



**All Payer Hospital System Modernization
Payment Models Workgroup**

Meeting Agenda

February 22, 2018

9:00 am – 11:00 am

Health Services Cost Review Commission

Conference Room 100

4160 Patterson Avenue

Baltimore, MD 21215

- I Introductions and Meeting Overview
- II FY 2019 Update Model
- III Total Cost of Care Update
- IV Overview of Staff Analysis on Drug Cost
- V Adjourn

**ALL MEETING MATERIALS ARE AVAILABLE AT THE MARYLAND ALL-PAYER HOSPITAL
SYSTEM MODERNIZATION TAB AT HSCRC.MARYLAND.GOV**

Balanced Update Model for Discussion

Components of Revenue Change Linked to Hospital Cost Drivers/Performance

		Weighted Allowance
Adjustment for Inflation		2.13%
- Total Drug Cost Inflation for All Hospitals*		0.24%
Gross Inflation Allowance	A	2.37%
Care Coordination		
-Rising Risk With Community Based Providers		
-Complex Patients With Regional Partnerships & Community Partners		
-Long Term Care & Post Acute		
	B	
Adjustment for volume	C	0.46%
-Demographic Adjustment (0.46%)		
-Transfers		
-Categoricals		
- Drug Population/Utilization (.2%**)		
Other adjustments (positive and negative)		
- Set Aside for Unknown Adjustments	D	0.00%
- Medicare Performance Adjustment (Future Use)	E	0.00%
Net Other Adjustments	F = Sum of D thru E	0.00%
- Reversal of one-time adjustments for drugs	G	0.00%
-Reverse prior year's PAU savings reduction	H	0.00%
-PAU Savings	I	0.00%
-Reversal of prior year quality incentives	J	0.00%
-QBR, MHAC, Readmissions		
-Positive incentives & Negative scaling adjustments	K	0.00%
Net Quality and PAU Savings	L = Sum of G thru K	0.00%
Net increase attributable to hospitals	M = Sum of A + B + C + F + L	2.83%
Per Capita	N = (1+M)/(1+0.46%)	2.36%

Components of Revenue Offsets with Neutral Impact on Hospital Financial Statements

-Uncompensated care reduction, net of differential	O	-0.32%
-Deficit Assessment	P	-0.17%
Net decreases	Q = O + P	-0.49%
Revenue growth, net of offsets	R = M + Q	2.34%
Per capita revenue growth	S = (1+R)/(1+0.46%)	1.87%

* Provided Based on proportion of drug cost to total cost (drug index 4.5% X 5.4% national weight)

**Prospective adjustment 0.10 percent for new outpatient infusion and chemotherapy drugs (50% of estimated input in rates the beginning of FY)
The second 0.10 percent will be earmarked for new outpatient infusion and chemotherapy drugs (50% of actual input in rates mid-year)

Update on Medicare Fee-for-Service (FFS) Data & Analysis

February 2017 Update using restated beneficiary data (CME database)

Data through November (FY17 Adjusted for the Undercharge)

Claims paid through December

Data contained in this presentation represent analyses prepared by HSCRC staff based on data summaries provided by the Federal Government. The intent is to provide early indications of the spending trends in Maryland for Medicare FFS patients, relative to national trends. HSCRC staff has added some projections to the summaries. This data has not yet been audited or verified. Claims lag times may change, making the comparisons inaccurate. ICD-10 implementation and EMR conversion could have an impact on claims lags.

These analyses should be used with caution and do not represent official guidance on performance or spending trends. These analyses may not be quoted until public release.

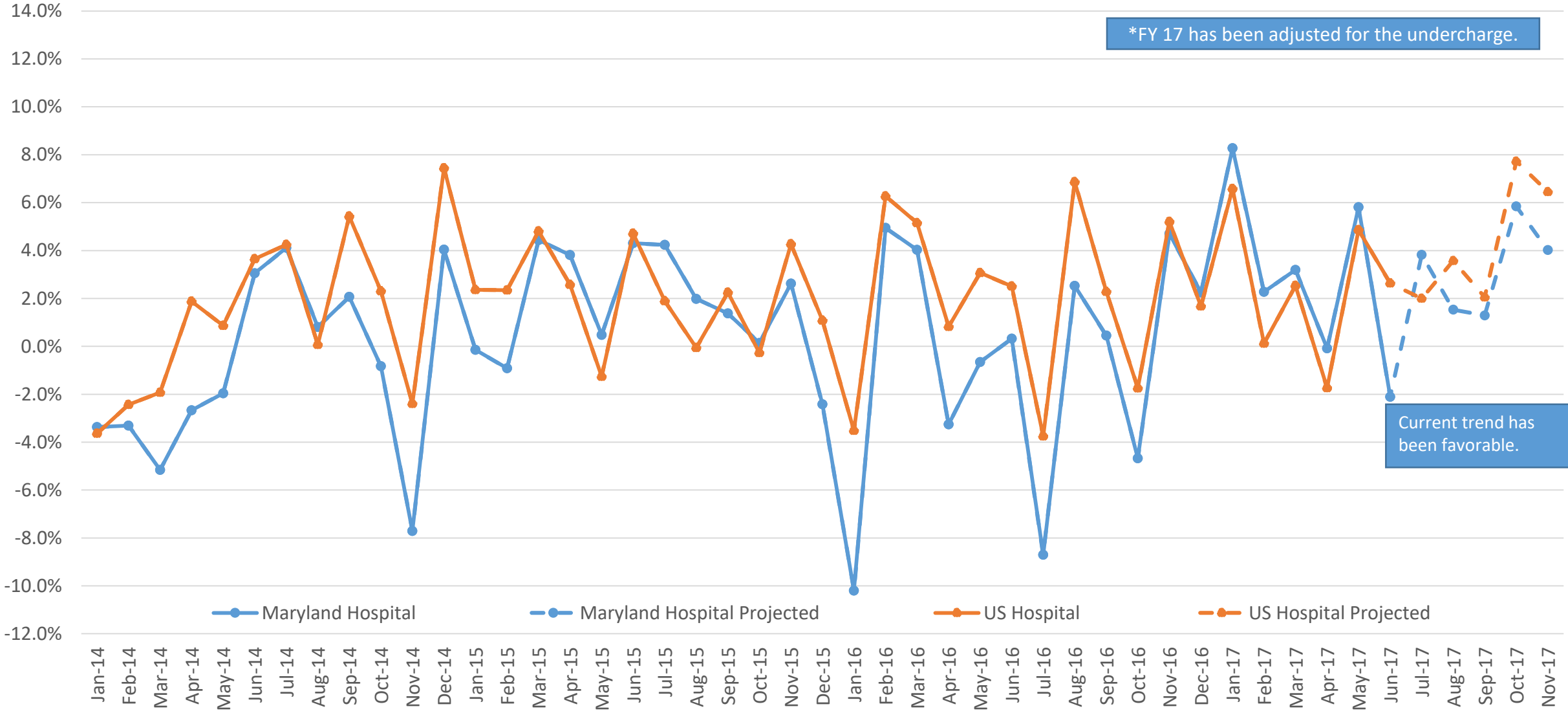
NOTE FOR FY 2017:

