Performance Measurement Work Group

March 16, 2016

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Performance Measurement Future Strategy

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Aligning Performance Measurement with the All-Payer Model

- QBR, MHAC, RRIP, Shared Savings, PAU
- New Model's focus on High-Need Patients and chronic conditions
- Care Coordination performance measures
- Population health and patient centered focus
- CMS Star Rating approach
- Incorporating new measures, such as Emergency Department, Outpatient Imaging measures etc.

Patient Centered Hospital Quality Measure Strategy

Service Lines/Populations	PPCs	Readmissions	Mortality	Safety	Costs	Patient Satisfaction	Overall Score
Medicine							
Surgery							
Obstetrics							
Psychiatry							
Oncology							
Emergency Medicine							
Ambulatory Surgery							
High Need Patients							

Discussion Questions

- What should hospital pay for performance programs look like in 5 years?
- What are the necessary components of a comprehensive measurement strategy that has broad impact on population health and is designed to achieve the Triple Aim?
  - What are potential opportunities for expanding Potentially Avoidable Utilization measurement?
  - What clinical topics have the potential for broader upstream impact, e.g., obesity, smoking, hypertension management, mental health/depression screening, etc.
  - What domains need to be captured, e.g., mortality, complications, readmission, safety, etc.?
  - Should measures around specific clinical areas be defined: e.g., orthopedic surgery
  - Should we proceed in the direction of composite measures, or should we continue to separate by measurement domains?
- Should we align our strategy with the national Medicare strategy, and to what degree should we align it for our all-payer environment?
- How do we engage stakeholders in the discussions? What stakeholder groups must be included in the discussions?

Potentially Avoidable Utilization (PAU) adjustment- proposed updates

Potentially Avoidable Utilization- Unplanned Care

Definition

"Hospital care that is unplanned and can be prevented through improved care coordination, effective primary care and improved population health".

Unplanned Admissions

- 55 % of all inpatient admissions are Medical admissions from Emergency Departments
- 61 % of all inpatient admissions are from ED

Number of Admissions by Source of Admission- FY 2015

	From ED	Percent	Other Admission Source	Percent	Grand Total	Percent
Medical	389,461	55%	168,981	24%	558,442	78%
Surgical	48,965	7%	106,257	15%	155,222	22%
Grand Total	438,426	61%	275,238	39%	713,664	100%

PAU Measure List RY 2016

- Readmissions/Revisits
  - Inpatient and 23+ hour Observation Stays- All Hospital, All Cause 30 Day Readmissions, excluding planned readmissions
- Potentially Avoidable Admissions/Visits
  - Inpatient- AHRQ Prevention Quality Indicators (PQIs)*
- Hospital Acquired Conditions
  - Potentially Preventable Complications (PPCs)

*Developed by Agency For Health Care Quality and Research
http://www.qualityindicators.ahrq.gov/modules/pqi_overview.aspx
Also known as Ambulatory Care Sensitive Conditions, that is conditions for which good outpatient care can potentially prevent the hospitalization

RY 2016 PAU Adjustment

- Reductions in demographic adjustment
  - Hospital's predicted volume growth due to population increase and aging is reduced by the % of total revenue in PAU
- RY 2016 average reduction was -0.39 % inpatient revenue with a maximum reduction of -1.10 %
- Total statewide reduction was -$26.9 mil.

PAU focus on Avoidable Admissions

- Alignment models are focusing on coordination with primary care providers, nursing homes and post-acute care
- Focus on care coordination to prevent hospital admissions
- Evidence shows that 70 % of admissions from post acute and long term care can be avoided with better interventions
- Staff is proposing to add sepsis admissions and remove MHACs from PAU
- Sepsis data exclude readmission and PQIs

Sepsis codes as Primary diagnosis included in the analysis

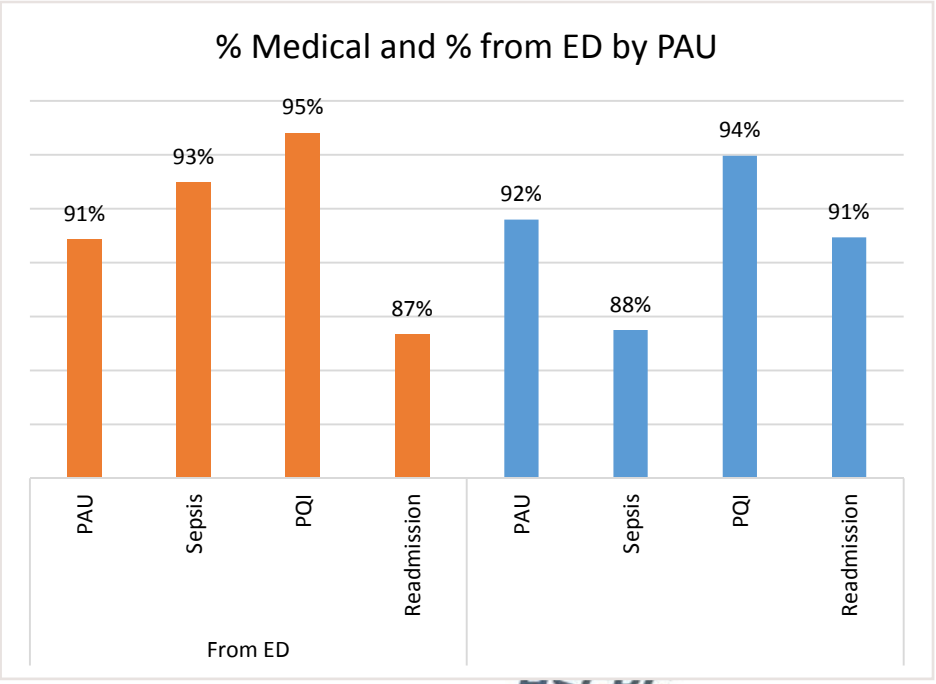
- **038 Septicemia**
  - Use additional code for systemic inflammatory response syndrome (SIRS) (995.91-995.92)
  - *Excludes:*
    - *bacteremia (790.7)*
    - *septicemia (sepsis) of newborn (771.81)*
- **995.91 Sepsis** Systemic inflammatory response syndrome due to infectious process without acute organ dysfunction
  - *Excludes:*
    - *Sepsis with acute organ dysfunction (995.92)*
    - *sepsis with multiple organ dysfunction (995.92)*
    - *severe sepsis (995.92)*
- **995.92 Severe sepsis**
  - Sepsis with acute organ dysfunction
  - Sepsis with multiple organ dysfunction (MOD)
  - Systemic inflammatory response syndrome due to infectious process with acute organ dysfunction
  - Code first underlying infection
  - Use additional code to specify acute organ dysfunction

