

SERFF Tracking #:

BCVT-132713612

State Tracking #:

Company Tracking #:

State: VermontGMCB **Filing Company:** BCBSVT
TOI/Sub-TOI: ML02 Multi-Line - Other/ML02.000 Multi-Line - Other
Product Name: Q3 2021 BCBSVT Large Group Rating Program Filing
Project Name/Number: /

Supporting Document Schedules

Satisfied - Item:	Actuarial Memorandum
Comments:	
Attachment(s):	Q3 2021 BCBSVT Large Group Rating Program Filing - Redacted Actuarial Memorandum.pdf
Item Status:	
Status Date:	

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
 Q3 2021 Large Group Rating Program Filing
 Actuarial Memorandum

1.	PURPOSE.....	2
2.	OVERVIEW AND RATE IMPACT	2
2.1.	Overview.....	2
2.2.	Historical Financial Results	2
2.3.	Impact of Formula and Factor Changes.....	4
3.	FORMULA DESCRIPTION	4
4.	TREND FACTORS.....	8
4.1.	Medical Trend Development	9
4.2.	Retail Pharmacy Trend	15
4.3.	Overall Total Trend.....	18
4.4.	Leveraged Trends	18
4.5.	Medicare Secondary Trends	19
5.	BENEFIT FACTORS.....	20
5.1.	Models for Active Employees	21
5.2.	Tier Factors	24
5.3.	Models For Age 65+ Medicare Secondary Plans	24
5.4.	Formulary & Pharmacy Options	25
5.5.	Riders	26
6.	OTHER FACTORS APPLICABLE TO ALL LARGE GROUPS	26
6.1.	Manual Rate	26
6.2.	Large Claims Factors.....	28
6.3.	Administrative Charges	29
6.4.	Net Cost of Reinsurance.....	32
6.5.	Pharmacy Rebates.....	32
6.6.	OneCare Coordination Fee.....	32
6.7.	Contribution to Reserve	33
6.8.	State Mandates and Assessments	33
6.9.	Federal Assessments	34
7.	FACTORS APPLICABLE ONLY TO SPECIFIC PRODUCTS.....	35
7.1.	Stop Loss Coverage for Cost Plus products.....	35
8.	MEDICAL LOSS RATIO PROJECTION	35
9.	ACT 193 INFORMATION.....	37
10.	ACTUARIAL OPINION.....	38
11.	DISCLOSURES	39

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

1. Purpose

Blue Cross and Blue Shield of Vermont (BCBSVT) and The Vermont Health Plan (TVHP) perform large group rating on a case-by-case basis. We accomplish rating through a formulaic approach that blends recent group experience with a manual rate according to a credibility formula. We may adjust formula results for underwriting judgment and/or management decisions. This filing establishes the formula, manual rate, and accompanying factors that we will use for renewals beginning upon approval of this filing, most notably January 2022 renewals.

Once approved, we will use this filing for insured large group and grandfathered small group renewals (we will refer to them collectively as large groups for the remainder of the filing) until superseded by a subsequent filing. In the event that renewals require factors with effective dates or experience periods beyond those explicitly presented in this filing, we will calculate appropriate factors using the same base data and methodology used in this filing. This filing will apply beginning with rates communicated within seven business days after the date of its approval and continuing until at most seven business days after the date of approval of the next BCBSVT and TVHP Large Group Rating Program filings. The term “communicated,” for this purpose, means a written proposal delivered to a large group account.

2. Overview and Rate Impact

2.1. Overview

This filing includes a description of the renewal formula and the development of each of the factors used in it. We use this formula for insured products, including Cost Plus. BCBSVT projects that this filing will affect 5,828 members (3,423 subscribers) in 36 groups. These totals include members of both BCBSVT and TVHP, and we will refer to the combined population as BCBSVT throughout this memorandum.

We will describe in detail the formula used in the renewals. We will then detail the factors applicable to all insured large groups. The factors in the build-up of the projected claims cost include the trend factors, benefit relativities, manual rate, and large claims factors. In addition to the projected claims cost, we will explain the calculation of administrative charges, the net cost of reinsurance, contribution to reserve, and state and federal assessments, all of which are included in the rate development.

Finally, we will discuss factors applicable only to specific products. Cost Plus customers purchase Individual and Aggregate Stop Loss (ISL and ASL) from BCBSVT. Cost Plus products are not available through TVHP.

2.2. Historical Financial Results

Below is the combined medical and pharmacy experience for the prior five calendar years. This includes BCBSVT and TVHP insured large group experience. Additionally, we show loss & expense ratios for Cost Plus groups.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

Insured Large Group Experience							
Year	Incurred Claims	Administrative Charges	Earned Premium	Gain/(Loss)	Loss & Expense Ratio	Target Loss and Expense Ratio	Member Months
2016	\$86,034,897	\$12,804,526	\$95,541,735	(\$3,297,687)	103.5%	98.0%	218,650
2017	\$86,520,109	\$10,424,245	\$92,106,277	(\$4,838,077)	105.3%	98.0%	197,954
2018	\$81,698,684	\$12,621,438	\$86,961,470	(\$7,358,653)	108.5%	98.0%	176,430
2019	\$83,943,117	\$10,154,503	\$88,800,868	(\$5,296,752)	106.0%	98.5%	166,597
2020 ¹	\$46,649,139	\$9,391,176	\$56,468,497	\$428,181	99.2%	98.5%	97,941

Cost Plus Experience		
Year	Loss & Expense Ratio	Member Months
2016	95.0%	515,583
2017	95.4%	514,809
2018	99.8%	5,045
2019	89.2%	4,893
2020	97.3%	2,632

The incurred claims, administrative expenses, and earned premium are from BCBSVT's GAAP financials. The claims include capitations, fee-for-services claims, certain assessments, and other claims expenses.

The chart below shows the expected and actual contribution to reserves from the previous five years for Insured Large Groups. The expected contribution to reserves reflects ordered reductions to CTR as well as modifications to actuarial factors that were not recommended by the independent reviewing actuary.

Expected and Actual Contribution to Reserves			
Year	Filed	Expected	Actual
2016	2.0%	0.8%	-3.5%
2017	2.0%	2.0%	-5.3%
2018	2.0%	0.8%	-8.5%
2019	1.5%	-2.2%	-6.0%
2020	1.5%	0.8%	0.8%

We note the high variance between the expected and actual contribution to reserves prior to 2020, in which the results included the effects of the deferral of non-emergent care in the early stages of the pandemic. Recent filings have included increases to the manual rate that were a correction to experience through 2019, as well as numerous enhancements to the rating methodology to make rates more accurate on a group-by-group basis and in aggregate. Overall, the performance of actual results to expected imply a consistent absence of conservatism in the factors underlying the filing.

¹ 2020 underwriting results are preliminary as of December 31, 2020.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

2.3. Impact of Formula and Factor Changes

To compute the impact of changes to the rating formula and the various factors in this filing on large group premium rates, we use the concept of a “pure manual premium,” which is the premium that can be developed for each group in the existing block of business using none of their own experience data. Two renewals are developed for each group: the first renewal applies the approved factors currently in force (BCVT-132350241 and BCVT-132350492) with an effective date of January 1, 2021. The second renewal uses the factors and formulas detailed in this filing with a January 1, 2022 effective date. By nature of the differing effective dates, the latter renewal includes an additional year of health care cost trend.

Impact of Formula and Factor Changes				
Renewal Year	2021	2022	Component Increase	Premium Impact
Filing Year	Q3 2020	Q3 2021		
Manual Claims (a)	\$40,366,749	\$40,620,528	0.6%	0.6%
Projected Rebates	-\$1,702,517	-\$2,786,403	63.7%	-2.4%
Admin	\$3,693,435	\$4,220,541	14.3%	1.2%
Reserve	\$651,909	\$665,001	2.0%	0.0%
Mandates and Assessments	\$919,067	\$941,436	2.4%	0.0%
Additional Items (b)	\$1,255,319	\$1,239,942	-1.2%	0.0%
Total				-0.6%

(a) The manual claims increase is less than the change in the manual rate due to the change in the membership underlying the manual rate. We normalize the demographic factors and industry factors to the membership in each respective filing. The demographic and industry basis of the 2021 manual rate is higher than that underlying the 2020 manual rate, which results in the increase in the manual claims being less than the manual rate increase we detail in Section 6.1.

(b) Additional Items include net cost of reinsurance, Cost Plus stop loss, broker commissions, the OneCare Coordination Fee, and fees paid to outside vendors.

