Vermont All-Payer ACO Model
Total Cost of Care Annual Report
Performance Year 1
(January – December 2018)

Submitted February 21, 2020

Green Mountain Care Board

1. Executive Summary

The Annual Total Cost of Care (TCOC) Report, as required by the Vermont All-Payer Accountable Care Organization Model ("All-Payer ACO Model" or "APM") Agreement, illustrates Vermont's progress toward its statewide financial targets, including the All-payer TCOC per Beneficiary Growth Target. Under the Agreement, Vermont's All-Payer TCOC is tied to a historical look at Vermont's economic growth with the goal of bringing health care spending more in line with the Vermont economy. The TCOC is judged against a range of 3.5 – 4.3% growth in the Agreement, although the state has chosen to push providers to meet the lower end of the range. Included in this report are quantitative and qualitative analyses of Vermont's performance on these statewide financial targets in Performance Year 1 (PY1, 2018).

TCOC per member per month (PMPM) increased 4.1 percent across all payer types in 2018 relative to 2017, which is within the agreed upon range. The highest observed growth occurred for Medicaid at 6.5 percent, followed by Medicare at 4.4 percent and commercial at 1.5 percent. In general, the Medicaid program experienced higher utilization (and therefore expenditure) in 2018 than in 2017 across the entire Medicaid population. However, the Medicaid portion of the All-Payer TCOC *decreased* for Medicaid members attributed to the ACO (-2.8%) as compared with those outside the ACO (9.0%). It is too early with only two data points to determine whether this will continue as a trend. The lower than expected commercial growth was largely influenced by a substantial decrease in the TCOC among Medicare Advantage beneficiaries. The APM Agreement explicitly defines Medicare Advantage as part of the commercial market. The market penetration in Vermont has been steadily increasing and the observed TCOC for this population decreased by 8% (from $619 in 2017 to $572 in 2018).

The All-Payer TCOC PMPM in 2018 was $521. The PMPMs making up the All-Payer TCOC by payer type were $276 for Medicaid, $469 for commercial, and $878 for Medicare. The TCOC across all payers in 2018 was $2.9 billion. Approximately a quarter, or $726.7 million, of the TCOC was associated with the ACO-attributed population, i.e. the population for which Vermont's ACO was accountable in 2018. See Figure 1.b. Of dollars for which the ACO was accountable, 21% were in the form of a fixed prospective payment (FPP), while 79% remained under fee for service (FFS). See Figure 1.a.

Figure 1.a

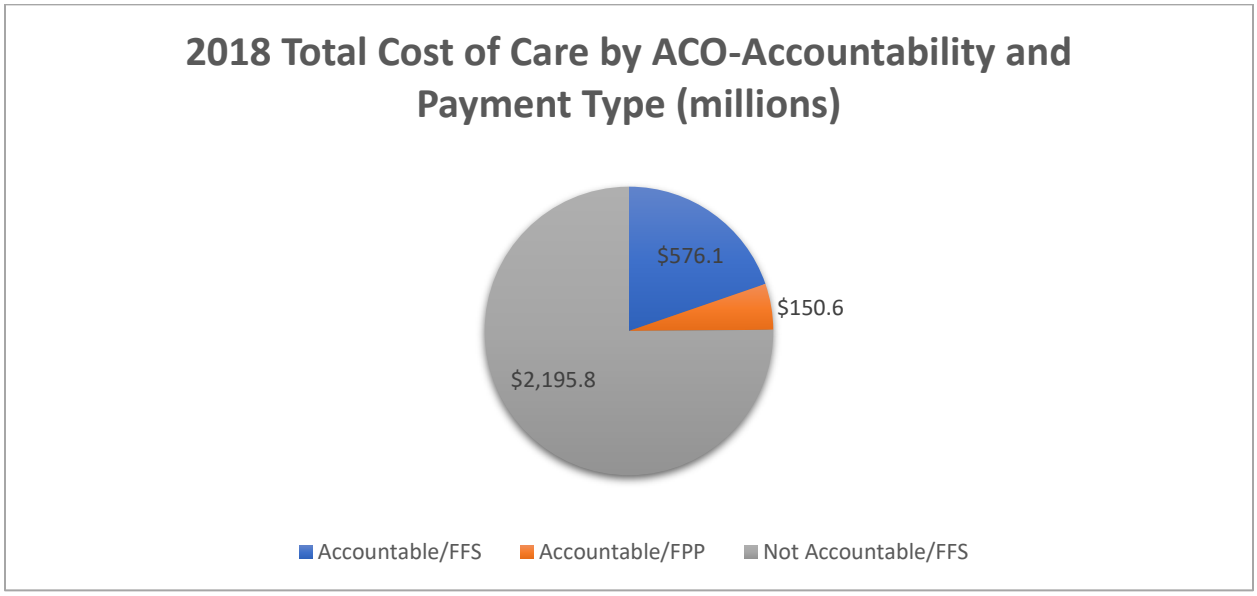


Figure 1.b[1]