PAU Admissions -Unplanned Admissions

- 91 % of PAUs are from Emergency Departments
- 92 % of PAUs are Medical Admissions

Number of PAU Admissions by Source of Admission - FY 2015

	From ED	Percent of Total	Other Admission Source	Percent of Total	Grand Total	Percent of Total
Readmission	75,787	43%	10,984	6%	86,771	50%
PQI	61,571	35%	3,371	2%	64,942	37%
Sepsis	21,807	12%	1,650	1%	23,457	13%
Grand Total	159,165	91%	5,021	3%	175,170	100%



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Overall Distribution on Inpatient Discharges

Number of Admissions by Source of Admission- FY 2015

	From ED	% Total	Other Admission Source	% Total	Grand Total	% Total
Non-PAU	**279,261**	**39%**	**259,233**	**36%**	**538,494**	**75%**
Medical	240,982	34%	157,006	22%	397,988	56%
Surgical	38,279	5%	102,227	14%	140,506	20%
Readmission	**75,787**	**11%**	**10,984**	**2%**	**86,771**	**12%**
Medical	70,663	10%	8,244	1%	78,907	11%
Surgical	5,124	1%	2,740	0%	7,864	1%
PQI	**61,571**	**9%**	**3,371**	**0%**	**64,942**	**9%**
Medical	58,587	8%	2,435	0%	61,022	9%
Surgical	2,984	0%	936	0%	3,920	1%
Sepsis	**21,807**	**3%**	**1,650**	**0%**	**23,457**	**3%**
Medical	19,229	3%	1,296	0%	20,525	3%
Surgical	2,578	0%	354	0%	2,932	0%
Grand Total	**438,426**	**61%**	**275,238**	**39%**	**713,664**	**100%**

PAU distribution: All-Payer vs Medicare

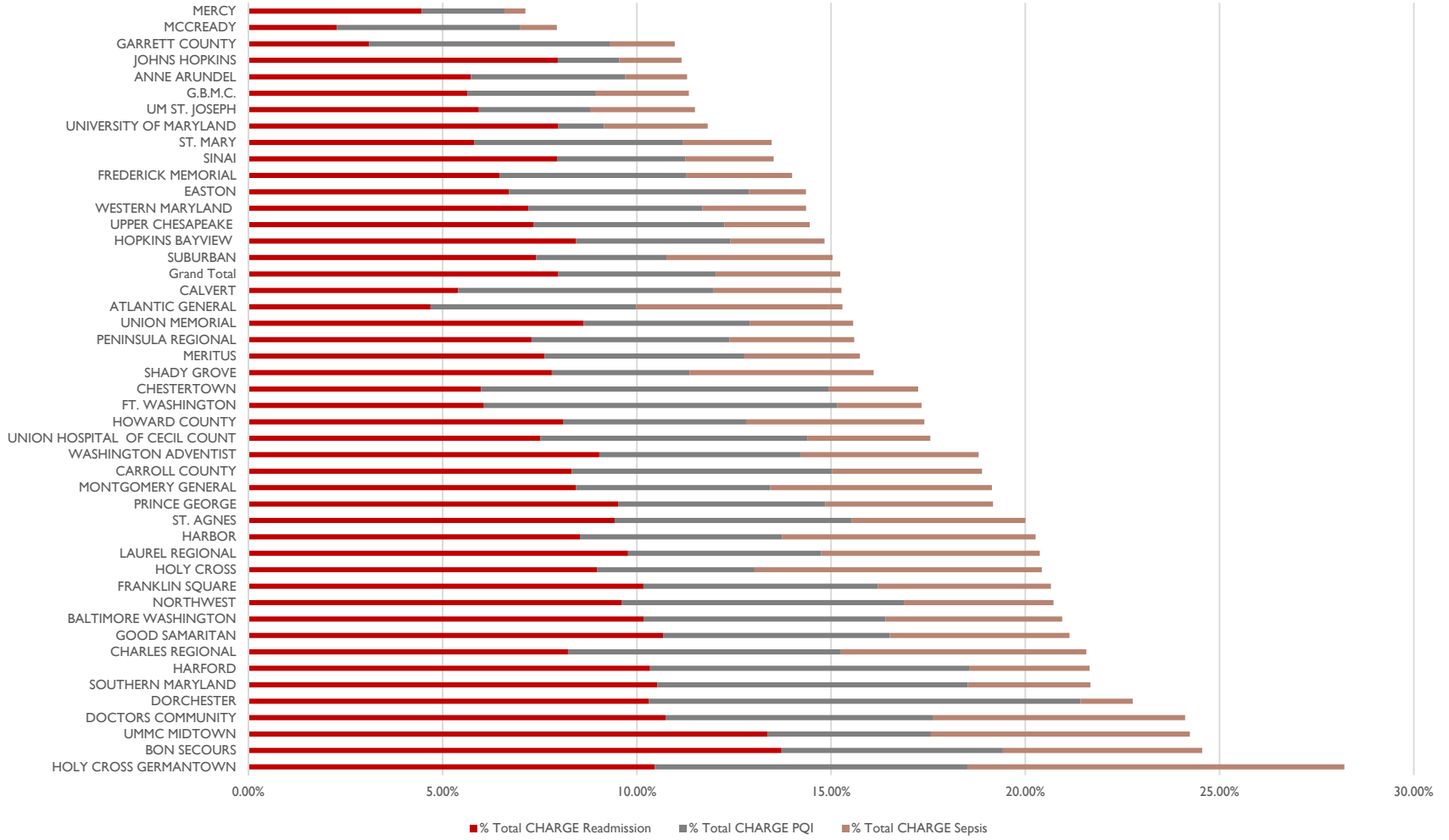
- Overall, PAUs are 15% of total hospital charges in Maryland in CY 2015; 55% of total PAUs are for Medicare patients. Compared to CY 2013 levels, PAUs decreased by -0.5% for All-Payer and increased by 1.8% for Medicare patients.