During the last six months of CY 2016 (July – December of 2016), Hospitals undercharged their Global Budget Revenue mid-year targets by approximately 1% (\$25M dollars). The following slides have been adjusted to 'add back' the undercharge to the period of July – December 2016 to offset the decline in savings for January – June 2017. June 2017 data has also been adjusted.

Staff has noted which slides in the following presentation include the adjustment for the undercharge.

Medicare Hospital Spending per Capita

Actual Growth Trend (CY month vs. prior CY month)

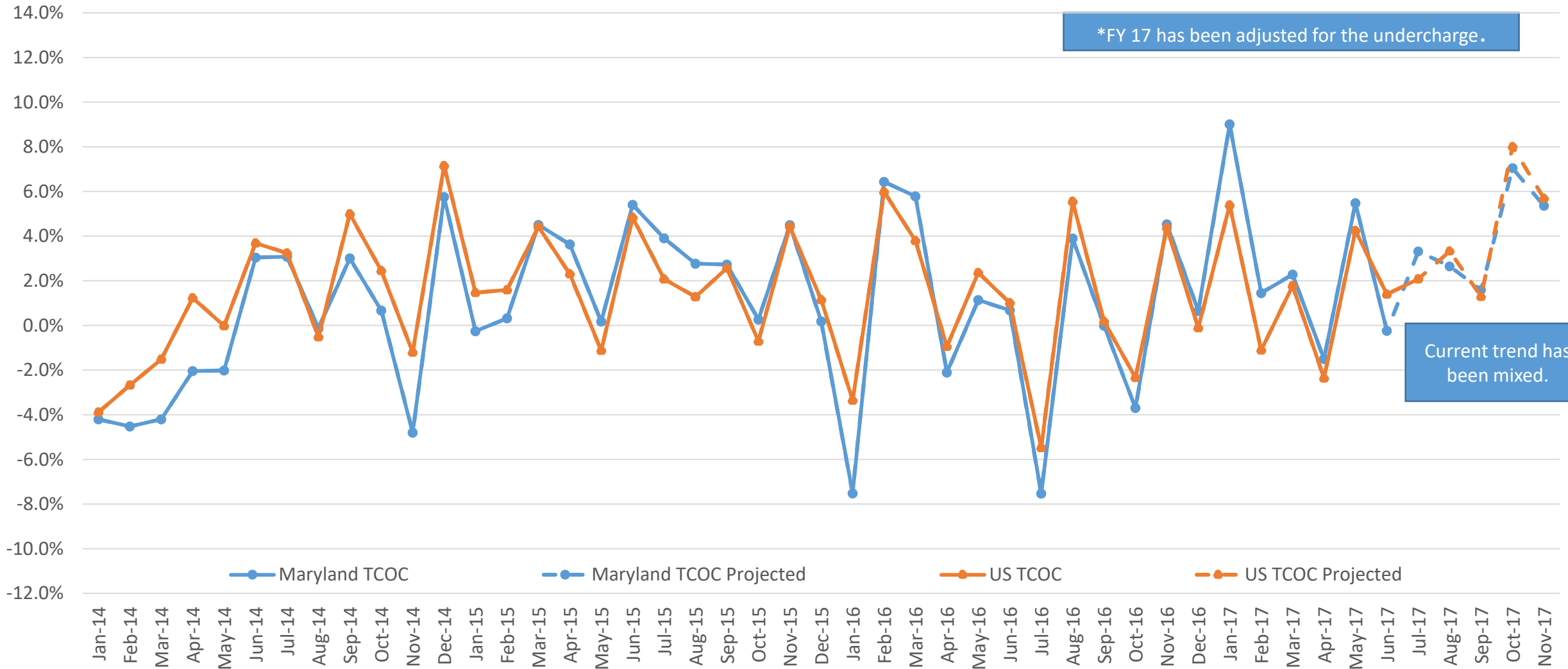


*FY 17 has been adjusted for the undercharge.

Current trend has been favorable.

