



# Performance Measurement Work Group Meeting

1/16/2019

# Guiding Principles For Performance-Based Payment Programs

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- ▶ Program must improve care for **all patients**, regardless of payer
- ▶ Program incentives should support achievement of **all payer total cost of care model targets**
- ▶ Promote health equity while minimizing unintended consequences
- ▶ Program should **prioritize** high volume, high cost, opportunity for improvement and areas of national focus
- ▶ **Predetermined** performance targets and financial impact
- ▶ Hospital ability to **track progress**
- ▶ Encourage **cooperation** and sharing of best practices
- ▶ Consider **all settings of care**

# Agenda

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1. Welcome and Introductions
2. RY 2021 MHAC Policy Draft
3. Aggregate at Risk (for Performance-Based Payment Programs) 101
4. Readmission Subgroup Update
5. FY 2020 PAU Update
6. Quality Programs Strategic Update: Potential Topics



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# Welcome and Introductions



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# Ry 2021 Draft MHAC Policy

# RY 2021 MHAC Draft Recommendations

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- ▶ Continue to use 3M Potentially Preventable Complications (PPCs) to assess hospital-acquired complications.
  - ▶ Include focused list of PPCs in payment program that are clinically recommended and that generally have higher statewide rates and variation across hospitals.
  - ▶ Monitor all PPCs and provide reports for hospitals and other stakeholders.
  - ▶ Explore development of national benchmarks for PPCs in future years.
- ▶ Assess hospital performance on attainment only using a wider and more continuous scale that better differentiates performance, rewarding high attainment but also incentivizing improvement.
- ▶ Weight the PPCs in payment program by 3M cost weights as a proxy for patient harm.
- ▶ Convert weighted PPC scores to revenue adjustments using a prospective revenue adjustment scale that focuses on performance outliers; two options for revenue adjustment scale presented are:
  - ▶ Set maximum penalty at 2 percent and maximum reward at 1 percent and use continuous linear scaling with a hold harmless zone between 60 and 70 percent; or
  - ▶ Set maximum penalty at 2 percent and maximum reward at 1 percent and use continuous non-linear scaling with a 65 percent cut point.

# Commission Feedback

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- ▶ Support of measure selection process, use of focused list of PPCs, move to attainment only
- ▶ Want additional time to think about weighting
- ▶ Revenue Adjustment Scale:
  - ▶ Lack of support for non-linear scaling
  - ▶ Discussed that scaling is not based on percentiles of performance
  - ▶ No formal input on cut point beyond that hospitals below statewide median/average should not get positive financial rewards
  - ▶ Discussion to remove hold harmless zone
  - ▶ Suggestion to consider 2% rewards

# Today's Discussion Topics

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- ▶ Version 36
- ▶ RY 2021 Base Period? Two Year Norms?
- ▶ Revenue Adjustment Scale
- ▶ Revised Modeling
  - ▶ V36
  - ▶ Base Year
  - ▶ Cut point analyses
  - ▶ Revenue adjustments



PPC #	PPC DESCRIPTION	v35	v36
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	1.78	1.77
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	1.21	1.28
7	Pulmonary Embolism	0.49	0.56
9	Shock	1.18	1.05
16	Venous Thrombosis	0.36	0.40
28	In-Hospital Trauma and Fractures	0.13	0.13
35	Septicemia & Severe Infections	2.77	2.90
37	Post-Operative Infection & Deep Wound Disruption Without Procedure	2.48	2.53
41	Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc	0.69	0.67
42	Accidental Puncture/Laceration During Invasive Procedure	0.49	0.50
49	Iatrogenic Pneumothrax	0.19	0.17
60	Major Puerperal Infection and Other Major Obstetric Complications	0.98	0.55
61	Other Complications of Obstetrical Surgical & Perineal Wounds	0.82	0.81
67	Combined Pneumonia (PPC 5 & 6)	1.80	1.97

Comparison of PPC rates per 1,000 under Version 35 and Version 36 for 14 PPCs.

Do not recommend any changes to list.

