

Green Mountain Care Board

2024 REFERENCE-BASED PRICING AND DATA ANALYSIS REPORT

The Green Mountain Care Board seeks to improve the health of Vermonters through a high-quality, accessible, affordable, and sustainable health care system.

Submitted December 16, 2024

In accordance with Act 113 of 2024, Sec. E.345.2



Act 113 of 2024, Sec. E.345.2

GREEN MOUNTAIN CARE BOARD; REFERENCE-BASED PRICING; DATA ANALYSIS; REPORT

- (a) The funds appropriated to the Green Mountain Care Board in Sec. B.1100(s)(1) of this act shall be for a contract with a qualified entity for a reference-based pricing analysis that will analyze commercial medical claims for all inpatient and outpatient hospital services and supplies incurred by active and retired members and their dependents enrolled in the State Employees' Health Benefit Plan and in the health benefit plans offered by the Vermont Education Health Initiative during calendar years 2018 to the most recent year for which data are available, to determine what savings, if any, could have been realized for that period if a reference-based pricing methodology benchmarked to Medicare rates had been applied.
- (b) On or before December 15, 2024, the Green Mountain Care Board shall report to the House Committees on Health Care and on Government Operations and Military Affairs and the Senate Committees on Health and Welfare and on Government Operations with the results of the analysis and any recommendations for legislative action, as well as identifying the other aspects of Vermont's health care system that likely would be affected by the use of reference-based pricing, such as hospital margins, health insurance premiums, and the State's health care reform efforts.

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Executive Summary

In 2023, the Vermont State Employees' Health Benefit Plan (VSEA) and the Vermont Education Health Initiative (VEHI) requested legislative support to generate savings estimates had reference-based pricing (RBP) been implemented for Vermont hospital services provided to their members; this resulted in **Act 113 of 2024, Sec. E.345.2 (a)**. Language was also added in **Sec. E.345.2 (b)** that tasks the Green Mountain Care Board with making "any recommendations for legislative action" and "identifying the other aspects of Vermont's health care system that likely would be affected by the use of reference-based pricing" The study analyzes commercial medical claims covering inpatient and outpatient hospital services from 2018 through the third quarter of 2023, and findings indicate significant opportunity for cost savings.

Key findings:

- Vermont hospital payments for VSEA and VEHI members averaged 289% of Medicare rates during the study period. Adjusting these payments to 200% of Medicare could have saved the VSEA/VEHI health plans approximately \$400 million during the study period, with \$79 million of savings estimated in 2022.
- Outpatient services accounted for the majority of estimated savings (\$321 million), with the remainder from inpatient services (\$78 million).
- Critical Access Hospitals (CAH) and Prospective Payment System (PPS) hospitals showed varying impacts, with most savings occurring at PPS hospitals.
- VEHI and VSEA collectively represent approximately 59,000 beneficiaries.

Commercial prices at some Vermont hospitals are high, and moving to reference-based pricing could mitigate the need for ongoing large tax increases and protect the affordability of healthcare for Vermont teachers and State employees. Moreover, reference-based pricing could protect the solvency of the VSEA and VEHI and the richness of benefits offered. At the same time, Vermont hospitals are experiencing financial strain and if reference-based pricing is pursued the State should do so in a manner consistent with ensuring healthcare access and quality in our communities and to ensure hospitals receive fair and adequate compensation.

Introduction

The rising cost of healthcare remains a critical concern nationally and in Vermont. The United States leads the world in healthcare expenditures, but lags in resources, such as hospital beds and physicians, compared to OECD nations.¹ Vermont reflects these trends, with rapidly escalating costs straining individual incomes, employer budgets, and statewide financial sustainability.^{2,3} These trends are particularly concerning for self-insured plans like VEHI and VSEA, where rising healthcare expenses translate directly into higher state taxes and operational pressures on local businesses.⁴

At the same time, provider sustainability is vital. Vermont healthcare providers, including hospitals, face challenges including an aging population, labor shortages, and mounting financial pressures.⁵ Recognizing these dual concerns, Act 167 called for a detailed study with potential solutions that minimize impacts on providers and citizens. One of the recommendations was to 'begin movement to reference-based pricing ideally at 200% of Medicare or less for PPS hospitals.'⁶

Vermont hospital spending accounts for 41% of the total Personal Health Care expenditure of \$8.1 billion in

¹ [It's Still The Prices, Stupid: Why The US Spends So Much On Health Care, And A Tribute To Uwe Reinhardt | Health Affairs](#)

² [PowerPoint Presentation](#) : Presentation by RAND to the Green Mountain Care Board.

³ <https://dashboard.sagetransparency.org/> RAND Hospital Price Tool

⁴ [Scott chooses not to veto school health benefits bill | Vermont Business Magazine](#)

⁵ [STATE OF VERMONT](#) Green Mountain Care Board FY24 Hospital Budget Decision and Order

⁶ [Hospital Sustainability and Act 167 | Green Mountain Care Board](#)

2022. Hospital spending in 2022 was \$3.4 billion, up from \$2.7 billion in 2018.⁷ Vermont ranked 7th in the nation for per-capita 'Personal Health Care' spending, and 4th nationally for per-capita hospital spending in 2020; many of the states in the top 10 of per-capita hospital spending are also small states.⁸

A RAND Corporation study using facility claims shows unexplained variation in prices across payers and settings in Vermont, with commercial prices significantly higher than what Medicare charges for identical services.⁹ Similarly, a GMCB price variation report using the sub-set of the Vermont population included in the All-Payer Claims Database VHCURES, shows prices are significantly different by hospital, even with the same type of coverage.¹⁰ Finally, using data directly from Blue Cross Blue Shield, the Vermont State Auditor found unexplained price variation. For example, the median price for an echocardiograph ranged from \$310 at the lowest priced Vermont hospital, to \$2,880 at the most expensive. The Auditor estimated that reference-based pricing for State employees could save an average of 13% on the 39 sampled services.¹¹ In 2024, the 16% increase in school health insurance costs was a large driver of property tax increases in Vermont.¹²

Evidence on the Impacts of Reference-Based Pricing

Six states' reference-based pricing models are briefly summarized herein. **Washington** and **Nevada** initiatives included individual market exchange plans. **Colorado** included individual and small group market plans. **Montana**, **North Carolina**, and **Oregon** included public employees and their dependents (Montana with state employees; Oregon with state and school employees; North Carolina with teachers, state employees, current and former legislators, and state university and colleges employees).¹³

Washington implemented reference-based pricing with Cascade Care public option insurance plans on the exchange starting in 2021. Reference points are no more than 160% of Medicare for all covered benefits, excluding pharmacy benefits, in aggregate, no less than 101% of allowable costs for CAH/SCH, and no less than 135% of Medicare for primary care. Plans are offered by five insurers.¹⁴ Legislation includes that a carrier may not require a provider or facility participating in the carrier's public option plan to, as a condition of participation, accept a reimbursement rate for the carrier's other health plans that is the same as the reimbursement rate for the public option plan.¹⁵ Similarly, **Nevada** will be implementing reference-based contracts for their public option plan starting in 2026. No specific reimbursement rate was established under legislation, with rates required to be comparable to or better than reimbursements offered by Medicare.^{16, 17}

Colorado adopted reference-based pricing for individual and small group Standardized Health Benefit Plans beginning with coverage starting in 2023. Rates for hospitals were set at 155% of Medicare, with the following adjustments: an additional 20% for essential hospitals (rural with <25 beds) or 40% for independent essential hospitals, an additional 30% for hospitals with above average public payer-mix, an additional 40% for efficient hospitals (based on margins, operating costs, net patient revenue) and an additional 55% for pediatric hospitals (if no other adjustments).^{18, 19}

Montana required reference-based contracts for the State Employee Health Plan for all facility services with

⁷ GMCB Historical Expenditure Analysis, sent to the Joint Fiscal Office 12/4/24

⁸ [NHE State Health Expenditures 5 Dashboards | Tableau Public](#)

⁹ [PowerPoint Presentation](#): Presentation by RAND to the Green Mountain Care Board.