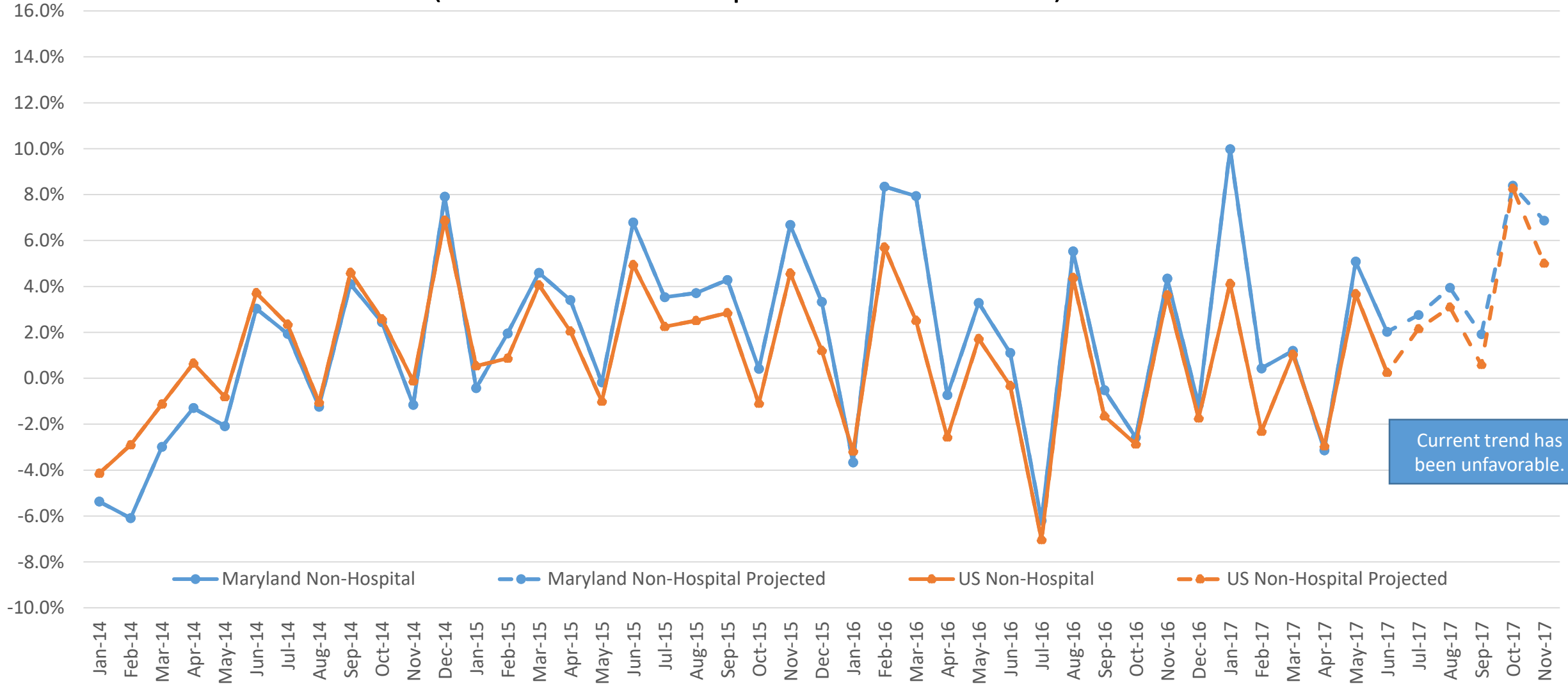
Medicare Total Cost of Care per Capita

Actual Growth Trend (CY month vs. prior CY month)



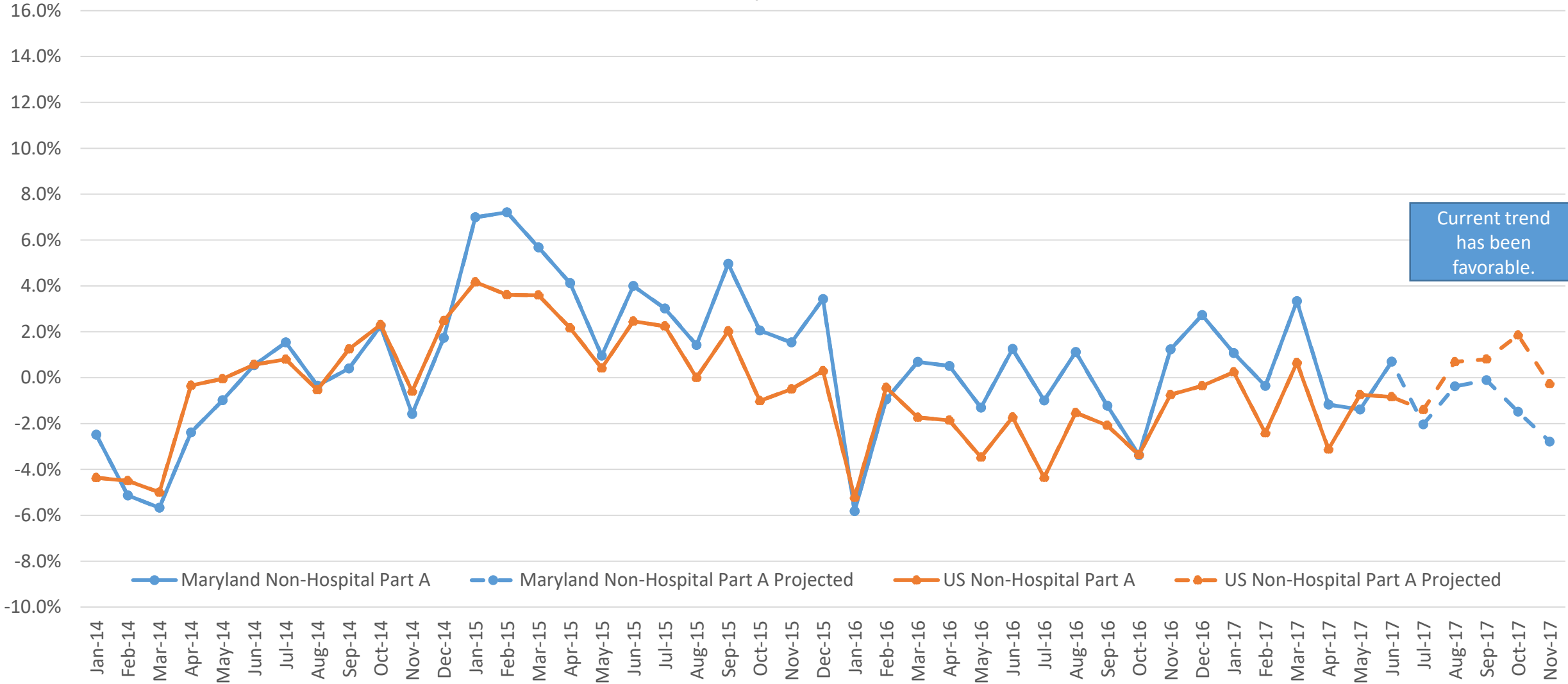
Medicare Non-Hospital Spending per Capita

Actual Growth Trend (CY month vs. prior CY month)



