



# Performance Measurement Work Group Meeting

12/18/2019

# Agenda

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1. Welcome and introductions
2. Maryland Hospital Acquired Conditions (MHAC) Program
3. Readmissions Reduction Incentive Program (RRIP)
4. Potentially Avoidable Utilization (PAU)
5. Statewide Integrated Health Improvement Strategy (SIHIS)- PQI Discussion & Reminder
6. Other topics



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# Maryland Hospital Acquired Conditions (MHAC) Program

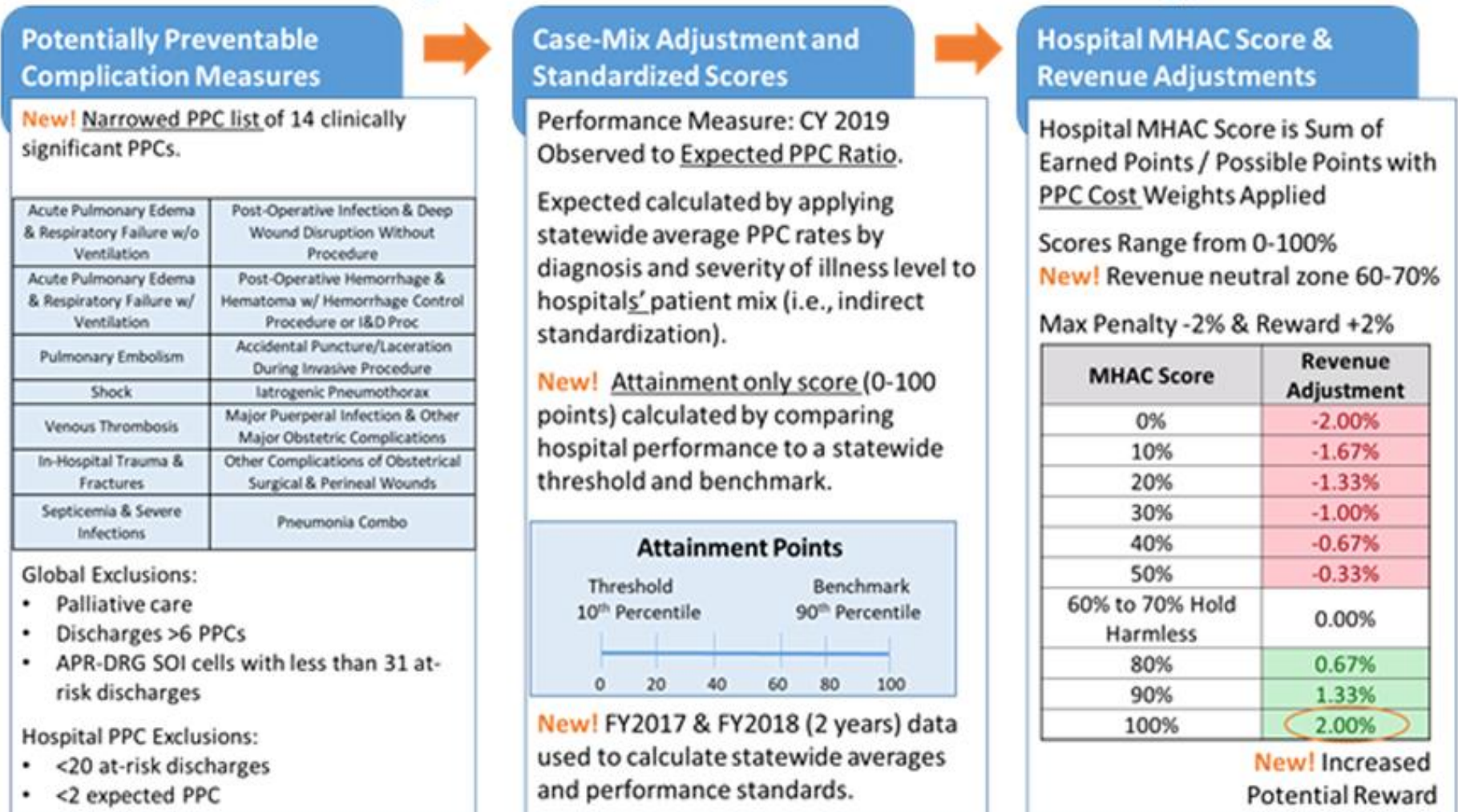
# RY 2022 Draft MHAC Recommendations

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- ▶ Continue to use 3M Potentially Preventable Complications (PPCs) to assess hospital-acquired complications.
  - ▶ Maintain 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.
  - ▶ Evaluate PPCs in “Monitoring” status that worsen and consider inclusion back into the MHAC program for RY 2023 or future policies.
- ▶ Require hospitals to be scored on a minimum of six of the fourteen PPCs to be included in the payment program. **New Consideration for RY 2022!**
- ▶ Continue to assess hospital performance on attainment only.
- ▶ Continue to weight the PPCs in payment program by 3M cost weights as a proxy for patient harm.
- ▶ Maintain a prospective revenue adjustment scale with a maximum penalty at 2 percent and maximum reward at 2 percent and continuous linear scaling with a hold harmless zone between 60 and 70 percent.

# MHAC Methodology

Figure 2. Overview Rate Year 2021 MHAC Methodology



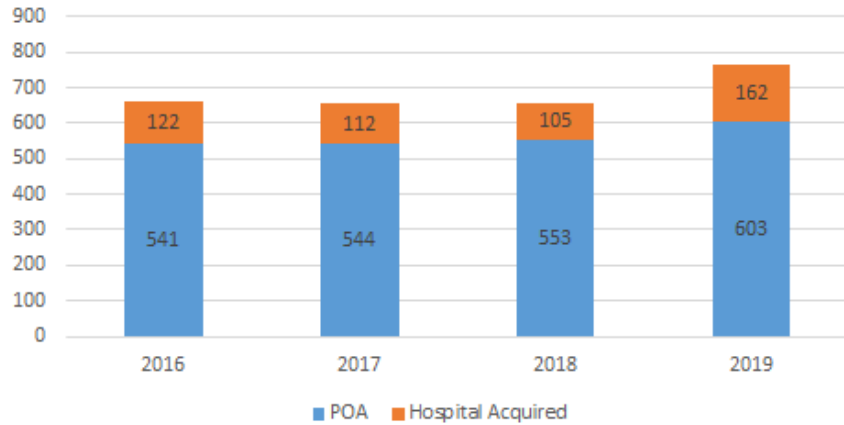
# Monitored PPCs: Individual PPC Contributions to Statewide Increases

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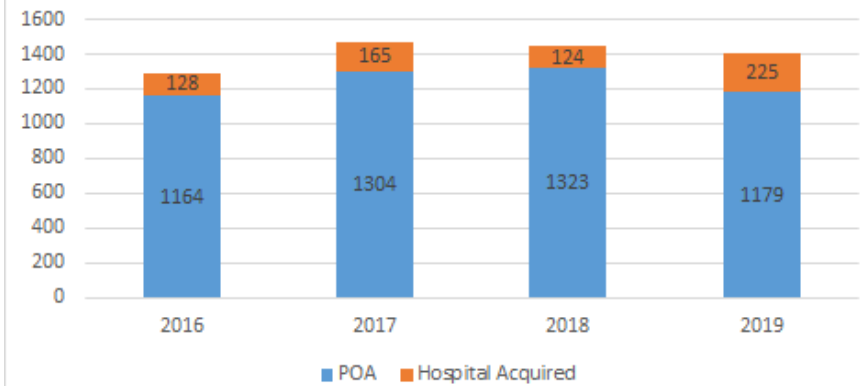
- ▶ See **handout** of by PPC observed changes
- ▶ HSCRC staff interested in clinical input on PPC 50 (**Mechanical Complication of Device, Implant & Graft**) and PPC 52 (**Inflammation & Other Complications of Devices, Implants or Grafts Except Vascular Infection**) as combined they account for about 40 percent of the O/E increase statewide
- ▶ Currently still not proposing any PPC changes for CY 2020 Performance

# POA Analysis

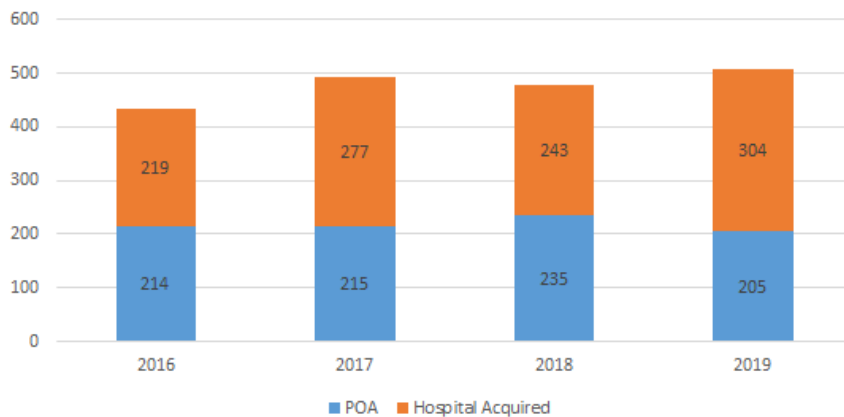
PPC 50 Mechanical Complication of Device, Implant & Graft