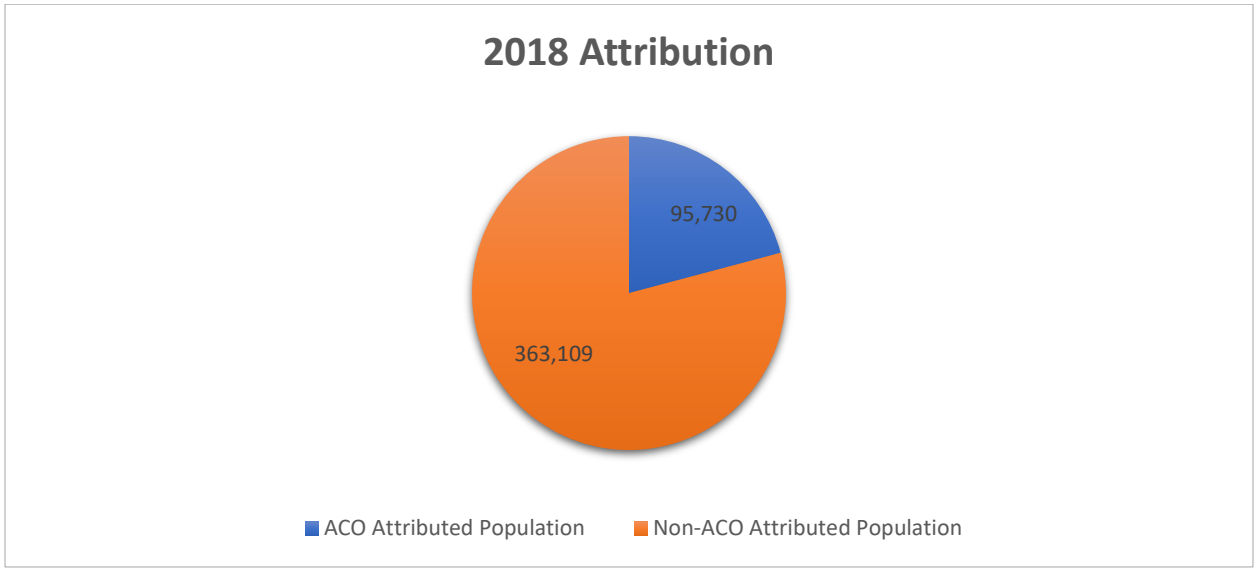
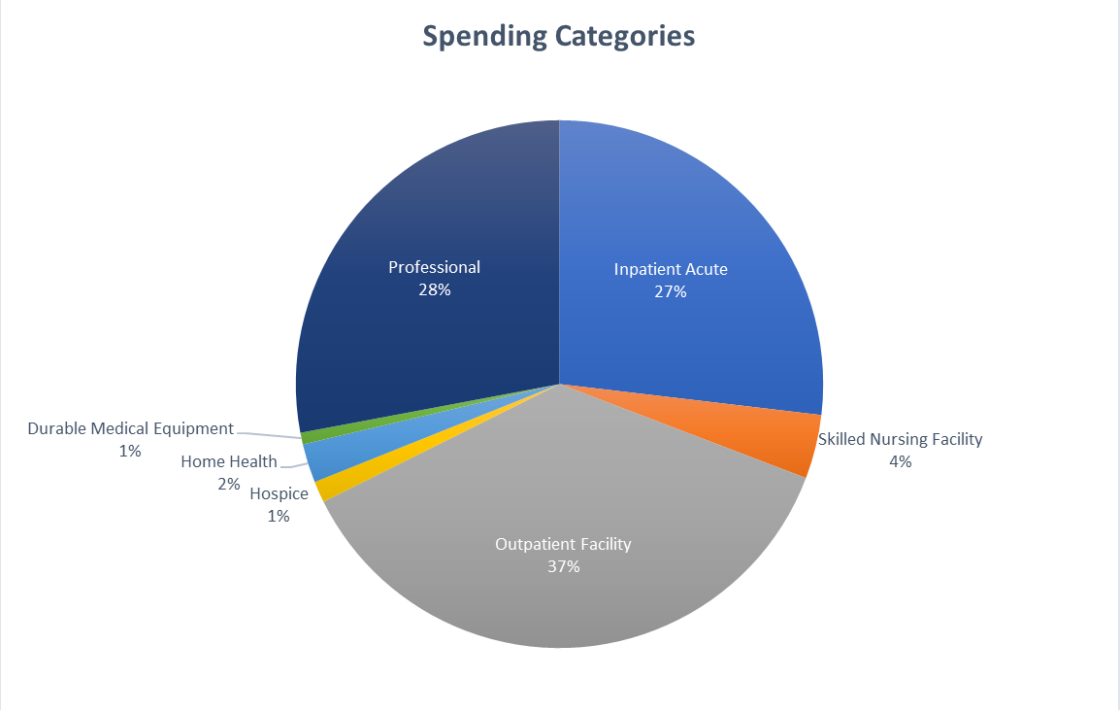


