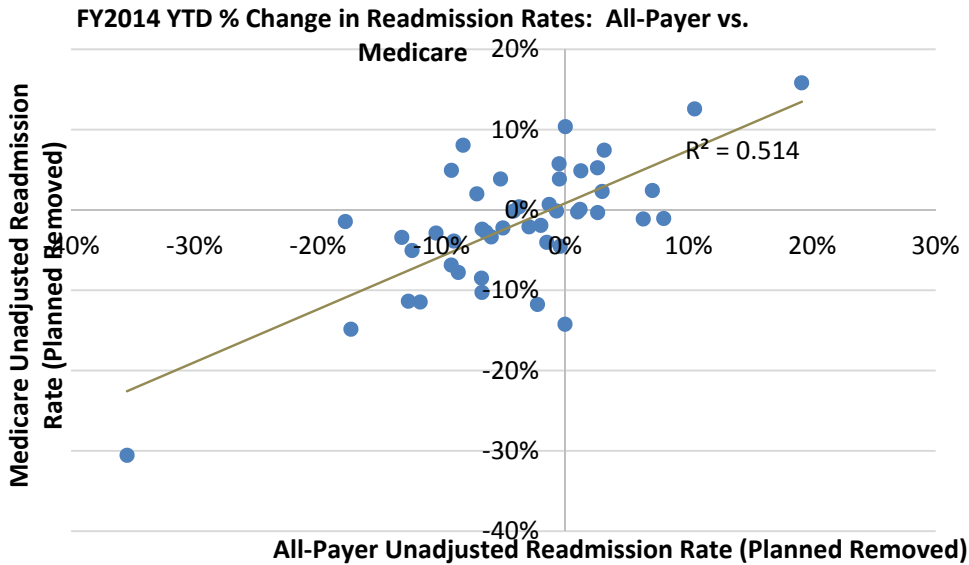
Hospital Name	Number of Pneumonia Cases	Excess Readmission Ratio for Pneumonia	Number of Heart Failure Cases	Excess Readmission Ratio for Heart Failure	Number of Acute Myocardial Infarction Cases	Acute Myocardial Infarction Excess Readmission Ratio	Number of Hip/Knee Arthroplasty Cases	Hip/Knee Arthroplasty Excess Readmission Ratio	Number of Chronic Obstructive Pulmonary Disease Cases	Chronic Obstructive Pulmonary Disease Excess Readmission Ratio	Average
NORTHWEST HOSPITAL CENTER	628	1.21	797	1.20	151	1.07	180	0.92	599	1.15	1.11
DOCTORS' COMMUNITY HOSPITAL	410	1.25	490	1.01	38	0.99	170	1.33	371	0.93	1.10
SINAI HOSPITAL OF BALTIMORE	391	1.09	928	1.02	466	1.01	676	1.38	363	1.00	1.10
MEDSTAR MONTGOMERY MEDICAL CENTER	429	1.04	437	1.17	99	1.10	314	1.15	380	1.05	1.10
SHADY GROVE ADVENTIST HOSPITAL	677	1.07	515	1.09	194	1.04	574	1.23	430	1.07	1.10
SAINT AGNES HOSPITAL	862	1.01	761	1.07	184	0.89	390	1.51	670	1.00	1.10
UNIVERSITY OF MD CHARLES REGIONAL MEDICAL CENTER	348	1.07	428	1.00	25	1.09	190	1.28	608	1.01	1.09
SOUTHERN MARYLAND HOSPITAL CENTER	386	1.12	694	1.07	171	1.08	161	1.03	427	1.14	1.09
UNIVERSITY OF MARYLAND MEDICAL CENTER	165	1.13	329	1.14	512	1.12	57	1.04	122	1.00	1.09
UNIVERSITY OF MD SHORE MEDICAL CTR AT CHESTERTOWN	190	0.96	265	1.01	29	1.03	77	1.33	263	1.10	1.08
MEDSTAR HARBOR HOSPITAL	278	0.91	409	1.16	64	0.97	209	1.30	436	1.06	1.08
LAUREL REGIONAL MEDICAL CENTER	103	1.02	176	1.02	46	1.09	78	1.20	127	1.07	1.08
CALVERT MEMORIAL HOSPITAL	380	1.10	556	1.02	70	0.97	149	1.33	403	0.98	1.08
UNION HOSPITAL OF CECIL COUNTY	353	1.02	290	1.05	87	1.07	206	1.25	590	1.01	1.08
PRINCE GEORGES HOSPITAL CENTER	102	1.10	265	1.11	144	1.06	25	1.00	157	1.11	1.08
MERCY MEDICAL CENTER INC	199	1.06	340	1.03	28	1.09	1037	1.19	239	0.98	1.07
JOHNS HOPKINS BAYVIEW MEDICAL CENTER	485	1.15	850	1.10	181	1.10	432	0.91	575	1.09	1.07
UNIVERSITY OF MD BALTO WASHINGTON MEDICAL CENTER	1014	1.19	1198	1.16	264	0.93	404	0.99	1167	1.06	1.07
MEDSTAR GOOD SAMARITAN HOSPITAL	352	1.25	1037	1.01	150	1.11	578	0.91	518	1.06	1.07
ANNE ARUNDEL MEDICAL CENTER	849	1.08	1151	1.09	365	1.09	1849	1.01	785	1.05	1.06
HOWARD COUNTY GENERAL HOSPITAL	692	1.15	590	1.11	131	0.96	104	1.05	654	1.03	1.06