	All Payer					Medicare					
	Total Charge CY15	ECMAD CY15	ECMAD CY13	% ECMAD Change CY13-CY15	% Grand Total Charge	Total Charge CY15	ECMAD CY15	ECMAD CY13	% ECMAD Change CY13-CY15	% Grand Total Charge	% Medicare
Readmission	$1,288,435,419	90,260	95,614	-5.6%	8.0%	$680,347,206	50,068	52,034	-3.8%	11.2%	53%
PQI	$651,465,870	51,679	52,100	-0.8%	4.1%	$391,016,430	30,914	29,969	3.2%	6.4%	60%
Sepsis	$516,098,092	39,131	34,251	14.2%	3.2%	$288,257,794	22,887	20,013	14.4%	4.7%	56%
PAU Total	**$2,455,999,381**	**181,069**	**181,966**	**-0.5%**	**15.3%**	**$1,359,621,430**	**103,868**	**102,016**	**1.8%**	**22.4%**	**55%**
Grand Total	**16,073,397,565**	**1,155,421**	**1,161,441**	**-0.5%**	**100%**	**$6,079,614,526**	**447,172**	**440,416**	**1.5%**	**100.0%**	**38%**

	Total Charge CY15	PPC Count CY15	PPC Count CY 13	% PPC Count Change CY13-CY15	% Grand Total Charge	Total Charge CY15	ECMAD CY15	ECMAD CY13	% PPC Count Change CY13-CY15	% Grand Total Charge	% Medicare
PPCs/MHACs	$231,919,620	21,026	29,740	-29.30%	1.44%	$129,912,439	11,143	10,910	-27.50%	2.14%	56%

Annualized based on Jan-September 2015 Final data. Updated 02-29-2016

% Total Charges in PAU varies between 7% to 28% - CY 2015 All-Payer Jan-Sept.



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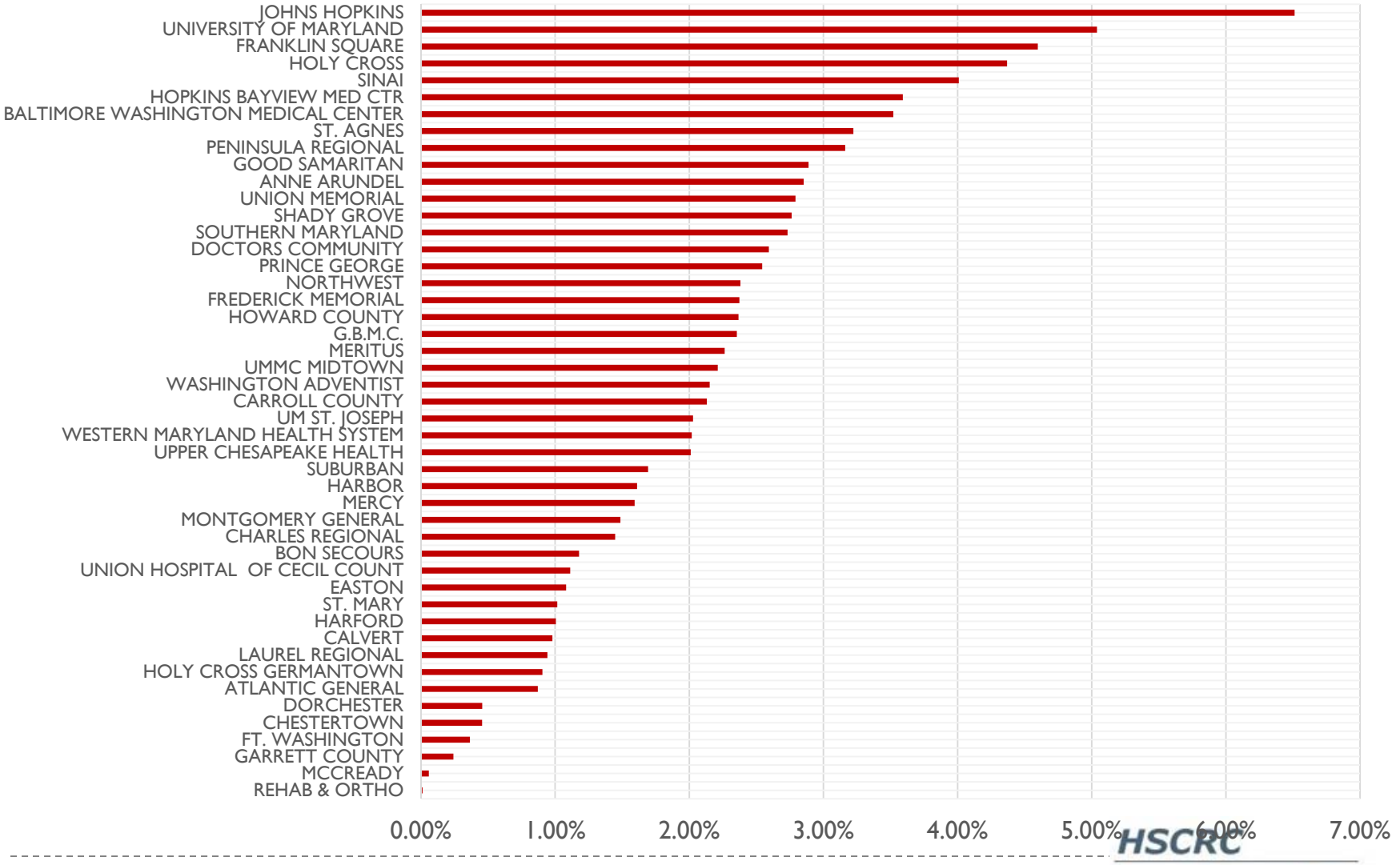
State PAU Distribution : % Total PAUs by Hospital



