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To: Hospital CFOs

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From: Alyson Schuster, Associate Director – Performance Measurement

Date: April 25, 2017

Re: Maryland Hospital Acquired Conditions Program Summary for RY 2019

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This memo summarizes the changes to the Maryland Hospital Acquired Conditions (MHAC) Program, which will impact hospital rates in rate year (RY) 2019.

**1. Scaling and Magnitude of Revenue At-Risk**

On March 8, 2017, the Commission approved the staff recommendations to modify the MHAC scaling methodology for RY 2019. The revised scaling methodology utilizes a single scale, rather than the contingent scale that has been used since RY 2016 (based on a statewide improvement target). The RY 2019 scaling methodology has also been revised to use the full distribution of scores (0-100%) but maintains a revenue neutral zone (45-55%). Appendix A contains the revised payment scale that will be used for RY 2019 revenue adjustments.

Below are the specific recommendations approved in the RY 2019 MHAC policy:

1. Continue to exclude palliative care discharges in program for RY 2019, and perform a special hospital audit on palliative care coding.
2. Modify scaling methodology to be a single payment scale, ranging from 0% to 100%, with a revenue neutral zone between 45% and 55%.
3. Set the maximum penalty at 2% and the maximum reward at 1%.

The HSCRC acknowledges that hospitals suggested several edits to 3M grouper logic for version 35 of the grouper at the 3M/MHA meeting of Friday, April 14, 2017. At this time, the HSCRC is unable to make retrospective changes to the RY 2019 base period data to reflect additional suggested edits. As such, this memo presents the RY 2019 base period attainment scores without any out of grouper changes.

## **2. Base and Performance Periods for RY 2019 MHAC Program**

For RY 2019, the base period will be October 2015 through September 2016 and the performance period will be CY 2017. The base period was moved forward one quarter so that all data for the RY 2019 is under ICD-10 coding, enabling the use of Version 34 of the PPC grouper (for more information, see section 4 of the memo). An excel workbook with base period data and other program details (i.e., benchmarks, normative values, hospital PPC exclusions) is being distributed by email with this memo and will be posted on the [CRISP Reporting Services portal](#).

## **3. Methodology for Hospital MHAC Performance Scoring and PPC Measurement**

Overall, the RY 2019 MHAC scoring methodology has not changed significantly from the RY 2018 policy (see Appendix B and C for expected value and score calculation details). However, the following changes have been made to the PPCs and hospitals included in the payment program:

- I. 3M has removed several PPCs with low validity from the PPC Grouper and recommended continued suspension of one additional PPC from payment program (PPC 24). The newly removed PPCs include PPC 12 (cardiac arrhythmia) and PPCs 57 and 58 (OB Lacerations).
- II. Two additional PPCs (36, 66) with less than 1 expected or less than 10 at-risk for all hospitals are being moved to a monitoring-only status and will not be scored for payment program purposes. This means that the monitoring-only PPCs for RY 2019 are PPCs 2, 15, 20, 29, 33, 36 and 66. The monthly and quarterly PPC reports will provide data on these seven PPCs if hospitals meet the minimum inclusion criteria and these PPCs will continue to be reported to CMMI for purposes of our Model contract.
- III. Starting in RY 2018, PPCs with low rates were combined into four combination PPCs: one general combination PPC, and three clinically-related combination PPCs. In RY 2019, there will be three combination PPCs, since PPC 57 and 58 are removed from the grouper:
  - a) Combo 1: General Combination: PPC 25, 26, 43, 63, 64<sup>1</sup>
  - b) Combo 2: Gastrointestinal Complications: PPC 17, 18
  - c) Combo 3: OB Hemorrhage: PPC 55, 56
  - d) ~~Combo 4: OB Lacerations: PPC 57, 58~~

In the combination PPCs, the hospital-level exclusion criteria for each PPC are applied at the combined PPC level and not at the individual PPC level. The criteria are that PPCs are excluded if there are fewer than 10 at-risk discharges, or fewer than 1 expected PPC. However, the count of total PPCs for each discharge counts all individual PPCs (this total count is used to remove

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<sup>1</sup> PPC 64 had been removed from the RY 2018 general combination PPC due to ICD-10 issues. These issues have since been resolved, and it has been re-added to the general combination PPC for RY 2019.

catastrophic cases with >6 PPCs). The monthly and quarterly PPC reports have been revised to provide detailed data on each PPC within a combination PPC.