The above approach has been used to generate a proxy increase for a hypothetical group that is renewing with zero experience credibility, exactly average demographics and industry, and no underwriting judgment or management discretion applied to the proposed or in-force rates. The actual rate increase experienced by any specific group will be based on the group’s own circumstances, including its claims data, demographic makeup, large claims experience, and so forth.

This total impact of formula and factor changes should not be interpreted as the new formula resulting in a 0.6 percent premium decrease for any specific group.

3. Formula Description

We develop rates for active and Medicare Primary subscribers separately based on their own experience. Both the formula and factors described in this filing are the same for both populations except where noted. Medicare Primary rate tiers are not offered on TVHP.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

Benefit-Adjusted Projected Single Claims Rate

Exhibit 1A contains a sample calculation of the benefit-adjusted single claims rate. Page 1 of the exhibit applies to active members and page 2 applies to Medicare Primary members. For each case, we start the rating with a twelve-month experience period with at least two months of runout². We develop the experience rate for medical and pharmacy claims separately. We determine a pooling point based on the size of the case at the end of the runout period and split the experience period claims (line A) into amounts above (line B) and below (referred to as capped claims, line D) the pooling point. We exclude COVID-19 related claims (line C) from the development. Exhibit 6D contains a list of excluded diagnosis and procedure codes, which we will update as new information becomes available. Section 6.7 provides further details on the exclusion of COVID-19 related claims.

We apply completion factors (line E) developed from the monthly financial reporting process (best estimates before margin) to capped claims to produce completed capped claims (line F). We use the formula and factors described in Milliman's *2020 Health Cost Guidelines – Reinsurance* to calculate expected claims above the pooling limit (line G). We add the expected claims above the pooling limit to the completed capped claims to produce large-claim-adjusted experience period claims. Medicare Primary members generally do not have claims near the group's pooling point, so we do not pool their claims.

We then multiply the large-claim-adjusted experience claims by an adjustment factor (line H) to reflect structural changes between the experience period and the rating period. This adjustment modifies the experience to reflect such things as mandated benefit changes, contractual provision changes, etc., that, in the judgment of the underwriter, are necessary to make the experience appropriate for the estimation of the expected claims in the rating period.

As part of the experience adjustment factor, we include an adjustment that accounts for the return of medical claims deferred in the spring of 2020 by the COVID-19 pandemic. Exhibit 6E provides the factors which are applicable to medical claims. The factors represent the degree to which claims were less than or greater than their expected level, such that a factor greater than one indicates that claims were higher than expected due to the return of deferred care. We apply the inverse of the factors on a monthly basis to calculate a single multiplicative factor that is applicable to each experience period that is comprised of months affected by the slowdown or deferral of claims. We develop the factors based on modeling presented to the Department of Financial Regulation in December 2020. Given the factors deviate significantly from one in March, April, and May of 2020, the underwriter will typically construct a 12-month medical period using non-consecutive months so that the experience period provides a reliable base for projecting claims for the rating. In this typical approach, the impact of the adjustment factors will have a dampening impact on claims.

We divide the result (line I) by the number of member months during the experience period (line J) to produce the adjusted experience period claims per member per month (line K).

We then divide the adjusted experience period claims per member per month (PMPM) by a seasonally-adjusted benefit relativity value to neutralize any effect of seasonality and benefits on the paid claims.

² For first year renewals where twelve months of experience is not available, we typically use claims incurred in nine months with no runout.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

To determine this factor, we first determine a benefit relativity factor for each benefit plan (using the factors described in section 5) and contract tier type (single, 2-person, family, etc.). Based on the seasonal patterns observed as part of the reserving process for each calendar month, we determine seasonal factors for CDHPs and for non-CDHPs and normalize them so that they total to 12. We combine these factors to calculate seasonal benefit relativity factors for each combination of benefit plan, contract tier type, and month. We apply these factors to the number of contracts for each benefit plan, contract tier type, and month in the experience period. We total the results and divide the resultant sum by the number of member months in the experience period. We apply the seasonal factors regardless of the length of experience period, but if there is a 12-month experience period and there are no changes in benefits or enrollment, the normalization of the seasonality factors would cause the seasonal adjustment to be 1.000. This produces the average experience period seasonally-adjusted benefit relativity factor (line L).

We adjust for any change in the demographics of the group between the experience period and the rating period by calculating the average demographic factor for each period and applying the ratio of projection to experience (line M). We multiply the adjusted experience period claims PMPM (line K) by the demographic normalization factor and divide by the average experience period seasonally-adjusted benefit relativity factor (line L) to produce the benefit-adjusted experience period single claims rate (line N), which is the expected cost for a single contract in the experience, neutral of benefit and seasonality. We then multiply this by a trend factor (line Q, as calculated in section 4) to project the claims from the experience period to the rating period.

We blend the projected single contract rate (line R) with the adjusted manual rate (line S, as described in section 6.1) using the credibility formula described below.

We calculate the credibility factor (line T) as follows:

$$Credibility = \sqrt{\frac{Member\ Months}{Upper\ Bound}}$$

The pooling point determines the upper bound. We base the pooling limit on the group's membership in the current month. Please see the abbreviated table below for details. The underwriter may apply discretion in the event the current month's membership is not appropriate for determining a pooling limit (e.g. a significant change in enrollment due to an acquisition or layoff).

Membership (Current Months)	Pooling Point	Upper Bound Member Months
Medicare Primary		8,325
0 to 299	\$70,000	14,002
300 to 499	\$90,000	16,127
500 to 999	\$110,000	17,923

If member months are greater than the upper bound, the credibility factor will be 1. We pool Cost Plus products at their attachment point. Exhibit 6A provides a complete list of upper bound member months by pooling point, while Exhibit 6B details pooling points by current month membership.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

To blend the projected single contract rate with the adjusted manual rate, we use the following equation:

$$\text{Benefit-Adjusted Projected Single Claims Rate} = \text{Projected Single Contract Rate} \times (\text{Credibility}) + \text{Adjusted Manual Rate} \times (1 - \text{Credibility})$$

Multiple Experience Periods

BCBSVT uses multiple experience periods (when available) to develop the benefit-adjusted projected single claims rate. Following the methodology described above, we calculate an experience rate for the first and second year preceding the experience period. We then apply the credibility formula recursively to the residual portion of the rate. The table below provides a demonstration of the application of the credibility formula for a group with 50 percent credibility in each experience year.

Experience Period	Proportion of Rate
YE 202106	50.0%
YE 202006	25.0%
YE 201906	12.5%
Manual Rate	12.5%

Three years of experience is the maximum that we will use. In the absence of extenuating circumstances, all renewals will use the maximum number of years available. In the event we do not consider historical experience appropriate or reliable for rating periods (e.g. a significant change in enrollment due to an acquisition or layoff), the underwriter will use fewer years of experience and document the rationale for such a change.

Exhibit 1B provides a detailed sample calculation of the benefit-adjusted projected single claims rate using three years of experience.

In previous filings, we adjusted the manual rate when more than one year of experience was used. This adjustment helped control for various trend levels in each experience period. Beginning with this filing, we instead trend prior experience periods to the most current experience period using observed trends and apply the trend factors in section 4 to trend from the most current experience period to the rating period. Exhibit 2G contains the trend factors applicable to prior periods. For months following our trend base (that is, after February 2020 for medical claims and August 2020 for pharmacy claims), the observed trend is set to the trend factors in section 4. There are separate observed trend factors for active medical, Medicare Primary medical, and pharmacy.

To develop the observed medical trend factors, we calculate the year-over-year utilization trend in the year ended February for each year in the trend experience base. We apply actual cost increases to calculate the total observed medical trend. The observed pharmacy trend is the allowed claims trend of the trend experience base described in section 4. Historical trend factors for Medicare Primary medical claims are the approved trends for prior periods from the 2021 TVHP Medigap Blue Rate Filing (SERFF# BCVT-132559586).

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

If the credibility of the first year of experience is in excess of 66.67%, the underwriter shall develop rates using a 3-2-1 blend of experience periods and not utilize the manual rate.

Required premium by Plan, Tier Type

Exhibit 1C provides a sample calculation of premium. For each plan and contract tier type anticipated in the rating period, we calculate projected claims (line B1) as the product of the benefit-adjusted projected single claims rate (S) and the benefit relativity factor (as described in section 5) for the plan and contract tier (line A). For any premium components that are exclusively applicable to either active or Medicare Primary members, we only include the component in the respective rate tier(s) to which it applies.