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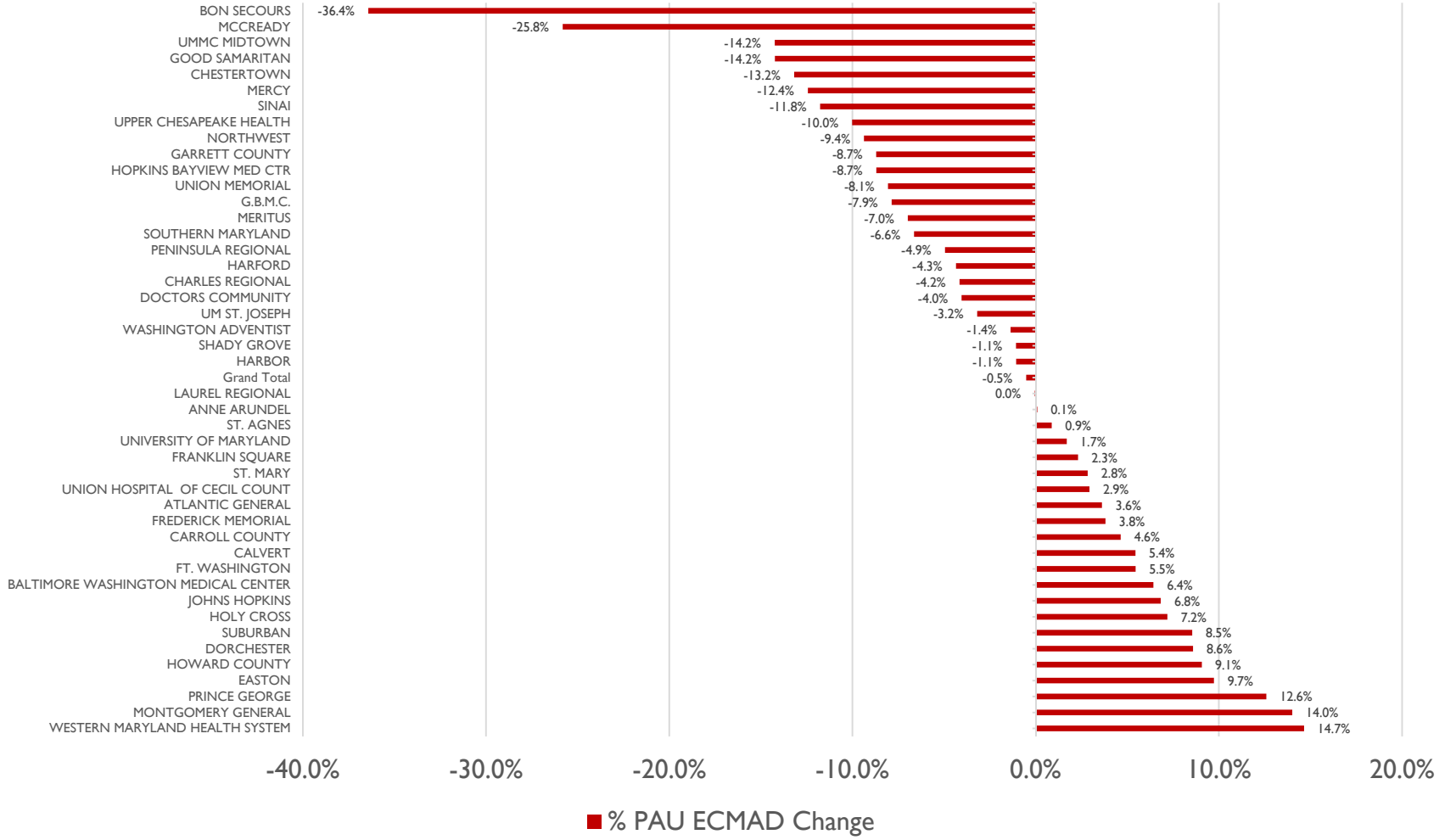
Average PAU ECMAD change between CY 2013 vs CY 2015 Was -0.5 %



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Readmission Reduction Incentive Program Draft FY 2018 Policy

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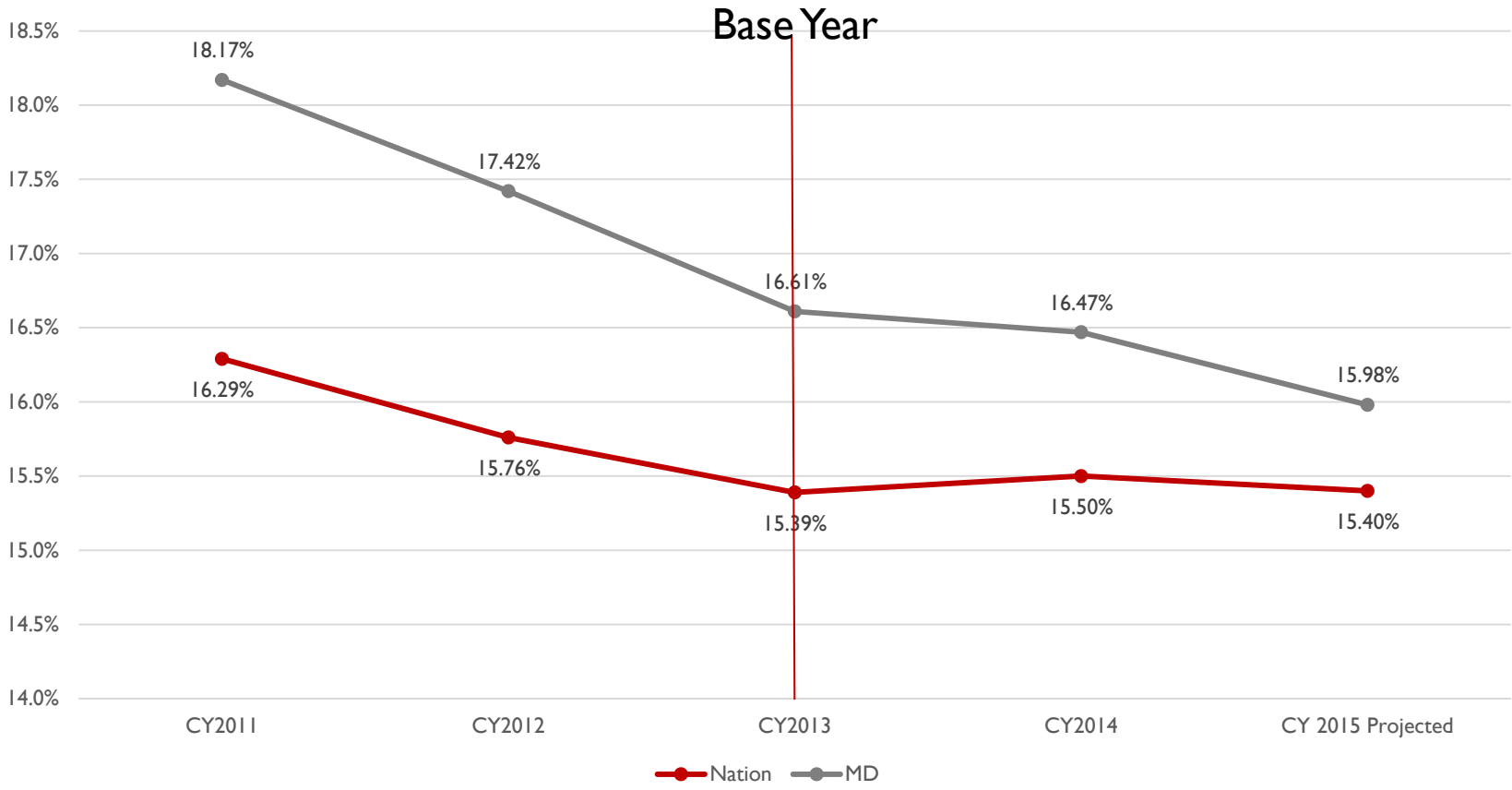
RRIP Background