MEDSTAR FRANKLIN SQUARE MEDICAL CENTER	726	1.00	1297	0.99	314	1.00	308	1.27	1134	1.02	1.06
HOLY CROSS HOSPITAL	391	1.03	607	1.07	142	1.03	314	1.10	373	0.99	1.05
ATLANTIC GENERAL HOSPITAL	297	0.98	311	0.89	27	1.10	232	1.14	369	1.05	1.03
UNIVERSITY OF MARYLAND HARFORD MEMORIAL HOSPITAL	173	1.01	263	0.98	51	1.02	55	1.08	311	1.04	1.03
FREDERICK MEMORIAL HOSPITAL	982	1.04	926	0.98	280	0.99	608	1.05	904	1.05	1.02
CARROLL HOSPITAL CENTER	600	1.04	760	0.98	213	1.01	535	1.10	702	0.98	1.02
UNIVERSITY OF MD SHORE MEDICAL CENTER AT EASTON	558	1.01	931	0.99	105	1.06	511	1.03	779	1.02	1.02
UNIVERSITY OF M D UPPER CHESAPEAKE MEDICAL CENTER	410	0.94	800	1.02	269	1.06	388	1.05	788	0.98	1.01
SUBURBAN HOSPITAL	557	0.97	637	1.04	360	1.02	997	0.95	269	1.06	1.01
CENTER	756	1.05	881	1.05	393	1.02	605	0.94	939	0.98	1.01
WASHINGTON ADVENTIST HOSPITAL	222	1.00	480	1.09	439	1.01	106	0.99	252	0.95	1.01
CENTER	80	0.96	157	0.98	40	1.01	45	1.00	122	1.06	1.00
MEDSTAR SAINT MARY'S HOSPITAL	300	0.92	440	1.08	70	1.00	318	0.88	459	1.02	0.98
GARRETT COUNTY MEMORIAL HOSPITAL	137	0.90	173	1.08	38	0.98	177	0.84	149	1.06	0.97
GREATER BALTIMORE MEDICAL CENTER	569	0.93	540	0.92	47	0.98	510	1.12	369	0.89	0.97
MEDSTAR UNION MEMORIAL HOSPITAL	253	0.97	636	0.94	653	0.99	1146	0.96	308	0.90	0.95
SAINT JOSEPH MEDICAL CENTER	299	1.00	784	0.96	543	0.87	1158	0.98	395	0.94	0.95
UNIVERSITY OF MARYLAND ST JOSEPH MEDICAL CENTER	50	0.95	160	0.96	82	0.97	266	0.93	82	0.93	0.95
MERITUS MEDICAL CENTER	1174	0.97	587	0.99	281	0.91	781	0.78	717	0.99	0.93
PENINSULA REGIONAL MEDICAL CENTER	857	0.91	1290	0.92	734	0.91	931	0.88	670	0.87	0.90
FORT WASHINGTON HOSPITAL	105	0.99	189	1.13	3		71	1.08	148	1.23	1.11
JOHNS HOPKINS HOSPITAL, THE	323	1.10	730	1.02	496	1.06	12		227	0.98	1.04
BON SECOURS HOSPITAL	86	0.99	188	1.06	9		2		112	1.02	1.03
UNIVERSITY OF MD MEDICAL CENTER MIDTOWN CAMPUS	110	1.03	144	1.04	9		14		146	1.00	1.02
EDWARD MCCREADY MEMORIAL HOSPITAL	52	0.96	50	1.00	5		0		56	0.95	0.97
UNIV OF MD REHABILITATION & ORTHOPAEDIC INSTITUTE	3		7		0		254	1.28	2		1.28
LEVINDALE HEBREW GERIATRIC CENTER AND HOSPITAL	0		0		0		0		0		NA
Number of Cases		19,363		26,474		9,002		18,204		20,666	
Hospital Average Ratio		1.04		1.04		1.02		1.09		1.02	1.04
Percent of Hospitals Above National Average		61%		70%		61%		59%		59%	83%

