Performance Measurement Work Group

2/15/17 Meeting

HSCRC
Health Services Cost Review Commission

Emergency Department Performance in Maryland

February 15, 2017

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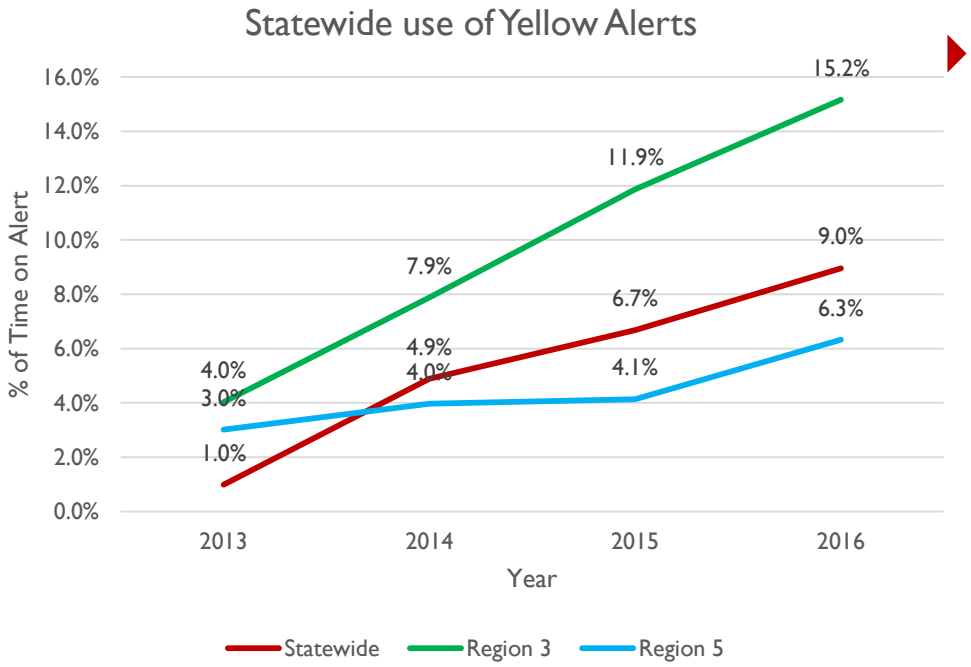
Statewide Trends – ED Diversion Over Time

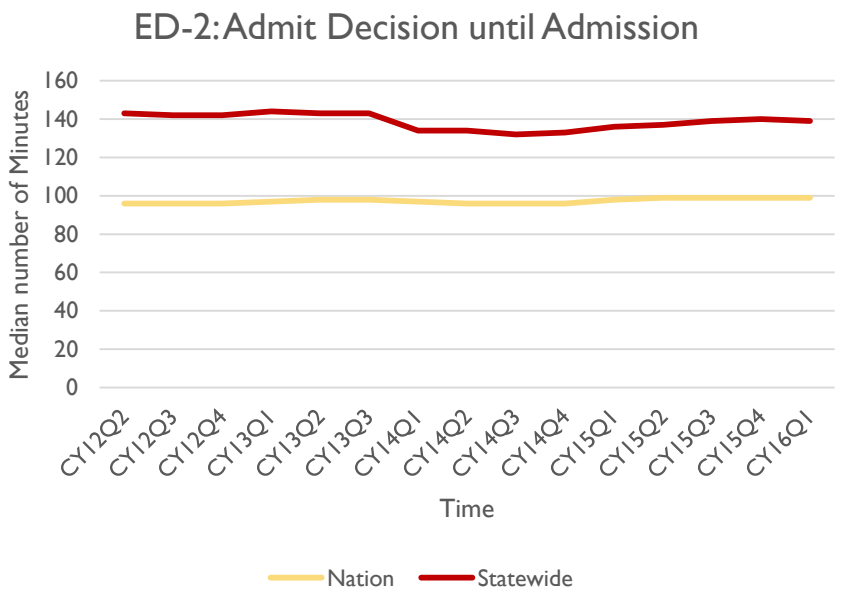


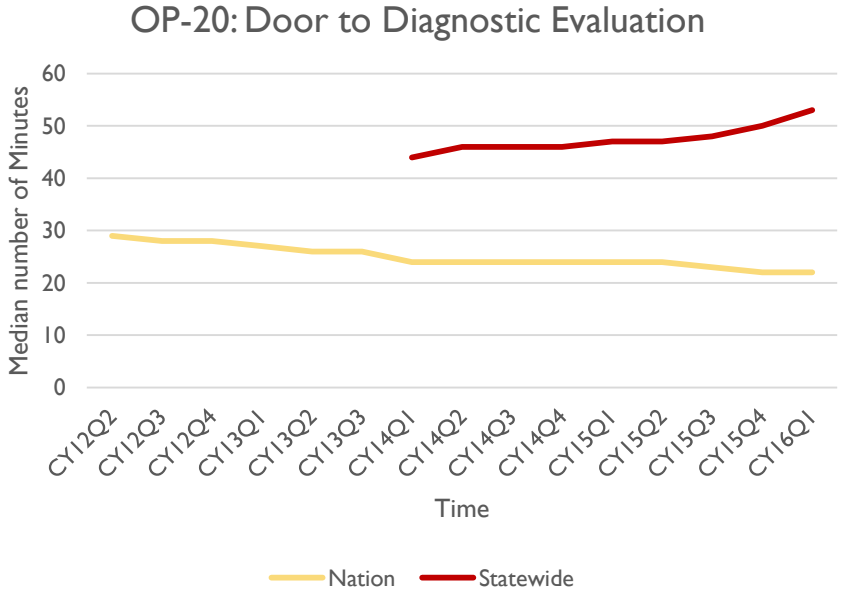
- ED Diversion is increasing in Maryland, but particularly in:
  - Region 3 (Baltimore City/County and Central MD)
  - Region 5 (DC suburbs and southern MD)
- Diversion remains a critical issue across the country, not just Maryland.

Yellow Alert: The ED temporarily requests that it receive absolutely no patients in need of urgent medical care. Yellow Alert is initiated because the ED is experiencing a temporary overwhelming overload such that priority II and III patients may not be managed safely. Prior to diverting pediatric patients, medical consultation is advised for pediatric patient transports when EDs are on yellow alert.