Medicare Non-Hospital Part A Spending per Capita

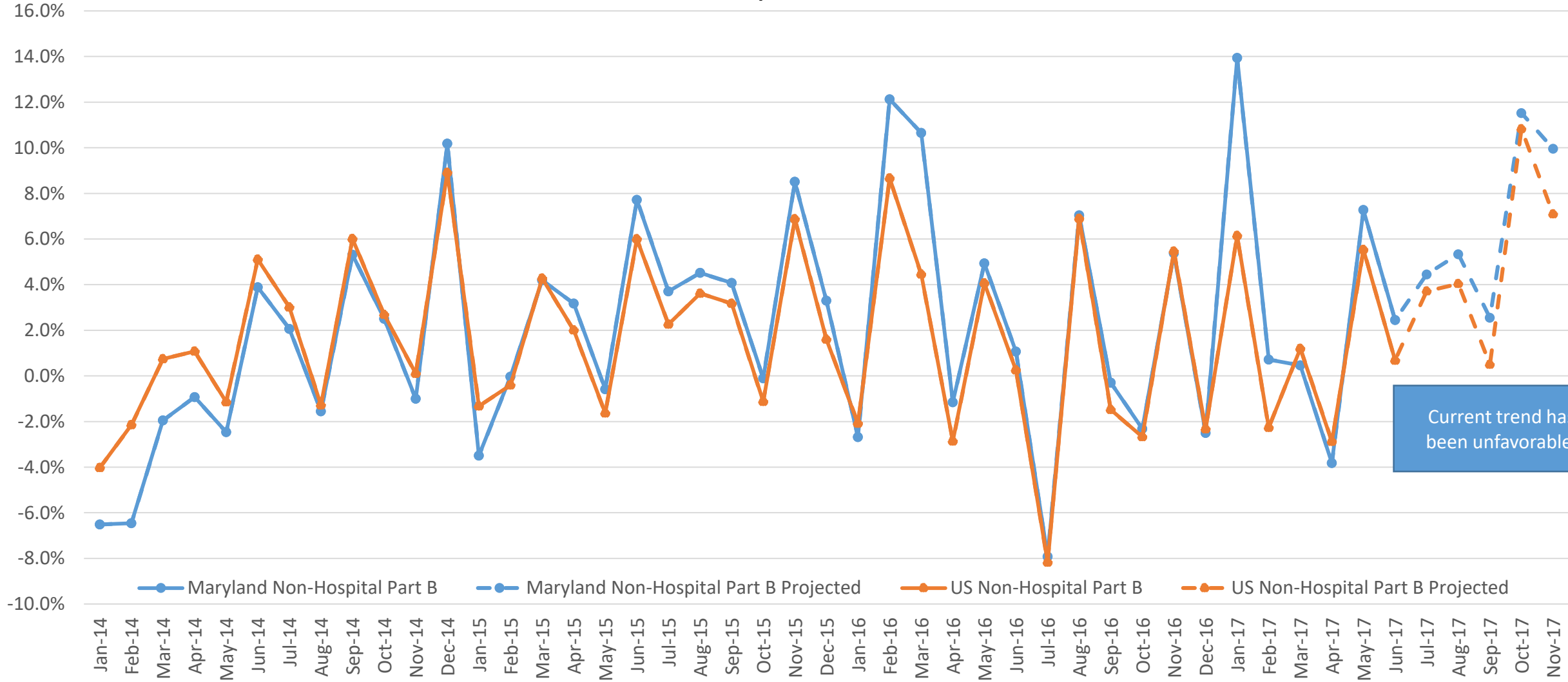
Actual Growth Trend (CY month vs. prior CY month)



Current trend has been favorable.

Medicare Non-Hospital Part B Spending per Capita

Actual Growth Trend (CY month vs. prior CY month)



All-Payer Model Results, CY 2014- YTD 2017

Performance Measures	Targets	2014 Results	2015 Results	2016 Results	2017 Results (preliminary) ^{1,3}
All-Payer Hospital Revenue Growth	≤ 3.58% per capita annually	1.47% growth per capita	2.31% growth per capita	0.80% growth per capita ²	3.05% growth per capita ²
Medicare Savings in Hospital Expenditures	≥ \$330m over 5 years (Lower than national average growth rate from 2013 base year)	\$120 m (2.21% below national average growth)	\$275 cumulative (2.63% below national average growth since 2013)	\$311m ² \$586m cumulative (5.50% below national average growth since 2013)	\$270m ^{2,3}
Medicare Savings in Total Cost of Care	Lower than the national average growth rate for total cost of care from 2013 base year	\$142m (1.62% below national average growth)	\$121m \$263m cumulative (1.31% below national average growth since 2013)	\$198m ² \$461m cumulative (2.08% below national average growth since 2013)	\$118m ^{2,3}
All-Payer Quality Improvement Reductions in PPCs under MHAC Program	30% reduction over 5 years	26% reduction	35% reduction since 2013	44% reduction since 2013	Unavailable
Readmissions Reductions for Medicare	≤ National average over 5 years	19% reduction in gap above nation	58% reduction in gap above nation since 2013	79% reduction in gap above nation since 2013	Below the National Average
Hospital Revenue to Global or Population-Based	≥ 80% by year 5	95%	96%	100%	100%

¹The results for 2017 are preliminary and have been prepared by Maryland. The figures have not been verified by CMS. The Medicare figures for 2017 are reported through October 2017 only. The year end results may be different than the year-to-date results. The year-to-date results include estimates for claims not yet paid.

²Actual revenues and costs for CY 2016 were increased to account an undercharge that occurred at the end of CY 2016, which was recovered by July 2017, within the HSCRC rate setting year. The CY 2017 figures reflect the reversal of this adjustment.

³The Medicare financial data is presented through October 2017.

- The “Targets” are from the All-Payer Model Agreement, with the exception of the “Medicare Savings in Total Cost of Care” measure, which is a limitation of the Agreement.
- For the All Payer Hospital Growth measure, the data is from the HSCRC monthly hospital volume and revenue data.
- The MHAC data is derived from Maryland’s All Payer Hospital Acquired Conditions Program results.
- For the other measures, Maryland calculated the data from CMS monitoring data, which were included in final reports for the applicable years.

Briefing Document – HSCRC Staff Analysis on Hospital Drug Costs

February 2018

Goals of Briefing Document

- ▶ Provide background, data analysis and qualitative analysis that can help provide the Commission and stakeholders with important information regarding drug cost growth and funding.
- ▶ Analytic results can help support policy development.
- ▶ Scope: Drug costs included in the analysis are for drugs administered during an inpatient or outpatient hospitalization.
 - ▶ This does not include “retail” pharmacy drugs, which are the drugs a patient would typically acquire in a pharmacy (e.g. CVS, Walgreens, etc.) for use outside of a hospital.

Background and Context

- “RY” refers to rate year, July 1 through June 30. This is the cycle timeframe used to update hospital approved revenues for inflation and other annual adjustments.
- “FY” refers to hospitals’ fiscal years. Most hospitals have a fiscal year that coincides with the HSCRC’s rate year.



Overview of Drug Funding-Pre Global

- ▶ Prior to 2014, drug costs were funded through four mechanisms:
 1. Inpatient drugs were part of a DRG.
 - ▶ Growth in the volume of cases was funded at 85 percent variable cost, or a
 - ▶ Substitution of drugs for a service within the DRG that offset typical expected costs (e.g. drug related reductions in length-of-stay) provided funding at 100 percent retention.
 2. Drug price inflation was provided through the annual update factor, which increased DRG rates per case.
 3. Inpatient categorical cases (cancer research, transplants, burns) provided a pass through of included inpatient drug costs (“categorical adjustment”) for AMCs.
 4. Outpatient drugs were funded at reported cost.
 - ▶ Cost growth was funded at 100 percent during the year of increase when billed, and 85 percent of the growth was funded on a permanent basis after removing 15 percent of the change in cost.