- Started in CY 2014 performance year with 0.5% inpatient revenue bonus if a hospital reduced its case-mix adjusted readmission rate by 6.76% in one year.
- Last year
  - Improvement target was set at 9.3% over two years (CY 2015 compared to CY 2013 rates)
  - Rewards scaled up to 1% commensurate with improvement rates
  - Penalties scaled up to -2% were introduced for hospitals that were below the improvement target commensurate with improvement rates
  - Continue to evaluate factors that may impact performance and meeting Medicare readmission benchmarks

Medicare Benchmark: At or below National Medicare Readmission Rate by CY 2018

Maryland is reducing readmission rate faster than the nation. Maryland is projected to reduce the gap from 7.93% in the base year to 3.74 % in CY 2015



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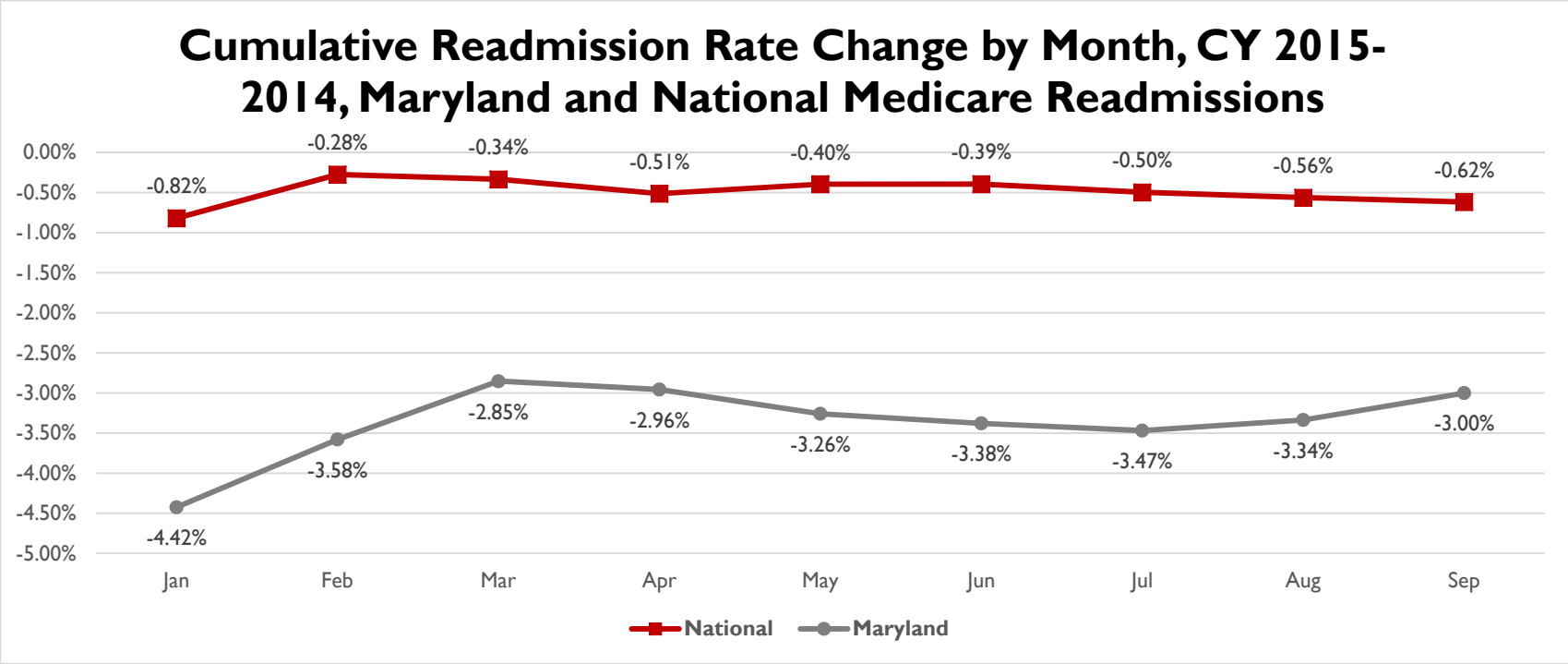
Maryland is projected to meet Medicare Readmission Target in CY 2015 based on data through September 2015

- National Readmission Rate Change = -0.62%
- Maryland Target = -2.08%
- Maryland Readmission Rate Change = -3.00%



