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cost review commission

Demographic Adjustment
Age-Adjusted Population Growth

October 29, 2025

Marketshift Stakeholder Comments

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Summary of Public Comments

Topics	Adventist	JHHS	LifeBridge	Luminis	UMMS	MedStar	CareFirst	MHA	HME Coalition	Commiss-ioners
Variable Cost Factor (VCF) Methodology	✓	✓	✓	✓	✓	✓		✓		✓
Service Line Consolidation and Exclusions	✓	✓	✓	✓	✓	✓		✓		✓
Temporary Service Line Exclusion Process		✓			✓	✓		✓		✓
Latent Demand and Future Policy Alignment	✓				✓	✓		✓		✓
Payer-Initiated Market Shifts						✓	✓		✓	✓
Transparency and Consumer Impact						✓			✓	✓
Other MSA Refinements		✓		✓	✓	✓				

- Staff received comment letters from nine stakeholders and several verbal comments and questions from Commissioners.
- The comments from stakeholders and Commissioners can be broadly categorized into seven areas of concern.

Four Empirically Derived Variable Cost Factor (VCF) Methodology Staff Response

Summary of Public Comments: Stakeholders broadly support moving from a single statewide variable cost factor to four empirically derived factors, seeing this as an improvement that better reflects costs and improves the accuracy of funding for volume shifts. They recommend periodic review and consistent application of the new methodology, with some noting recalibration may be needed as the state enters the AHEAD model.

Staff Response:

- Staff appreciates the positive feedback regarding the revisions to the variable cost factor.
- Staff agrees that this calculation should be revisited every 3-5 years to ensure significant deviations from the current calculation are captured.
- Staff does not concur with UMMS' and Medstar's recommendation that the variable cost factor should be applied at a service line level, as this creates unnecessary administrative complexity and places a level of precision on regression estimates that is unwise.
- Additionally, staff does not concur with the recommendation from Medstar to retroactively apply the revised variable cost factor calculations to volume change from 2019 to 2024. The application of a 50% variable cost factor was not a calculation error, which would allow for a retrospective adjustment, and HSCRC policy generally is to make amendments to methodology on a go forward basis. Also, it appears that this recommendation is driven by the assessment that hospitals had significant growth from 2019 to 2024. If the Commission were to entertain this request, staff would recommend revising all volume change from 2014 to 2024 and potentially consider revising volume change before the start of global budgets when for periods of time an 85% variable cost factor was utilized.

Comments were received from:	JHHS	Adventist	Luminis	LifeBridge	MHA	UMMS	Medstar

See appendix for comment details.

Service Line Consolidation and Exclusions Staff Response

Summary of Public Comments: Stakeholders generally support consolidating or removing low-volume service lines to improve reliability, but caution that exclusions could impact access to specialized care and limit flexibility under the AHEAD Model's 10 percent limit on carve-outs. There is broad agreement that any changes should be carefully managed, with clear criteria and ongoing review to ensure compliance and protect essential services for patients.

Staff Response:

- Staff appreciate the generally positive feedback concerning the proposed service line exclusions.
- Staff agree, however, that a more comprehensive discussion with the field should take place on what service lines should be prioritized for exclusion given the limited flexibility under the current Model (5%) and the AHEAD Model (10%). Staff, therefore, recommends postponing the implementation of this exclusion until that work is completed.

Comments were received from:	JHHS	Adventist	Luminis	LifeBridge	MHA	UMMS	Medstar

See appendix for comment details.

Temporary Service Line Exclusion Process Staff Response

Summary of Public Comments: Stakeholders support a standardized process for temporary service line exclusions, with flexibility in notification timing and inclusion of latent demand as a triggering event. They request clear criteria for what qualifies as a triggering event, recommend access impact analysis for significant payer-driven changes, and emphasize that adjustments should not negatively affect other hospitals.

Staff Response:

- Staff appreciates the general positive feedback on this proposal.
- Staff does not concur with UMMS request that there should be a flexibility in the timing of these requests, as delayed notice will make this policy proposal very difficult to administer and could result in a violation of one of the guiding principles Johns Hopkins cited for this activity, namely to "not negatively affect other hospitals," which undoubtedly will occur if hospitals that are losing volumes have limited time to respond to volume dissipation brought on by temporary service line exclusions.
- Staff concurs with Medstar's request to broaden the definition of CON approved services to new designations, such as stroke center, but would note that this expanded definition should be limited to certifications approved by the Joint Commission and should only account for services not otherwise provided by another facility.

Comments were received from:	JHHS	MHA	UMMS	Medstar

See appendix for comment details.

Payer-Initiated Market Shifts Staff Response

Summary of Public Comments: Stakeholders call for consistent, system-wide policies to address payer-initiated market shifts and large network changes. They emphasize that applying the same volume realignment approach to all payers, not just Kaiser, will help ensure fairness and maintain the integrity of hospital funding during significant disruptions. Some stakeholders requested that payers be responsible for notifying the HSCRC when a shift will occur.

Staff Response:

- Staff concur that payer-initiated market shifts could apply to any payer. However, payers should be required to provide a plan for the market shift that can ensure that the shift of volume is predictable, for known reasons, and for a defined period of time.
- Staff also concur with comments that a consistent volume realignment approach for payer-initiated market shifts is necessary

Comments were received from:	CareFirst	HME Coalition	MedStar

See appendix for comment details.

Other MSA Refinement Comments Staff Response

Summary of Public Comments: Stakeholders recommend establishing routine, standardized processes for regrouping outpatient procedures and evaluating policy changes, to reduce administrative delays and financial disincentives. They also call for greater clarity on reimbursement for excluded services under new models, urge that major policy updates, such as those related to Market Shift, be revisited after AHEAD methodology is finalized to ensure alignment and address demographic trends, and consideration that the updated VCFs be used to retroactively adjust Market Shift funding from prior periods.

Staff Response:

- Over the next 12 months, staff will continue to work with the field and the broader stakeholder community to ensure, to the best extent possible, that market shift assessments are aligned with the new methodologies outlined in the AHEAD Model, which are still currently under review by CMMI.
- Staff disagrees with Luminis' contention that the Commission has not yet considered the impacts of aging impacts on service growth, independent of the Marketshift, as the current Demographic Adjustment allocates funding based on age adjusted growth and staff will be releasing in the November Commission meeting a recommendation to potentially amend the population governor in the Demographic Adjustment to allow for risk adjusted population growth.
- Staff share UMMS's concern that current ad hoc process of evaluating inpatient and outpatient services when procedures move off of the inpatient only list creates significant lag and financial disincentives for shifting care to lower-cost settings. However, there is not readily available formulaic approach to handling this phenomenon, thus staff offers the following process (see next slide):

Comments were received from:	UMMS	JHHS	Luminis

See appendix for comment details.

To identify these instances more proactively, Staff recommend a three-sided approach

1) Staff requests that stakeholders provide the HCPCS/CPT codes associated with services where material shifts from IP to OP occur each year (ideally by September)

- This is consistent with the annual update process for CMS' IP Only (IPO) List.

2) Staff will review annual updates to CMS' IPO List, which are identified in the OPPS Final Rule.

3) Staff will evaluate whether ECMADs have materially increased statewide in a particular OP service line, while a corresponding IP service line has experienced a material decline. If this is found to have occurred, Staff will analyze further to identify if the changes are due to shifts from IP to OP.

If shifts have occurred, Staff will make manual adjustments and will map the service back to the same DRG and apply the lowest SOI weight available. This will ensure that an artificial shift won't occur.

Latent Demand and Future Policy Alignment Staff Response

Summary of Public Comments: Stakeholders recommend a standardized, annual process for evaluating latent demand using shared data and transparent assumptions, rather than relying only on hospital analyses. They support adopting CMS-like policies that allow hospitals to retain revenue for unmet needs and backfill services, and agree that latent demand should be included as a triggering event for temporary adjustments.

Staff Response:

- Staff are pleased to hear support for developing a Latent Demand trigger to be included in the new paradigm of Service Line Exclusions.
- While staff currently does not have a definitive basis for what constitutes a Latent Demand service line exclusion, staff hopes to work with the field in the coming months to establish the various metrics that could be used to establish that trigger and at the same time be used to adjudicate determinations for latent demand requests.
- Similar to prior policy development, this may necessitate hospital requests at first, but over time staff believe that established evaluations for identifying latent demand can become automatic triggers, thus easing the burden on hospitals that are considering offering more services in their communities to resolve unmet latent demand.

Comments were received from:	Adventist	MHA	UMMS	Medstar

See appendix for comment details.

Transparency and Consumer Impact Staff Response

Summary of Public Comments: Stakeholders call for greater transparency and consumer focus, recommending more accessible information, longer public input, and ongoing monitoring, while emphasizing stakeholder involvement and clear evaluation criteria in policy development.

