Healthcare Cost Drivers in Connecticut

December 1, 2022

OHS
CONNECTICUT
Office of Health Strategy

Presentation Agenda

1. Review what we know about healthcare cost growth in Connecticut's commercial market

   Michael Bailit, President
   Bailit Health

2. Consider findings from an analysis of hospital costs by the National Academy of State Health Policy

   Marilyn Bartlett, Senior Policy Fellow,
   National Academy for State Health Policy (NASHP)

Cost Growth in the Commercial Market

Where has spending been growing fastest?

Cost Growth in the Commercial Market

- The Office of Health Strategy (OHS) employs two data sources to understand healthcare spending patterns in the state.
  - CT All-Payer Claims Database (APCD)
  - Cost Growth Benchmark payer submissions
- Our analysis today will primarily rely upon APCD analysis. Let's briefly review the differences between these data sources.

Cost Growth Benchmark Analysis vs. APCD Analysis

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

Benchmark Analysis

- **What is this?** A calculation of healthcare 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
- **What's missing?** Claim-level detail to drill down into cost drivers

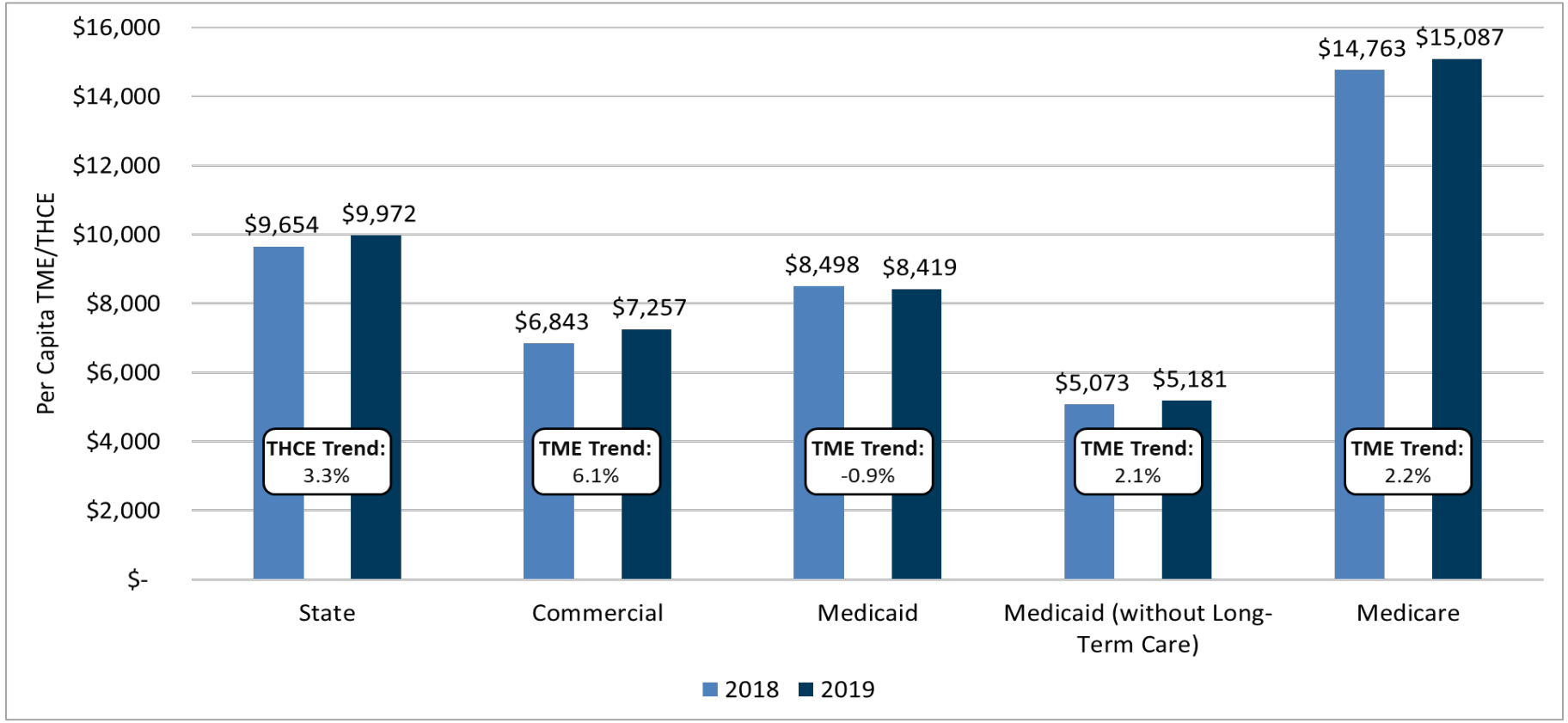
How will we determine the drivers of overall cost and cost growth? Where are there opportunities to contain spending?

APCD Analysis

- **What is this?** A study of cost drivers to help identify promising opportunities for reducing cost growth and inform policy decisions.
- **Data Type:** Granular data (claims and/or encounters)
- **Data Source:** All-Payer Claims Database (APCD)
- **What's missing?** Most self-insured commercial claims, non-claims payments, drug rebates from drug manufacturers, insurer administration costs and profit

Cost Growth Benchmark Baseline Analysis: Per Capita Medical Expenditures Grew Fastest in CT's Commercial Market

Per Capita Growth in Total Healthcare Expenditures (THCE) and Total Medical Expense (TME) in Connecticut Insurance Markets, 2018-2019



Source: Commercial insurers and public payers reporting to OHS for the Healthcare Cost Growth Benchmark Program

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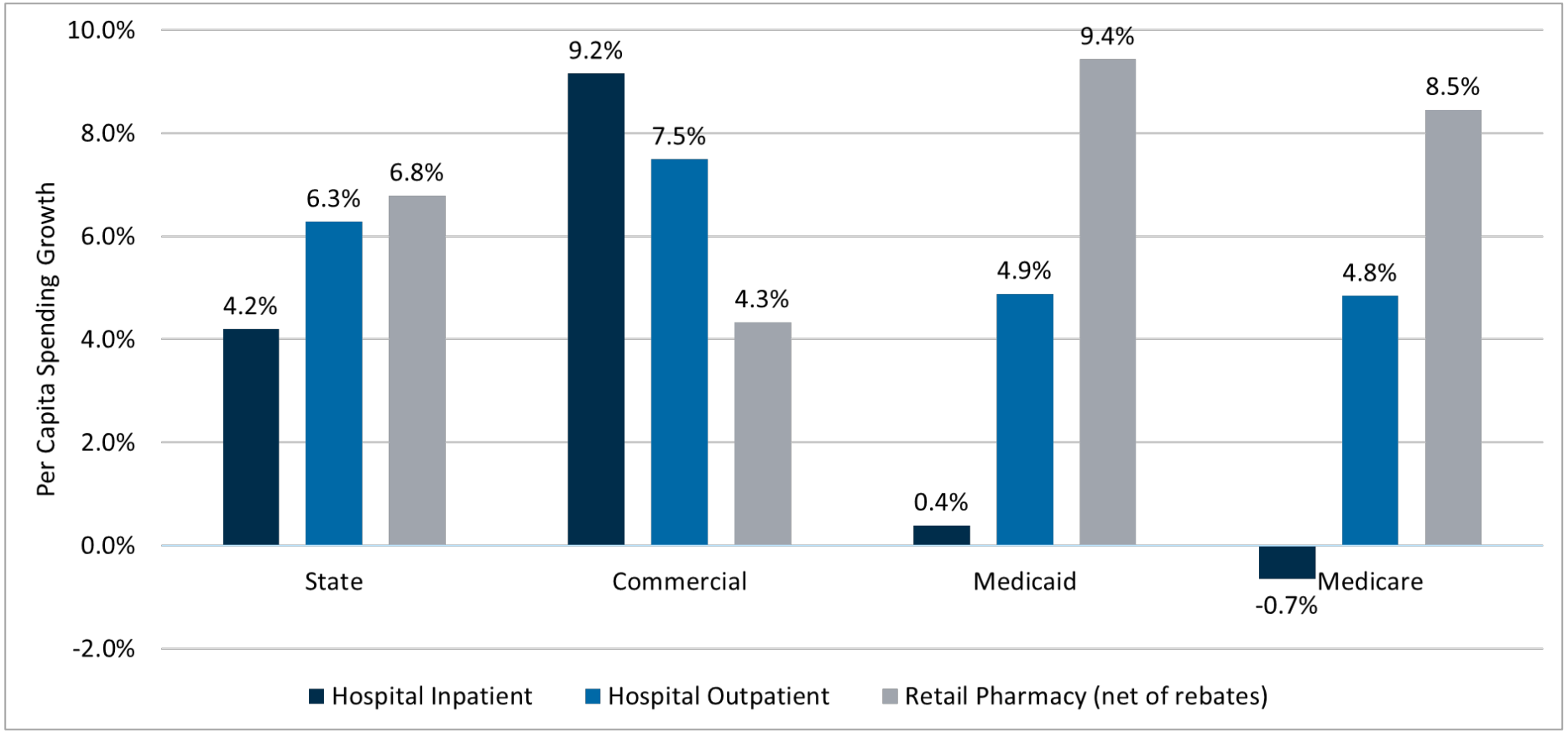
Cost Growth Benchmark Baseline Analysis: Hospital Inpatient and Outpatient, and Retail Pharmacy Spending Drove Overall per Capita Spending Growth in Most Markets

Top Three Drivers of State and Market Cost Growth, 2018-2019



Source: Commercial insurers and public payers reporting to OHS for the Healthcare Cost Growth Benchmark Program

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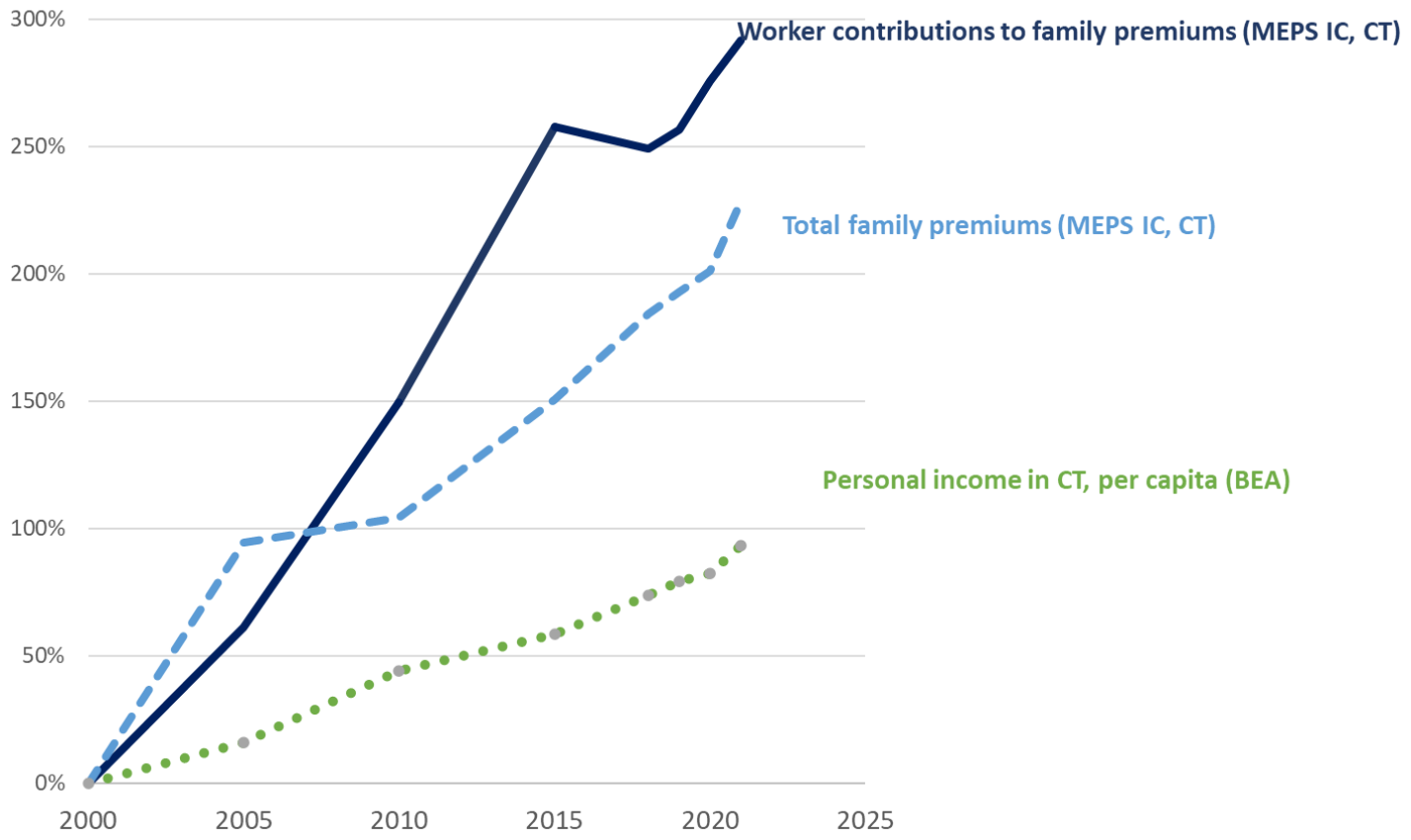
Cost Growth in the Commercial Market

- The data we will review today comes from the CT APCD.
- These APCD analyses confirm that commercial market healthcare spending growth has been high Connecticut. This is where affordability is most problematic for state residents.

Healthcare remains unaffordable to many…

Since 2000, Connecticut employer-sponsored insurance premiums have grown almost two and half times faster than personal income



Source: Agency for Healthcare Research and Quality, Center for Financing, Access and Cost Trends. Medical Expenditure Panel Survey Insurance Component.

