Vermont All-Payer ACO Model
Total Cost of Care Annual Report
Performance Year 3
(January – December 2020)

Submitted April 18, 2022

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. In this vein, the TCOC target included in the Agreement is 3.5%, allowing for growth up to 4.3%. Included in this report are quantitative and qualitative analyses of Vermont's performance on these statewide financial targets in Performance Year 3 (PY3, 2020).

The results presented here for 2020 will not accurately assess "performance" as outlined in the APM Agreement. The effects of the global pandemic and associated Public Health Emergency (PHE) necessarily and drastically changed care patterns. The PHE redefined short-term health system priorities to meet immediate acute care needs and stabilize the health care system. These necessary changes are likely to have impacted preventive care and health promotion activities. The full effects of the PHE are still developing and may distort trends for many years to come.

The All-Payer TCOC per member per month (PMPM) grew 0.4% as compared with 2017. Payer-specific changes ranged from -1.0% (Medicare) to 1.5% (Medicaid) with an observed commercial change of 0.7%. As summarized in Table 1, all payers demonstrated substantial decreases in PMPM expenditures in 2020. The decrease observed for Medicare was the most significant (-8.3% annually). Further information about the effects may be found in Section 3.1.

Table 1: TCOC Per Beneficiary Growth to Date by Type of Payer

	Baseline (2017)	PY1 (2018)	PY2 (2019)	PY3 (2020)	Compounding Growth ('17 to '20)
All-Payer	**$497**	**$516**	**$543**	**$503**	**0.4%**
	Annual Growth	*3.8%*	*5.3%*	*-7.4%*	
Commercial	$463	$471	$503	$473	**0.7%**
	Annual Growth	*1.8%*	*6.8%*	*-6.1%*	
Medicare	$843	$873	$893	$819	**-1.0%**
	Annual Growth	*3.6%*	*2.2%*	*-8.3%*	
Medicaid	$242	$256	$267	$253	**1.5%**
	Annual Growth	*5.8%*	*4.1%*	*-5.1%*	

While the declines in per person expenditures were observed for all Vermonters, it is notable that the relative declines were more significant among participants attributed to the ACO, as summarized in Table 2. Despite relatively consistent populations in 2019 and 2020, the decrease in expenditures for ACO-attributed Medicare beneficiaries was approximately double the non-attributed population, which is also observed for attributed members participating through commercial plans. The differences between the ACO and non-ACO declines is much closer for Medicaid, which is likely due to their extremely high penetration rate for ACO participation, as

well as the capitated payment arrangements, which provided more financial stability in expenditures despite declines in utilization.

Table 2: Percent Change in Per Member Expenditures, ACO vs Non-ACO

		2019	2020	Percent Change
Commercial	ACO	$537	$474	-11.7%
	Non-ACO	$498	$472	-5.2%
Medicare	ACO	$984	$877	-10.8%
	Non-ACO	$834	$785	-5.9%
Medicaid	ACO	$257	$247	-3.6%
	Non-ACO	$278	$269	-3.2%

Previous estimates of expenditures from 2017 through 2019 have been updated throughout this report. There are three reasons for the updates related to 1) enhancements to the state's APCD, 2) corrections to the TCOC calculation and 3) recalculation of the Medicaid repricing adjustment. These were necessary changes to provide more valid and reliable estimates. There are no other anticipated changes that would require the historical data to be updated in the future.

The APCD infrastructural changes were designed to improve its member-matching algorithms. The changes to member months are fewer than 1% in 2017 and 2018 with a decrease of 1.3% in the 2019 estimates. The GMCB believes these membership numbers are more accurate and therefore warrant an update.

The adjustment to the TCOC calculation arose when reviewing the specification for appropriate Medicaid expenditures. In past reporting, calculations incorrectly included expenditures associated with home and community-based services that should have been excluded.

Finally, the Medicaid repricing adjustment had previously been made based on estimates from the financial office. Now that all payments are available at the member level in the APCD, the calculation is better tailored to the data used to compute the PMPM expenditures.

As all three adjustments related to Medicaid, the changes to previously reported estimates were most significant for this group. However, the total changes were within 1 percentage point of those previously reported (Table 3).

Table 3: Change in Observed Medicaid Growth Rates from Coding Corrections

	Previous PMPM Annual Growth Rate	Updated PMPM Annual Growth Rate	Percentage Point Difference
2017 to 2018	6.5%	5.8%	-0.7
2018 to 2019	4.3%	4.1%	-0.2

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[1] regarding Vermont's performance on Total Cost of Care (TCOC)[2] 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 2020.