Staff Response:

- Staff appreciates the requests for greater transparency.
- Currently, all meetings (Commissioner meetings and workgroup meetings) are available to public audiences and recordings of meetings are available on the HSCRC website.
- Staff will make a concerted effort moving forward, however, to send out more notifications for workgroup meetings so that the broader stakeholder community is well aware when these discussions amongst HSCRC staff, hospitals, payers, and other interested parties are occurring.
- Staff disagrees with the comment that there needs to be longer public input, as the workgroup meetings serve as a replacement for the typical required regulations process and generally are more well received by stakeholders because complicated methodologies are explained and discussed in greater and clearer detail than promulgated regulations.

Comments were received from:	HME Coalition	MedStar

See appendix for comment details.

Demographic Adjustment Overview

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Demographic Adjustment Overview

Purpose

- Designed to **adjust for hospital volume changes due to population changes**, without allowing for increases in hospital volume due to potentially avoidable utilization (PAU)
- Generally **provides additional funding to the system** because population is growing - serves as **governor** to total new volume funding

Adjustment is relative to current Maryland experience only, so no overall secular changes are accounted for

How it Works

Uses ZIP code population projections by age cohort to apportion anticipated hospital volume growth, allocated by a hospital's market share so that hospitals gaining market share will gain more demographic adjustment

Methodology

1. **Base population estimates** attributed by hospital's share of volume in a given ZIP code and age cohort
2. **Age adjusted population growth rates** are calculated by ZIP code and age cohort, adjusted for Statewide age costs
3. **Hospital-specific age adjusted population growth** is calculated by multiplying hospital-specific base population by age-adjusted population growth rates, using ZIP codes and adjusted by age cohort
4. **Age Adjusted Growth Scaled to Population Growth** incorporates adjustments for potentially avoidable utilization and a scaling adjustment to ensure the Demographic Adjustment is not more than population growth - no variable cost factor is applied

Demographic Adjustment Example

- The calculation is performed across all of Maryland's zip codes and for 8 age cohorts so age cost weights can be applied
- Final age-adjusted growth is discounted by potentially avoidable utilization and an adjustment to ensure statewide growth equals population growth – PAU adjustment only affects distribution, not overall governnor

Zip Code	Age Cohort	Base Year ECMADs for Hospital	Total ECMADs for All Hospitals	Share of ECMADs	Base Population	Allocated Base Population	State Total Hospital Revenue per Capita	Age Cost Weights	Projected Population Growth Rate of Cohort	Age Adjusted Population Growth Rates	Hospital Age Adjusted Population Growth	Hospital Overall Age Adjusted Population Growth	Hospital PAU %	Hospital Specific PAU Adjusted Growth Rate	Statewide Per capita Efficiency Adjustment
		STEP 1a			Step1b		Step2a		Step2b		Step 3		Step 4		
A	B	C	D	E = C/D	F	G=F * E	H	I=H/H(total)	J	K=J*I	L=G*K	M=sum(L) /sum(G)	N	O=M*(1-N)	P=O*50%
00000	0-4	30	60	50%	3,713	1,857	$1,577	0.68	0.77%	0.52%	10				
00000	05-14	45	100	45%	23,471	10,562	$119	0.05	-0.07%	0.00%	(0)				
00000	15-44	100	210	48%	8,902	4,239	$3,798	1.63	-1.16%	-1.89%	(80)				
00000	45-55	20	35	57%	7,533	4,305	$2,822	1.21	1.18%	1.43%	61				
00000	55-64	25	40	63%	7,450	4,657	$3,413	1.46	0.16%	0.23%	11				
00000	65-74	25	30	83%	4,517	3,764	$5,162	2.21	2.73%	6.04%	227				
00000	75-84	55	70	79%	2,282	1,793	$7,337	3.14	2.42%	7.60%	136				
00000	85+	60	80	75%	1,044	783	$8,009	3.43	1.32%	4.53%	35				
Total	Total	360	625	58%	58,913	31,959	$2,335				401	1.3%	14%	1.08%	0.54%

Scaling adjustment to get to population growth

Annual average discount across Model (RY14-RY22) = ~0.60%

Max = 0.95% in RY 2017

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RY 2025 Demographic Adjustment Improvements

Issues

- Demographic Adjustment has a disconnect between:
  - Claritas data that is used to allocate population growth
  - Planning data that is used as governor for statewide total population allotment
  - Ex: RY 2026 DA uses CY 2025 Claritas growth & July 2024 Planning growth
- Both Claritas and Planning recast prior year estimates (sometimes with material impact)
- Because of the disconnected time periods and re-estimation of prior years periods, the Commission missed the 2020 “census catch up”

Corrections

- To ensure this did not happen again staff elected in RY 2025 to lock in 2020 as the base for Claritas
  - Age-adjusted growth is therefore projected across multiple years, e.g., RY 2026 DA calculates age adjusted growth from CY 2020-CY 2025
  - The governor on statewide population growth is still the year over year growth from Planning, e.g., RY 2026 DA calculates population growth from 7/1/23-7/1/24
  - To ensure that hospitals are not advantaged/disadvantaged by this method, each year the DA deducts out growth provided subsequent to 2020 from prior year DA’s, e.g., the RY 2026 DA will deduct out 2020-2023 growth from the RY23,24,& 25 DA’s
  - Comparisons between age adjusted growth and population growth in a given DA is thus flawed because one is a multi-year statistic and one is a year over year statistic

Age Adjusted Growth Issue

Background

Statewide population growth determines the **amount of funding** to be provided via the Demographic Adjustment, while age-adjusted population growth determines the **distribution of the funding** at the hospital level

Statewide DA Funding

Statewide population growth determines the "size of the pie."

Example: Maryland population grew by 2% YoY so statewide Demographic Adjustment funding is capped at 2% of in-state revenue.

Distribution of DA Funding

The distribution of funding at the hospital level is based on the **share of age-adjusted population growth**.

Example: Hospital C above experienced 50% of the total age-adjusted population growth statewide, and therefore receives 50% of total DA funding.

Focus of Deck

Many factors impact hospital utilization and costs

While the statewide population growth **doesn't account for all factors** impacting hospital utilization and the costs to treat patients, it has served as a **reasonable governor** for determining the statewide funding to be provided under a per capita Model.

Other Factors Impacting Hospital Utilization & Costs to Treat Patients

Population Aging[1]

Use Rates

Acuity

Shifts in Care Settings

Innovation & Technology

Socioeconomic Factors

Other Factors

This workgroup will explore if there is a more nuanced governor available to account for aging and other factors that **might offset or increase the effect of aging**. Will necessitate **national assessments** because Maryland utilization patterns reflect TCOC Model impacts.

Note (1): Population aging is used to determine the distribution of Demographic Adjustment funding. Other factors listed above are not directly considered in the Demographic Adjustment Methodology.

Use of Age Cost Weights in Demographic Adjustment

Age cost weights are used in the Demographic Adjustment to reflect the **differential costs** of treating patients in different age cohorts. Population growth in more expensive cohorts will result in more funding than population growth in less expensive cohorts.

Example Calculation – FY2026 Data:

Age Cohort	Actual Per Capita Revenue	Age Cost Weight
0 – 4	$2,224	0.69
5 – 14	499	0.16
15 – 44	1,873	0.58
45 – 54	2,708	0.84
55 – 64	4,320	1.35
65 – 74	6,583	2.05
75 – 84	9,235	2.88
85+	10,381	3.23
Total	$3,212	1.00