Data Source: Md. Institute for EMS Systems (MIEMSS)

Statewide Trends – ED Wait Times Over Time

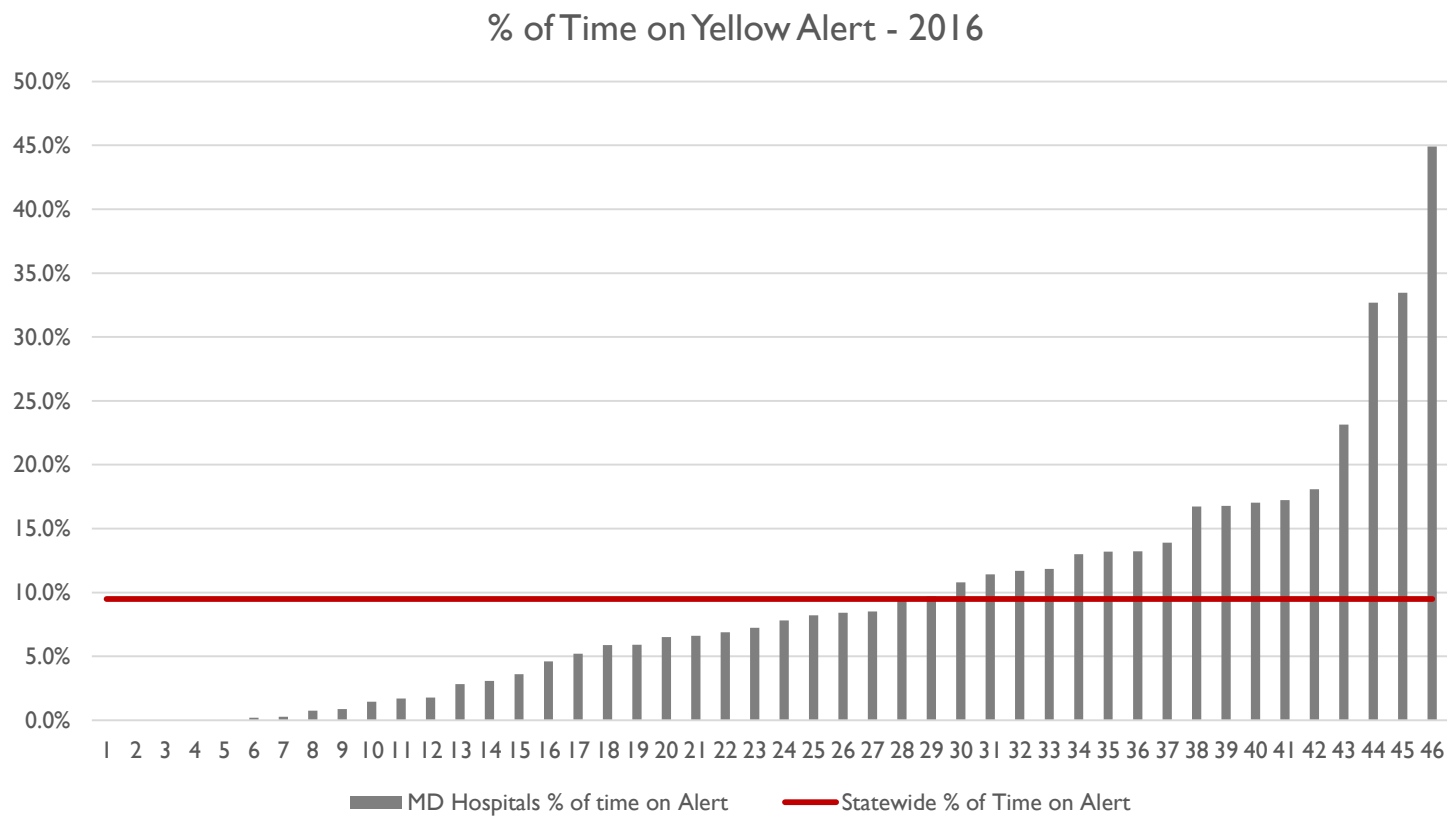




- ED-2 – Admit Decision until Admission
  - Some physicians concerned that "boarding" is reducing ED throughput efficiency and increasing wait times.
- OP-20 – Door to Diagnostic Evaluation
  - This measure is most accessible to consumers and was presented in recent local news story.

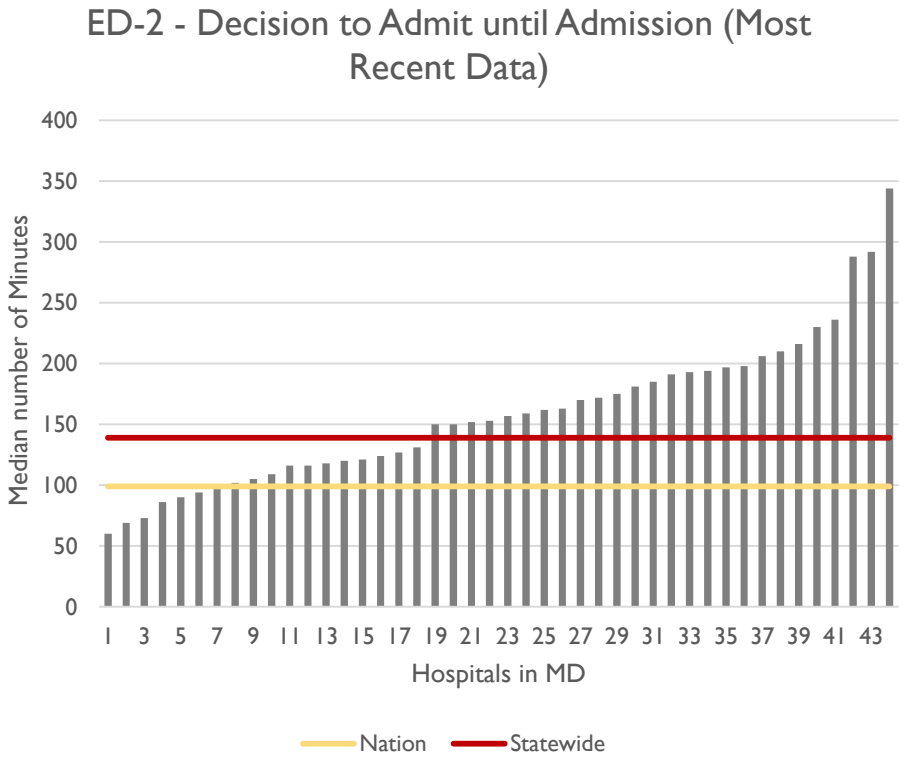
Data Source: CMS Hospital Compare

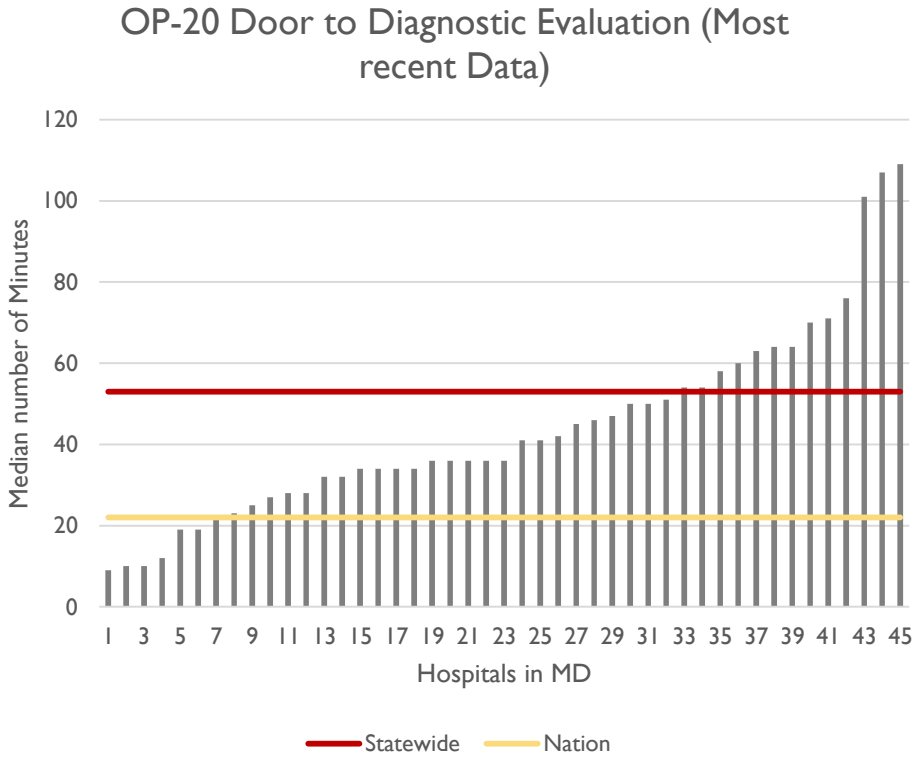
Statewide Overview – 2016 (Yellow Alert)