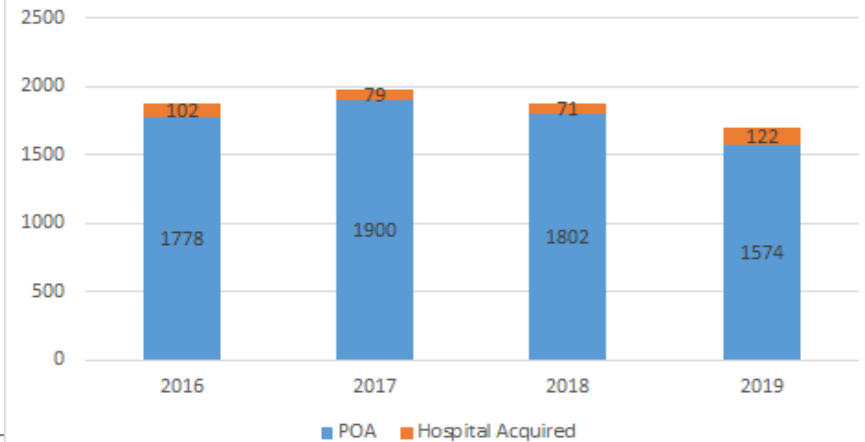
PPC 52 Inflammation & Other Complications of Devices, Implants or Grafts Except Vascular Infection



PPC 40 Post-Operative Hemorrhage & Hematoma without Hemorrhage Control Procedure or I&D Proc



PPC 8 Other Pulmonary Complications



# Hospitals Insights Regarding Increase in Monitored PPCs

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- ▶ Emphasis on the 14 PPCs that in the MHAC program.
  - ▶ Have not devoted post discharge resources to the rare low frequency PPCs or those more common PPCs where the O/E is around 1.0.
- ▶ Most of monitored PPC cases were deemed “not potentially preventable”, in that it appeared that the patient received the appropriate standard of care
- ▶ Those cases that were “potentially preventable” were random occurrences and could not be identified as a negative trend.
- ▶ **PPC-Specific Observations**
  - ▶ **PPC 17- GI without transfusion or significant bleeding:** Vast majority unavoidable but opportunity to documentation of clinical significance.
  - ▶ **PPC 29- Poisonings Except From Anesthesia:** Cases were due to self-administration of illicit substances or unprescribed substances by patients/ visitors.



# Hospitals' Insights Regarding Increase in Monitored PPCs, Continued

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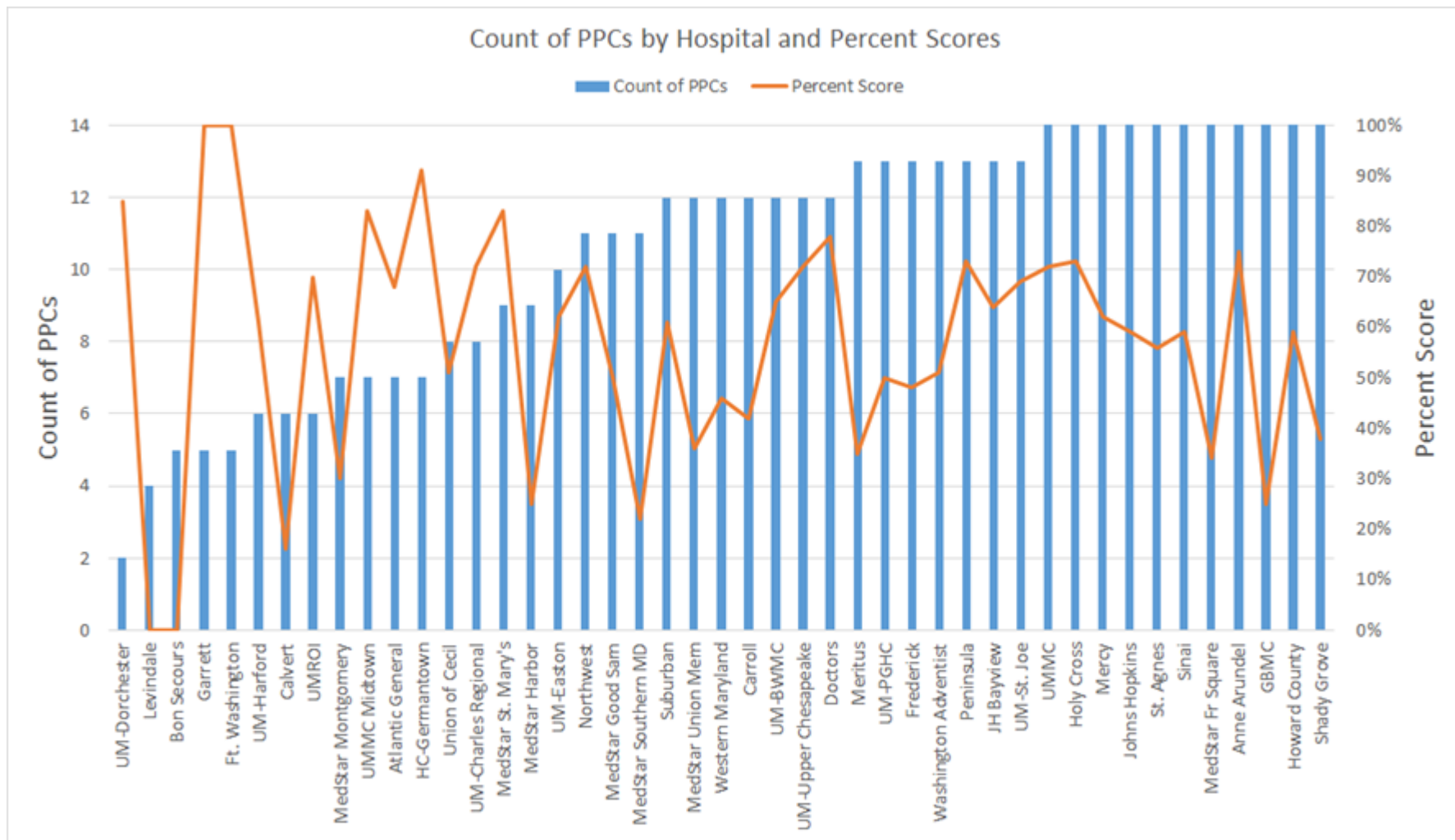
- ▶ **PPC- Specific Observations, continued:**
  - ▶ **PPC 31- Decubitus Ulcer:** Approach to zero harm is to label all PPC 31 avoidable;
    - ▶ implemented weekly skin rounds, product & equipment changes, nursing leadership rounds to assess orders, documentation and appropriateness of equipment use, and ongoing education for nursing & providers.
    - ▶ Identified several evidence based interventions to implement including implementing nutrition bundles, updating prevention order-sets.
  - ▶ **PPC 40- Postop Hematoma:** All cases were unavoidable from a clinical perspective and almost all were deemed clinically insignificant. There is a documentation opportunity related to this PPC for “ruled out” or “clinically insignificant.”
  - ▶ **PPC-52- Inflammation & Other Complications of Devices, Implants, or Grafts Except Vascular Infection:** Significant majority of cases were unavoidable from a clinical perspective; regarding coding and documentation, this PPC has a mixed bag of diagnoses (largely unavoidable) from a CAUTI to an IV infiltrate with possible cellulitis, to clotted HD grafts. This grouping of diagnoses in to 1 PPC makes it difficult to address with specific clinical initiatives.

# Hospitals' Reports of Improvement Efforts for Payment PPCs

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- ▶ Overall feedback:
  - ▶ The use of the PPCs over and above the CMS HACs have placed additional focus on other conditions that can and should be prevented resulting in decreased overall costs to the patients and organization, as well as decreasing lengths of stay when no complications occur.
  - ▶ With the overall intent of decreasing overall harm, the use of PPCs in the payment policy places focus and attention to the importance of prevention, clarity of documentation, and accurate coding.
- ▶ Improvement Initiative examples for PPCs in current payment program:
  - ▶ **PPC 6- Aspiration Pneumonia-** Initiated a system-wide multidisciplinary workgroup to address aspiration pneumonia; consistent oral care is largest opportunity to improve.
  - ▶ **PPC 35- Sepsis-** Initiated system-wide workgroup to address sepsis.. Established The ED “Sepsis Alert” recently established by this group provides tools to aid nurses and physicians in the treatment of these patients.