A

B

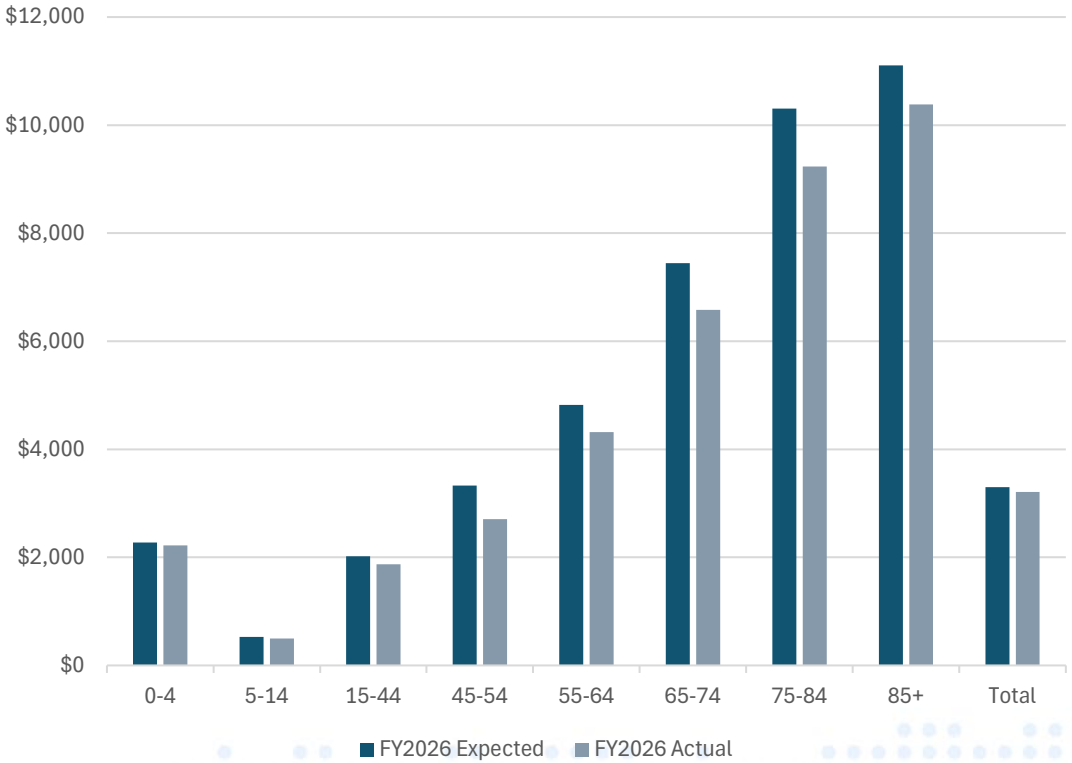
C

A — Cost weights are **calculated for each age cohort** by dividing the age cohort revenue per capita by statewide overall revenue per capita.

B — The **older age cohorts** receive the **largest cost weights** given their increased utilization and need for more intensive services.

C — Statewide the **average revenue per capita** was $3,212. This receives a cost weight of 1.00.

Inflation-adjusted per capita costs have declined for all age cohorts



- FY2026 expected is calculated as FY2015 actual revenue per capita trended forward with 10 years of inflation to FY2026 dollars. This value represents funding per capita with **no underlying change in costs** of treating patients vs. the FY2015 baseline.
- For all age cohorts, FY2026 actual revenue is less than FY2026 expected, meaning **across the board, per capita costs have declined** (after adjusting for inflation).
- Using age cost weights to fund aging in the Demographic Adjustment would ignore these **secular declines in revenue per capita.**

Illustrative Example

Last Year's Test

A professor gives a test and the class average is 50 percent.

As a result, the professor applies a 20 percent curve to bring the class average to 70 percent.

This is reasonable as it brings the class average to a C.

This Year's Test

The professor gives the same test the next year and the class average is 90 percent.

It would be unreasonable for the professor to apply the same 20 percent curve from last year, as something changed year over year that resulted in better performance.

Its possible that the class is smarter, the material was taught differently, or something else caused the variation in performance, but regardless the 20 percent curve should not be applied.

What This Means in the Context of Age Cost Weights:

You can't just take a "fix" from one specific year (like the "aging bonus" or the "20-point curve") and apply it forever. The situation changes every year. Using age cost weights to fund aging through the Demographic Adjustment would be flawed because it **permanently bakes in an assumption about costs**, ignoring data that shows spending across all age cohorts is decreasing. A **more sophisticated approach** would be needed that would account for secular declines in cost, PAU, and other factors.

Potential Solution for Age Adjusted Issue

Risk adjustment methodologies for all payers exist, but the HSCRC does not have the data to apply them

	Chronic Illness & Disability Payment System (CDPS)	Diagnostic Cost Group/ HCC Model (DCG/HCC)	Johns Hopkins Adjusted Clinical Groups (ACG)	Clinical Risk Groups (CRG)
Target Population	Medicaid	Medicare Managed Care	Medicare Managed Care	All Payer
Purpose	Adjusted capitated payments to (MCOs) based on enrollee risk.	Predict future Medicare expenditures to adjust capitation payments.	Risk stratification system that groups individuals based on their overall disease burden.	Classifies individuals into clinical categories using diagnoses and some functional health status information.
Key Features	▪ Diagnosis-based model tailored to Medicaid's low-income and disabled population. ▪ Separates enrollees by eligibility category. ▪ Uses ICD codes grouped into condition categories.	▪ Uses ICD-9-CM codes grouped into clinical classifications. ▪ Captures diagnoses of all healthcare encounters (IP, OP, Physician, home health, and DME).	▪ ACG differs slightly from HCC/CDPS in that it looks at patterns of morbidity across all conditions to categorize patients into utilization/risk groups. ▪ It's known for population health analytics and is used by some private insurers as well. ▪ Several states (e.g, Maryland since 1997) have used the ACG model for Medicaid managed care.	▪ CRGs, like HCCs, are hierarchical condition categories but with an emphasis on clinical complexity grouping (e.g., multiple chronic illnesses, dominant condition, etc.). ▪ New York's Medicaid program adopted the 3M CRG model in 2008 to adjust payments in certain programs.
Developed By	University of California	Health Economics Research in collaboration with CMS/HCFA	Johns Hopkins University	3M Health Information Systems

We acknowledge the field's concerns regarding age-adjusted methodologies. Ideally, HCCs would offer the most precise approach. However, due to current data limitations, we are unable to implement this methodology at this time

Research Questions

Aging + Changing Practice Patterns = ~ HCC Adjustment

How have an aging population and changing practice patterns impacted hospital utilization over time? And can this retrospective assessment be utilized to influence future policy adjustments?

- Intuition: an aging population has increased utilization, while trends out of the inpatient setting (especially orthopedic surgeries) has decreased utilization
- Which dominated?
- Using national practice patterns to isolate secular practice pattern trends not influenced by the Maryland models

Definition: Changing Practice Patterns

Changes in hospital utilization reflecting evolving medical practices, technologies, or policies, rather than changes in population demographics.

Example: the trend, supported by Medicare inpatient-only policies, for orthopedic surgeries to be done in an outpatient, rather than inpatient, setting.

Measures

Inpatient Days per 1000:

- Total number of admitted inpatient hospital days used in a year for every thousand people in a population

Outpatient Equivalent-Inpatient-Days (EIPDs) per 1000:

- Captures outpatient utilization in a metric directly comparable to inpatient days, following AHA Adjusted Admission method[1]
- Calculated as total outpatient allowed charges divided by average inpatient cost-per-day (CPD)
- Excludes drug spending
- Sensitivity tested with alternative metrics (services per 1000, inclusion of drugs, varying CPD definitions)

Total EIPDs per 1000:

- Sum of Inpatient Days plus Outpatient EIPDs

[1] American Hospital Association. Trendwatch Chartbook 2016: Glossary. 2016. Available from: https://www.aha.org/system/files/research/reports/tw/chartbook/2016/glossary.pdf/

Data Sources

Ages 65+ or disabled:

- Medicare fee-for-service 5% sample, Standard Analytical Files (Limited Data Set), 2013-2023

Under 65 non-disabled:

- Milliman's Consolidated Health Cost Guidelines™ Sources Database (CHSD) – commercial employer-sponsored and individual claims from a mix of national and regional payers, 2013-2023 (At least 28 million individuals per year)
- Sensitivity tested against nationwide exchange small group and individual data from the CMS Enrollee-Level Data Gathering Environment

MD Census Data:

- State of Maryland (Claritas database)

Methodology

- **Data grouped by year and demographic characteristics**
- **Fit linear regressions to grouped data**:
  - Separate models were estimated for inpatient and outpatient utilization in Maryland and non-Maryland populations (4 models)
  - Dependent variable: Log of inpatient days or log of outpatient EIPDs per 1,000
  - Independent variables: Year, year interacted with age band, and demographic characteristics
  - Utilization pattern changes: Derived from 2013 and 2023 regression-based estimates using the fixed 2023 demographic distribution
  - Demographic changes: Estimated by applying 2013 regression coefficients to 2013 and 2023 demographic distributions
- **Adjusted results for the impact of Medicare Advantage (MA) growth**:
  - Because the research data used traditional Medicare to represent utilization for all Medicare eligibles, it was necessary to account for the impact of MA growth
  - Using MedPAC estimates of MA favorable selection and CMS data on MA enrollment, practice pattern changes for Medicare-eligible ages were adjusted to remove the impact of increasing traditional Medicare morbidity.[1] This allowed results to reflect the combined experience of traditional Medicare and MA.
  - Adjustments were modest relative to overall findings (approximately 1% impact over the 11-year study period)
- **Sensitivity tests**:
  - Replaced Milliman CHSD with EDGE data
  - Used alternative outpatient utilization metrics (service counts per 1,000 and variations of the EIPD methodology)
  - Used alternative fixed demographic and census years
  - Used an alternative fully interacted regression specification
  - Sensitivity test findings were directionally consistent with primary analysis

[1] Medicare Payment Advisory Commission. Chapter 11: The Medicare Advantage program: Status report (March 2025 Report). March 13, 2025.