Data Source: MIEMSS

Statewide Overview – 2016 (Wait Times)





Data Source: CMS Hospital Compare

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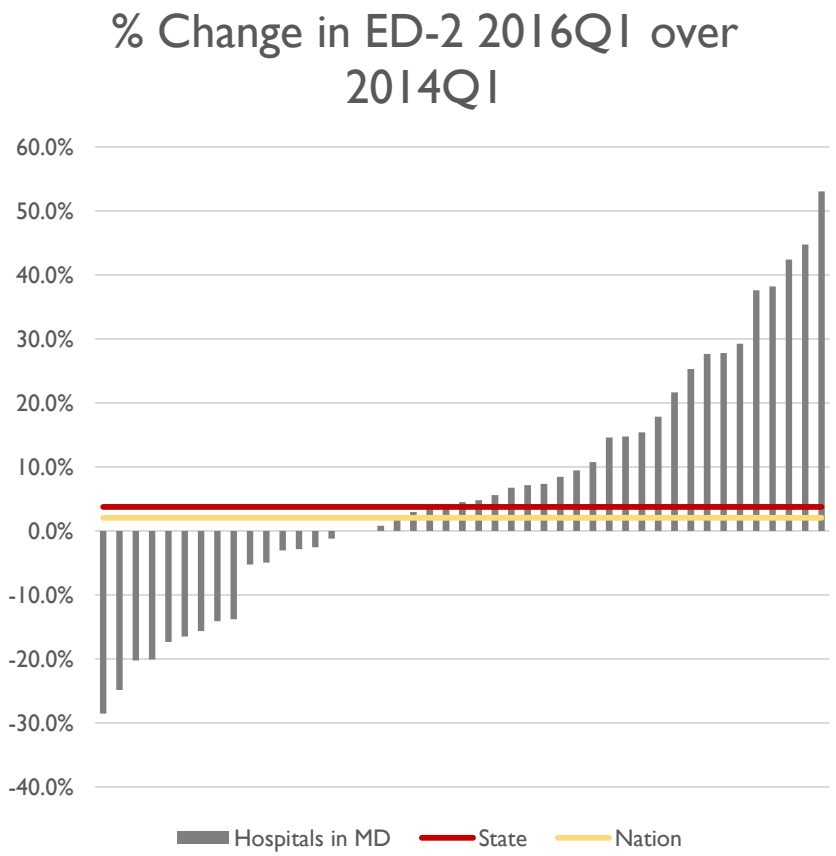
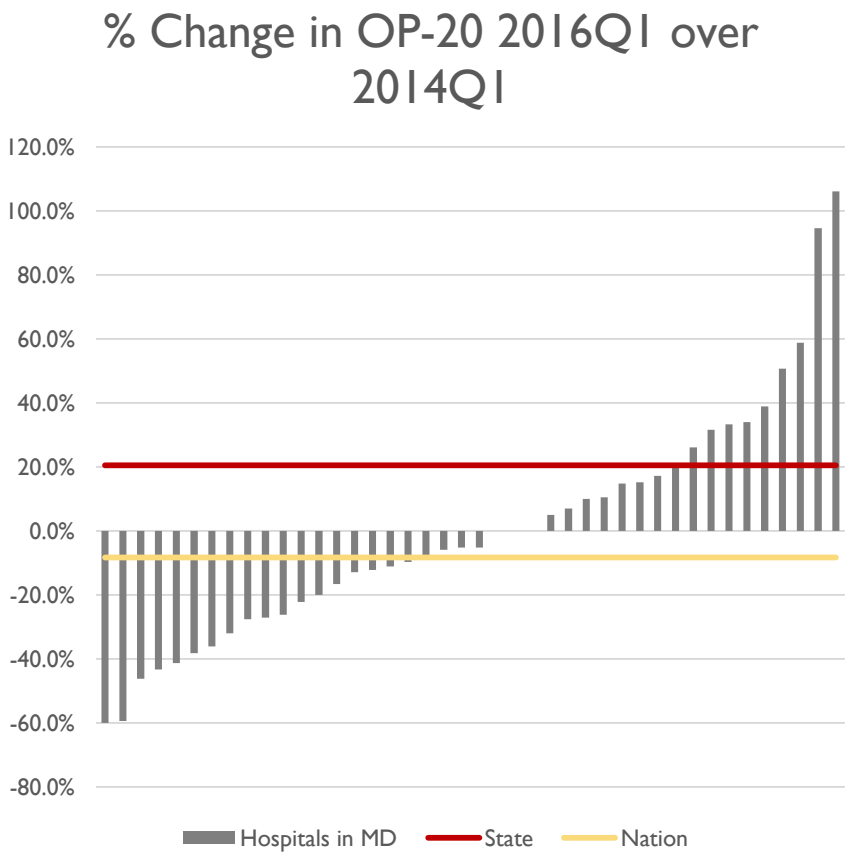
% Change Wait Times





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Additional Context for ED Throughput Measures

MARYLAND

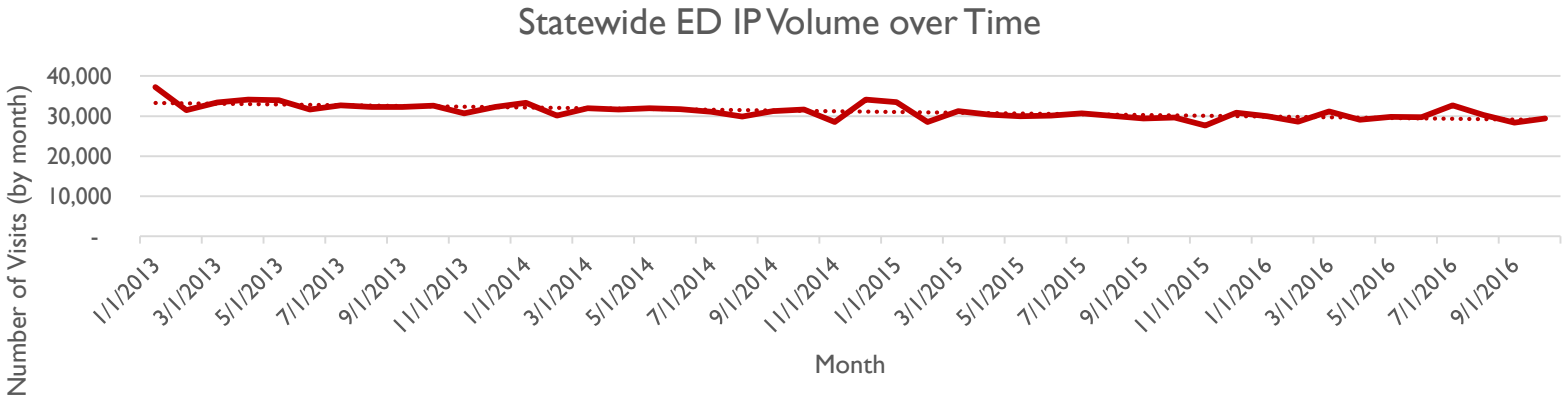
Ongoing Delivery System Changes beginning 2014