# Should there be a minimum cutoff on number of PPCs for hospital inclusion?



# Impact on Performance Standards

- ▶ For some PPCs, the benchmark is slightly increased and/or threshold is lower, narrowing the range between the threshold and benchmark

Estimated RY 2022 MHAC Performance Standards		With All Hospitals		Adjusted to Remove Hospitals with < 6 PPCs	
PPC Number	PPC Description	Threshold	Benchmark	Threshold	Benchmark
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	1.9231	0.3226	1.7896	0.3375
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	1.4789	0.5068	1.4789	0.6681
7	Pulmonary Embolism	1.5319	0.3291	1.5319	0.3291
9	Shock	1.6765	0.3756	1.6608	0.413
16	Venous Thrombosis	1.8015	0.1242	1.8015	0.1242
28	In-Hospital Trauma and Fractures	1.5279	0.445	1.5279	0.445
35	Septicemia & Severe Infections	1.5503	0.3806	1.5201	0.4203
37	Post-Operative Infection & Deep Wound Disruption Without Procedure	1.966	0.4007	1.966	0.4007
41	Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc	2.448	0.4264	2.448	0.4264
42	Accidental Puncture/Laceration During Invasive Procedure	2.1478	0.3557	2.1478	0.3557
49	Iatrogenic Pneumothrax	1.7916	0.3429	1.7916	0.3429
60	Major Puerperal Infection and Other Major Obstetric Complications	1.6214	0	1.6214	0
61	Other Complications of Obstetrical Surgical & Perineal Wounds	1.9689	0	1.9689	0
67	Combined Pneumonia (PPC 5 and 6)	1.5916	0.3916	1.5821	0.459

# MHAC Modeling Considerations

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- ▶ Staff often model two options for policy decisions:
  - ▶ Less important whether exact scores or revenue adjustments are precise, just relative to options
- ▶ Without major policy change, what modeling should be included in RY 2022 policy?

<b>Attainment Standards Time Period</b>	<b>Performance Period</b>	<b>Estimated Rewards</b>	<b>Estimated Penalties</b>
FY17 & 18	CY 19 YTD	\$33.7 M	-\$5.2 M
FY17 & 18	FY 19	\$24.1 M	-\$8.9 M
FY 18 & 19	CY 19 YTD	\$10.5 M	-\$19.8 M
FY 18 & 19	FY 19	\$10.3 M	-\$19.7 M

- ▶ **Factors:** seasonality, overlap of attainment standards and performance time periods, 3M grouper versions, revenue

# Next Steps: Final Policy February Commission Meeting

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- ▶ Stakeholder comment letters due January 6, 2020
- ▶ Update modeling to 3M grouper v37
- ▶ Review small hospital concern and options
- ▶ Finalize modeling for inclusion in final policy
- ▶ Continue to work with hospitals to understand increases in monitoring PPCs and clinical interventions being directed at payment PPCs

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RRIP

# RY 2022 RRIP Agenda

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1. Oncology Logic in Readmission Measure
2. Initial Improvement Target
3. Initial Attainment Target
4. Interaction between Improvement/Attainment Target



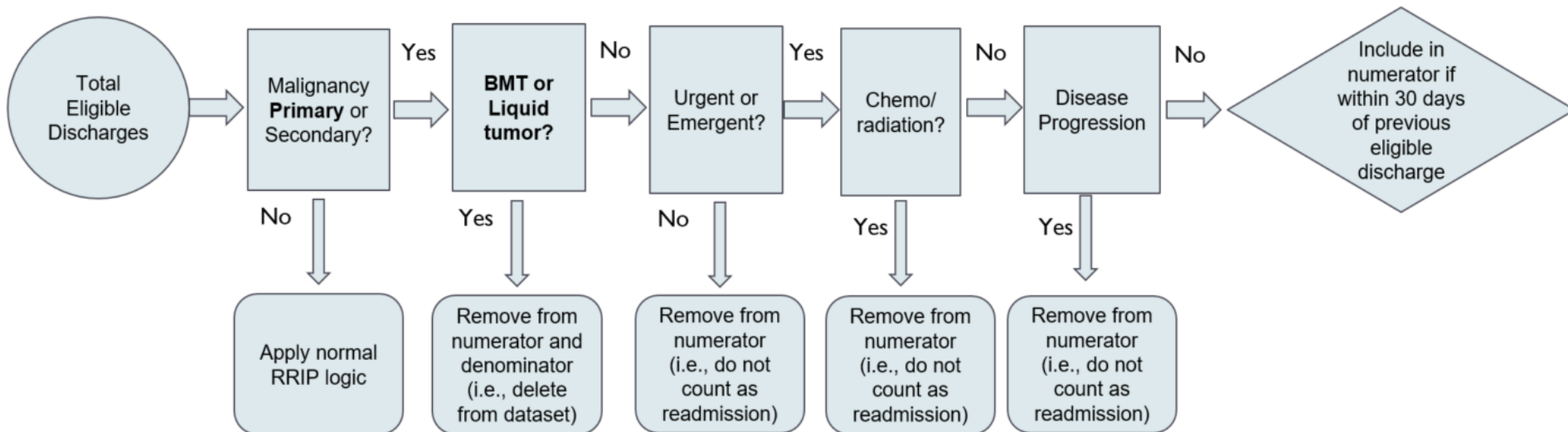
# Inclusion of Oncology Patients

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- ▶ For many cancer patients, readmission following hospitalization may be preventable; if addressed, would lower costs/improve patient outcomes.
- ▶ The Alliance of Dedicated Cancer Centers (ADCC) recognizes the need for oncology-specific efficiency measures, including unplanned readmissions
  - ▶ NQF endorsed quality measure: NQF 3188 30-day unplanned readmissions for cancer patients
    - ▶ The NQF measure should enable hospitals to identify “pockets” where care improvement is possible, enable hospitals to strengthen capacity to match demand
  - ▶ Planned readmissions are often used in clinical pathways for cancer patients; this reality is addressed in inclusion/exclusion criteria of the measure
  - ▶ Good care does not mean a zero percent readmission rate
- ▶ Initial measure in use by oncology-specific hospitals; HSCRC is adapting measure to be used for general acute care hospitals

# Oncology Logic Flow Chart

- ▶ **HSCRC adaptations (in Bold):**
  - ▶ Recommend focus on primary malignancy since secondary outside of a cancer hospital may over identify patients; preliminary analysis shows only small impact since most discharges with secondary dx get included in the numerator similar to normal RRIP logic.
  - ▶ Remove patients with BMT or liquid tumor since not risk-adjusting



# All-Payer Opportunity Analysis

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<b>Estimating Method*</b>	<b>Percent Improvement</b>	<b>Resulting Readm Rate (2023)**</b>
1. Actual Annual 2013-2018 Improvement	-14.94%	9.73%
2. Annualized 2016-2018 Improvement	-11.48%	10.13%
3. Readmission-PQI Reduction (50%)	-9.36%	10.19%
4. All hospitals to 2018 Median	-6.5%	10.70%
5. Reduction in Disparities	-4.2%	10.96%

\*The PQI and disparity reduction analysis use RY2020 data without specialty hospitals; all others use RY 2021 for CY16-CY18.

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# Payer-Specific Opportunity Analysis: Medicare FFS Benchmarking (Revised)

		2018 Readmissions Rate			2018 Readmissions per 1000	
<i>Unadjusted Rates</i>		Maryland	Nation	Peer County BM <sup>1</sup>	Maryland	Peer County BM <sup>1</sup>
Performance	Overall (Per CMMI)	<b>15.40%</b>	<b>15.45%</b>			
	<i>MD % Above (Below) National</i>	(0.32%)				
	HSCRC Calculated (CCW)	<b>15.47%</b>		<b>15.57%</b>	<b>38.2</b>	<b>39.8</b>
	<i>MD % Above (Below) Benchmark</i>	(0.64%)			(4.07%)	
	Benchmark 25th Percentile (CCW)	<b>15.47%</b>		<b>14.72%</b>	<b>38.2</b>	<b>34.1</b>
	<i>MD % Above (Below) Benchmark</i>	<b>5.11%</b>			11.97%	
Opportunity	Benchmark if all MD counties were at or below <b>benchmark average</b>	<b>15.47%</b>		<b>15.16%</b>	<b>38.2</b>	<b>37.1</b>
	<i>MD improvement opportunity</i>	1.98%			2.83%	
	Benchmark if all MD counties were at or below <b>benchmark 25<sup>th</sup> percentile</b>	<b>15.47%</b>		<b>14.53%</b>	<b>38.2</b>	<b>33.1</b>
	<i>MD improvement opportunity</i>	<b>6.07%</b>			13.26%	