Appendix III. Analysis of All-Payer Readmission Rate Correlations with Base Period Rate, Medicare Readmission Rate, and Percent Medicaid Admissions

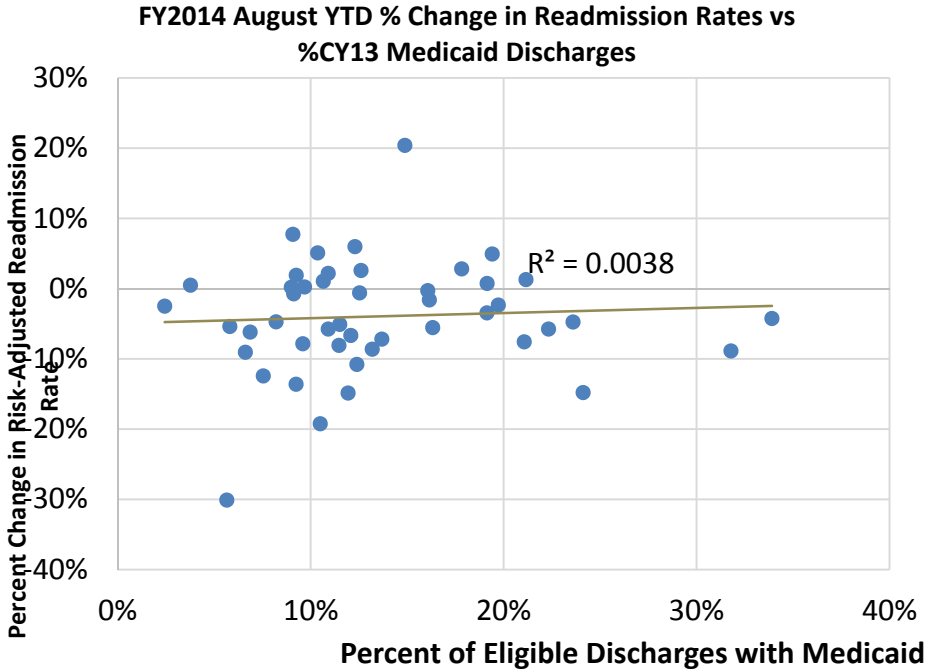
No Correlation of Readmission Reduction Rate of Improvement with Base Year Rate



Higher Correlation of Medicare and All-Payer Readmission Rates



No Correlation in Readmission Rates with % of Medicaid Admissions



Appendix IV: CY 2014 YTD Readmission Improvement Rates (as of September Discharges)