Modeling Results: Example Detail Output – Non-Maryland Inpatient Days per 1000

(IP Days per K)	Utilization Pattern Year											Util Pattern Change (2023/13)
Demo Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
2013	484	456	437	459	446	444	457	414	450	432	423	**-12.5%**
2014	490	462	443	465	452	450	462	419	455	437	428	**-12.7%**
2015	496	468	449	471	457	455	467	424	460	441	432	**-12.9%**
2016	503	474	456	476	463	461	473	429	464	446	437	**-13.1%**
2017	509	480	461	482	469	466	478	433	469	451	441	**-13.3%**
2018	515	487	468	488	474	471	483	438	474	455	446	**-13.5%**
2019	521	492	474	493	480	477	488	442	478	460	450	**-13.7%**
2020	528	499	480	499	486	482	493	447	482	464	455	**-13.9%**
2021	534	505	487	505	492	488	499	452	487	469	460	**-14.0%**
2022	538	509	491	508	496	491	502	454	489	471	462	**-14.2%**
2023	543	514	496	513	501	496	506	458	493	475	466	**-14.3%**
Demo Change (2023/13)	**12.3%**	**12.8%**	**13.5%**	**11.8%**	**12.2%**	**11.6%**	**10.7%**	**10.6%**	**9.5%**	**10.0%**	**10.0%**	**-3.8%**

How to Read these Tables:

- **Down a column**: Shows the impact of population changes (aging) assuming fixed practice patterns.
- **Across a row**: Shows the impact of health practice pattern changes (e.g., shift away from inpatient care) assuming a fixed population.
- **Along the diagonal**: Reflects the combined impact of both population aging and changes in practice patterns.

Corresponds to -16% on next slide once adjustment for MA morbidity is accounted for; -3.8% = -5% on next slide

Conclusions:

- Practice pattern changes consistently associated with a 12%-14% decrease in inpatient utilization, regardless of population year.
- Population aging consistently associated with a 10%-12% increase, regardless of practice pattern year.
- The combined effect is a slight reduction in utilization from 2013 to 2023 by approximately 4%.
- Next question: What about Outpatient?

Results in Summary

Exhibit: Changes in hospital inpatient and outpatient utilization in Maryland and non-Maryland, 2013-2023

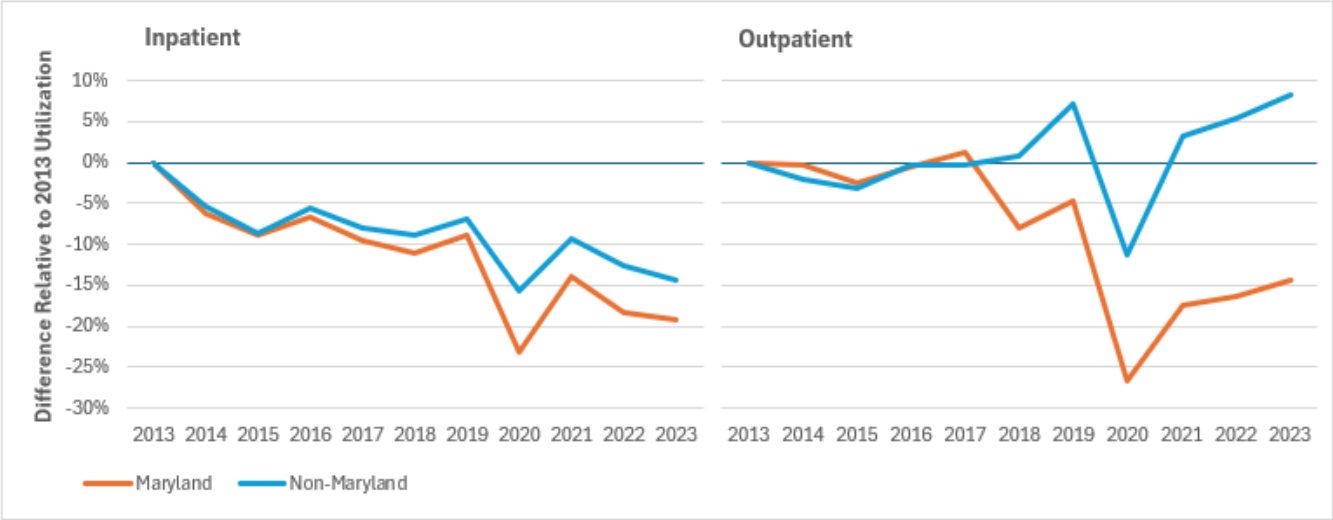
Setting (Metric)	Utilization Pattern Change	Maryland Demographic Composition Change	Combined Change
Maryland			
Inpatient Utilization (Days)	-20%	+12%	-10%
Outpatient Utilization (EIPDs)	-15%	+6%	-10%
Total Utilization (EIPDs)	-18%	+10%	**-10%**
Non-Maryland			
Inpatient Utilization (Days)	-16%	+12%	-5%
Outpatient Utilization (EIPDs)	+7%	+5%	+12%
Total Utilization (EIPDs)	-5%	+9%	**+3%**
Difference (Maryland minus non-Maryland)			
Inpatient Utilization (Days)	-4%	+0%	-4%
Outpatient Utilization (EIPDs)	-22%	+1%	-21%
Total Utilization (EIPDs)	-12%	+1%	-12%

Observations:

- In Maryland, including demographic impacts, hospital utilization decreased by **10%** from 2013 to 2023.
- Had Maryland followed the same utilization patterns as other states but experienced its own demographic changes, total hospital utilization would have increased by **3%.**
- Maryland inpatient utilization patterns decreased by 4% more than other states.
- Maryland outpatient utilization patterns decreased by 22% more than other states.

Results in Summary - Graph

Exhibit: Hospital utilization patterns in Maryland and non-Maryland relative to 2013, adjusted for changes in demographic composition



Notes: Charts graph the Utilization Pattern Change by year, reflecting the estimated change in utilization from 2013 to each year holding demographics fixed at Maryland 2023 levels.

Observations:

- Inpatient utilization patterns generally declined, with slightly steeper decreases in Maryland.
- Outpatient utilization patterns outside of Maryland generally increased while outpatient utilization in Maryland decreased. **Why?**

Impact of Services Being Considered for Site-Neutrality

Background:

- Outside of Maryland, payment for services is 2-4x higher when performed in a hospital outpatient department (HOPD) than office.[1]
- MedPAC has proposed 66 ambulatory payment categories (APCs) of services which can be safely performed in a physician office and should be considered for site-neutral payment.[2]

Question: What portion of utilization pattern changes outside Maryland may be attributed to a suboptimal site-of-service mix due to payment incentives?

Approach:

- Isolate outpatient utilization associated with the MedPAC 66 APCs
- Model utilization pattern changes using Maryland patterns for these services, and non-Maryland patterns for all other services.
- Limitation: 2016-2023 Medicare only; APC-level data not available for commercial and, prior to 2016, APCs were structured differently

Results: Had national utilization for these services followed Maryland's pattern, overall national utilization pattern changes would have been 2% lower.

Exhibit: Hospital utilization patterns in Maryland and non-Maryland, using Maryland patterns for services under site-neutral consideration

	Utilization Pattern Change			
	Primary Results (2023 vs 2013; all ages)	**Subset Results (2023 vs 2016; Medicare only)**	**Using MD pattern for site neutral services (2023 vs 2016; Medicare Only)**	**Impact (Difference)**
Maryland Total Utilization (EIPDs)	-18%	-12%	-12%	-
Non-Maryland Total Utilization (EIPDs)	-5%	-8%	-10%	**-1.9%**

[1] Bulat T, Brake R. Sizing Medicare Off-Campus Hospital Outpatient Department Site Neutrality Proposals. Actuarial Research Corporation. January 3, 2024. Available from: https://assets.arnoldventures.org/uploads/Sizing-Medicare-Off-Campus-HOPD-Site-NeutralityProposals-2024.01.03.pdf

[2] Medicare Payment Advisory Commission. Chapter 8: Aligning fee-for-service payment rates across ambulatory setting (June 2023 Report). June 14, 2023.