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Affordability for Connecticut Residents with Commercial Coverage

A 2022 survey of residents found the following:

- **51%** of people with commercial coverage *went without care due to cost* in the prior 12 months
  - **26%** did not fill a prescription, cut pills in half, or skipped doses due to cost
- Affordability was even more problematic for commercially insured residents with a disability and residents of color. % of respondents who *went without care due to cost*:
  - **67%** of residents in a households with a person with a disability
  - **57%** of Black residents
  - **55%** of Hispanic residents

Source: Altarum Healthcare Value Hub, October 2022

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Cost Growth in the Commercial Market

- The data we will review today track spending through 2021 for the commercial market.
- The analysis will look at trends and patterns in:
  1. Per member per month (PMPM) spending
  2. The relative roles of changes in payment rates and utilization

What did prior APCD analysis of 2015-19 cost growth in the commercial market tell us?

1. Hospital (inpatient and outpatient) and retail pharmacy accounted for 80% of spending growth.
2. For both hospital and pharmacy spending, growth was due to increased payment per service. Utilization had declined.
3. Brand name drugs were responsible for pharmacy spending growth.
4. Some hospitals benefited from much higher rates of service unit payment growth than did others.

Study Population

- Connecticut residents, 2017-2021
- Commercial (fully insured, and State employees and retirees)
  - Self-insured not included
- Exclusions
  - Non-Connecticut residents
  - Secondary payers
  - Denied, reversed, and non-primary claim lines
  - Claim lines with negative payment or cost-sharing
  - Payments made six months or longer after the service year
- Reminder: non-claims-based payments and pharmacy rebates are not in the APCD

Per Member Per Month (PMPM) Spending

Medical spending declined slightly in 2020 before sharply rising by 24% in 2021

Payer	Commercial Medical PMPM 2017	2018	2019	2020	2021	Average annual change (%)	2020 – 2021 change (%)	Total change (%)
All-payer	$410.57	$436.39	$459.07	$423.88	$525.30	**6.9%**	**23.9%**	27.9%
Aetna	$366.38	$421.15	$447.43	$430.84	$523.87	9.8%	21.6%	43.0%
Anthem	$428.09	$470.50	$501.88	$441.84	$569.80	8.4%	29.0%	33.1%
Cigna	$387.01	$392.56	$406.37	$405.04	$480.75	5.8%	18.7%	24.2%
ConnectiCare	$490.93	$484.30	$490.45	$473.80	$517.55	1.4%	9.2%	5.4%
Harvard Pilgrim	$375.09	$401.05	$439.11	$421.92	$496.45	7.5%	17.7%	32.4%
UnitedHealthcare	$368.37	$389.55	$417.82	$379.13	$444.81	5.3%	17.3%	20.8%

- The average annual increase of **6.9%** compares to median annual household income growth of **2.7%** for the same time period. That's 2.5 times faster.
- The 2021 increase exceeds preliminary rates of increase observed in some other New England states.

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Retail pharmacy spending growth was lower than medical's but higher than income growth

Payer	Commercial Retail Pharmacy PMPM 2017	2018	2019	2020	2021	Average annual change (%)	2020 – 2021 change (%)	Total change (%)
All-payer	$110.28	$112.52	$112.92	$115.61	$129.83	**4.3%**	**12.3%**	17.7%
Aetna	$121.47	$128.16	$117.74	$110.18	$110.79	-2.1%	0.6%	-8.8%
Anthem	$144.23	$151.07	$167.31	$167.43	$188.33	7.0%	12.5%	30.6%
Cigna	$100.48	$108.75	$115.80	$133.11	$160.98	12.6%	20.9%	60.2%
ConnectiCare	$108.24	$124.39	$131.65	$134.81	$162.48	10.9%	20.5%	50.1%
Express Scripts	$81.32	$75.85	$75.70	$79.15	$90.13	2.9%	13.9%	10.8%
Harvard Pilgrim	$92.24	$101.96	$120.62	$135.52	$153.33	13.6%	13.1%	66.2%
UnitedHealthcare	$95.21	$99.51	$107.62	$128.27	$138.49	10.0%	8.0%	45.5%

- The average annual increase of **4.3%** compares to median annual household income growth of **2.7%** for the same time period. That's 1.6 times faster.
- The 2021 increase exceeds preliminary rates of increase observed in some other New England states.
- Note: People with Express Scripts Rx coverage have medical coverage with another payer.

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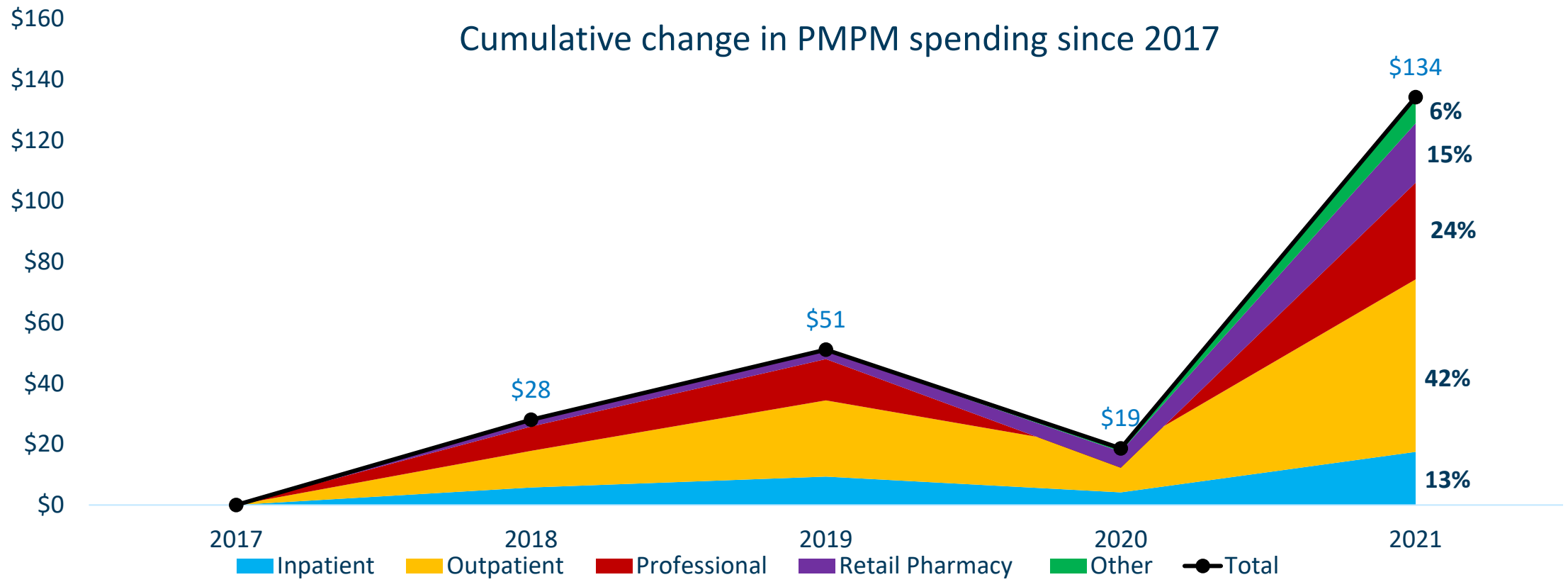
Hospital spending continues to consume a growing share of spending

Payer	Percentage of Spending				
	2017	2018	2019	2020	2021
Total PMPM	**$520.85**	**$548.92**	**$571.99**	**$534.49**	**$655.13**
Inpatient	16.6%	16.8%	16.8%	16.8%	15.9%
Outpatient*	26.8%	27.6%	28.8%	28.3%	29.9%
Outpatient hospital	*25.1%*	*25.9%*	*26.9%*	*26.5%*	*27.9%*
Outpatient ASC	*1.6%*	*1.7%*	*1.8%*	*1.8%*	*2.1%*
Professional	32.5%	32.3%	31.9%	30.3%	30.7%
Retail Pharmacy**	21.2%	20.5%	19.7%	21.4%	19.8%
Other***	2.9%	2.8%	2.8%	3.2%	3.7%

* Outpatient includes outpatient hospital and ambulatory surgical center (ASC) spending.
** Retail pharmacy includes all members with pharmacy coverage, with or without medical coverage.
*** "Other" services include DME, home health, hospice, ICF and SNF claims.

PMPM spending fell in 2020 due to the pandemic, then increased dramatically in 2021.

- **Outpatient spending made up 42% of the cumulative increase**



* "Other" services include DME, home health, hospice, ICF and SNF claims.
** Retail pharmacy includes all members with pharmacy coverage, with or without medical coverage.
***Medical pharmacy PMPM amounts are subtracted from respective medical service categories

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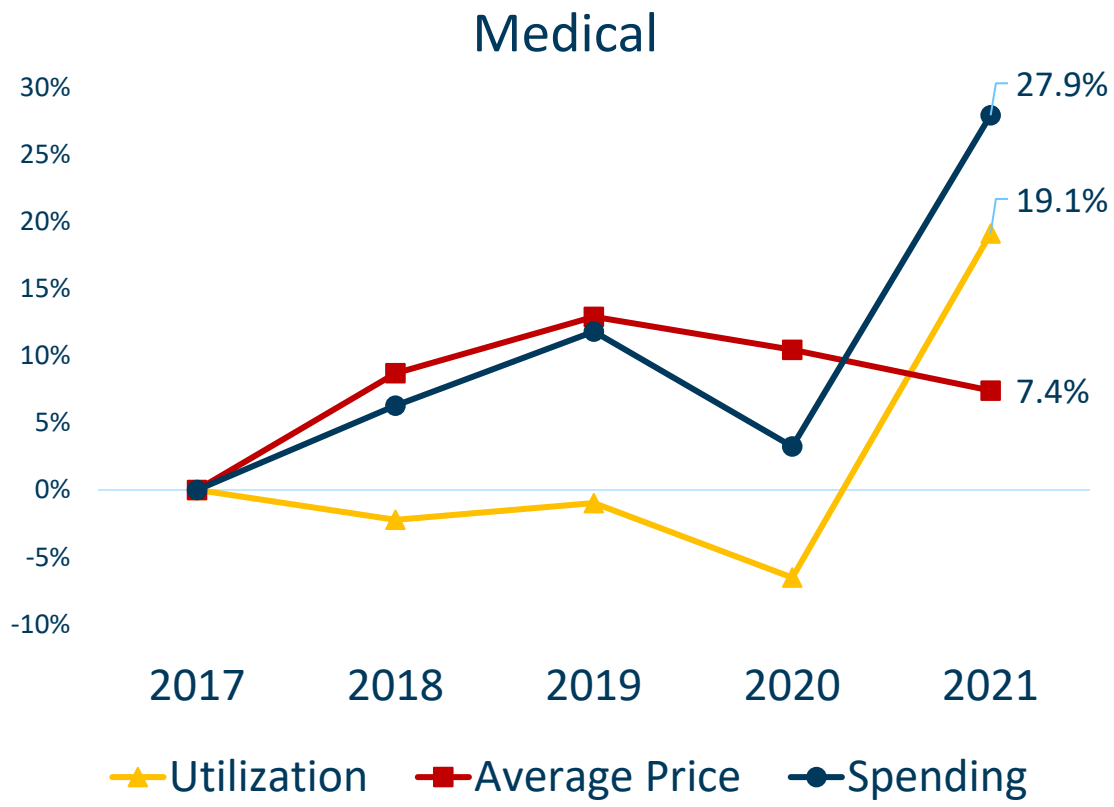
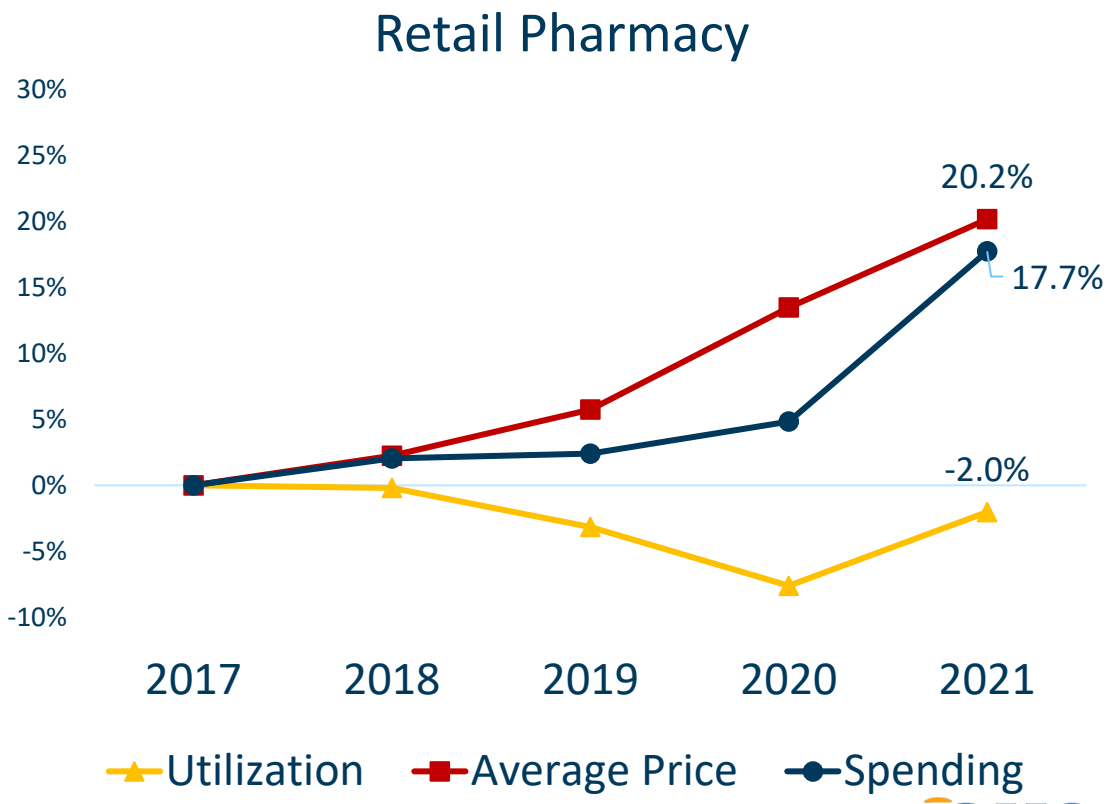
Utilization vs. Payment Rates

Payment per medical service rose while utilization dropped, 2017-19. In 2021, utilization rebounded while payment per service declined.