Overview of Drug Funding-Post 2014

Under the global revenue model:

- ▶ Inpatient and outpatient drugs were incorporated into global revenues.
 - ▶ Hospitals could substitute drugs for other services and this would provide funding source (e.g. drug substitutes for surgery or drug-related reductions in length of stay).
 - ▶ Other funding mechanisms included the demographic adjustment and reductions in avoidable or unnecessary utilization.
- ▶ Inflation provided through the annual update process: all hospitals received the same inflation percentage, including a specific component for drugs.
 - ▶ This was regardless of the portion of a hospital's costs attributable to drugs.
- ▶ Inpatient categorical cases (cancer research, transplants, burns) provided an update for changes in inpatient drug costs annually, based on a “cost report” from two AMC hospitals.

Concerns under global revenues:

- ▶ There was extensive growth in outpatient drug costs, particularly for new oncology and biological drugs.
- ▶ Hospitals and doctors complained that drugs were underfunded.

HSCRC Changes to Drug Funding in Rate Year 2017

- ▶ Changed the distribution of drug inflation provided on July 1, 2016.
 - ▶ Not all hospitals provide outpatient oncology services, the largest source of drug cost growth.
 - ▶ Redistributed drug cost inflation using each hospital's drug costs as a proportion of total costs.
- ▶ Provided an adjustment for increases in the volume of top 80 percent spend for high cost oncology drugs (RY 2016 over RY 2015 use), the intent was to fund growth in new drugs.
 - ▶ 50 percent permanent, and
 - ▶ 50 percent one-time funding.
- ▶ Replaced categorical adjustment for AMCs with a 1/2 percent intensity adjustment to simplify the adjustment.
 - ▶ HSCRC and AMCs experienced difficulty in administration as some services shifted to outpatient settings and there were delays in the cost reports.

Illustration--The Change in Distribution of Drug Inflation Improved the Allocation

- ▶ **Case analysis:**
 - ▶ Hospital A's drug cost is 10 percent of total regulated cost.
 - ▶ Hospital B's drug cost is 3 percent of total regulated cost.
- ▶ **Under the old approach:**
 - ▶ Under the FY 2016 approach, every hospital would get a revenue increase of .32 percent for drug cost increases.
 - ▶ Result: Hospital A is underfunded and Hospital B is overfunded.
- ▶ **Under the revised approach implemented in FY17:**
 - ▶ The increase provided to each hospital is based on its proportion of drug costs/total costs.
 - ▶ Hospital A gets an increase of .54 percent ($10\% \times 5.38\% = 0.54\%$).
 - ▶ Hospital B gets an increase of .16 percent ($3\% \times 5.38\% = 0.16\%$).
 - ▶ Result: Funding is more equitable.

Note:

- Overall inflation for drugs for FY 17 was 5.38 percent. Statewide drug costs are on average 6 percent of total costs. This translates to an inflation in total cost of 0.32 percent ($6\% \times 5.38\% = .32\%$).
- Figures are rounded for the example, so they may be slightly different than actual figures.

Rate Year 2018 Funding (so far)

- ▶ In July 2017, the new drug inflation distribution method approach was continued, providing higher inflation revenues to hospitals with a higher proportion of drug costs.
- ▶ The HSCRC also provided a prospective growth estimate for changes in the volume of cancer drugs for RY17 over RY16.
 - ▶ The HSCRC used 50 percent of the total dollar figure determined from the volume adjustment made in the preceding rate year to develop the estimate.
 - ▶ The HSCRC has collected data from hospitals to replace this prospective growth estimate with the actual growth for RY 2017 over RY 2016, using data collected from hospitals on changes in the top 80 percent of cancer drugs, as identified by each hospital.

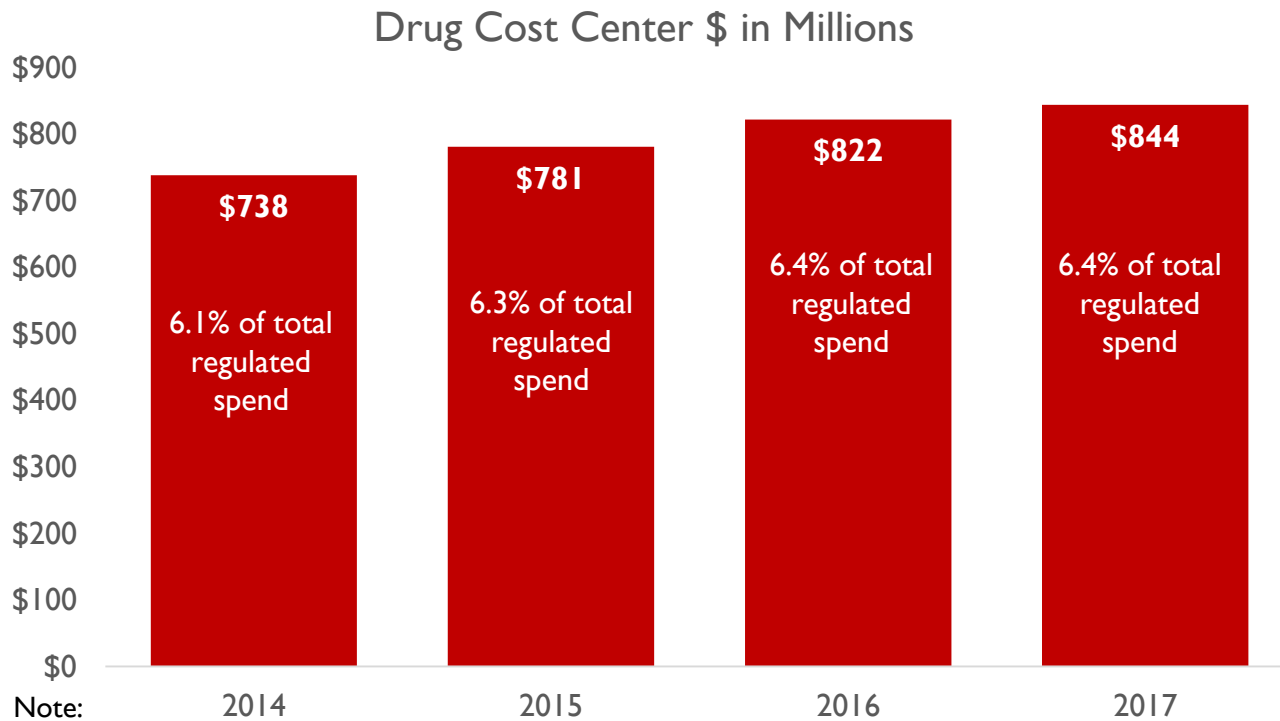
Drug Cost Analysis

- CAGR = Compounded Annual Growth Rate.
- 340B programs= discount programs under federal rules, which are provided to hospitals (and other qualified providers) with higher proportions of Medicaid use. After the ACA Medicaid expansion, additional hospitals qualified for discounts.