- IV. Two tier changes were also made for RY 2019: PPC 21 (c. Diff) and PPC 65 (Urinary Tract Infection without Catheter) have been moved from tier 1 (weighted at 100%) to tier 2 (weighted at 50%). Appendix D provides a list of the RY 2019 PPCs included in Tier 1 of the MHAC program.
- V. For RY 2019, small hospitals that do not meet minimum inclusion criteria for any other PPCs (except serious reportable events that do not have minimum exclusion criteria) are completely removed from the MHAC payment program. This exclusion impacts only McCready Hospital for RY 2019. Regardless of inclusion or exclusion, hospitals' results on the serious reportable events are still included in the MHAC reports and reports to CMMI.
- VI. All out of grouper logic changes made in RY 2018 have been removed. These are changes to clinical logic that 3M agreed to make in Version 34 of the PPC grouper. It should be noted that some of the 3M Version 34 clinical modifications may have been implemented differently from the HSCRC out of grouper changes. The HSCRC policy going forward is to not implement out of grouper changes except in rare circumstances due to the clinical and programming expertise required.

Appendix E contains the updated benchmarks and thresholds with the updated PPCs using the October 2015 - September 2016 base period data. A comparison to RY 2018 benchmarks is also provided, because clinical changes to PPC measures under ICD-10 have substantially impacted some of the benchmarks. Appendix F provides the base year attainment-only scores indicating what a hospital's score would be if it experiences no improvement in CY 2017.

#### **4. Version**

PPC and APR version 34 will be used for RY 2019 base period and performance period. Version 34 of the PPC grouper was developed taking into account the increased specificity of ICD-10 coding.

#### **5. MHAC Program Reporting through CRISP Reporting Services (CRS) Portal**

All MHAC summary reports and case-level data will continue to be made available to hospitals/health systems through the CRS portal. Most hospital contacts will have access to only the summary report and a more limited number of hospital contacts will have access to the case-level detail that contains PHI. The SAS programs and technical specifications for the RY 2019 MHAC program will also be posted on the CRISP portal. For access to the [CRS portal](#), contact [support@crisphealth.org](mailto:support@crisphealth.org).

If you have any questions, please email [hscrc.quality@maryland.gov](mailto:hscrc.quality@maryland.gov) or call Dr. Alyson Schuster at 410-764-2673.

**Appendix A: RY 2019 Single Revenue Adjustment Scale with Neutral Zone**

Below is a concise version of the RY 2019 MHAC scale, which ranges from 0% to 100% and includes a revenue neutral zone between 45% and 55%. A full scale with all percentage point revenue adjustments is included in the MHAC Summary reports.

| <b>Final MHAC Score</b> | <b>Revenue Adjustment</b> |
|-------------------------|---------------------------|
| <b>0.00</b>             | <b>-2.00%</b>             |
| 0.05                    | -1.78%                    |
| 0.10                    | -1.56%                    |
| 0.15                    | -1.33%                    |
| 0.20                    | -1.11%                    |
| 0.25                    | -0.89%                    |
| 0.30                    | -0.67%                    |
| 0.35                    | -0.44%                    |
| 0.40                    | -0.22%                    |
| 0.45                    | 0.00%                     |
| <b>0.50</b>             | <b>0.00%</b>              |
| 0.55                    | 0.00%                     |
| 0.60                    | 0.11%                     |
| 0.65                    | 0.22%                     |
| 0.70                    | 0.33%                     |
| 0.75                    | 0.44%                     |
| 0.80                    | 0.56%                     |
| 0.85                    | 0.67%                     |
| 0.90                    | 0.78%                     |
| 0.95                    | 0.89%                     |
| <b>1.00</b>             | <b>1.00%</b>              |

|                           |             |
|---------------------------|-------------|
| <b>Penalty threshold:</b> | <b>0.45</b> |
| <b>Reward Threshold</b>   | <b>0.55</b> |

## Appendix B: Observed and Expected PPC Values

The MHAC scores are calculated using the ratio of Observed:Expected PPC values.

Given a hospital's unique mix of patients, as defined by APR DRG category and severity of illness (SOI) level, the HSCRC calculates the hospital's expected PPC value, which is the number of PPCs the hospital would have experienced if its PPC rate were identical to the experienced by a normative set of hospitals.