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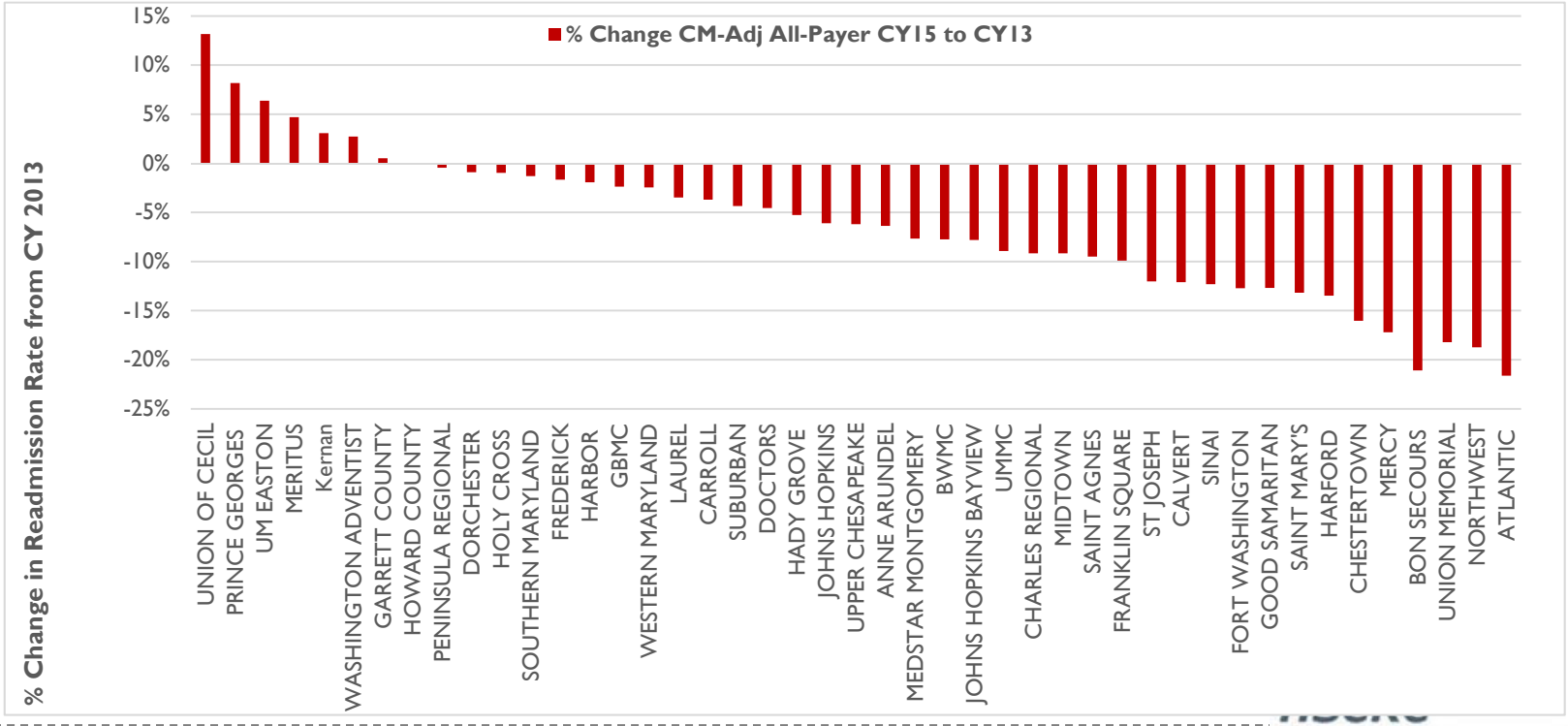
Calculation of CY 2016 Target

Measurement Years	Base Year MD/ National Readmission Rate	Assumed National Rate of Change	Actual National Rate of Change	Actual National Cumulative Change	MD Cumulative Medicare Rate of Target	All Payer to Medicare Readmission Rate Percent Change Difference	Cumulative All Payer Target
CY 14	8.88%	**-5.00%**	0.71%	0.71%	-6.76%		**-6.76%**
CY15	7.70%	**-1.34%**	-0.62%	0.09%	-4.67%	-4.63%	**-9.30%**
Modeling Results for CY16:							
CY16 - Current Rate of Change	7.93%	**-0.62%**			-5.53%	-3.53%	-9.06%
CY16 -Lowess Model Lowest Bound	7.93%	**-0.84%**			-5.84%	-3.53%	-9.37%
CY 16 Long Term Historial Trend	7.93%	**-1.76%**			-9.18%	-3.53%	-12.71%

Overall, All-Payer readmission rates declined by 7.2 percent Jan-October 2014

- One-third of the hospitals meeting or exceeding the 9.3% reduction target. Seven hospitals had an increase in their readmission rates, with the highest increase of 13%.



Analyses of Issues Discussed in FY 2017 Policy

- Should we set the improvement target for Medicare vs All-Payer
  - Stronger relationship between Medicare and All-Payer Readmission improvements with CY 2015 performance at the state-level, some hospitals have better improvements in Medicare compared to All-Payer and vice versa.
- Would a hospital with overall reductions in admissions have a lower reduction in readmissions
  - CY 2015 analysis show hospitals with overall admission reductions also have larger reductions in readmission rates (see Appendices III and IV).

Analyses of Issues Discussed in FY 2017 Policy - Continued

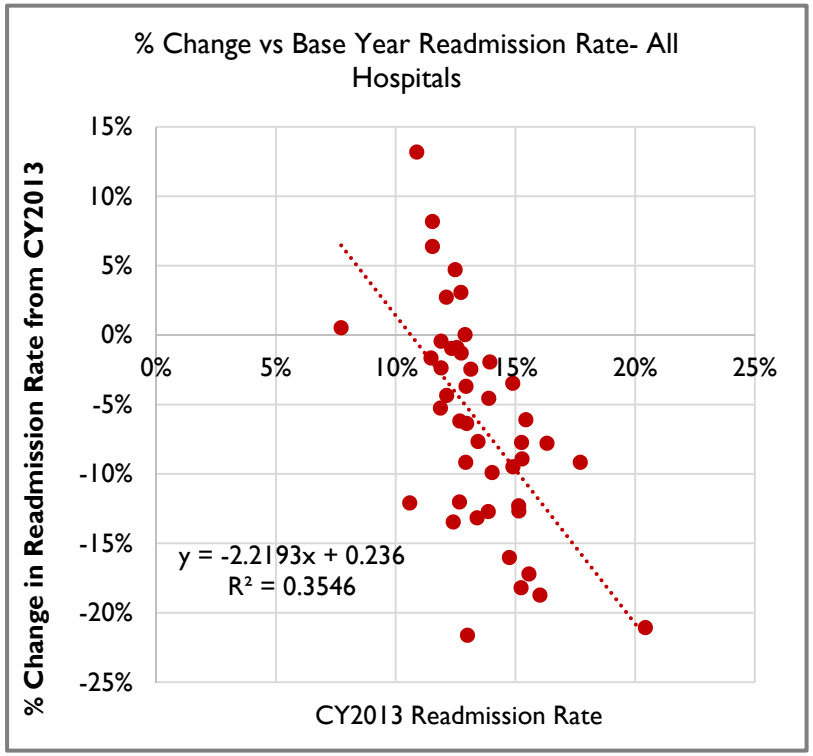
- Does the performance vary by the socio-economic and demographic (SES/D) characteristics of patients served?
  - Research on the impact of socio-economic and demographic factors on readmission rates is growing.
  - Staff is working on developing an appropriate measure of SES/D such as Area Deprivation Index (ADI).
  - Preliminary analysis indicates that there is no correlation between high ADI and readmission rate reductions.
- Does the use of Observation for the emergency cases impact the readmission trend ?
  - The statewide improvement rate is slightly lower when we include observation stays in the calculations. Staff will evaluate hospital level results and may make modifications to the RRIP payment adjustments.