Drug Cost Increased by \$106 M from 2014 through 2017, 4.7 percent CAGR

- ▶ Drug costs increased faster than total costs in every year except 2017, about 1.5 percentage points higher than all other costs.
- ▶ 340 B programs helped reduce drug spending for several new hospitals in 2016 and 2017, in addition to reducing ongoing costs for hospitals already in the program.



Note:

- All FY costs from hospitals' HSCRC cost reports.
- Excludes Frederick Memorial Hospital drug costs due to the hospital's FY17 oncology service deregulation.



Outpatient Cost Growth is the Primary Cost Driver

▶ State-wide (Rx= Drugs, IP=inpatient, OP=outpatient)

FY	Rx IP	Rx OP	Rx Total	Pct. Of Total Reg. Cost	Rx Y/Y Growth
FY14	\$333,485	\$404,475	\$737,959	6.11%	
FY15	\$332,725	\$448,635	\$781,360	6.28%	5.9%
FY16	\$322,056	\$500,304	\$822,360	6.40%	5.2%
FY17	\$329,309	\$514,688	\$843,997	6.36%	2.6%
FY17/FY14 (CAGR)	-0.4%	8.4%			4.6%

▶ HSCRC reviewed growth in several subsets of hospitals:

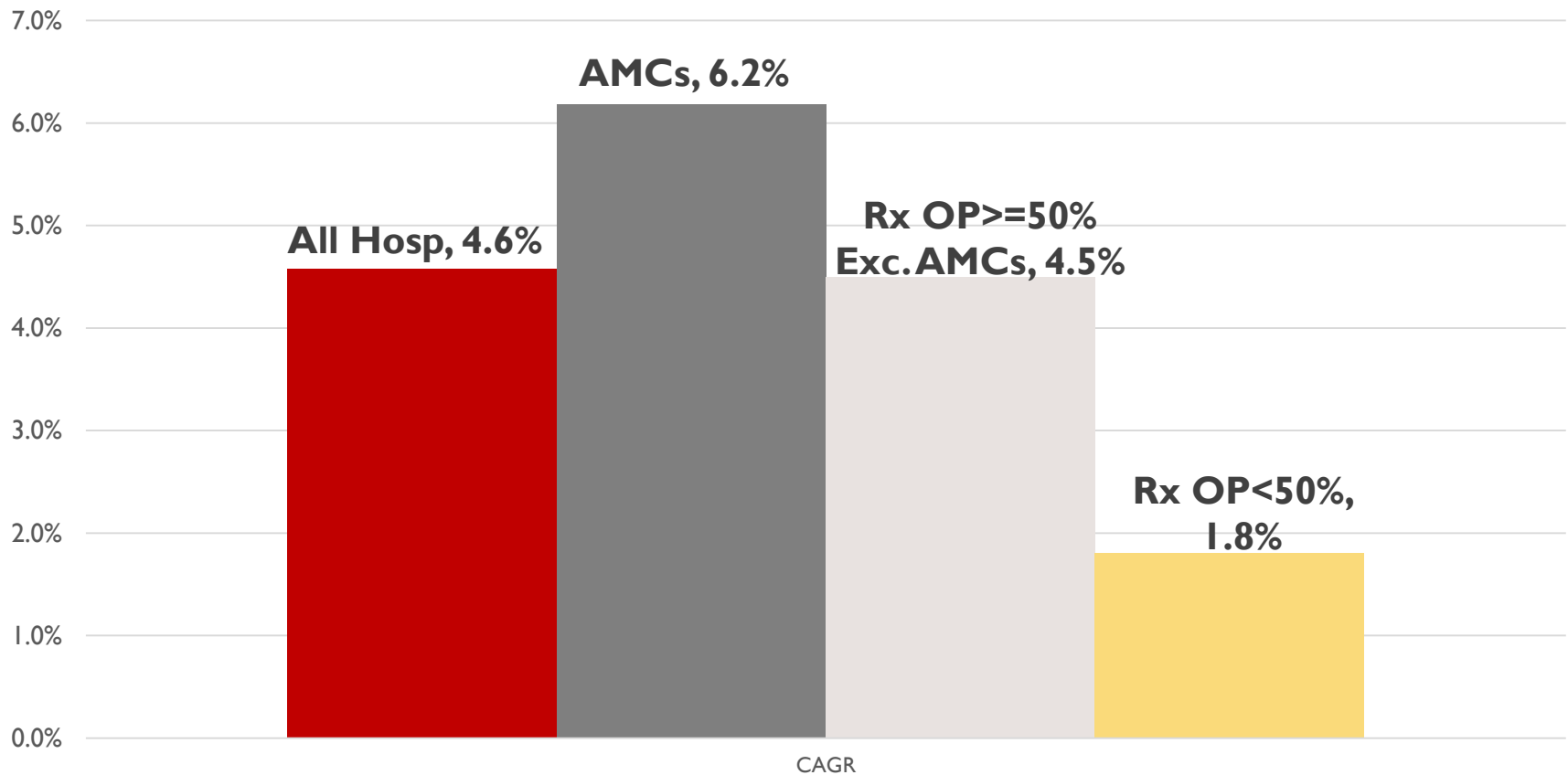
- 1) Academic Medical Centers (AMCs), referring to Johns Hopkins Hospital and University of Maryland Medical Center,
- 2) Hospitals with outpatient (OP) drug costs of \geq 50 percent of drug cost in FY17, and
- 3) Hospitals with outpatient percentages below the threshold; the 50 percent threshold was used to determine hospitals which were most likely to have a substantial outpatient oncology program.

Note:

- All figures show from here on out are in (\$000). Data is from hospitals' annual cost report with HSCRC.
- All exhibits from here on out exclude Frederick due to hospital's FY17 oncology service deregulation.
- The split between inpatient and outpatient costs was estimated based on the proportion of revenues.