The expected number of PPCs is calculated using a technique called indirect standardization. For illustrative purposes, assume that every hospital discharge is considered "at-risk" for a PPC, meaning that all discharges would meet the criteria for inclusion in the MHAC program. All discharges will either have no PPCs, or will have one or more PPCs. In this example, each discharge either has at least one PPC, or does not have a PPC. The unadjusted PPC rate is the percent of discharges that have at least one PPC.

The rates of PPCs in the normative database are calculated for each APR DRG category and severity of illness level by dividing the observed number of PPCs by the total number of admissions. The PPC norm for a single APR DRG SOI level is calculated as follows:

Let:

N = norm

P = Number of discharges with one or more PPCs

D = Number of "at-risk" discharges

i = An APR DRG category and severity of illness level

$$N_i = \frac{P_i}{D_i}$$

In the example, each normative value is presented as PPCs per discharge to facilitate the calculations in the example. Most reports will display this number as a rate per one thousand discharges.

Once the normative expected values have been calculated, they can be applied to each hospital. In this example, the normative expected values are computed for one APR DRG category and its four SOI levels. This normative value calculation could be expanded to include multiple APR DRG categories, by simply expanding the summations.

Consider the following example for an individual APR DRG category.

Table 1 Expected Value Computation Example

| 1<br>Severity of<br>illness<br>Level | 2<br>At-risk<br>Discharges | 3<br>Observed<br>Discharges<br>with<br>PPCs | 4<br>PPCs per<br>discharge<br>(unadjusted<br>PPC Rate) | 5<br>Normative<br>PPCs per<br>discharge | 6<br>Expected<br># of PPCs |
|--------------------------------------|----------------------------|---|--|---|----------------------------|
| 1                                    | 200                        | 10  | .05  | .07                                     | 14.0                       |
| 2                                    | 150                        | 15  | .10  | .10                                     | 15.0                       |
| 3                                    | 100                        | 10  | .10  | .15                                     | 15.0                       |
| 4                                    | 50                         | 10  | .20  | .25                                     | 12.5                       |
| <b>Total</b>                         | 500                        | 45  | .09  |   | 56.5                       |

For the APR DRG category, the number of discharges with PPCs is 45, which is the sum of discharges with PPCs (column 3). The overall rate of PPCs per discharge, 0.09, is calculated by dividing the total number of discharges with PPCs (sum of column 3) by the total number of discharges at risk for PPCs (sum of column 2), i.e.,  $0.09 = 45/500$ . In the normative values calculation, the proportion of discharges with PPCs for each SOI level for that APR DRG category is displayed in column 5. The expected number of PPCs for each SOI level shown in column 6 is calculated by multiplying the number of at-risk discharges (column 2) by the normative PPCs per discharge rate (column 5). The total number of PPCs expected for this APR DRG category is the expected number of PPCs for the SOI levels.

In this example, the expected number of PPCs for the APR DRG category is 56.5, which is then compared to the observed number of discharges with PPCs (45). Thus, the hospital had 11.5 fewer observed discharges with PPCs than were expected for 500 at-risk discharges in this APR DRG category. This difference can be expressed as a percentage difference as well.

All APR DRG categories and their SOI levels are included in the computation of the observed and expected rates, except when the APR-DRG SOI level has one or fewer at-risk discharge statewide.

## Appendix C: MHAC SCORE Calculations

### I. Performance Metric

The methodology for the MHAC program measures hospital performance using the Observed (O) /Expected (E) ratio for each PPC. Expected number of PPCs are calculated using the base year statewide PPC rates by APR-DRG SOI. (See Appendix B for calculations).

### II. PPC Exclusions

Seven PPCs (2, 15, 20, 29, 33, 36, 66) with lower reliability are being moved to a monitoring-only status and will not be scored for payment program purposes. There are no changes to the exclusion criteria for RY 2019. Consistent with RY 2018, the number of at-risk discharges is now determined prior to the calculation of the normative values (hospitals with <10 at-risk discharges are excluded for a particular PPC) and the normative values are then re-calculated after removing PPCs with <1 complication expected. The following exclusions will also be applied:

For each hospital, discharges will be removed if:

- An APR-DRG SOI cell has less than 2 total cases
- Discharge has a diagnosis of palliative care
- Discharge has more than 6 PPCs

For each hospital, PPCs will be removed if:

- The number of cases at-risk is less than 10
- The expected number of PPCs is less than 1.