Implications and Potential Policy Solution

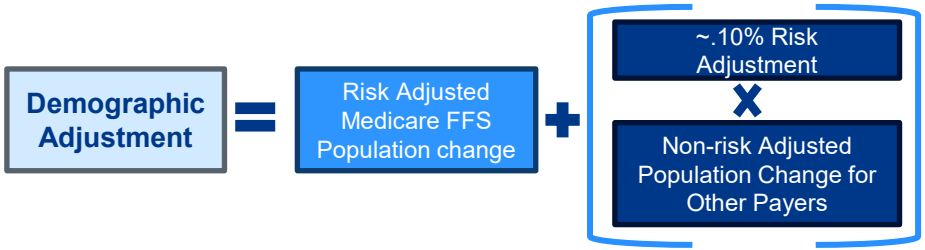
- **Using Maryland use rate experience over the past ten years (-10%; ~-1.0% per year) to adjust the population governor in the Demographic Adjustment may be inappropriate:**
  - Accrues all Model savings to payers
  - Sustained utilization reductions require ongoing provider investments
- **Using National use rate experience over the past ten years (+3%; ~. 3% per year) to adjust the population governor in the Demographic Adjustment may also be inappropriate:**
  - Accrues all Model savings to providers
  - Reflects national HOPD use rates, offsetting site of service gains on site agnostic services in the Model
- **Would a potential hybrid approach of National use rate experience PLUS a discount for Maryland site neutral performance (+3% + -1.9% = 1.1%; ~0.10% per year) work as an appropriate modifier to population growth**
  - Demographic Adjustment = Department of Planning Growth Estimate X (1.+ ~0.10%)
  - Analysis could be replicated every 5 years and updated accordingly
  - Still requires accounting for interaction with HCC adjusted Medicare growth

Additional Considerations

Immediate and Future Considerations

2 years of Revised HSCRC Demographic Adjustments

- From 2026 to 2028, the Commission can elect to modify its population governor to something more than Department of Planning growth AND/OR treat Medicare population growth differently than total population, i.e., apply HCC risk change



- Potential Solution: Demographic Adjustment = YOY HCC Risked Medicare FFS Population Change + (Department of Planning Growth Estimate – YOY HCC Risked Adjusted Medicare FFS Population Growth Change) X Hybrid Approach Modifier
  - Hybrid Approach Modifier of ~.10% could still be utilized on non-Medicare population because non-Medicare runs were equivalent to Medicare
  - Use Same Distribution Logic
  - RY 2026 DA = XX% in lieu of 1.50%
  - Will necessitate rerunning RY 2026 DA to see hospital impact

Two Demographic Adjustments

- In 2028, run 2 demographic adjustments
  - YOY HCC Risked Medicare FFS Population Change (CMS Administered)
  - (Department of Planning Growth Estimate – YOY Medicare FFS Population Growth Change) X Hybrid Approach Modifier
- Will require revisions to distribution logic
  - Remove from Claritas assessment age cohorts greater than 65
  - Remove from age weighting age cohorts greater than 65
  - Remove from hospital market share lives attributable to Medicare FFS

Additional Considerations

Variable Cost Factor

- The HSCRC's **other major volume funding policies** fund volume growth at 50% variable cost factor (VCF), while the Demographic Adjustment funds statewide population growth at 100% VCF.
- Funding is provided to cover both the **variable costs and the fixed costs** associated with treating patients. Market Shift and other volume policies typically only provide funding for the variable component under the assumption that fixed costs do not change with a small addition of volume.
    - If the Demographic Adjustment Methodology was brought more in line with other HSCRC volume policies it would reduce funding by 50% (~$130M for RY2026).

Carveouts

- Currently the Demographic Adjustment is applied to all hospital revenue; however, a portion of hospital revenue **is not addressed through population based methodologies,** e.g., high cost drugs.
- Funding changes, typically increases, applied to revenue that is receiving adjustments through other means, may result in double counting.
    - If the Demographic Adjustment Methodology excluded volume not intended to be assessed through the Marketshift and Demographic Adjustment policies, it would reduce funding by 10-15% (~$26M-$39M for RY2026).

Volume Scorecard

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HSCRC volume policies have provided hospitals with $1.06B more than a FFS environment would have

HSCRC Regulated Environment CY14-24

Actual funding received from volume policies.

HSCRC FFS Environment CY14-24

Funding pre-TCOC model without GBRs and volume policies (not accounting for waiver impacts).

$1.06B in Statewide Overfunding

If HSCRC regulated funding exceeds funding in the HSCRC FFS environment, this would indicate that hospitals benefit more under the HSCRC volume policies.

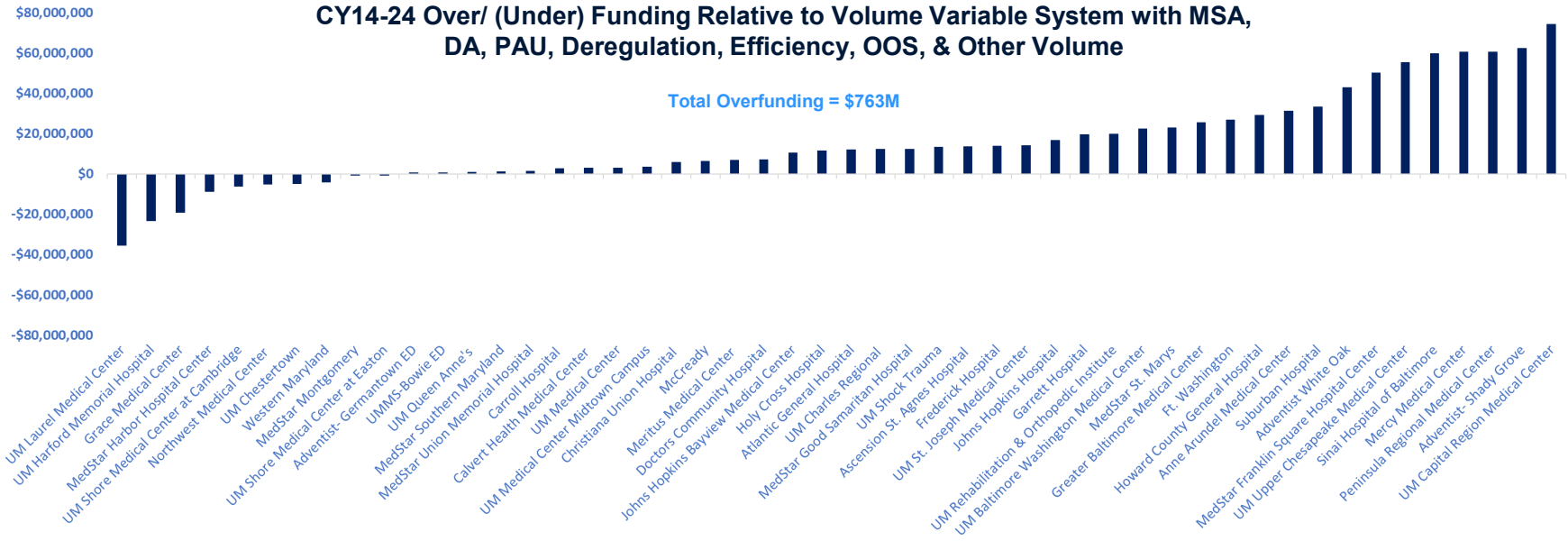
"Overfunding" is a term used to describe circumstances where hospitals receive more funding under HSCRC volume-based policies than they would under FFS, using HSCRC rates and a 59% variable cost factor. The word "over" indicates the degree of financial advantage hospitals experience in the current system.

Other Volume Adjustments increase overfunding by ~$140M to a total overfunding of $763M

HSCRC FFS

HSCRC Volume Policy Funding

Recognized Growth | Unrecognized Growth | FFS PAU Volume | FFS OOS Funding | MSA | DA | PAU | Deregulation. | Efficiency | OOS | Other Volume | Surge Funding | Infrastructure Funding