Figure 1.c, below, outlines broad categories of claims-based spending from VHCURES for the 2018 calendar year. This pie chart reflects 94.8% of spending, with the remainder being population-based, capitated, payments. The Vermont APM creates new flexibility for ACOs to invest in population health improvement initiatives that are not billable through the claims system. As an increasing proportion of payments to providers are shifting away from fee-for-service, toward capitated payments, it is essential that future analyses employ additional methodologies, such as utilization metrics, to more holistically

[1] Based on average member months.

understand changing provider behavior, underlying health care reform efforts, and ultimately, drivers of TCOC growth.

Figure 1.c



2. Introduction

The Vermont All-Payer Accountable Care Organization Model ("All-Payer ACO Model" or "APM") Agreement was signed on October 26, 2016, by Vermont's Governor, Secretary of Human Services, Chair of the Green Mountain Care Board (GMCB), and the Centers for Medicare & Medicaid Services (CMS). The All-Payer ACO Model aims to reduce health care cost growth by moving away from fee-for-service reimbursement to risk-based arrangements for Accountable Care Organizations (ACOs); these arrangements are tied to quality and health outcomes.

This report provides an annual update[2] regarding Vermont's performance on Total Cost of Care (TCOC)[3] per beneficiary growth targets for all payers and for Medicare, as described in Section 9 (Statewide Financial Targets) of the APM Agreement. Section 9.f requires the GMCB to report on the State's performance relative to the TCOC targets quarterly. TCOC results presented in this report include data for Vermont residents based on data from the Vermont Health Care Uniform Reporting and Evaluation System (VHCURES) and non-claims payments for all four quarters of 2018.

[2] Per a memo to CMMI dated August 21,2019, Vermont agreed to produce a final, annual report allowing for six months of claims to be paid after the end of the calendar year (i.e. paid runout).
[3] Complete TCOC specifications are available upon request.

As discussed in Appendix B (Validation), the GMCB employed a variety of techniques to assess the reasonableness of the results. Data available to payers is much different than the data available to the GMCB and therefore results are expected to vary. However, validation efforts revealed the differences to be relatively small.[4]

3. Methodology

3.1. All-Payer Total Cost of Care per Beneficiary

The methodology for calculating All-Payer TCOC per Beneficiary does not vary across Performance Years.

Performance Years 1-5:

$$\frac{\textit{Vermont All-Payer TCOC}}{\textit{Vermont All-Payer TCOC Beneficiaries}}$$

All-Payer TCOC per Beneficiary Numerator:

The Vermont All-Payer TCOC per Beneficiary numerator includes:

- Claims and fee-for-service equivalent payments from consolidated data in VHCURES, submitted by payers.
- Non-claims supplemental data submitted by Medicare, Medicaid, and large commercial insurers.

All-Payer TCOC per Beneficiary Denominator:

The Vermont All-Payer TCOC per Beneficiary denominator includes:

- All Vermont Medicare enrollees.
- All Vermont Medicaid enrollees, with the exception of non-eligible populations described below.
- Members of fully insured health plans, with the exception of non-eligible populations described below.
- Members of self-insured health plans, with the exception of non-eligible populations described below.
- Members of Medicare Advantage Plans (considered Commercial plans under the All-Payer Model Agreement).

The Vermont All-Payer TCOC per Beneficiary denominator excludes:

- Members of Federal Employee and Military Health Plans.
- Medicaid Enrollees who are not eligible for the Medicaid ACO program (e.g., individuals dually eligible for Medicare and Medicaid[5], individuals with evidence of third-party coverage, and individuals who receive a limited Medicaid benefit package).

[4] The GMCB continues to improve the data quality and would like to thank Blue Cross Blue Shield of Vermont and MVP for the time they generously volunteered to assist in validating the results.

[5] Beneficiaries covered by both Medicare and Medicaid are included in the Medicare population to avoid double counting.

- Members of self-insured health plans who decline to voluntarily submit data to VHCURES.
- Members of insurance plans without a Certificate of Authority from Vermont's Department of Financial Regulation.
- Uninsured individuals.

Detailed specifications for Medicaid payments, commercial and self-insured payments made through claims, and commercial and self-insured non-claims payments are available upon request.

Vermont All-Payer Total Cost of Care per Beneficiary Growth:

Vermont All-Payer TCOC per Beneficiary Growth will be calculated by Vermont and CMS in aggregate as a compounded annualized growth rate across Performance Years 1 through 5 of this Model, using 2017 as a baseline.

