



# Performance Measurement Work Group Meeting

12/19/2018

# 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 RRIP Policy Draft
  - ▶ Updated Targets
  - ▶ Revenue adjustment scale
  
- ▶ 3. RY 2021 MHAC Policy Proposed Methodology Changes
  - ▶ Targeted PPC list reliability analysis
  - ▶ Revenue adjustment scale
  - ▶ Revenue at risk
  
- ▶ 5. FY 2020 PAU Proposed Updates Modeling

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# Welcome and Introductions



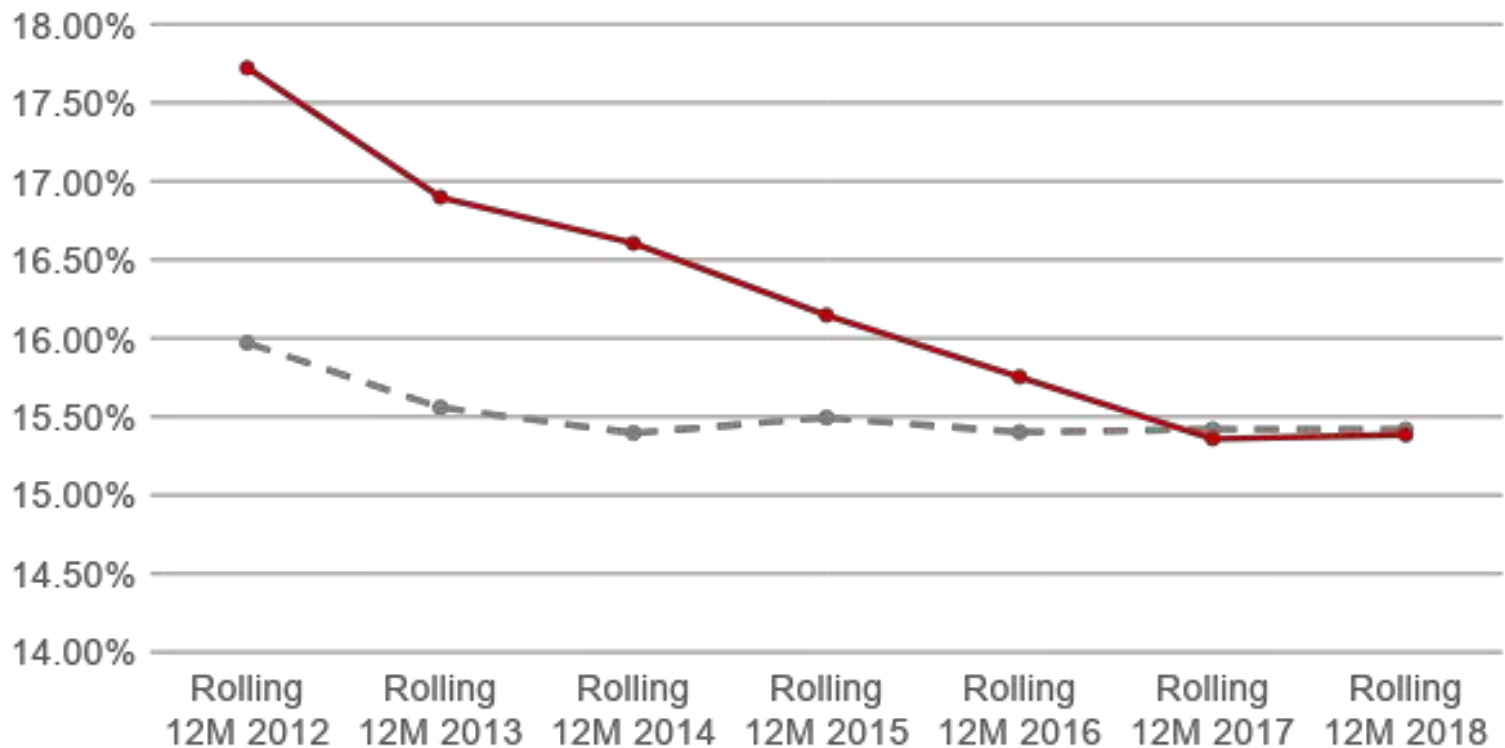
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# RY 2021 RRIP Policy

# Medicare Waiver Test: At or below National Medicare Readmission Rate by CY 2018

With most recent Medicare Readmissions data, Maryland's Medicare Readmission Rate (15.38%) is *just below* the National Medicare Readmission Rate (15.42%). Maryland will need to continue to reduce its readmissions, and match any additional reduction in the national rate.

