

Connecticut's Healthcare Benchmark Initiative: Data Analytics Workgroup Meeting

June 15, 2022



Meeting Agenda

1. Welcome and Roll Call
 2. Public Comment
 3. Approval of the May 12th Meeting Minutes – Vote
 3. Approval of Workgroup Charter and Bylaws – Vote
 4. Healthcare Spending Trend Analyses
 5. Commercial Pharmacy Spending Analyses
 6. Upcoming Mathematica Analyses
 7. Wrap-Up & Next Steps
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Welcome and Roll Call

Public Comment

Vote on Workgroup Charter and Bylaws

Vote: Data Analytics Workgroup Charter and Bylaws

- At our initial meeting, we reviewed the draft Data Analytics Workgroup charter and bylaws. Workgroup staff have incorporated member feedback. Revised documents were sent out prior to the meeting for your review.
- *Are members now prepared to vote on adopting the charter and bylaws?*

Healthcare Spending Trend Analyses

Reminder: Cost Growth Benchmark Analysis vs. Data Use Strategy



How will we determine the level of cost growth from one year to the next?

Benchmark Analysis

- **What is this?** A calculation of health care cost growth over a given time period using payer-collected aggregate data.
- **Data Type:** Aggregate data that allow assessment at four levels: 1) provider level, 2) insurer level, 3) market level, and 4) statewide.
- **Data Source:** Insurers and public payers
- **Resources to be Used:** Bailit Health performs analyses at OHS direction



How will we determine the drivers of overall cost and cost growth? Where are there opportunities to contain spending?

Data Use Strategy

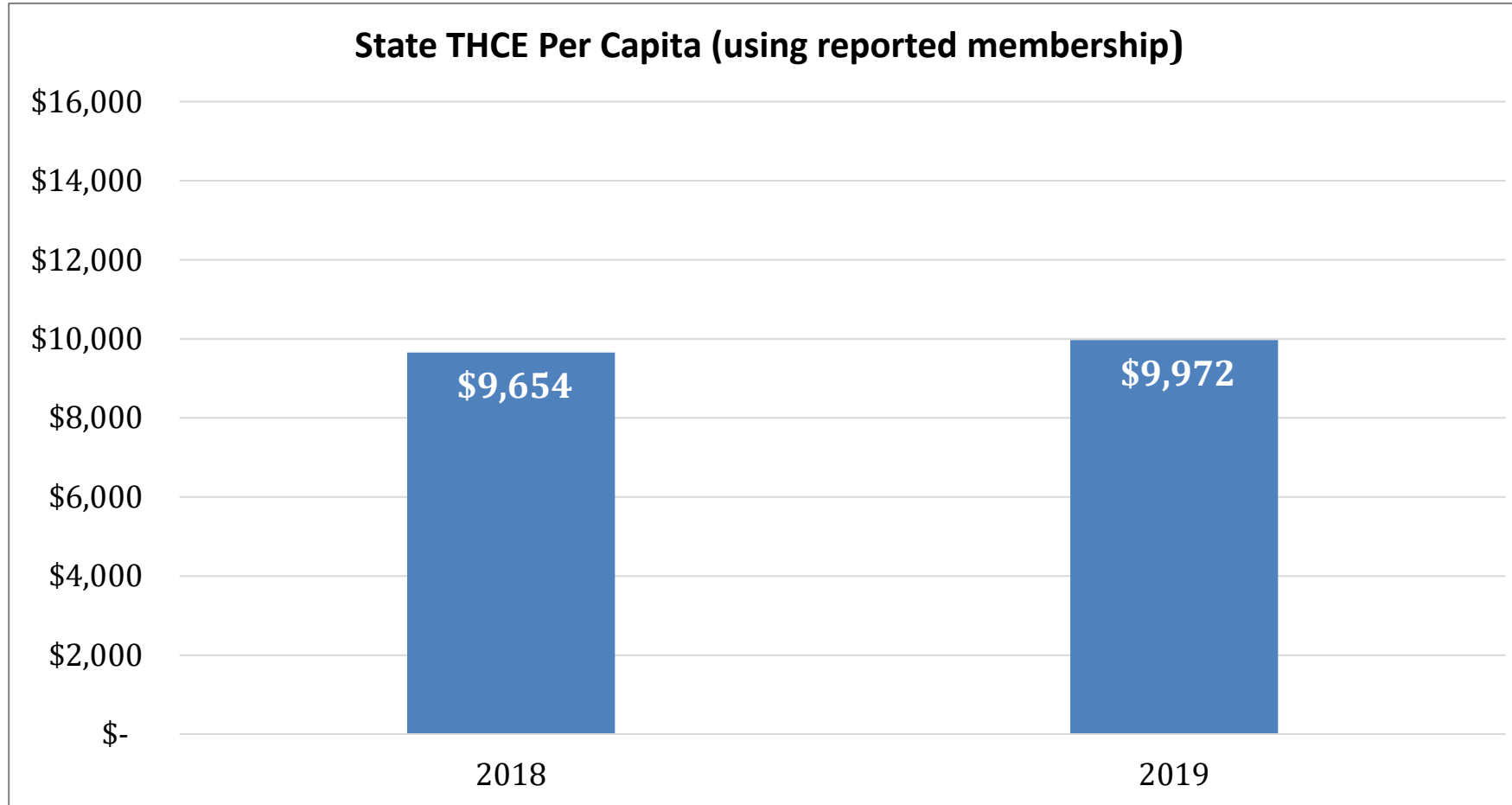
- **What is this?** A plan to analyze cost drivers and identify promising opportunities for reducing cost growth and informing policy decisions.
- **Data Type:** Granular data (claims and/or encounters)
- **Data Source:** All-Payer Claims Database
- **Resources to be Used:** Mathematica performs the analyses at OHS direction

Pre-Benchmark Analysis

- At our last meeting, we discussed the findings on cost growth trends for the 2018-2019 pre-benchmark period.
- We will briefly review these findings once more before starting to look at the data use strategy analyses.
- As a reminder, the cost growth benchmark values for 2021-2025 are displayed here.

Calendar Year	Benchmark Values
2021	3.4%
2022	3.2%
2023	2.9%
2024	2.9%
2025	2.9%

Pre-Benchmark State Per Capita THCE Growth



**THCE Trend
Per Capita**

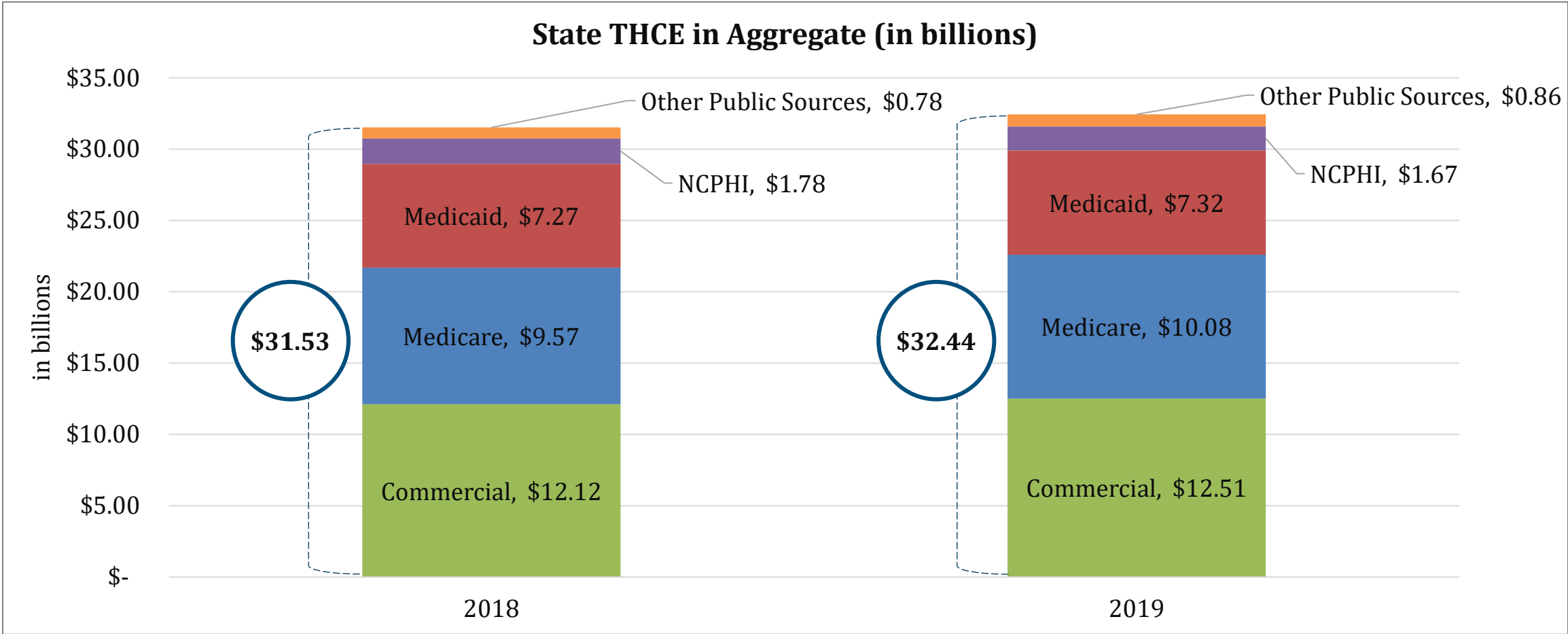
3.3%

Data are not risk-adjusted. They are reported net of pharmacy rebates.

Data include the Net Cost of Private Health Insurance (NCPHI).