HOSPITAL ID	HOSPITAL NAME	Number of Eligible Discharges CY13 YTD*	Number of Readmissions CY13 YTD	CY13 YTD Risk Adjusted Rate	Number of Eligible Discharges CY14 YTD*	Number of Readmissions CY14 YTD	CY14 YTD Risk Adjusted Rate	Eligible Discharges % Change CY13-CY14 YTD	All-Payer % Change CY13-CY14 YTD
210045	MCCREADY	218	38	12.09%	237	29	9.19%	8.72%	-23.97%
210039	CALVERT	5,349	493	9.62%	4,596	363	8.00%	-14.08%	-16.83%
210013	BON SECOURS	4,183	1,179	18.44%	3,214	782	15.53%	-23.17%	-15.77%
210028	ST. MARY	6,325	741	12.35%	5,802	557	10.42%	-8.27%	-15.62%
210051	DOCTORS COMMUNITY	7,581	1,206	12.10%	6,372	896	10.51%	-15.95%	-13.08%
210024	UNION MEMORIAL	9,616	1,631	14.10%	8,823	1,326	12.42%	-8.25%	-11.92%
210030	CHESTERTOWN	1,449	256	13.47%	1,314	205	11.96%	-9.32%	-11.23%
210018	MONTGOMERY GENERAL	6,451	842	11.93%	6,527	765	10.71%	1.18%	-10.20%
210055	LAUREL REGIONAL	4,762	585	13.11%	3,853	460	11.86%	-19.09%	-9.54%
210058	REHAB & ORTHO	1,927	216	11.85%	1,823	184	10.80%	-5.40%	-8.88%
210040	NORTHWEST	6,365	1,179	14.38%	7,844	1,374	13.14%	23.24%	-8.65%
210063	UM ST. JOSEPH	12,459	1,288	11.50%	13,738	1,258	10.52%	10.27%	-8.51%
210003	PRINCE GEORGE	8,760	822	10.09%	9,789	867	9.28%	11.75%	-7.99%
210027	WESTERN MARYLAND HEALTH SYSTEM	9,573	1,183	12.29%	8,891	1,042	11.38%	-7.12%	-7.46%
210008	MERCY	14,404	1,561	14.18%	12,350	1,162	13.16%	-14.26%	-7.20%
210011	ST. AGNES	13,682	1,798	13.17%	13,141	1,614	12.26%	-3.95%	-6.87%
210038	UMMC MIDTOWN	4,857	1,103	16.10%	3,966	943	15.01%	-18.34%	-6.77%
210023	ANNE ARUNDEL	23,472	2,038	12.06%	22,343	1,781	11.29%	-4.81%	-6.45%
210043	BALTIMORE WASHINGTON MEDICAL CENTER	13,542	2,161	13.94%	13,035	1,976	13.06%	-3.74%	-6.33%
210012	SINAI	18,789	2,714	13.59%	18,085	2,386	12.83%	-3.75%	-5.64%
210034	HARBOR	6,837	800	12.83%	6,200	684	12.20%	-9.32%	-4.94%
210057	SHADY GROVE	18,487	1,510	10.82%	18,046	1,442	10.35%	-2.39%	-4.32%
210029	HOPKINS BAYVIEW MED CTR	15,404	2,484	14.63%	14,673	2,251	14.02%	-4.75%	-4.22%
210044	G.B.M.C.	14,966	1,217	10.51%	14,848	1,104	10.07%	-0.79%	-4.10%
210062	SOUTHERN MARYLAND	10,996	1,304	11.15%	10,340	1,209	10.74%	-5.97%	-3.74%
210056	GOOD SAMARITAN	8,677	1,565	13.49%	7,450	1,333	13.09%	-14.14%	-2.96%
210015	FRANKLIN SQUARE	17,562	2,283	12.83%	17,965	2,259	12.46%	2.29%	-2.86%
210048	HOWARD COUNTY	13,646	1,300	11.53%	14,250	1,361	11.26%	4.43%	-2.29%
210032	COUNT	4,167	475	10.24%	4,130	445	10.06%	-0.89%	-1.78%
210017	GARRETT COUNTY	1,644	98	6.99%	1,556	92	6.90%	-5.35%	-1.38%
210010	DORCHESTER	1,717	258	10.88%	1,713	258	10.73%	-0.23%	-1.35%
210006	HARFORD	3,410	519	11.19%	3,153	466	11.09%	-7.54%	-0.89%
210002	UNIVERSITY OF MARYLAND	24,157	3,682	13.68%	21,602	3,469	13.67%	-10.58%	-0.06%
210033	CARROLL COUNTY	8,795	1,056	11.82%	8,485	1,015	11.82%	-3.52%	-0.01%
210061	ATLANTIC GENERAL	2,322	336	11.20%	2,356	335	11.25%	1.46%	0.44%
210009	JOHNS HOPKINS	35,869	5,753	13.91%	35,930	5,900	14.00%	0.17%	0.66%
210022	SUBURBAN	9,453	1,139	10.68%	9,548	1,184	10.76%	1.00%	0.74%
210049	UPPER CHESAPEAKE HEALTH	9,855	1,083	11.16%	9,108	1,010	11.31%	-7.58%	1.37%
210005	FREDERICK MEMORIAL	13,924	1,391	10.39%	12,952	1,307	10.58%	-6.98%	1.86%
210060	FT. WASHINGTON	1,669	233	12.10%	1,563	229	12.33%	-6.35%	1.95%
210035	CHARLES REGIONAL	6,242	766	11.71%	6,025	733	11.97%	-3.48%	2.20%
210001	MERITUS	12,748	1,384	11.16%	13,200	1,445	11.45%	3.55%	2.61%
210004	HOLY CROSS	25,983	1,921	11.21%	27,179	2,164	11.62%	4.60%	3.65%
210016	WASHINGTON ADVENTIST	9,632	1,075	10.82%	9,514	1,066	11.34%	-1.23%	4.82%
210019	PENINSULA REGIONAL	14,373	1,550	10.57%	13,942	1,549	11.17%	-3.00%	5.61%
210037	EASTON	6,219	577	10.23%	6,088	658	12.03%	-2.11%	17.61%
STATE		472,518	58,793	12.45%	457,559	54,938	12.01%	-3.17%	-3.58%