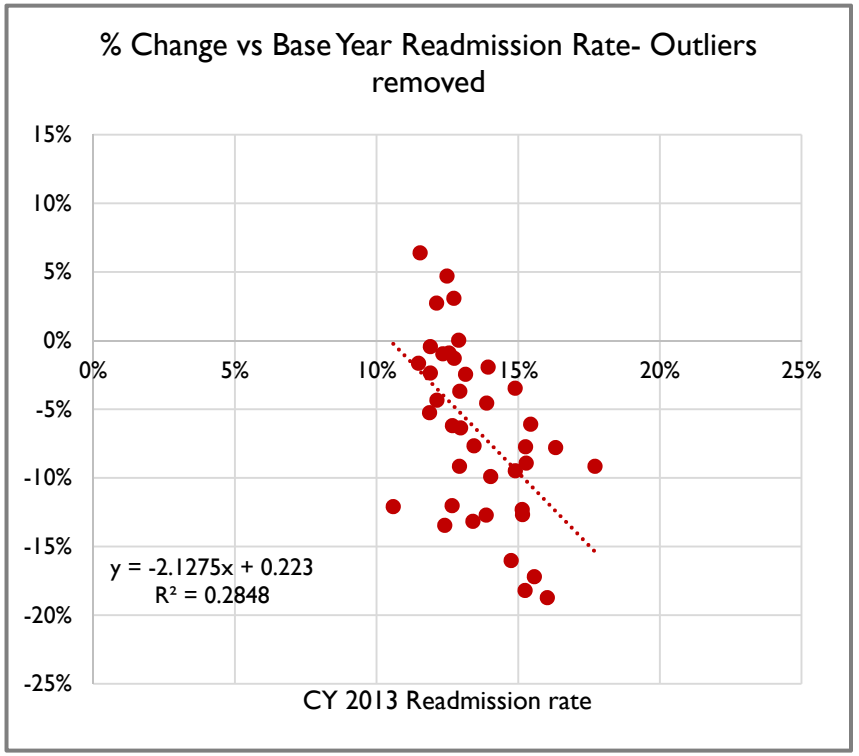
Readmission Rate vs Improvement

- Stakeholders expressed interest in developing a risk adjustment model to measure whether a hospital has a low or high readmission rate (i.e. attainment).
- Several technical challenges to develop accurate readmission risk adjustment.
  - SES/D impact
  - Readmissions occurring at out-of-state hospitals
  - Benchmarks, state data would not be sufficient to set best practice benchmarks
  - Payment adjustments to combine improvement vs attainment

Correlation between CY 2013 Readmission Rate and Improvement

- Hospitals with lower CY 2013 Readmission Rates appear to have lower reductions but this relationship is not clear.





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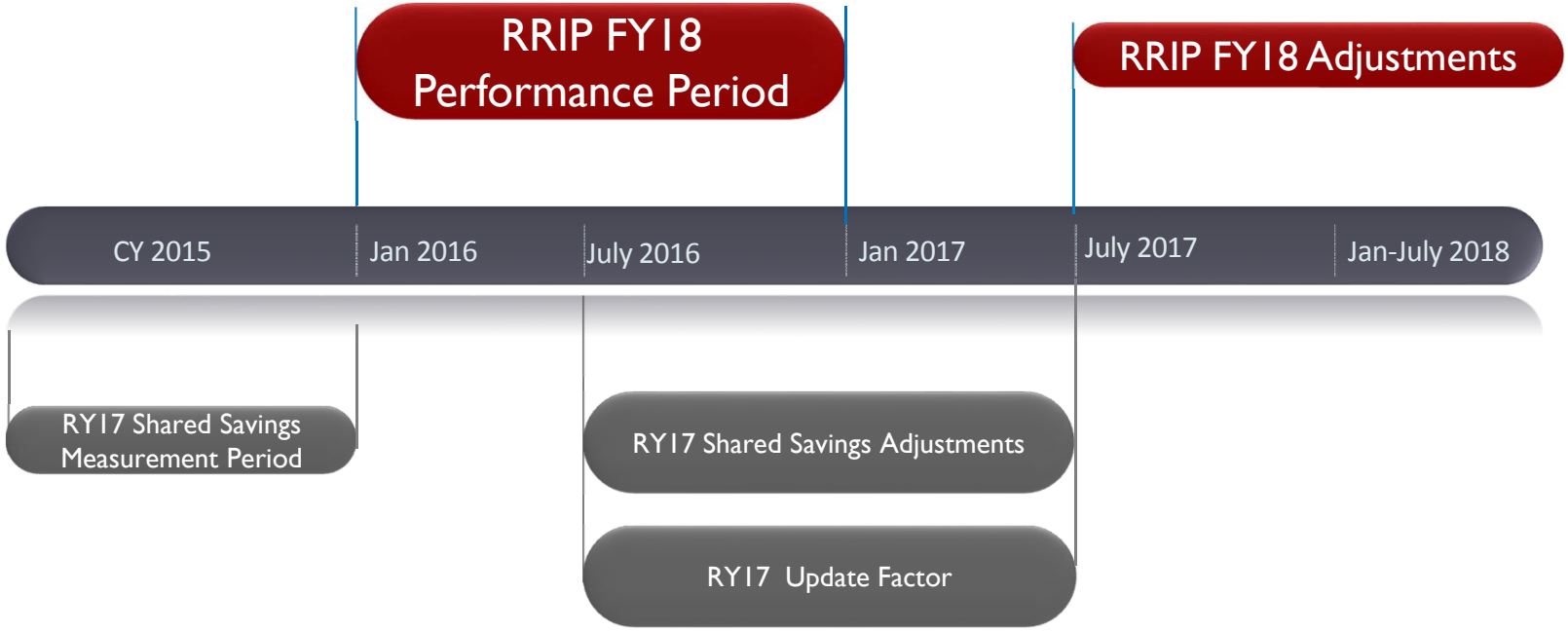
Adjusting Readmission Improvement Target

- CY 2015 performance year indicates a stronger relationship between improvement rates and base year readmission rates at the state-level analysis.
- Examples exist where two hospitals with the same base year low readmission rates have very different trends: one has an increase in its readmission rate, the other has a decline.
- Staff's initial recommendation is to adjust the readmission improvement rate downward for hospitals with lower readmission rates but expect some level of improvement from all hospitals.

Shared Savings and RRIP linkage

- Although we do not have "attainment" measurement under RRIP, shared savings adjustments have been based on historical case-mix adjusted readmission rates.
- For RY 2016, the average net adjustment was -0.30% of inpatient revenue with the highest reduction at -0.46% and minimum at -0.10% .
- Staff will be evaluating and discussing other options for shared savings to focus attention more broadly on avoidable admissions/hospitalizations (Potentially Avoidable Utilization, or PAUs).