¹⁰ [Reimbursement Variation Report | Green Mountain Care Board](#)

¹¹ [20211110 State Employee Health Care Price Variation Report.pdf](#)

¹² [Interim Secretary Heather Bouchey, Ph.D., Nicole Lee | Testimony to Senate Finance Committee](#)

¹³ [Overview of States' Hospital Reference-Based Pricing to Medicare Initiatives - NASHP](#)

¹⁴ [Overview of States' Hospital Reference-Based Pricing to Medicare Initiatives - NASHP](#)

¹⁵ [5526-S.SL.pdf](#)

¹⁶ [SB420 Text](#)

¹⁷ [Overview of States' Hospital Reference-Based Pricing to Medicare Initiatives - NASHP](#)

¹⁸ [C:\1232 enr.txt](#)

¹⁹ [Overview of States' Hospital Reference-Based Pricing to Medicare Initiatives - NASHP](#)

all 11 acute care hospitals in 2015 (31K beneficiaries). Simultaneous interventions included a transparent pass-through prescription drug benefit eliminating costs associated with pharmacy chains, on-site primary care clinics, and a new TPA, PBM, data warehouse, and administration system. Inpatient prices were set at 220-222% of Medicare prices, and outpatient prices at 230-250% of Medicare. Impacts included no rate increases for 7 years (2017-2023), pay raises for State employees, and lowered health plan reserves to increase state budget and enhanced plan benefits. SFY 17 to SFY 19 generated \$47.8 million in savings; note that COVID occurred during this period, so results should be interpreted with caution.^{20, 21} The Montana plan was partially walked back 'without a formal evaluation' because of political pressures.²² Montana did not experience any rural hospital closures during this period,²³ and the stability of many non-network CAH hospitals was improved with the savings from this plan.²⁴

North Carolina's reference-based pricing initiative was launched in 2021. Beneficiaries included the State Health Plan for teachers and State employees and other public employees. Contracts included 196% of Medicare for hospital inpatient/outpatient aggregate. The initiative was projected to save \$300 million a year at 177% of Medicare which was initially proposed.²⁵ However, as of August 17th, 2022, North Carolina had zero major hospitals sign on to reference based pricing, reportedly due to political opposition from interest groups.²⁶

Oregon started reference-based pricing contracts in 2019 for Public Employees' Benefit Board (PEBB) and Oregon Educators Benefit Board (OEBB). Inpatient and outpatient hospital prices were capped at 200% in-network and 185% out-of-network. Exempted were small hospitals (with 50 or fewer beds, Type A and B), Critical Access Hospitals, Sole Community Hospitals in counties with less than 70K people, and hospitals with Medicare comprising over 40% of patient revenue.²⁷ The initiative generated \$59 million in savings in 2020 and \$113 million in 2021.²⁸ The initiative led to a 25% reduction in outpatient prices and a 3% reduction in inpatient prices per admission. No evidence emerged that hospitals raised prices for other commercial beneficiaries to compensate,²⁹ however some low-price hospitals did raise inpatient prices that were below the 200% of Medicare benchmark towards the cap, until Oregon revised the legislation to prevent this.³⁰ Oregon did not experience any departures from the insurance network or hospital closures during this period. Oregon saw a reduction in price variation with prices converging towards the cap.³¹

A Brown University study on reference-based pricing made a few predictions for Vermont assuming a cap at 200% of Medicare was set on hospital facility payments for the **state employee plan**. These results were based off of the Hospital Price Transparency Study (RAND V), the NASHP Hospital Cost Tool, and the Georgetown 2022 State Employee Health Plan Survey.

The study generated the following projections:³²

²⁰ Marilyn Bartlett, Senior Policy Fellow, NASHP [PowerPoint Presentation](#).

²¹ [MT-Eval-Analysis-Final-4-2-2021.pdf](#)

²² [Hospital Payment Caps Could Save State Employee Health Plans Millions While Keeping Hospital Operating Margins Healthy | Murray, Whaley et. Al.](#)

²³ [Rural Hospital Closures Map | Sheps Center](#)

²⁴ Email with Marilyn Bartlett, former Plan Administrator 12/8/2024

²⁵ [Overview of States' Hospital Reference-Based Pricing to Medicare Initiatives - NASHP](#)

²⁶ TACIR, 2023 https://www.tn.gov/content/dam/tn/tacir/commission-meetings/2023january/2023Jan_Tab5ReferenceBasedPricing_Report.pdf

²⁷ <https://www.oregon.gov/oha/HPA/ANALYTICS/HospitalReporting/Hospital%20Type%20Document.pdf>

²⁸ [Overview of States' Hospital Reference-Based Pricing to Medicare Initiatives - NASHP](#)

²⁹ [HospitalPriceCaps_Final.pdf](#) : Millbank Issue Brief, July 2024

³⁰ [Hospital Payment Caps Could Save State Employee Health Plans Millions While Keeping Hospital Operating Margins Healthy | Murray, Whaley et. Al.](#)

³¹ [Hospital Facility Prices Declined As A Result Of Oregon's Hospital Payment Cap | Murray, Whaley et. Al.](#)

³² [Hospital Payment Caps Could Save State Employee Health Plans Millions While Keeping Hospital Operating Margins Healthy | Health Affairs](#)

State Employee health plan savings at the state level, 2022 (Appendix A2):

State	State employee health plan savings	State employee facility revenue	Percent change in facility revenue	Relative price for inpatient facility services	Relative price for outpatient facility services	Share of individuals with ESI enrolled in state employee plan	Number of hospitals [in the sample]
VT	\$62.66M	\$188.30M	-33.3%	229.7%	348.9%	14.4%	11

Estimated annual state employee health plan savings under alternative design choices at the state level, 2022 (Appendix A5):

	Cap at 200% Medicare			Alternative Cap		
State	Savings, main model	Savings, exempt small/rural hospitals	Savings, exempt safety net hospitals	Savings, cap at median relative prices	Inpatient relative prices	Outpatient relative prices
VT	\$62.66M	\$55.09M	\$22.35M	\$65.44M	152.6%	237.9%

Estimated annual state employee health plan savings with 200% cap under alternative assumptions at the state level, 2022 (Appendix A8):