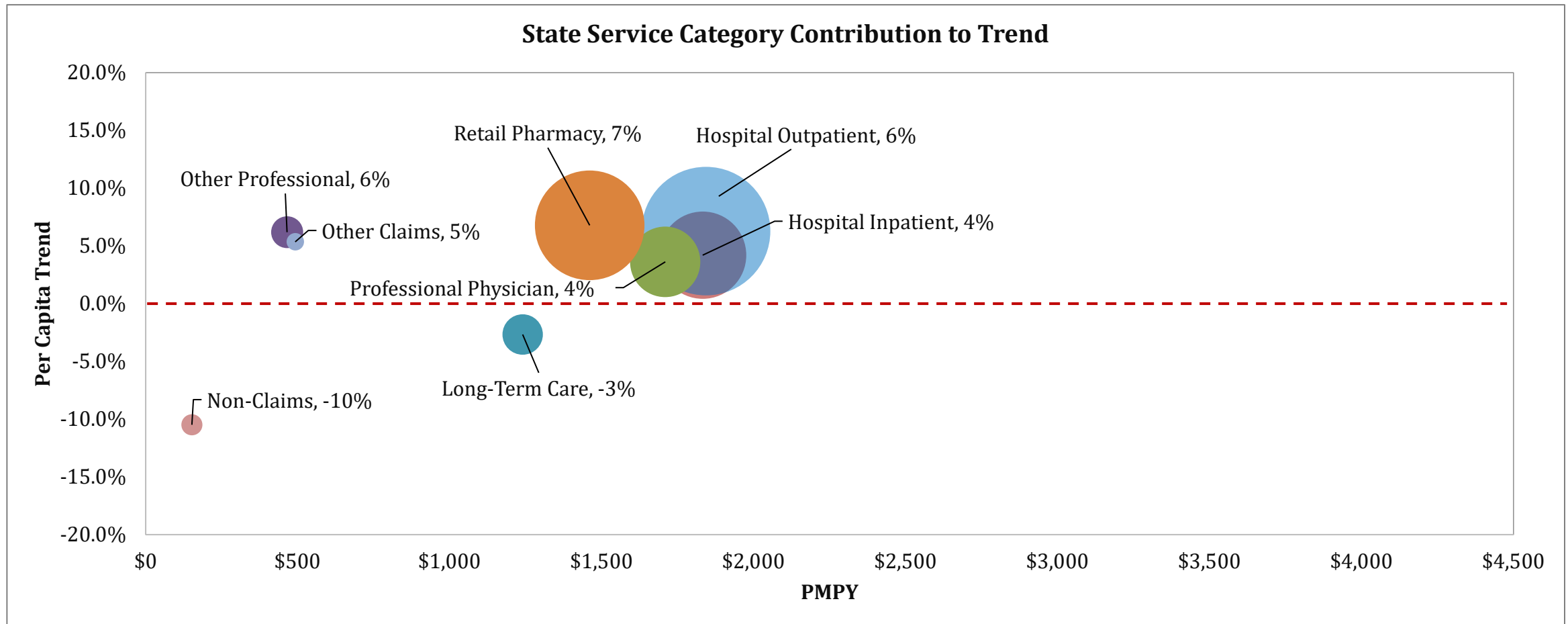
Total reported membership was 3,252,773 in 2019. The CT Census reported 3,565,287 individuals in 2019.

Connecticut's THCE was \$32 billion in 2019



“Other Public Sources” includes CT Department of Correction and Veterans Health Administration spending.

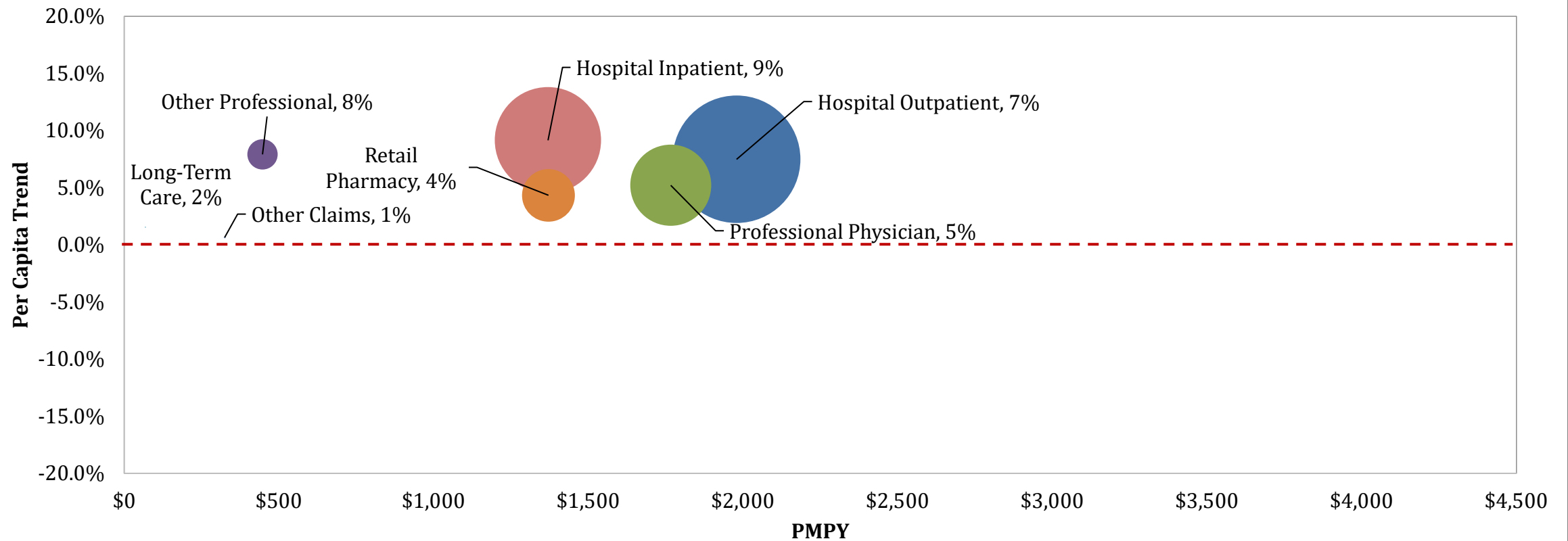
Retail Pharmacy and Hospital Outpatient Drove Connecticut's State Level Spending Growth in 2019



Data are not risk-adjusted. They are reported net of pharmacy rebates.
The width of the bubbles represents contribution to trend.

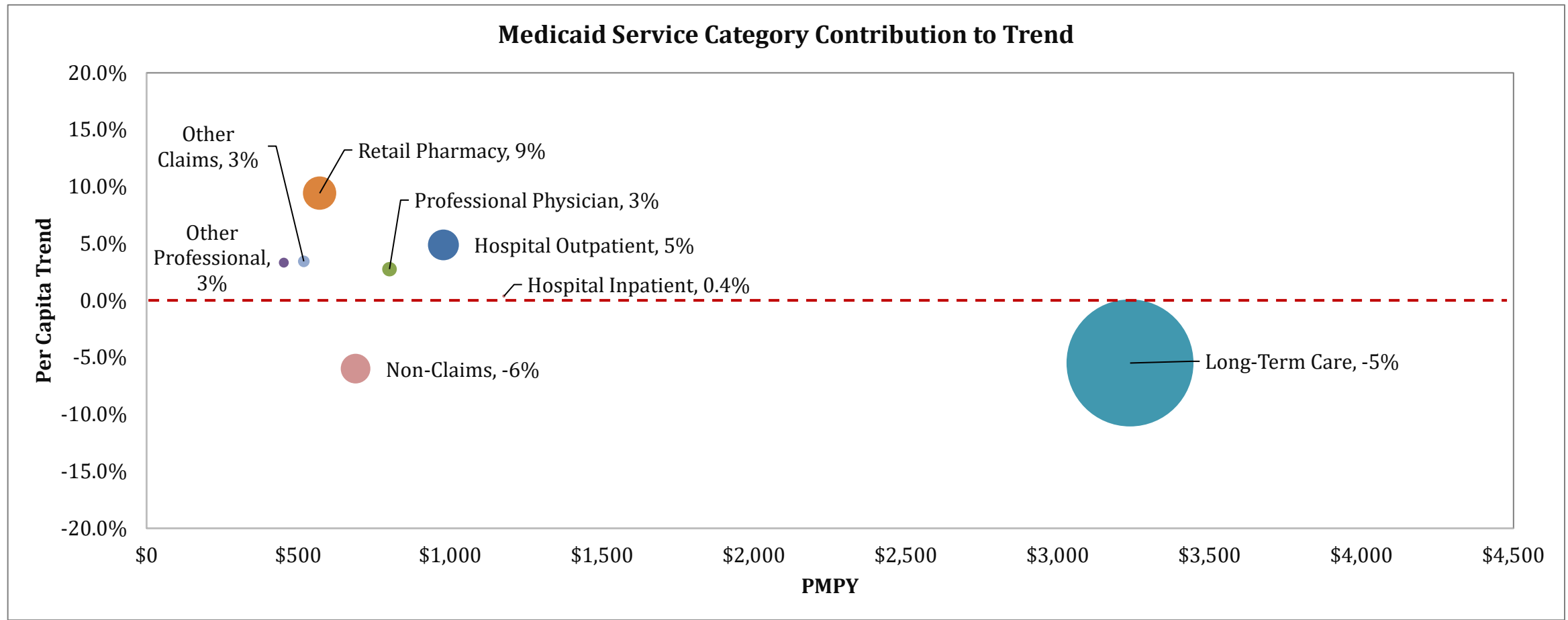
Hospital Outpatient and Hospital Inpatient Drove Connecticut's Commercial Market Spending Growth in 2019