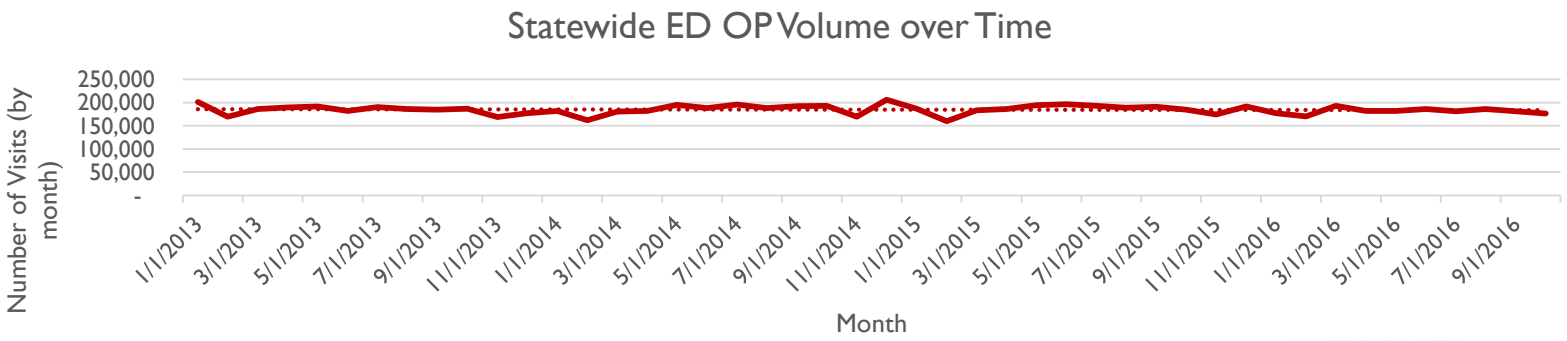
- Expansion under ACA
- Implementation of GBRs, new incentives, care coordination resources
- Large EMR installations
- Nurse staffing
  - Nursing shortages begin again
  - Increased use of agency nurses
- Trends in Behavioral Health
  - Carve out of substance abuse from Medicaid MCOs
  - Increasing problems with substance abuse and psych patients in emergency rooms
- FFY 2016 - Medicare's two midnight rule, increasing ER observations

Statewide Volume Analysis

An increase in volume could account for longer wait times; however, the IP/OP Volume shows a slight but steady decline.

ED IP: An ED visit that resulted in an IP admission.
ED OP: An ED visit that did not result in an IP admission, patient was treated in OP setting and discharged.





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Casemix Acuity

- If there was a notable increase in the severity of illness of cases entering the ED, that could explain ED throughput challenges.

- Preliminary analysis of OP ED visits suggests that there is no notable increase in difficulty of cases presenting to the Emergency Department.

Potential Next Steps

Continue to explore root causes and respond efficiently and appropriately:

- Require additional staffing level detail
- Alter market shift adjustment to factor in amount of time on ED diversion
- Include ED indicators as soon as possible to Quality Programs (RY2020)

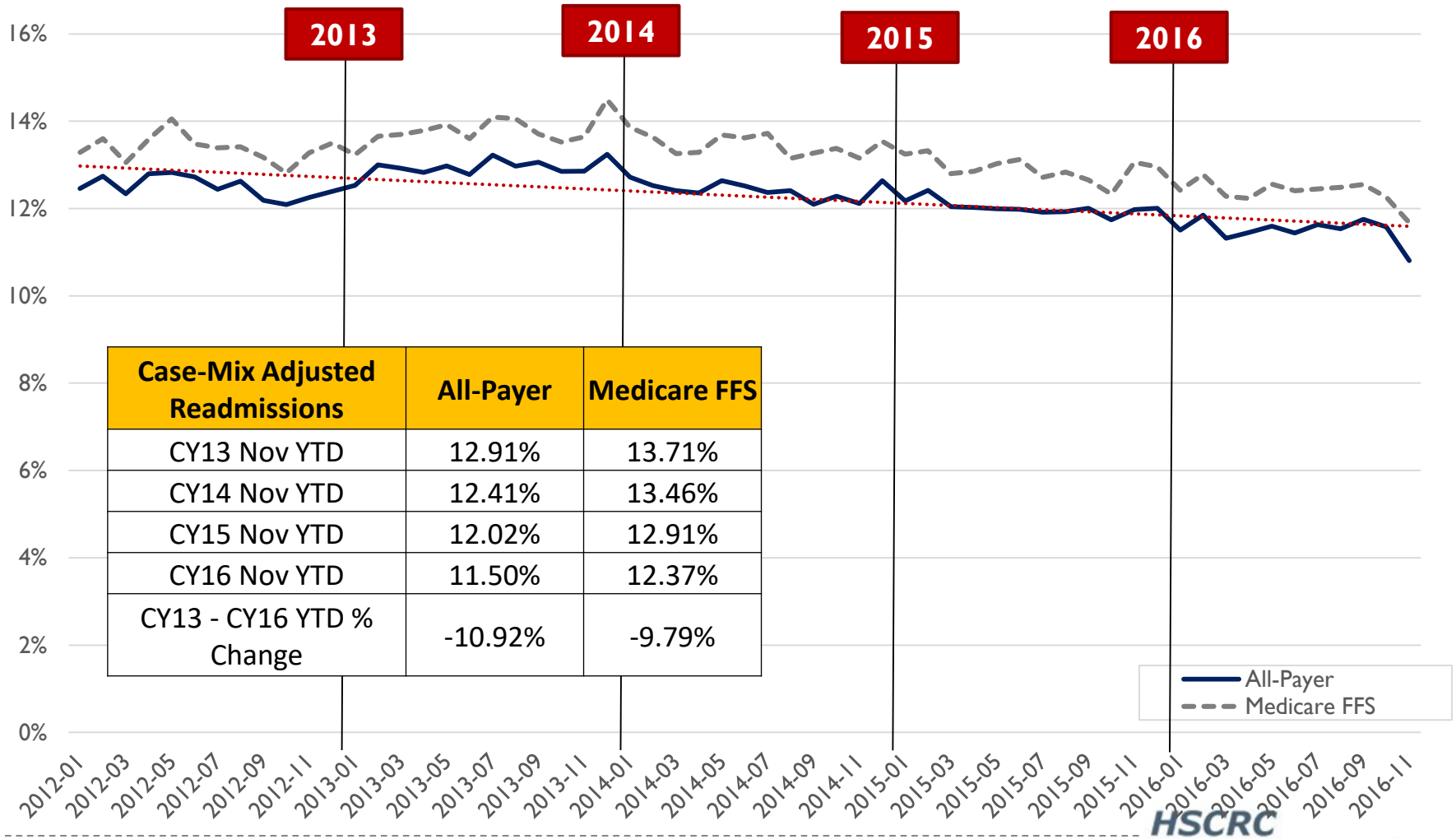
RY 2019 Readmission Reduction Incentive (RRIP)Program