Rate >1.0 per 1,000 At-risk discharges	Rate >0.5 per 1,000 At-risk discharges
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# Performance Standards V36

PPC Number	PPC Description	Version 35		Version 36	
		Threshold (10th)	Benchmark (90th)	Threshold (10th)	Benchmark (90th)
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	1.6406	0.3483	1.8225	0.4074
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	1.6835	0.2530	1.7759	0.2498
7	Pulmonary Embolism	1.9392	0.4070	1.9722	0.3729
9	Shock	1.7393	0.2069	1.7153	0.2403
16	Venous Thrombosis	2.1356	0.0000	2.0554	0.0000
28	In-Hospital Trauma and Fractures	2.6935	0.0000	2.8954	0.0000
35	Septicemia & Severe Infections	1.8121	0.2603	1.8024	0.2995
37	Post-Operative Infection & Deep Wound Disruption Without Procedure	1.5768	0.0000	1.5928	0.1524
41	Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc	1.9154	0.0000	1.8790	0.0000
42	Accidental Puncture/Laceration During Invasive Procedure	1.8772	0.4281	1.8659	0.4396
49	Iatrogenic Pneumothrax	2.0963	0.0000	2.2686	0.0000
60	Major Puerperal Infection and Other Major Obstetric Complications	1.9099	0.2944	2.2784	0.0000
61	Other Complications of Obstetrical Surgical & Perineal Wounds	1.7274	0.0000	1.9241	0.0000
67	Combined Pneumonia (PPC 5 and 6)	1.8745	0.3419	1.6684	0.3398

# Version 36 Score Modeling (Under Validation)

## Draft Policy: Hospital Scores under V35

Hospital Scores	Model 1: Improvement and Attainment	Model 2: Attainment Only	Model 3: Wider Performance Standards, Attainment Only	Percent Change Model 1 to Model 3
Median	51%	44%	62%	22%
Average	53%	47%	62%	17%
Min	13%	7%	16%	23%
Max	100%	100%	100%	0%
25th	40%	34%	53%	33%
75th	68%	62%	74%	9%

## Updated: Hospital Scores under V36

Hospital Scores	Model 1: Improvement and Attainment	Model 2: Attainment Only	Model 3: Wider Performance Standards, Attainment Only	Percent Change Model 1 to Model 3
Median	48%	41%	63%	31%
Average	51%	45%	61%	20%
Min	10%	0%	16%	60%
Max	100%	100%	100%	0%
25th	36%	31%	53%	47%
75th	68%	60%	73%	7%

# V36 Conclusion

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- ▶ No major concerns in regards to the focused list of 14 PPCs
- ▶ Need to validate hospital scores under v36 with UMMS/Hopkins/BRG
  - ▶ They are reporting lower scores under V36 while our modeling does not show much change
- ▶ Plan to update modeling for final policy to be under v36

# R<sub>Y</sub> 2021 Base Period

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- ▶ **Prospective attainment only system needs to set the normative values and performance standards on a historical “base” period.**
  - ▶ Normally set the base as the FY prior to calendar year (i.e., FY 2018 for CY 2019 performance)
  - ▶ Modeling used CY 2016 to have six month gap with performance period (July 2017-June 2018)
- ▶ **Should we consider 2 year norms? i.e., FY 17 & 18?**
  - ▶ Pros: Lower zero norms, more diagnoses included
  - ▶ Cons: Norms may be higher due to improvements
  - ▶ Using 2016 vs 2016 & 2017: Zero Norms decreases from 79% to 72% (under v35)

# Revenue Adjustments

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- ▶ For final policy, need to make final recommendation on penalty/reward cut point, max penalties and rewards, and scaling function (i.e., linear or cubed)
- ▶ See handout (will be available at meeting and sent out to those who call in)

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# Readmission Subgroup Update

# Readmission Sub-Group: Update

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- ▶ HSCRC is currently accepting nominations from interested parties;
  - ▶ Current representation from hospitals, payers, and subject matter experts
  - ▶ Additional interest may be expressed to [hscrc.quality@maryland.gov](mailto:hscrc.quality@maryland.gov)
- ▶ Staff is finalizing charge and scope documents and draft workplan
  - ▶ Sub-group to meet at HSCRC offices February - September; meetings slated for final Friday of the month
  - ▶ First meeting: February 22 AM
- ▶ More information to come via email in coming weeks