We use the members per contract tier during the last month of the runout period as the basis for the projected members per tier in the rating period. The underwriter will adjust this ratio if, in their opinion, the result is not representative of the expected values in the rating period.³

Underwriting Judgment Adjustments

If, in the underwriter's professional judgment, the standard formula would not produce appropriate rates for the case being rated, the underwriter will make such modifications as needed to produce appropriate rates. The underwriter will document in the case file the reason(s) for the adjustment(s) and the method of determining the appropriate adjustment(s).

Management Discretionary Adjustments

For marketing or other reasons, management may decide to modify the rates on a specific case or block of cases. The underwriter will document in the case file the adjustment(s) made, along with a description of the nature of the adjustment(s).

4. Trend Factors

The source of data for trend development is BCBSVT's data warehouse, except where noted below. To ensure the accuracy of claims information, we reconcile the data used against internal reserving, enrollment, and other financial reports. The data includes claims from BCBSVT Cost Plus groups, BCBSVT ASO groups of under 1,001 members, BCBSVT insured large groups, BCBSVT insured small groups with more than 10 members, BCBSVT insured association health plans with more than 10 members, and TVHP insured large groups. The data also excludes insured large groups with much higher costs than average that have left BCBSVT in 2020. The above lines of business cover substantially similar populations under similar benefit packages. Combining these homogeneous populations creates greater consistency and credibility within the trend factor development.

We exclude large ASO groups and ASO groups with special pricing arrangements. BCBSVT recently experienced large membership movement out of the small group market. Due to significant changes in membership, we exclude all membership from small groups that were not continuously with BCBSVT

³ E.g., the number of contracts in a particular tier may be small (or even 0). In such instances, the underwriter should use appropriate values based on total block of business or other appropriate sources.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

throughout the trend experience period. We exclude claims from Medicare Primary members. Medicare Primary trend is discussed in section 4.5. We exclude compounds from the pharmacy trend development.

The COVID-19 pandemic significantly impacted medical claims, with non-urgent services being cancelled or postponed from March 2020 through May 2020, due to the stay at home order and facilities and providers preparing for a potential surge in COVID cases. Retail pharmacy claims were not impacted, other than by an acceleration in refills in March. For medical trend analysis, we use claims incurred from March 1, 2016 to February 29, 2020, paid through September 30, 2020. For retail pharmacy trend analysis, we use claims incurred from March 1, 2016 to August 31, 2020, paid through September 30, 2020. We apply completion factors to estimate the ultimate incurred claims for each period shown in the exhibits.

4.1. Medical Trend Development

Medical trend is composed of three pieces: cost, utilization, and intensity. In our analysis, we combine utilization and intensity within the utilization metric and analyze the unit cost separately. For fee-for-service claims, we combine plan payment with member cost sharing to calculate the allowed charges. For claims under a capitation arrangement, we combine a fee-for-service equivalent amount with the member cost sharing to calculate allowed charges.

4.1.1. Unit Cost

Observations of recent contracting and provider budgetary changes are the main source of unit cost trends. During the year ended February 2020, roughly 51 percent of total claims dollars were provided by Vermont facilities and providers directly affected by the hospital budget review process of the Green Mountain Care Board (GMCB). For hospitals under the jurisdiction of GMCB review, we start with the assumption that the GMCB will approve hospital budgets for October 1, 2021 and October 1, 2022 that support identical commercial increases as those approved for October 1, 2019. Many Vermont hospital received higher than historical budget increases in the 2020 cycle. We expect that the 2021 and 2022 cycles will return to 2019 cycle levels. In the previous filing, we included an increase to cost trend of 2.1 percent to account for expense overage reported by the hospitals. This was denied by the GMCB in their order but when the final budgets for 2020 were approved by the GMCB, the average rate increase was 2.4 percent higher than the previous year⁴. For the 2021 budget cycle, BCBSVT cannot estimate the impact of expense overages due to the reporting waivers in light of COVID. While there remains uncertainty around the final overall cost to the system of this pandemic, both due to lower revenue and higher expenses, we decide to view the 2020 cycle as a rebasing year and look to the GMCB to ensure that future hospital budget increase revert back to historical levels. In the event that BCBSVT is made aware of future budget increase that would diverge from this assumption, BCBSVT will file an interim trend filing to best align the cost trend used in pricing with expected cost trend.

4

<https://gmcboard.vermont.gov/sites/gmcb/files/documents/B21%20Approved%20Budget%20Submissions%20with%20NPR%20graph%20as%20of%20Oct%201st.pdf>

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

We assume for other providers within the BCBSVT service area that overall 2021 and 2022 budget increases will be identical to those implemented during calendar year 2020, since their 2020 increases were aligned with historical increases

The provider contracting and actuarial departments worked together to assess the impact these increases would have on contracts for BCBSVT Managed Care, BCBSVT Non-Managed Care, and TVHP Managed Care contracts. For marketing reasons, provider contracting negotiates different unit cost increases for each of the three contracts. To reflect these differences, we calculate a cost trends for each contract. Finally, we derive unit cost increases for providers outside the BCBSVT service area from the Fall 2020 Blue Trend Survey, which is a proprietary and confidential dissemination of the BlueCross BlueShield Association.

Exhibit 2A shows the details of the cost increases by contract and type of claim.

We use the expected increases to trend the contract-normalized claims to the projection period. The unit cost trend is the ratio of claims for the year ending December 2022 to claims for the year ending June 2020, converted to an annual factor.

The chart below summarizes the results of the analysis:

Medical Unit Cost Trend			
	BCBSVT Managed Care	BCBSVT Non- Managed Care	TVHP Managed Care
Vermont facilities and providers impacted by GMCB's Hospital Budget Review	4.7%	4.7%	4.7%
Other facilities and providers	3.7%	3.8%	3.8%
Total	4.2%	4.3%	4.3%

4.1.2. Utilization & Intensity

To examine historical utilization trend patterns, we first normalize claims for unit cost increases. We measure contract changes for the entirety of the experience period explicitly for each facility within our service area as well as the three largest physician groups. We normalize claims to the February 2020 contract at each unique provider by applying a factor equal to the product of the impact of each contracting change from the experience month through February 2020. We assume that the derived trend for other claims increases monthly on a continuous basis.

We measure increases for fee schedules and other chargemasters by applying each schedule to a market basket of services. The market basket is defined by using Current Procedural Terminology (CPT) codes and CPT modifier combinations that are present in each of the effective periods the schedules covered. Using the same experience period data used throughout the trend analysis, we compare total allowed costs for the selected CPT and CPT modifier combinations under each schedule to estimate the percentage increase. For contracts under Diagnosis Related Group (DRG) arrangements, we compare the charge for the 1.000 DRG service for each period. Finally, for services under a discount-off-charge arrangement, we use the contracted chargemaster increase provided by our provider contracting department.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

We derive contracting changes for out-of-area claims from the Fall 2020 Blue Trend Survey, which is a proprietary and confidential dissemination of the BlueCross BlueShield Association.

We also normalize for changes in demographics and normalize each month to the average number of BCBSVT working days in the year ended February 2020.

We normalized claims to the February 2020 contract at each unique provider by applying a factor equal to the product of the impact of each contracting change from the experience month through February 2020. We assume the derived trend for other claims to be continuous.

To ensure that random high claims do not skew the trend calculation, we removed all claims of members who exceeded \$500,000 in allowed medical claims in a year ended February. As the utilization component includes intensity, an increase in high cost claimants can disproportionately impact the year-over-year and regression calculations.

4.1.2.1. Facility Claims

For facility claims, we select a 0.6 percent utilization trend.

Using the array of PMPM claim costs net of high claimants and adjusted for contract, aging, and number of working days, we performed 24-month regressions, 36-month regressions, 48-month regressions and time series calculations. Certain time series methods, such as those assuming no trend, those assuming that trend is dampening, or those for which there is not sufficient historical data⁵, are not included, as these are inappropriate for use in trend development and/or for the data available.

The year ended February 2020 over year ended February 2019 trend, after the adjustments described above, is -0.4 percent. Logistic regressions using 24, 36 and 48 months calculate trends of 1.4 percent, 0.5 percent, and 0.9 percent, respectively. The Holt-Winters and double exponential smoothing time series give a similar range of projected trends (-0.5 percent to 1.3 percent), although the root mean squared errors (RMSEs) for all three demonstrate that these methods provide a worse fit to historical data than the regressions.