The list of PPCs excluded for each hospital is provided in the excel sheet with the monthly reports. The PPC exclusion criteria is only applied to the base period and not the performance period. This was done so that scores can be reliably calculated during the performance period for a pre-determined set of PPCs.

### III. Benchmarks and Thresholds

For each PPC, a threshold and benchmark value is calculated using the base period data. For serious reportable events, the threshold and benchmark are 0. For all other PPCs, the threshold value is statewide average of 1. The benchmark is the weighted mean of the O:E ratio for top performing hospitals that account for at least 25% of all discharges. This benchmark calculation is done to avoid the phenomenon of small hospitals driving the benchmark calculation.

The serious reportable event PPCs for the base and performance period are the following: PPCs 30, 31, 32, 45, and 46.

### IV. Attainment and Improvement Points

For each hospital, PPC performance is evaluated based on the higher of "Attainment Points" achieved in the performance period, or "Improvement Points" earned by comparing a hospital's PPC performance period results to the base period.

Attainment Points (possible points 0-10):

If the PPC ratio for the performance period is greater than the *threshold*, the hospital scores zero points for that PPC for attainment.

If the PPC ratio for the performance period is less than or equal to the *benchmark*, the hospital scores a full 10 points for that PPC for attainment.

If the PPC ratio is between the *threshold* and *benchmark*, the hospital scores partial points for attainment. The formula to calculate the Attainment points is as follows:

- Attainment Points =  $[9 * ((\text{Hospital's performance period score} - \text{Threshold}) / (\text{Benchmark} - \text{Threshold}))] + .5$

Improvement Points (possible points 0-9):

If the PPC ratio for the performance period is greater than the base period, the hospital scores zero points for that PPC for improvement.

If the PPC ratio for the performance period is less than or equal the *Benchmark*, the hospital scores 9 points for that PPC for improvement. However in this case the attainment score of 10 will be higher than the improvement score, and the attainment score will therefore be used to calculate the final score.

If the PPC ratio is between historical performance and *Benchmark*, the hospital scores partial points for improvement. The formula to calculate the Improvement points is as follows:

- Improvement Points =  $[10 * ((\text{Hospital performance period score} - \text{Hospital baseline period score}) / (\text{Benchmark} - \text{Hospital baseline period score}))] - .5$

**V. Calculation of Hospital Overall MHAC Score**

To calculate the final score for each hospital, the final points (better of attainment or improvement) for each PPC in tier 1 are added up and divided by the total possible tier 1 points to calculate a percent score tier 1. This calculation is repeated for tier 2. The PPCs are grouped in tiers so that PPCs that are high-cost and high-volume have opportunity to improve, and that national priority PPCs can be weighted more heavily. The total possible points for each PPC is 10, and hospitals may have different total possible points depending upon which PPCs, if any, are excluded for that hospital (see exclusion criteria in Section II above). A list of excluded PPCs by hospital will be provided with the monthly and quarterly PPC results.

The final score is then calculated using the following formula:

$$\text{Final Score} = ((\text{Score Tier 1} * 1) / (\text{Denominator Tier 1} * 1)) + ((\text{Score Tier 2} * 0.5) / (\text{Denominator Tier 2} * 0.5))$$

**VI. Rounding**

For the purposes of calculating scores, the benchmarks and O:E ratios are rounded to 4 decimal places. The attainment and improvement points are rounded to the nearest whole number. The tier percents and final score for each hospital is rounded to 2 decimal places.

**VII. Financial Impact of MHAC Performance (Scaling)**



For RY 2019, the Commission voted to remove the two-scale structure that has been used since RY 2016, whereby achievement of a minimum statewide reduction goal determined scale (i.e. the contingent scaling approach). Staff recommended this change for two reasons: a) the State has already achieved the 30% reduction goal, and b) under ICD-10 and v34, staff and work group members agreed that it is difficult to estimate a statewide reduction target.

To move to a single scale, the maximum penalty for the single scale will be set at 2%, and maximum reward will be 1% of hospital inpatient revenue.