Of note, 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.[3]

3. Considerations

3.1. Public Health Emergency/COVID-19

On March 20, 2020, the State of Vermont declared suspension of all non-essential elective surgery and medical and surgical procedures, including dental procedures, pursuant to the Declaration of State of Emergency in Response to COVID-19 Executive Order, in an effort to help protect patients, reduce exposure to healthcare providers and preserve personal protective equipment. In May 2020, limited elective procedures were allowed to resume, however, many were postponed during the second wave of the pandemic starting in October 2020.

Although there was concern of over utilization and capacity of hospitalization due to COVID-19, the 2020 COVID-19 case incidence in Vermont was relatively low, approximately 500 per 100,000 persons in VT compared to 2,000 per 100,000 persons in the U.S. in December 2020. Approximately 5% of Vermont cases were hospitalized in 2020 with an estimated 30% of those hospitalized needing intensive care unit (ICU) services, however these costs did not affect TCOC as much as the lack of healthcare utilization. Federal COVID-19 relief funds allotted to Vermont were, in part, used to develop COVID-19 testing sites, which opened in May 2020. The high volume of testing conducted through these sites will not be included in the TCOC PMPM as insurance was not billed for these services.

While overall medical expenditures and utilization decreased in 2020, utilization for some service lines increased and the patterns in utilization were not the same across payer types (Table 4). Of note, inpatient utilization

[1] 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).
[2] Complete TCOC specifications are available upon request.
[3] 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.

among Medicaid beneficiaries increased by 16%, whereas Vermonters with coverage through Medicare and commercial insurance exhibited declines in utilization (-18.2% and -3.6% respectively). Medicaid beneficiaries also exhibited a reverse trend in utilization in mental health and substance abuse, with a decrease of 9% as compared to an increase of just under 1% for Medicare beneficiaries and 14% increase for those with commercial insurance.

Table 4: Utilization per 1,000 Members

	Payer Type	2019	2020	Percent Change
Total Claims	All-Payer	11,003	9,475	-13.9%
	Commercial	8,706	8,157	-6.3%
	Medicaid	8,546	7,184	-15.9%
	Medicare	16,310	13,242	-18.8%
Hospital Discharges	All-Payer	106	94	-10.6%
	Commercial	36	34	-3.6%
	Medicaid	49	57	16.0%
	Medicare	251	205	-18.2%
Emergency Department Visits	All-Payer	284	272	-4.1%
	Commercial	161	151	-6.2%
	Medicaid	416	374	-10.2%
	Medicare	329	335	1.6%
Mental Health and Substance Use	All-Payer	1,302	1,373	5.4%
	Commercial	1,864	2,126	14.0%
	Medicaid	936	852	-9.0%
	Medicare	878	885	0.8%

3.2. Medicare Advantage

Vermont is continuing to experience an increasing Medicare Advantage penetration rate. As outlined in the 2019 Annual Total Cost of Care Report,[4] while the APM Agreement explicitly requires Medicare Advantage members to be categorized as commercial, their average expenditures are more like traditional Medicare than standard commercial populations. Table 5 summarizes the PMPMs for Commercial and Medicare subgroups according to the TCOC specified in the APM Agreement.

[4] https://gmcboard.vermont.gov/sites/gmcb/files/documents/ANNUAL_19TCOC%20Report_FINAL_04142021.pdf.

Table 5: APM Total Cost of Care (TCOC) Per Member per Month (PMPM) for Selected Subgroups

	2017	2018	2019	2020	Compounding Growth ('17 to '19)
Full Population TCOC PMPM	**$497**	**$516 (+3.8%)**	**$542 (+5.2%)**	**$502 (-7.5%)**	**0.4%**
Traditional Medicare	$843	$873 (+3.6%)	$893 (+2.2%)	$819 (-8.3%)	**-1.0%**
Commercial	$463	$471 (+1.8%)	$503 (+6.8%)	$473 (-6.1%)	0.7%
Fully Insured	*$450*	*$453 (+0.5%)*	*$487 (+7.6%)*	*$454 (-6.9%)*	*0.2%*
Self-Insured	*$456*	*$471 (+3.4%)*	*$493 (+4.6%)*	*$461 (-6.6%)*	*0.4%*
Medicare Advantage	*$625*	*$587 (-6.0%)*	*$649 (10.5%)*	*$609 (-6.2%)*	*-0.9%*

Table 6 recategorizes Medicare Advantage with traditional Medicare and shows the commercial growth rate absent the increasing numbers of Medicare Advantage enrollees. The reallocation shows that the full Medicare population's PMPM expenditures decreased by nearly 9% (versus 8.3% for traditional Medicare alone) from 2019 to 2020 and that the commercial population's decrease was closer to 7% (versus 6.1% when including Medicare Advantage).