# Potential Sub-Group Topics

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- ▶ Readmission measure - inclusion and exclusion criteria
- ▶ Improvement target moving forward - national median or comparison group?
- ▶ Attainment calculation - border hospital data; by-payer benchmarks; socio-demographic or other adjustments?
- ▶ Per Capita Readmissions
- ▶ Emergency department/observation stay revisits

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# Aggregate At Risk 101

# Definitions

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- ▶ Focus is on how much **all payer inpatient revenue** is adjusted based on quality.
  - ▶ Does not matter whether the revenue is adjusted based on rewards or penalties.
- ▶ Maryland hospitals are exempt from the national quality programs, assuming we have at least the same amount of revenue at risk for quality compared to the nation
  - ▶ Both potential and realized
- ▶ Maryland programs used in aggregate at risk:
  - ▶ Core Quality programs: MHAC, QBR, RRIP,
  - ▶ Additional programs: PAU Savings, Demographic Adjustment (PAU/efficiency component), Medicare Performance Adjustment
- ▶ National programs used in aggregate at risk:
  - ▶ HACRP, HRRP, VBP

# Potential at risk: general concept

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- ▶ Potential at risk is the maximum revenue adjustment (positive or negative) that a hospital could receive.
- ▶ Potential at risk is either:
  - ▶ Preset by the Commission during policy approval (QBR, MHAC, RRIP, MPA) or
  - ▶ Defined as the largest adjustment for any one hospital in a program (PAU Savings, Demographic Adjustment (PAU/Efficiency component))

# Realized at risk: general concept

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- ▶ While the potential at risk is the maximum amount a hospital can be penalized or rewarded, hospitals generally fall somewhere in the spectrum between highest penalties and rewards.
- ▶ The actual revenue adjustments are the realized revenue at risk
- ▶ Calculation: Average of the absolute value of all hospitals' all payer inpatient adjustments for that program.
  - ▶ Example if state only had three hospitals:

	<b>MHAC Revenue Adjustment</b>	<b>Abs Value</b>
Hospital A	0.13%	0.13%
Hospital B	0.24%	0.24%
Hospital C	-0.18%	0.18%
Average (realized at risk)		0.19%

# Aggregate at Risk Revenue Calculation Note

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- ▶ Revenue adjustments in aggregate at risk are expressed over all payer inpatient revenue.
  - ▶ Quality program revenue adjustment divided by All Payer inpatient revenue.
  - ▶ How it is expressed does not actually change the dollar amount of a hospital adjustment
- ▶ Example: Hospital has a quality adjustment of \$10, total revenue of \$1,000 and inpatient revenue of \$800.
  - ▶ In the PAU policy, this would be shown as  $\$10/\$1,000 = 1.0\%$
  - ▶ In aggregate at risk we express this same adjustment as  $\$10/\$800 = 1.25\%$

# PAU Savings: Cumulative vs. Net

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- ▶ When we implement the new update factor, the rate setting team takes the revenue difference between this year's and last year's PAU Savings adjustments. This value is known as the net PAU Savings.
  - ▶ Statewide: RY19 revenue adjustment - RY18 revenue adjustment = Net
  - ▶ RY19(\$-285 million) - RY18(\$-228 million)= Net (\$-57 million)
- ▶ Previously, we included the cumulative amount (RY19: -\$285 million) in the aggregate at risk, but moving forward will use the net (\$-57 million).