# Payer-Specific Opportunity Analysis: Commercial Benchmarking

		2017 Readmissions Rate			2017 Readmissions per 1000			
		MD MCDB	Nation <sup>1</sup>	Peer MSA BM <sup>2</sup>	MD MCDB	MD CSHD	Nation <sup>1</sup>	Peer MSA BM <sup>2</sup>
Performance	Overall (Casemix = 6.40%)	<b>6.84%</b>	<b>6.82%</b>	<b>6.98%</b>	<b>2.48</b>	<b>2.64</b>	<b>2.91</b>	<b>3.17</b>
	MD % Above (Below) Nation	0.23%			(14.82%)	(9.34%)		
	MD % Above (Below) Benchmark	(2.06%)			(21.71%)	(16.68%)		
	Benchmark 25th Percentile (CHSD)	<b>6.84%</b>	<b>5.63%</b>	<b>6.53%</b>	<b>2.48</b>	<b>2.64</b>	<b>2.02</b>	<b>2.14</b>
	MD % Above (Below) Benchmark	<b>4.63%</b>			15.93%	23.38%		
Opportunity	Benchmark if all MD MSAs were at or below benchmark average	<b>6.84%</b>		<b>6.72%</b>	<b>2.48</b>	<b>2.64</b>		<b>2.49/ 2.58</b>
	MD improvement opportunity	1.76%			(0.47%)	(2.40%)		
	Benchmark if all MD MSAs were at or below benchmark 25 <sup>th</sup> percentile	<b>6.84%</b>		<b>6.44%</b>	<b>2.48</b>	<b>2.64</b>		<b>2.14/ 2.11</b>
	MD improvement opportunity	<b>6.20%</b>			16.93%	25.34%		

# Improvement Target with Benchmarking Data

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- ▶ Consider range of improvement, contextualize further with benchmarking of like counties
- ▶ Conclusion: -7.5% Improvement Target
  - ▶ Compounding over 5 years yields -1.55% annual improvement (-3.07% 2018 baseline and 2020 performance)
- ▶ **Handout**, showing most recent 12M compared to prior 12M, shows that hospitals continue to improve in TCOC Model

# Flowchart of Calculating Attainment Target - Historical

## Step 1

- **Take Current All-Payer Casemix-Adjusted Readmission Rates**

## Step 2

- **Adjust these rates for Out-of-State Readmissions**
- Using CMMI data, the ratio is as follows: Total Readmissions : Readmissions in MD

## Step 3

- **Calculate the 65<sup>th</sup> and 95<sup>th</sup> percentiles for the statewide distribution of scores**
- 65<sup>th</sup> Percentile is **threshold** to receive attainment point rewards
- 95<sup>th</sup> Percentile is **benchmark** to receive maximum attainment point rewards

## Step 4

- **Adjust benchmark and threshold downward to account for incentives to continue to improve**

# Attainment Target - Further Analysis

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- ▶ Reduce current statewide average with OOS ratio (12.14%) by 7.5% to yield 5 year statewide average improvement target (11.23%).
  - ▶ Compared this value to current statewide array to determine threshold for attainment points
  - ▶ 26% of hospitals have a readmission rate less than 11.23%
- ▶ Conclusion: Maintain 65th and 95th percentiles range for Attainment Credit
- ▶ Adjust in future years to align with aggregated improvement target



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# Disparity Measure - Options for Discussion

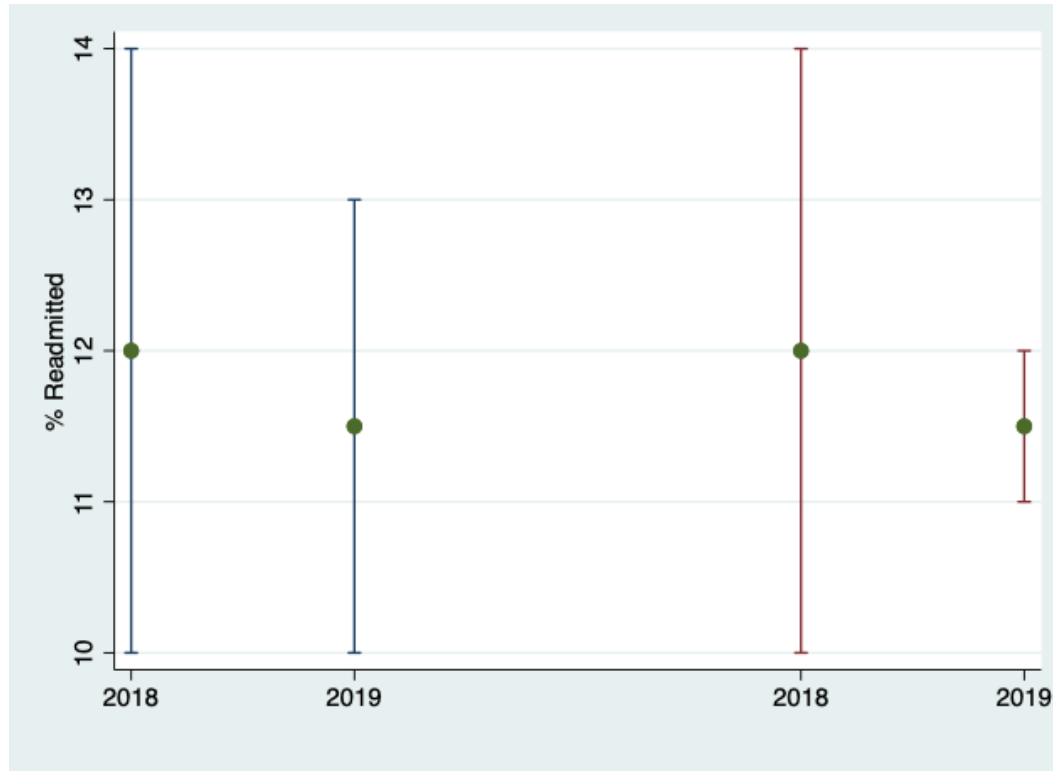
# Status Update

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- ▶ MPR validation work continues, should wrap up early January
- ▶ Seeking feedback from Office of Minority Health and Health Disparities, other stakeholders
- ▶ Final policy recommendation slated for January PMWG meeting
- ▶ Today's discussion: Proposed scaling & reward scenarios

# Reward Scenarios

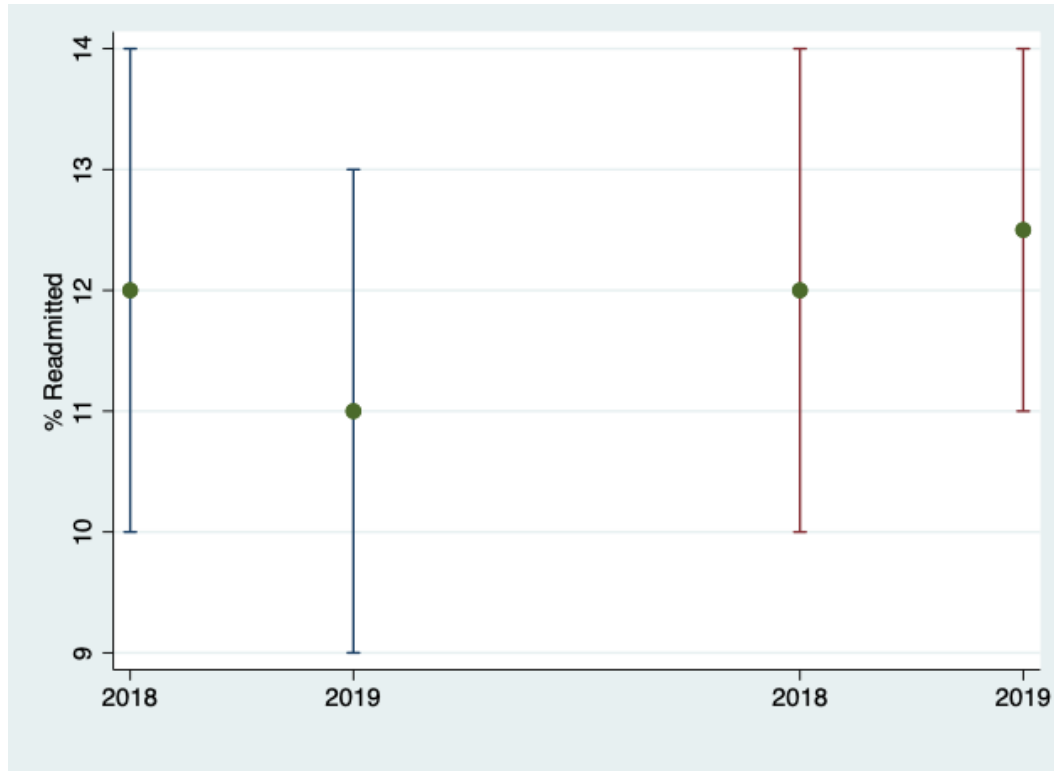
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Scenario A: Gap is reduced and overall rate falls. Scenario B: Gap is reduced and overall rate falls, although rate for low-PAI patients rises