- Retail pharmacy payments per script rose despite decreasing utilization through 2020, and outpaced an increase in utilization in 2021.





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

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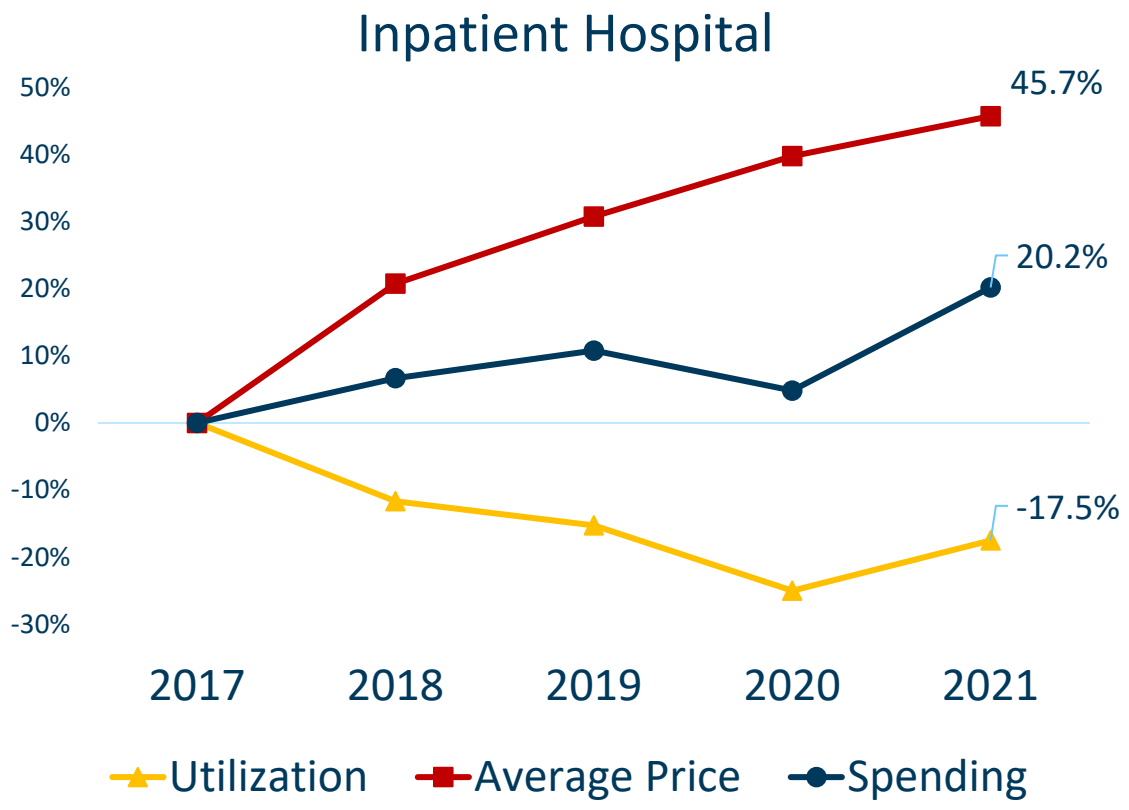
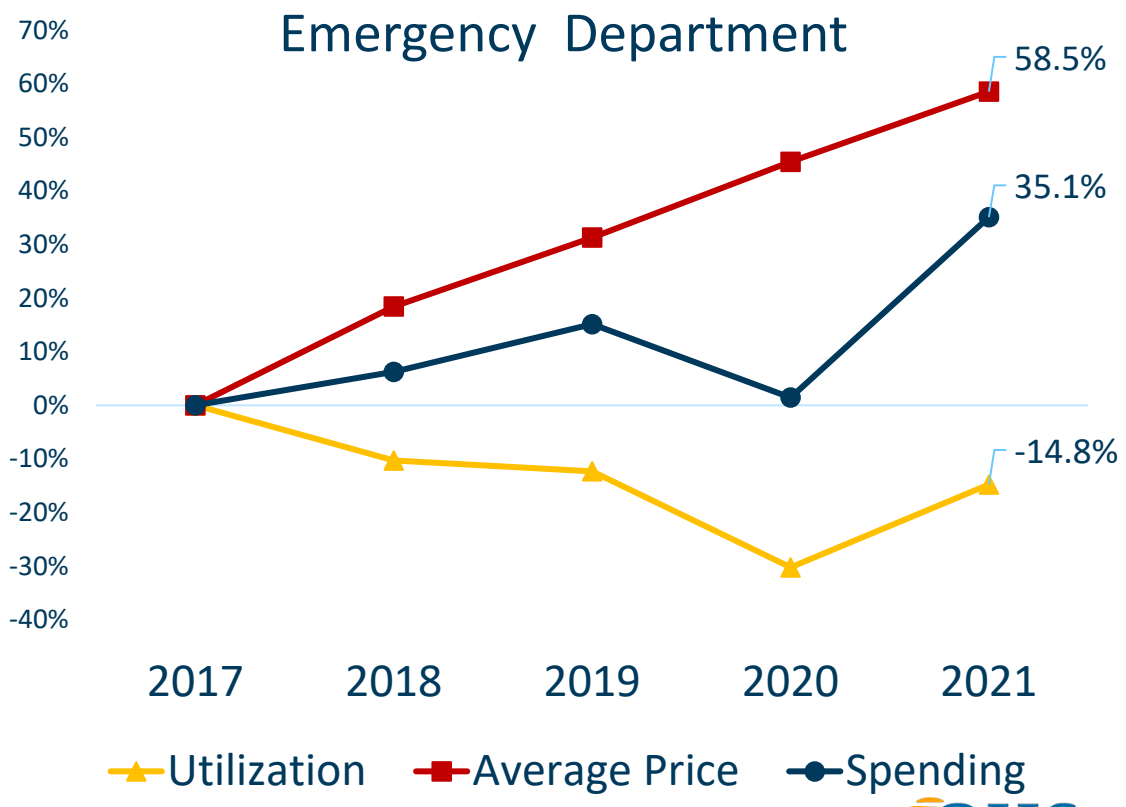
Inpatient hospital and emergency department payment per service increased each year, while utilization dropped significantly

- Emergency department visits include both outpatient and professional spending





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

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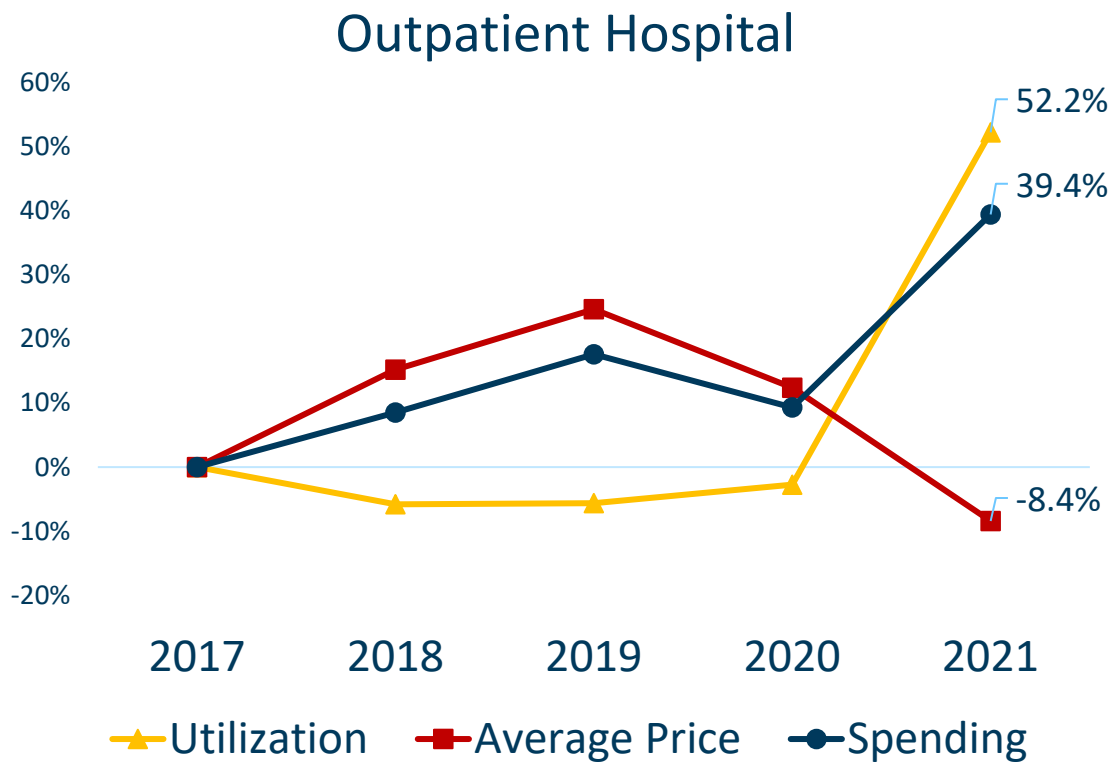
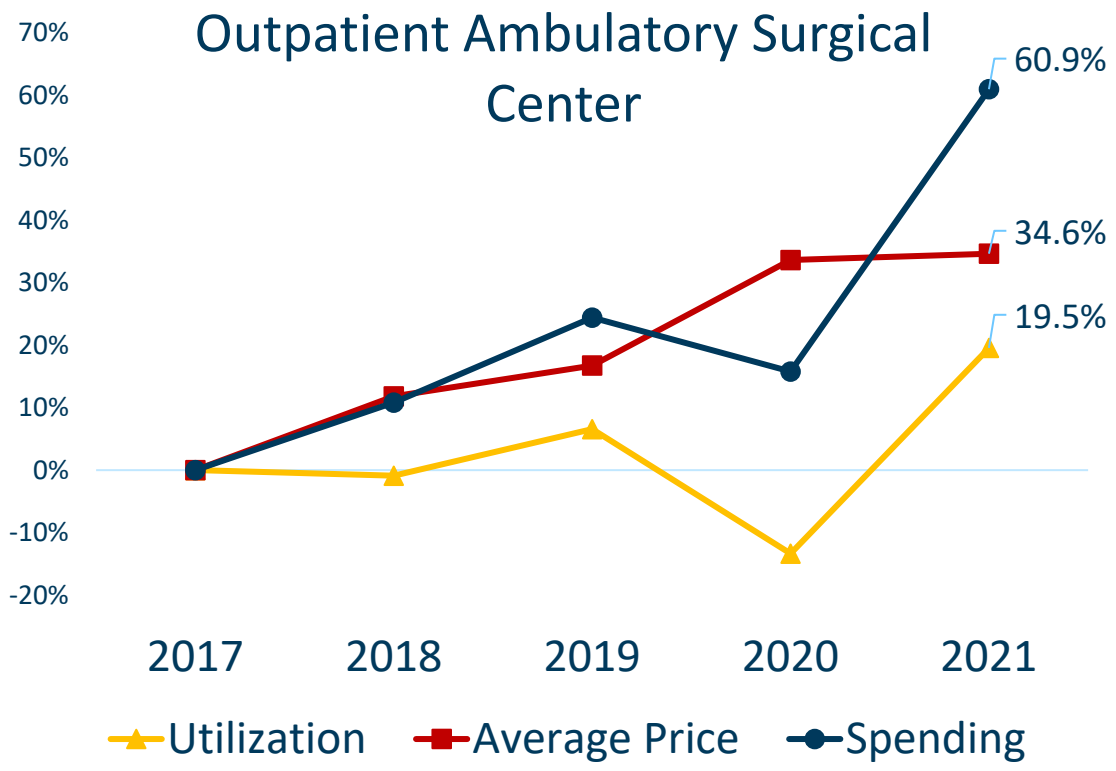
Outpatient hospital payment per service fell in 2020 and 2021 after increases from 2015-2019, while utilization grew after years of declines

- Outpatient ambulatory surgical center payment increases outpaced changes in utilization





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

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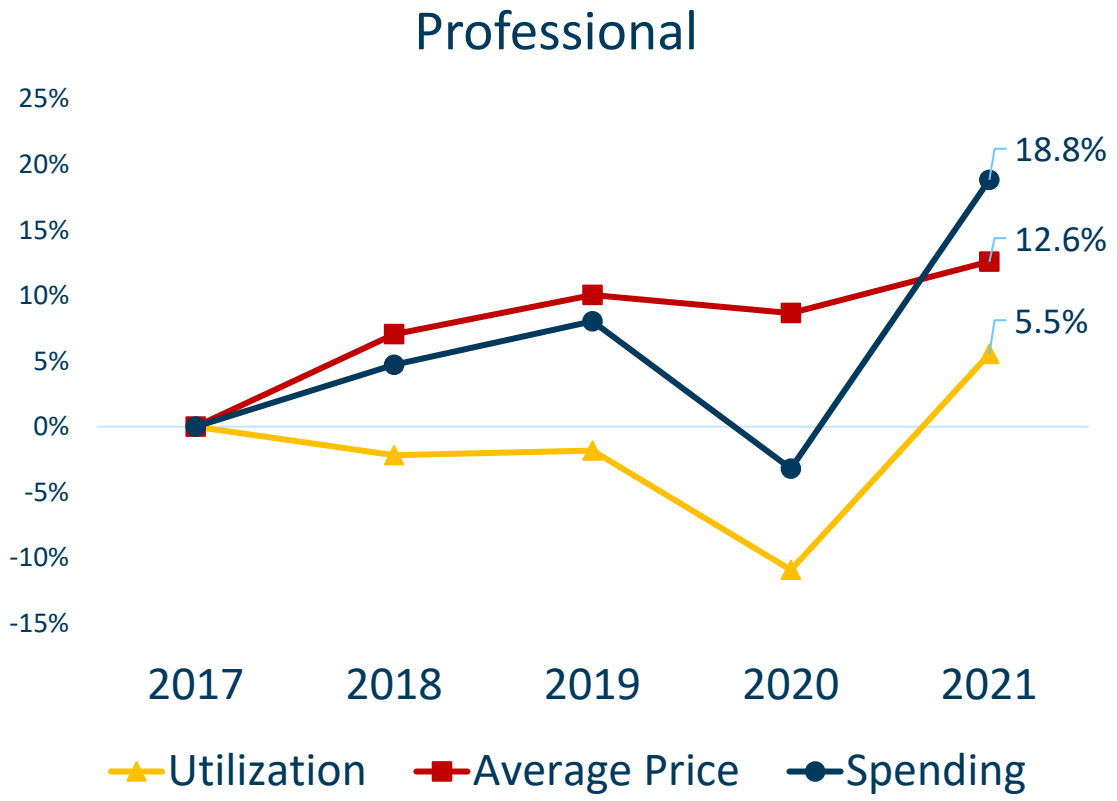
From 2017-20, payment per professional service grew at a modest pace; utilization was steady, dropped in 2020 and then rebounded in 2021