The Commission also approved the staff recommendation to use the full range of scores to set the payment scale, rather than basing the scale on the statewide distribution of scores. Thus, the maximum penalty of 2% is for a score of 0%; and the max reward of 1% is for a score of 100%. A revenue neutral zone is maintained in RY 2019, between 45% and 55%.

## Appendix D: PPCs in Tier 1 (all other PPCs in tier 2)

Below are the PPCs included in Tier 1 of the RY 2019 program. PPCs removed in RY 2019 are listed but crossed out.

| PPC | PPC Description   |
|-----|---|
| 3   | Acute Pulmonary Edema and Respiratory Failure without Ventilation                     |
| 4   | Acute Pulmonary Edema and Respiratory Failure with Ventilation                        |
| 5   | Pneumonia & Other Lung Infections   |
| 6   | Aspiration Pneumonia  |
| 7   | Pulmonary Embolism  |
| 9   | Shock   |
| 14  | Ventricular Fibrillation/Cardiac Arrest   |
| 16  | Venous Thrombosis   |
| 21  | <del>Clostridium Difficile Colitis</del>  |
| 27  | Post-Hemorrhagic & Other Acute Anemia with Transfusion                                |
| 35  | Septicemia & Severe Infections  |
| 37  | Post-Operative Infection & Deep Wound Disruption Without Procedure                    |
| 38  | Post-Operative Wound Infection & Deep Wound Disruption with Procedure                 |
| 40  | Post-Operative Hemorrhage & Hematoma without Hemorrhage Control Procedure or I&D Proc |
| 41  | Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc    |
| 42  | Accidental Puncture/Laceration During Invasive Procedure                              |
| 49  | Iatrogenic Pneumothrax  |
| 54  | Infections due to Central Venous Catheters  |
| 65  | <del>Urinary Tract Infection without Catheter</del>                                   |
| 66  | <del>Catheter-Related Urinary Tract Infection</del>                                   |

## Appendix E: MHAC Thresholds and Benchmarks Comparison

| PPC Number | PPC Description   | Benchmark RY18 (based on FY15) | Benchmark RY19 (based 10/15-9/16) | Difference RY18 vs RY19 |
|------------|---|--------------------------------|-----------------------------------|-------------------------|
| 1          | Stroke & Intracranial Hemorrhage  | 0.5707                         | 0.4158                            | -0.1549                 |
| 3          | Acute Pulmonary Edema and Respiratory Failure without Ventilation                     | 0.5502                         | 0.5429                            | -0.0073                 |
| 4          | Acute Pulmonary Edema and Respiratory Failure with Ventilation                        | 0.5994                         | 0.4691                            | -0.1303                 |
| 5          | Pneumonia & Other Lung Infections   | 0.5440                         | 0.4368                            | -0.1072                 |
| 6          | Aspiration Pneumonia  | 0.5021                         | 0.5082                            | 0.0061                  |
| 7          | Pulmonary Embolism  | 0.3555                         | 0.3841                            | 0.0286                  |
| 8          | Other Pulmonary Complications   | 0.4387                         | 0.4557                            | 0.0170                  |
| 9          | Shock   | 0.5528                         | 0.4757                            | -0.0771                 |
| 10         | Congestive Heart Failure  | 0.2236                         | 0.2273                            | 0.0037                  |
| 11         | Acute Myocardial Infarction   | 0.5728                         | 0.4924                            | -0.0804                 |
| 13         | Other Cardiac Complications   | 0.0785                         | 0.1527                            | 0.0742                  |
| 14         | Ventricular Fibrillation/Cardiac Arrest   | 0.6793                         | 0.5130                            | -0.1663                 |
| 16         | Venous Thrombosis   | 0.3001                         | 0.3006                            | 0.0005                  |
| 19         | Major Liver Complications   | 0.3577                         | 0.1036                            | -0.2541                 |
| 21         | Clostridium Difficile Colitis   | 0.5634                         | 0.4890                            | -0.0744                 |
| 23         | GU Complications Except UTI   | 0.2362                         | 0.1740                            | -0.0622                 |
| 27         | Post-Hemorrhagic & Other Acute Anemia with Transfusion                                | 0.5659                         | 0.1540                            | -0.4119                 |
| 28         | In-Hospital Trauma and Fractures  | 0.0619                         | 0.1741                            | 0.1122                  |
| 30         | Poisonings due to Anesthesia  | 0.0000                         | 0.0000                            | 0.0000                  |
| 31         | Decubitus Ulcer   | 0.0000                         | 0.0000                            | 0.0000                  |
| 32         | Transfusion Incompatibility Reaction  | 0.0000                         | 0.0000                            | 0.0000                  |
| 34         | Moderate Infectious   | 0.3734                         | 0.1614                            | -0.2120                 |
| 35         | Septicemia & Severe Infections  | 0.4251                         | 0.4095                            | -0.0156                 |
| 37         | Post-Operative Infection & Deep Wound Disruption Without Procedure                    | 0.4159                         | 0.4868                            | 0.0709                  |
| 38         | Post-Operative Wound Infection & Deep Wound Disruption with Procedure                 | 0.5989                         | 0.6453                            | 0.0464                  |
| 39         | Reopening Surgical Site   | 0.0795                         | 0.3162                            | 0.2367                  |
| 40         | Post-Operative Hemorrhage & Hematoma without Hemorrhage Control Procedure or I&D Proc | 0.6266                         | 0.6280                            | 0.0014                  |
| 41         | Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc    | 0.2031                         | 0.4585                            | 0.2554                  |
| 42         | Accidental Puncture/Laceration During Invasive Procedure                              | 0.4414                         | 0.3882                            | -0.0532                 |
| 44         | Other Surgical Complication - Mod   | 0.3442                         | 0.4108                            | 0.0666                  |
| 45         | Post-procedure Foreign Bodies   | 0.0000                         | 0.0000                            | 0.0000                  |
| 46         | Post-Operative Substance Reaction & Non-O.R. Procedure for Foreign Body               | 0.0000                         | 0.0000                            | 0.0000                  |
| 47         | Encephalopathy  | 0.1372                         | 0.1221                            | -0.0151                 |
| 48         | Other Complications of Medical Care   | 0.3403                         | 0.0770                            | -0.2633                 |
| 49         | Iatrogenic Pneumothrax  | 0.3514                         | 0.2007                            | -0.1507                 |
| 50         | Mechanical Complication of Device, Implant & Graft                                    | 0.3919                         | 0.4279                            | 0.0360                  |