Draft Recommendation for Aggregate Revenue Amount At-Risk under Maryland Hospital Quality Programs for FY 2017

**Health Services Cost Review Commission
4160 Patterson Avenue Baltimore, MD 21215
(410) 764-2605**

December 10, 2014

(Updated December 11, 2014)

This document contains the draft staff recommendations for the aggregate amount at-risk under Maryland hospital quality programs for FY 2017. Comments may be submitted via hard copy mail to the Commission's address or email to Dianne.feeneey@maryland.gov and are due by COB Monday, 12/22/14

A. Introduction

The HSCRC quality-based payment methodologies are important policy tools with great potential to provide strong incentives for hospitals to improve their quality performance over time. Each of the current policies for quality-based payment programs holds revenue at risk directly related to specified performance targets.

- The Quality Based Reimbursement (QBR) program employs revenue neutral scaling of hospitals in allocating rewards and reductions based on performance, with the net increases in rates for better performing hospitals funded by net decreases in rates for poorer performing hospitals.¹
- For the Maryland Hospital Acquired Conditions (MHAC) program, hospital performance is measured using observed to expected ratio values for each component measure and revenue allocations are performed using pre-established performance targets. The revenue at risk and reward structure is based on a tiered approach that requires statewide targets to be met for higher rewards and reduced reductions.
- The Readmission Shared Savings Program reduces each hospital's approved revenues prospectively based on its risk adjusted readmission rates.
- The hospital Readmission Reduction Incentive Program (RRIP) policy initiated in FY 2015 is designed to be a positive incentive program to reward hospitals that achieve a specified readmission reduction target. For FY 2017, staff is proposing to strengthen this program by increasing the amount of revenue at risk and including both rewards and reductions. Similar to the MHAC program, staff is proposing the use of a tiered approach that requires statewide targets to be met for higher rewards and reduced penalties. Potentially Avoidable Utilization reductions are applied to global budgets to reduce allowed volume growth based on percent of revenue associated with potentially avoidable utilization for each hospital.

This draft recommendation proposes the amount of hospital revenue at-risk for the following programs: 1. Quality-Based Reimbursement; 2. Maryland Hospital Acquired Conditions; and, 3. Readmission Reduction Incentive Program.

The Shared Savings for Readmissions² and Potentially Avoidable Utilization programs that also hold revenue at risk based on performance are determined annually commensurate with the hospital rate update factor process.

B. Background

Maryland has been a leader in initiating quality based payment approaches. Historically, these programs have surpassed the requirements of similar federal programs and as a result Maryland has been exempted from the federal programs. When Maryland entered into the All-Payer Model Agreement with CMS effective January 1, 2014, the continuing exemption process was addressed in

¹ The term "scaling" refers to the differential allocation of a pre-determined portion of base regulated hospital revenue contingent on assessment of the relative quality of hospital performance. The rewards (positive scaled amounts) or reductions (negative scaled amounts) are then applied to each hospital's revenue on a "one-time" basis (and not considered permanent revenue).

² For the Readmission Shared Savings adjustment, the HSCRC calculates a case mix adjusted readmission rate for each hospital for the base period and determines a statewide required percent reduction in readmission rates to achieve the revenue for shared savings. Current policy is posted at: <http://hscrc.maryland.gov/init-shared-savings.cfm>

the Agreement. The Agreement requires that the proportion of Maryland hospitals' revenues held at risk for quality programs be equal to or greater than the proportion of revenue that is held at risk under national Medicare programs. The objective of this requirement is two-fold: a) incentivize hospitals to deliver high quality care in support of the Triple Aim of better care, better health, and lower cost, and b) evaluate the extent to which Maryland quality programs are rewarding value as compared to those of the national Medicare program. The relevant agreement language is as follows.