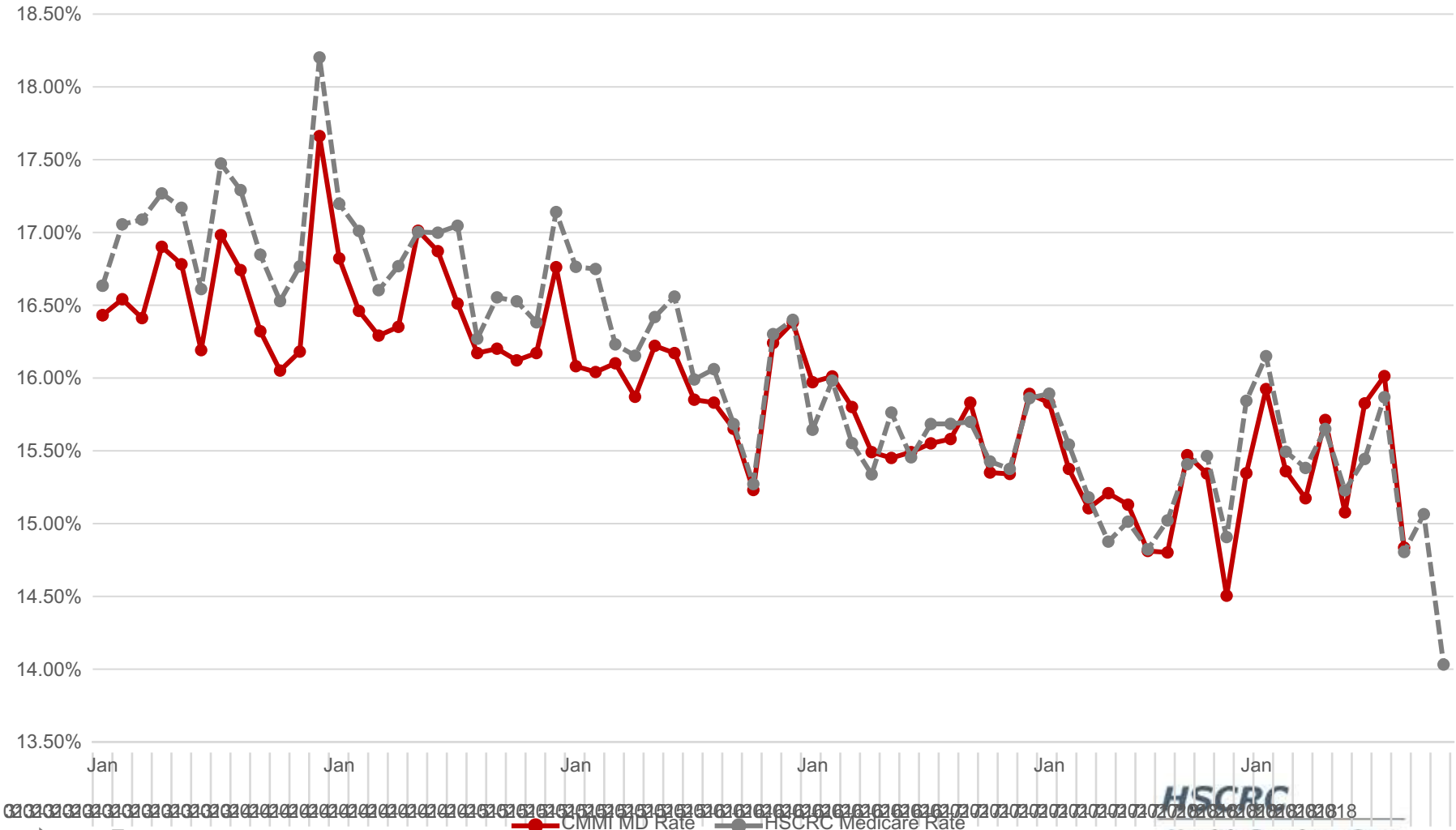
Readmissions - Rolling 12M through July



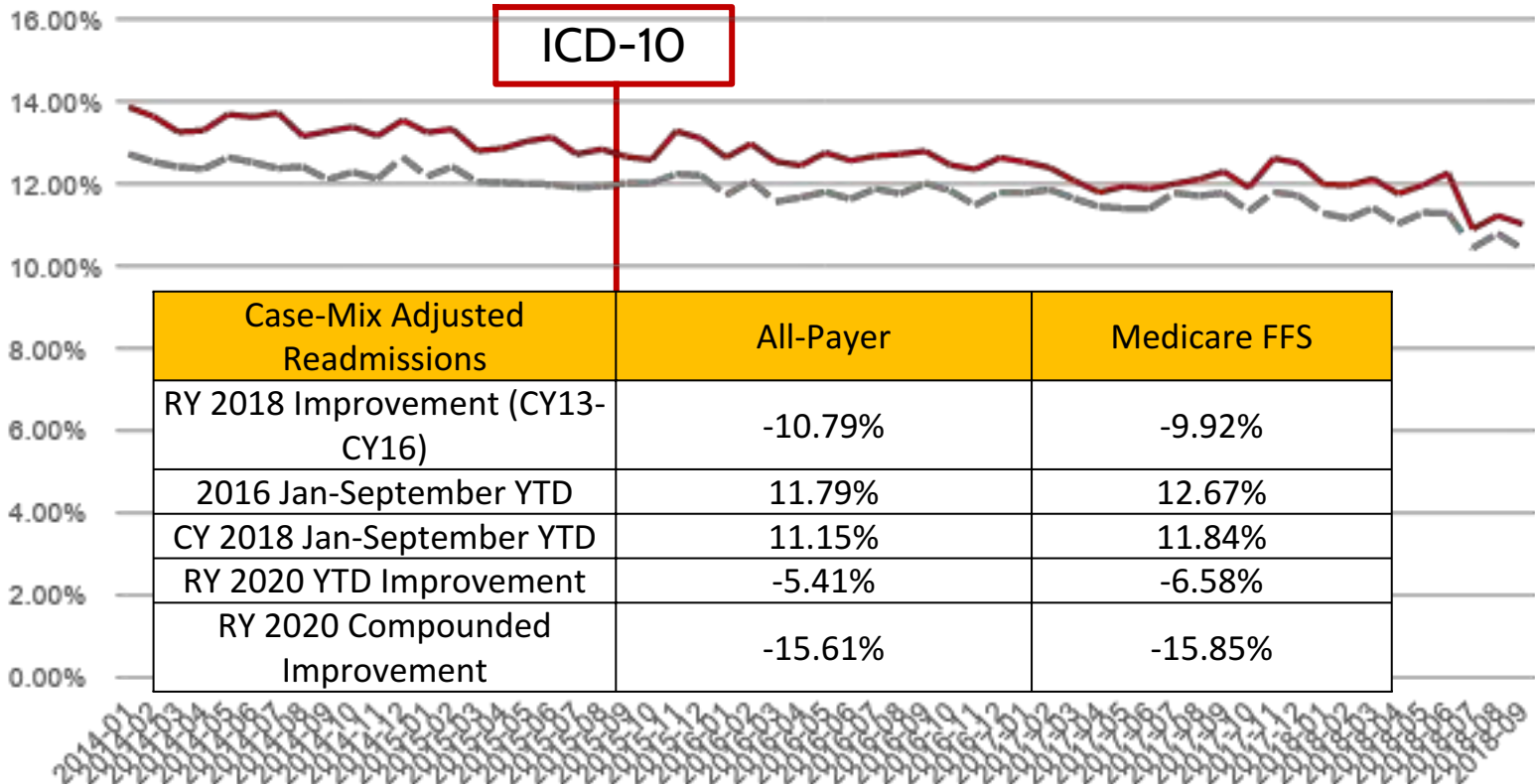
Data are currently available through July 2018