3.2. Data sources

VHCURES data was used to calculate claims payments in the numerator and the number of Vermont residents in the denominator for commercial, Medicaid, and Medicare payer groups in 2018. Medicaid claims payments and Medicaid all-inclusive population based payments (PBPs)[6] were adjusted downward by 2.2 percent to account for price increases excluded from the TCOC pursuant to section 10.d of the All-Payer ACO Model Agreement, which allows for the exclusions of cost growth attributable to price increases intended to bring Medicaid reimbursement rates to levels comparable to or greater than Medicare reimbursement rates or to ensure greater access for Medicaid beneficiaries. The All-Payer TCOC per Beneficiary Growth is reported with and without the price adjustment in Section 4. VHCURES data were used for Medicare fee-for-service equivalent amounts. These fee-for-service equivalents represent the amount that Medicare would have paid through traditional reimbursement for services paid for prospectively with Medicare's PBP. For remaining non-claims payments in the numerator, including shared savings/losses made to providers and payments outside of claims reporting, we used data from multiple sources:

1. Two commercial payers, Blue Cross Blue Shield of Vermont and MVP, provided GMCB with non-claims payments amounts for 2018, including capitation and risk settlement payments. Blueprint payments for Patient-Centered Medical Homes (PCMH) and Community Health Teams (CHT) were also included. To calculate non-claims payments for commercial payers, payer-reported capitation and risk settlement payments were added to PCMH and CHT payments as reported by the Blueprint for Health.
2. Non-claims Medicaid payments include Blueprint payments as well as the Medicaid PBP paid prospectively to the ACO. As previously mentioned, the PBP payments from Medicaid include an adjustment of -2.2% for excludable price increases under the terms of the APM Agreement.[7] Blueprint payments include PCMH, Core CHT, and Women's Health Initiative (WHI) payments as reported by the Blueprint for Health.

[6] PBPs are also known as Fixed Prospective Payments (FPPs).
[7] The Medicaid repricing factor is also applied to 2018 claims payments. See Vermont All-Payer Accountable Care Organization Model Agreement, Section 10.d.

3. In addition to the PBPs reported to VHCURES, Medicare non-claims costs include 2018 shared savings payments totaling $13,345,337, of which $7,776,760 was advanced to the ACO to promote continued funding of the Blueprint for Health and SASH, leaving $5,568,578 of net savings in the Medicare program for 2018.

4. Summary of Results

Figure 4a: All-Payer Total Cost of Care Results, Prior Four Quarters and Year-to-Date (including reduction for excludable Medicaid costs)[8]

		Q1	Q2	Q3	Q4	Annual TCOC Growth
Baseline (CY 2017)	TCOC/Beneficiary (PMPM)[9]	$502.64	$507.29	$489.25	$504.33	$500.88
	Numerator ($)[9]	*$689,993,655*	*$698,731,179*	*$671,601,466*	*$690,081,212*	*$2,750,407,512*
	Denominator (Members)[10]	*457,581*	*459,126*	*457,569*	*456,100*	*457,594*
Current PY (2018)	TCOC/Beneficiary (PMPM)[9]	$527.65	$523.15	$504.51	$529.67	$521.25
	Numerator ($)[9]	*$729,657,041*	*$721,393,309*	*$692,943,854*	*$726,074,920*	*$2,870,039,124*
	Denominator (Members)[10]	*460,951*	*459,632*	*457,837*	*456,936*	*458,839*
Per Beneficiary Growth Rate		***5.0%***	***3.1%***	***3.1%***	***5.0%***	***4.1%***

Figure 4b: All-Payer Total Cost of Care Results, Prior Four Quarters and Year-to-Date (Total Spending)

		Q1	Q2	Q3	Q4	CY
Baseline (CY 2017)	TCOC/Beneficiary (PMPM)[9]	$502.64	$507.29	$489.25	$504.33	$500.88
	Numerator ($)[9]	*$689,993,655*	*$698,731,179*	*$671,601,466*	*$690,081,212*	*$2,750,407,512*
	Denominator (Members)[10]	*457,581*	*459,126*	*457,569*	*456,100*	*457,594*
Current PY (2018)	TCOC/Beneficiary (PMPM)[9]	$529.55	$524.99	$506.25	$531.36	$523.05
	Numerator ($)[9]	*$732,295,918*	*$723,909,983*	*$695,336,260*	*$728,386,177*	*$2,879,928,339*
	Denominator (Members)[10]	*460,951*	*459,632*	*457,837*	*456,936*	*458,839*
Per Beneficiary Growth Rate		***5.4%***	***3.5%***	***3.5%***	**5.4%**	***4.4%***

[8] Section 10.d. of the APM Agreement allows All-Payer TCOC growth attributable to Medicaid rate increases to be excluded from the All-Payer TCOC calculations. This table reflects an adjustment of -2.2% for claims payments and Medicaid prospective PBP payments.
[9] Claims-based spending is based on allowed amounts.
[10] Weighted by months enrolled during the measurement period.