# No-Reward Scenarios

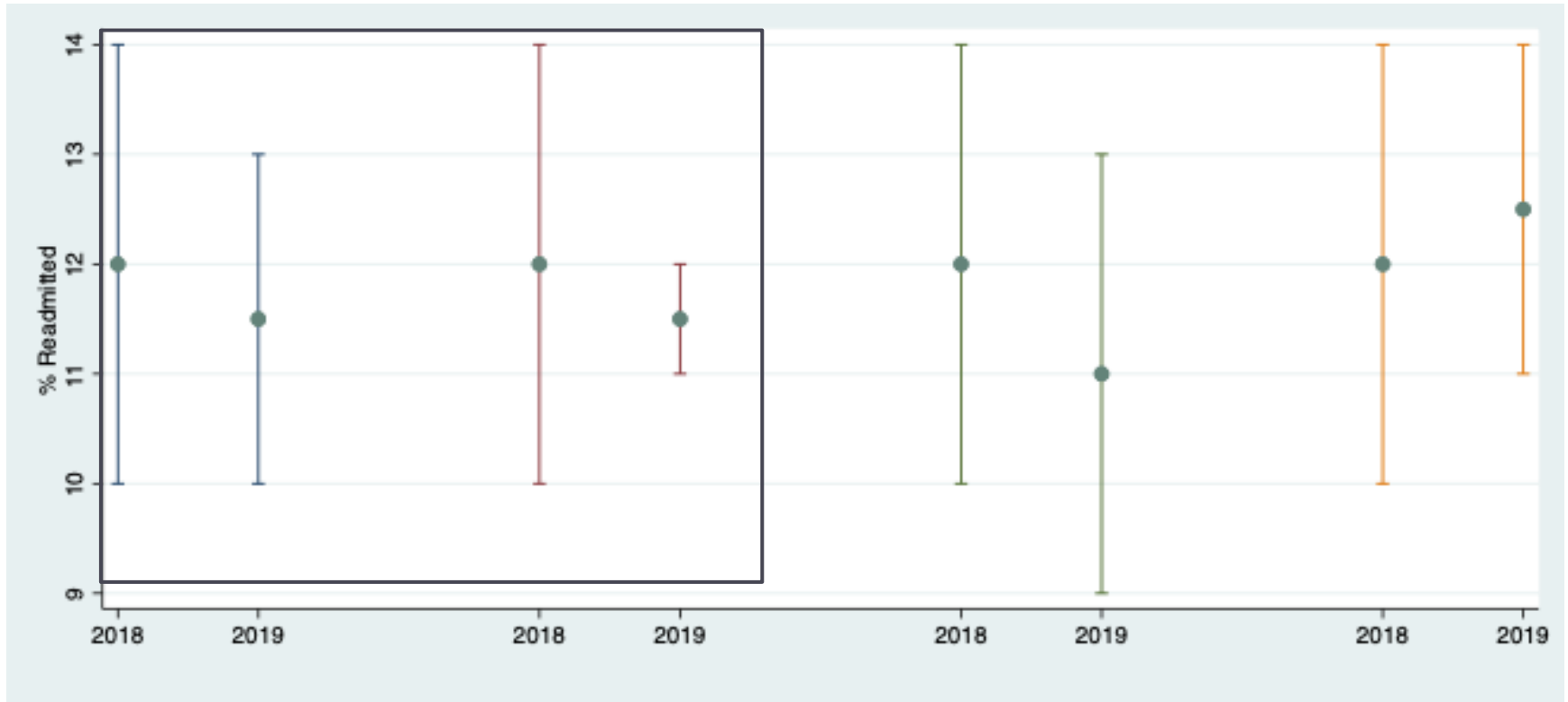
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Scenario C: Overall rate improves, but gap is unchanged.  
Scenario D: Gap is reduced, but overall rate worsens.



# Readmission Scenarios Eligible for Rewards



Proposed policy limits reward eligibility to hospitals with BOTH overall readmission rate improvement and gap reduction

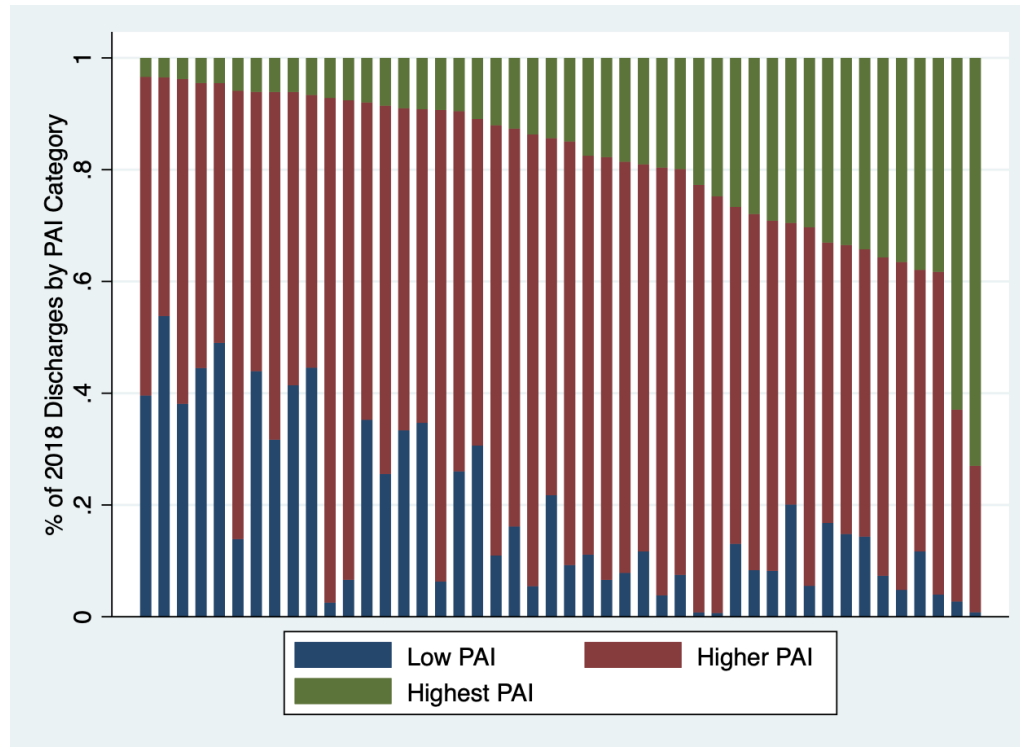
# Staff Proposal

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- ▶ Restrict disparity reward eligibility to hospitals with reduction in overall readmission rate
- ▶ Base year: 2018
- ▶ Proposed RY 2022 reward of:
  - ▶ 0.25% of IP revenue to hospitals with  $\geq 6.94\%$  reduction (on pace for 25% reduction in 8 years, -3.53% CAGR)
  - ▶ 0.50% of IP revenue to hospitals with  $\geq 15.91\%$  reduction (on pace for 55% reduction in 8 years, -8.3% CAGR)
- ▶ RY 2023 Proposed reward of 0.5% of IP revenue to hospitals with  $\geq 22.89\%$  disparity reduction (on pace for 50% reduction over 8 years, -8.30% CAGR)