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

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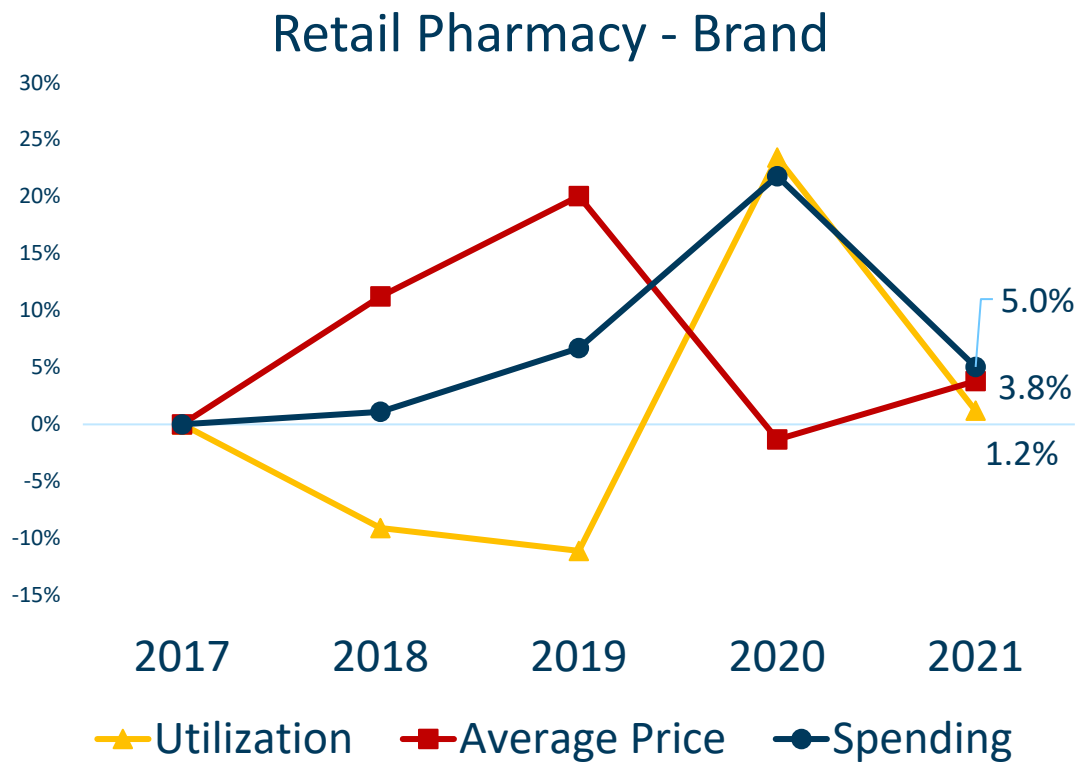
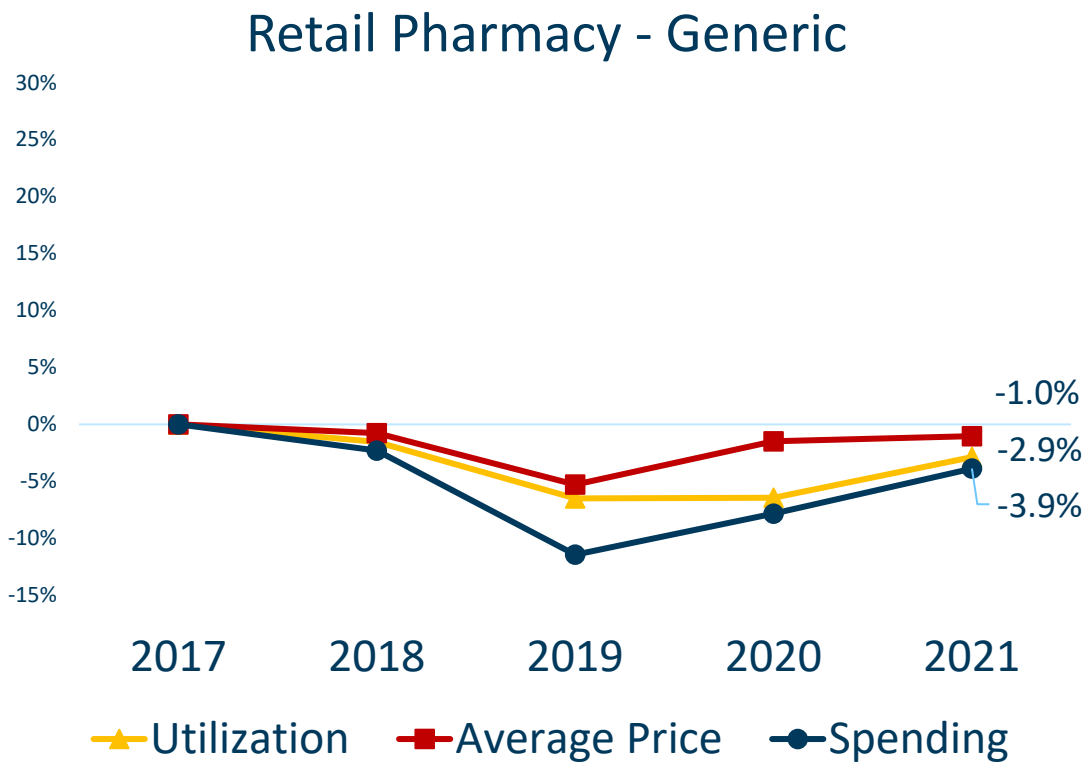
Brand-name prescription drugs payment per script rose as use fell through 2019, reversed trends in 2020 and shows signs of reverting to pre-COVID trends in 2021.

- **For generic prescription drugs, utilization, spending, and payment/prescription all declined slightly**





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

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Retail Pharmacy is the Majority of Pharmacy Spending

Service Category	Percentage of Spending		
	2017	2018	2019
Pharmacy	28.4%	28.6%	28.0%
*Retail**	*21.2%*	*21.1%*	*20.2%*
*Medical***	*7.1%*	*7.5%*	*7.9%*

*"Retail pharmacy" refers to prescription drugs purchased in retail pharmacies.

**"Medical pharmacy" refers to drugs administered by clinicians, typically in physician offices or hospital outpatient departments.

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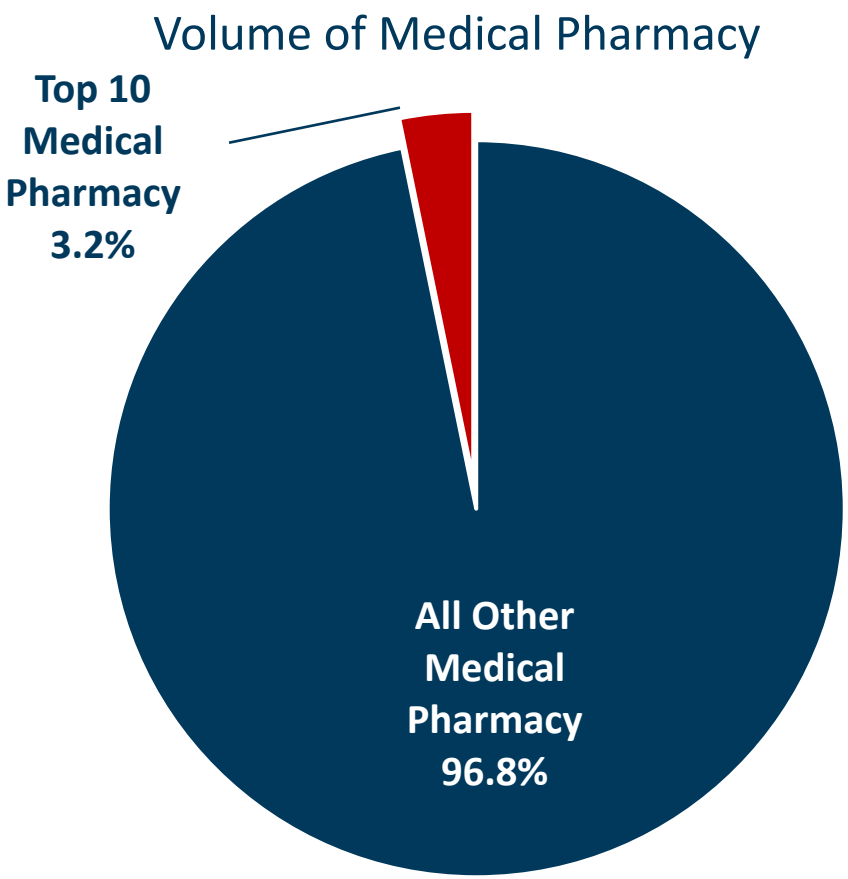
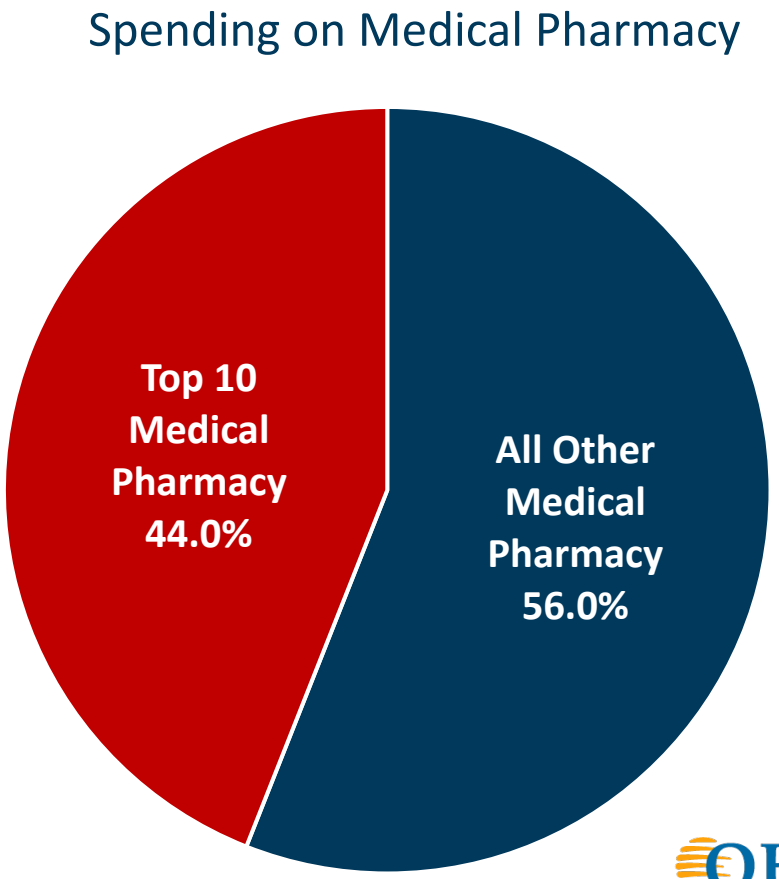
The top 10 medical pharmacy drugs were only 3% of all prescriptions but 44% of all spending in 2019





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The top 10 drugs 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

Key Takeaways

- Commercial spending growth continues to far exceed CT residents' income growth; higher and higher percentages of residents' income go to paying for healthcare.
- As expected, spending patterns in 2020 and 2021 were heavily impact by the pandemic.
  - Utilization dropped significantly in 2020, and then grew dramatically in 2021.
  - Payment per service continued to grow, except for hospital outpatient in 2020 and 2021, and prescription drugs in 2021.
    - The 2021 hospital outpatient trend in payment per service and utilization warrant further analysis.

NASHP Hospital Cost Tool Analysis of Acute Care Hospitals in Connecticut

At what point are Connecticut hospitals at a financial breakeven point? How do they compare to hospitals in other states?

Marilyn Bartlett, Senior Policy Fellow,
National Academy for State Health Policy (NASHP)

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NASHP Cost Tool Analysis

- In 2021 OHS asked the National Academy of State Health Policy (NASHP) to conduct an analysis of Connecticut hospital finances using NASHP's new Hospital Cost Tool.
- NASHP presented its findings to the Health Care Cabinet during the Cabinet's March 2022 meeting.

What is NASHP's Hospital Cost Tool?