# HSCRC data aligns well with CMMI data

Readmissions 2013 - Present

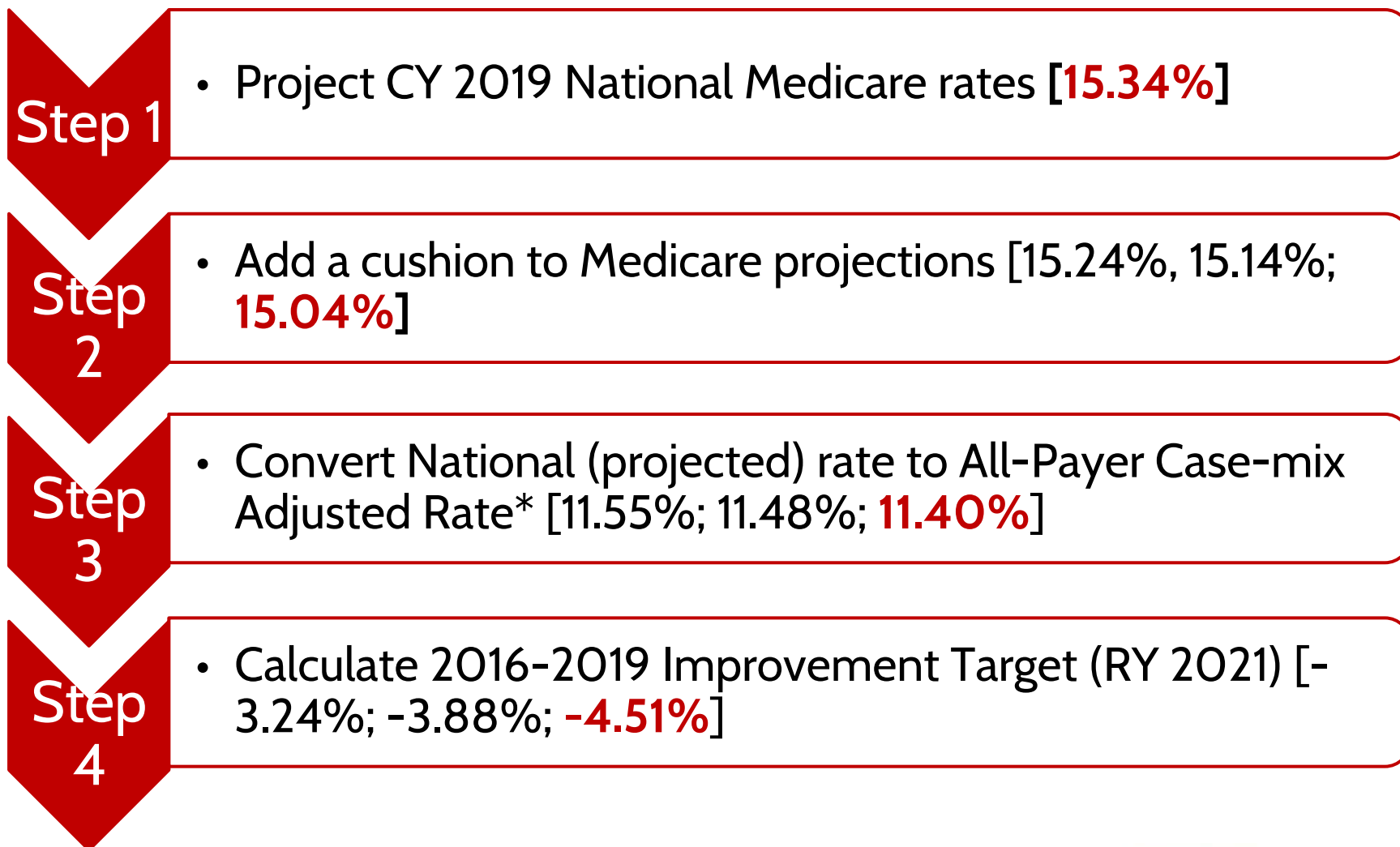


# Monthly Case-Mix Adjusted Readmission Rates





## Flowchart of Predicting Improvement Target



# Flowchart of Predicting Attainment Target

Step 1

- Take Current All-Payer Case-mix Adjusted Readmission Rates (**2018 YTD through Aug**)

Step 2

- Increase these rates for Out-of-State Readmissions (**Jul17-Jun18**)
- Using CMMI data, the ratio is as follows:

Step 3

- Calculate the 35<sup>th</sup> and 5<sup>th</sup> percentiles for the statewide distribution of scores
- 35<sup>th</sup> Percentile is **threshold** to receive attainment point rewards (**11.19%**)
- 5<sup>th</sup> Percentile is **benchmark** to receive maximum attainment point rewards (**8.76%**)

Step 4

- Adjust benchmark and threshold downward **2.01%**, per principles of continuous quality improvement  
Threshold: **10.96%**; Benchmark: **8.59%**

# RY 2021 Proposed Revenue Adjustment Scales (Better of Attainment or Improvement)

All Payer Readmission Rate Change CY16-CY19		RRIP % Inpatient Revenue Payment Adjustment
	A	B
Improving Readmission Rate		1.0%
	-15.01%	1.00%
	-9.76%	0.50%
<b>Target</b>	<b>-4.51%</b>	<b>0.00%</b>
	0.74%	-0.50%
	5.99%	-1.00%
	11.24%	-1.50%
	16.49%	-2.0%
Worsening Readmission Rate		-2.0%

All Payer Readmission Rate CY19		RRIP % Inpatient Revenue Payment Adjustment
	A	B
Lower Absolute Readmission Rate		1.0%
Benchmark	8.59%	1.00%
	9.77%	0.50%
<b>Threshold</b>	<b>10.96%</b>	<b>0.00%</b>
	12.15%	-0.50%
	13.34%	-1.00%
	14.52%	-1.50%
	15.71%	-2.0%
Higher Absolute Readmission Rate		-2.0%

# Staff Draft Recommendations for RY 2021 RRIP Policy

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- ▶ Measure hospital performance as the better of attainment or improvement.
- ▶ Set the all-payer case-mix adjusted readmission rate improvement target at **4.51 percent for CY 2016 to CY 2019.**
- ▶ Set the attainment performance standards for CY 2019 with an expanded benchmark and threshold range as follows:
  - ▶ Use CY 2018 YTD hospital performance results with an improvement factor added.
  - ▶ Increase the **threshold** where hospitals start to earn rewards from the 25th percentile to the 35th percentile, which is **10.96 percent.**
  - ▶ Decrease the **benchmark** where hospital receive the full 1 percent reward from the 10th percentile to the 5th percentile at **8.59 percent.**
- ▶ Include admissions to **specialty hospitals** in the calculation of acute care hospital readmission rates and monitor readmission rates of specialty hospitals.
- ▶ Set the maximum reward hospitals can receive at 1 percent of inpatient revenue and the maximum penalty at 2 percent of inpatient revenue.

# Proposals for 2019 Sub-Group

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- ▶ Staff will convene readmission subgroup in early 2019 to consider issues, such as:
  - ▶ Attainment vs Improvement
  - ▶ Socio-demographic risk-adjustment for attainment only program
  - ▶ Shrinking denominator issue and per capita approaches
  - ▶ By payer data sources for benchmarks
  - ▶ Observation stays
- ▶ Those interested in participating in subgroup should email [hscrc.quality@maryland.gov](mailto:hscrc.quality@maryland.gov) and provide brief bio and reason for interest

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# RY 2021 MHAC Policy

# RY 2021 MHAC Program Updates

## Decision Points

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- ▶ Narrowed down, targeted measure list ✓
- ▶ Cost-weights ✓
  - ▶ Review of updated 3M Cost Weights- pending release
- ▶ Attainment-only ✓
- ▶ **Reliability/Zero-Norm Concern**
  - ▶ Analysis of 80% exclusion--impact on RY2020
  - ▶ Narrowed down PPC list
- ▶ **Expanded Scoring Methodology**
- ▶ **Revenue At-Risk and Adjustment Scale**
  - ▶ Decision on revenue at-risk and adjustment scale

# Review: Measure Selection

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- ▶ For payment program, proposing 14 PPCs with higher rates, variation, and clinical support
- ▶ No national comparison, but 3M is developing national norms under v36 that should be available in early 2019
- ▶ In future years, staff will assess AHRQ Patient Safety indicators or other new measures that have national comparability
  