State	Savings, main model	Savings, no volume response	Savings, low-priced hospitals respond
VT	\$62.66M	\$63.15M	\$55.80M

Detailed estimates of commercial hospital operating margins under two cap scenarios compared with no cap, 2022 (Appendix, A10):

State	Margins, no cap	Margins, cap at 200%	Margins, cap at median relative prices
VT	41.88%	39.46%	39.35%

GMCB recommends readers [review the full report](#) to understand its findings on benefits and arguments raised in response to proposed use of reference-based pricing,³³ GMCB further recommends readers consider potential concerns and unintended consequences discussed in the **American Hospital Association (AHA) Fact Sheet on Reference-based Pricing**.³⁴

Balance billing is a tool whereby hospitals can make up the difference between the reference price and the cost of the service by billing the patient out of pocket. Thus, a hospital using balance billing would shift the lower payment from the plan to patients in the form of higher out of pocket costs. Should Vermont pursue reference-based pricing, GMCB recommends considering policies that address balance billing. While Vermont patients have some protections from balance billing for out of network services, further review is recommended.³⁵

³³ [Hospital Payment Cap Simulator | Brown University School of Public Health](#)

³⁴ [Fact Sheet on Reference-based Pricing | AHA](#)

³⁵ [No Surprises Act | Department of Financial Regulation](#)

Description of beneficiaries included in the Pricing Study

Primary health insurance types that cover Vermonters include Medicaid (150K people), Medicare (130K) and private health insurance (304K) in 2021.³⁶ The cohort of VSEA/VEHI beneficiaries in the pricing study includes 59K people (teachers and school staff, state employees, and their dependents combined). There is little change over time in beneficiary counts across the years included in the study.

Figure 1. VHCURES monthly eligibility files, annual beneficiary counts and % change year over year

	2018	2019	2020	2021	2022	2023
Grand Total	58,396	0% 58,201	0% 58,156	0% 58,426	0% 58,517	0% 58,769
VEHI	36,686	-1% 36,352	0% 36,302	0% 36,386	-1% 36,096	0% 36,013
VSEA	21,710	1% 21,849	0% 21,854	1% 22,040	2% 22,421	1% 22,756

³⁶<https://www.healthvermont.gov/sites/default/files/documents/pdf/HSVR-VHHIS-2021-Report.pdf>

Type of insurance products

A majority of Vermonters have insurance coverage through their employer, where the employer self-insures their employees using an insurance company to administer medical benefits. VEHI/VSEA employees and their dependents are the largest self-insured group of employees in the State, and the State of Vermont serves as its fiduciary through boards and committees. Four insurance product types are included in the pricing study.

Figure 2. VHCURES monthly eligibility files, unduplicated person counts, duplicated across product types

		2018	2019	2020	2021	2022	2023
Grand Total		58,498	58,298	58,319	58,564	58,668	58,844
VEHI	Total	36,788	36,449	36,465	36,524	36,247	36,088
	Exclusive Provider Organization (EPO)		35,874	35,879	35,926	35,622	35,515
	Point of Service (POS)	675	575	586	598	625	573
	Preferred Provider Organization (PPO)	36,113					
VSEA	Total	21,710	21,849	21,854	22,040	22,421	22,756
	Point of Service (POS)	21,710	21,849	21,854	22,040	22,421	22,756

Hospital Use

Inpatient Use

For both groups, UVM Medical Center (UVMC) in Burlington, VT was the most frequently accessed hospital for inpatient services. Dartmouth Hitchcock Medical Center in Lebanon, NH, Central Vermont Medical Center in Barre, VT and Rutland Regional Medical Center in Rutland, VT were also frequently accessed by both groups.

Figure 3. VHCURES facility claims, inpatient unduplicated people count, >30 people, duplicated across providers

Inpatient Providers 2023

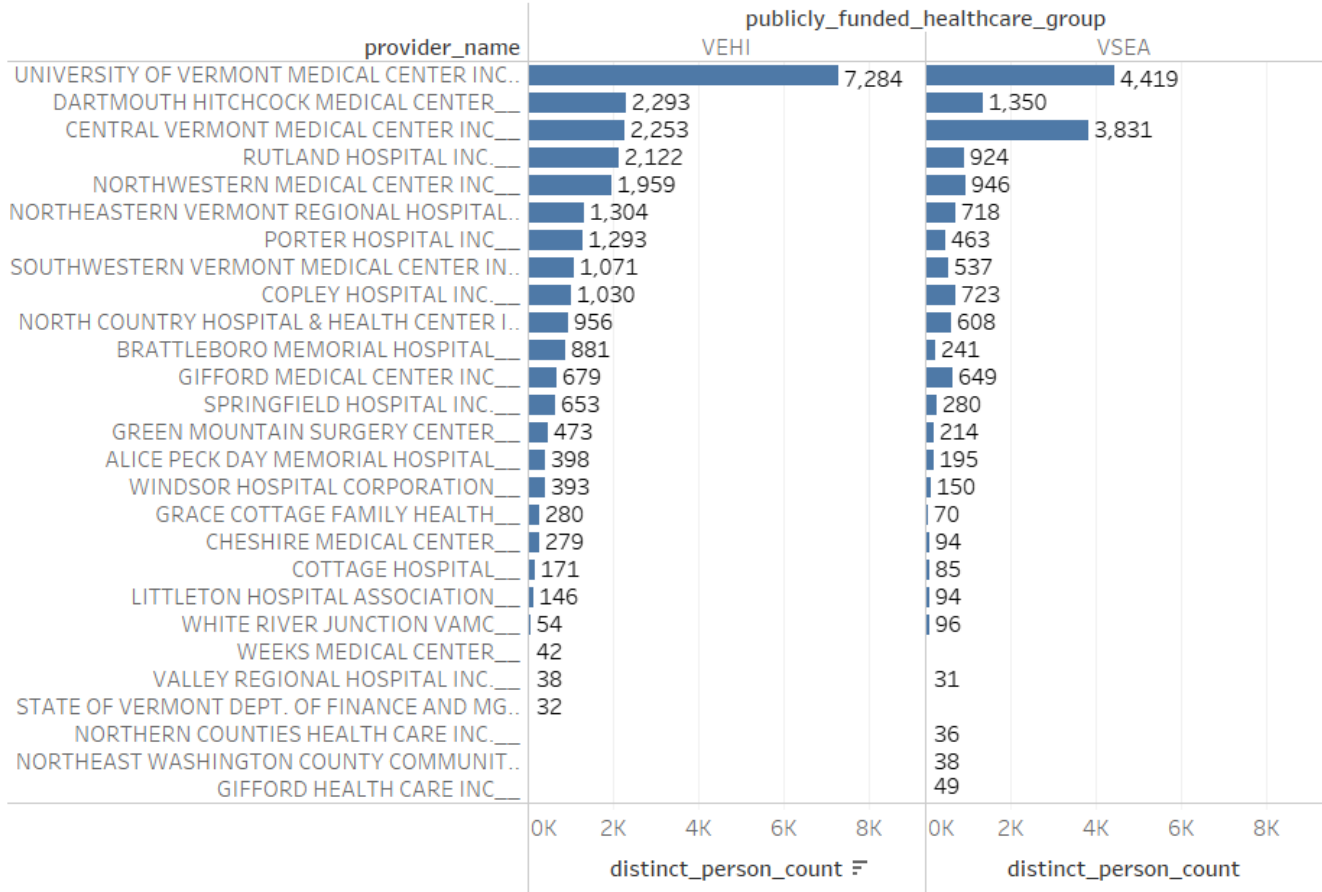
provider_name	publicly_funded_healthcare_group	
	VEHI	VSEA
UNIVERSITY OF VERMONT MEDICAL CENTER INC__	400	285
DARTMOUTH HITCHCOCK MEDICAL CENTER__	160	105
RUTLAND HOSPITAL INC__	84	56
CENTRAL VERMONT MEDICAL CENTER INC__	66	103
NORTHWESTERN MEDICAL CENTER INC__	45	
PORTER HOSPITAL INC__	40	
GIFFORD MEDICAL CENTER INC__	38	35
NORTHEASTERN VERMONT REGIONAL HOSPITAL INC__	35	