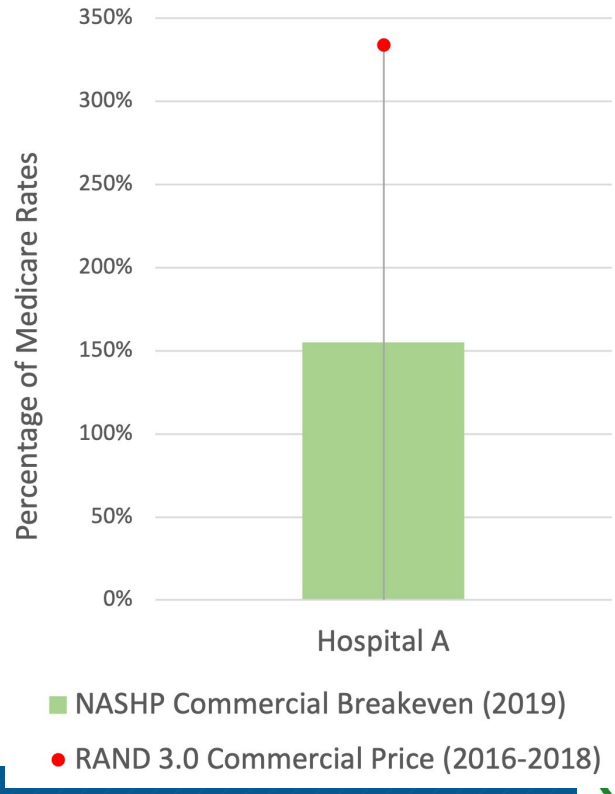
- **A downloadable tool health purchasers, including state officials, can use to better understand and address hospital *costs***
  - For example, the tool can help inform hospital rate negotiations or demonstrate hospital finances pre- and post-merger/ acquisition
- **The tool identifies costs using data that hospitals report annually to the federal government**
  - Each hospital that serves Medicare patients must annually submit, and verify the accuracy of, a Medicare Cost Report (MCR) to the Centers for Medicare & Medicaid Services (CMS)
  - MCRs provide hospital level data and are the only national, public source of hospital costs
- **The Hospital Cost Tool was developed by the National Academy for State Health Policy (NASHP) alongside Rice University, with support from Arnold Ventures**

NASHP
NATIONAL ACADEMY FOR STATE HEALTH POLICY

Breakeven Analysis

- **NASHP's Hospital Cost Tool calculates a hospital's breakeven point: Revenue = Expenses**
  - Revenue includes payments from all sources. Expenses include hospital operations, administration, ancillary services, & non-operating expenses.
- **NASHP Commercial Breakeven –** how much a hospital needs to be reimbursed by commercial payers in order to cover its expenses
- **RAND 3.0 Commercial Price –** how much a hospital was reimbursed by commercial payers in aggregate from 2016 to 2018
  - Calculated using data from the RAND Corporation's Nationwide Evaluation of Health Care Prices Paid by Private Health Plans
- **Breakeven and Price expressed as multiples of the individual hospital's Medicare rates for comparability purchases**

Example: Hospital A could afford a commercial price of **155 percent** of Medicare. However, in 2018, its commercial price was **334 percent** of Medicare.



Source: NASHP Hospital Cost Tool, 2019 Data; price from RAND Corporation, 2016-2018 Data

How to Use NASHP's Hospital Cost Tool

1. View a hospital's Medicare Cost Report

STATEMENT OF REVENUES AND EXPENSES	Provider CCN:	PERIOD: FROM 07/01/2019 TO 06/30/2020	WORKSHEET G-3	
Description				
1	Total patient revenues (from Worksheet G-2, Part I, column 3, line 28)		3,535,608,066	1
2	Less contractual allowances and discounts on patients' accounts		2,116,346,125	2
3	Net patient revenues (line 1 minus line 2)		1,419,261,941	3
4	Less total operating expenses (from Worksheet G-2, Part II, line 43)		1,593,635,778	4
5	Net income from service to patients (line 3 minus line 4)		-174,373,837	5

2. Input data from MCR into the Hospital Cost Tool

16	***2.) Reserves, Revenue, and Net Income***			
17	**Financial Statement Items**			***Source (Medicare Cost Report)***
18	Reserves	$	219,847,448	*Worksheet G-1, Columns 2, 4, 6, 8, Line 19*
19	Patient Revenues (Chargemaster Rates)	$	3,535,608,066	*Worksheet G-3, Column 1, Line 1*
20	Net Patient Revenue reported on MCR	$	1,419,261,941	*Worksheet G-3, Column 1, Line 3*
21	Total Operating Costs per MCR	$	1,593,635,778	*Worksheet G-3, Column 1, Line 4*
22	Operating Income	$	(174,373,837)	*Worksheet G-3, Column 1, Line 5*
23	Other Income	$	194,483,302	*Worksheet G-3, Column 1, Line 25*
24	Other Expense	$	(15,686,982)	*Worksheet G-3, Column 1, Line 28*
25	Net Income Reported on MCR	$	35,796,447	*Worksheet G-3, Column 1, Line 29*
26	Total Hospital Costs for CCR	$	1,108,427,850	*Worksheet C, Part I, Column 5, Row 202, Hospital Consolidated*
27	Total Hospital Charges for CCR	$	3,390,650,308	*Worksheet C, Part I, Column 8, Row 202, Hospital Consolidated*

3. Receive calculated results tailored for states/ health plans

	A	B	C	D	E	F	G	H	I
1	***Hospital Cost Tool***								
2	***4/5/20***								
3	***Hospital Name***	***0000000***							
4	***Medicare Cost Report (MCR) Year***	***07/01/2019TO 06/30/2020***							
5									
6									
7									
8									
9	***1.) Government Programs, Payments and Operating Costs***								
10		***Program Patient Revenue***	***CMS and State Supplemental Payments***	***Total Payments***	***Hospital Operating Costs***	***Hospital Profit (Loss)***	***Payment as % of Costs***	***Payer Mix***	***Profit Margin***
11	Medicare Program	$ 264,009,938		$ 264,009,938	$ (262,251,705)	$ 1,758,233	**101%**	24.6%	1%
12	Medicaid Program	$ 142,415,505	$ 27,819,832	$ 170,235,337	$ (177,513,862)	$ (7,278,525)	**96%**	16.0%	-4%
13	SCHIP and Other State & Local Low Income Programs	$ -		$ -	$ -	$ -	**0%**	0.0%	0%
14	**Total Government Programs**	**$ 406,425,443**	**$ 27,819,832**	**$ 434,245,275**	**$ (439,765,567)**	**$ (5,520,292)**	**99%**	**40.7%**	**-1%**

- For more information, and to access the tool, visit https://www.nashp.org/hospital-cost-tool/
- **Now Available:** an interactive dashboard and national database of hospital costs

Factors That May Impact Breakeven Include:

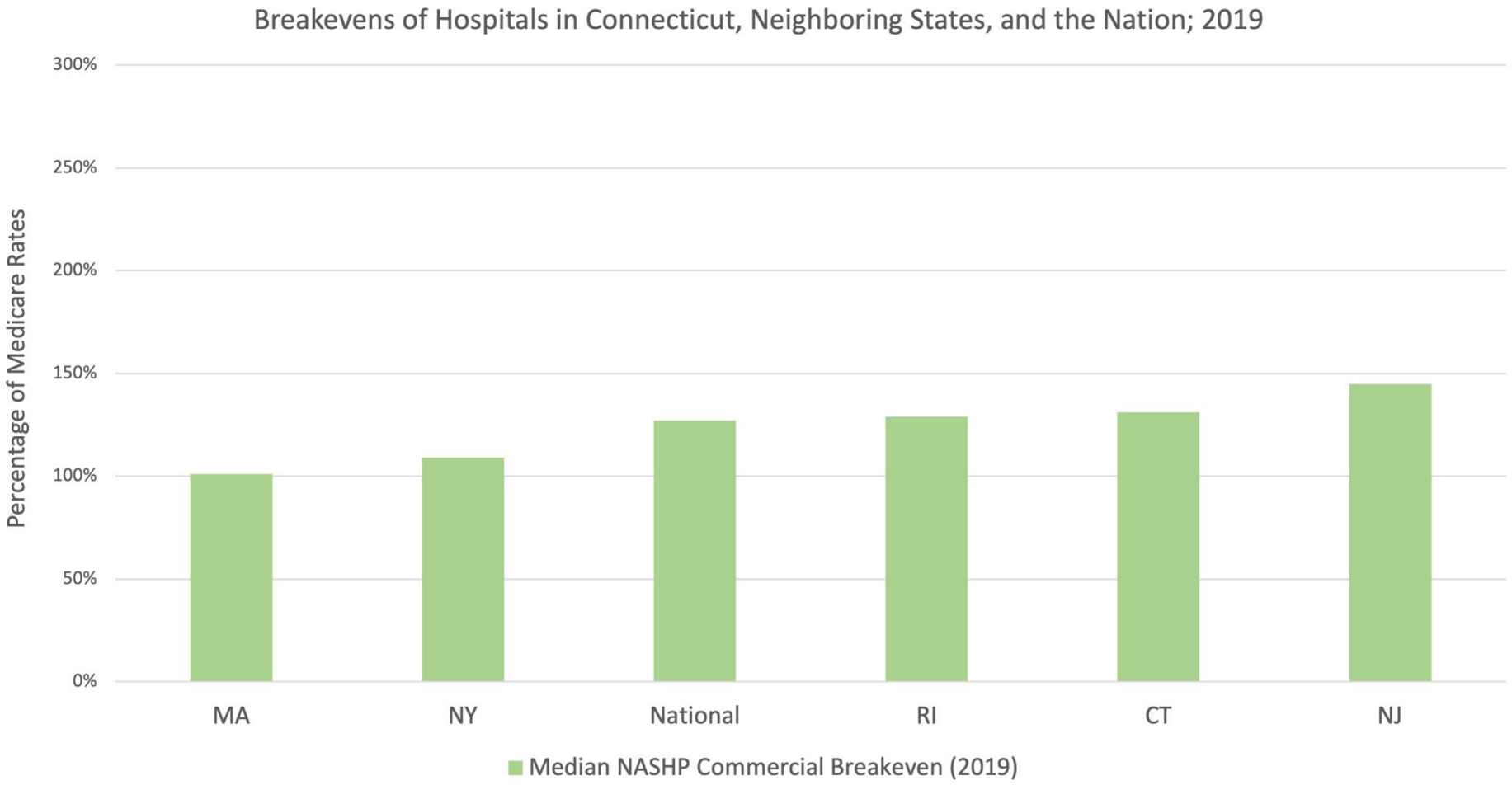
- **Medicare Payment rate –** A hospital's Breakeven is based on its own Medicare reimbursement rates. If a hospital is paid by Medicare in excess of its Medicare-related expenses, Breakeven would be lower.

- **Hospital Other Income –** If a hospital receives significant other income (e.g., return on investments, federal relief payments), the payment required from a commercial payer would be lower.

- **Reimbursement from Other Payers –** If the hospital generates payer mix adjusted profits from other payers (Medicaid, Medicare, CHIP and other local/state programs, Medicare Advantage), the payment required from a commercial payer would be lower.

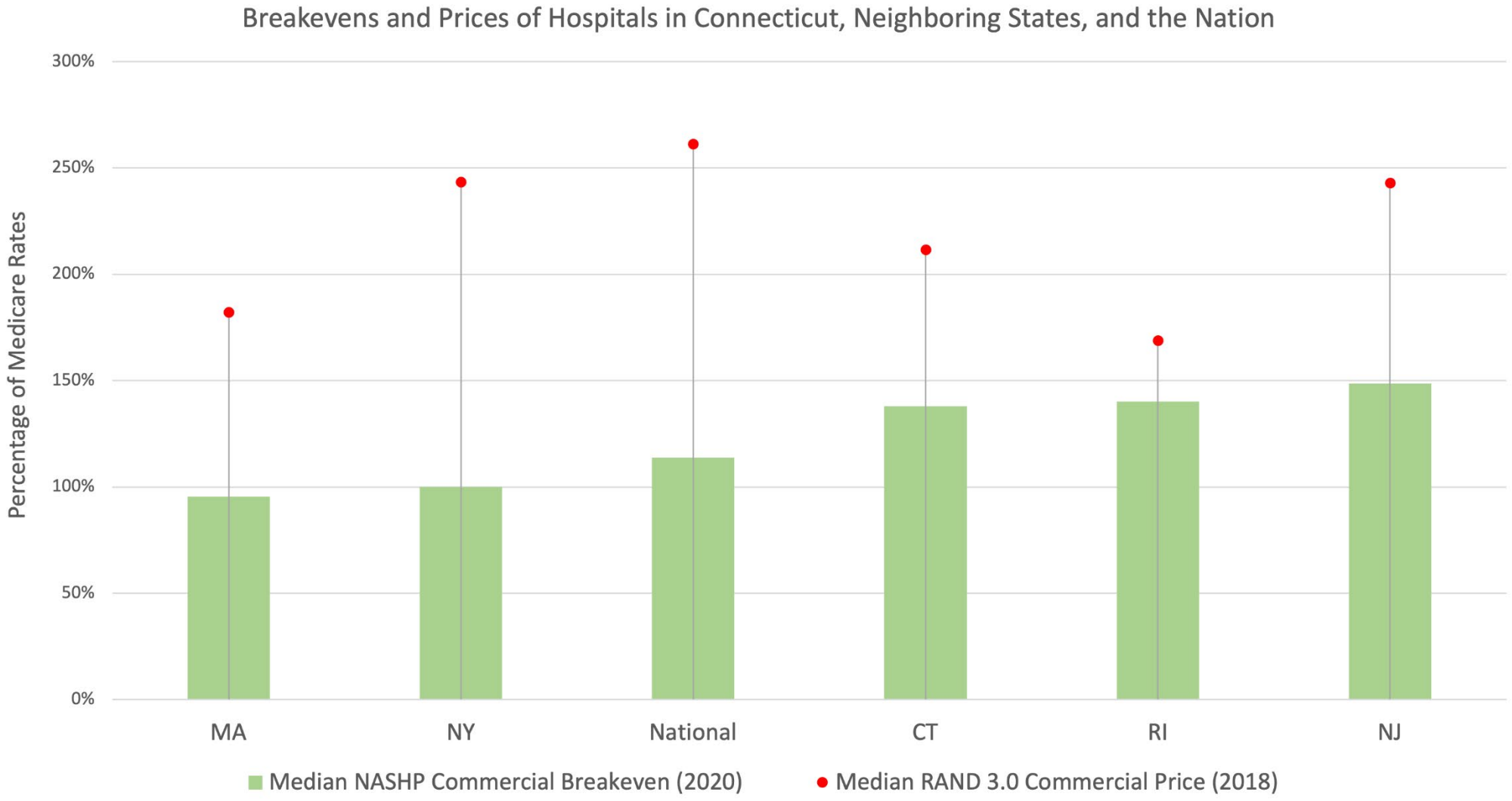
- **Reporting Error –** Medicare Cost Reports are completed by the hospital or their contractor and may contain reporting errors, impacting Breakeven calculations.