5. Results: Growth in PMPM TCOC

Figure 4a displays PMPM costs for all quarters in 2018 by payer group. A 4.1 percent growth in TCOC per member per month across all payers was observed compared to costs in 2017. The lowest growth was 1.5 percent among commercial beneficiaries, followed by Medicare at 4.4 percent, and Medicaid at 6.5 percent.[11] As in the base year, Medicare has the highest TCOC PMPM at $878, followed by commercial payers at $469 and then Medicaid at $276. The 2018 TCOC PMPM for all payers is $521.

Figure 5a: All-Payer TCOC calculation for 2017 and 2018

Payer	2018					2017 Total cost PMPM	2018 annual change in total cost PMPM
	Total claims costs	Total non-claims costs	Total costs	Total members[12]	Total cost PMPM		
All payer	$2,620,706,085	$249,333,039	$2,870,039,124	458,839	$521	$500	**4.1%**
Commercial	$1,124,513,841	$14,787,282	$1,139,301,123	202,445	$469	$462	**1.5%**
Medicare	$1,129,993,016	$156,199,070	$1,286,192,086	122,070	$878	$841	**4.4%**
Medicaid	$366,199,228	$78,346,687	$444,545,915	134,324	$276	$258	**6.5%**

Quarterly PMPM growth is fluid as claims are paid and subsequently adjusted – allowing for adequate runout will help to alleviate some of the seemingly significant quarterly growth. Typically, lower third quarter PMPM costs are observed across all payer groups, with greater annual changes in the first and fourth quarters. The GMCB is working to provide adjustments to account for claims runout in subsequent reporting. Detail is provided for each payer group below.

The All Payer TCOC is not directly comparable to the 2018 hospital budget net patient revenue (NPR) increases for several reasons. First, hospital budgets include a subset of services included in the TCOC, only those provided by a hospital or a provider affiliated with a hospital. Second, hospital budget NPR includes revenue for services provided to out of state patients in a Vermont hospital. Whereas, the All Payer TCOC is spending for Vermont residents, regardless of whether that treatment was received in or out of state.

[11] Beneficiaries with multiple sources of coverage are assigned to one payer group according to the following hierarchy: (1) commercial, (2) Medicare, and (3) Medicaid. Beneficiaries dually eligible for Medicare and Medicaid are included in the Medicare population.
[12] Total members weighted by months enrolled in the measurement period.

Lastly, All Payer TCOC should not be used to evaluate the ACO performance at this time. Approximately a quarter, or $726.7 million of the TCOC was associated with the ACO-attributed population, i.e. the population for which Vermont's ACO was accountable in 2018. See Figure 1.b. Of dollars for which the ACO was accountable, 21% were in the form of a fixed prospective payment (FPP), while 79% remained under fee for service (FFS). See Figure 1.a. In addition, there are some out-of-state Medicare residents who are attributed to the ACO, making the populations slightly different.