Outpatient Use

Outpatient hospital use by VEHI beneficiaries is concentrated in the UVM Health Network (UVM-HN), with outpatient facility VSEA beneficiary use fairly evenly split between UVM-MC and CVMC.

Figure 4. VHCURES Facility claims, top 25 providers, outpatient unduplicated people counts, duplicated across providers

TOP 25 Outpatient Providers 2023



Systemwide Use: Demographics, Diagnosis Categories, Providers

The majority (about 70%) of beneficiaries included in the pricing study are between the ages of 19-64, with VSEA skewing slightly older.

Figure 5. VHCURES monthly eligibility files, age

	VEHI							Total	VSEA						
	2018	2019	2020	2021	2022	2023	2018		2019	2020	2021	2022	2023		
0	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	
1-18	23%	23%	23%	23%	23%	23%	23%	21%	21%	20%	20%	20%	20%	20%	
19-44	34%	33%	34%	35%	35%	35%	35%	35%	35%	35%	35%	34%	34%	35%	
45-64	37%	37%	36%	35%	35%	36%	36%	39%	38%	37%	36%	35%	35%	36%	
65+	6%	6%	6%	5%	5%	5%	5%	4%	5%	7%	8%	10%	11%	7%	

Both VSEA and VEHI beneficiaries are disproportionately female (>50%).

Figure 6. VHCURES monthly eligibility files, gender

	VEHI							VSEA						
	2018	2019	2020	2021	2022	2023	Total	2018	2019	2020	2021	2022	2023	Total
F	57%	57%	57%	56%	57%	57%	57%	54%	54%	53%	54%	54%	54%	54%
M	43%	43%	43%	44%	43%	43%	43%	46%	46%	47%	46%	46%	46%	46%

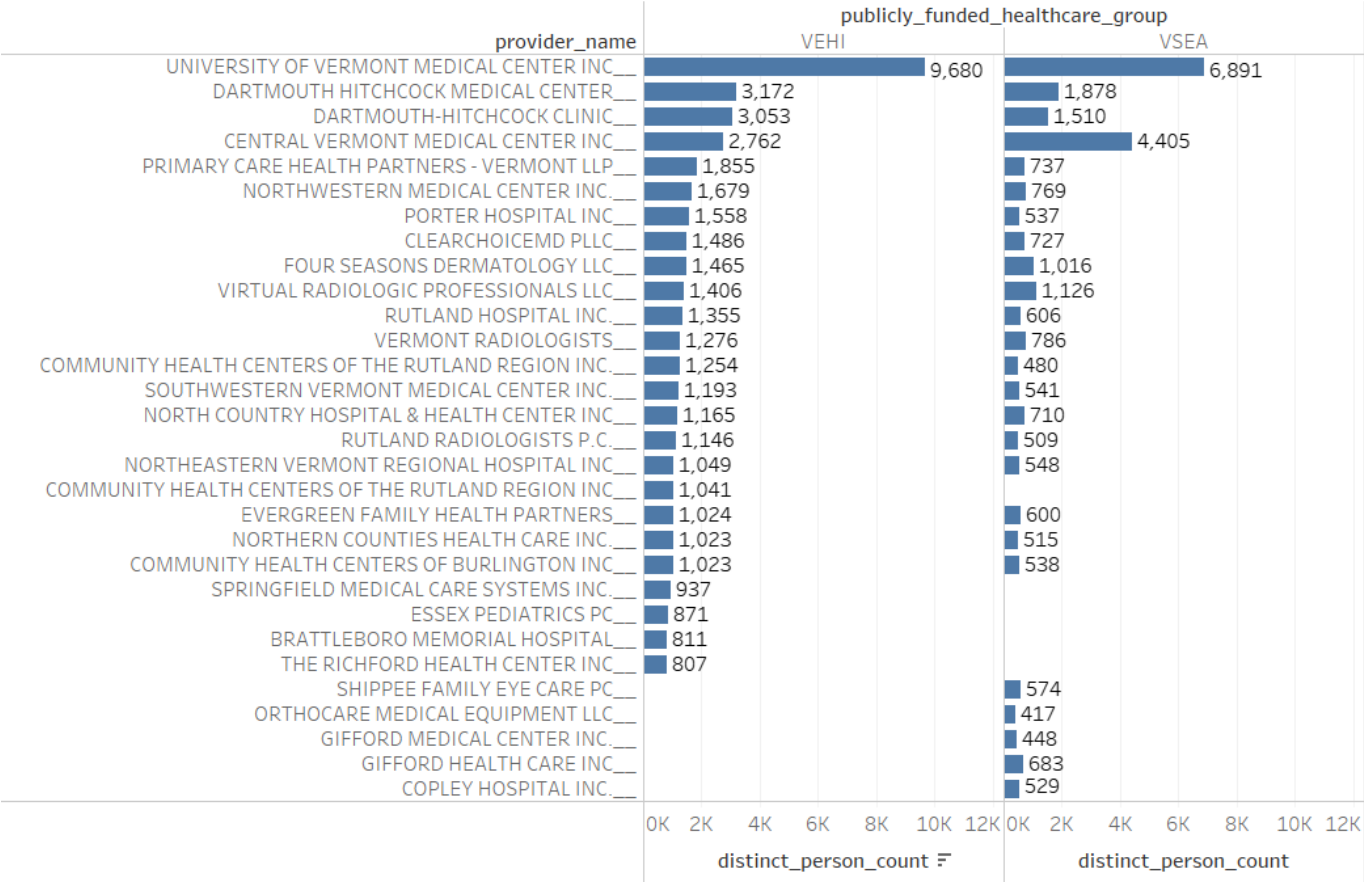
COVID impacts are evident during the study period with a significant decrease in people-counts in 2020 for all top 20 diagnosis code groups, except for notable exceptions ‘exposure encounters screening or contact with infectious disease’, ‘anxiety and fear-related disorders’, and ‘trauma and stressor-related disorder’ which increased.