Academic Medical Centers and Hospitals with Larger OP Programs Grew Faster

CAGR FY14-FY17 By Hospital Group



Details Supporting the Graph on the Prior Page

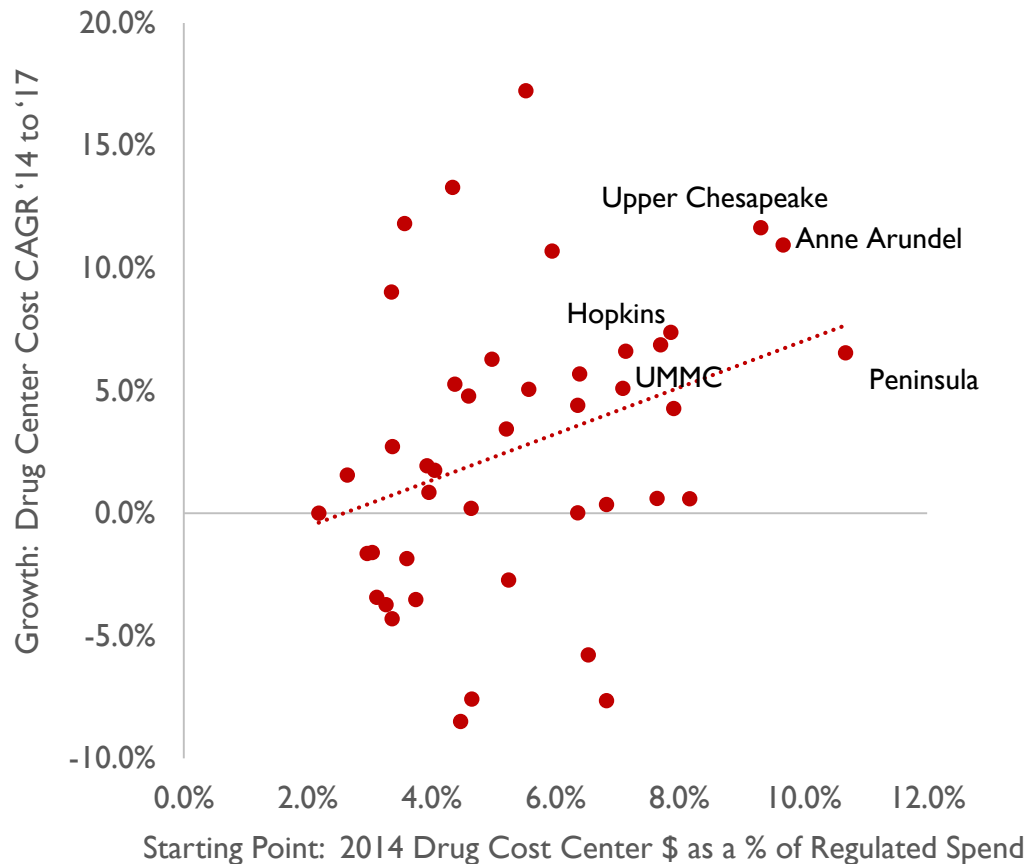
Growth in costs for hospitals with higher OP costs was partially suppressed by new 340B programs.

Two AMCs					
FY	Rx IP	Rx OP	Rx Total	Total Reg. Cost	Rx Y/Y Growth
FY14	\$104,643	\$117,256	\$221,899	7.84%	
FY15	\$100,390	\$132,751	\$233,141	7.92%	5.1%
FY16	\$93,919	\$150,306	\$244,225	7.97%	4.8%
FY17	\$103,325	\$162,315	\$265,640	8.27%	8.8%
FY17/FY14 CAGR	-0.4%	11.4%			6.2%

Hospitals with Rx OP cost >= 50% of Rx cost in FY17 excluding AMCs (27 hospitals)					
FY	Rx IP	Rx OP	Rx Total	Total Reg. Cost	Rx Y/Y Growth
FY14	\$142,289	\$250,707	\$392,996	6.88%	
FY15	\$141,808	\$277,916	\$419,723	7.16%	6.8%
FY16	\$140,281	\$309,003	\$449,284	7.43%	7.0%
FY17	\$136,382	\$312,122	\$448,504	7.18%	-0.2%
FY17/FY14 CAGR	-1.4%	7.6%			4.5%

Hospitals with Rx OP cost < 50% of Rx cost in FY17 (22 hospitals)					
FY	Rx IP	Rx OP	Rx Total	Total Reg. Cost	Rx Y/Y Growth
FY14	\$86,553	\$36,512	\$123,065	3.77%	
FY15	\$90,528	\$37,968	\$128,496	3.81%	4.4%
FY16	\$87,856	\$40,995	\$128,851	3.73%	0.3%
FY17	\$89,602	\$40,251	\$129,853	3.66%	0.8%
FY17/FY14 CAGR	1.2%	3.3%			1.8%

Drug Spending Growth is Correlated with the Proportion of Total Hospital Spending



- ▶ This graphic compares 2014 drug costs as a share of total regulated spending to the growth in total drug costs from 2014 to 2017.
- ▶ Those facilities which started with a heavy OP drug focus (right hand side), have also generally experienced higher average drug inflation, due to the focus on outpatient. This results in an ever widening gap in drug costs between those with an OP focus and those without.



Overall, Drug Costs are Adequately Funded

- ▶ Changes in 2017 funding mechanisms increased, and better allocated, funding.
- ▶ Initiation of 340B programs reduced growth for some non-AMC hospitals.

Fiscal Year	Drug Cost Growth	Revenue Provided through Drug Inflation and 2017 “volume” adjustment	Potentially Excess/ (Shortfall) In Funding
Stub Period	\$21,097		(\$21,097)
15 over 14	\$43,401	\$32,810	(\$10,591)
16 over 15	\$41,000	\$54,922	\$13,922
17 over 16	\$21,637	\$84,305	\$62,668
Total Growth	\$127,134	\$172,037	\$44,903

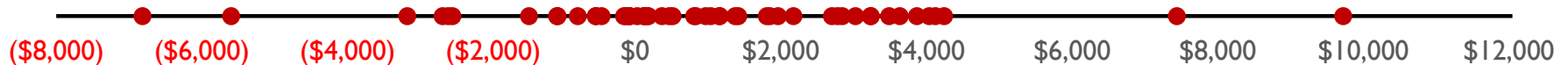
Note:

- All dollar amounts (\$) are in thousands.
- Stub period is an estimate of the funding difference for the January through June 2014 period, the first six months of the All-Payer Model.