- ▶ Review histogram handout



# Zero-Norm Concerns and Clinical Alignment

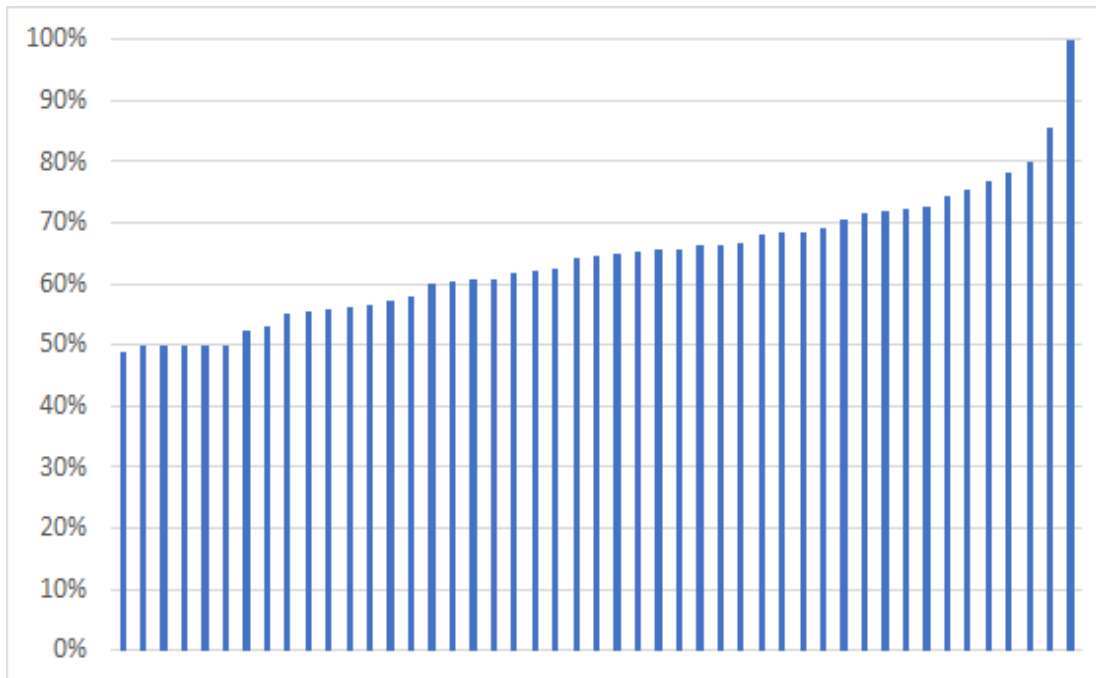
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- ▶ **Goals - Payment program should:**
  - ▶ Adjust measures to account for case-mix differences across hospitals
  - ▶ Include measures that provide clinical opportunities for quality improvement
- ▶ **Concern:**
  - ▶ Case-mix adjustment calculates expected values using statewide averages by diagnosis and severity, high percentage of “zero-norms”
- ▶ **Approaches to address concern (RY 2020; interim suggestion):**
  - ▶ Measure performance on the diagnosis and PPC combos where at least 80% of complications occur
  - ▶ Raise minimum at-risk number to focus on larger patient populations and require at least one expected PPC for hospital to be assessed
- ▶ **Approaches to address concern (RY 2021 and ongoing):**
  - ▶ Narrowed down PPC list to PPCs with higher rates and variation, and are clinically supported

# RY 2020 YTD Results: 80% Exclusion

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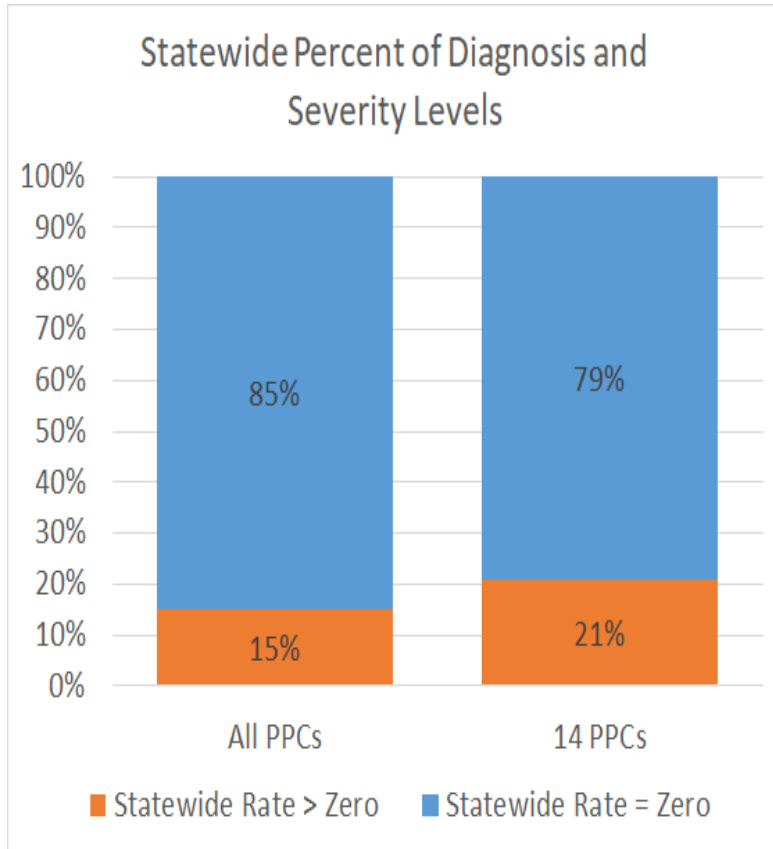
- ▶ RY 2020 YTD results (through June) show that only 65% of PPCs are included in the payment program, with only three hospitals having > 80% of PPCs included



**HSCRC staff are concerned that the 80% methodology excludes high percent of PPCs in performance period**

**Staff believes that it is not necessary to restrict PPC measurement beyond the 3M clinical logic with the narrowed down PPC list**

# Narrowed PPC list reduces Zero Norm



CAEM Recommended PPCs		
PPC Number	PPC Description	Percent "Zero Norms"
28	In-Hospital Trauma and Fractures	96%
49	Iatrogenic Pneumothrax	94%
42	Accidental Puncture/Laceration During Invasive Procedure	86%
16	Venous Thrombosis	85%
7	Pulmonary Embolism	84%
41	Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc	79%
9	Shock	74%
4	Acute Pulmonary Edema and Respiratory Failure w/ Ventilation	72%
37	Post-Operative Infection & Deep Wound Disruption Without Procedure	69%
35	Septicemia & Severe Infections	67%
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	65%
67	Combined Pneumonia (PPC 5 and 6)	59%
61	Other Complications of Obstetrical Surgical & Perineal Wounds	54%
60	Major Puerperal Infection and Other Major Obstetric Complications	8%

Staff Recommendation: Remove temporary restriction to APR-DRG SOI and PPCs where 80% of PPCs occur.