Commercial Service Category Contribution to Trend



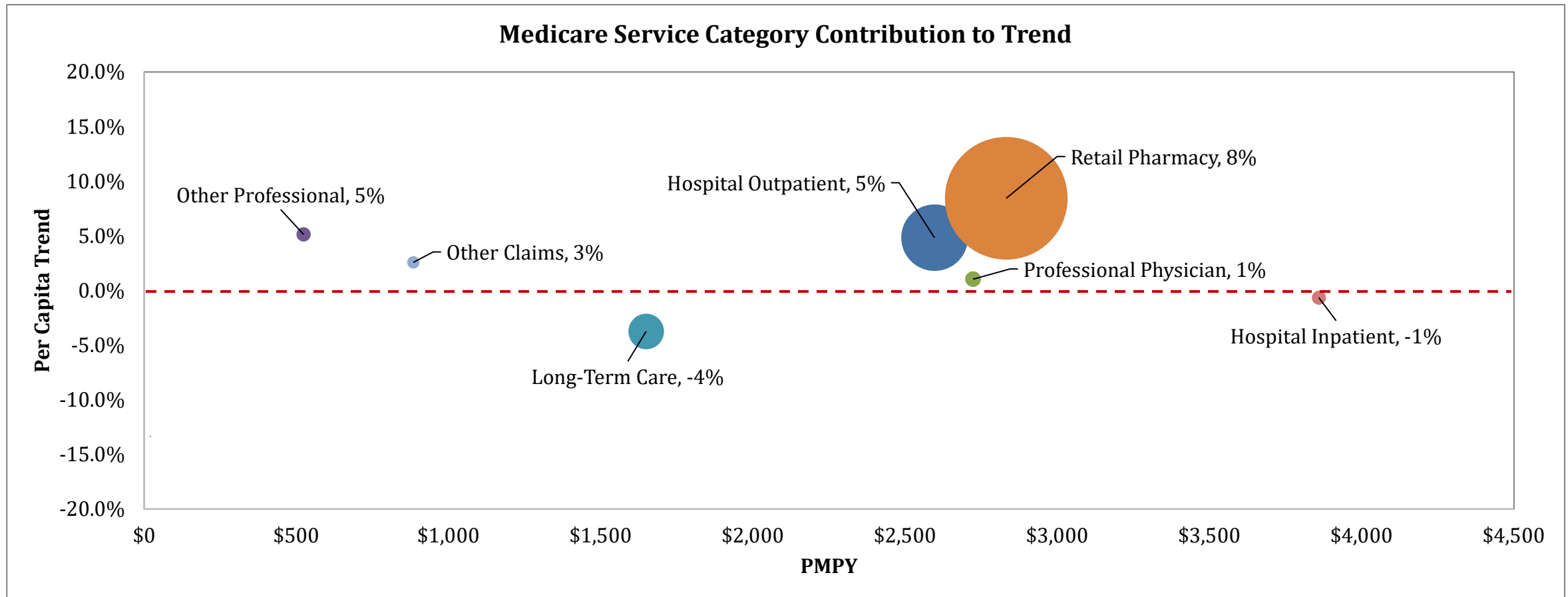
Data are not risk-adjusted. They are reported net of pharmacy rebates.
The width of the bubbles represents contribution to trend.

Retail Pharmacy and Hospital Outpatient Experienced the Largest Growth in the Medicaid Market in 2019



Data are not risk-adjusted. They are reported net of pharmacy rebates.
The width of the bubbles represents contribution to trend.

Retail Pharmacy and Hospital Outpatient Drove Connecticut's Medicare Market Spending Growth in 2019



Data are not risk-adjusted. They are reported net of pharmacy rebates.
The width of the bubbles represents contribution to trend.

Three Service Categories Drove TME Cost Growth Across All Markets in 2019

	Hospital Inpatient	Hospital Outpatient	Retail Pharmacy (Net of Rebates)
State		✓	✓
Commercial	✓	✓	
Medicaid		✓	✓
Medicare		✓	✓

OHS will collect 2020 and 2021 benchmark spending data from payers this summer.

Mathematica's Cost Driver Analysis

- Understanding healthcare spending requires data analysis beyond what is possible with the benchmark data. OHS has utilized the State's All-Payer Claims Database, combined with other data resources, to gain insight into commercial healthcare spending.
- Analyses have been conducted by OHS contractor Mathematica since 2020. The analyses provide insight into the factors that have been driving spending and spending growth and can inform strategies, to be considered with stakeholder input, to meet the benchmark.
 - Additional analyses will be performed later in 2022, including with Medicaid claims.

Medical spending PMPM increased 21%, 2015-19

Payer	PMPM Spending					Annual Change (%)				Total change (%)
	2015	2016	2017	2018	2019	2016	2017	2018	2019	
All-payer (unadjusted)	\$375.47	\$407.64	\$421.05	\$431.19	\$454.19	8.6%	3.3%	2.4%	5.3%	21.0%

Notes:

- 1) The average annual increase was 4.9%
- 2) Average wage growth in CT for the same time period was 2.6%.
- 3) Limited to CT residents under age 65.
- 4) Excludes retail pharmacy spend, a major contributor to spending growth in other states.

Out-of-pocket spending increased much faster than total spending

Payer	OOP spending for insured medical services (PMPM)					Annual OOP change (%)				Average annual change (%)		Total change (%)	
	2015	2016	2017	2018	2019	2016	2017	2018	2019	OOP	PMPM	OOP	PMPM
All-payer (unadjusted)	\$44.26	\$47.82	\$53.83	\$55.25	\$56.70	8.0%	12.6%	2.6%	2.6%	6.5%	4.9%	28.1%	21.0%

Note:

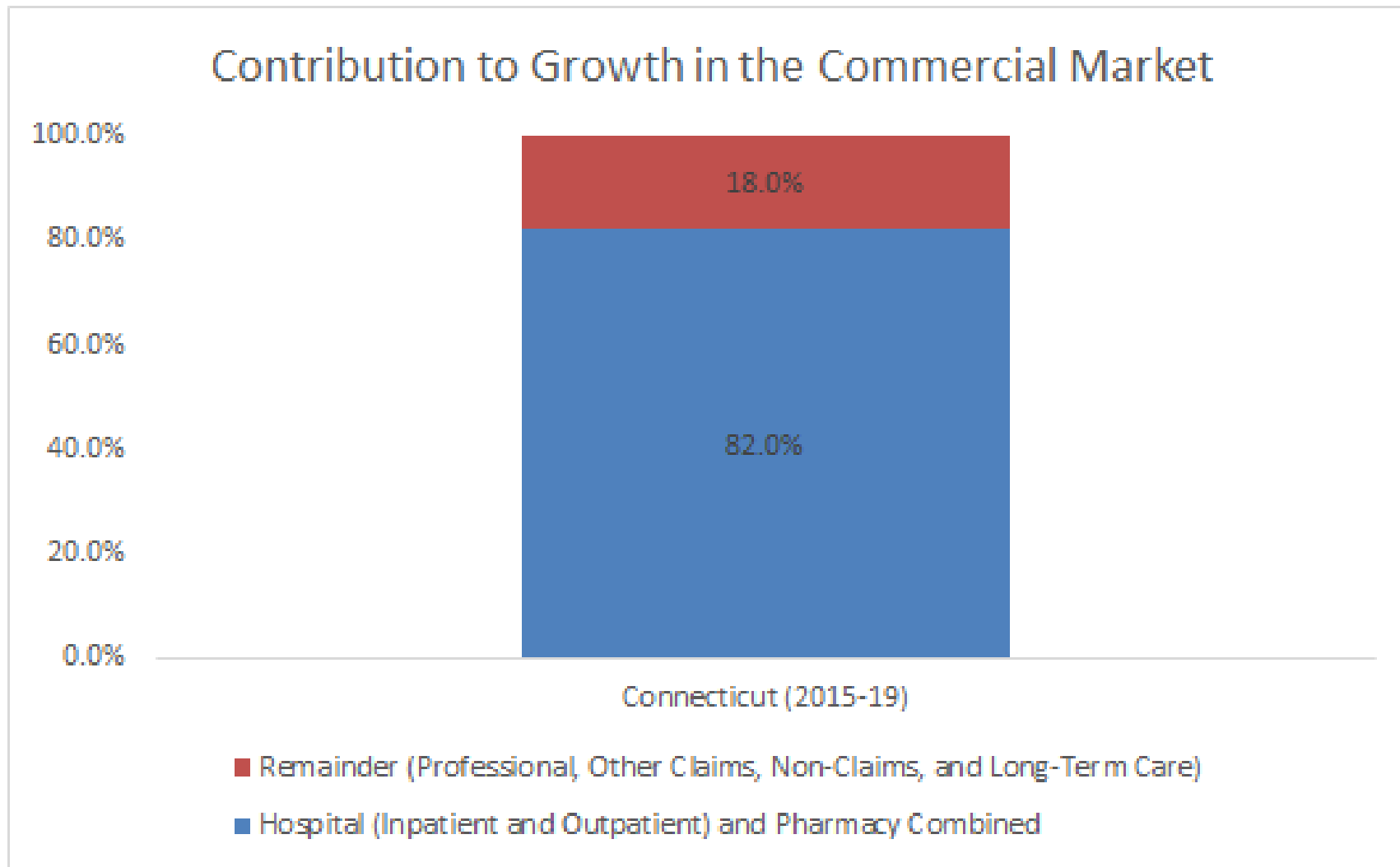
- 1) The average annual increase in out-of-pocket spending was 6.5%.
 - This includes patient co-insurance, deductible, and co-payment obligations. It does not include premium contributions.
- 2) This finding reflects changes in employer decisions on plan design, and employee plan selection.

Between 2015 and 2019 per capita spending growth varied significantly by service type

Service Category	2015		2018		2019		2018-2019 change (%)	Average annual change (%)	Total change (%)	Change in category as percent of total PMPM change
	PMPM	%	PMPM	%	PMPM	%				
All services	\$480.24	100.0	\$565.02	100.0	\$589.13	100.0	4.3	5.3	22.7	100.0
Professional	\$169.69	35.3	\$183.77	32.5	\$188.73	32.0	2.7	2.7	11.2	17.5
Inpatient acute	\$78.57	16.4	\$94.02	16.6	\$98.71	16.8	5.0	5.9	25.6	18.5
Outpatient	\$126.03	26.2	\$151.53	26.8	\$163.82	27.8	8.1	6.8	30.0	34.7
Other	\$5.61	1.2	\$4.87	0.9	\$4.72	0.8	-2.9	-4.1	-15.8	-0.8
ED*	\$27.10	5.6	\$32.76	5.8	\$35.74	6.1	9.1	7.2	31.9	7.9
Pharmacy	\$100.34	20.9	\$130.84	23.2	\$133.14	22.6	1.8	7.6	32.7	30.1

* ED includes both professional and outpatient ED claims if delivered in an ED, and thus overlaps with Professional and Outpatient.