General RY 2019 RRIP Updates

- Update to PPC Grouper Version 34 (ICD-10)
  - Proposed base period = CY 2016
- Inclusion of all chronic beds
- No changes to RRIP case-mix adjusted readmission measure, planned admissions, or other exclusions
- RRIP Improvement and Attainment Scales
  - Need to set one year improvement target and scale distribution
  - Update attainment benchmark and scale distribution
  - Continue to set max reward at 1% and max penalty at 2%

Readmission Trends: CY 2017 Improvement Target

Monthly Case-Mix Adjusted Readmission Rates



Case-Mix Adjusted Readmissions	All-Payer	Medicare FFS
CY13 Nov YTD	12.91%	13.71%
CY14 Nov YTD	12.41%	13.46%
CY15 Nov YTD	12.02%	12.91%
CY16 Nov YTD	11.50%	12.37%
CY13 - CY16 YTD % Change	-10.92%	-9.79%

Note: Based on final data for January 2012 – Sept. 2016, and preliminary data through December 2016.

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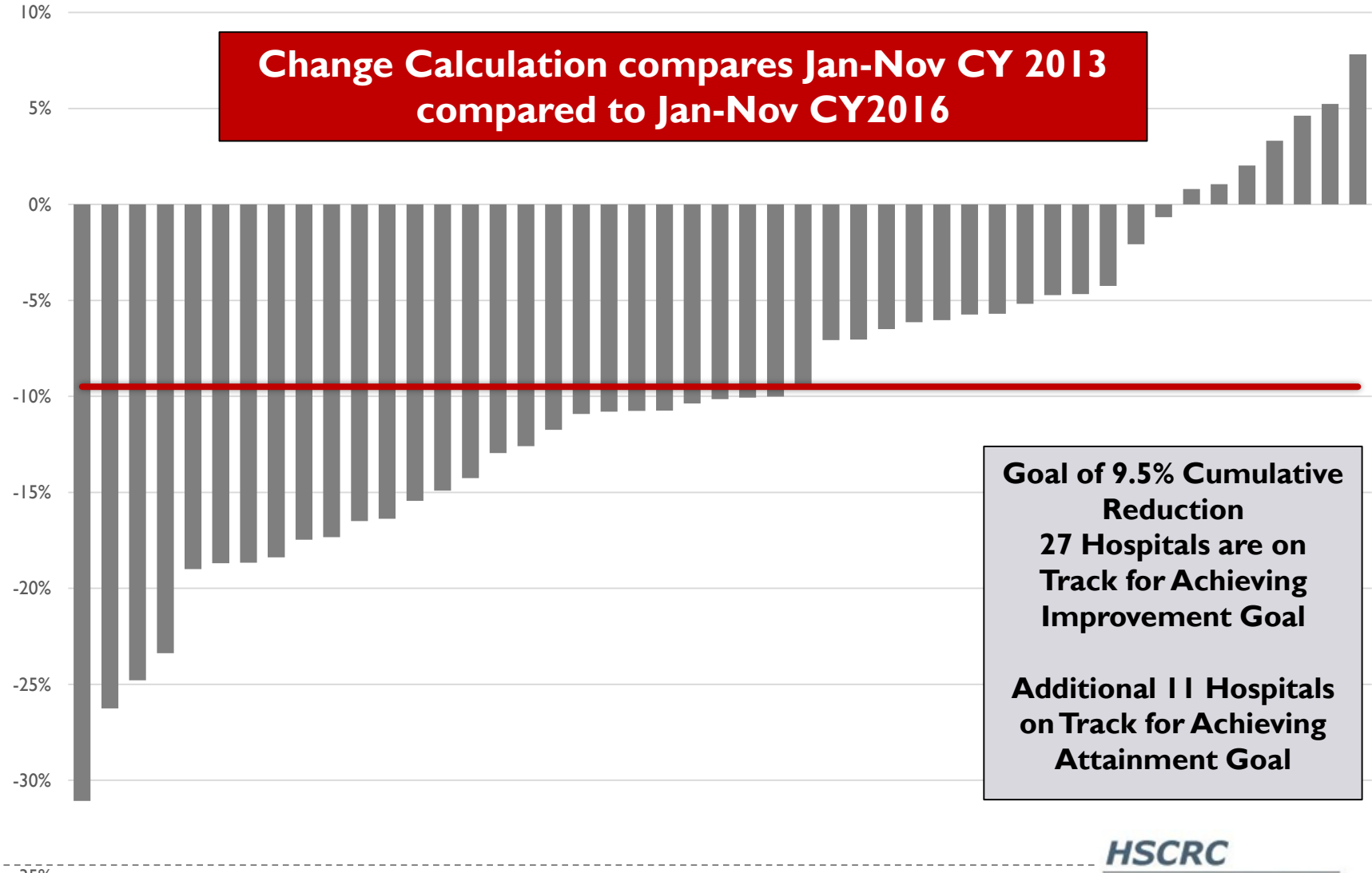
Change in All-Payer Case-Mix Adjusted Readmission Rates by Hospital