But There is Variation in Funding Levels

- ▶ There is variation in excess or shortfall in funding level by facility, the highest potential excess funding from 2014 to 2017 is just under \$10.0 M for St. Agnes while the highest potential underfunding is ~\$6.8 M for Johns Hopkins (note).
- ▶ **SEE SEPARATE BUBBLE CHART FOR DETAILS BY HOSPITAL**
- ▶ Levels of drug specific underfunding decreased with policy changes begun in 2016.

Distribution of Cumulative 2014 to 2017 Potential Over (Under) Funding in \$1,000's



Note:

- Funding excess or shortfall is the difference between the growth in cost of drugs and the revenue provided for growth in drug costs including drug-specific inflation and the supplemental oncology drug usage change adjustment. This analysis does not account for revenues provided through market shift, categorical adjustments, or program initiation adjustments (also market shift).
- HSCRC is in the process of reviewing the oncology usage changes for RY 2017 over RY 2016. Some hospitals may receive negative adjustments, which would reduce excess funding.

Hospital Overhead is Increasingly Allocated to Drugs as Spending Increases

- ▶ The revenue system in Maryland applies an overhead, assessment, and markup load on drug cost.
 - ▶ This needs to be examined in light of ever-increasing costs of high-cost biological drugs.
 - ▶ Because this mechanism reduces revenue allocations to other services, it makes cost comparisons more difficult.

FY	Cost	Revenue	Revenue as Pct. of Cost
FY14	\$737,959	\$1,520,571	206%
FY15	\$781,360	\$1,527,845	196%
FY16	\$822,360	\$1,692,516	206%
FY17	\$843,997	\$1,784,322	211%
FY17-FY14	\$106,037	\$263,752	



Observations and Next Steps



Insights

- ▶ The HSCRC can expect ongoing increases in drug costs above other cost categories, particularly for new oncology and biological drugs.
- ▶ Drug funding, in total, appears adequate, but there are some distribution differences among hospitals.
- ▶ Inflation rates are high enough to pick up costs after initial introduction of outpatient drugs, but there may be distributional issues.
- ▶ Initial 340B conversions reduced drug costs for some hospitals and will provide reduced cost levels for Marylanders on an ongoing basis, so long as the program remains in place. These suppressed costs still reported overall cost increases for 2016 and 2017.
- ▶ Some hospitals experienced a decrease in volume between RY 2016 and RY 2017, which will result in reductions in revenues during RY 2018.

Potential Policy Issues to Address

- ▶ Funding options should be considered to ensure appropriate distribution of funds for drugs among hospitals.
- ▶ The HSCRC needs to address new inpatient drugs that should be considered for revenue adjustments, similar to the treatment of “categoricals” in the past or fixed intensity increment.
- ▶ Some outpatient drugs, beyond oncology drugs, could be addressed, particularly for AMCs.
- ▶ Encounter data submissions from hospitals for outpatient drug “units” are not consistent and compliant with drug billing requirements; the HSCRC should consider a change in its requirements.
- ▶ The HSCRC should consider a change in overhead load for drugs, to reduce overhead allocated to new high-cost drugs.
- ▶ The HSCRC should explore other options to make prospective adjustments or better distribute funding for drug costs growth.

Next Steps Include:

- ▶ Begin policy discussions with Commissioners and stakeholders.
- ▶ Make a recommendation for new inpatient drugs – **Now.**
- ▶ Make recommendations for other adjustments for drugs – **by July 1, 2018.**
- ▶ Evaluate approaches to make more accurate prospective adjustments for new drugs.
- ▶ Adjust for shifts to unregulated settings – **now through July 2018.**

ANALYSIS OF DRUG GROWTH FUNDING BY HOSPITAL

HSCRC Draft Analysis 2/8/2018

Comparison of Pharmacy Revenue Changes to Pharmacy Cost Changes by Hospital, *January 2014 through June 30, 2017*

The HSCRC staff has compared the funding level of drug cost increases by hospital from the start of the global budgets in January 2014 through Fiscal Year (FY) 2017.

The HSCRC staff obtained the drug costs reported in FY 2013 through FY 2017, by hospital, from each hospitals' cost filings with the HSCRC.

- The first period of comparison of cost versus revenue growth is the six month period ended June 30, 2014. Staff split the cost for 2013 and 2014 into six month segments, using reported revenues for each segment. For the purposes of this analysis, staff assumed that any drug cost growth from January 1 through June 30, 2014 over the same period in the prior year was unfunded. Staff did not attribute any revenue growth to this period for ease of analysis.
- After the initial six month period of the global budgets, HSCRC provided an inflation update, which included a specific component of revenue increase for drug cost increases. Staff calculated the annual amount that was received by each hospital for each July 1 through June 30 Rate Year (RY) for this component, net of mark-up for payer differential and uncompensated care and net of assessments.
- For RY 2017, staff incorporated the special adjustment for growth in oncology drugs that was provided to each hospital.
- To calculate potential excess funding or underfunding by hospital, staff compared the revenue increment for each year to the cost growth.
- These analyses do not account for any drug funding from market shifts or for the special adjustments provided to the AMCs for transplant and cancer research.
- The demographic adjustment has not been taken into account as a potential revenue source.

In the aggregate, as reflected in the accompanying PowerPoint, the analysis shows that hospitals are adequately funded for drugs. However, there is variation in the results by hospital, as reflected in the following graphics.

Comparison of Pharmacy Revenue Changes to Pharmacy Cost Changes

\$ Variation, 2014 to 2017

Bubble compares the change in pharmacy revenue in each period and cumulatively to the change in cost for the same time windows.

- Green bubble indicates pharma revenue increases greater than cost increases
- Red bubble indicates pharma revenue increases less than cost increases

Top, second from left bubble, Johns Hopkins 2015 costs increases exceed 2015 revenue increases by \$8.0 M



Comparison of Pharmacy Revenue Changes to Pharmacy Cost Changes % Variation, 2014 to 2017

Bubble compares the change in pharmacy revenue in each period and cumulatively to the change in cost for the same time windows.

- Green bubble is the excess of revenue over costs as a % of that year's cost, when rev. increases were greater
- Red bubble is the shortfall of revenue versus costs as a % of that year's cost, when cost increases were greater

2017 St. Agnes bubble reflects an excess of rev. over cost increases equal to 73% of 2017 costs for that facility