Hospital Services and Pharmacy Have Driven Cost Growth



Spending per unit, not number of units, drove growth in hospital spending

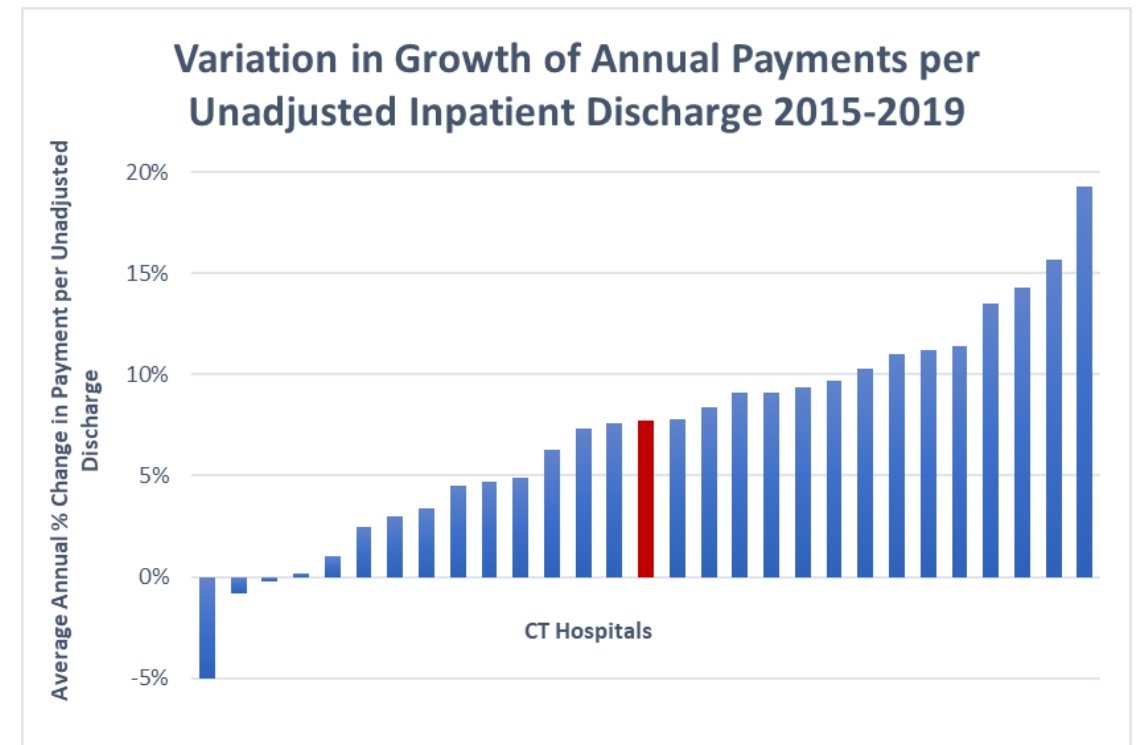
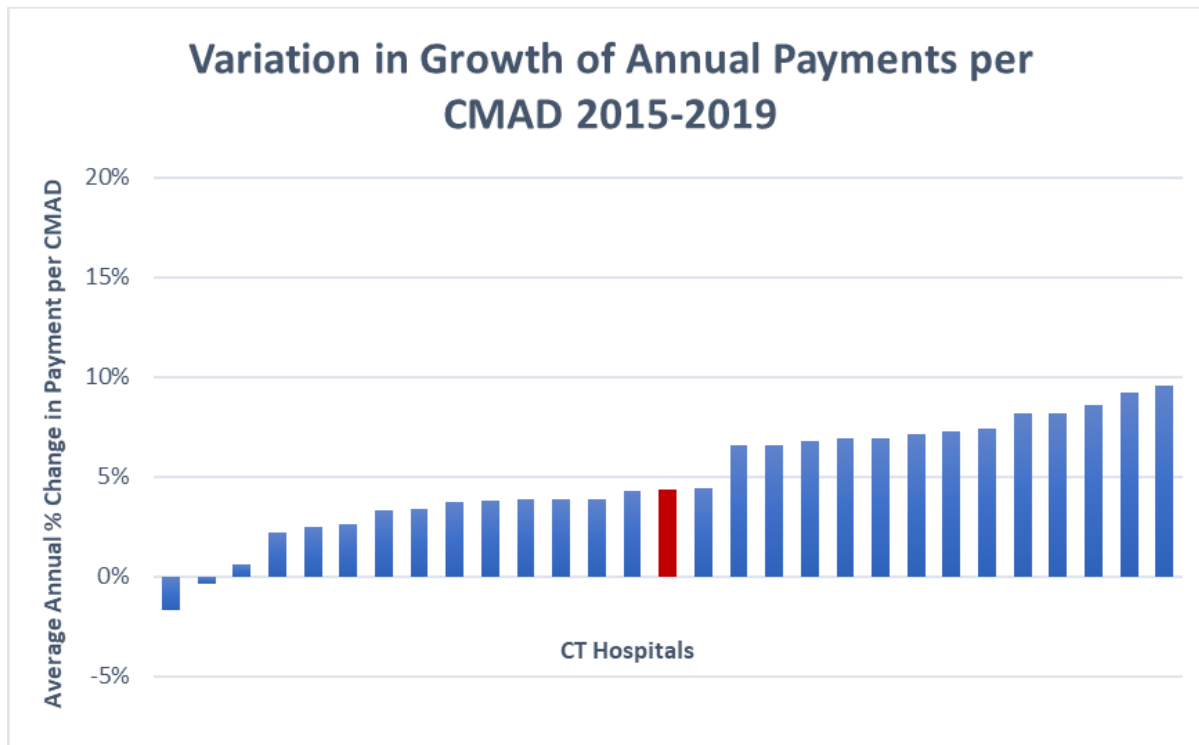
Category of Service	Volume (2019)	Spending (2019)	Spending per unit (2019)	Change (2015-2019)	
				Volume	Spending Per Unit
Inpatient Discharges	33,683	\$943,616,109	\$28,015	-10%	37%
Professional	8,270,885	\$1,800,756,932	\$218	2%	7%
Outpatient	1,011,124	\$1,560,864,030	\$1,544	-2%	31%
Other Services Combined	106,503	\$44,882,590	\$421	-12%	-7%
Emergency Department Visits	179,072	\$340,982,098	\$1,904	-10%	44%

- Changes in spending per unit may be affected by both changes in service mix and changes in service-level prices.
- Includes CT residents under age 65. Results are not age/gender-adjusted.
- Inpatient stay units defined as discharges, which can include multiple inpatient claims. ED units defined as visits which can include multiple outpatient and/or professional claims.
- “Other” category of service units defined as individual claims.

Hospitals with the highest inpatient costs grew fastest, while those with the lowest grew slowest

- Of the ten hospitals with the **highest rates of growth in payment** per CMAD, five hospitals also had the highest cost per CMAD in 2019. Four of five were affiliated with the largest systems.
- Of the ten hospitals with the **lowest rates of growth in payment** per CMAD, five hospitals also had the lowest cost per CMAD in 2019. Four of five were *unaffiliated* with the largest systems.

There is great variation in payment per discharge growth trends across Connecticut hospitals

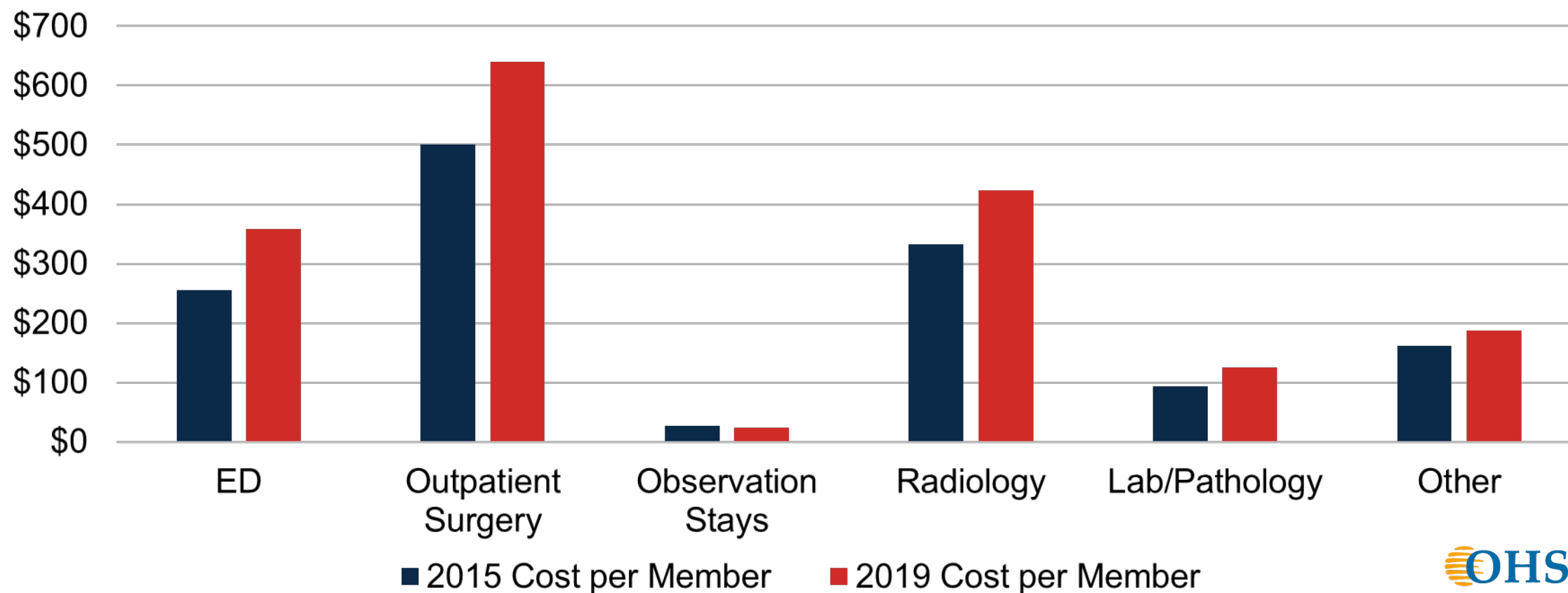


Notes:

- CMAD = Case Mix-Adjusted Discharge
- The red bar indicates the median.