Table 6: APM TCOC PMPM with Reallocation of Medicare Advantage from Commercial to Medicare

	2017	2018	2019	2020	Compounding Growth ('17 to '20)
All Medicare (Traditional + Medicare Advantage)	$823	$844 (+2.8%)	$863 (+2.3%)	$788 (-8.7%)	**-1.4%**
Commercial (Excluding Medicare Advantage)	$452	$462 (+2.3%)	$490 (+6.0%)	$457 (-6.7%)	0.4%

4. Summary of Results

Table 7a: All-Payer Total Cost of Care Results, Prior Four Quarters and Year-to-Date (including reduction for excludable Medicaid costs)[5]

		Q1	Q2	Q3	Q4	TCOC Growth YTD (Q1+Q2+Q3+Q4)*
Baseline (CY 2017)	TCOC/Beneficiary (PMPM)[6]	$495.10	$502.84	$485.16	$502.92	$496.51
	Numerator ($)[7]	*$679,450,246*	*$692,235,152*	*$665,677,087*	*$687,931,668*	*$2,725,294,153*
	Denominator (Members)[7]	*457,447*	*458,884*	*457,361*	*455,958*	*457,412*
PY 1 (2018)	TCOC/Beneficiary (PMPM)[7]	$518.53	$519.47	$500.29	$524.14	$515.61
	Numerator ($)[7]	*$718,106,830*	*$717,781,247*	*$688,079,090*	*$719,432,612*	*$2,843,399,779*
	Denominator (Members)[8]	*461,629*	*460,590*	*458,455*	*457,529*	*459,551*
PY 2 (2019)	TCOC/Beneficiary (PMPM)[7]	$546.86	$552.47	$530.19	$541.81	$542.85
	Numerator ($)[7]	*$752,008,634*	*$756,276,259*	*$722,854,974*	*$736,790,761*	*$2,967,930,628*
	Denominator (Members)[8]	*458,383*	*456,300*	*454,463*	*453,292*	*455,609*
PY 3 (2020)	TCOC/Beneficiary (PMPM)[7]	*$523.41*	*$427.80*	*$540.61*	*$519.04*	*$502.79*
	Numerator ($)[7]	*$715,609,207*	*$590,806,580*	*$751,512,670*	*$727,305,533*	*$2,785,233,989*
	Denominator (Members)[8]	*455,731*	*460,346*	*463,374*	*467,078*	*461,632*
Per Beneficiary Growth Rate		***1.9%***	***-5.2%***	***3.7%***	***1.1%***	***0.4%***

*Quarters may not sum due to rounding and different amounts of time for claims runout.

[5] 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 -3.4% for claims payments and Medicaid prospective PBP payments.
[6] Claims-based spending is based on allowed amounts.
[7] Weighted by months enrolled during the measurement period.

Table 7b: All-Payer Total Cost of Care Results, Prior Four Quarters and Year-to-Date (Total Spending)

		Q1	Q2	Q3	Q4	TCOC Growth YTD (Q1+Q2+Q3+Q4)*
Baseline (CY 2017)	TCOC/Beneficiary (PMPM)[8]	$495.10	$502.84	$485.16	$502.92	$496.51
	Numerator ($)[9]	*$679,450,246*	*$692,235,152*	*$665,677,087*	*$687,931,668*	*$2,725,294,153*
	Denominator (Members)[9]	*457,447*	*458,884*	*457,361*	*455,958*	*457,412*
PY 1 (2018)	TCOC/Beneficiary (PMPM)[9]	$520.12	$521.07	$501.83	$525.70	$517.19
	Numerator ($)[9]	*$720,301,204*	*$720,005,684*	*$690,196,073*	*$721,573,152*	*$2,852,076,112*
	Denominator (Members)[10]	*461,629*	*460,590*	*458,455*	*457,529*	*459,551*
PY 2 (2019)	TCOC/Beneficiary (PMPM)[9]	$549.82	$555.43	$533.14	$544.69	$545.79
	Numerator ($)[9]	*$756,082,830*	*$760,327,476*	*$726,871,391*	*$740,717,135*	*$2,983,998,832*
	Denominator (Members)[10]	*458,383*	*456,300*	*454,463*	*453,292*	*455,609*
PY 3 (2020)	TCOC/Beneficiary (PMPM)[9]	*$525.92*	*$430.06*	*$543.16*	*$521.54*	*$505.24*
	Numerator ($)[9]	*$719,037,569*	*$593,932,022*	*$755,062,534*	*$730,800,148*	*$2,798,832,272*
	Denominator (Members)[10]	*455,731*	*460,346*	*463,374*	*467,078*	*461,632*
Per Beneficiary Growth Rate		***2.0%***	***-5.1%***	***3.8%***	**1.2%**	***0.6%***

* Quarters may not sum due to rounding and different amounts of time for claims runout.