Regulated Revenue at risk: [Maryland] must ensure that the aggregate percentage of Regulated Revenue at risk for quality programs administered by the State is equal to or greater than the aggregate percentage of revenue at risk under national Medicare quality programs. Quality programs include, but are not limited to, readmissions, hospital acquired conditions, and value-based purchasing programs.

It is important to note that under the All-Payer Model Agreement, Maryland is required to achieve specific reduction targets in total cost of hospital care, potentially preventable conditions, and readmissions in addition to its revenue at risk requirement. In an effort to meet these reduction targets, Maryland restructured its quality programs in such a way that financial incentives are established prior to the performance period in order to motivate quality improvement and sharing of best practices while holding hospitals accountable for their performance.

For FY2016 following maximum amounts of revenue at-risk were already approved by the Commission:

- QBR: 1% maximum penalty, with revenue neutral scaled rewards up to 1%.
- MHAC – 4% maximum penalty if statewide improvement target is not met; 1% maximum penalty and revenue neutral rewards up to 1% if statewide improvement target is met.
- RRIP – 0.5% positive incentive for any hospital that improves by at least 6.76%.

During the upcoming annual revenue update process for FY 2016, HSCRC staff expects that two additional quality adjustments will be applied.

- Readmissions Shared Savings Program – A savings of 0.4% total hospital revenue (approximating an average 0.6% and maximum reduction of 0.8% of inpatient revenue) based on risk adjusted readmission levels.
- PAU Reduction Program – A reduction of allowed revenue for volume increases associated with potentially avoidable utilization that had a maximum revenue reduction of 0.9% and an average reduction of 0.3% in FY 2015.

Currently staff is in discussions with CMMI regarding the methodology for comparing the Maryland aggregate amount of revenue at risk and the national Medicare aggregate amount-at-risk provided for in the Agreement. In addition to calculating maximum at risk (“potential risk”³), CMMI staff expressed a need to measure the actual revenues impacted by the programs (“realized risk”). Discussions on “realized risk” are in progress.

C. Assessment

CMMI staff proposed that measurement of both the potential and realized aggregate percentage of revenue at-risk occur annually across all quality programs comparing the State fiscal year (July 1 –

³ Potential risk is defined as maximum percentage of revenue that an individual hospital stands to gain or lose based on their performance within a given quality program.

June 30) to the Federal fiscal year (October 1 – September 30). For example, Maryland’s SFY 2015 (July 2014 – June 2015) will be evaluated against CMS’ FFY 2015 (October 2014 – September 2015). The calculations will be based on cumulative difference allowing Maryland to catch up to the national aggregate amount at risk by the end of the contract period.

Some Maryland quality programs are applied to both inpatient and outpatient revenue. For these programs, outpatient revenues at risk will be converted to an equivalent inpatient revenue base (Formula: percent of revenue at risk/percent inpatient revenue). Where applicable, both upside and downside risk will be considered.

Based upon these assumptions, Figure 1 shows the potential risk for each quality program and in aggregate for Maryland and Medicare, as well as the cumulative difference between Maryland and Medicare from 2014 to 2016. CMMI and HSCRC staff are currently discussing how to include the reduction for PAU in the Maryland program totals. Based on the latest feedback, CMMI staff expressed concern about including Preventive quality Indicator (PQIs) in the calculation. For informational purposes, the tables contain three sets of totals--the first excluding the reduction for PAU and the second including the reduction for PPC and Revisit components of PAU and third overall reduction of PAU. CMMI may want to separate the impact of Prevention Quality Indicators (admissions for ambulatory care sensitive conditions) from the other PAU components in evaluating the results.

Since Readmission shared savings and PAU adjustments are determined during the update factor determinations, we applied FY15 reductions to FY2016 and FY2017 for evaluating the results.