*Inflation is applied

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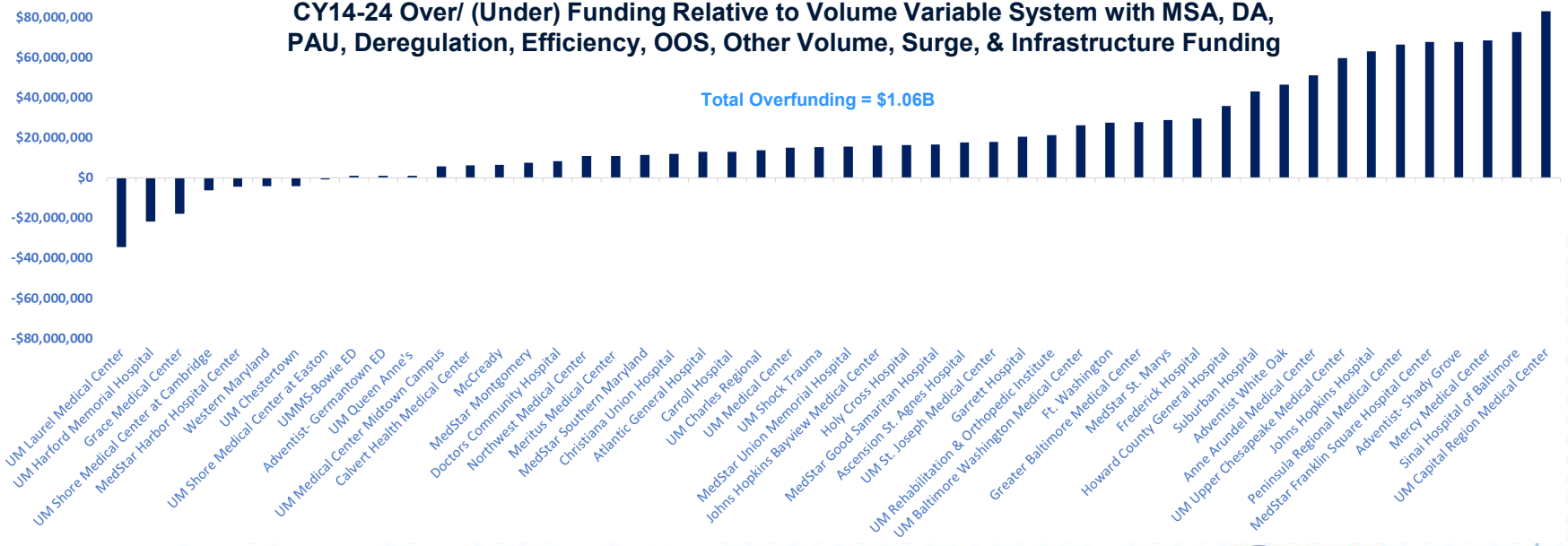
Infrastructure & Surge Funding brings total statewide overfunding to just over $1.06B

HSCRC FFS

HSCRC Volume Policy Funding

Recognized Growth | Unrecognized Growth | FFS PAU Volume | FFS OOS Funding | MSA | DA | PAU | Deregulation. | Efficiency | OOS | Other Volume | Surge Funding | Infrastructure Funding



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Example Individual Hospital Volume Scorecard Summary

Hospital A	xxxxxx
Inflation	Yes
Over/Underfunding	$ 10,752,024

= B - A

Calendar Year	ECMAD Growth	CY14-24 HSCRC FFS Environment					CY14-24 HSCRC Environment									
		Recognized Growth	Unrecognized Growth	PAU Volume Changes Under FFS	FFS OOS Funding	Total	Market Shift Adjustment	Demographic Adjustment	PAU Shared Savings	Deregulation	Efficiency	OOS	Other Volume	Surge Funding	Infrastructure Funding	Total
CY14	(208)	$ (1,150,428)	$ (497,289)	$ (449,209)	$ -	**$ (2,096,926)**	$ (974,939)	$ 1,542,092	$ (341,334)	$ 4,729,287	$ -	$ -	$ -	$ -	$ -	**$ 4,955,105**
CY15	431	1,763,776	2,703,140	43,080	-	**4,509,996**	1,404,942	1,529,227	(3,007,555)	5,246,329	-	-	-	-	-	**5,172,943**
CY16	260	(1,011,880)	3,269,063	636,421	-	**2,893,604**	(846,719)	2,085,545	(1,533,535)	(11,841)	-	-	-	-	-	**(306,550)**
CY17	(265)	(269,307)	(3,284,557)	2,666,571	-	**(887,293)**	(225,006)	1,051,413	(1,998,092)	-	-	-	-	-	-	**(1,171,685)**
CY18	301	(122,219)	1,704,887	(115,509)	-	**1,467,159**	(299,792)	4,270,884	(1,578,931)	-	-	-	-	-	-	**2,392,162**
CY19	511	1,906,870	2,934,211	53,570	-	**4,894,650**	1,520,487	1,188,902	(1,218,090)	-	-	-	-	-	-	**1,491,298**
CY20	-	-	-	-	-	**-**	-	1,724,228	(962,792)	(170,695)	-	-	-	-	-	**590,741**
CY21	-	-	-	-	-	**-**	(80,433)	81,093	(1,548,342)	-	-	-	-	-	-	**(1,547,682)**
CY22	486	1,624,567	2,371,306	3,061,518	2,642,295	**9,699,686**	1,365,984	(895,568)	(2,546,316)	(1,757,046)	-	-	-	-	-	**(3,832,945)**
CY23	716	780,782	5,737,225	1,544,916	-	**8,062,923**	709,857	6,648,986	(96,383)	-	33,470,025	-	-	-	-	**40,732,486**
CY24	1,452	3,393,410	10,756,329	3,076,918	-	**17,226,657**	2,873,590	1,658,212	(259,034)	-	-	-	-	3,773,838	-	**8,046,606**
Total	3,685	$ 6,915,571	$ 25,694,314	$ 10,518,275	$ 2,642,295	**$ 45,770,455**	$ 5,447,972	$ 20,885,013	$ (15,090,404)	$ 8,036,035	$ 33,470,025	$ -	$ -	$ 3,773,838	$ -	**$ 56,522,479**
						A										B

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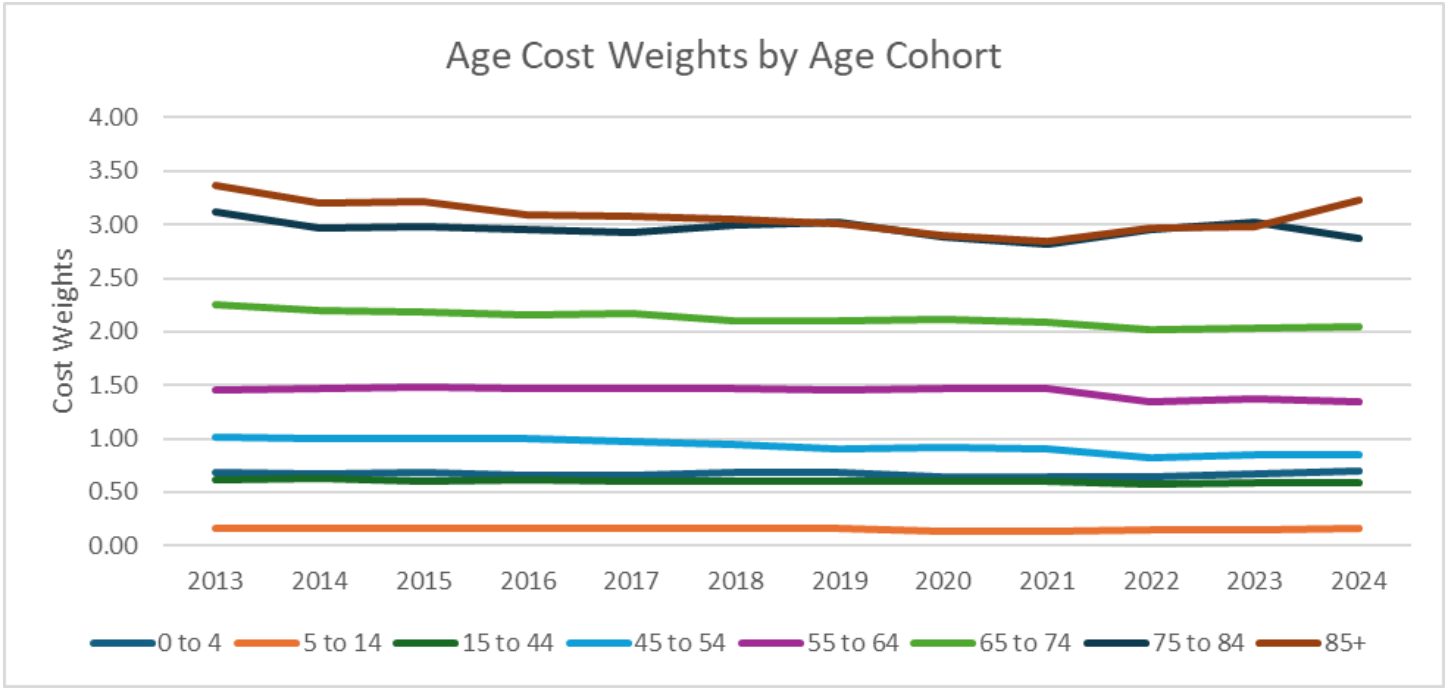
Staff asks the industry to confirm values for respective hospital(s)

- Hospitals will receive their files in the next ~2 weeks and will have until January 31st to review the technical components of their hospital file.
- The HSCRC will be collecting technical corrections/comments until January 31st.
- Corrections and comments can be sent to cait.cooksey@maryland.gov.