⁵ The seasonal additive, seasonal multiplicative, single moving average, and single exponential smoothing methods cannot be used since they assume zero trend. The dampened trend method inherently assumes a slowdown of trend. The double moving average method requires three times the amount of historical data as projection periods, and therefore cannot be used for this analysis.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

Method	Trend	RMSE
48 Months Logistic Regression	0.9%	17.84
48 Months Linear Regression	0.8%	18.01
Holt-Winters' Multiplicative 48 Monthly	0.0%	24.05
Holt-Winters' Additive 48 Monthly	0.0%	24.05
Double Exponential Smoothing 48 Monthly	1.3%	23.47
36 Months Logistic Regression	0.5%	17.67
36 Months Linear Regression	0.4%	17.76
Holt-Winters' Multiplicative 36 Monthly	-0.1%	26.54
Holt-Winters' Additive 36 Monthly	-0.3%	26.53
Double Exponential Smoothing 36 Monthly	-0.2%	25.25
24 Months Logistic Regression	1.4%	17.69
24 Months Linear Regression	1.4%	17.77
Holt-Winters' Multiplicative 24 Monthly	-0.1%	31.67
Holt-Winters' Additive 24 Monthly	-0.1%	31.66
Double Exponential Smoothing 24 Monthly	-0.5%	21.28
Year/Year	-0.4%	

The RMSE values for the time series are significantly higher than for the regressions; therefore, we do not consider them good predictors. While recent observed facility trends are down, as shown by the year-over-year trend, the longer-term regressions are all positive. We select a 0.6 percent trend for facility claims to balance the long-term and short-term results.

Details for facility utilization trends are shown on Exhibit 2B, pages 2 to 4.

4.1.2.2. Professional and Ancillary

We select a 1.1 percent utilization trend for professional and ancillary claims.

Professional claims utilization experienced one-time events that skew the overall year over year results. First, BCBSVT introduced a lab benefit manager in August 2019, which helped reduce the number and cost of lab services. Second, in the fall of 2019, we observed a shift in site of care for vaccines from provider offices to pharmacies. While the cost of the administration continues to flow through the medical benefit, the cost of the vaccines has shifted to the retail pharmacy benefit. Some services such as chiropractic and physical therapy services have experienced cyclical oscillations on a two-year pattern. Finally, mental health and service abuse (MHSA) services have seen larger than average increases for the past two years.

To account for these events, we analyzed the number of services by type of service as identified using place of service and CPT or HCPCS codes on the claims.

After excluding claims for independent labs, therapeutic services (chiropractic, physical, occupational, speech) and vaccinations, and carving out MHSA services, the number of services per thousand

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

members per month can be seen to increase at a marginally declining rate each year. On the other hand, MHSA services have increased by 10.3 percent each of the last two years.

Year Ended	All, except excluded categories		Mental Health and Substance Abuse	
	Services per 1,000 member per month	Annual Increase	Services per 1,000 member per month	Annual Increase
February 2017	703.99		113.95	
February 2018	720.23	2.3%	119.76	5.1%
February 2019	728.15	1.1%	132.23	10.4%
February 2020	732.60	0.6%	145.76	10.2%

Based on the historical patterns above and the work in Vermont to expand access to mental health services, especially during and after the pandemic, a 0.5 percent increase in non-MHSA services and a 10 percent increase in MHSA services best projects the utilization of professional services.

Category	Year Ended February 2020 Services per 1,000 member per month	Annual Increase in Services	Months of Trend	Projected Calendar Year 2022 Services per 1,000 member per month
All, except excluded categories	732.60	0.5%	34	743.05
MHSA	145.76	10.0%	34	191.04
Total	878.37	2.2%	34	934.08

Over the past few years, services with lower cost per service, such as office visits and urgent care, have seen higher than average increases in number of services. Using the year ended February 2020 cost per service, normalized for cost increases as described above, along with the number of services by type (excluding independent labs, therapeutic services and vaccines), we calculate an annual cost per service:

All, except excluded categories		
Year Ended	Weighted Average cost per service	Annual Increase
February 2017	\$149.68	
February 2018	\$148.40	-0.9%
February 2019	\$147.78	-0.4%
February 2020	\$146.90	-0.6%

We expect the historical patterns of increase services at lower cost to continue through the projection period at a rate of negative 0.5 percent. This is aligned with the historical patterns and with BCBSVT programs to ensure that members have access to high quality care for lower costs.

Category	Year Ended February 2020 Weighted Average cost per service	Annual Change due to Mix	Months of Trend	Projected Calendar Year 2022 Weighted Average cost per service
All, Except excluded categories	\$146.90	-0.5%	34	\$144.82
MHSA	\$87.37	0.0%	34	\$87.37
Total	\$137.02	-1.0%	34	\$133.07

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

Combining the number of services and mix trend, we get the following total professional utilization trend:

Category	Annual Increase in Services	Annual Change due to Mix	Total Annual Professional Utilization Trend
All, Except excluded categories	0.5%	-0.5%	0.0%
MHSA	10.0%	0.0%	10.0%
Total	2.2%	-1.0%	1.1%

We observed very consistent levels of increase in number of services (with the exceptions of the services excluded above) and very consistent decreases in the average cost per service, driven by a change in mix. There is no reason to believe that these consistent patterns will not persist through the projection period. We therefore select the total annual professional utilization trends of 10 percent for MHSA services and zero percent for all other professional and ancillary services, yielding an aggregate professional trend of 1.1 percent.

Details on professional trends are shown on Exhibit 2B, pages 10 to 11.

4.1.2.3. Pharmaceuticals

The recent acceleration in cost for pharmaceuticals processed through the medical benefit warrants a separate analysis for these claims. The accelerating cost for these drugs may unduly affect utilization trend, so we consider it appropriate to develop a discrete trend for these claims. Exhibit 2B, page 8 shows the historical allowed claims for this category. As shown on Exhibit 2B, page 9, three drugs experienced very unusual changes over the experience period used for the trend analysis. After excluding these drugs, the results are more consistent. We do not expect these unusual trends to continue through the projection period. We will instead apply the selected trend to all pharmaceuticals processed through the medical benefit.

Based on the assumptions shown on Exhibit 2B, the year-over-year pure premium trend after exclusions is 8.1 percent. Using the average projected cost increase for VHP outpatient services from 2021 to 2022 (5.3 percent; see section 4.1.1), we calculate a projected annual utilization increase of 3.3 percent. The impact of new drugs for the past three years was 6.7, 6.3 and 3.2 percent. Our clinical experts advise us that even with the ongoing COVID-19 pandemic, we can expect the impact of new drugs to increase trend by five percent. We therefore select an 8.1 percent utilization trend for pharmaceuticals.

4.1.2.4. Induced Utilization

Given that the impact of induced utilization has been minimal over the past few years, we continue to not make an adjustment to utilization trend. Exhibit 2C shows the historical paid-to-allowed ratio of claims in the trend experience base.

We discuss the concept of induced utilization further in section 5.1.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

4.1.3. Total Medical Trend

The total medical trend factors are the product of the utilization trend and the unit cost trend factors.

Medical Trend – BCBSVT Managed Care				
Category	Facility	Professional	Pharmaceuticals	Total
Unit Cost	5.0%	2.5%	13.8%	
Utilization	0.6%	1.1%		
Total Medical Trend	5.6%	3.6%	13.8%	5.9%

Component	BCBSVT Managed Care	BCBSVT Non-Managed Care	TVHP Managed Care
Total Medical Trend	5.9%	6.0%	6.0%

To calculate the overall medical total trend to be applied in the renewal formula, we trend the manual rate (see section 6.1) and experience medical claims to calendar year 2022 based on the network. We then divide the projected claims cost by the experience claims cost to calculate the overall medical trend.

Total Allowed Medical Trend				
Network	BCBSVT Managed Care	BCBSVT Non-Managed Care	TVHP Managed Care	Total
Experience Allowed Claims (Medical Only)	\$9,356,806	\$22,728,087	\$2,941,362	\$35,026,255
Trend Factors for 29.1 months	1.1469	1.1505	1.1506	
Trended Claims	\$10,731,647	\$26,148,138	\$3,384,401	\$40,264,186
Annual Trend				5.9%

4.2. Retail Pharmacy Trend

On November 9, 2020, BCBSVT announced Vermont Blue Rx, an innovative prescription drug benefit service that will improve the consumer experience, drive better health outcomes and lower costs for members, providers, and employers.

As part of this program, BCBSVT has selected a new pharmacy benefit manager (PBM). Effective July 1, 2021 the new PBM will provide custom programs, tools and digital technology designed to better manage overall drug spending and increase member engagement in pharmacy and health care through a more integrated health and wellness service platform. This collaboration will BCBSVT’s commitment to providing members with convenient and affordable access to prescription medications through a comprehensive retail and home delivery pharmacy network with no disruption to our members.