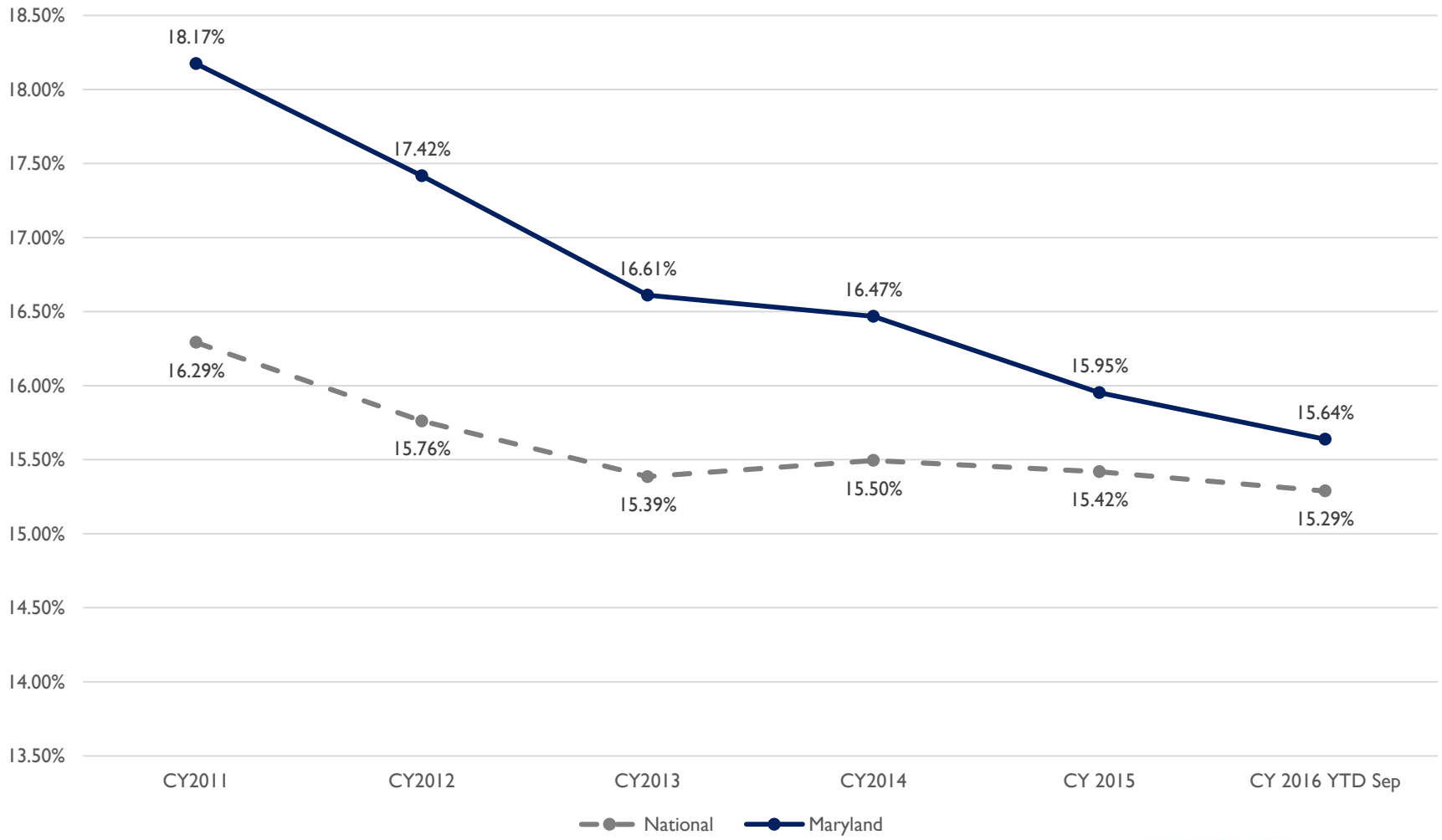
Note: Based on final data for January 2012 – Sept. 2016, and preliminary data through December 2016.

Medicare Readmission All-Payer Model Test

Waiver Test: MD Medicare Unadjusted Readmission rate must be at or below National Medicare rate by end of CY 2018

MARYLAND

Maryland is reducing readmission rate but only slightly faster than the nation



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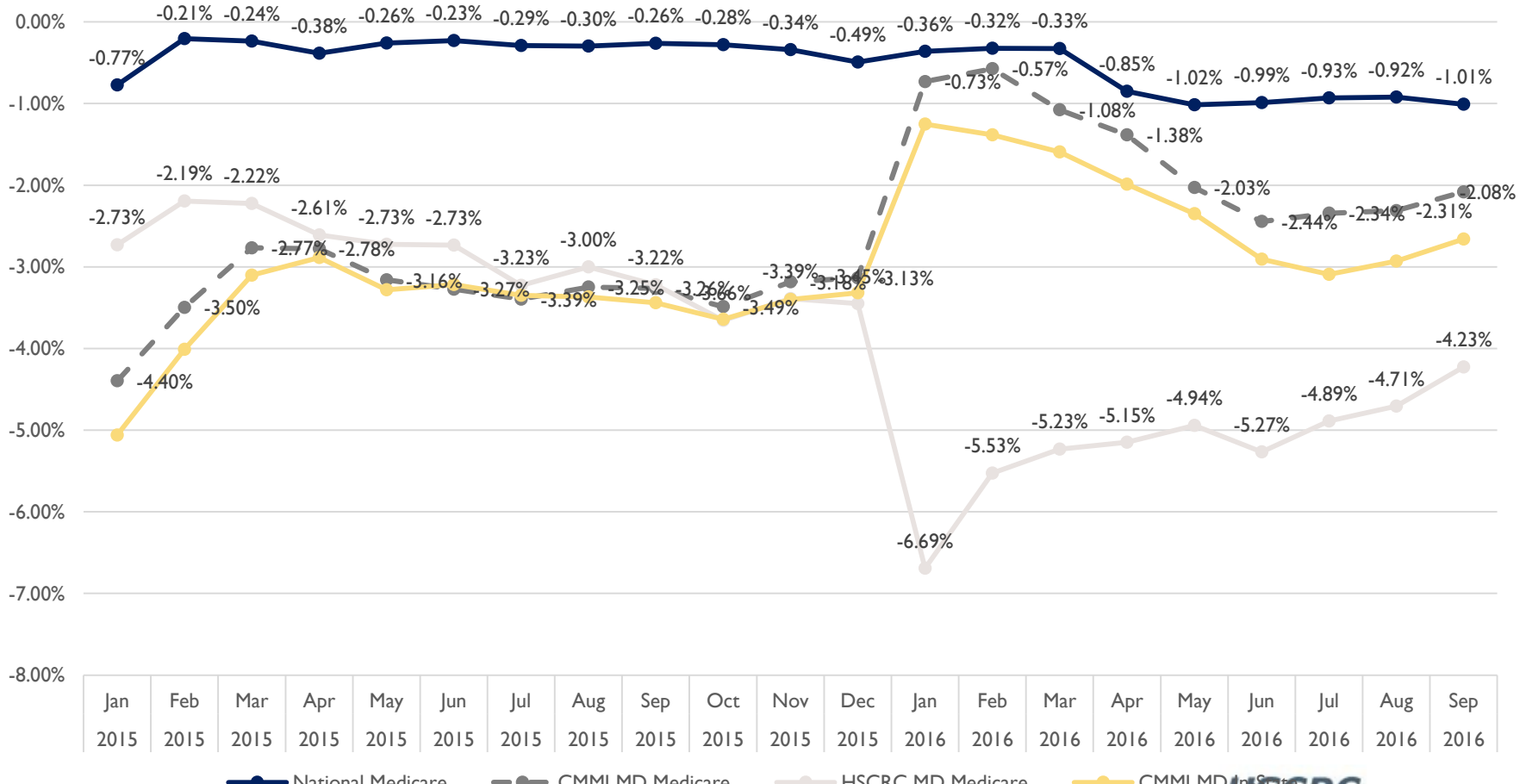
Cumulative Readmission Rate Change by Month (year over year): Maryland vs Nation

HSCRC Staff Currently Exploring Data Differences; need to take into account when setting target



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Mathematica Modeling of Improvement Target

RY 2019 Maryland Hospital Acquired Conditions (MHAC)