Connecticut and Neighboring States, 2019



Source: NASHP Hospital Cost Tool, 2019 Data

Connecticut and Neighboring States, 2020



Source: NASHP Hospital Cost Tool, 2020 Data; price from RAND Corporation, 2018 Data

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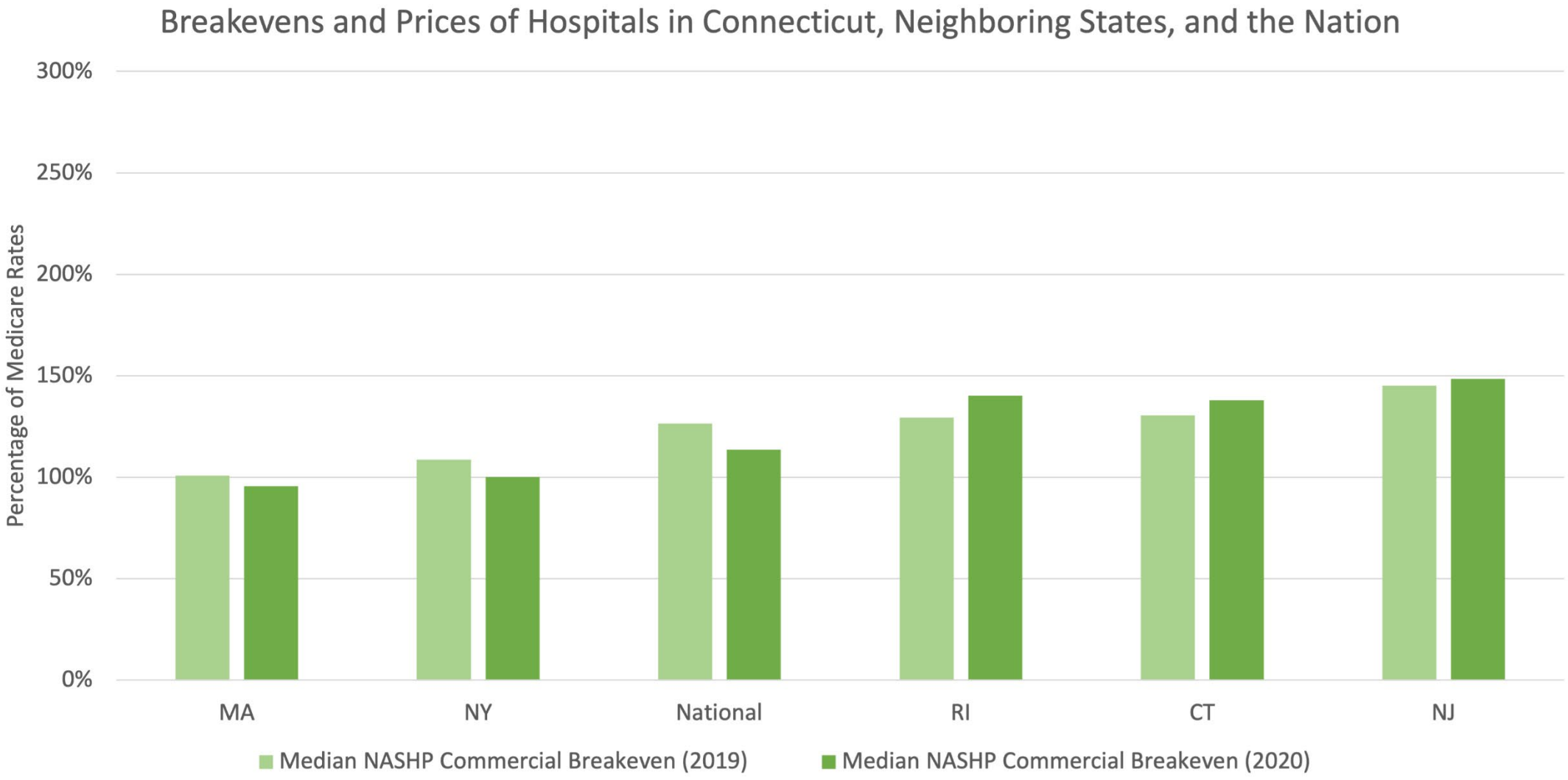
Connecticut and Neighboring States, 2019 vs 2020



Source: NASHP Hospital Cost Tool, 2019 and 2020 Data; price from RAND Corporation, 2018 Data

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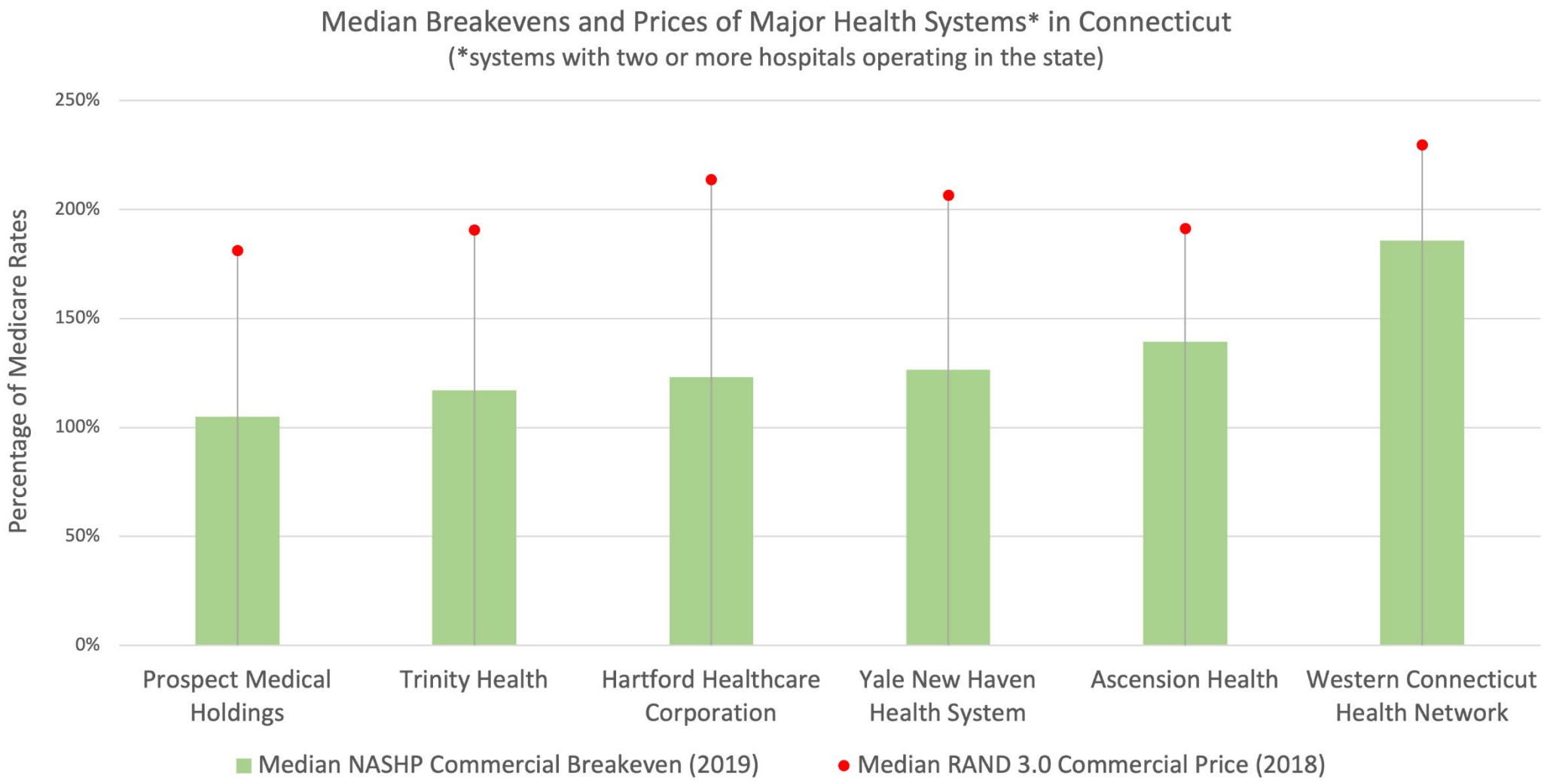
Connecticut Health Systems, 2019



Source: NASHP Hospital Cost Tool, 2019 Data; price from RAND Corporation, 2018 Data

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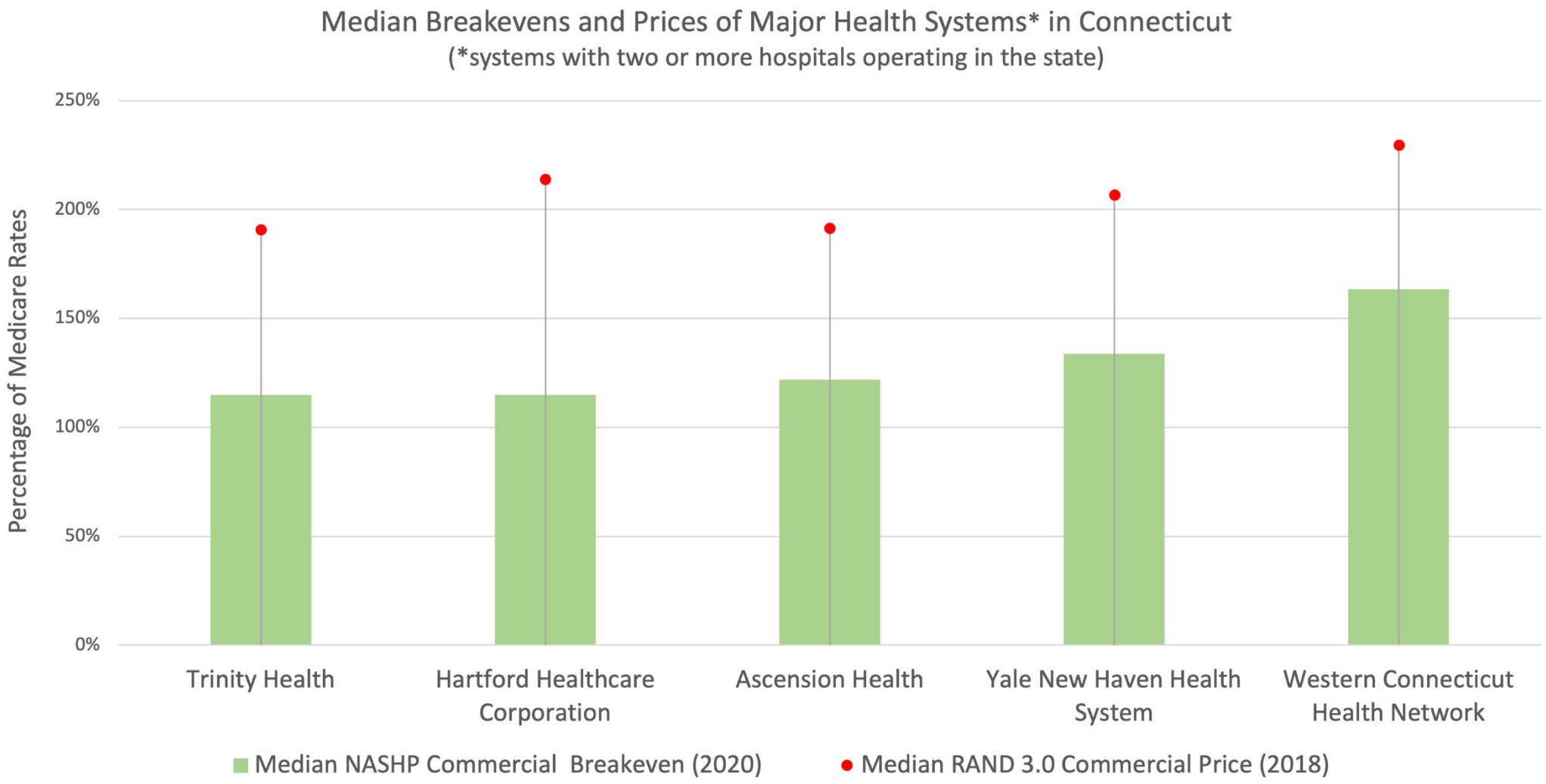
Connecticut Health Systems, 2020



Source: NASHP Hospital Cost Tool, 2020 Data; price from RAND Corporation, 2018 Data