# Understanding Interventions

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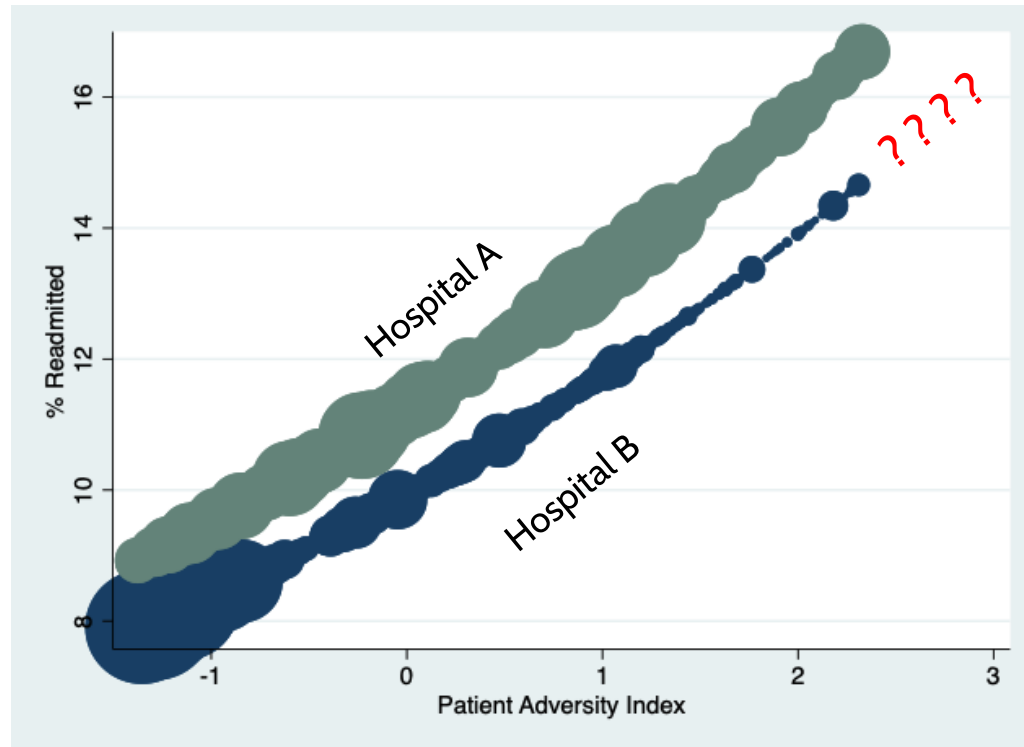


All hospitals have patients close to the lowest and highest values. But some hospitals have fewer patients at one of the extremes.



# Understanding Interventions

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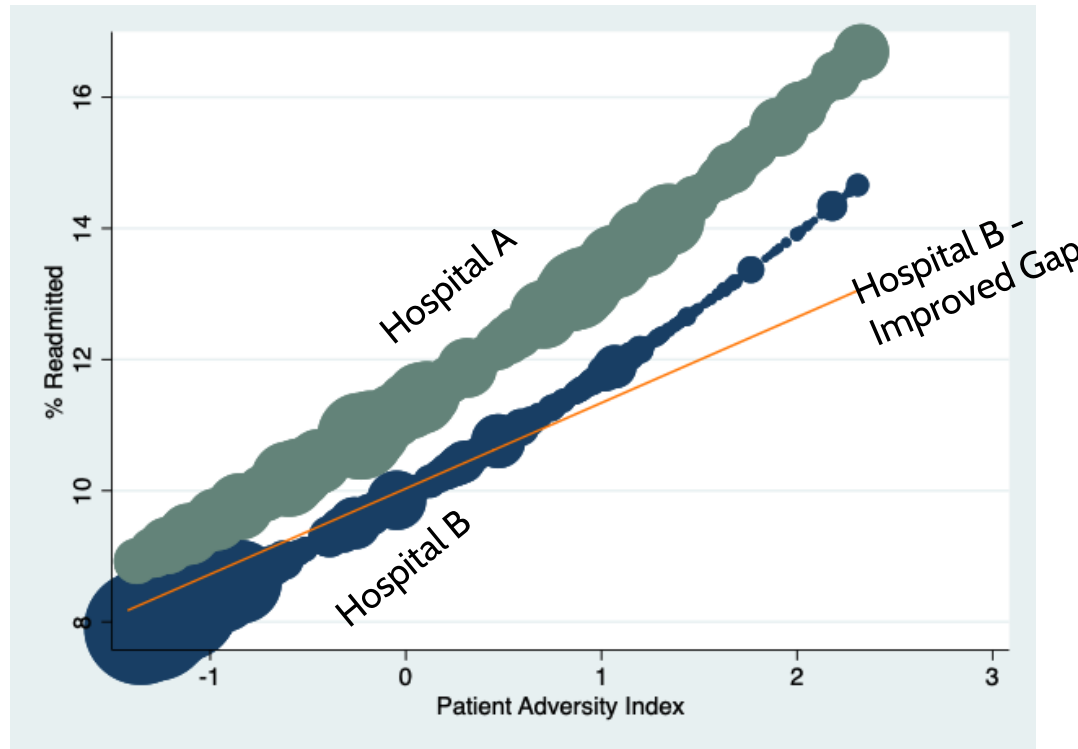


This would be a concern if the gap measure relied on specific statewide values of PAI. But the gap measure relies on a slope estimated over the available PAI values at an individual hospital.



# Understanding Interventions

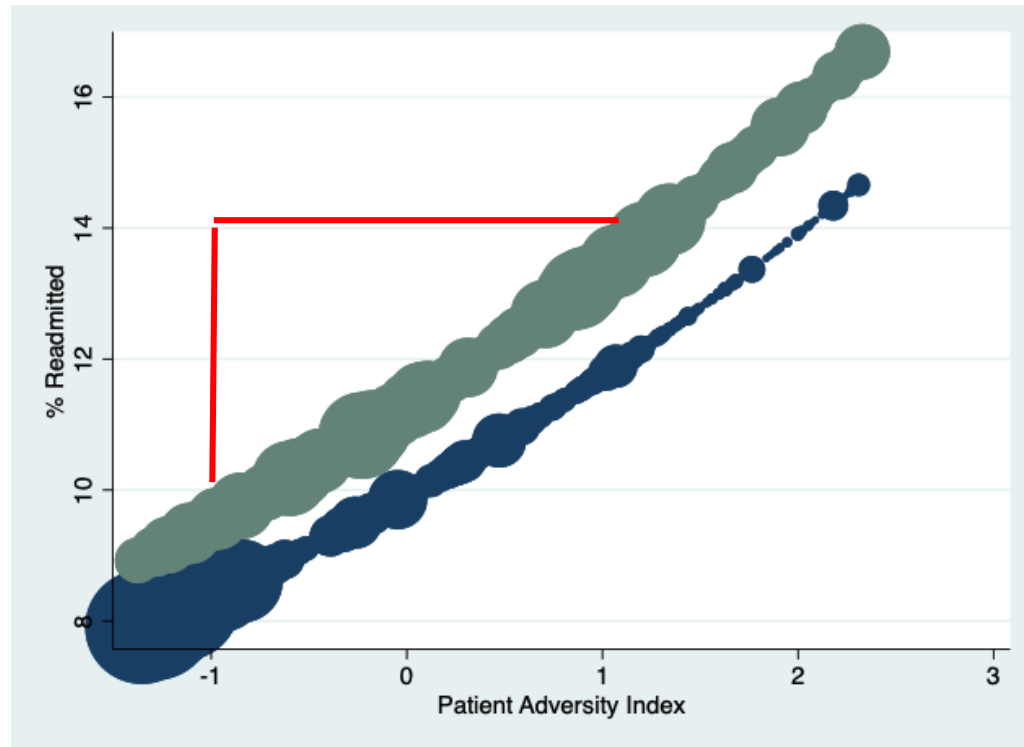
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Hospital B can still reduce disparity and qualify for reward by reducing readmissions for the patients with the highest PAI in its population

# Understanding Interventions

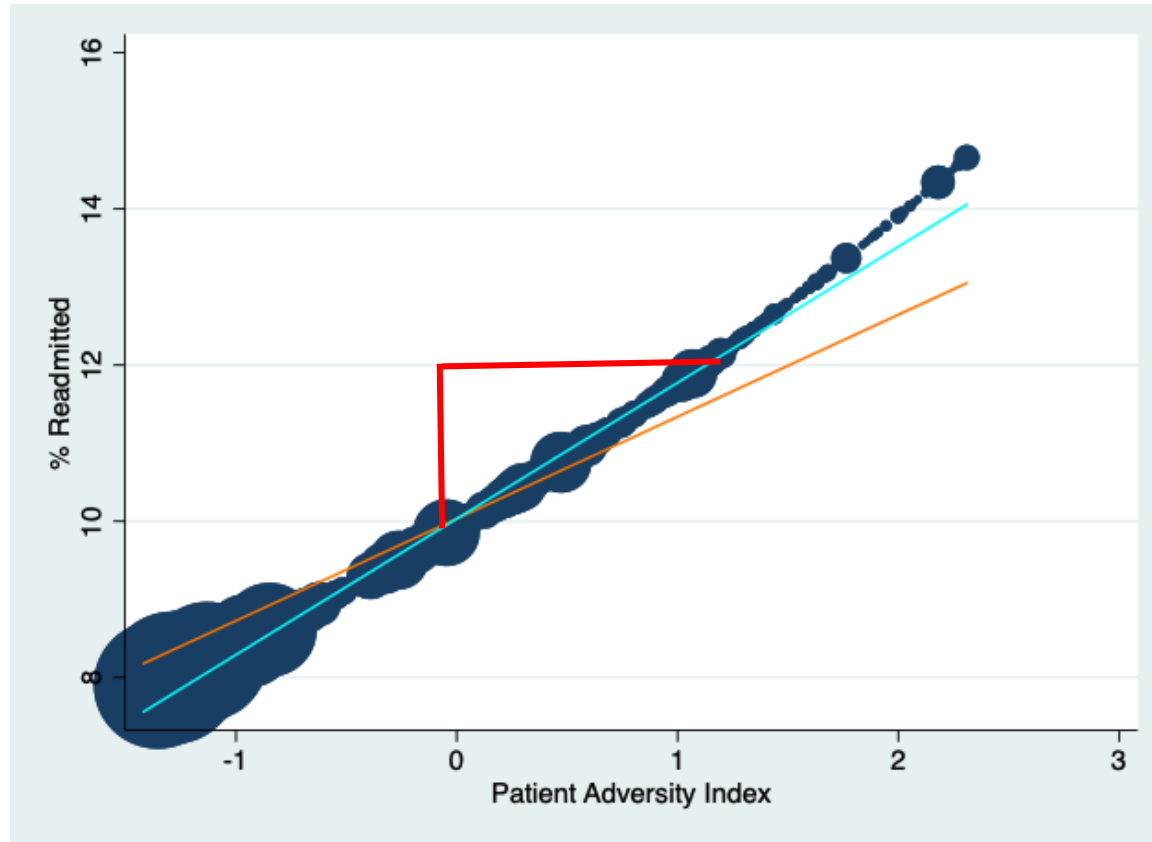
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For reporting purposes, we use the slope to estimate difference in readmission rates at specific values of PAI. This is accurate even if a hospital doesn't have many patients at a specific value.