| <b>PPC Number</b> | <b>PPC Description</b>  | <b>Benchmark RY18 (based on FY15)</b> | <b>Benchmark RY19 (based 10/15-9/16)</b> | <b>Difference RY18 vs RY19</b> |
|-------------------|---|---------------------------------------|--|--------------------------------|
| 51                | Gastrointestinal Ostomy Complications   | 0.3631                                | 0.3189                                   | -0.0442                        |
| 52                | Inflammation & Other Complications of Devices, Implants or Grafts Except Vascular Infection   | 0.5058                                | 0.4051                                   | -0.1007                        |
| 53                | Infection, Inflammation & Clotting Complications of Peripheral Vascular Catheters & Infusions | 0.1967                                | 0.0890                                   | -0.1077                        |
| 54                | Infections due to Central Venous Catheters  | 0.0877                                | 0.0000                                   | -0.0877                        |
| 59                | Medical & Anesthesia Obstetric Complications  | 0.5325                                | 0.3470                                   | -0.1855                        |
| 60                | Major Puerperal Infection and Other Major Obstetric Complications                             | 0.0798                                | 0.4861                                   | 0.4063                         |
| 61                | Other Complications of Obstetrical Surgical & Perineal Wounds                                 | 0.2060                                | 0.1921                                   | -0.0139                        |
| 62                | Delivery with Placental Complications   | 0.3366                                | 0.2627                                   | -0.0739                        |
| 65                | Urinary Tract Infection without Catheter  | 0.5645                                | 0.0000                                   | -0.5645                        |
| Combo 1           | General Combination PPC: PPC 25, 26, 63, 64   | 0.2139                                | 0.1770                                   | -0.0369                        |
| Combo 2           | Gastrointestinal Complications: PPC 17 and 18   | 0.4640                                | 0.3313                                   | -0.1327                        |
| Combo 3           | OB Hemorrhage: PPC 55 and 56  | 0.6396                                | 0.5660                                   | -0.0736                        |