Figure 1.a

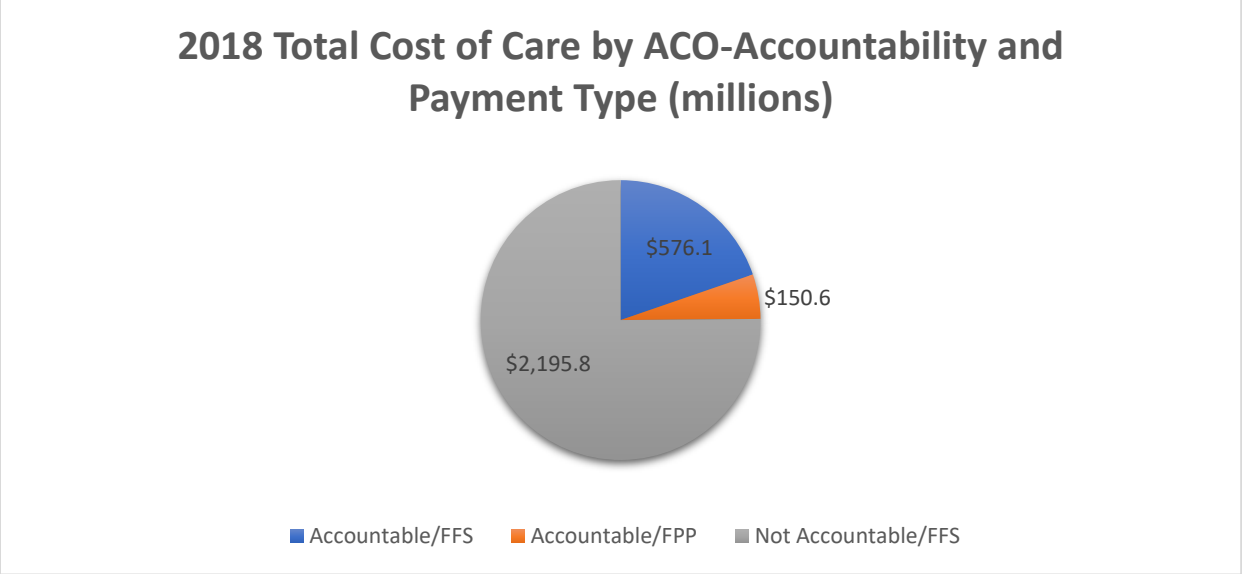
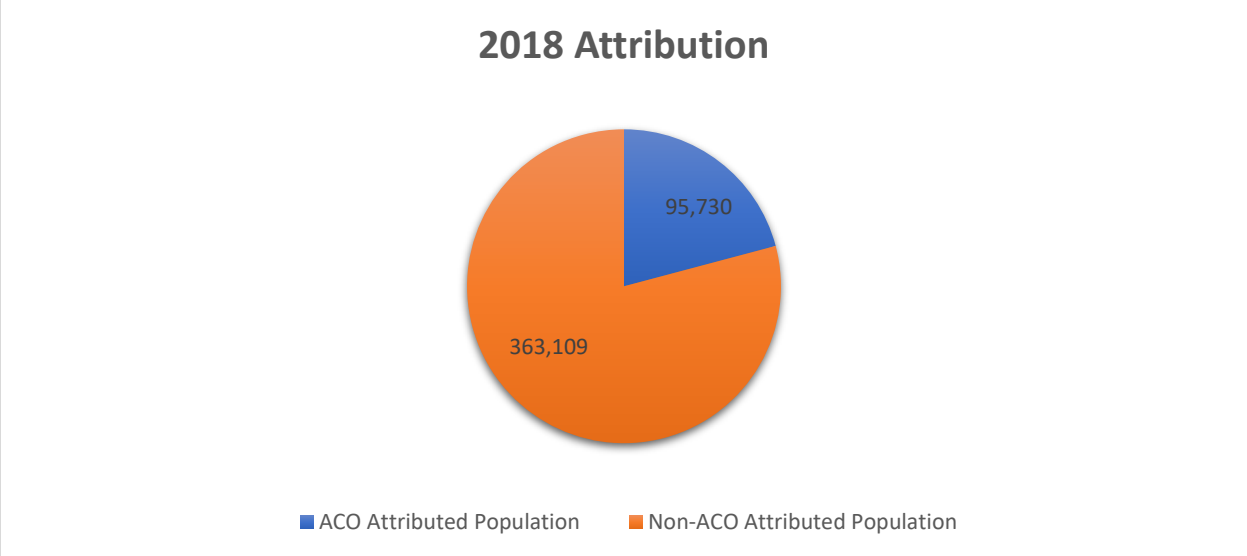
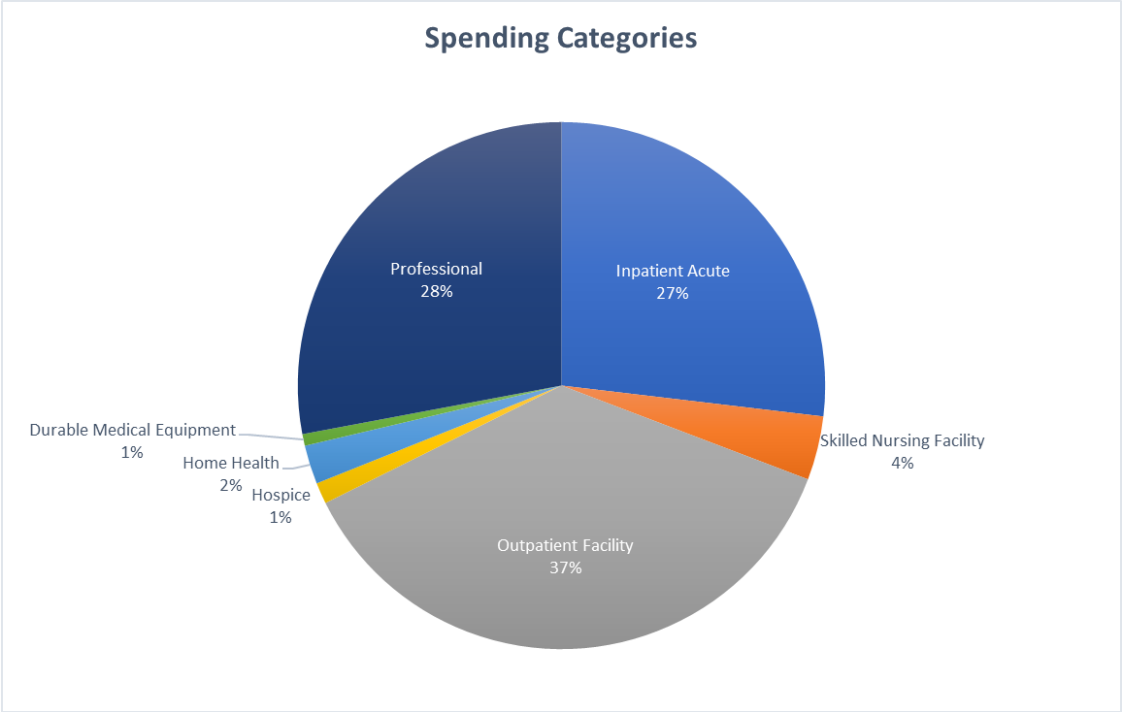