Appendix

Age Cost Weights by Year – 2013 to 2024

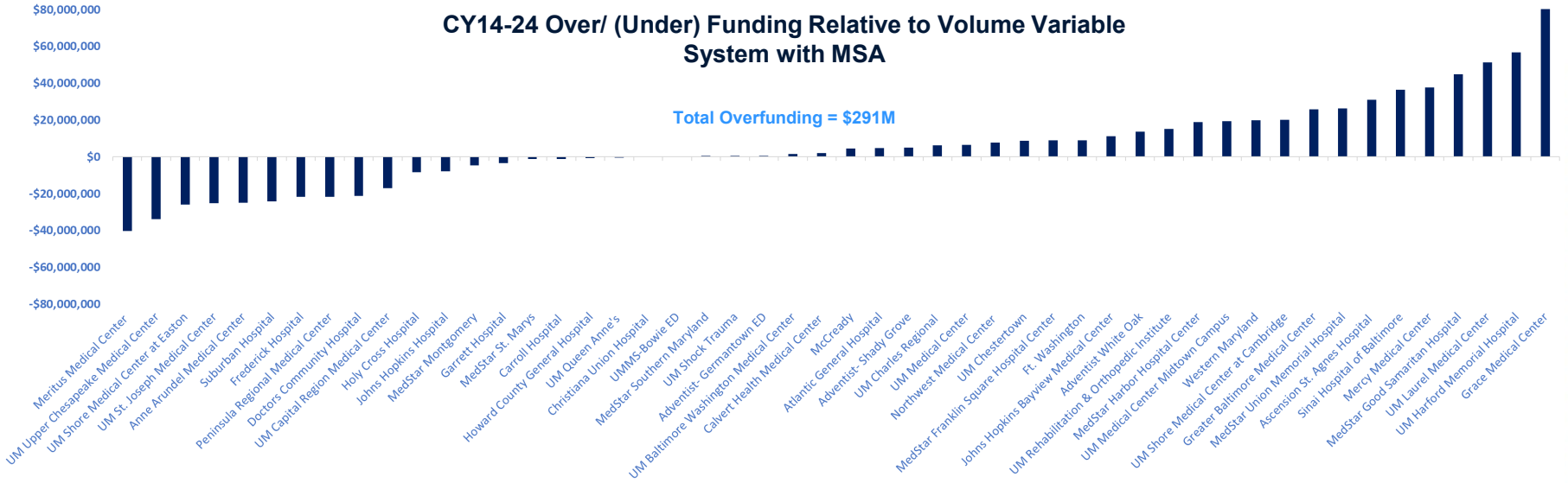


Based on only Market Shift Adjustments, statewide overfunding is $291M from 2014-2024

HSCRC FFS

HSCRC Volume Policy Funding

Recognized Growth | Unrecognized Growth | FFS PAU Volume | FFS OOS Funding | MSA | DA | PAU | Deregulation. | Efficiency | OOS | Other Volume | Surge Funding | Infrastructure Funding



*Inflation is applied

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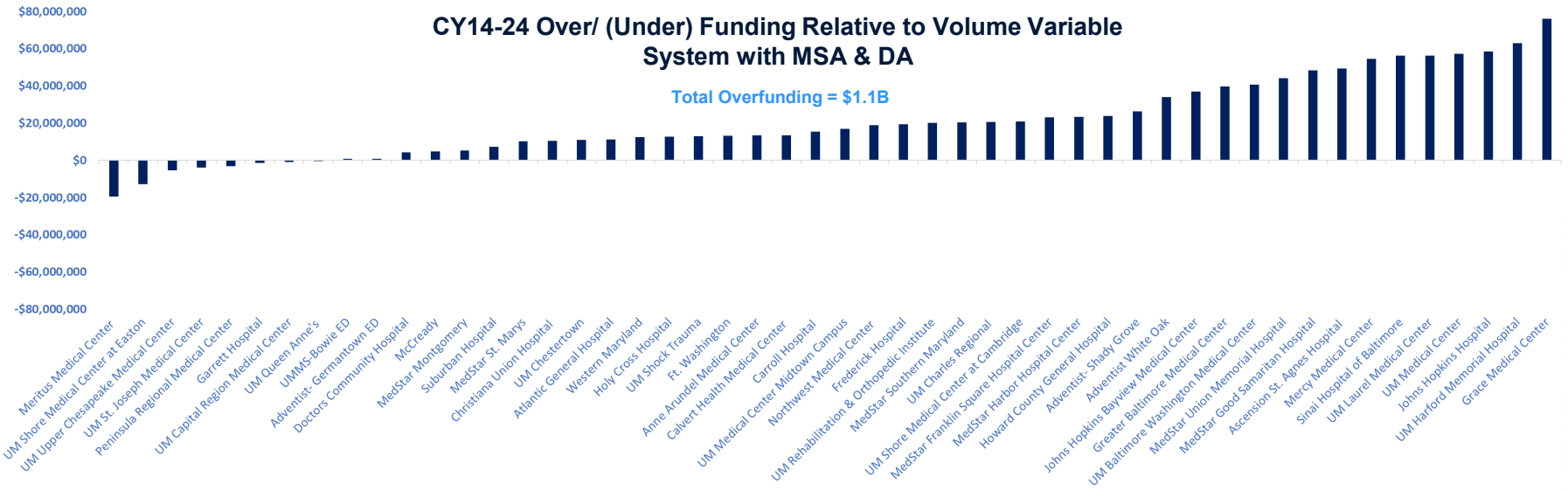
Demographic Adjustment funding increases overfunding by over $750M to a total of $1.1B

HSCRC FFS

HSCRC Volume Policy Funding

Recognized Growth | Unrecognized Growth | FFS PAU Volume | FFS OOS Funding | MSA | DA | PAU | Deregulation. | Efficiency | OOS | Other Volume | Surge Funding | Infrastructure Funding



*Inflation is applied

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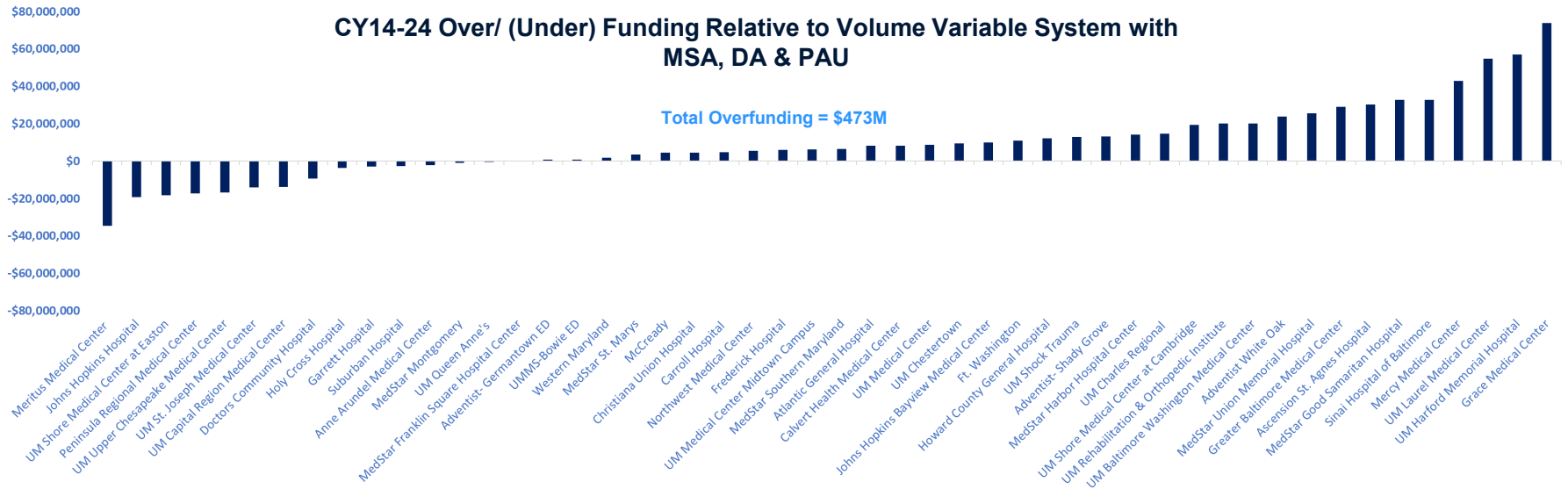
PAU Shared Savings adjustments decrease overfunding by over $500M to a total of $473M

HSCRC FFS

HSCRC Volume Policy Funding

Recognized Growth	Unrecognized Growth	FFS PAU Volume	FFS OOS Funding	MSA	DA	PAU	Deregulation.	Efficiency	OOS	Other Volume	Surge Funding	Infrastructure Funding



*Inflation is applied

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Variable Cost Factor (VCF) Methodology Comments

Overall Summary: Stakeholders broadly support moving from a single statewide variable cost factor to four empirically derived factors, seeing this as an improvement that better reflects costs and improves the accuracy of funding for volume shifts. They recommend periodic review and consistent application of the new methodology, with some noting recalibration may be needed as the state enters the AHEAD model.