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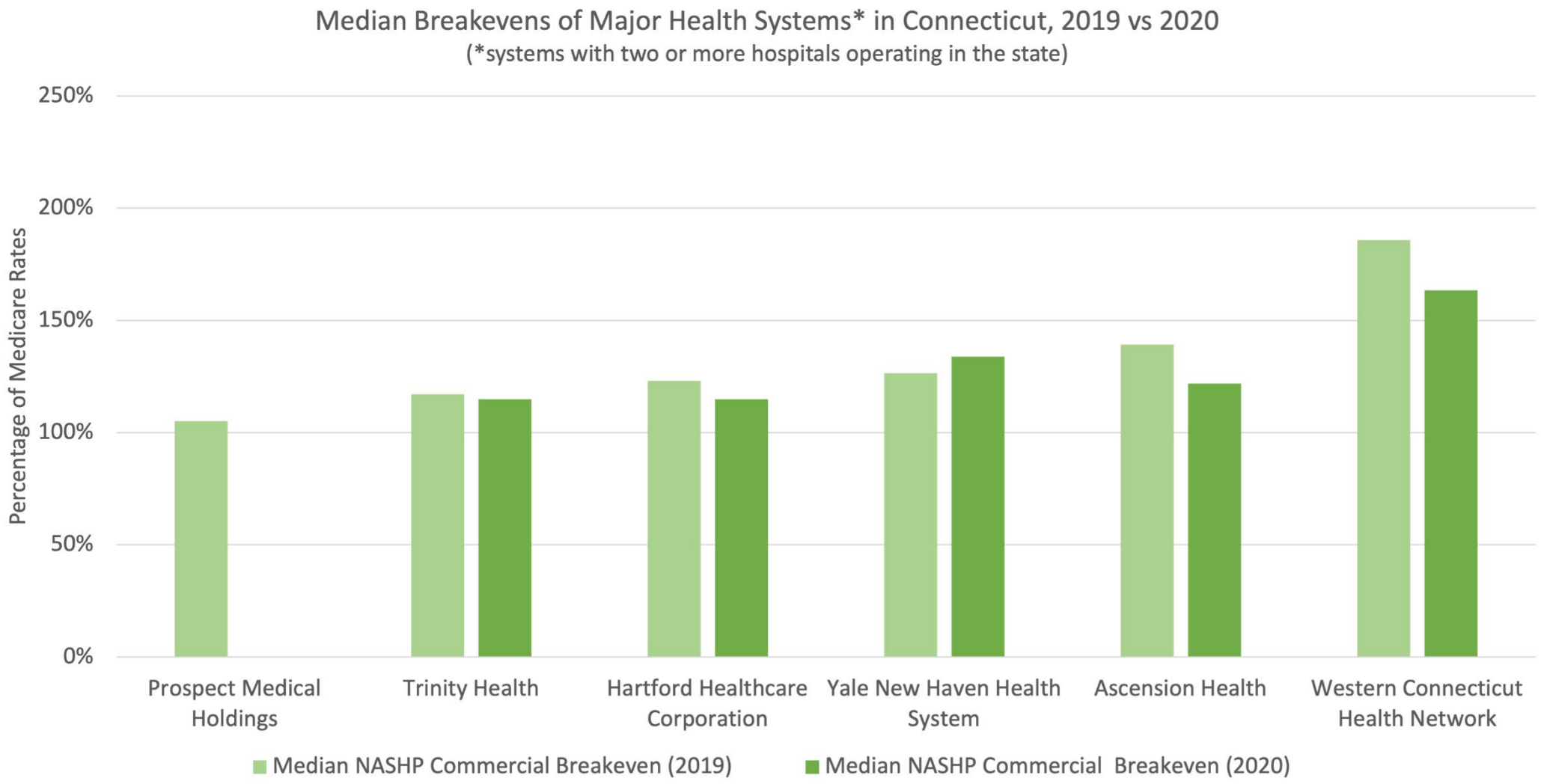
Connecticut Health Systems, 2019 vs 2020



Source: NASHP Hospital Cost Tool, 2019 and 2020 Data; price from RAND Corporation, 2018 Data

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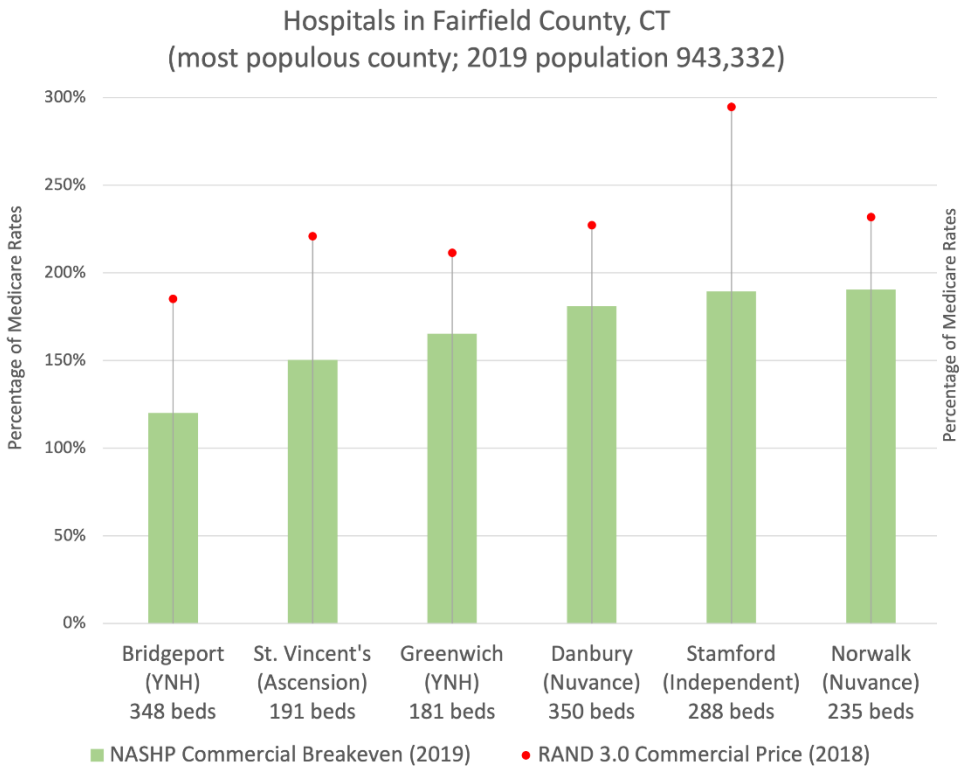
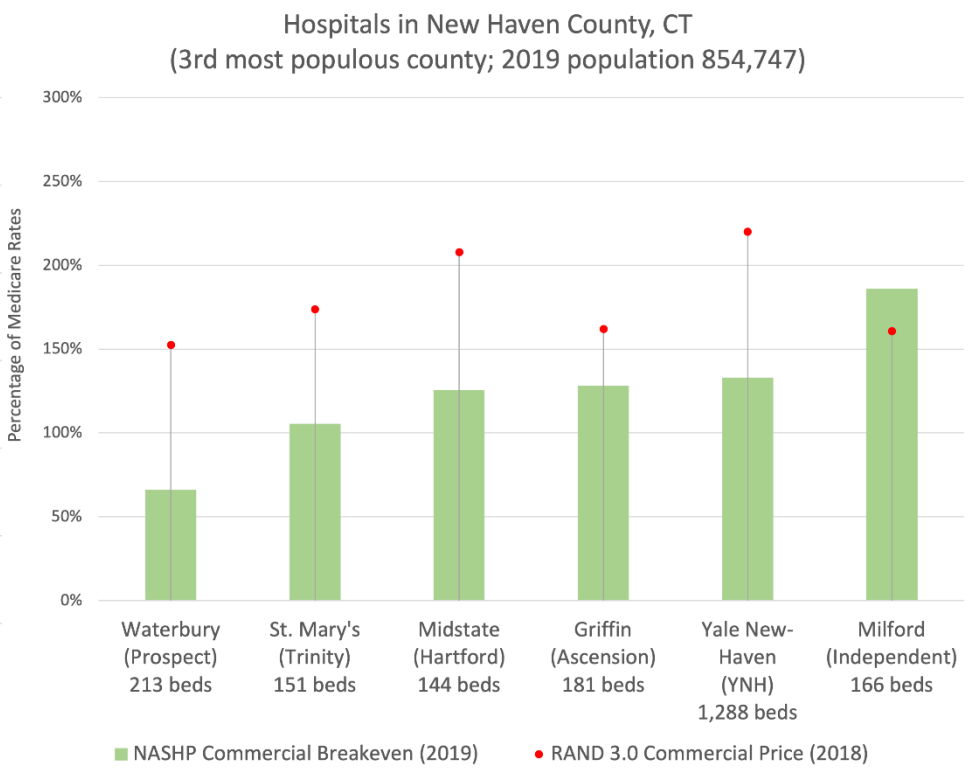
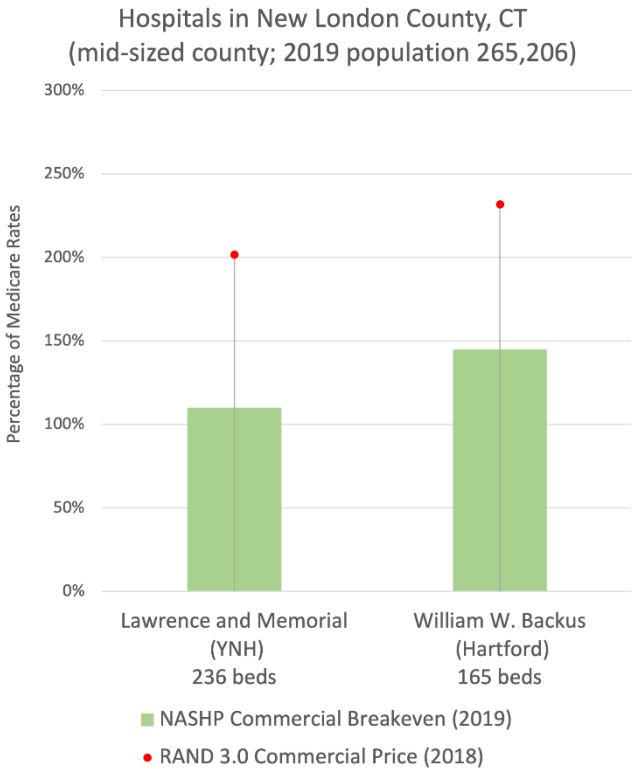
Counties with Many Yale-New Haven System Beds







- Hospitals' Commercial Prices do not appear to be based on their Commercial Breakevens, with both varying inconsistently.
- Many of the hospitals with the highest Prices *and* Breakevens are in Fairfield County.

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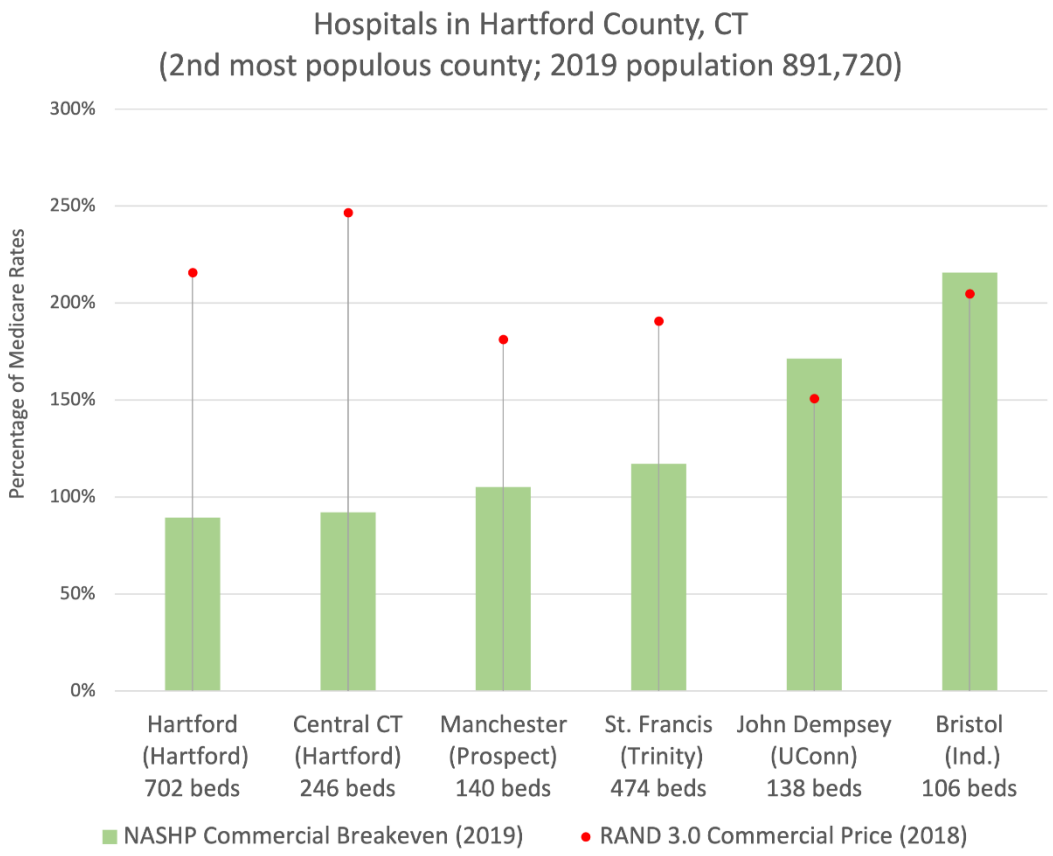
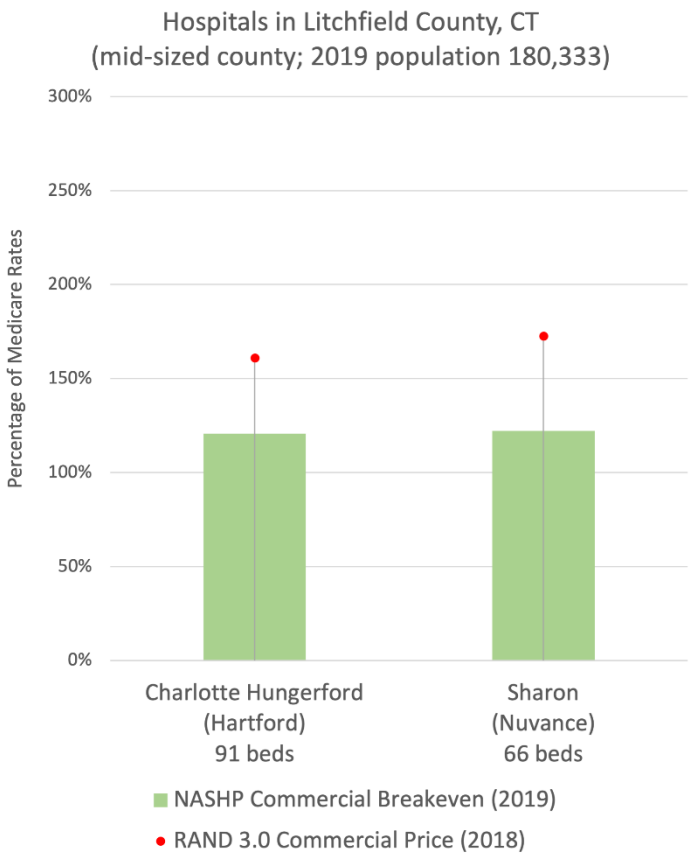
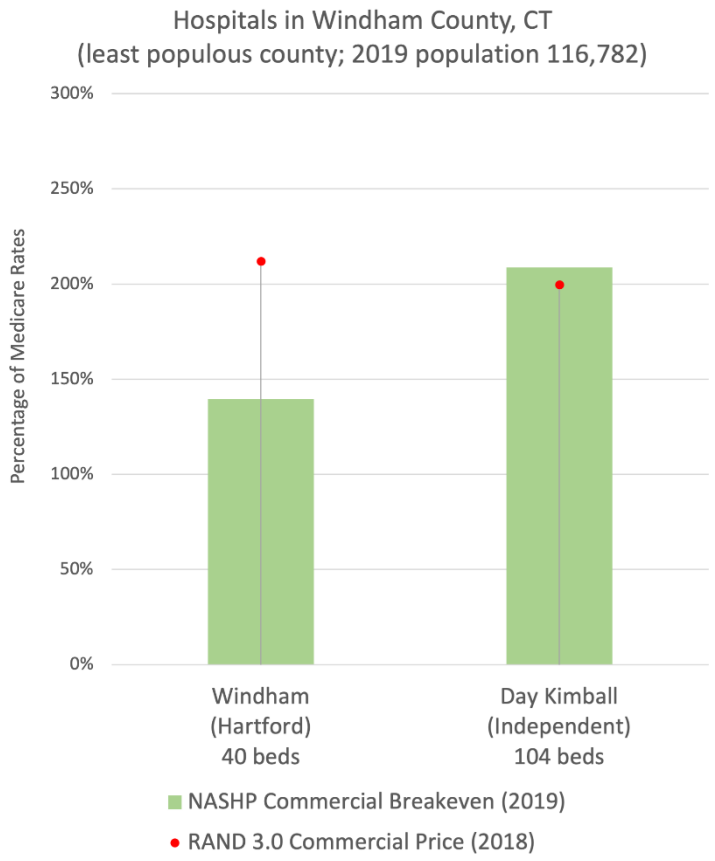
Source: NASHP Hospital Cost Tool, 2019 Data; price from RAND Corporation, 2018 Data