ED, outpatient surgery, and radiology make up the majority of outpatient facility spending

Outpatient spending by service type

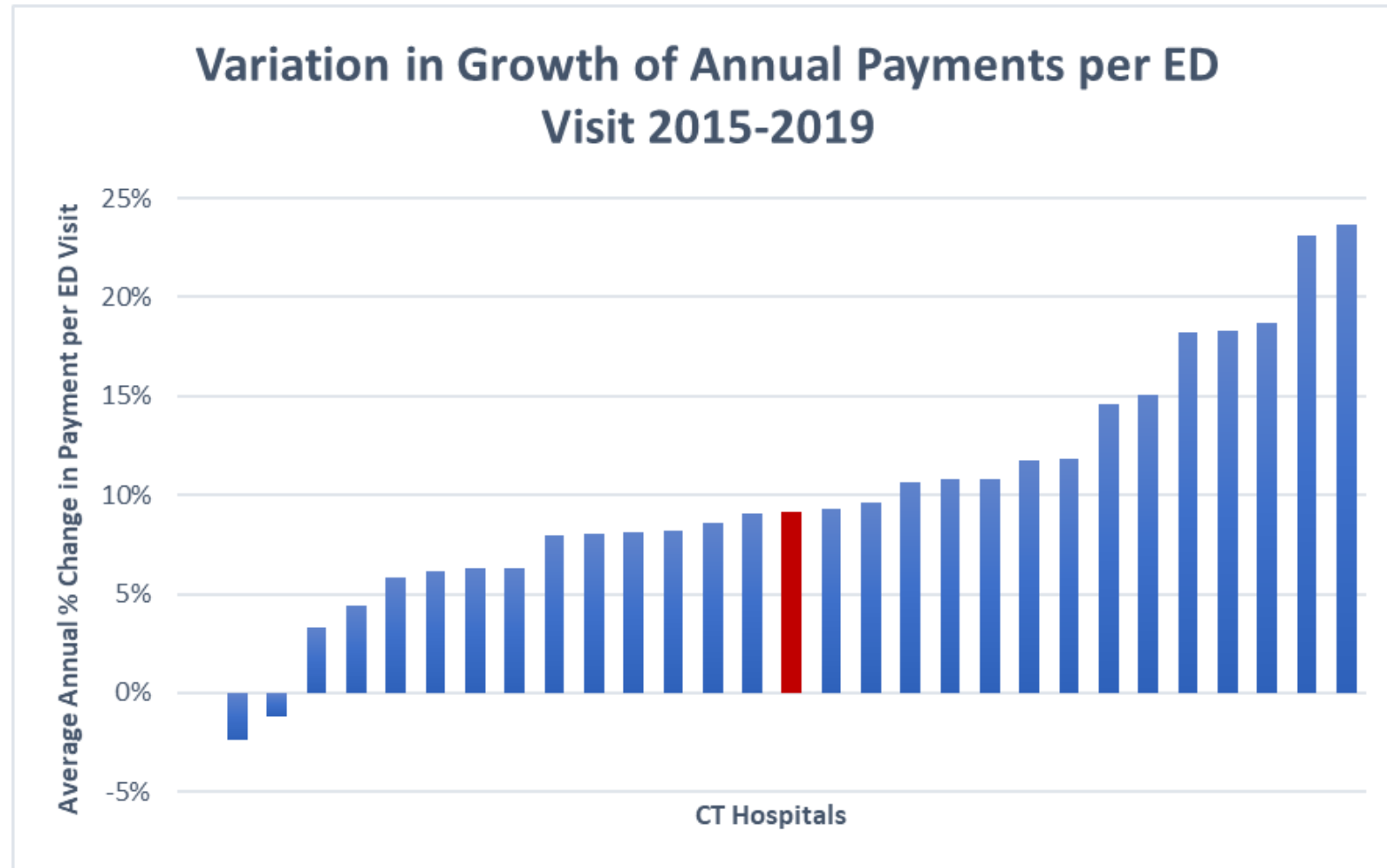


Across all major outpatient service types, changes in outpatient spending were driven by payment per unit, not increased units per person

Service type	2015 – 2019 Percent Change			
	Spending per person	Units per member	Spending per unit	Interaction of both factors
ED	40.1%	-6.3%	49.5%	-3.1%
Outpatient surgery	28.1%	2.3%	25.2%	0.6%
Radiology	27.5%	0.0%	27.6%	0.0%
Lab/pathology	35.5%	-5.2%	42.8%	-2.2%

- For ED, spending per unit rose by almost 50 percent between 2015 and 2019.

There is great variation in payment per ED visit growth trends across Connecticut hospitals



Note: The red bar indicates the median.

Key Takeaways

1. Hospital services and pharmacy drove 2015-2019 spending.
2. Commercial healthcare spending increases were due to increases in payment per service, and not increased utilization.
3. There is great variation in payment growth trends by hospital.
4. Higher cost hospitals had faster growing spending and tended to be affiliated with the largest systems in the state, while lower cost hospitals had slower growing spending and tended to be unaffiliated with the largest systems.

Cost Growth Driver Analysis - Discussion

- *What stands out to you from the data that we have shared?*
- *Where are there opportunities for cost growth mitigating action?*
- *What areas of further inquiry would you suggest?*

Commercial Pharmacy Spending Analyses

Pharmacy Costs

“Retail Pharmacy” costs or spend

- Prescription medicines purchased in retail pharmacies or via mail order

“Medical Pharmacy” costs or spend

- Prescriptions administered in providers’ offices and hospitals

PMPM Spending

In 2019, 28% of commercial spending was on Pharmacy Services (Retail and Medical)

/ Pharmacy spending was greater than inpatient or outpatient spending, second only to professional.

Service Category	Percentage of Spending		
	2017	2018	2019
Inpatient	17.3%	17.4%	17.6%
Outpatient	22.3%	22.5%	23.4%
Professional	31.0%	30.6%	30.1%
Pharmacy	28.4%	28.6%	28.0%
<i>Retail*</i>	21.2%	21.1%	20.2%
<i>Medical**</i>	7.1%	7.5%	7.9%
Other***	1.1%	0.9%	0.9%

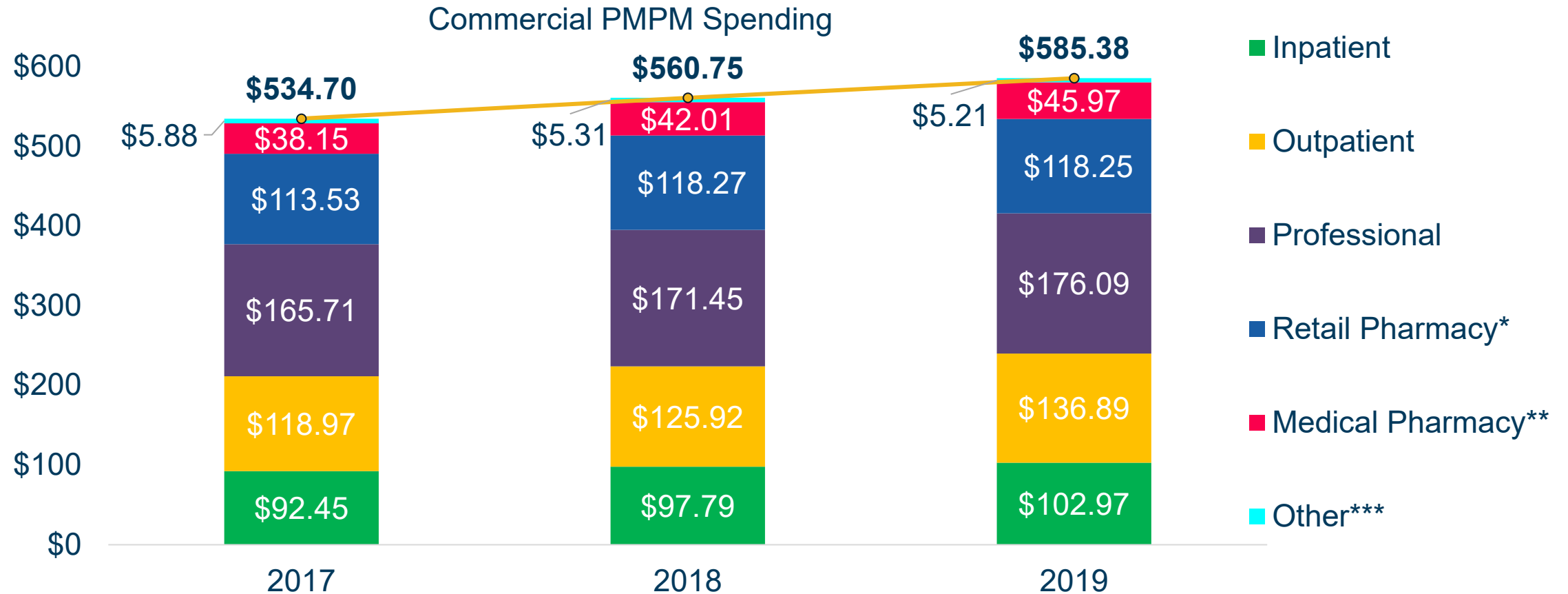
* Retail pharmacy includes all members with pharmacy coverage, regardless of medical coverage.