Figure 1.b



An analysis of claims-based spending from VHCURES for the 2018 calendar year, or the fee-for-service component of TCOC, which is 94.8% of spending, identifies the top three categories of TCOC spend: 1. outpatient facility 2. professional and 3. inpatient acute care, see figure 1.c. The proportion of spending not represented in figure 1.c. is made up of population-based or capitated payments. The Vermont APM creates new flexibility for ACOs to invest in population health improvement initiatives that are not billable through the claims system. As an increasing proportion of payments to providers are shifting away from fee-for-service, toward capitated payments, claims-based analyses become less meaningful, and it is essential that future analyses employ additional methodologies, such as utilization metrics, to more holistically understand changing provider behavior, underlying health care reform efforts, and ultimately, drivers of TCOC growth.

Figure 1.c



5.1. Commercial

Figure 5.1.a shows total claims costs and member months by commercial submitter. Commercial plans are grouped into three plan types: fully insured, self-insured, and Medicare Advantage. It is important to reiterate that self-insured results may be less reliable because payers are not required to report data from self-insured plans to VHCURES.

Figure 5.1.a: Total Claim Costs and Member Month Counts by Commercial Payer Group for 2018 & Annual PMPM Costs

Plan type	2018			Prior Year claim cost PMPM	Current Year Annual change in PMPM thru Q4	Claim costs percentage of total
	Total claims costs[13]	Total member months	Total cost PMPM			
Commercially Insured (Fully-Insured)	$488,785,938	1,097,436	$445			43.5%
Medicare Advantage	$96,455,460	170,567	$565			8.6%
Self-Insured	$539,272,443	1,161,341	$464			48.0%
Total	**$1,124,513,841**	**2,429,344**	**$463**			**100.0%**

The commercially insured group of 202,445 members includes members purchasing individual and small group plans, large group plans, and Medicare Advantage plans. The growth rate noted in the previous section of 1.5% should not, therefore, be compared to the insurance premium increases for the 2018 plan years. Insurance premiums consist of several components: medical trend, pharmacy trend, taxes and fees, reserves, and administrative costs. The only relevant component of the premium increase is the medical trend. Medical trend for insurance premiums is established by using actual claims from 2 years prior to the filing year (e.g. 2016 for 2018 plans) in order to ensure that the claims are complete. Those claims are then adjusted for population changes (enrollment and demographic), benefit changes and other relevant factors, then trended forward by two years using actuarial estimates. The 1.5% trend included in this analysis is based on actual 2017 to actual 2018 claims while the premium increases for the 2018 plan year are estimates.

[13] Claims costs are based on allowed amount. Results exclude non-claims costs.

5.2. Medicare

Table 5.2.a shows the distribution of Medicare PMPM across claims and non-claims costs. 2018 saw the introduction of shared savings and ACO PBPs (non-claims-costs).

Figure 5.2.a: Medicare Fee-For-Service Claims and Non-Claims Cost Trends

Cost type	2018			Prior Year Cost PMPM	Annual Change in PMPM
	Total costs	Total member months	Total cost PMPM		
Total	**$1,286,192,086**	**1,464,835**	**$878.05**		
Claims costs[14]	$1,129,993,016	1,464,835	$771.41		
Non-claims: Advanced Shared savings[15]	$7,776,760	1,464,835	$5.31		
Non-claims: Net Shared Savings	$5,568,578	1,464,835	$3.80		
Non-claims: Aged & Disabled PBP[16]	$142,201,188	1,464,835	$97.08		
Non-claims: ESRD[17] PBP	$652,546	1,464,835	$0.45		

5.3. Medicaid

Medicaid claims payments and Medicaid non-claims ACO payments were adjusted downward by 2.2 percent in 2018 to reflect the Medicaid rate increases that are excluded from All-payer TCOC per Beneficiary Growth.[18] The adjustment reduced the Medicaid TCOC PMPM from $282 to $275, reducing the Medicaid TCOC per Beneficiary growth rate by 2.4 percentage points. Medicaid claims costs increased almost 2 percent while non-claims costs collectively increased 37 percent (not shown). This shift is, at least in part, driven by an increase in scale from 2017 to 2018.

[14] Claims costs are based on allowed amount.
[15] A portion of shared savings were advanced to fund SASH and Blueprint payments.
[16] PBP = All-Inclusive Population Based Payments. These payments to the ACO are distributed to hospitals as fixed perspective payments.
[17] ESRD = End Stage Renal Disease.
[18] The adjustment factor was calculated by GMCB staff. We applied this factor to claim-based payment amounts and ACO Hold Harmless non-claim-based amounts.