Similar to previous Large Group Rating Program filings, we base our cost trend calculation on Average Wholesale Price (AWP) and apply a separate factor in the rating formula to account for contracting changes. We analyze the components of trend (cost and utilization) separately for brand and generic drugs. We estimate the impact of brand drugs going generic based on the brand drugs that are likely to

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

lose patent in the projection period. Specialty drugs are very high cost drugs with low utilization. Because of their relative infrequency, we consider it more appropriate to look at the overall PMPM trends for these drugs rather than separate cost and utilization components. We calculate the overall pharmacy trend by combining the separate projections.

Non-Specialty Drug Utilization

Exhibit 2D provides the monthly and the 12-month rolling data for non-specialty drugs, along with the corresponding year-over-year and exponential regression trends. There are separate developments for generic cost, brand cost, and overall non-specialty utilization. We use the number of days supply in the utilization development, rather than the number of scripts, to normalize for changes in the days supply per script (e.g. increased use of 90-day fills). Because there are several popular brand drugs that have become generic during the experience period, or will become generic during the projection period, we combine the data for generic and brand drugs for the purpose of analyzing utilization patterns. We exclude vaccines from the non-specialty utilization calculation.

Due to COVID-19, many members refilled their prescription early in March 2020. This changed the pattern of monthly days supply per member. To adjust for this one-time event, we smooth monthly days supply per member for the periods from March 2020 to May 2020 and June 2020 to August 2020 by using the monthly spread from the same months in 2019.

Exhibit 2D, page 3, shows monthly cost per day supply, adjustment calculation and the 24-month regressions.

The regressions use 24 data points to best capture an adequate amount of the most recent history of drug costs. The number of days per member has been increasing since 2019 with no signs of abatement based on the latest data. We therefore select a 3.5 percent non-specialty utilization trend. This is aligned with our recent filings on other lines of business.

Generic Cost Trend

To ensure that the generic cost trend is not skewed by the arrival of new generic drugs, we perform regressions on monthly Average Wholesale Price (AWP) per days supply on only those generic drugs that have been in the market for more than 36 months.

Exhibit 2D, page 1, shows monthly cost per day supply and the 24-month regressions.

We select an annual trend of 1.1 percent for generic cost trend.

The newly released generic drugs are much more expensive than older generics and have become a larger portion of the total generic days supply. We apply the same cost trend to both categories of generic drugs as we expect that once drugs have been on the market for a few years, they will assume the same patterns of cost increases as older generics. To account for the different in cost per supply between the two categories, we adjust the mix between the older and new generic drugs to reflect the most recent six months in the trend experience period.

Brand Cost Trend

The monthly AWP cost per day supply for brand drugs is impacted by the mix of new and older brands. Brands that have been in the market for one to two years are, on average, less expensive than older

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

brands. To account for this change in mix, we perform a 24-month regression on monthly AWP cost per day supply for brand drugs that have been in the experience for at least four years.

Exhibit 2D, page 2, shows the monthly cost per day supply and the 24-month regressions.

We select 7.1 percent for the brand cost trend, which is the average of the 24-month regression result on monthly data, the 24-month regression on rolling 12-month data, and the most recent year over year trend. This result is consistent with recent filings, and we consider it to be an adequate, yet not excessive, outlook of future trends.

Compounds are one-off prescriptions that are constructed at the pharmacy from component ingredients. Because they are not sold on a wholesale basis, there is no official AWP. We select a 0.0 percent cost trend for compounds.

Vaccines cost experienced major increases through the fall of 2019, and then slowed ever since. We expect this up and down pattern to continue through 2022 include a 10 percent cost trend for vaccines.

We also do not expect over-the-counter drugs to follow the overall Brand cost trend. Based on historical data, we select a *negative* 15 percent cost trend for OTC drugs.

Specialty Drugs

Exhibit 2E shows the calculation of specialty trend for all specialty drugs. We select a 19.6 percent specialty trend, which is the average trend produced by a 24-month regression on monthly cost, a 24-month regression on rolling 12-month cost, and the most recent year over year increase. For our regressions, we chose 24 points of monthly data to best capture the most recent history of drug costs. The selected trend of 19.6 percent is aligned with the previous Large Group filings and filings for other BCBSVT business.

Total Pharmacy Trend

Instead of explicitly projecting a generic dispensing rate, we separate the drugs into seven categories:

- Generics: Drugs that have been generic since at least September 2017
- New generics: Generic drugs that have been on the market for fewer than 36 months (launched September 2017 through August 2020)
- Brands going Generic: brands that we expect to become available in generic form in the projection period, based on a list from our pharmacy benefit manager
- Vaccines
- Over the Counter (OTC)
- Compounds
- All other Brands

As shown on Exhibit 2F, we trend the days supply for each category forward at the same rate of 3.5 percent and calculate the total non-specialty allowed drug trend as 4.5 percent⁶.

⁶ The non-specialty trend prior to contract adjustments is [REDACTED].

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

Using the PMPM claims as weights between non-specialty and specialty claims for the 12 months ended August 2020, we apply the annual trends for 28 months. For drug claims in the year ended August 2020, we apply the contracted discounts and dispensing fees for the experience period and CY 2022 to AWP to calculate the total effective trend based on anticipated discount improvements:

Allowed Pharmacy Trend	
Category	Annual Trend
Generic	5.6%
Brand	10.5%
Brands Going Generic	-46.5%
Specialty	19.6%
Total (Contract Adjusted) ⁷	11.0%

Please note that we apply contract changes separately from trend in order to accurately capture the timing for each renewal.

Exhibit 3K contains the contract adjustment factors that we will apply to the drug claims in a group's renewal. These factors assume that both the experience period and rating period are 12 months. For cases where this is not true, or for periods not provided in the exhibit, we will calculate an appropriate factor using an analogous methodology.

4.3. Overall Total Trend

Using the claims experience⁸ for the groups included in the manual rate (see section 6.1), we calculate the overall allowed trend as follows:

Category	Allowed PMPM	Allowed Trend
Medical	\$505.04	5.9%
Pharmacy	\$106.55	11.0%
Total	\$611.60	6.8%

4.4. Leveraged Trends

We will continue to use the leverage formulas from the Q3 2019 Large Group Filing. The formulas for leverage are below:

Leverage Formulas	
Medical	$-0.0385 \times (AV) + 1.0389$
Drug Card	$-0.0680 \times (AV) + 1.0691$
Drug - CDHP 100% Wellness	$-0.0559 \times (AV) + 1.0564$
Drug - All Other CDHP	$-0.0723 \times (AV) + 1.0722$

⁷ The total trend prior to the contract adjustment is [REDACTED].

⁸ For medical claims, we use claims incurred 7/1/2019 through 02/29/2020 and 06/01/2020 through 09/30/2020. For pharmacy claims, we use claims incurred 11/1/2019 through 10/31/2020

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

Exhibits 3I and 3J provide examples of leverage factors.

Applying the leverage factors for benefits present in the periods July 2019 through February 2020 and June 2020 through September 2020 for medical and the year ended October 2020 for drug for the groups included in the manual rate, we calculate the following paid trends:

Category	Paid PMPM	Paid Trend
Medical	\$ 410.52	6.8%
Pharmacy	\$ 94.07	11.6%
Total	\$ 504.59	7.7% ⁹

4.5. Medicare Secondary Trends

Medicare Secondary plans cover two categories of services: Medicare-covered services which are subject to member cost share (deductible/coinsurance) and services which are not covered by Medicare. We do not adjust services subject to Medicare cost sharing for network, as Medicare sets the allowed charges, whereas we do adjust the services not covered by Medicare using the contract factors described above to bring all charges to a single network.

For Medicare claims, we use cost and utilization trends from the 2021 TVHP Medigap Blue rate filing (BCVT-132559586).

Category	Allowed Trend
Inpatient	-1.2%
Outpatient	4.0%
Professional	4.0%

The trends used for services not covered by Medicare are the same as the trends developed for use with active benefits. We use the same pharmacy trends for Medicare Secondary plans as we use for active plans.

4.6. Vision Trend

All large groups benefits include vision exams for both adult and children. Large groups can also purchase a rider to cover frames and lenses. Due to the different coverage options and limitation in the vision data to identify the cost of the exam and the materials, we calculate the trends for the large groups with exam only coverage.

Year Ended	Paid PMPM
February 2018	\$0.61
February 2019	\$0.53
February 2020	\$0.53

⁹ The paid trend without the pharmacy contract adjustment is [REDACTED].