General RY 2019 MHAC Updates

- Removal of palliative care exclusion
- Update to PPC Grouper Version 34 (ICD-10)
- Inclusion of all chronic beds and Holy Cross Germantown
- Hospitals with only serious reportable events removed
- MHAC methodology and Scaling
  - No changes to setting of benchmarks/thresholds or PPC scoring methodology (i.e., improvement and attainment points)
  - Change to single linear scale with max penalty 2%/reward 1%

Palliative Care (PC) Inclusion

- Statewide case-mix adjusted PPC rate for RY 2017

Case-Mix Adjusted PPC Rates	FY 2014	CY 2015	% change
Without PC	0.97	0.73	-24%
With PC	1.06	0.84	-21%
		Difference	**+4%**

- Statewide Revenue based on RY 2017 Final Scores

	Without PC	With PC
State Total	**$ 29,256,690**	**$ 23,232,858**
Penalty	**-$647,766**	**-$663,381**
% Inpatient	**-0.01%**	**-0.01%**
Reward	**$29,904,456**	**$23,896,239**
% Inpatient	**0.34%**	**0.27%**

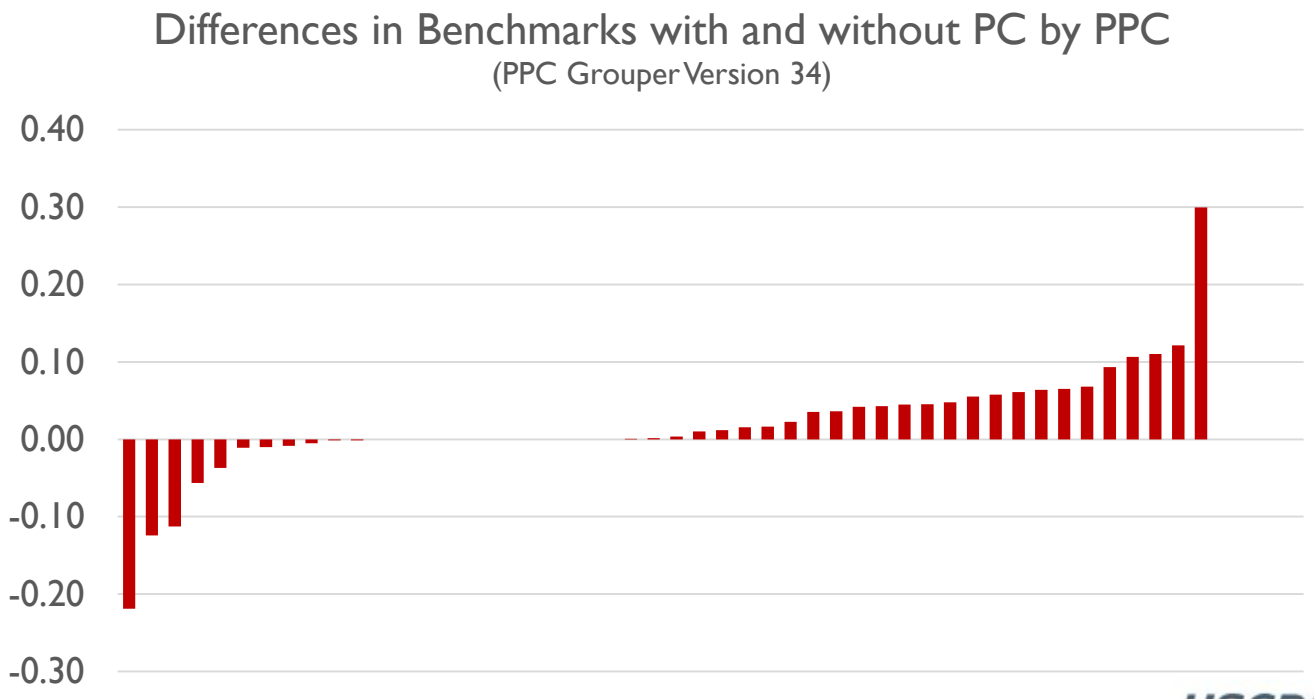
See excel handout for hospital specific results

Discussion of Palliative Care

- Staff are proposing commissioners vote on inclusion of palliative care cases, balancing the following issues:
  - Clinical concerns for palliative care patients
  - Serious complications could lead to palliative care
  - Coding changes and variation
- 3M recommends including discharges where palliative care is not present on admission
  - Starting Federal FY17 (Oct. 2016) PC dx requires POA
  - Currently, do majority of discharges with PC have it POA?
- Consider running scores with and without PC

Benchmarks/Thresholds

- Changes in benchmarks driven by:
  - Version 34
  - Inclusion of Palliative Care



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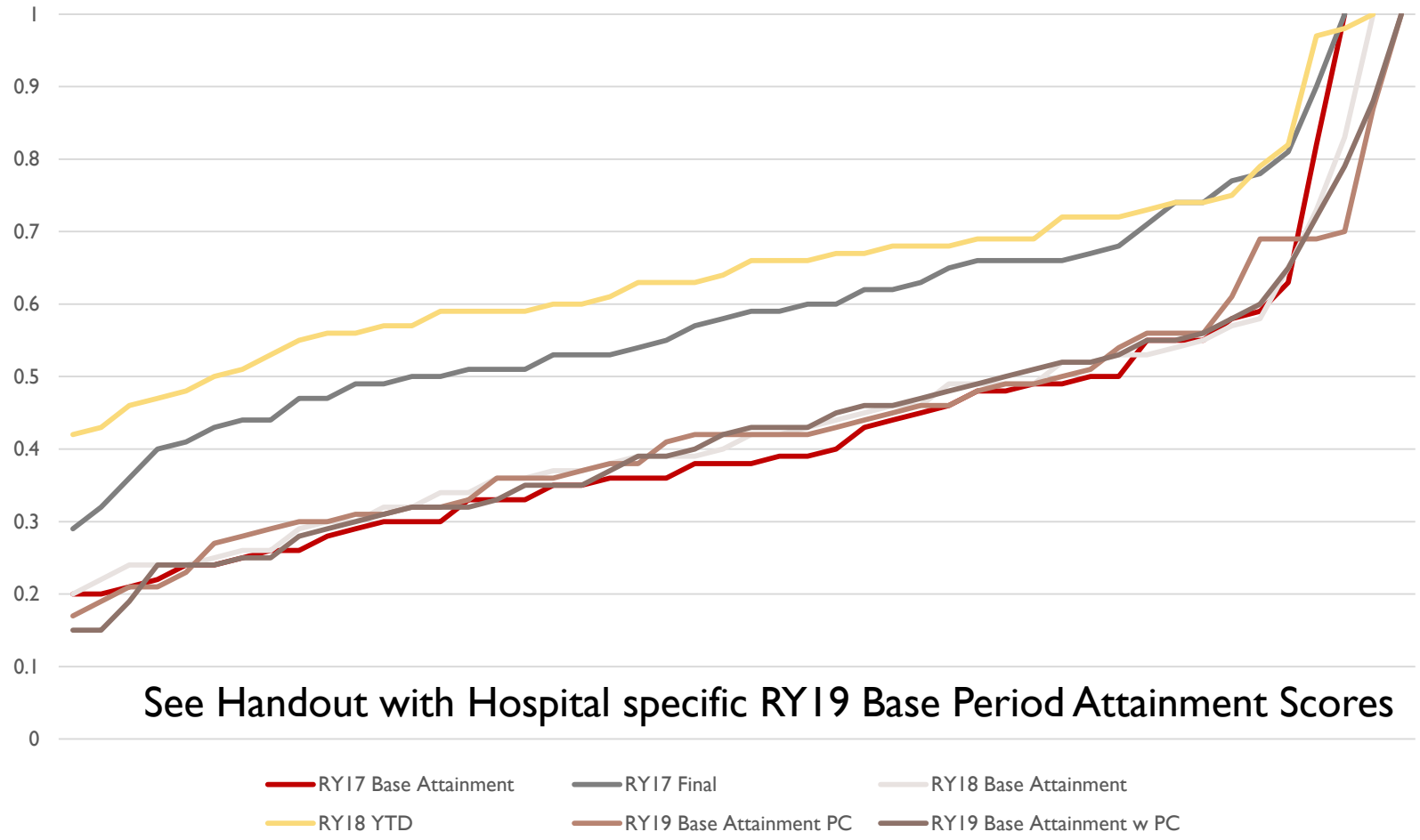
MHAC Score Distributions