## Appendix F: RY 2019 MHAC Base Period Attainment Scores

| HOSPITAL ID | HOSPITAL NAME        | TOTAL NUMBER OF PPCs | FINAL POINTS TIER 1 | DENOMINATOR TIER 1 | TOTAL NUMBER OF PPCs TIER 1 | FINAL POINTS TIER 2 | DENOMINATOR TIER 2 | TOTAL NUMBER OF PPCs TIER 2 | FINAL WEIGHTED POINTS | TOTAL DENOMINATOR | FINAL WEIGHTED SCORE |
|-------------|----------------------|----------------------|---------------------|--------------------|-----------------------------|---------------------|--------------------|-----------------------------|-----------------------|-------------------|----------------------|
| 210001      | Meritus              | 46                   | 54                  | 160                | 16                          | 152                 | 300                | 30                          | 130                   | 310               | 0.42                 |
| 210002      | UMMC                 | 48                   | 46                  | 170                | 17                          | 139                 | 310                | 31                          | 115.5                 | 325               | 0.36                 |
| 210003      | PG Hospital          | 43                   | 28                  | 150                | 15                          | 117                 | 280                | 28                          | 86.5                  | 290               | 0.3                  |
| 210004      | Holy Cross           | 47                   | 105                 | 160                | 16                          | 183                 | 310                | 31                          | 196.5                 | 315               | 0.62                 |
| 210005      | Frederick            | 46                   | 43                  | 160                | 16                          | 101                 | 300                | 30                          | 93.5                  | 310               | 0.3                  |
| 210006      | UM-Harford           | 24                   | 57                  | 110                | 11                          | 76                  | 130                | 13                          | 95                    | 175               | 0.54                 |
| 210008      | Mercy                | 47                   | 49                  | 160                | 16                          | 180                 | 310                | 31                          | 139                   | 315               | 0.44                 |
| 210009      | Johns Hopkins        | 48                   | 32                  | 170                | 17                          | 60                  | 310                | 31                          | 62                    | 325               | 0.19                 |
| 210010      | UM-Dorchester        | 16                   | 43                  | 70                 | 7                           | 75                  | 90                 | 9                           | 80.5                  | 115               | 0.7                  |
| 210011      | St. Agnes            | 47                   | 74                  | 160                | 16                          | 153                 | 310                | 31                          | 150.5                 | 315               | 0.48                 |
| 210012      | Sinai                | 48                   | 50                  | 170                | 17                          | 90                  | 310                | 31                          | 95                    | 325               | 0.29                 |
| 210013      | Bon Secours          | 23                   | 23                  | 100                | 10                          | 56                  | 130                | 13                          | 51                    | 165               | 0.31                 |
| 210015      | MedStar Fr Square    | 48                   | 86                  | 170                | 17                          | 123                 | 310                | 31                          | 147.5                 | 325               | 0.45                 |
| 210016      | Washington Adventist | 44                   | 14                  | 160                | 16                          | 74                  | 280                | 28                          | 51                    | 300               | 0.17                 |
| 210017      | Garrett              | 20                   | 61                  | 90                 | 9                           | 77                  | 110                | 11                          | 99.5                  | 145               | 0.69                 |
| 210018      | MedStar Montgomery   | 32                   | 44                  | 130                | 13                          | 100                 | 190                | 19                          | 94                    | 225               | 0.42                 |
| 210019      | Peninsula            | 46                   | 28                  | 160                | 16                          | 136                 | 300                | 30                          | 96                    | 310               | 0.31                 |
| 210022      | Suburban             | 40                   | 53                  | 150                | 15                          | 95                  | 250                | 25                          | 100.5                 | 275               | 0.37                 |
| 210023      | Anne Arundel         | 47                   | 55                  | 160                | 16                          | 93                  | 310                | 31                          | 101.5                 | 315               | 0.32                 |
| 210024      | MedStar Union Mem    | 42                   | 57                  | 160                | 16                          | 108                 | 260                | 26                          | 111                   | 290               | 0.38                 |
| 210027      | Western Maryland     | 44                   | 18                  | 160                | 16                          | 138                 | 280                | 28                          | 87                    | 300               | 0.29                 |
| 210028      | MedStar St. Mary's   | 32                   | 100                 | 130                | 13                          | 112                 | 190                | 19                          | 156                   | 225               | 0.69                 |
| 210029      | JH Bayview           | 46                   | 85                  | 160                | 16                          | 139                 | 300                | 30                          | 154.5                 | 310               | 0.5                  |