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

We expect 2021 and 2022 to remain at the level experienced in the most recent two years ended February; we therefore select a 0.0 percent overall vision paid trend.

While the data for groups with coverage for exam and materials is not fully credible for trend development, we observed the following PMPM paid claims results. We believe that the overall 0.0 percent trend for vision benefits is therefore reasonable for both exam and material benefits.

Year Ended	Average Membership	Paid PMPM
February 2018	1,998	\$3.51
February 2019	1,994	\$3.69
February 2020	1,734	\$3.45

5. Benefit Factors

To determine standardized claims rate relationships, also called relativities, BCBSVT creates models that simulate the impact of member benefits for all types of plans. The models determine the allowed charges for the 12 months of claims included in the study and “re-adjudicate” the claims, thereby simulating the impact of member cost sharing for a given benefit plan.

The claims data used in the models is from BCBSVT’s data warehouse. To ensure accuracy, the claims data has been reconciled against internal reserving, enrollment and other financial reports. The starting point of the analysis is allowed charges as determined by the BCBSVT claims adjudication system. The claims data includes benefit codes that enable us to identify the services and benefit structures (copays, deductibles, and coinsurance) for each claim.

The models use incurred allowed charges from January 2018 to December 2018, paid through November 2020¹⁰. We trend the allowed charges 48 months to the 12-month period that begins January 1, 2022. The majority of the business that will be renewed using these relativity factors has a January 1 renewal date; the rating formula adjusts the trend for non-January renewals (see section 6.1).

The data includes claims from BCBSVT Cost Plus groups, BCBSVT ASO groups, BCBSVT insured large groups, BCBSVT insured small groups, and TVHP insured large groups. Combining these homogeneous populations creates greater consistency and credibility within the relativity factor development. We combine CDHP and non-CDHP claims. We exclude claims from certain large ASO groups, as the rich benefits offered by those groups are not in line with the leaner offerings of most insured large groups. We also exclude groups that have special benefits. This predominantly refers to groups that have specific reimbursement with particular providers outside of BCBSVT’s contracts and/or claims processing function. We exclude claims from groups that do not have pharmacy coverage through BCBSVT. We create separate models for active members and Medicare Primary members.

For each benefit plan, the models produce the simulated PMPM values of the benefits. We divide the PMPM for each plan by the average trended paid claims rate from the BRV experience period to

¹⁰ In January of 2019, BCBSVT changed its operating platform for claims, membership, and benefits. The level of detail needed to re-adjudicate benefits under different cost sharing parameters was not immediately available following the operating platform transition. While the 2019 data did become available during 2020, its availability was not sufficiently timely to support its use in developing the models for this filing.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

produce its benefit relativity (BRV). We calculate relativities for medical only plans, Rx only plans, and integrated CDHP plans for both active employees and Medicare Primary employees.

5.1. Models for Active Employees

Benefit Relativity Model: Medical

We use the total medical trend by type of service to project to the rating period. We calculate cost trends for each type of service using the discrete unit cost trend method above, while applying the separate utilization trends developed for facility and professional services (see section 4.1.2).

Using the contracted reimbursement schedules, we calculate network factors that represent the different network contracts. Using these factors, we can include all claims in each of the three networks by adjusting each claim to the basis of a single network. This enables us to combine all the experience for each plan design.

We categorize claims according to how benefits are paid and generate one record for each member, date of service, and type of service. We assign each record a cost share (deductible/coinsurance, copay, covered in full) for each plan modeled. For all products, we assign claims for preventive mandated benefits a “covered in full” cost share independently of the product that is being modeled.

The model tests one benefit design at a time. It determines the member portion of the allowed charges, and from this, a total simulated paid PMPM for each benefit design. The model considers the impact of copay, deductible, coinsurance, out-of-pocket maximum, and preventive mandated benefits. If the average allowed cost of a category is less than the assigned copay, we assume that the member paid the full cost of the service.

BCBSVT offers products on several different networks based on the three provider contracts (BCBSVT Managed Care, BCBSVT Non-Managed Care, and TVHP Managed Care). Depending on the network, there may be more than one tier of coverage (generally referred to as in-network and out-of-network) and different networks may have different providers in each tier. Below is a chart showing which providers are in which tiers on many of BCBSVT’s common networks. Providers who accept the indicated provider contract are considered to be in-network. For providers in the BlueCard® network and non-participating providers, ‘In’ indicates coverage for these providers on the in-network tier of coverage, and ‘Out’ indicates coverage for these providers on the out-of-network tier of coverage.

Network Name	Provider Contract	BlueCard Providers	Non-Participating Providers
HMO	TVHP Managed Care	N/A	N/A
POS	TVHP Managed Care	Out	Out
VHP Select	BCBSVT Managed Care	N/A	N/A
VHP	BCBSVT Managed Care	Out	Out
EPO PCP	BCBSVT Managed Care	In	N/A
VHP Open Access	BCBSVT Managed Care	In	Out
EPO	BCBSVT Non-Managed Care	In	N/A
PPO	BCBSVT Non-Managed Care	In	Out
Indemnity	BCBSVT Non-Managed Care	In	In

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

If BCBSVT were to quote a product not on one of the networks listed above, or one featuring different provider networks for selected services, we would modify the base data in the BRV models to correspond to the desired changes (for example, excluding certain providers or modifying allowed amounts) before simulating the benefit impact.

We use BRVs in two places in the rating formula described in Section 3. We calculate the average experience period seasonally-adjusted benefit relativity factor (line K in Exhibit 1A) using BRVs for the benefits in the experience period and the projected claims for the rating period (line B1 in Exhibit 1C) using BRVs for the benefits in the rating period.

Exhibits 3B and 3C display the relativities for active employees for some medical products currently in our book of business.

Benefit Induced Utilization: Medical

We use factors for the impact of induced utilization (IU) developed by the federal Department of Health and Human Services (HHS) for use with Qualified Health Plans, to which we found the curve of best fit $IU = AV^2 - AV + 1.24$, where AV is the actuarial value of the benefit plan. HHS created their IU factors for combined medical/pharmacy AV, but as we develop BRVs separately for medical and pharmacy plans, we will apply the formula to medical-only AVs. We normalize the curve such that the average AV underlying the base BRV experience period returns a utilization adjustment of 1.00. In other words, if a simulated benefit has an AV less than the average AV, then utilization will be reduced (i.e. factor < 1.00). If a simulated benefit has an AV greater than the average AV, then the benefit will have induced utilization (i.e. factor > 1.00).

Benefit Relativity Model: Pharmacy

We use the total trend, by type of drug, for brand, generic, and specialty drugs as described above (section 4.2) to project to the rating period.

Within the model, we assign all pharmacy scripts, including specialty, to one of six categories: retail generic, retail preferred brand, retail non-preferred brand, mail generic, mail preferred brand, and mail non-preferred brand. We apply flags to identify several categories of drugs that are either required to be covered in full (ACA contraceptives and vaccines) or for which a group may purchase a rider to offer additional coverage (some fertility drugs) or exclusion (lifestyle drugs). We also flag drugs for which a group may offer special cost-sharing arrangements, such as diabetic medications and wellness drugs. We assign these flags by National Drug Codes as reported to us by our current PBM.

We adjust the experience period data to reflect the major brands that are expected to become generic between 2018 and 2022. The list comes from a report provided by our current PBM.

For these brands, in the first six months (the exclusivity period), we reduce the Average Wholesale Price (AWP) by 10 percent and keep the brand discount. For the months after the exclusivity period, we reduce the AWP by 10 percent and change the discount to the generic discount. The 10 percent reduction in AWP is based on industry standard assumptions, supported by our own analysis of AWP changes for drugs that have moved from brand to generic over the past several years.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

We generate one record for each member and date of service combination. One record can have more than one script category. The model tests one benefit design at a time. It determines the member portion of the allowed charges and a total simulated paid PMPM for each benefit design. The model considers the impact of the deductible, coinsurance, copays and out-of-pocket maximum (OOPM). Following the ACA, the model excludes contraceptives and vaccines from the cost sharing. If the average allowed cost of a category is less than the applied copay, we assume that the member pays only the full cost of the script. With Vermont Act 171, all pharmacy benefits effective January 1, 2021 or later will have an OOPM of \$1,400. It is possible that this limit will increase effective January 1, 2022, following the IRS rules for Health Savings Accounts and High Deductible Health Plans. The exhibits include the \$1,400 OOPM on pharmacy benefits.