Figure 6. VHCURES facility and professional claims, VEHI/VSEA combined, top 20 primary diagnosis groupers in 2023, unduplicated people >30, duplicated across providers, % change indicated by color

	2018	2019	2020	2021	2022	2023	F
Medical examination/evaluation	26,757	27,155	25,117	27,844	27,981	27,935	
Exposure encounters screening or contact with infecti..	19,327	19,623	29,043	31,689	24,210	19,586	
Neoplasm-related encounters	9,591	9,815	8,140	10,005	10,309	10,748	
Musculoskeletal pain not low back pain	8,967	9,297	7,956	9,476	9,423	9,475	
Other specified upper respiratory infections	7,080	7,371	4,659	4,050	5,759	6,777	
Anxiety and fear-related disorders	4,162	4,559	5,101	5,627	5,845	5,889	
Abnormal findings without diagnosis	4,396	4,451	4,069	4,778	4,963	5,123	
Other specified and unspecified skin disorders	4,919	4,933	4,424	5,079	5,115	5,080	
Trauma- and stressor-related disorders	4,189	4,567	4,862	4,941	5,058	5,057	
Respiratory signs and symptoms	4,446	4,298	4,339	4,485	5,404	4,901	
Encounter for observation and examination for conditi..	4,282	4,852	4,558	5,436	4,699	4,645	
Spondylopathies/spondyloarthropathy (including infe..	4,242	4,432	3,917	4,412	4,354	4,242	
Benign neoplasms	3,509	3,532	3,242	3,932	3,908	4,238	
Abdominal pain and other digestive/abdomen signs an..	4,173	3,939	3,809	4,200	4,237	4,172	
Essential hypertension	4,237	4,224	3,982	4,188	4,006	4,020	
Low back pain	3,985	3,982	3,558	4,085	3,817	3,635	
Refractive error	3,690	3,527	2,819	3,583	3,353	3,407	
Sleep wake disorders			2,539			3,156	
Depressive disorders	2,816	2,989	2,882	3,004	3,035	3,079	
Other specified inflammatory condition of skin				2,894	2,871	2,920	
Sprains and strains initial encounter	2,970	2,887					
COVID-19					3,099		
Biomechanical lesions	3,145	3,190	2,980	3,070			

The top three billing providers in facility claims are also top providers in professional claims. The non-hospital system-based providers that see the largest number of patients are Primary Health Partners (several independent primary care practices), Virtual Radiologic Professionals, Four Seasons Dermatology, and ClearChoiceMD (several urgent care sites).

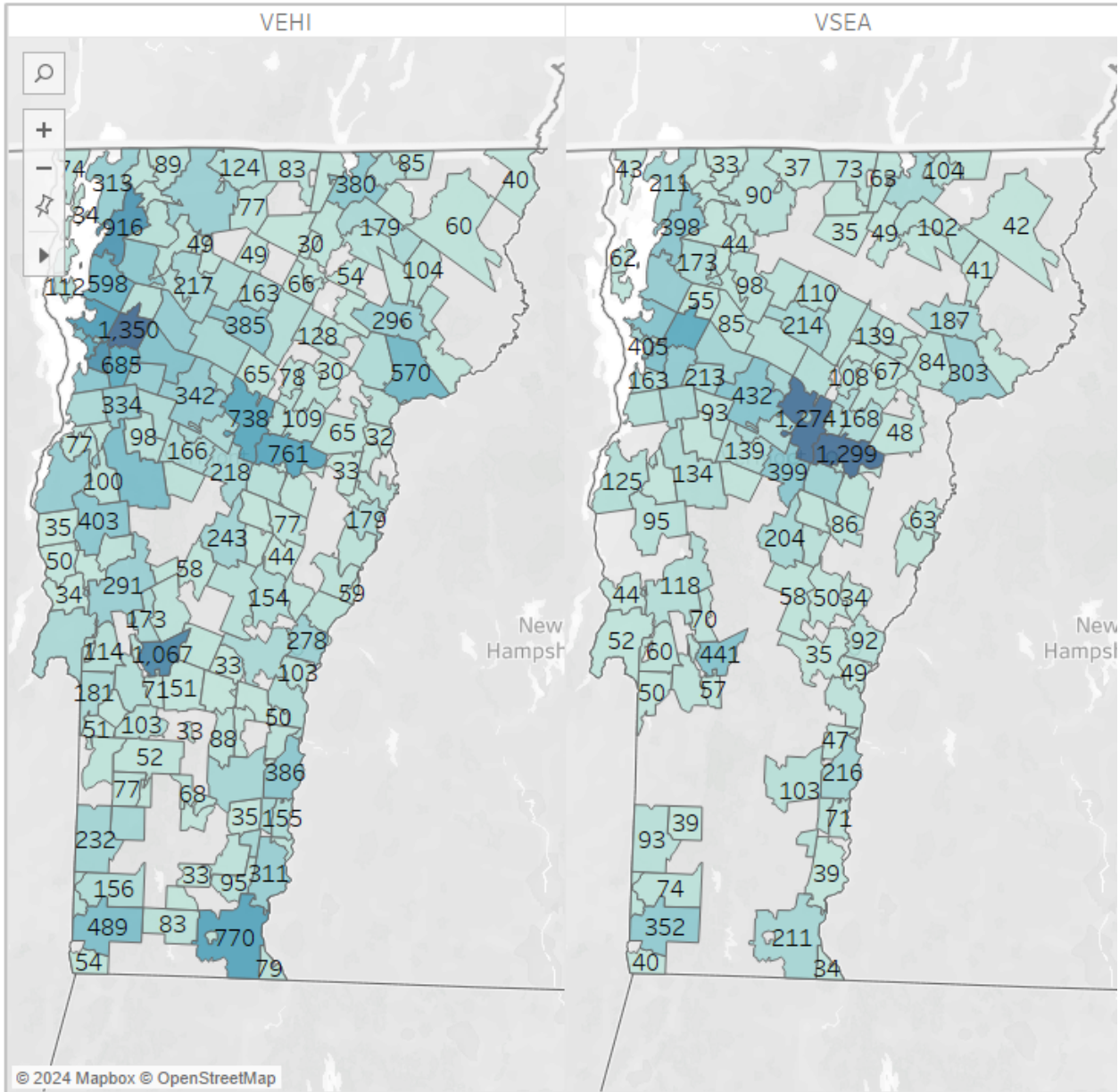
Figure 7. 2023 VHCURES top 25 professional claims providers, billing providers, unduplicated people >30, duplicated across providers



Systemwide Use: Where Beneficiaries Live

Both VSEA and VEHI employees live in geographically spread-out areas throughout the state, accessing a range of providers. State employees are more concentrated in Montpelier while VEHI employees are most concentrated in Burlington, with pockets of beneficiaries organized around the larger school systems throughout the state.

Figure 8. VHCURES Eligibility files, 2023 beneficiary counts, >30 people



Health Management Associates Reference-based Pricing Study

Link to the HMA analysis can be found [here](#).