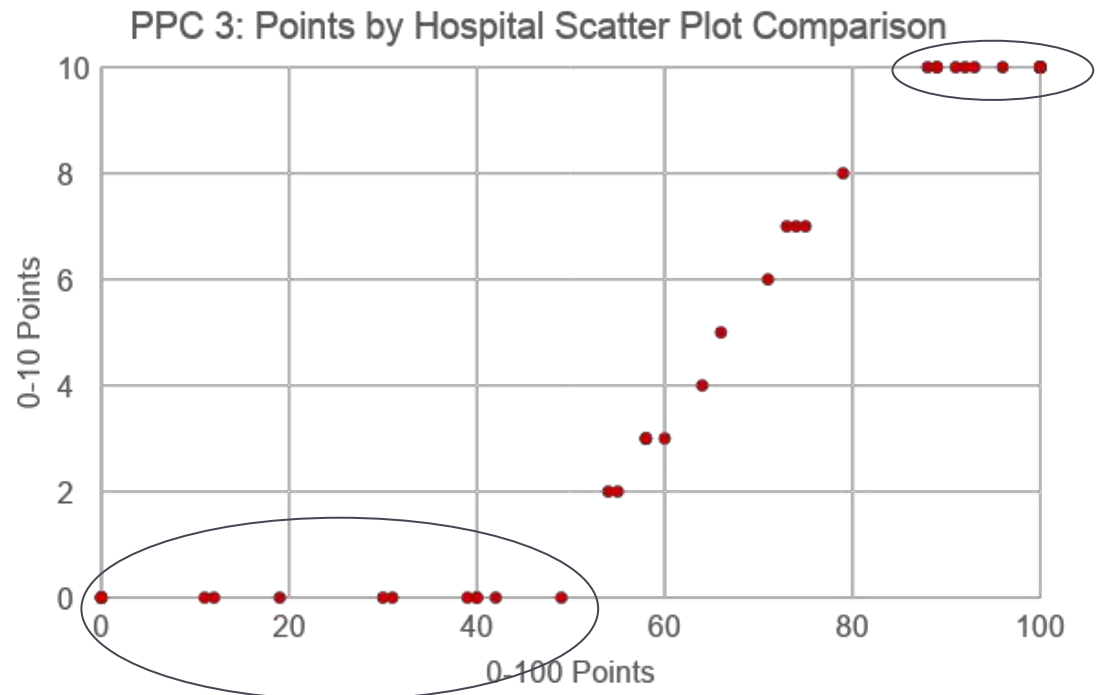


# Attainment Only Program

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- ▶ Use wider range of performance standards and more granular points under attainment only approach:
- ▶ Proposed approach: Assign 0-100 points based on the 10th and 90th percentile of historical performance

The wider threshold and benchmark differentiates hospital performance at the lower and upper ends



# Current RY 2021 Modeling

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- ▶ PPC Grouper v35
- ▶ CY 2016 is used to calculate normative values and performance standards
- ▶ Performance period: April 2017 to March 2018
  
- ▶ Three models all using narrowed down PPC list and 3M cost weights:
  - ▶ **Model 1:** Current threshold and benchmark, 0-10 points, improvement and attainment
  - ▶ **Model 2:** Current threshold and benchmark, 0-10 points, attainment only
  - ▶ **Model 3:** Expanded performance standards attainment only

# Thresholds and Benchmarks

PPC Number	PPC Description	Current		Expanded	
		Threshold (50th)	Benchmark (top performers 25% discharges)	Threshold (10th)	Benchmark (90th)
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	1	0.5659	1.6406	0.3483
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	1	0.4785	1.6835	0.2530
7	Pulmonary Embolism	1	0.4724	1.9392	0.4070
9	Shock	1	0.4696	1.7393	0.2069
16	Venous Thrombosis	1	0.1658	2.1356	0.0000
28	In-Hospital Trauma and Fractures	1	0.1651	2.6935	0.0000
35	Septicemia & Severe Infections	1	0.4578	1.8121	0.2603
37	Post-Operative Infection & Deep Wound Disruption Without Procedure	1	0.3684	1.5768	0.0000
41	Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc	1	0.2930	1.9154	0.0000
42	Accidental Puncture/Laceration During Invasive Procedure	1	0.4195	1.8772	0.4281
49	Iatrogenic Pneumothrax	1	0.1077	2.0963	0.0000
60	Major Puerperal Infection and Other Major Obstetric Complications	1	0.5005	1.9099	0.2944
61	Other Complications of Obstetrical Surgical & Perineal Wounds	1	0.1710	1.7274	0.0000
67	Combined Pneumonia (PPC 5 and 6)	1	0.4822	1.8745	0.3419

# Hospital Scores & Revenue Adjustments

- ▶ Hospitals continue to want a prospective revenue adjustment scale that does not relatively rank hospitals
- ▶ Current scale is based on mathematical range of scores from 0% to 100%, with a “hold harmless zone” between 45% and 55%
- ▶ Linearly scales penalties and rewards, with a max penalty of 2% and max reward of 1% of inpatient revenue

How should revenue adjustment scale be modified to reflect higher scores under expanded scoring methodology?

Final MHAC Score	Revenue Adjustment
0%	-2.00%
5%	-1.78%
10%	-1.56%
15%	-1.33%
20%	-1.11%
25%	-0.89%
30%	-0.67%
35%	-0.44%
40%	-0.22%
45%	0.00%
50%	0.00%
55%	0.00%
60%	0.11%
65%	0.22%
70%	0.33%
75%	0.44%
80%	0.56%
85%	0.67%
90%	0.78%
95%	0.89%
100%	1.00%

Hospital Scores	Model 1: Imp & Att	Model 2: Att Only	Model 3: Expanded
Median	51%	45%	60%
Average	50%	45%	60%
Min	13%	5%	15%
Max	82%	82%	85%
25th	34%	31%	51%
75th	64%	58%	71%