| 210030      | UM-Chestertown       | 14                   | 31                  | 70                 | 7                           | 55                  | 70                 | 7                           | 58.5                  | 105               | 0.56                 |
| 210032      | Union of Cecil       | 28                   | 35                  | 130                | 13                          | 108                 | 150                | 15                          | 89                    | 205               | 0.43                 |
| 210033      | Carroll              | 39                   | 29                  | 150                | 15                          | 122                 | 240                | 24                          | 90                    | 270               | 0.33                 |
| 210034      | MedStar Harbor       | 36                   | 47                  | 140                | 14                          | 116                 | 220                | 22                          | 105                   | 250               | 0.42                 |
| 210035      | UM-Charles Regional  | 32                   | 42                  | 140                | 14                          | 111                 | 180                | 18                          | 97.5                  | 230               | 0.42                 |
| 210037      | UM-Easton            | 33                   | 61                  | 140                | 14                          | 87                  | 190                | 19                          | 104.5                 | 235               | 0.44                 |
| 210038      | UMMC Midtown         | 30                   | 80                  | 130                | 13                          | 136                 | 170                | 17                          | 148                   | 215               | 0.69                 |
| 210039      | Calvert              | 28                   | 65                  | 120                | 12                          | 92                  | 160                | 16                          | 111                   | 200               | 0.56                 |
| 210040      | Northwest            | 36                   | 46                  | 140                | 14                          | 114                 | 220                | 22                          | 103                   | 250               | 0.41                 |
| 210043      | UM-BWMC              | 45                   | 61                  | 160                | 16                          | 104                 | 290                | 29                          | 113                   | 305               | 0.37                 |
| 210044      | GBMC                 | 46                   | 45                  | 160                | 16                          | 51                  | 300                | 30                          | 70.5                  | 310               | 0.23                 |
| 210045      | McCready             | 5                    | 0                   | 0                  | 0                           | 50                  | 50                 | 5                           | 25                    | 25                | 1                    |
| 210048      | Howard County        | 47                   | 17                  | 160                | 16                          | 136                 | 310                | 31                          | 85                    | 315               | 0.27                 |
| 210049      | UM-Upper Chesapeake  | 43                   | 62                  | 160                | 16                          | 93                  | 270                | 27                          | 108.5                 | 295               | 0.37                 |
| 210051      | Doctors              | 40                   | 42                  | 160                | 16                          | 141                 | 240                | 24                          | 112.5                 | 280               | 0.4                  |
| 210055      | Laurel Regional      | 29                   | 33                  | 130                | 13                          | 91                  | 160                | 16                          | 78.5                  | 210               | 0.37                 |
| 210056      | MedStar Good Sam     | 40                   | 62                  | 150                | 15                          | 134                 | 250                | 25                          | 129                   | 275               | 0.47                 |
| 210057      | Shady Grove          | 46                   | 26                  | 160                | 16                          | 77                  | 300                | 30                          | 64.5                  | 310               | 0.21                 |
| 210058      | UMROI                | 22                   | 29                  | 70                 | 7                           | 79                  | 150                | 15                          | 68.5                  | 145               | 0.47                 |
| 210060      | Ft. Washington       | 22                   | 70                  | 90                 | 9                           | 130                 | 130                | 13                          | 135                   | 155               | 0.87                 |
| 210061      | Atlantic General     | 27                   | 47                  | 130                | 13                          | 107                 | 140                | 14                          | 100.5                 | 200               | 0.5                  |
| 210062      | MedStar Southern MD  | 38                   | 17                  | 140                | 14                          | 125                 | 240                | 24                          | 79.5                  | 260               | 0.31                 |
| 210063      | UM-St. Joe           | 47                   | 87                  | 160                | 16                          | 176                 | 310                | 31                          | 175                   | 315               | 0.56                 |
| 210064      | Levindale            | 14                   | 0                   | 50                 | 5                           | 40                  | 90                 | 9                           | 20                    | 95                | 0.21                 |
| 210065      | HC-Germantown        | 28                   | 47                  | 120                | 12                          | 100                 | 160                | 16                          | 97                    | 200               | 0.49                 |