HMA's key findings included in the report:

- “Overall percent for (Total Allowed Amount / Medicare Pricing at 100%) is 289.33% when considering all calendar years (CY) and both Inpatient and Outpatient utilization.
- Inpatient and Outpatient Medicare Pricing both have similar trends across CY18-CY23 with percents increasing across this timeframe for (Total Allowed / Medicare Repriced).
- CY18-CY21 percents for Medicare Pricing (Total Allowed / Medicare Repriced) held static at approximately 275% for each CY in Inpatient and at approximately 290% in Outpatient.
- CY22-CY23 percents for Medicare Pricing (Total Allowed / Medicare Repriced) are increasing in each CY for both Inpatient (~288%) and Outpatient (~300%).
- Percents for CAH hospitals as seen in tab 2 (Mcare Pricing by CAH_Non_CAH) are higher than the PPS/Other peer group of hospitals with the exception of CY18 and CY23.
- The overall percents when including all hospitals are very similar to the percents for just the PPS hospitals.
- The overall percent for all hospitals in CY20 is 289.7% with the PPS/Other hospitals at 286.3%.
- The volume of utilization for the CAHs is a small percentage of the total at approximately 17% of total allowed amount in each CY.
- Percents for the VSEA group as seen in tab 3 (Mcare Pricing by VEHI_VSEA) are lower than the VEHI group with the exception of CY18.
- The volume of utilization for the VSEA group as a percentage of the total is approximately 38%-40% of total allowed amount in each CY.”

Summary of HMA Methodology

Medicare reimbursement approximates the cost of care for most services, with adjustment to rates based on geographic, facility and patient factors. Exceptions are services such as pediatric and maternity services.³⁷ The HMA study uses Medicare pricing data publicly available through the Centers for Medicare and Medicaid Services (CMS) and compares Medicare prices to inpatient and outpatient hospital prices in Vermont’s All-Payer Claims Dataset (VHCURES).³⁸ Estimated savings are generated by subtracting the Medicare price from allowed amounts, a proxy for price in VHCURES. Facilities outside of Vermont (except for Dartmouth Hitchcock Medical Center) are excluded from the study. ‘Allowed Amount’ in the All-Payer Database is used as a proxy for price, which combines insurance paid amount plus patient share.

Figure 9. Service type inclusions in the pricing study

Inpatient service categories:

Well Babies
NICU Babies
Deliveries
Behavioral/SUD
Nervous System
Respiratory System
Circulatory System
Digestive System
Musculoskeletal
Kidney Related
Infections
All Other

Outpatient service categories:

ED Visits
Clinic Visits
Imaging with Contrast
Imaging without Contrast
Musculoskeletal Procedures
Cardiac Procedures
GI Procedures
Urology
Pathology
Radiation
Neurostimulator
Ear, Nose, Throat, Eye
Skin Procedures
Minor Procedures
Drug Administration

³⁷ [HospitalPriceCaps_Final.pdf](#) Millbank Issue Brief July 2024

³⁸ [Vermont Health Care Uniform Reporting and Evaluation System - VHCURES | Green Mountain Care Board](#)

Summary of pricing study findings

VEHI/VSEA hospital costs averaged \$186 million annually with an average of \$46 million in inpatient hospital spending and \$140 in outpatient spending across study years. Inpatient spending represents an average of 22% of hospital spending.

If prices had been set to levels recommended by Oliver Wyman in the Act 167 report³⁹ at 200% of Medicare, estimates of savings are projected at \$400 million, or \$79 million in the most recent full year included in the study (2022). Allowed amounts total to 289% of Medicare base prices across years.

Figure 10. Inpatient and outpatient hospital costs combined, compared to National Medicare base price, in millions

Year	Total Allowed Amount	RBP 150% of Medicare	Savings Amount at 150%	RBP 180% of Medicare	Savings Amount at 180%	RBP 200% of Medicare	Savings Amount at 200%	RBP 250% of Medicare	Savings Amount at 250%
2018	\$168	\$85	\$83	\$101	\$68	\$111	\$58	\$136	\$32
2019	\$181	\$93	\$88	\$110	\$72	\$121	\$60	\$149	\$33
2020	\$178	\$88	\$90	\$104	\$74	\$115	\$64	\$141	\$37
2021	\$206	\$103	\$103	\$122	\$84	\$134	\$72	\$166	\$41
2022	\$211	\$102	\$109	\$121	\$91	\$133	\$79	\$164	\$48
Q1-Q3 2023	\$171	\$80	\$91	\$94	\$77	\$104	\$67	\$128	\$43
TOTAL	\$1,117	\$552	\$565	\$651	\$466	\$718	\$400	\$883	\$234

Year	Total Allowed As a % of Medicare Price
2018	281%
2019	278%
2020	290%
2021	286%
2022	297%
Q1-Q3 2023	306%
Total	289%

³⁹ [Hospital Sustainability and Act 167 | Green Mountain Care Board](#)

If inpatient prices had been set at 200% of Medicare, total estimated inpatient savings is projected to have been \$78 million, or \$15 million in the most recent full year included in the study (2022). Allowed amounts during the study period were 278% of Medicare base prices.

Figure 11. Inpatient hospital costs, compared to National Medicare base price, in millions

Year	Total Allowed Amount	RBP 150% of Medicare	Savings Amount at 150%	RBP 180% of Medicare	Savings Amount at 180%	RBP 200% of Medicare	Savings Amount at 200%	RBP 250% of Medicare	Savings Amount at 250%
2018	\$47	\$26	\$21	\$31	\$16	\$34	\$13	\$43	\$4
2019	\$48	\$26	\$22	\$31	\$17	\$35	\$14	\$44	\$5
2020	\$45	\$25	\$21	\$30	\$16	\$33	\$12	\$41	\$4
2021	\$48	\$26	\$22	\$32	\$16	\$35	\$13	\$44	\$4
2022	\$50	\$26	\$24	\$32	\$19	\$35	\$15	\$44	\$6
Q1-Q3 2023	\$39	\$20	\$19	\$24	\$15	\$27	\$12	\$34	\$5
TOTAL	\$278	\$150	\$128	\$180	\$98	\$199	\$78	\$249	\$28

Year	Total Allowed As a % of Medicare Price
2018	274%
2019	277%
2020	274%
2021	273%
2022	285%
Q1-Q3 2023	288%
Total	278%

If outpatient prices had been set to at 200% of Medicare, total estimated outpatient savings is projected to have been \$321 million, or \$64 million in the most recent full year included in the study (2022). Allowed amounts during the study period were 293% of Medicare base price across the study timeframe.