Exhibit 3D displays the relativities for active employees for some pharmacy products currently in our book of business.

Benefit Induced Utilization: Pharmacy

We performed an independent analysis to measure the correlation between the benefit design and the quantity of pharmacy prescriptions consumed. We adjust the pharmacy benefits in two ways. First, the generic utilization varies with the benefit design. We use claims and membership data from January 2017 through August 2020 to create a table to adjust the base generic utilization up or down depending on the difference in the generic and brand copays of the member's drug plan. Exhibit 3A displays the adjustments by brand/generic copay differential for generic and brand scripts.

Second, we perform a separate analysis to adjust for the overall pharmacy benefit. We assign a modeled actuarial value to every benefit in the experience period. The correlation uses the actuarial value as the independent variable and days supply as the dependent variable. A linear equation best fits the data. We normalize the curve such that the actuarial value underlying the base BRV benefit returns a utilization adjustment of 1.00. The resulting formula is [REDACTED].

Although we use two steps to calculate the induced utilization, we are not adjusting the data twice. The adjustment for difference in generic/brand copays changes the mixture of scripts (i.e. generic dispensing rate) without adjusting the overall frequency of scripts. The richness or leanness of the plan, as measured by the actuarial value, drives an adjustment to the overall frequency of scripts without changing the mixture of scripts.

As the model includes claims from both CDHPs and drug cards, we also adjust for the type of benefit being modeled. Claims incurred on a CDHP have a lower cost per script than claims incurred on a drug card. We calculate a factor for each benefit type by taking the ratio of the cost per script for that type and the cost per script from all claims in the model. For CDHPs, the factor is [REDACTED] and for drug cards the factor is [REDACTED].

Benefit Relativity Model: Integrated (CDHP)

The CDHP model combines both the medical and pharmacy models described above. There is one record for each member, date of service and type of service combination. The model calculates separate medical and pharmacy actuarial values and makes the appropriate utilization adjustment for each.

Exhibit 3E displays the relativities for active employees for some CDHP products currently in our book of business.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

5.2. Tier Factors

Each BRV model generates a BRV for different contract tiers as well as the overall PMPM described in the sections above. The models perform this calculation by re-adjudicating claims across families in addition to member-based readjudication. We apply the tiered BRVs to each benefit's member distribution by tier to calculate the average BRV for the experience benefits and to the group's member distribution by tier to calculate the average BRV for the rating benefits.

We use the same tier factors developed in the previous filing to spread the required premium across tiers. Exhibit 3L displays these factors.

5.3. Models For Age 65+ Medicare Secondary Plans

Benefit Relativity Model: Medical

Medicare Primary rate tiers are only available on the BCBSVT Non-Managed Care network. To develop benefit relativity values for Medicare Secondary plans, we use the same method as we do for the active factors. For the claims base, we use allowed charges incurred between January 2018 and December 2018, paid through November 2020, for members whose primary insurance is Medicare. Given the scarcity of Medicare Primary members in the BRV experience (fewer than 1,000 member months), we also include Medicare Primary members from groups who we exclude from the development of the active BRVs (e.g. large ASO groups). If the underwriter believes that these claims are not representative of a given group's characteristics (for example, due to demographics or morbidity), we will develop relativities using an analogous method with more representative experience.

Medicare Secondary plans cover two categories of services: Medicare-covered services which are subject to member cost share (deductible/coinsurance) and services which are not covered by Medicare. We do not adjust services subject to Medicare cost sharing for network, as Medicare determines the allowed charges, whereas we adjust the services not covered by Medicare using the contract factors described above to bring all charges to a single network.

We trend the allowed charges to the 12-month period that begins January 1, 2022. We use the total medical trend by type of service as described in section 4.5.

As with the active benefits, the model simulates the effects of a benefit design on the trended allowed charges and calculates a simulated paid PMPM. The model divides this paid PMPM by the Medicare Primary manual rate (without the adjustment for changes to the pharmacy contract) to produce the benefit relativity value. Unlike the active benefits, we do not make an adjustment for induced utilization due to the richness of the benefit. As Medicare is the primary insurance for these plans and Medicare-covered claims make up 85 percent of the trended allowed charges, we do not believe that the richness of the secondary insurance will have any influence on utilization.

Exhibit 3F displays the relativities for some Medicare Secondary medical products currently in our book of business.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

Benefit Relativity Model: Pharmacy

To calculate relativities for pharmacy benefits for plans that are secondary to Medicare, we use the same methodology as for active employees. We use allowed charges incurred between January 2018 and December 2018, paid through November 2020, for members whose primary insurance is Medicare (including members in large ASO groups, as with the medical experience). If the underwriter believes that these claims are not representative of a given group’s characteristics (for example, due to demographics or morbidity), we will develop relativities using an analogous method with more representative experience.

We trend the allowed charges to the 12-month period that begins January 1, 2022 using the same trends as used for active members. We assign pharmacy scripts to the same categories as for the active members and adjust allowed charges for brands going generic between the experience period and the rating period. The model produces a simulated paid PMPM for each benefit design and adjusts for the impact of induced utilization on the mixture and frequency of scripts as described for the active relativities above. We divide the adjusted paid PMPM by the Medicare Primary manual rate (without the adjustment for changes to the pharmacy contract) to produce the relativity.

Exhibit 3G displays the relativities for some Medicare Secondary pharmacy products currently in our book of business.

Benefit Relativity Model: Integrated (CDHP)

The Medicare Secondary CDHP model combines both the medical and pharmacy Medicare Secondary models described above. We create one record for each member, date of service, and type of service combination. The model calculates separate medical and pharmacy actuarial values and makes the appropriate utilization adjustments for each.

Exhibit 3H displays the relativities for some Medicare Secondary CDHP products currently in our book of business.

5.4. Formulary & Pharmacy Options

BCBSVT and TVHP offer groups a selection of formularies. Groups can select either the BCBSVT Formulary or the National Performance Formulary. Groups electing the National Performance Formulary receive greater rebates than those on the BCBSVT Formulary. To calculate the impact of the change, we identify rebate-eligible claims for the large groups impacted by this filing. We calculate rebate totals under the contracted terms of each formulary. For groups changing formularies, we apply the below factors to projected rebates. We adjust the factors proportionately if the experience period includes a mix of formularies.

Experience Formulary	Rating Formulary	Rebate Multiplier
BCBSVT Formulary	National Performance	[REDACTED]
National Performance	BCBSVT Formulary	[REDACTED]

BCBSVT and TVHP offer groups a choice of specialty pharmacy networks option. Groups electing the exclusive option receive greater discounts on specialty drugs. We calculate pharmacy contract factors for this option using an analogous method to the standard contract factors, as described in Section 4.2.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

Exhibit 3K Page 2 provides the discount factors for the exclusive network option. For groups with a mix of specialty options in their experience period, we adjust the factors using an analogous methodology proportionately to the programs in effect.

5.5. Riders

BCBSVT and TVHP file riders with the Vermont Department of Financial Regulation (DFR) that allow large groups to add or modify covered services. These riders include, but are not limited to, the Benefit Enhancement Rider, Acupuncture Benefits Rider, and Wellness Drug Rider. For riders that modify covered services, we use the benefit relativity model to price the rider. For riders that cover an optional service, we develop allowed charges from groups offering that coverage and adjust to the group's benefit or use a reasonable approximation of allowed charges if no experience data exists. If, in the underwriter's professional judgment, the election of a rider will create material anti-selection, the underwriter will modify the rate as necessary to reflect appropriate rates for the rider being rated, as described in section 3.

6. Other Factors Applicable to All Large Groups

6.1. Manual Rate

The manual rate for active members is calculated from medical paid claims PMPM incurred between July 1, 2019 through February 29, 2020, and June 1, 2020 through September 30, 2020 and pharmacy paid claims PMPM incurred between November 1, 2019 and October 31, 2020. Both medical and pharmacy claims include claims paid through November 30, 2020. We use claims from the groups impacted by this filing, trended to calendar year 2022 using the trends and pharmacy contract adjustments described in section 4. We cap claims at \$300,000¹¹ and add expected claims above \$300,000. We calculate the expected large claims using the method described in section 6.2.

We calculate a separate manual rate for Medicare Primary members using the paid claims PMPM from the BRV experience period, trended to calendar year 2022 using the Medicare Primary trends described in section 4.5 and the pharmacy contract adjustments described in section 4.2. We make no adjustments to the Medicare Primary manual rate for large claims.