Counties with Many Hartford System Beds







- Hartford Healthcare Corp. system has the largest Median Breakeven vs Median Price spread (91%).
- Its largest spread hospitals are in Hartford County, where it also owns the majority of hospital beds.

Source: NASHP Hospital Cost Tool, 2019 Data; price from RAND Corporation, 2018 Data

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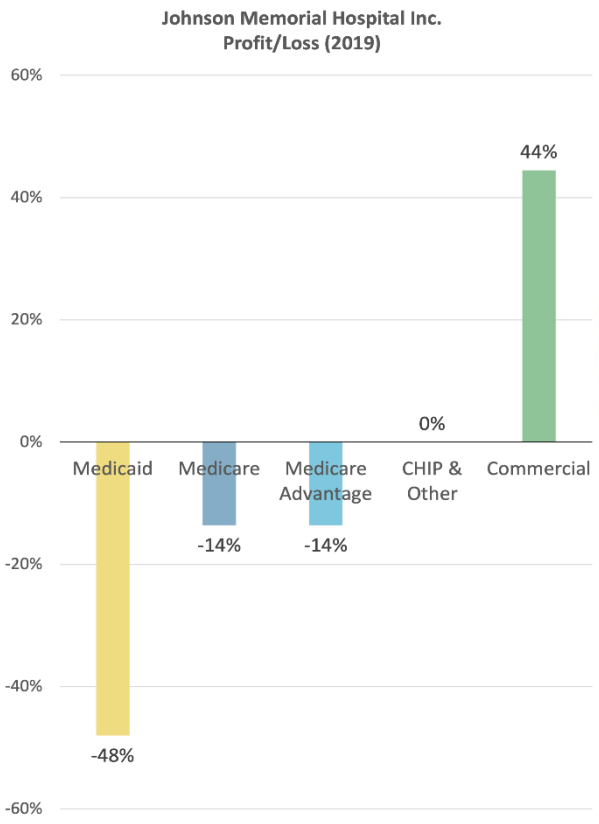
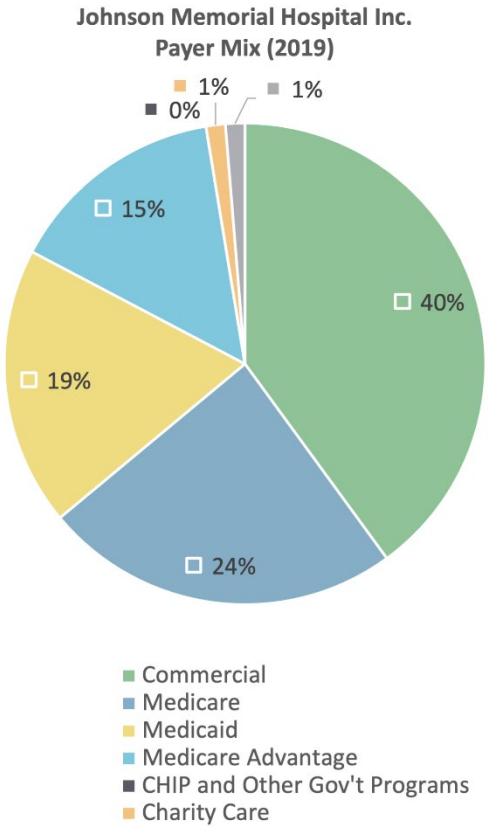
Factoring Payer Mix into Hospital Reported Profit/ Loss

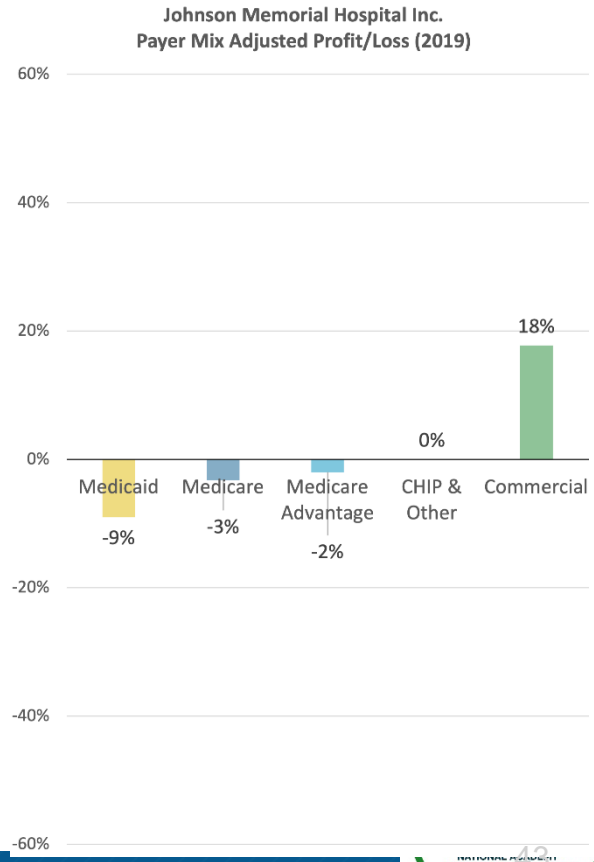
- **A more complete picture of a hospital's profit/ loss on a payer can be seen by factoring payer mix into payer-specific profit/loss**
  - Johnson Memorial reported a loss of 48% on its Medicaid line
  - Medicaid represents only 19% of its patient business
  - So, Medicaid had an overall net impact of negative 9% on Johnson Memorial's Operating Income

Johnson Memorial NASHP Commercial Breakeven (2019): 131%

Johnson Memorial RAND 3.0 Commercial Price (2016-2018): 213%

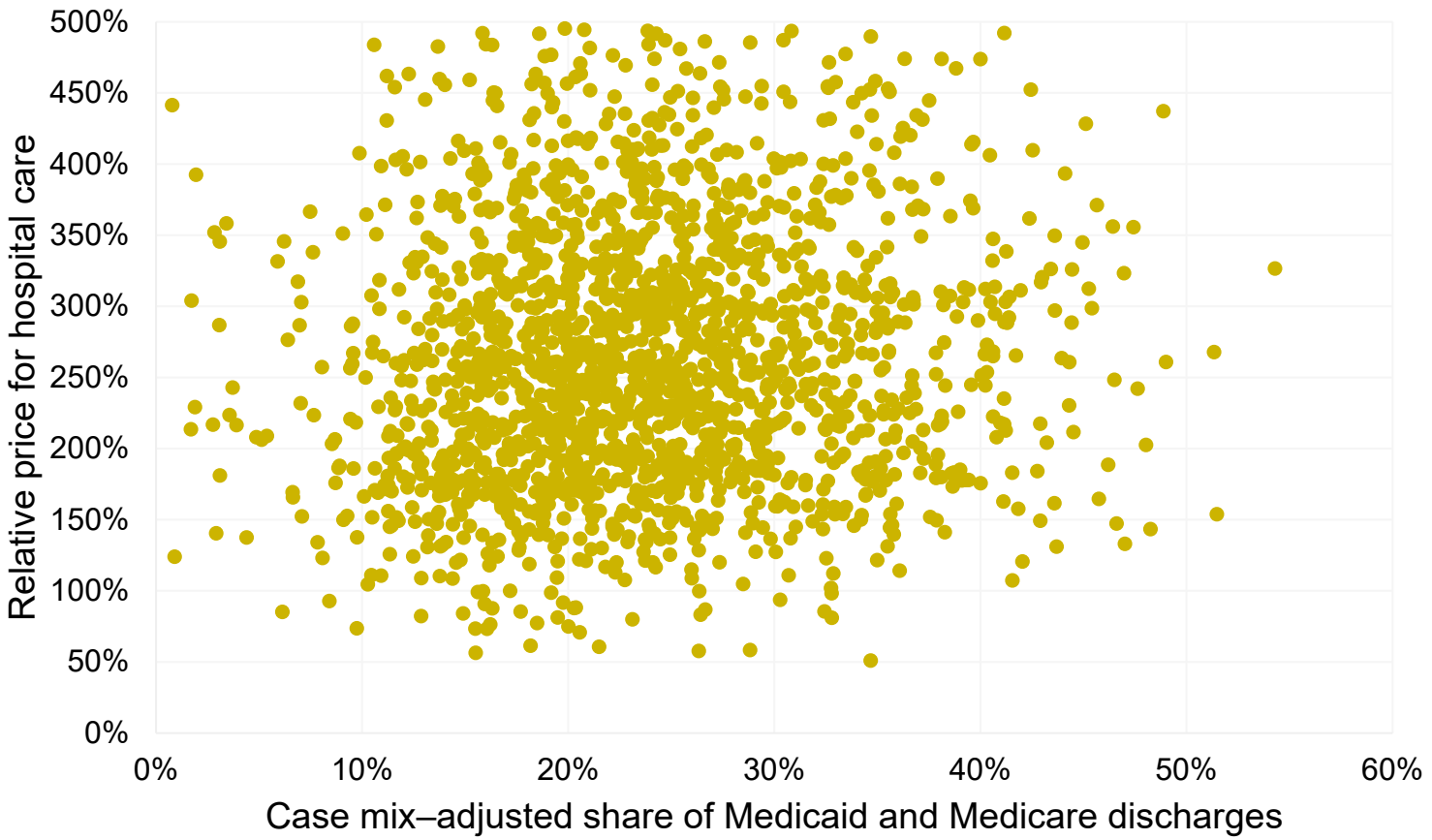






Source: NASHP Hospital Cost Tool, 2019 Data; price from RAND Corporation, 2016-2018 Data

No correlation nationally between a hospital's public insurance reliance and its private insurance prices[1]



- If the cost-shifting argument were true, one would expect a positive correlation between these two variables.
- Additionally, The National Bureau of Economic Research found that when hospitals received an unexpected 10 percent increase in Medicare payment rates, they did not reduce their private prices.[2]
- Instead, they:
  - Added new technology;
  - Increased nursing staff;
  - Increased payroll by one-third

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1. Whaley et al., RAND Corporation, 2020.
2. Skinner et al., National Bureau of Economic Research, *JAMA*, 2018.

Key Takeaways and Cost Considerations

1. **Compared to hospitals in surrounding states, Connecticut hospitals have relatively high median Commercial Breakevens and relatively standard median Commercial Prices.**
   - Connecticut's median RAND 3.0 Commercial Price (2016 - 2018) was 208 percent of Medicare rates
     - Range: 151% to 295% of Medicare rates (data unavailable for 3 independent hospitals)
   - Connecticut's median NASHP Commercial Breakeven (2019) was 131 percent of Medicare rates
     - Range: 58% to 253% of Medicare rates
   - This suggests the potential both for (a) commercial prices to be lowered to more closely align with commercial breakeven, and (b) inefficiencies to be addressed, securing lower hospital costs and decreasing breakevens.
2. **Of the major health systems, Hartford Healthcare Corp. has the largest spread between its Commercial Breakeven and Commercial Price.**
   - Its median Commercial Price (2016-2018) was 91 percentage points higher than its Commercial Breakeven (2019) and 99 percentage points higher than its Commercial Breakeven (2020).

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For More Information

NASHP's Health System Costs Resources:
https://www.nashp.org/policy/health-system-costs/

- Written research and analysis & state legislative tracking
- Model legislation & regulation to address consolidation and more
- Hospital Cost Tool & hospital financial transparency reporting template
- A Hospital Cost Searchable Database

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