# Discussion: Where to move cut-point under 0-100 Scoring Methodology?

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- ▶ Cut-point must be greater than 50%; likely below 80%
- ▶ Options:
  - ▶ Apply change in average scores (base to perf) to determine cut-point
    - ▶ 20% incr. in average score would increase 50% cut-point to 60%
  - ▶ Calculate attainment only scores using 2013 norms and performance standards, calculate with 30% improvement, average the attainment-only scores to generate cut-point
  - ▶ Calculate O/E ratio for each PPC at selected percentile of statewide performance for rewards and calculate score
    - ▶ 50th percentile of base on all PPCs = 56% hospital score
    - ▶ 75th percentile of base on all PPCs = 79% hospital score

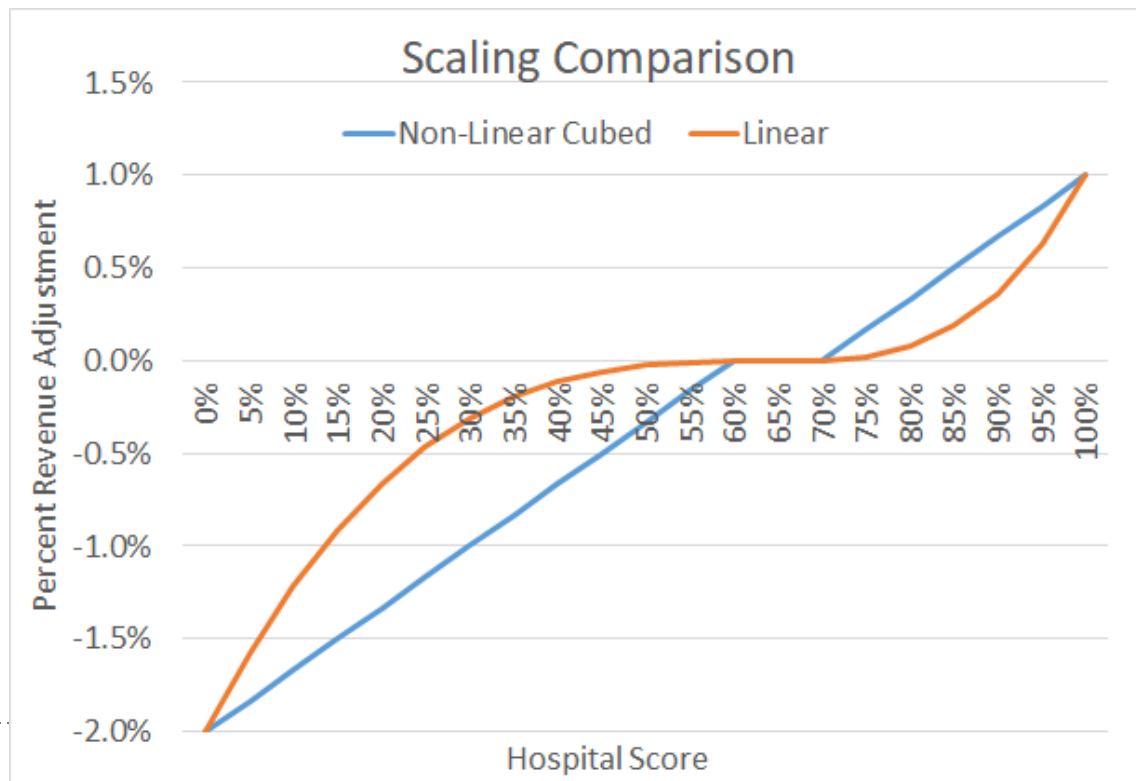


# Policy Considerations

Continuous Incentives

Focus on Outliers

## Non-Linear Scaling of Penalties and Rewards



# Revenue Adjustment Modeling

Hospital Revenue Adjustments	Model 1: Imp & Att	Model 2: Att Only	Model 3a: Expanded	Model 3b: Expanded	Model 3c: Expanded
	Linear 45-55% Cutpoint	Linear 45-55% Cutpoint	Linear 45-55% Cutpoint	Linear 60-70% Cutpoint	Non-Linear 65% Cutpoint
# Hospitals Penalized	19	22	4	21	26
# Hospitals No Adjustment	8	10	13	13	5
# Hospitals Rewarded	20	15	30	13	16
	<b>2% Max Penalty and 1% Max Reward</b>				
Average % Adjustment	-0.13%	-0.28%	0.11%	-0.15%	-0.04%
Net Revenue Statewide	-\$13.9 M	-\$28.3 M	\$11.1 M	-\$12.7 M	-\$3.0 M
Total Penalties	-\$21.7 M	-\$32.2M	-\$4.5 M	-\$15.2 M	-\$3.4 M
Total Rewards	\$7.9 M	\$3.8 M	\$15.6 M	\$2.5M	\$360 K
Realized Risk	0.36%	0.42%	0.26%	0.24%	0.06%
	<b>1.5% Max Penalty and 0.75% Max Reward</b>				
Net Revenue Statewide	-\$10.4 M	-\$21.3 M	\$8.3 M	-\$9.5 M	-\$2.3 M
Total Penalties	-\$16.3 M	-\$24.1M	-\$3.4 M	-\$11.4 M	-\$2.6 M
Total Rewards	\$75.9 M	\$2.9 M	\$11.7 M	\$1.8 M	\$270 K
Realized Risk	0.27%	0.31%	0.19%	0.18%	0.05%

# RY 2021 MHAC Draft Recommendations

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## Staff Recommendations:

- ▶ Include 14 PPCs in payment program; monitor other PPCs
- ▶ Move to attainment only measurement with more granular scoring methodology
- ▶ Weight PPCs in payment program by 3M cost weights