**Medical pharmacy amounts are subtracted from respective medical service categories

***"Other" services include DME, home health, hospice, ICF and SNF claims.

Professional, outpatient and pharmacy services were the top three contributors to commercial PMPM spending growth

Spending for medical pharmacy increased the most (+20.5%), followed by outpatient spending (15.0%) and inpatient spending (+11.4%)

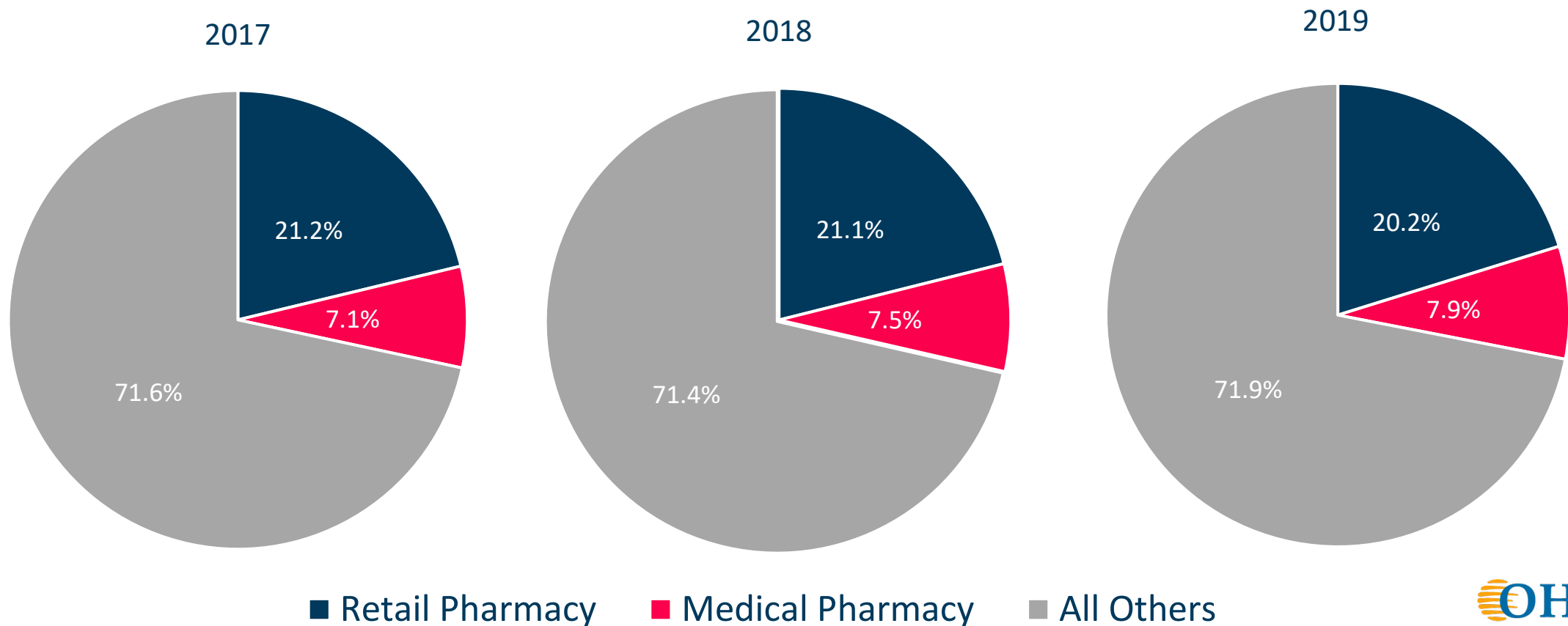


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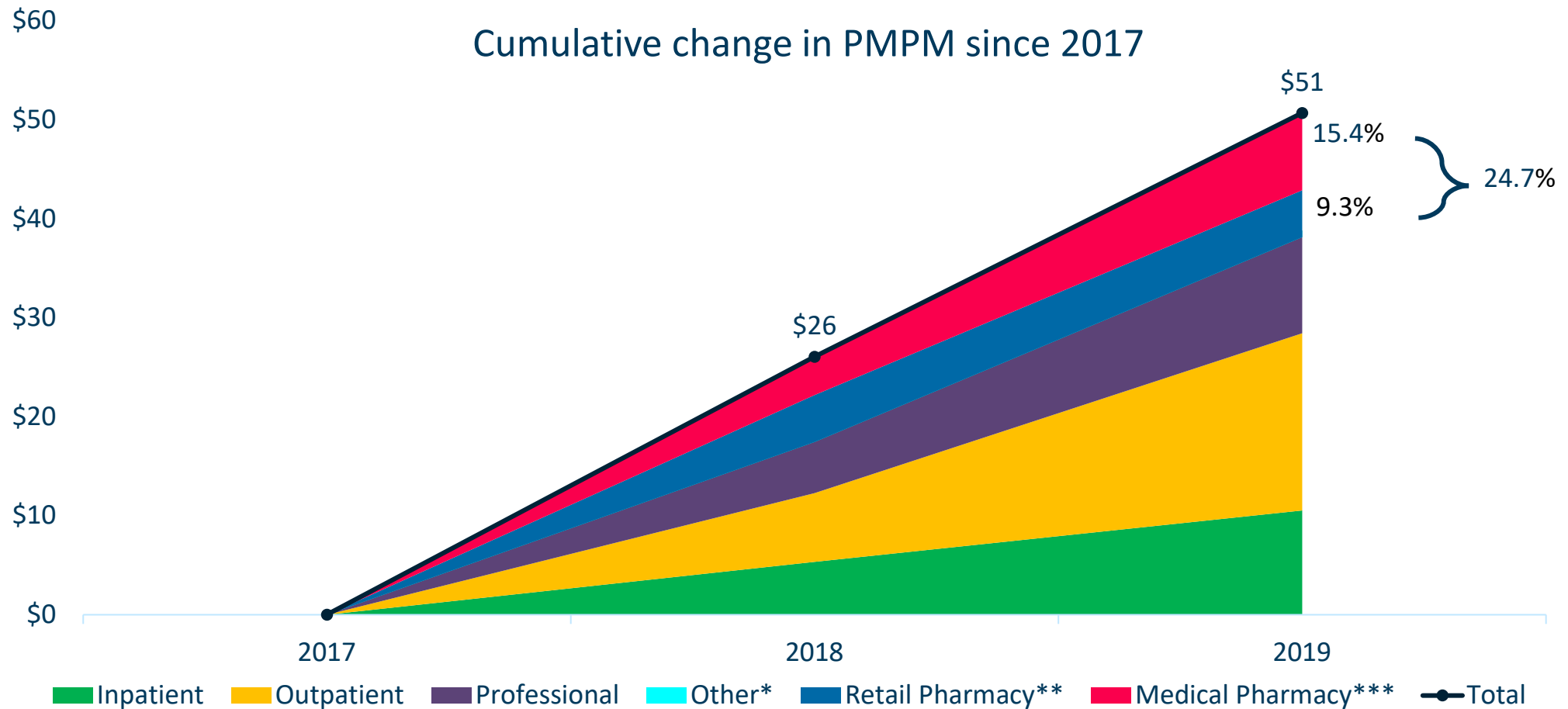
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Retail and Medical Pharmacy share of commercial PMPM spending was consistent over time, because hospital spending growth was so high



About one-quarter of cost increases between 2017 and 2019 were due to Retail and Medical Pharmacy



* 'Other' services include DME, home health, hospice, ICF and SNF claims.

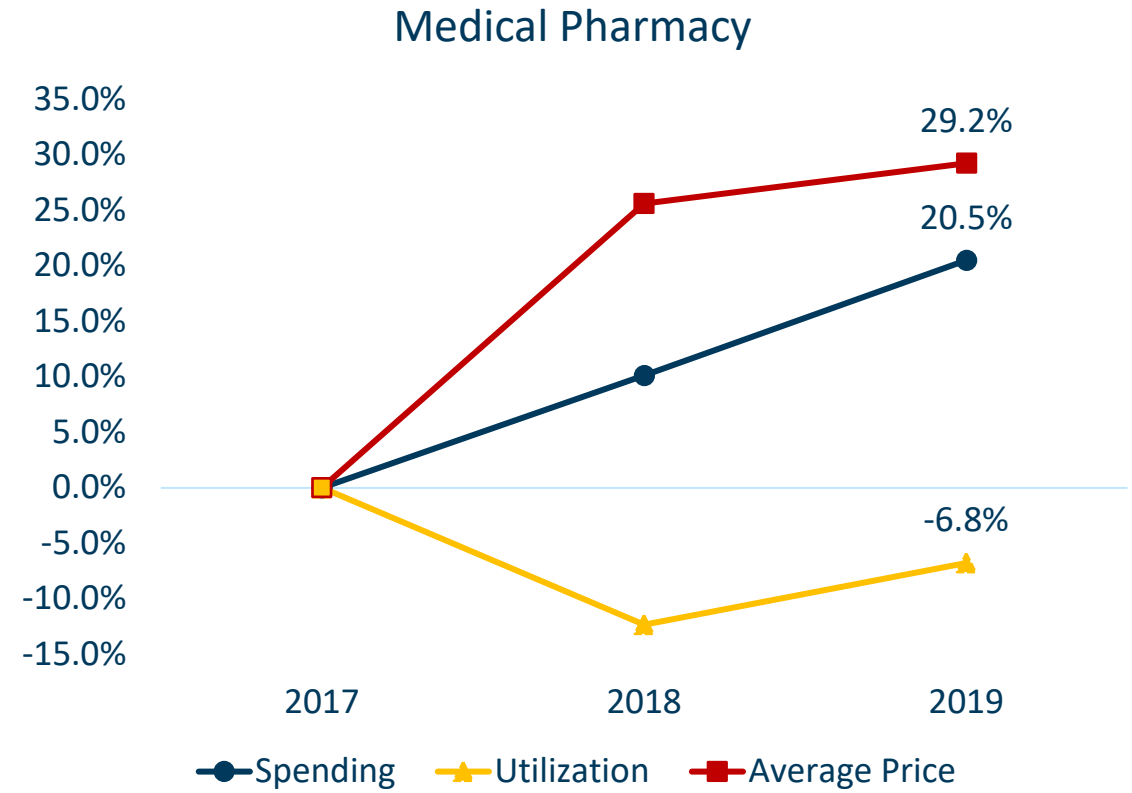
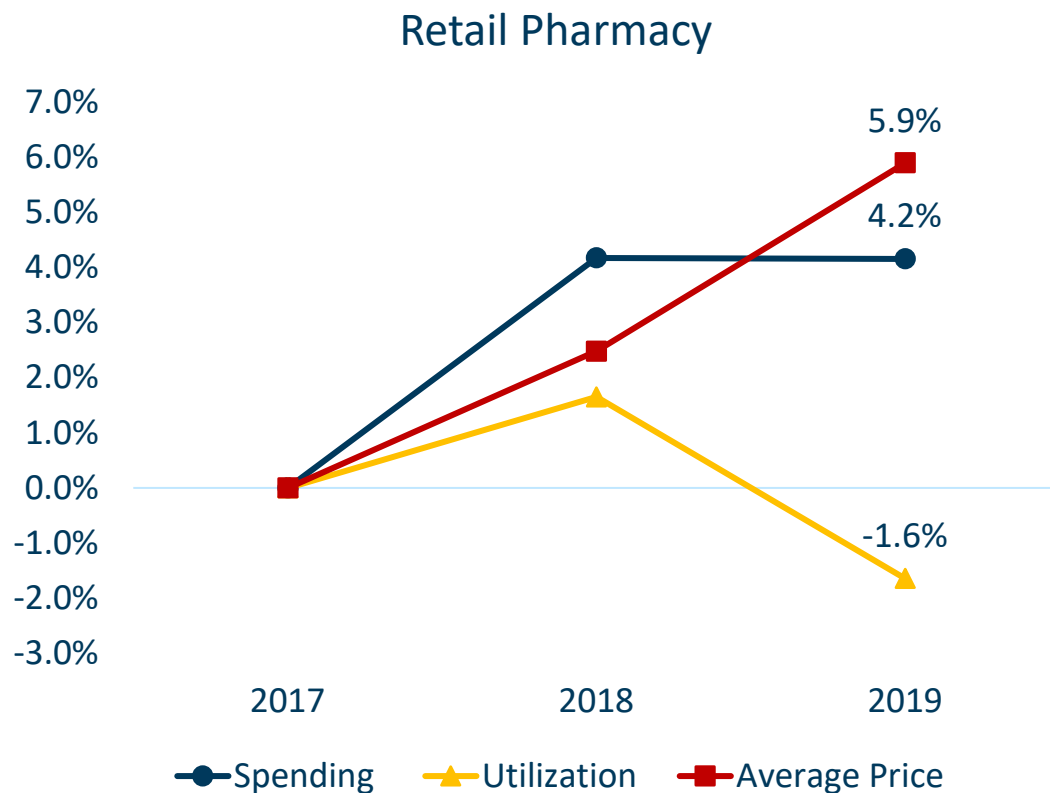
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Utilization vs Price