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Revised MHAC Scaling Options

RY 2018 Scale

Final MHAC Score		Below State Quality Target	Exceed State Quality Target
Scores less than or equal to	**0.17**	**-3.00%**	**-1.00%**
	0.20	-2.74%	-0.88%
	0.25	-2.29%	-0.67%
	0.30	-1.85%	-0.46%
	0.35	-1.41%	-0.25%
	0.40	-0.97%	-0.04%
	0.45	-0.53%	0.00%
	0.50	-0.09%	0.00%
	0.55	0.35%	0.17%
	0.60	0.79%	0.33%
	0.65	1.24%	0.50%
	0.70	1.68%	0.67%
	0.75	2.12%	0.83%
Scores greater than or equal to	**0.80**	**0.00%**	**1.00%**
Penalty threshold:		**0.51**	**0.41**
Reward Threshold		**No rewards**	**0.50**

Option 1: Full Scale without Neutral Zone

Final MHAC Score	Revenue Adjustment
0.00	**-2.00%**
0.05	-1.80%
0.10	-1.60%
0.15	-1.40%
0.20	-1.20%
0.25	-1.00%
0.30	-0.80%
0.35	-0.60%
0.40	-0.40%
0.45	-0.20%
0.50	0.00%
0.55	0.10%
0.60	0.20%
0.65	0.30%
0.70	0.40%
0.75	0.50%
0.80	0.60%
0.85	0.70%
0.90	0.80%
0.95	0.90%
1.00	1.00%
Penalty/Reward threshold:	**0.50**

Option 2: Full Scale with Neutral Zone

Final MHAC Score	Revenue Adjustment
0.00	**-2.00%**
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%
0.50	0.00%
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%
1.00	**1.00%**
Penalty threshold:	**0.45**
Reward Threshold	**0.55**

MHAC Modeling Discussion

RY 17 Modeled Results	Min	Penalty/Reward Cut Point	Max	Statewide Penalties	Statewide Rewards
RY 2017 Actual Results	17%	33%/43%	80%	<$1M	+30M
RY 2017 scores w/RY18 Scale	20%	36%/46%	80%	-$1.3M	+27M
Full Range Scale without Neutral Zone	0%	50%	100%	-$10M	+$13M
Full Range Scale with Neutral Zone	0%	45%/55%	100%	-$6M	+$9M

Aggregate At-Risk Estimates

Aggregate At-Risk: Potential Risk

Potential Risk:

Maryland - Potential Inpatient Revenue at Risk absolute values

% Inpatient Revenue	SFY 2014	SFY 2015	SFY2016	SFY2017	SFY 2018	SFY 2019
MHAC	2.0%	3.0%	4.0%	3.0%	3.0%	2.0%
RRIP			0.5%	2.0%	2.0%	2.0%
QBR	0.5%	0.5%	1.0%	2.0%	2.0%	2.0%
PAU Savings	0.41%	0.86%	1.35%	4.50%		
Demographic PAU Efficiency Adjustment*	0.50%	0.86%	1.10%	1.11%		
MD Aggregate Maxium At Risk	3.41%	5.22%	7.95%	12.62%	7.00%	6.00%

Medicare National - Potential IP revenue at risk absolute values

% IP Rev	FFY 2014	FFY 2015	FFY2016	FFY2017	FFY2018	FFY2019
HAC		1.00%	1.00%	1.00%	1.00%	1.00%
Readmits	2.00%	3.00%	3.00%	3.00%	3.00%	3.00%
VBP	1.25%	1.50%	1.75%	2.00%	2.00%	2.00%
Medicare Aggregate Maxium At Risk	3.25%	5.50%	5.75%	6.00%	6.00%	6.00%
Cumulative MD-US Difference	0.16%	-0.12%	2.08%	8.70%	9.70%	9.70%

Aggregate At-Risk: Realized Risk Estimates

Maryland

% All Payer Inpatient Revenue	SFY 2014	SFY 2015	SFY 2016	SFY 2017	SFY 2018*	SFY 2019*
MHAC	0.22%	0.11%	0.18%	0.40%	0.50%	0.20%
RRIP			0.15%	0.57%	0.59%	0.59%
QBR	0.11%	0.14%	0.30%	0.41%	0.41%	0.45%
PAU Savings	0.29%	0.64%	0.93%	2.55%		
Demographic PAU Efficiency Adjustment	0.28%	0.33%	0.39%	0.36%		
MD Aggregate Maximum At Risk	**0.90%**	**1.22%**	**1.95%**	**4.29%**	**1.50%**	**1.24%**

*SFY 2018 estimated based on previous year (QBR) or YTD results (RRIP, MHAC). RY 2019 estimated based on previous year (RRIP) or modeled with revised scaling and RY 2017 results.

Medicare National

% Medicare Inpatient Revenue	FFY 2014	FFY 2015	FFY2016	FFY2017*Estimated	FFY2018*Estimated	FFY2019*Estimated
HAC		0.22%	0.23%	0.23%	0.23%	0.23%
Readmits	0.28%	0.52%	0.51%	0.51%	0.51%	0.51%
VBP	0.20%	0.24%	0.40%	0.40%	0.40%	0.40%
Medicare Aggregate Maximum At Risk	**0.47%**	**0.97%**	**1.14%**	**1.14%**	**1.14%**	**1.14%**
Cumulative MD-US Difference	**0.43%**	**0.68%**	**1.49%**	**4.65%**	**5.01%**	**5.12%**

QBR Mortality Update

Palliative Care Exclusion

- Working to finalize mortality measure for RY 2019
  - Proposing to risk-adjust for palliative care diagnosis for those with high risk of mortality

ROM	Percent Died w/o PC	Percent Died w/ PC
1	0.04%	22%
2	0.24%	20%
3	1.28%	27%
4	12.18%	57%

Contact Information

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