# Implementation\*

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- ▶ Global budget worksheets are set up as a change to the prior year
- ▶ Core Quality programs (MHAC, RRIP, QBR)
  - ▶ Implemented in global budgets as one time adjustments and reversed each year with new values
- ▶ PAU Savings Adjustment and Demographic Adjustment (PAU/efficiency component)
  - ▶ Implemented as permanent adjustments, with incremental percentages added each year as necessary

\*MPA follows a different process than rate-setting, but will not be discussed here



# Rationale for Net

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- ▶ Prior year's adjustment is permanent and not newly impacted by quality
  - ▶ CMMI has indicated they will not accept aggregate at risk with cumulative PAU
- ▶ Aligns with how rate-setting actually implements PAU revenue adjustment
  - ▶ Uses the actual dollar values assessed in global budgets and would more accurately reflect changes to hospital budgets
- ▶ Aligns with annual productivity adjustment in Federal prospective payment system (.5% typically), which is basis for Maryland's annual update factor

# MD Potential at risk compared to nation

**Potential Risk:** Potential at risk for MHAC, RRIP, and QBR set by commission.  
 Potential at risk for PAU Savings and Demographic adjustment is the maximum penalty received by any hospital.

Maryland - Potential *All-Payer Inpatient* Revenue at Risk absolute values

% of Revenue	RY 2014	RY 2015	RY 2016	RY 2017	RY 2018	RY 2019
MHAC	2.00%	3.00%	4.00%	3.00%	3.00%	2.00%
RRIP			0.50%	2.00%	2.00%	2.00%
QBR	0.50%	0.50%	1.00%	2.00%	2.00%	2.00%
<b>Subtotal</b>	<b>2.50%</b>	<b>3.50%</b>	<b>5.50%</b>	<b>7.00%</b>	<b>7.00%</b>	<b>6.00%</b>
PAU Savings (net)	0.41%	0.49%	0.46%	3.69%	1.42%	1.29%
Demographic PAU Efficiency	0.50%	0.86%	1.10%	1.30%	0.55%	0.76%
Medicare Performance Adjustment						
<b>MD Aggregate Max. At Risk</b>	<b>3.41%</b>	<b>4.85%</b>	<b>7.06%</b>	<b>11.99%</b>	<b>8.97%</b>	<b>8.05%</b>

National - Potential *Medicare Inpatient* Revenue at Risk absolute values

% of Revenue	FFY 2014	FFY 2015	FFY2016	FFY2017	FFY2018	FFY2019
HAC		1.0%	1.0%	1.0%	1.0%	1.0%
Readmissions	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%
VBP	1.3%	1.5%	1.8%	2.0%	2.0%	2.0%
<b>Medicare Aggregate Max. At Risk</b>	<b>3.3%</b>	<b>5.5%</b>	<b>5.8%</b>	<b>6.0%</b>	<b>6.0%</b>	<b>6.0%</b>

<b>Annual MD-US Difference</b>	<b>0.11%</b>	<b>-0.65%</b>	<b>1.26%</b>	<b>5.99%</b>	<b>2.97%</b>	<b>2.05%</b>
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# MD realized at risk compared to nation (net)

**Realized at Risk:** Realized at risk calculated as the average of the absolute value of all hospital adjustments for that program.

## Maryland - Realized *All-Payer Inpatient* Revenue at Risk

% of Revenue	RY 2014	RY 2015	RY 2016	RY 2017	RY 2018	RY 2019
MHAC	0.22%	0.11%	0.18%	0.40%	0.50%	0.25%
RRIP			0.15%	0.57%	0.61%	0.58%
QBR	0.11%	0.14%	0.30%	0.26%	0.59%	0.64%
<b>Subtotal</b>	<b>0.34%</b>	<b>0.25%</b>	<b>0.63%</b>	<b>1.23%</b>	<b>1.70%</b>	<b>1.47%</b>
PAU Savings (net)	0.29%	0.34%	0.30%	1.63%	0.57%	0.61%
Demographic PAU Efficiency	0.28%	0.33%	0.39%	0.35%	0.22%	0.21%
Medicare Performance Adjustment						
<b>MD Aggregate Max.At Risk</b>	<b>0.90%</b>	<b>0.92%</b>	<b>1.32%</b>	<b>3.21%</b>	<b>2.48%</b>	<b>2.29%</b>