Price increased for both Retail and Medical Pharmacy while utilization declined

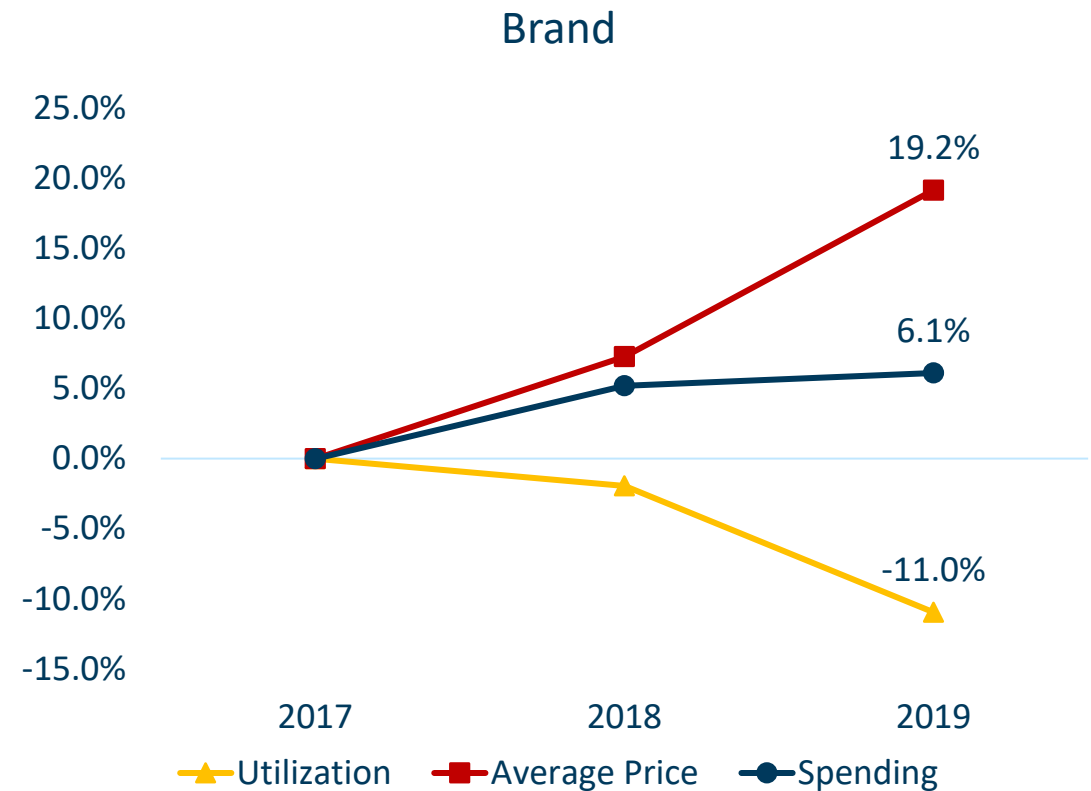
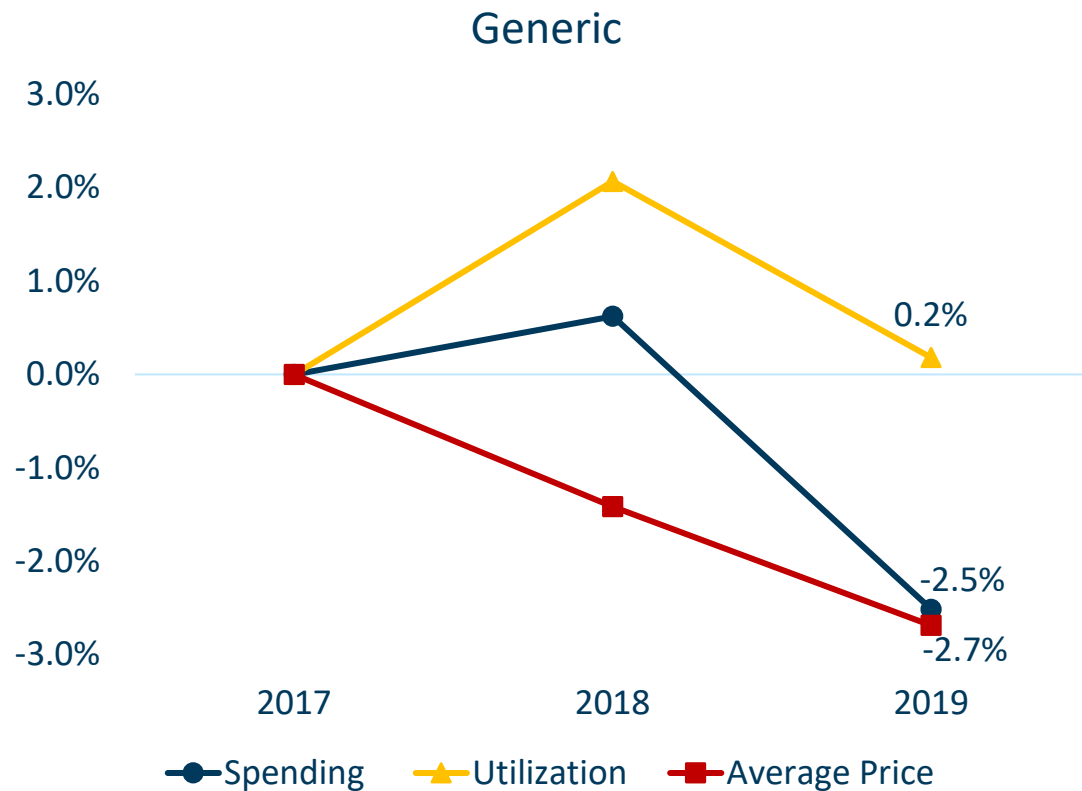
- / Average price and spending increased at a far higher rate for Medical Pharmacy than for Retail Pharmacy.
- / Utilization fell more sharply for Medical Pharmacy than Retail Pharmacy.



Spending = PMPM; Average price = Spending per prescription; Utilization = prescriptions per member month

Utilization of generic retail drugs remained flat while price and spending fell, while the opposite trend occurred with brand-name retail drugs

Despite this downward trend in utilization, spending and price trended upward for brand drugs.



Spending = PMPM; Average price = Spending per prescription; Utilization = prescriptions per member month

Pharmacy Costs: Deeper Dive

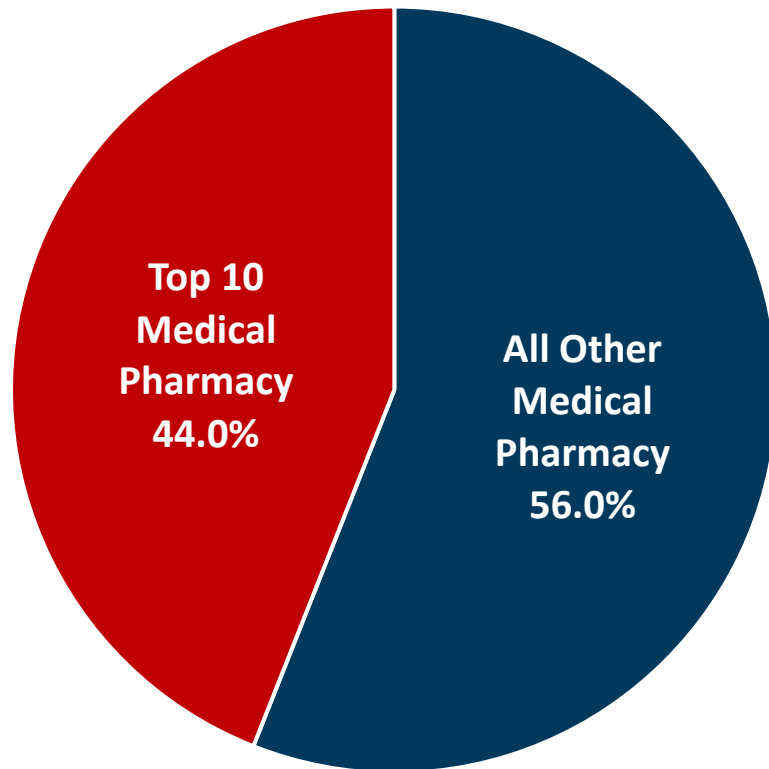
The top 10 medications for medical pharmacy spending in 2019 were drugs primarily used to treat cancer, Crohn's disease, and multiple sclerosis