Figure 12. Outpatient hospital costs, compared to National Medicare base price, in millions

Year	Total Allowed Amount	RBP 150% of Medicare	Savings Amount at 150%	RBP 180% of Medicare	Savings Amount at 180%	RBP 200% of Medicare	Savings Amount at 200%	RBP 250% of Medicare	Savings Amount at 250%
2018	\$122	\$60	\$62	\$70	\$52	\$77	\$45	\$94	\$28
2019	\$133	\$67	\$66	\$78	\$55	\$86	\$47	\$105	\$28
2020	\$133	\$63	\$70	\$74	\$59	\$82	\$51	\$100	\$33
2021	\$158	\$77	\$81	\$90	\$68	\$99	\$59	\$122	\$37
2022	\$161	\$76	\$86	\$89	\$72	\$98	\$64	\$120	\$42
Q1-Q3 2023	\$132	\$60	\$73	\$70	\$62	\$77	\$56	\$94	\$38
TOTAL	\$840	\$402	\$437	\$472	\$368	\$518	\$321	\$634	\$206

Year	Total Allowed As a % of Medicare Price
2018	284%
2019	278%
2020	295%
2021	290%
2022	300%
Q1-Q3 2023	312%
Total	293%

Pricing study results stratify savings estimates into two hospital types: facilities reimbursed under Prospective Payment Systems (PPS) and Critical Access Hospitals (CAH). Predicted savings at PPS hospitals at 200% is \$287 million, with \$57 million in savings in 2022, the most recent complete year in the study. Allowed amounts during the study period were 289% of Medicare base pricing levels.

Figure 13. PPS Inpatient and outpatient hospital, compared to National Medicare base price, in millions⁴⁰

Year	Total Allowed Amount	RBP 150% of Medicare	Savings Amount at 150%	RBP 180% of Medicare	Savings Amount at 180%	RBP 200% of Medicare	Savings Amount at 200%	RBP 250% of Medicare	Savings Amount at 250%
2018	\$140	\$73	\$67	\$88	\$52	\$98	\$42	\$122	\$18
2019	\$150	\$82	\$68	\$98	\$52	\$109	\$41	\$136	\$14
2020	\$149	\$78	\$71	\$94	\$55	\$104	\$45	\$130	\$19
2021	\$171	\$90	\$81	\$108	\$63	\$121	\$51	\$151	\$21
2022	\$176	\$89	\$86	\$107	\$69	\$119	\$57	\$149	\$27
Q1-Q3 2023	\$144	\$70	\$74	\$84	\$60	\$93	\$51	\$117	\$27
TOTAL	\$930	\$483	\$447	\$579	\$351	\$643	\$287	\$804	\$126

Year	Total Allowed As a % of Medicare Price
2018	287%
2019	276%
2020	286%
2021	284%
2022	296%
Q1-Q3 2023	309%
Total	289%

⁴⁰ Medicare reference amounts and savings estimates at different Medicare reference levels are slightly less precise than for the combined group estimates (Figures 10., 11.,12.). This is due to a small amount of the utilization not being part of the outpatient pricing methodology, and the subgroup estimates not excluding these outpatient services.

Critical Access hospitals had predicted total savings of \$58 million at 200%, with \$12 million in estimated savings in the most recent full year included in the study (2022). Allowed amounts during the study period were 291% above Medicare national base rates.

Figure 14. CAH Inpatient and outpatient hospital, compared to National Medicare base price, in millions⁴¹

Year	Total Allowed Amount	RBP 150% of Medicare	Savings Amount at 150%	RBP 180% of Medicare	Savings Amount at 180%	RBP 200% of Medicare	Savings Amount at 200%	RBP 250% of Medicare	Savings Amount at 250%
2018	\$28	\$16	\$12	\$20	\$8	\$22	\$6	\$27	\$1
2019	\$31	\$16	\$15	\$20	\$12	\$22	\$10	\$27	\$4
2020	\$29	\$14	\$15	\$17	\$12	\$19	\$10	\$24	\$6
2021	\$35	\$18	\$17	\$21	\$14	\$24	\$11	\$30	\$5
2022	\$36	\$18	\$18	\$21	\$15	\$24	\$12	\$30	\$6
Q1-Q3 2023	\$28	\$14	\$14	\$17	\$11	\$19	\$9	\$23	\$4
TOTAL	\$187	\$97	\$91	\$116	\$71	\$129	\$58	\$161	\$26

Year	Total Allowed As a % of Medicare Price
2018	257%
2019	288%
2020	309%
2021	295%
2022	303%
Q1-Q3 2023	294%
Total	291%

⁴¹ Medicare reference amounts and savings estimates at different Medicare reference levels are slightly less precise than for the combined group estimates (Figures: 10., 11.,12.). This is due to a small amount of the utilization not being part of the outpatient pricing methodology, and the subgroup estimates not excluding these outpatient services.

Finally, pricing study results are stratified into the two publicly funded groups included in the study. At 200%, VEHI had predicted savings of \$230 million during the study period, with \$48 million estimated savings in the most recent complete year in the study (2022). Allowed amounts during the study period were 301% above Medicare national base rates.

Figure 15. VEHI Inpatient and outpatient hospital, compared to National Medicare base price, in millions⁴²

Year	Total Allowed Amount	RBP 150% of Medicare	Savings Amount at 150%	RBP 180% of Medicare	Savings Amount at 180%	RBP 200% of Medicare	Savings Amount at 200%	RBP 250% of Medicare	Savings Amount at 250%
2018	\$100	\$54	\$46	\$65	\$35	\$72	\$28	\$91	\$10
2019	\$113	\$60	\$53	\$72	\$41	\$80	\$33	\$100	\$13
2020	\$111	\$55	\$57	\$65	\$46	\$73	\$39	\$91	\$20
2021	\$127	\$64	\$64	\$76	\$51	\$85	\$42	\$106	\$21
2022	\$131	\$62	\$69	\$75	\$56	\$83	\$48	\$104	\$27
Q1-Q3 2023	\$103	\$47	\$55	\$57	\$46	\$63	\$40	\$79	\$24
TOTAL	\$685	\$342	\$343	\$410	\$275	\$456	\$230	\$570	\$116

Year	Total Allowed As a % of Medicare Price
2018	276%
2019	283%
2020	306%
2021	300%
2022	316%
Q1-Q3 2023	326%
Total	301%

⁴² Medicare reference amounts and savings estimates at different Medicare reference levels are slightly less precise than for the combined group estimates (Figures 10., 11.,12.). This is due to a small amount of the utilization not being part of the outpatient pricing methodology, and the subgroup estimates not excluding these outpatient services.

VSEA estimated savings at 200% of Medicare was \$115 million during the study period, with \$21 million in savings estimated for the most recent full year included in the study (2022). Allowed amounts during the study period were 273% above Medicare national base rates.

Figure 16. VSEA Inpatient and outpatient hospital, compared to National Medicare base price, in millions

Year	Total Allowed Amount	RBP 150% of Medicare	Savings Amount at 150%	RBP 180% of Medicare	Savings Amount at 180%	RBP 200% of Medicare	Savings Amount at 200%	RBP 250% of Medicare	Savings Amount at 250%
2018	\$68	\$35	\$33	\$43	\$26	\$47	\$21	\$59	\$9
2019	\$68	\$38	\$30	\$46	\$23	\$51	\$17	\$64	\$5
2020	\$67	\$38	\$29	\$45	\$22	\$50	\$17	\$63	\$4
2021	\$79	\$45	\$34	\$53	\$26	\$59	\$20	\$74	\$5
2022	\$81	\$45	\$36	\$54	\$27	\$60	\$21	\$75	\$6
Q1-Q3 2023	\$69	\$37	\$32	\$44	\$25	\$49	\$20	\$61	\$7
TOTAL	\$432	\$237	\$194	\$285	\$147	\$317	\$115	\$396	\$36

Year	Total Allowed As a % of Medicare Price
2018	289%
2019	268%
2020	266%
2021	266%
2022	271%
Q1-Q3 2023	280%
Total	273%

In summary, allowed amounts during the study period were 289% of what Medicare would have paid for the same services. If prices for hospital-based services were paid at 200% of the Medicare base rate, this report estimates a potential savings of \$400m over the study period. If hospital-based prices were paid at a higher level, there would have been less savings.