Figure 1: Maryland Versus Medicare Quality Programs’ Potential Revenue at Risk, 2014-2016

Maryland - Potential revenue at risk

% Inpatient Revenue	2014	2015	2016	2017
MHAC	2%	3%	4%	4%
Readmits	0.41%	0.86%	1.36%	2.86%
QBR	0.50%	0.50%	1.00%	2%
GBR PAU: PPC/Revisits	0.54%	0.54%	0.54%	0.54%
GBR PAU: PQI Only	0.32%	0.32%	0.32%	0.32%
GBR PAU: Total	0.86%	0.86%	0.86%	0.86%
Sum without PAU	2.91%	4.36%	6.36%	8.86%
Sum with PPC/Revisit PAU Only	3.45%	4.90%	6.90%	9.40%
Sum with Total PAU	3.77%	5.22%	7.22%	9.72%

italics are estimated numbers

Medicare National - Potential IP revenue at risk

% Inpatient Revenue	2014	2015	2016	2017
HAC	0	1%	1%	1%
Readmits	2%	3%	3%	3%
VBP	1.25%	1.50%	1.75%	2%

Sum	3.25%	5.50%	5.75%	6.00%
Cumulative MD-US Difference				
Without PAU	-0.34%	-1.48%	-0.87%	1.99%
With PPC/Revisit PAU Only	0.20%	-0.40%	0.76%	4.16%
With Total PAU	0.52%	0.23%	1.70%	5.41%

Staff discussed two alternative methods to measure realized risk with the CMMI. One option is to compare Maryland and Medicare hospital average percent revenue allocated in quality programs by taking the average of all absolute value of all revenue adjustments within each program. A second option is to calculate total revenue allocated in each program and sum all absolute values as a percent of total inpatient revenue in the state. Staff calculated Maryland and Medicare percentages for FY2015 for these options (see Figure 2), revealing that Maryland is slightly above Medicare in terms of average absolute percent for FY2015 or slightly below Medicare when excluding PAU.

Figure 2. Maryland Versus Medicare Quality Programs Realized Revenue at Risk, 2015

Maryland: (SFY 15)									
%tile (FY 15)	MHAC	Readmits	QBR	GBR PAU: PQI Only	GBR PAU: PPC/Revisits	GBR PAU: Total	Sum without PAU	Sum with PPC/Revisit PAU Only	Sum with Total PAU
100%	0.13%	-0.08%	0.28%	0.00%	0.00%	0.00%			
75%	0.06%	-0.59%	0.08%	-0.01%	-0.13%	-0.14%			
50%	0.05%	-0.64%	0.01%	-0.06%	-0.22%	-0.29%			
25%	0.02%	-0.72%	-0.15%	-0.11%	-0.32%	-0.44%			
0%	-1.00%	-0.86%	-0.50%	-0.32%	-0.54%	-0.86%			
FY 15 Absolute % Average	0.11%	0.64%	0.14%	0.07%	0.22%	0.29%	0.89%	1.11%	1.18%
FY 15 Total Value Percent	0.09%	0.67%	0.13%	0.06%	0.21%	0.27%	0.89%	1.11%	1.17%
CMS National: (FFY 15)									
%tile (FY 15)	HAC	Readmits	VBP	Sum					
100%	0.00%	0.00%	1.06%						
75%	0.00%	-0.06%	0.15%						
50%	0.00%	-0.31%	0.00%						
25%	0.00%	-0.77%	-0.21%						
0%	-1.00%	-3.00%	-1.37%						
FY 15 Absolute % Average	0.22%	0.52%	0.24%	0.97%					

D. Recommendations

Based upon the above assessment, current quality results for CY2014 YTD, and discussions with CMMI on our quality programs, staff's position and rationale for revenue amounts at-risk for FY2017 are outlined below.

1. **QBR** – 2% maximum penalty. This matches Medicare's VBP program and increases the incentive for hospitals to improve HCAHPS scores, which continue to be low compared to the Nation.

2. **MHAC**—4% maximum penalty if statewide improvement target is not met; 1% maximum penalty and revenue neutral rewards up to 1% if statewide improvement target is met. This continues the current FY2016 at-risk revenue levels that have resulted in significant quality improvements.
3. **RRIP**— 2% scaled maximum penalty and 0.5% reward for hospitals which reduced readmission rates at or better than the minimum improvement target if the statewide Medicare readmission target is not met; 1% scaled maximum penalty and 1% reward for hospitals which reduced readmission rates at or better than the minimum improvement target if the statewide Medicare readmission target is met. The decision to add reductions and increase potential rewards is based on staff and stakeholder concerns regarding the CY2014 YTD improvement and the fact that almost one third of hospitals have had an increase in their readmission rate.

HSCRC staff will convene meetings of the Performance Measurement and Payment Workgroups to deliberate and further refine quality-based programs' aggregate amount at risk and individual component program details prior to the January 2015 Commission meeting.