RRIP and Shared Savings Timelines



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Considerations for the RY 2017 RRIP Policy

- Recognize improvement in the Medicare readmission rates.
- Adjust the All-Payer readmission target for hospitals whose readmission rates are lower than the statewide average as proposed for the RY 2018 policy.
- The Maryland Hospital Association is proposing to reduce the RY 2017 target to the statewide average reduction rate (current trend is at 7.2% decline) and remove all of the penalties if a hospital's readmission rate was in the lowest quintile in both CY 2013 and CY 2015. Staff does not agree with changing the overall target.

Draft Recommendations for the RY 2018 RRIP Policy

- The reduction target should continue to be set for all-payers.
- The All-Payer reduction target should be set at 9.5 percent.
- The reduction target should be adjusted downward for hospitals whose readmission rates are below the statewide average.

Aggregate At Risk Revenue Draft FY 2018 Policy

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Background

- Maryland quality based programs are exempt from Medicare Programs.
  - Exemption from the Medicare Value-Based Purchasing (VBP) program is evaluated annually
  - Exceptions from the Medicare Hospital Readmissions Reduction Program and the Medicare Hospital-Acquired Condition Reduction Program are granted based on achieving performance targets
  - Maryland aggregate at-risk amounts are compared against Medicare programs

Maryland surpasses National Medicare Aggregate Revenue at Risk in Quality Payments

Figure 1. Potential Revenue at Risk for Quality-Based Payment Programs, Maryland Compared with the National Medicare Programs, 2014-2017

% of MD All-Payer Inpatient Revenue	FY 2014	FY 2015	FY 2016	FY 2017
MHAC - Complications	2.00%	3.00%	4.00%	3.00%
RRIP - Readmissions			0.50%	2.00%
QBR – Patient Experience, Mortality, Safety	0.50%	0.50%	1.00%	2.00%
Shared Savings	0.41%	0.86%	1.16%	*1.16%**
GBR Potentially Avoidable Utilization (PAU)	0.50%	0.86%	1.10%	*1.10%**
MD Aggregate Maximum At Risk	3.41%	5.22%	7.76%	9.26%

*Italics are based on RY 2016 results, and subject to change based on RY 2017 policy, which is to be finalized at June 2016 Commission meeting.

Medicare National				
% of National Medicare Inpatient Revenue	FFY 2014	FFY 2015	FFY 2016	FFY 2017
Hospital Acquired Complications (HAC)		1.00%	1.00%	1.00%
Readmissions	2.00%	3.00%	3.00%	3.00%
VBP	1.25%	1.50%	1.75%	2.00%
Medicare Aggregate Maximum At Risk	3.25%	5.50%	5.75%	6.00%

Cumulative MD-Medicare National Difference	0.16%	-0.12%	1.89%	5.15%

Payment Adjustment Methodologies - "Scaling": QBR, MHAC, RRIP

- Preset payment scale: Payment adjustments are determined using scores in the base year. (e.g. A score of 0.10 = -1% payment adjustment.)
- Continuous adjustments: Payment adjustments vary based on score differences. (e.g. If a score of 0.10= -1% payment adjustment, a score of 0.20= -0.98 % payment adjustment).
- Contingent scale: Payment adjustment scale depends on predetermined statewide performance. (If the state did not meet MHAC reduction target, maximum penalty was 3% and no rewards, otherwise maximum penalty was reduced to 1% and awards were provided up to 1%.)
- Payment adjustments are no longer "revenue neutral," i.e. statewide overall impact could be negative or positive.
- Maximum penalties and reward amounts are set by the Commission before the performance year starts, usually the calendar year.

RY 2016 Payment Adjustments: Total Net Adjustment is -$38.3 mil, -0.4 % of State Inpatient Revenue

	MHAC	RRIP	QBR	Shared Savings	PAU	Aggregate (Sum of All Programs)	Net Hospital Adjustment Across all Programs
Potential At Risk (Absolute Value)	4.00%	0.50%	1.00%	1.16%	1.10%	7.76%	
Maximum Hospital Penalty	-0.21%	NA	-1.00%	-0.29%	-1.10%	-2.59%	-1.95%
Maximum Hospital Reward	1.00%	0.50%	0.73%	NA	NA	2.23%	1.09%
Average Absolute Level Adjustment	0.18%	0.15%	0.30%	0.93%	0.39%	1.95%	0.70%
Total Penalty	-$1,080,406	NA	-$12,880,046	-$27,482,838	-$26,900,004	-$68,343,293	
Total Reward	$7,869,585	$9,233,884	$12,880,046	NA	NA	$29,983,515	
Total Net Adjustments	$6,789,180	$9,233,884	$0	-$27,482,838	-$26,900,004	-$38,359,778	

RY 2017 Year to Date Results

	MHAC	RRIP**	QBR***	Shared Savings/PAU*	Aggregate (Sum of All Programs)	Net Hospital Adjustment Across all Programs
Potential At Risk (Absolute Value)	3.00%	2.00%	2.00%		7.00%	
Maximum Hospital Penalty	0.00%	-2.00%			-2.00%	-1.92%
Maximum Hospital Reward	1.00%	1.00%			2.00%	2.00%
Average Absolute Level Adjustment	0.37%	0.71%			1.08%	0.78%
Total Penalty	$0	-$38,994,508			-$38,994,508	
Total Reward	$26,338,592	$11,586,425			$37,925,017	
Total Net Adjustments	$26,338,592	-$27,408,083			-$1,069,491	

**Shared Savings and PAU adjustments will be determined with the FY2017 Update Factor.*
***RRIP results are preliminary results as of October 2015 and do not reflect any potential protections that may be developed based on the approved RY 2017 recommendation.*
**** QBR YTD results are not available due to 9 month data lag for measures from CMS. Staff will provide updated calculations for the final recommendation.*

Focus on Performance-Based Adjustments and PAUs

- Maryland hospitals improved their performance in reducing complications and more recently in improving readmissions.
- All-Payer Model financial success will depend on further reductions in PAU. Accordingly, the Commission's funding of infrastructure focused on reducing PAUs more broadly than readmissions.
- Staff intends to shift more focus on PAUs in quality-based payment programs in the future and reduce penalties in other areas.
- If Maryland increases the prospective adjustment for these PAUs, we may moderate the maximum penalty under the RRIP program.