## National - Realized *Medicare Inpatient* Revenue at Risk

% of Revenue	FFY 2014	FFY 2015	FFY2016	FFY2017	FFY2018*	FFY2019*
HAC		0.22%	0.23%	0.24%	0.24%	0.24%
Readmits	0.28%	0.52%	0.51%	0.61%	0.56%	0.56%
VBP	0.20%	0.24%	0.40%	0.51%	0.53%	0.53%
<b>Medicare Aggregate Max. At Risk</b>	<b>0.47%</b>	<b>0.97%</b>	<b>1.14%</b>	<b>1.36%</b>	<b>1.33%</b>	<b>1.33%</b>
<b>Annual MD-US Difference</b>	<b>0.43%</b>	<b>-0.05%</b>	<b>0.18%</b>	<b>1.85%</b>	<b>1.15%</b>	<b>0.96%</b>

\*HSCRC estimated based on publicly available files and this is subject to change. FFY 2019 uses FFY 2018 estimates.

# RY20, RY21 Aggregate at risk

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- ▶ With the MPA beginning in RY2020, HSCRC expects potential and realized at risk will increase.
  - ▶ Next slides show modeled impact
- ▶ While according to the contract with CMS, the MPA counts towards aggregate at-risk, concerns have been raised regarding reducing an all-payer quality program because of a Medicare adjustment
  - ▶ Staff modeled non-linear scaling for MHAC as one option for reducing realized risk but maintaining potential for highest penalties/rewards

# R Y18-21 Potential at risk compared to nation

**Potential Risk:** Potential at risk for MHAC, RRIP, and QBR set by commission. Potential at risk for PAU Savings and Demographic adjustment is the maximum penalty received by any hospital.

Maryland - Potential *All-Payer Inpatient* Revenue at Risk absolute values

% of Revenue	RY 2018	RY 2019	RY 2020	RY 2021
MHAC	3.00%	2.00%	2.00%	2.00%
RRIP	2.00%	2.00%	2.00%	2.00%
QBR	2.00%	2.00%	2.00%	2.00%
<b>Subtotal</b>	<b>7.00%</b>	<b>6.00%</b>	<b>6.00%</b>	<b>6.00%</b>
PAU Savings (net)	1.42%	1.29%	1.29%	1.29%
Demographic PAU Efficiency	0.55%	0.76%	0.76%	0.76%
Medicare Performance Adjustment			0.25%	0.49%
<b>MD Aggregate Max. At Risk</b>	<b>8.97%</b>	<b>8.05%</b>	<b>8.30%</b>	<b>8.54%</b>

RY19 values inputted as placeholders

National - Potential *Medicare Inpatient* Revenue at Risk absolute values

% of Revenue	FFY2018	FFY2019	FFY2020	FFY2021
HAC	1.0%	1.0%	1.0%	1.0%
Readmissions	3.0%	3.0%	3.0%	3.0%
VBP	2.0%	2.0%	2.0%	2.0%
<b>Medicare Aggregate Max. At Risk</b>	<b>6.0%</b>	<b>6.0%</b>	<b>6.0%</b>	<b>6.0%</b>
<b>Annual MD-US Difference</b>	<b>2.97%</b>	<b>2.05%</b>	<b>2.3%</b>	<b>2.54%</b>



# RY18-21 realized at risk compared to nation (net)

**Realized at Risk:** Realized at risk calculated as the average of the absolute value of all hospital adjustments for that program.

## Maryland - Realized *All-Payer Inpatient* Revenue at Risk

% of Revenue	RY 2018	RY 2019	RY 2020 <sup>a</sup>	RY 2021 <sup>a</sup>
MHAC	0.50%	0.25%	0.31%	0.31%
RRIP	0.61%	0.58%	0.74%	0.74%
QBR	0.59%	0.64%	0.64%	0.64%
<b>Subtotal</b>	<b>1.70%</b>	<b>1.47%</b>	<b>1.69%</b>	<b>1.69%</b>
PAU Savings (net)	0.57%	0.61%	0.61%	0.61%
Demographic PAU Efficiency	0.22%	0.21%	0.21%	0.21%
Medicare Performance Adjustment			0.23%	0.46%
<b>MD Aggregate Max.At Risk</b>	<b>2.48%</b>	<b>2.29%</b>	<b>2.74%</b>	<b>2.97%</b>