If these allowed amounts (prices) were applied to both inpatient and outpatient services, this study finds that there would have been savings in both areas. The majority of savings come from care provided at Prospective Payment System hospitals, and less at Critical Access Hospitals. Both VEHI and VSEA would have experienced substantial savings if allowed amounts/prices were set to 200% of the Medicare base price.

Recommendations for Legislative Action if RBP is Implemented

Recommendation 1: Implementation Considerations.

Reference-based pricing could reduce the financial pressures on VEHI and VSEA by lowering prices paid on services, thereby reducing the need to increase taxes or reduce benefits to ensure the future solvency of the funds. Hospital prices should be fair to VEHI and VSEA, hospitals, non-hospital providers, taxpayers, and other commercially insured Vermonters. Hospitals are critically important to our communities, providing round-the-clock care, and should be paid a fair price that ensures their sustainability and allows for appropriate margins.

Should reference-based pricing be pursued for VEHI and VSEA, GMCB recommends that the cost reductions do not result in other commercially insured Vermonters paying more. Important implementation considerations include Vermonters' ability to absorb further property and other tax increases to pay for healthcare, the financial health of the plans, and the impact of rising healthcare costs on school and State budgets. The financial health of hospitals and whether the reference-based prices are fair and appropriate to ensure access to care are likewise important considerations.

The Vermont Legislature could consider implementing reference-based pricing for VEHI and VSEA plans either in full or gradually. Examples of gradual implementation could include starting with PPS hospitals then considering adding CAH hospitals, or starting at a certain percentage of Medicare and reducing it over time to a level deemed adequate, fair, and consistent with State healthcare reform objectives.

Recommendation 2: Balance Billing Protections.

Vermont patients have some protections against balance billing for out of network services. However, legislators should carefully consider whether additional safeguards are necessary to ensure that savings from implementation of reference-based pricing are not placed on individual members.

Recommendation 3: Implementation Analysis.

If implemented, additional study is recommended to:

- (a) Investigate the feasibility of future adjustments (up or down) to referenced prices for certain services. For example, referenced prices could be set at higher levels for Mental Health services, Substance Use Disorder treatment, Primary Care, Long Term Care and Home Health, and/or Obstetrics/Gynecology care.
- (b) Estimate potential impacts of reference-based pricing on Qualified Health Plan Exchange market beneficiaries, and/or other plans used by Vermonters.
- (c) Measure the impacts on providers, including in connection with providers that may receive increased reimbursements (such as some small hospitals and non-hospital providers), and those that may experience a reduction (such as large PPS hospitals).

The study finds that the VEHI and VSEA would have seen significant savings had reference-based pricing been implemented; however, it is unknown which specific providers and services would be impacted. It is possible that some hospitals would see reimbursement increases from some Medicare reference points.

Contractors have expressed concern with generating a report with proprietary information such as provider-level pricing. However, provider and/or service level pricing details would allow for nuanced RBP implementation, such as the Department of Vermont Health Access (DVHA) uses in their RBP program with Medicaid and would strengthen any implementation efforts. More detailed information (provider and service level pricing and savings information) would also allow for a more tailored assessment of potential unintended consequences.

Recommendation 4: Alignment with Payment Reform. Align any RBP legislation with payment reform initiative models, goals and objectives.

Discussions about how reference-based pricing approaches intersect with Vermont’s existing and proposed payment reform initiatives are ongoing. Any decisions on implementing reference-based pricing should be informed by the content of these discussions.

Glossary

Balance Billing:

From Healthcare.gov: “When a provider bills you for the difference between the provider’s charge and the allowed amount. For example, if the provider’s charge is \$100 and the allowed amount is \$70, the provider may bill you for the remaining \$30. A preferred provider may not balance bill you for covered services.”⁴³

CAH:

Critical Access Hospital. Smaller, more remote hospitals. Vermont has 8: Grace Cottage, Gifford, Mt. Ascutney, Northeastern Vermont, North Country, Copley, Springfield, and Porter Hospitals.

CMS:

[Centers for Medicare and Medicaid Studies](#). The Federal Agency that administers the Medicare program and assists with Medicaid.

DVHA:

[Department of Vermont Health Access](#).

GMCB:

[Green Mountain Care Board](#).

HMA:

[Health Management Associates](#). Contracted for the Reference-based Pricing Study.

Inpatient:

Patients who are admitted to the hospital/spend the night.

NASHP:

[National Academy for State Health Policy](#).

Outpatient:

Patients who visit a healthcare facility without being admitted to the hospital/spending the night.

PPS/Other:

Pay Per Service Hospital. Larger hospitals, get paid fixed amounts for service by Medicare. The PPS/Other category includes the Brattleboro Retreat, Brattleboro Memorial Hospital, Dartmouth Hitchcock, Central Vermont, UVM, Rutland Regional, Southwestern Vermont, and Northwestern Medical Centers for this study.

Price Variation:

The price of a particular service can vary significantly across different hospitals. For example, a 2020 study by the State Auditor found that the price of an echocardiograph varied from \$310 dollars at the cheapest hospital in Vermont, to \$2,880 at the most expensive.⁴⁴

RAND:

Nonprofit research group. Conducted the [Hospital Price Transparency Study](#).

Reference-based Pricing:

A form of payment where the employer sets a ceiling on what they are willing to pay for a service.

⁴³ [Balance Billing | Healthcare.gov](#)

⁴⁴ [20211110 State Employee Health Care Price Variation Report.pdf](#)

Type A Hospital (Oregon specific):

From the Oregon Health Authority: “Type A hospitals are small hospitals (with 50 or fewer beds) that are located more than 30 miles from another hospital.”⁴⁵

Type B Hospital (Oregon specific):

From the Oregon Health Authority: “Type B hospitals are small hospitals (with 50 or fewer beds) that are located within 30 miles of another hospital.”⁴⁶

UVM-HN:

University of Vermont Health Network. Includes three Vermont hospitals: University of Vermont Medical Center (UVM-MC), Central Vermont Medical Center (CVMC) and Porter Medical Center (PMC).

VEHI:

[Vermont Education Health Initiative](#). A nonprofit serving health benefit plans to school districts, teachers, retired teachers, and dependents.

VSEA:

[Vermont State Employees Association](#). The union representing Vermont State Employees.

VHCURES:

[Vermont Health Care Uniform Reporting and Evaluation System](#), the Vermont All-Payer Claims Database (APCD). Contains claims and eligibility data from private and public payers.

⁴⁵ [Hospital Types | Oregon Health Authority](#)

⁴⁶ [Hospital Types | Oregon Health Authority](#)