Most Medicaid non-claims costs are Vermont Medicaid Next Generation (VMNG) ACO program capitated payments, which increased 41 percent between 2017 and 2018 (Figure 5.3.b). The impact of the Medicaid ACO payment adjustment reduced all payer TCOC PMPM from $523 to $521, reducing the growth rate by 0.3 percentage points.

Figure 5.3.b: Medicaid Claims and Non-Claims Cost Trends

Cost type	2018			2017 cost PMPM	2018 Annual change in PMPM
	Total costs	Total member months	Total cost PMPM		
Total	**$444,545,915**	**1,611,889**	**$275.79**	**$258.96**	**6.5%**
Claims costs[19]	$366,199,228	1,611,889	$227.19	$223.41	1.7%
Non-claims: FPP[20]	$69,941,022	1,611,889	$43.39	$30.68	41.4%
Non-claims: PCMH	$3,847,165	1,611,889	$2.39	$2.29	4.2%
Non-claims: CHT	$3,525,060	1,611,889	$2.19	$2.11	3.9%
Non-claims: WHI	$1,033,439	1,611,889	$0.64	$0.48	34.0%

[19] Claims costs are based on allowed amount.
[20] 2018 capitated non-claims payments include a rate adjustment of -2.2%. The large increase shows is driven by scale as noted in the text.

Figure 5.3.c: Medicaid PMPM ACO Claims-Based Trends

Year	ACO	Adjusted Claims Payments (*includes -2.2% adjustment in 2018*)	Adjusted non-claims (ACO capitation) Prospective Payments [21] (*Includes -2.2% reduction in 2018*)	Member Months	PMPM (*excludes Blueprint non-claims payments*)	Blueprint non-claims PMPM[22] (*PCMH, CHT, WHI*)	Final PMPM	PMPM Annual Change
2017	**Total**	**$359,210,750**	**$50,452,882**	**1,644,338**	**$249.14**	**$4.88**	**$254.01**	
	No	$323,617,171		1,337,980	$241.87	$4.88	$246.75	
	Yes	$35,593,580	$50,452,882	306,358	$280.87	$4.88	$285.74	
2018	**Total**	**$366,199,228**	**$69,941,022**	**1,611,889**	**$270.58**	**$5.21**	**$275.79**	**8.6%**
	No	$309,786,724		1,148,292	$269.78	$5.21	$275.00	11.4%
	Yes	$56,412,504	$69,941,022	463,597	$272.55	$5.21	$277.77	-2.8%

In general, the Medicaid program experienced higher utilization (and therefore expenditure) in 2018 than in 2017. Because the Vermont Medicaid Next Generation ACO program was in operation in both 2017 and 2018, it is possible to compare PMPM changes in Medicaid Total Cost of Care for members who were attributed to the ACO and members who were not. While the overall Medicaid Total Cost of Care grew by 8.6% from 2017 to 2018, that was primarily driven by growth in Total Cost of Care for Medicaid members who were not attributed to the ACO. While this analysis also shows a 2.8% *decline* in PMPM Total Cost of Care for Medicaid members who were attributed to the ACO, it is important to note that there was a significant change in the population of ACO-attributed Medicaid members from 2017 to 2018. Not only did the number of attributed Medicaid members increase from ~29,000 at the beginning of 2017 to ~42,000 at the beginning of 2018, but there was also a change in the risk profiles of the attributed Medicaid members between 2017 and 2018, with more clinically complex members (with higher per member costs) being attributed in 2017. As a result of these changes in Medicaid attribution, the attributed and non-attributed populations had more similar PMPM expenditure in 2018 than they did in 2017. With the shifts in the attributed population and only two data points, it is too early to draw conclusions from this data.

[21] ACO capitation payments are entirely attributed to ACO-aligned members.
[22] Blueprint PMPM payments are calculated by dividing total annual Blueprint payments by total member months. The PMPM cost is added to both ACO and non-ACO aligned members.

Appendix A: Total Cost of Care Per Beneficiary Growth Calculation

Vermont All-Payer Total Cost of Care per Beneficiary Growth:

Vermont All-Payer TCOC per Beneficiary Growth will be calculated by Vermont and CMS in aggregate as a compounded annualized growth rate (CAGR) across Performance Years 1 and subsequent Performance Years of this Model, using 2017 as a baseline (adjusted in PY1 with MAPCP, and shared savings/loss adjustment). Vermont's performance on the All-payer Total Cost of Care per Beneficiary Growth Target will be calculated by the following formula, where "20xx" is the Performance Year for which the All-payer Total Cost of Care per Beneficiary is being calculated, and "z" is the total number of Performance Years. From Section 9.a.i of the Agreement:

$$\left(\frac{\left(\frac{Vermont\ all-payer\ TCOC_{20xx}}{Vermont\ all-payer\ beneficiaries_{20xx}}\right)}{\left(\frac{Vermont\ all-payer\ TCOC_{2017}}{Vermont\ all-payer\ beneficiaries_{2017}}\right)}\right)^{\frac{1}{z}} - 1 \leq 0.035$$