Medical Pharmacy Spend: Top 10 Medications (Total Allowed), 2019

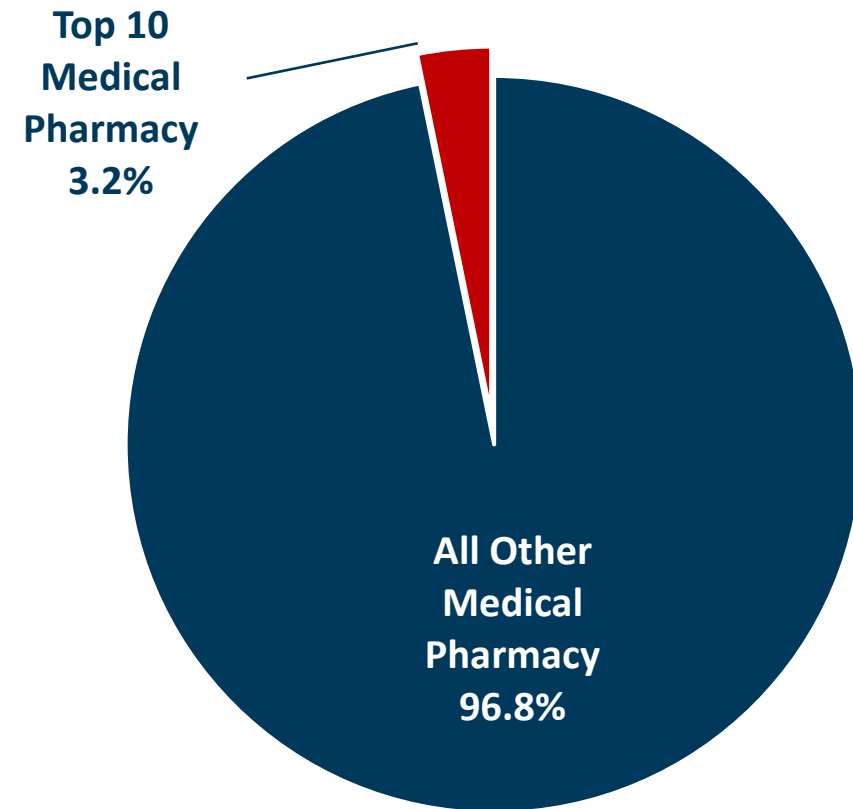
Medication	Indication	Allowed Amount	Distinct Users	# of Claims	Price (Allowed / # Claims)
INJECTION OCRELIZUMAB 1 MG	Multiple Sclerosis	\$37,866,205	690	774	\$48,922.75
INJ INFLIXIMAB EXCL BIOSIMILR 10 MG	Rheumatoid Arthritis, Psoriasis, Crohn's disease, Ulcerative colitis	\$35,080,751	5,944	7,607	\$4,611.64
INJ TRASTUZUMAB EXCLD BIOSIM 10 MG	Cancer (breast, stomach)	\$21,272,959	1,563	3,613	\$5,887.89
INJECTION PEMBROLIZUMAB 1 MG	Cancer (melanoma, lung, bladder)	\$18,750,009	808	1,095	\$17,123.30
INJECTION RITUXIMAB 10 MG	Cancer, autoimmune disease	\$18,642,495	929	1,573	\$11,851.55
INJECTION PEGFILGRASTIM 6 MG	Cancer treatment side effect	\$17,266,445	1,449	2,017	\$8,560.46
INJECTION VEDOLIZUMAB 1 MG	Crohn's disease, Ulcerative colitis	\$16,938,383	2,199	2,375	\$7,131.95
INJECTION BEVACIZUMAB 10 MG	Cancer (colon, lung, brain, cervical, renal, ovarian)	\$13,335,447	1,937	3,200	\$4,167.33
INJECTION PERTUZUMAB 1 MG	Cancer (breast)	\$12,441,323	849	1,184	\$10,507.87
INJECTION NATALIZUMAB 1 MG	Multiple Sclerosis, Crohn's disease	\$10,820,739	1,313	1,477	\$7,326.16

The top 10 Medical Pharmacy medications comprised 3% of all prescriptions and 44% of all spending

Spending on Medical Pharmacy



Volume of Medical Pharmacy



The top 10 medications for Retail Pharmacy spending in 2019 were drugs primarily used to treat arthritis, multiple sclerosis, and psoriasis

Retail Pharmacy Spend: Top 10 Medications (Total Allowed), 2019

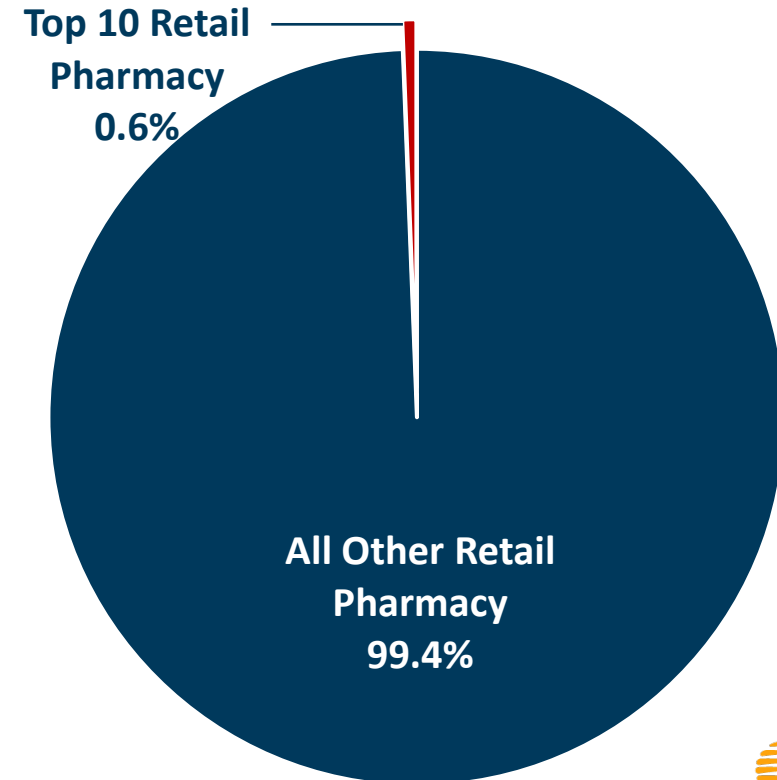
Medication	Indication	Allowed Amount	Distinct Users	# of Claims	Price (Allowed / # Claims)
HUMIRA PEN 0.4 ML	Rheumatoid arthritis, Crohn's disease, psoriasis	\$56,924,279	7,803	8,970	\$6,346.07
HUMIRA PEN 0.8 ML	Rheumatoid arthritis, Crohn's disease, psoriasis	\$54,638,434	7,168	8,221	\$6,646.20
STELARA 90 MG/ML SYRINGE	Psoriasis, Crohn's disease	\$38,336,167	1,772	1,920	\$19,966.75
ENBREL SURECLICK	Rheumatoid arthritis, psoriasis	\$26,077,264	4,177	4,696	\$5,553.08
TECFIDERA	Multiple sclerosis	\$22,419,921	2,455	2,878	\$7,790.10
OTEZLA	Psoriatic arthritis and plaque psoriasis	\$17,735,746	4,475	5,062	\$3,503.70
GILENYA	Multiple sclerosis	\$17,370,060	1,773	1,968	\$8,826.25
ELIQUIS 5 MG TABLET	Deep vein thrombosis, pulmonary embolism	\$15,365,839	24,950	26,636	\$576.88
VICTOZA	Diabetes	\$15,144,633	10,792	11,606	\$1,304.90
DUPIXENT 300 MG/2 ML SYRINGE	Asthma	\$15,020,931	3,961	4,768	\$3,150.36

The top 10 Retail Pharmacy prescriptions comprised <1% of all prescriptions and 15% of all spending

Spending on Retail Pharmacy



Volume of Retail Pharmacy



Key Takeaways

- 1. Payment per prescription and spending increased, while utilization decreased, 2017-19.**
 - Increases were at a higher rate for medical pharmacy than retail pharmacy.
- 2. A disproportionately large share of pharmacy spending was on a small number of very expensive drugs.**
 - These drugs were primarily used to treat cancer, arthritis, Crohn's disease, multiple sclerosis, and psoriasis.
- 3. The price problem was with brand-name retail drugs and Medical Pharmacy, and not generics, despite the occasionally publicized examples of generic price gouging.**

This analysis does not answer the question of whether the growth in prices was about new drugs at higher price points or increases in "old" drugs.

Pharmacy Cost Growth Driver Analysis - Discussion

- *What stands out to you from the data that we have shared?*
- *Where are there opportunities for cost growth mitigating action?*
- *What areas of further inquiry would you suggest?*

Upcoming Mathematica Analyses

Upcoming Mathematica Analyses

- OHS and Mathematica have discussed preparing the following analyses for future review:
 - A standard set of “dashboard” analyses to track spending patterns and trends across the commercial, Medicaid and Medicare markets
 - An updated commercial cost driver analysis with 2020 (and then 2021) data added
 - A methodology for detecting potential adverse consequences of the benchmark initiative
 - A follow-up ED utilization disparity analysis

Wrap-Up and Next Steps

Wrap-up and Next Steps

- Workgroup meetings will be held on the third Wednesday of each month. The dates of the meetings are listed below.
 - July 20th
 - August 17th
 - September 21st
 - October 19th
 - November 16th
 - December 21st