# Calculating the Gap

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Rise:  $12 - 10 = 2$

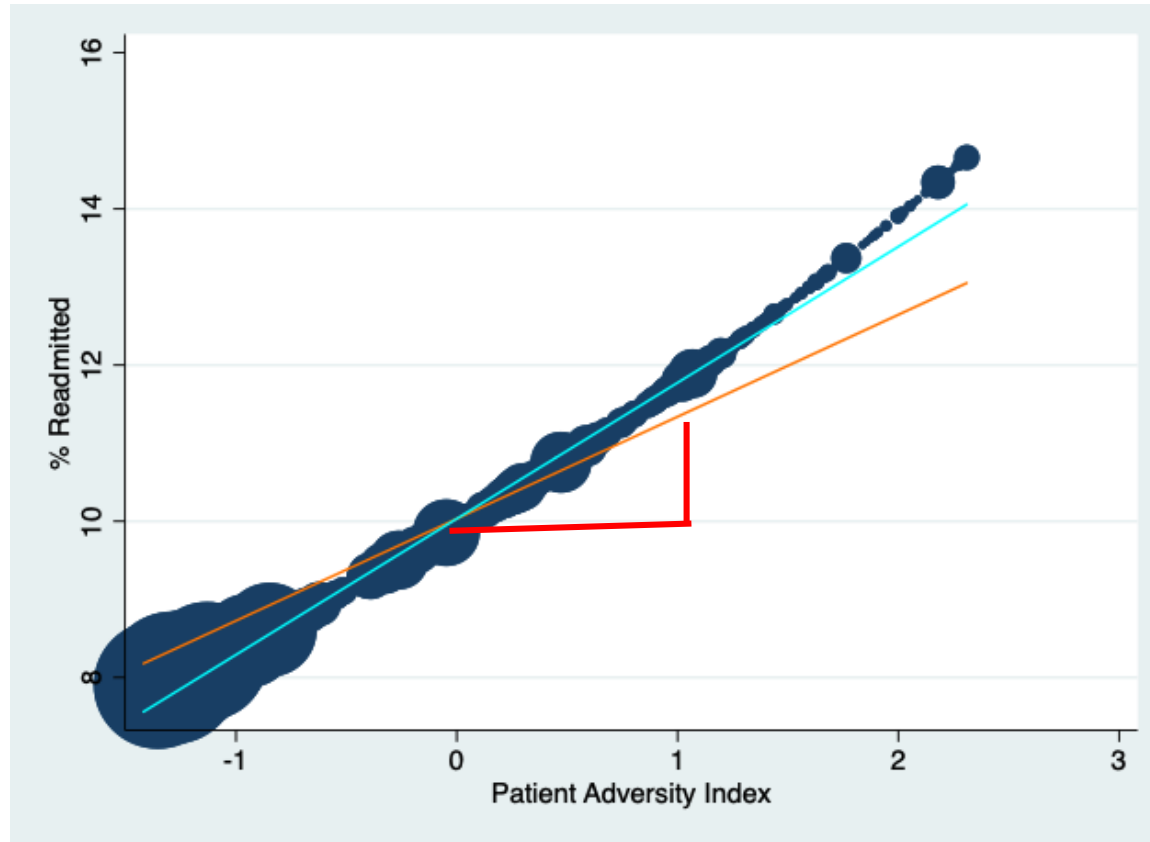
Run:  $1 - 0 = 1$

Slope =  $2/1 = 2$



# An Improved Gap

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25% improvement: Gap is rate at PAI=1 - rate at PAI=0:  $11.5 - 10 = 1.5$ .

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# Potentially Avoidable Utilization (PAU) Program

# PAU Savings Avoidable Admissions performance

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- ▶ **Risk Adjustment**
  - ▶ AHRQ age and gender risk adjustment to calculate observed and expected values
  - ▶ Plan to calculate observed and expected values and multiply by statewide rate to calculate rates
- ▶ **Out-of-state Medicare PQIs**
  - ▶ Anticipated data available this month for inclusion in estimates
  - ▶ Running PQI logic on Medicare CCLF to get PQIs for Marylanders going to other hospitals
  - ▶ Will add these to the numerator of hospital performance

# Readmissions

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- ▶ Estimated cost of readmissions from your hospital
- ▶ Calculated as the total number of sending readmissions multiplied by the average cost of an intrahospital readmission (to and from same hospital)
- ▶ **NEW:** Exclude categorical exclusions and Ventilator Support charges from calculating the average cost of an intrahospital readmission.

# RY2021 Adjustment

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- ▶ **Percent Reduction**
  - ▶ Plan on using the inflation-based calculation developed last year to calculate the PAU Savings amount in the spring
- ▶ **New:** Exclude dollars associated with categorical exclusions to align with Innovation policy

	PQI version	No Categorical exclusion	Categorical Exclusion	Total
2018 PAU \$	v2019*	\$1,804,733,890	\$34,142,033	\$1,838,875,923*
2019YTD PAU \$	v2019	\$1,540,887,995	\$29,532,637	\$1,570,420,632

\*Number is different than what was in final RY20 PAU due to PQI version update.  
(1,922,894,085)



# PAU Measurement Report

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- ▶ Staff intends to present a RY21 and RY22 PAU Measurement Report to the Commission in February.
- ▶ Measurement Report Goals:
  - ▶ Provide progress report on efforts to modernize PAU
    - ▶ Per Capita PQIs
    - ▶ PDIs
    - ▶ PAU subgroup
    - ▶ Low value care exploration
  - ▶ Align PAU Savings program timeline with other quality program timelines (performance measurement determined earlier in performance year)
  - ▶ Request Commissioner feedback on strategic direction

# RY2022 and beyond

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- ▶ **Staff plans to:**
  - ▶ Further Refine Avoidable admissions per capita and readmissions
  - ▶ Explore Avoidable ED use
  - ▶ Explore how low value/overuse/utilization measures can be used for informational purposes

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# State Integrated Health Improvement Strategy (SIHIS)