## PMWG Discussion to inform:

- ▶ Set max penalty at 2% and max reward at 1% and use continuous non-linear scaling with a 65% cutpoint

	<b>Max Penalty</b>	<b>Max Reward</b>	<b>Cut Point or Hold Harmless Zone</b>	<b>Scaling Option</b>
	-2.0%	1.0%	60-70%	Linear
	-1.5%	0.75%	60-70%	Linear
▶ 27	-2.0%	1.0%	65% or other calculated cut-	Non-linear

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# Potentially Avoidable Utilization (PAU)

# Timeline

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- ▶ PAU savings policy is approved by Commission at the same time as the update factor (June preceding rate year).
  - ▶ Different from other quality policies that are approved before the performance period
- ▶ In order for hospitals to monitor performance during the performance period, staff is building reporting to reflect potential staff recommendations for RY2020 and RY2021
  - ▶ However, no decisions are final until approved by Commission.

PAU Savings Timeline	RY2020	RY2021
Performance	Jan 2018-Dec 2018	Jan 2019-Dec 2019
Commission Approval	June 2019	June 2020

# Potential changes for RY2020 Reporting (CY 2018)

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- ▶ Keep RY19 measures but count readmission revenue for the sending hospital instead of the receiving hospital.
- ▶ Staff plans to produce CY18 final reports with both old and new methodology

# Potential changes for RY2021 Reporting (CY 2019)

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- ▶ **Summary of reporting changes under consideration:**
  - ▶ Change to readmissions at the sending hospital
  - ▶ Add pediatric avoidable admission measures
  - ▶ Implement per capita approaches for PQIs and readmissions
- ▶ **Staff aiming to produce updated reporting in early 2019 so input in the next month or so is critical.**
  - ▶ Again, no RY2021 measure changes are final until approved by Commission

# Review of per capita options

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## ▶ Geographic

- ▶ Attributes PQIs and population to one or more hospitals based on patient residence and hospital service areas, regardless of which hospital treated the PQI

## ▶ Direct

- ▶ Attributes PQIs to hospital that treated the PQI, if the patient's residence is in the hospital's service area. Attributes population based on hospital service areas.

## ▶ Provider/Geography (aka MPA)

- ▶ Attributes patients and corresponding PQIs to hospitals based on outside algorithm. Remaining PQIs attributed to hospitals based on geography





# Provider/Geography Attribution Approach

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- ▶ Stakeholder interest in using patient-provider-hospital relationships to help attribute PQIs
- ▶ Medicare Performance Adjustment (MPA) is the only HSCRC methodology currently linking patients to providers to hospitals
  - ▶ MPA attributes Medicare beneficiaries to primary care providers based on primary care use, and then links providers with hospitals based on existing relationships
    - ▶ Those not linked to a primary care provider are attributed based on geography (<15% of PQIs)
- ▶ Could envision similar approaches for other payers, but do not currently have existing mechanisms/data



# PQI Per Capita Reporting: Staff Assessment

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- ▶ For PQIs/PDIs, use Provider/Geography approach
- ▶ Rationale
  - ▶ May help align hospital efforts across programs
    - ▶ Focus on the same population
  - ▶ Reduces overlapping responsibility
  - ▶ May be more actionable for hospitals
  - ▶ Keeps geographic approach for pediatric patients

## Data/Logistical Concerns

- Different attribution for different payers
- Case-mix and CCLF data (MPA data source) may not tie together exactly
- Reliant on MPA attribution
  - Any changes to MPA attribution would impact PAU
  - **Revised MPA attribution likely not finalized until after January**



# Adult PQI modeling

- ▶ Modeling (table below) shows 2017 adult PQIs attributed under the Provider/Geography approach:
  - ▶ Medicare FFS PQIs and population are attributed to hospitals using MPA
  - ▶ Then non-Medicare FFS PQIs and population are attributed to hospitals using geographic approach
- ▶ Total adult PQI per capita would be used as the performance measure, but additional per capitas are presented for reference

2017	PQIs	Adult Population	Per capita (per 100k)
1. Provider-based (MPA, adult)	41,560	733,162	5,669
2. Geographic (adult)	31,104	3,989,727	780
<b>Total Adult PQIs</b>	<b>72,664</b>	<b>4,722,889</b>	<b>1538</b>

attributed to a hospital through the RY2020 MPA.

# Pediatric modeling

- ▶ Table below shows modeling for 2017 PQIs/PDIs for the pediatric population using the geographic approach

	PQIs/PDIs	Population	Per capita (per 100k)
Total Adult	72,664	4,722,889	1538
Total Pediatric	7,005	1,352,020	518
<b>Total</b>	<b>79,669</b>	<b>6,074,909</b>	<b>1,233</b>

- ▶ In contrast in 2017, seven hospitals received more than 50% of all low birthweight and PDI discharges.

# Readmit per Capita Reporting: Staff Assessment to date

- ▶ If a discharge is both a PQI/PDI and a readmission, count it as a PQI (currently counted as a readmit)
  - ▶ Statewide, 20% of readmissions were attributed as PQIs.
- ▶ Attribute non-PQI/PDI readmission to sending hospital if the patient resides in the sending hospital's PSAP
  - ▶ Excludes 40% of readmissions that occur outside of the sending hospital's PSAP

## Rationale

- Focuses PAU readmissions measure on discharge planning and follow-up within a hospital's community
- Direct approach provides greater link to hospitals discharging patients compared to MPA
- Limited comprehensiveness may be an acceptable tradeoff, especially given all readmissions included in RRIP

2017 Readmit per capita Modeling	Readmits		
Sending hospital's PSAP	33,954	6,064,173	560
Outside sending hospital's PSAP	23,917	-	-