## National - Realized *Medicare Inpatient* Revenue at Risk

% of Revenue	FFY2018*	FFY2019*	FFY2020*	FFY2021*
HAC	0.24%	0.24%	0.24%	0.24%
Readmits	0.56%	0.56%	0.56%	0.56%
VBP	0.53%	0.53%	0.53%	0.53%
<b>Medicare Aggregate Max. At Risk</b>	<b>1.33%</b>	<b>1.33%</b>	<b>1.33%</b>	<b>1.33%</b>
<b>Annual MD-US Difference</b>	<b>1.15%</b>	<b>0.96%</b>	<b>1.41%</b>	<b>1.64%</b>

\*HSCRC estimated based on publicly available files and this is subject to change. FFY 2019 uses FFY 2018 estimates.

<sup>a</sup>RY2020 and RY2021 are equal to the RY2019 values for each program, except for MHAC and RRIP which use RY2020YTD modeling in RY2020 values

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# Potentially Avoidable Utilization (PAU) RY 2020 Update

# R<sub>Y</sub>2020 Updates

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- ▶ Commission votes on R<sub>Y</sub>2020 PAU adjustment in June 2019, based on performance in CY2018.
- ▶ Current Methodology
  - ▶ Revenue from readmissions and PQIs counted at the receiving hospital.
- ▶ R<sub>Y</sub>2020 change
  - ▶ Based on Commissioner and stakeholder interest, count readmissions against the sending hospital rather than the receiving hospital.



# How do you count dollars against the sending hospital?

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## ▶ Index admission costs?

- ▶ Index admission costs for a patient who is readmitted within 30 days
- ▶ Concern:
  - ▶ Index admission costs may be different than readmission costs due to the nature of the admission.

Example: Patient admitted for expensive heart surgery and then readmitted for less expensive medical complications from surgery.

## ▶ Readmission costs?

- ▶ Readmission costs, even if it is at a different hospital than the sending hospital
- ▶ Concern:
  - ▶ Patients may be readmitted to a hospital with a different cost structure than the sending hospital

Example: St Agnes admits a patient who is readmitted to Hopkins. Should St Agnes be responsible for the cost of the readmission at Hopkins?

# Alternative Option: Average readmit

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- ▶ What if we look at readmits where both the index and readmission were at the same hospital?
  - ▶ No differential hospital cost structure
  - ▶ No fundamental difference in types of cases between index and readmits
- ▶ Calculate the hospital's average readmit cost where the index and readmit were at the same hospital.
- ▶ Apply hospital's average to the hospital's total number of index admissions to get the calculated readmit \$.
  - ▶ Concern: Not the actual dollars, more complicated, not all readmits are the same

# Spreadsheet

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- ▶ Spreadsheet has the:
  - ▶ sending hospital admit cost method (E:F)
  - ▶ sending hospital readmit cost method (G:H)
  - ▶ Sending hospital average cost calculated method (I:M)
  - ▶ Receiving hospital readmission costs (reference only) (O:P)
- ▶ Each method is calculated out to a rough estimated revenue adjustment
  - ▶ Comes out to less than what's in the RY19 adjustments because spreadsheet does not include PQI revenue.

# PQI AUDITS

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- ▶ Crucial to have accurate PQI reporting, especially with the per capita approach
- ▶ HSCRC has noticed some hospitals appear to have significant declines in PQIs due to incorrect diagnosis code sequencing
  - ▶ For example, admits with COPD exacerbation not showing up as a PQI because hypoxia is coded in the principal diagnosis field instead of COPD
- ▶ May be conducting special audits on hospitals for diagnosis code and PQI trends that appear questionable
  - ▶ At least one audit has already been conducted and the hypoxia/COPD issue was validated.

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# Quality Programs Strategic Updates: Topic Discussion

# Strategic Direction Discussion: Examples

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- ▶ **Measures**
  - ▶ Patient reported outcomes
  - ▶ Disparities and health equity measurement
  - ▶ Electronic clinical quality measures
  - ▶ Population-based measurement expansion
  
- ▶ **Program structure redesign**
  - ▶ Consolidation/simplification