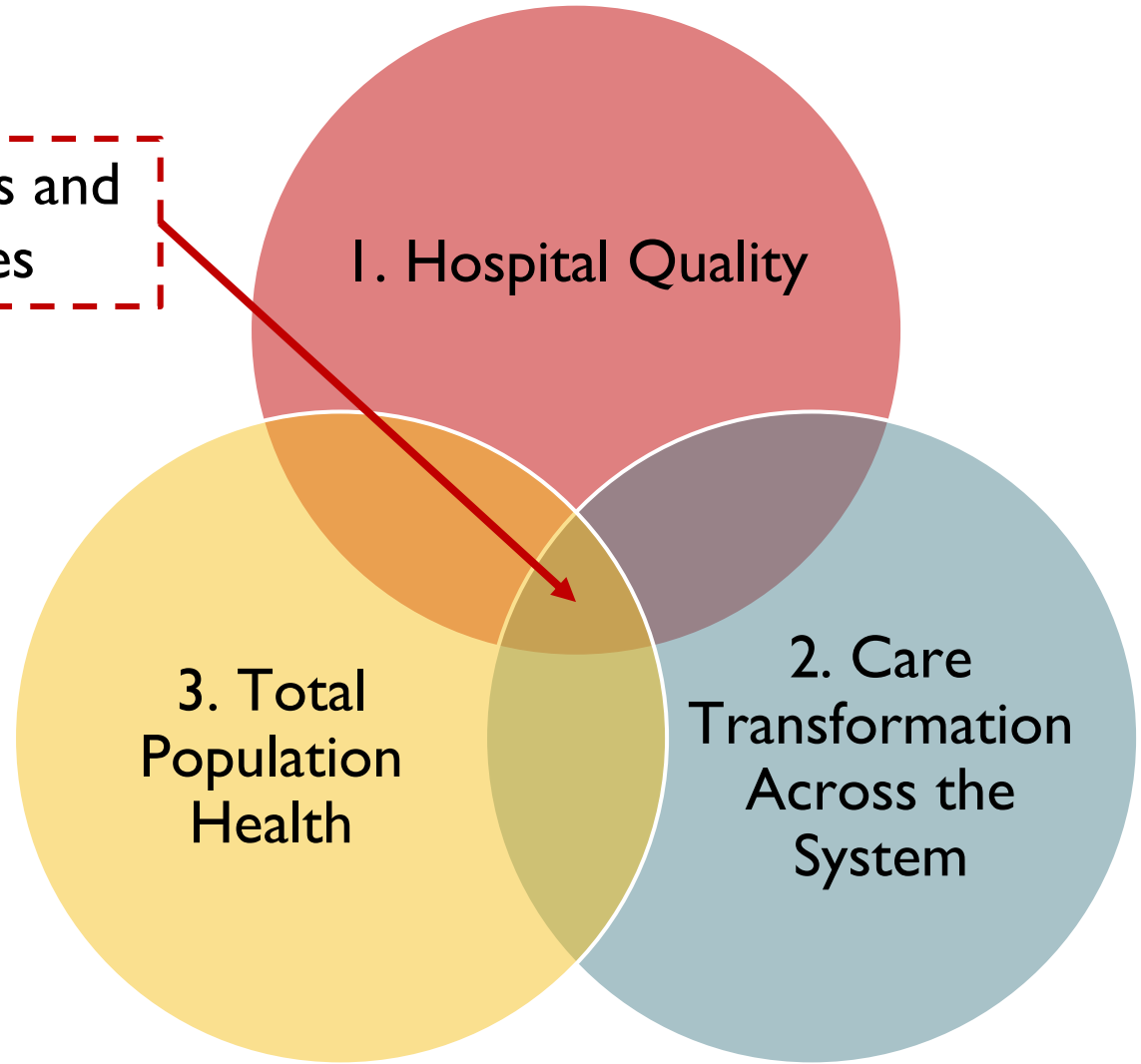
Maryland's Quality and Population Health Strategy

## PQI Discussion Reminder

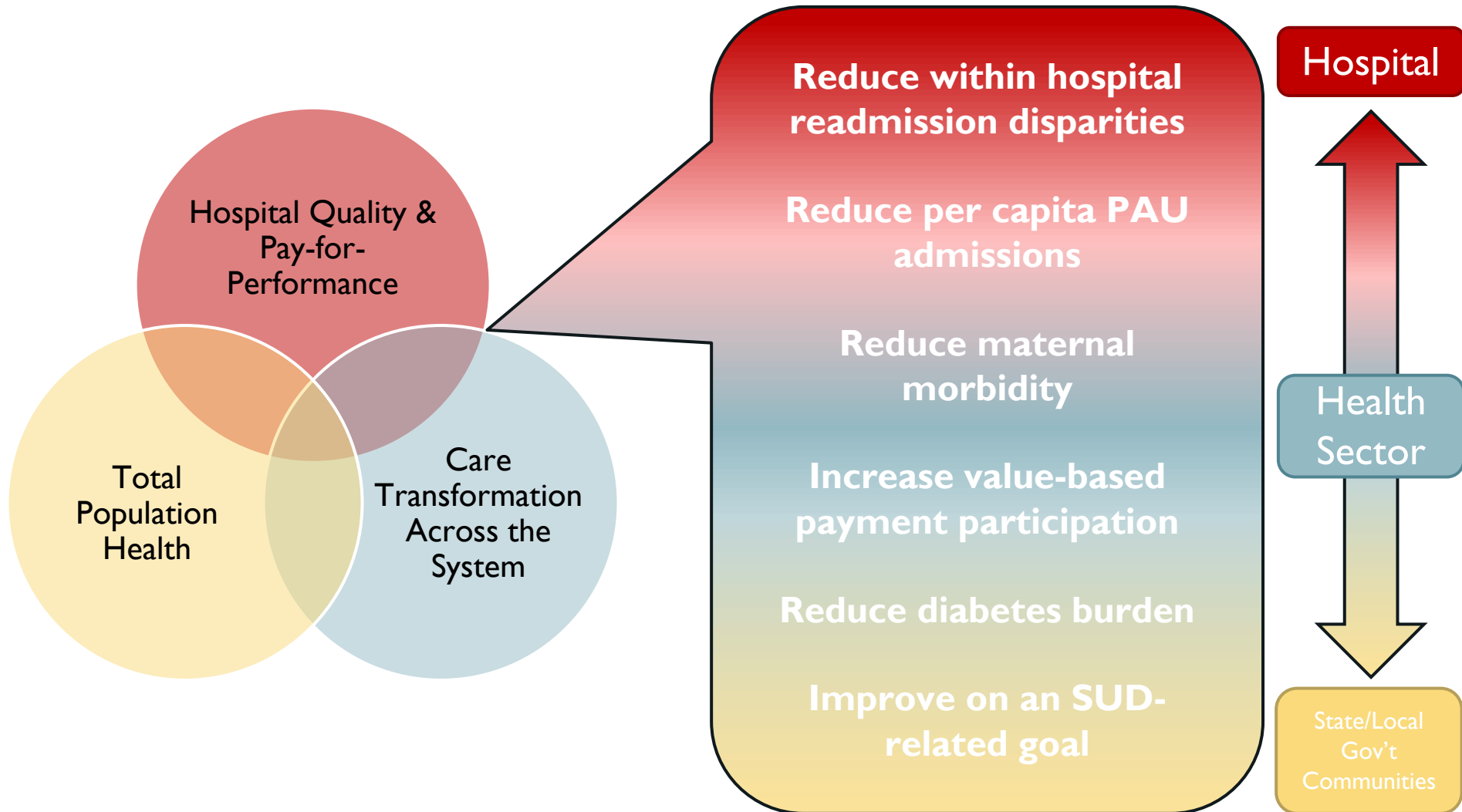
# Diverse Approaches for Statewide Integrated Health Improvement Strategy (SIHIS)

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Shared Goals and  
Outcomes



# Potential Examples of Shared Outcomes and Goals



## Setting Avoidable Admissions Target in SIHIS

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- ▶ Need to build a 5-8 year goal for avoidable admissions for Maryland
- ▶ Staff planned specifications:
  - ▶ Use AHRQ provided programs and populations for inpatient avoidable admissions (different from our Maryland programs)
  - ▶ Use age and gender risk adjustment
  - ▶ Per 100,000 metric as specified by AHRQ
  - ▶ All Payer
- ▶ What kind of goal should we be setting?
  - ▶ Goal frequency: Yearly? End of 8 years?
  - ▶ Method of evaluation: Improvement vs. attainment?
  - ▶ Comparison: National, comparison group of states, Maryland trends?

# Avoidable Admissions Target analysis plan

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- ▶ Understand Maryland PQI trends
  - ▶ Overall trends in Maryland
  - ▶ Trends by case-mix identified payer
  - ▶ Trends by region
  - ▶ Trends by PQI type
- ▶ Compare Maryland data to National Data
  - ▶ HCUP all payer inpatient data
    - Published national benchmarks: Observed Rate Per 100,000, based on 2016 HCUP
    - Calculate Observed Rate on 2017 HCUP
  - ▶ Commercial benchmarking
  - ▶ Medicare data (CCW 5% sample)
- ▶ Conduct literature review to guide trends
  - ▶ Published studies on PQI rates
  - ▶ Published studies on program impacts on PQIs and hospitalizations
  - ▶ Any posted PQI targets that others in Maryland or elsewhere have developed

# January/February Meeting

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- ▶ Staff may provide preliminary analyses of PQI trends and the NQF follow-up measure
- ▶ **Request for Stakeholders:** What other measures do stakeholders believe should be explored for hospital population health and care transformation across the system goals?
  - ▶ **Please bring potential measures to the January PMWG**



## Next Work Group Meeting

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Next PMWG meeting is scheduled for  
**Wednesday, January 15**