Organization	Summary of Comments
JHHS	Johns Hopkins Health System (JHHS) supports the proposed refinements to the VCF methodology. JHHS emphasized the importance of periodic re-evaluation of these factors to maintain accuracy as care delivery evolves, and new technologies emerge.
Adventist	Adventist HealthCare (AHC) supports the VCF refinements and recommends applying them consistently across all volume-related policies; however, the Demographic Adjustment should remain as-is until further discussions take place around possible updates to the policy. AHC suggests reevaluating VCFs every 3-5 years to reflect the evolving cost structures.
Luminis	Luminis Health supports immediate adoption of updated VCFs, citing that the proposed factors (57% inpatient medical, 66% inpatient surgical, 54% outpatient medical, 63% outpatient surgical) better reflect current cost structures compared to the longstanding 50% estimate.
LifeBridge	LifeBridge Health supports the VCF updates but noted that recalibration may be necessary under the AHEAD Model as Medicare global budgets transition to CMS methodologies.
MHA	MHA supports the recommended VCF changes and values HSCRC's collaboration with hospitals. The use of four calculated VCFs and a new statewide average reflects a more empirical approach and improves funding for volume shifts.
UMMS	UMMS considers the proposed inpatient/outpatient medical and surgical split for variable cost factors (VCFs) a reasonable compromise but expresses a preference for service line–specific VCFs, recommending that the assignment of factors be based on the distribution of charges or ECMADs and that these factors be regularly revisited for accuracy.
MedStar	MedStar supports the use of specific VCFs for inpatient and outpatient services but strongly urges HSCRC to implement service line-specific VCFs for even greater accuracy. They also urge the HSCRC to apply the new and more accurate variable cost factors retroactively from 2019 to 2024 Marketshift adjustments

Service Line Consolidation and Exclusions Comments

Overall Summary: Stakeholders generally support consolidating or removing low-volume service lines to improve reliability, but caution that exclusions could impact access to specialized care and limit flexibility under the AHEAD Model's 10 percent limit on carve-outs. There is broad agreement that any changes should be carefully managed, with clear criteria and ongoing review to ensure compliance and protect essential services for patients.

Organization	Summary of Comments
JHHS	JHHS cautions against exclusions that count toward the AHEAD 10% carve-out and emphasized prioritizing tertiary and quaternary care to ensure access for Marylanders. JHHS expressed concern that limiting these services could jeopardize specialized care availability and requested clarity on CMS reimbursement for excluded services.
UMMS	UMMS opposes exclusion of proposed service lines until AMC carve-out negotiations are finalized. UMMS highlights that the current proposal would consume 2.5% of carve-out capacity in addition to the 2.6% already allocated to outpatient drugs, leaving insufficient room for academic carve-outs.
Adventist	AHC supports removal of low-volume service lines to reduce random variation but urged caution given AHEAD's limitations on carve-outs. AHC recommended applying the Out-of-State methodology for adjudicating excluded lines and suggested an annual reconciliation process to simplify administration. AHC also suggests HSCRC consider annual fee-for-service–style reconciliation, similar to CDS-A, to simplify administration and promote long-term consistency.
Luminis	Luminis Health supports removal and consolidation of selected service lines, noting that this change recognizes the limitations of applying the methodology to low-volume or highly variable lines.
MHA	MHA supports the consolidation of certain surgical lines and recommends reassessing reliability post-Medicare exclusion. MHA also urged HSCRC to clarify whether excluded services will be considered outside population-based methodologies under AHEAD, as this interpretation could have material implications for compliance with the 90% revenue requirement.
MedStar	MedStar cautions against excluding service lines from market shift without a comprehensive, stakeholder-informed evaluation of all services excluded from population-based payment, emphasizing that exclusions should be reserved for services with highly variable costs and not rushed under the AHEAD Model's 10% carve-out limit.
LifeBridge	LifeBridge Health opposes exclusions if they count toward the AHEAD carve-out limit, noting that even low-volume services could significantly impact the 10% threshold and reduce flexibility for future policy adjustments.

Temporary Service Line Exclusion Process Comments

Overall Summary: Stakeholders support a standardized process for temporary service line exclusions, with flexibility in notification timing and inclusion of latent demand as a triggering event. They request clear criteria for what qualifies as a triggering event, recommend access impact analysis for significant payer-driven changes, and emphasize that adjustments should not negatively affect other hospitals.

Organization	Summary of Comments
UMMS	UMMS supports a standardized process for temporary exclusions with flexibility on notification timing when shifts are not known six months in advance.
MHA	MHA requests clarification on triggering events, including payer-driven shifts and physician office closures, and recommends requiring access impact analysis for significant payer-driven changes. MHA also asked that only hospitals directly impacted by the shift be eligible to request adjustments.
JHHS	JHHS supports the idea of creating a process to request service line exclusions; however, it is essential to ensure that such adjustments do not negatively affect other hospitals.
MedStar	MedStar supports excluding new services with CON approval from market shift calculations and recommends that MIEMSS designation as a trauma or specialty center should also qualify as a triggering event for exclusion.

Payer-Initiated Market Shifts Comments

Overall Summary: Stakeholders call for consistent, system-wide policies to address payer-initiated market shifts and large network changes. They emphasize that applying the same volume realignment approach to all payers, not just Kaiser, will help ensure fairness and maintain the integrity of hospital funding during significant disruptions. Some stakeholders requested that payers be responsible for notifying the HSCRC when a shift will occur.

Organization	Summary of Comments
CareFirst	CareFirst recommends applying the Kaiser volume policy to all payer-initiated market shifts and prospectively adjusting hospital revenues for network-driven changes to ensure equity. CareFirst argues that failing to adjust for these shifts allows hospitals losing volume to retain full GBR while underfunding hospitals receiving additional patients, creating inequity and distorting GBR integrity.
HME Coalition	Health Means Everything Coalition supports systemic application of volume realignment policies beyond Kaiser to address large-scale network disruptions, citing recent disputes that could impact thousands of Marylanders.
MedStar	MedStar opposes placing the notification burden on hospitals for payer-initiated service realignments and recommends that payers be responsible for notification when such shifts are likely to trigger materiality thresholds.

Other MSA Refinement Comments

Overall Summary: Stakeholders recommend establishing routine, standardized processes for regrouping outpatient procedures and evaluating policy changes, to reduce administrative delays and financial disincentives. They also call for greater clarity on reimbursement for excluded services under new models, urge that major policy updates, such as those related to Market Shift, be revisited after AHEAD methodology is finalized to ensure alignment and address demographic trends, and consideration that the updated VCFs be used to retroactively adjust Market Shift funding from prior periods.

Organization	Summary of Comments
UMMS	UMMS recommends adopting a routine annual process for regrouping outpatient procedures that migrate from inpatient-only status. UMMS noted that the current ad hoc process creates significant lag and financial disincentives for shifting care to lower-cost settings.
JHHS	JHHS requested clarification on how CMS intends to reimburse hospitals for excluded services under AHEAD, noting uncertainty could create financial risk.
Luminis	Luminis Health urged HSCRC to revisit the Market Shift policy after AHEAD methodology is finalized to ensure alignment and avoid conflicting incentives. Luminis Health express concerned that HSCRC has not fully considered the impact of aging demographics driving service growth in certain areas independent of Market Shift.

Latent Demand and Future Policy Alignment Comments

Overall Summary: Stakeholders recommend a standardized, annual process for evaluating latent demand using shared data and transparent assumptions, rather than relying only on hospital analyses. They support adopting CMS-like policies that allow hospitals to retain revenue for unmet needs and backfill services, and agree that latent demand should be included as a triggering event for temporary adjustments.

Organization	Summary of Comments
Adventist	Adventist HealthCare highlighted the need for a standardized statewide framework to assess unmet care needs and latent demand, cautioning against reliance solely on hospital-submitted analyses and recommending a transparent, data-driven process.
MHA	MHA encourages adoption of CMS-like latent demand and population health reinvestment policies to allow hospitals to retain revenue for unmet needs and backfill services when service lines are contracted or removed.
UMMS	UMMS supports the inclusion of latent demand as a triggering event for temporary adjustments.
MedStar	MedStar supports developing a policy to fund hospitals meeting latent demand due to historical access challenges and stresses the need for clear, transparent criteria for evaluating and funding such demand.

Transparency and Consumer Impact Comments

Overall Summary: Stakeholders call for greater transparency and consumer focus, recommending more accessible information, longer public input, and ongoing monitoring, while emphasizing stakeholder involvement and clear evaluation criteria in policy development.

Organization	Summary of Comments
HME Coalition	Health Means Everything Coalition recommends longer public comment periods, consumer-friendly summaries of policy impacts (similar to legislative fiscal notes), and monitoring affordability and access impacts of Market Shift changes.
MedStar	MedStar emphasizes the importance of stakeholder input, transparent evaluation criteria, and collaborative policy development throughout the market shift refinement process.