[8] Claims-based spending is based on allowed amounts.
[9] Weighted by months enrolled during the measurement period.

5. Results: Growth in PMPM TCOC

Table 8 displays PMPM costs for all quarters in 2020 by payer group. The overall change in per member expenditures from 2017 to 2020 was 0.4%. The observed change ranges from a decrease of 1% for Medicare to an increase of 1.5% for Medicaid.

Table 8: All-Payer TCOC calculation for 2017, 201, 2019, and 2020

	Payer	Total Claims Costs	Total Non-Claims	Total Costs	Member Months	Total cost PMPM	Annual Growth	Per Beneficiary Growth
Baseline	All-Payer	$2,644,433,037	$80,861,116	$2,725,294,153	5,488,949	$497	-	-
	Commercial	$1,095,349,845	$17,972,204	$1,113,322,048	2,405,236	$463	-	-
	Medicare	$1,206,476,189	$7,500,000	$1,213,976,189	1,439,691	$843	-	-
	Medicaid	$342,607,004	$55,388,912	$397,995,916	1,644,022	$242	-	-
PY1 (2018)	All-Payer	$2,596,410,240	$246,514,931	$2,842,925,171	5,514,606	$516	**3.8%**	-
	Commercial	$1,131,879,986	$14,785,200	$1,146,665,186	2,433,437	$471	**1.8%**	-
	Medicare	$1,128,121,641	$156,152,210	$1,284,273,851	1,470,356	$873	**3.6%**	-
	Medicaid	$336,804,227	$75,656,515	$412,460,741	1,610,813	$256	**5.6%**	-
PY2 (2019)	All-Payer	$2,611,307,463	$353,928,466	$2,965,235,928	5,467,312	$542	**5.2%**	**4.5%**
	Commercial	$1,226,002,775	$15,508,240	$1,241,511,015	2,466,233	$503	**6.8%**	**4.3%**
	Medicare	$1,100,404,170	$220,096,262	$1,320,500,432	1,478,673	$893	**2.2%**	**2.9%**
	Medicaid	$286,852,978	$119,066,204	$405,919,182	1,522,406	$267	**4.1%**	**4.9%**
PY3 (2020)	All-Payer	$2,398,157,684	$382,154,411	$2,780,312,095	5,539,587	$502	**-7.5%**	**0.4%**
	Commercial	$1,152,882,543	$14,798,430	$1,167,680,973	2,470,476	$473	**-6.1%**	**0.7%**
	Medicare	$1,026,087,968	$191,358,595	$1,217,446,563	1,487,290	$819	**-8.3%**	**-1.0%**
	Medicaid	$221,986,635	$178,119,819	$400,106,453	1,581,821	$253	**-5.1%**	**1.5%**

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:

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

Appendix B: Methodology

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[10], individuals with evidence of third-party coverage, and individuals who receive a limited Medicaid benefit package).
- 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.

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

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.

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 2019. Medicaid claims payments and Medicaid all-inclusive population based payments (PBPs)[11] were adjusted downward by 4.6 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 2019, 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 -3.4% for excludable price increases under the terms of the APM Agreement.[12] Blueprint payments include PCMH, Core CHT, and Women's Health Initiative (WHI) payments as reported by the Blueprint for Health.
3. In addition to the PBPs reported to VHCURES, Medicare non-claims costs include 2020 shared savings payments totaling $16,313,471, of which $8,401,660 was advanced to the ACO to promote continued funding of the Blueprint for Health and SASH, leaving $7,911,811 of net savings in the Medicare program for 2020.[13]

[11] PBPs are also known as Fixed Prospective Payments (FPPs).
[12] The Medicaid repricing factor is also applied to 2020 claims payments. See Vermont All-Payer Accountable Care Organization Model Agreement, Section 10.d.
[13] https://gmcboard.vermont.gov/sites/gmcb/files/documents/CMS%20Settlement%20for%202020.pdf.