¹¹ Selected using the current membership and the table in Exhibit 6B.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

Calculation of the Manual Rate (Actives)			
Claim Type		Medical	Pharmacy
Experience Period		Jul 2019 – Feb 2020, Jun 2020 – Sep 2020	Nov 2020 – Oct 2021
Incurred and Paid Experience Paid Claims, capped at \$300,000	A	\$28,371,787	\$6,517,490
COVID-19 Related Claims	B	\$173,983	\$0
Estimated IBNR	C	\$214,803	\$864
Expected Claims above \$300,000	D	\$887,751	\$79,801
Deferred Care Adjustment	E	0.9852	1.000
Demographic Normalization	F	1.0035	1.0033
Overall Paid Trend Factor	G	1.1720	1.2766
Projected Total Paid Claims	$H = (A - B + C + D) \times E \times F \times G$	\$33,951,523	\$8,451,504
Total Member Months	I	69,304	69,209
Medical/Pharmacy Manual Rate	$J = H / I$	\$489.89	\$122.12
2022 Manual Rate	$K = J_1 + J_2$	\$612.01	
Q3 2020 Approved Manual Rate	L	\$591.46	
Manual Rate Increase	$M = K / L - 1$	3.5%	

Calculation of the Manual Rate (Medicare Primary)		
BRV Experience Paid Claims	A	\$33,985,860
Overall Paid Trend factor (5.2% for 36 months)	B ₁	1.1651
Overall Paid Trend factor (7.9% for 12 months)	B ₂	1.0786
Projected Total Paid Claims	$C = A \times B$	\$42,707,831
Total Member Months	D	94,703
2022 Manual Rate	$E = C / D$	\$450.97
Q3 2020 Approved Manual Rate	F	\$424.18
Manual Rate Increase	$M = K / L - 1$	6.3%

We use a different method of calculating the manual rate for active and Medicare Primary members. We develop the active manual rate from the experience of active members in the large groups covered by this filing. There are not enough Medicare Primary members in large groups to develop a credible manual rate with only large group experience, so we base the Medicare Primary manual rate on the larger set of claims in the BRV experience, which includes Medicare Primary members from ASO groups as well as large groups. Since we did not update the BRV experience, we apply the overall paid trend factor from the Q3 2020 filing for 36 months and the overall paid trend factor from this filing for 12 months to calculate the 2022 manual rate for Medicare Primary members, adjusted for differences in pharmacy contracts as described in section 4.2.

We adjust the manual rate to reflect a group's particular characteristics, as demonstrated in Exhibit 4A. We make an adjustment for the average age/gender factor (line B) of the group. For active and Medicare primary members, we use factors from the SOA's report *Health Care Costs – From Birth to*

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

*Death*¹². We normalize the factors such that the membership in the manual rate experience period has an age/gender factor of one. We assign an industry factor (line C) to each group based on the Standard Industrial Classification code. See Exhibit 4B for the schedule of industry factors. We normalize the industry factors such that the manual rate has a factor of one. We do not apply an industry adjustment to the manual rate for Medicare Primary members. The manual rate assumes the group is on the open specialty network. For groups electing the exclusive specialty network, we adjust the manual rate using the methodology described in section 5.4. We then multiply the manual rate by an adjustment factor to reflect structural changes between the experience period to the rating period. This adjustment modifies the manual claims to reflect such things as mandated benefit changes, contractual provision changes, etc., that, in the judgment of the underwriter, are necessary to make the manual rate appropriate for the estimation of the expected claims in the rating period.

For groups with a projection period other than calendar year 2022, we adjust the manual rate for trend to reflect the group's projection period (line D) and the additional impact of pharmacy contract changes (line E). Finally, we calculate a contract conversion factor (line F) based on member distribution and tier factors in order to convert from a PMPM to a single rate basis. This factor is necessary because the rating formula blends the adjusted manual rate (line S of Exhibit 1A) with the projected single contract rate (line R of Exhibit 1A), which is not on a PMPM basis.

6.2. Large Claims Factors

BCBSVT and TVHP use the formula and factors in Milliman's 2020 *Health Cost Guidelines – Reinsurance* to calculate expected claims above the pooling limit. The contents of the *Guidelines* are proprietary and confidential. This filing provides a general description of the formula but will not include any of the factors.

The formula develops expected claim costs above a particular pooling point separately for children and adults on a PMPM basis. The basis for each rate is a starting claim cost that varies with the pooling point and the out-of-pocket limit for the benefit. Milliman calculates the starting claim costs using national data, and the formula applies factors to adjust to our Vermont service area and the details of our contracts with local providers. The formula applies an adjustment for demographics and a trend factor to adjust the starting claim costs for the experience period of the renewal. There are also adjustments to the starting claim costs for the network of the benefit to account for claims from out-of-network providers, if appropriate for the benefit. The formula includes an adjustment factor that controls for known, ongoing high claimants, which are typically added to premium through underwriting judgment. To avoid double-counting such claimants, we apply a five percent reduction to the estimated claims above the pooling point based on recent BCBSVT and TVHP large group experience.

We multiply the adjusted adult and child claims rates by benefit by the number of adult and child member months in the experience for that benefit to develop the total expected claims above the pooling level.

¹² <https://www.soa.org/Research/Research-Projects/Health/research-health-care-birth-death.aspx>

The factors for the age curve are in Chart 1 (for actives) and Chart 21 (for Medicare Primary) of the databook linked on the page.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

6.3. Administrative Charges

The sources of administrative expense data in this filing are BCBSVT's data warehouse and accounting records. The experience period for this filing is January 2020 to November 2020. We use actual BCBSVT and TVHP administrative expenses for the experience period on a GAAP reporting basis.

Experience Base of Actual Expenses

BCBSVT's cost accounting system allocates administrative expenses to lines of business. We use BCBSVT insured large group and TVHP insured large group information for the base administrative charges.

We allocate the cost accounting data by cost center into cost categories for purposes of determining administrative charges for each specific group account, given that account's characteristics.¹³ The group cost categories align with the rules used in the cost allocation model. The group cost categories include:

Account – those expenses that the system allocates to specific group accounts on a per group account basis.

Member – those expenses that the system allocates on a per member basis.

Contract – those expenses that the system allocates on a per contract (subscriber) basis.

Medical Claims – those expenses that the system allocates on a per medical claim basis.

Invoice - those expenses that the system allocates on a per invoice basis.

Total Projected Claims – overhead expenses that we allocate using experience paid claims.

For each of the group cost categories described above, we tabulate the respective number of unit months during the experience period for BCBSVT and TVHP insured large groups. Groups can offer a choice of BCBSVT and TVHP products to their employees if they wish to offer options with different networks. We therefore combine expenses for both companies in this filing to ensure alignment of administrative expenses across the products within a group offering. The unit months include the number of account months, number of member months, number of contract months, and number of medical claims and invoices by month. For overhead expenses, we divide the experience administrative charges by experience paid claims to calculate a percent of claims factor.

The table below reflects reclassifications of the base data, including the removal of federal fees (we add these to premium rates separately; see section 6.9), GMCB billback (we add these to premium rates separately; see section 6.8), and fees paid to vendors for the administration of Health Savings Accounts and Health Reimbursement Accounts linked to our insurance products (participation in this service is optional; we assign these fees to groups who select the service). We also remove any expenses incurred due to one-time, non-recurring events, such as the expenses related to enabling full-time remote work, as these costs are not expected to continue to occur in the projection period. Finally, we adjusted the allocation of overhead among lines of business to reflect a consistent percentage of premium or premium equivalent, which is a more appropriate (i.e. lower, in the case of this filing) basis for pricing purposes.

¹³ Per unit per month costs for Cost Plus members with Medicare Supplement plans are set equal to the corresponding values for conventionally funded Medicare Supplement members.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

Reconciliation of Experience Base Administrative Expense to Restated GAAP Expenses (dollars in thousands)					
Business Segment	Reported Expenses ¹⁴ (01/20 – 11/20)	Commissions ¹⁵	Reclassification Items ¹⁶	Reallocations	Adjusted Experience
	(A)	(B)	(C)	(D)	(E) = (A) – (B) – (C) – (D)
BCBSVT Insured	\$6,481	\$533	\$1,212	\$1,427	\$3,309
TVHP Insured	\$2,155	\$151	\$250	\$252	\$1,501
Large Group Subtotal	\$8,635	\$684	\$1,462	\$1,680	\$4,810

We calculate per unit per month (PUPM) values using the adjusted experience period administrative expenses and unit counts. For the group segments included in this filing, there are five such PUPM values and one percent of claims value.

Projection Factors

We project actual administrative costs PUPM from the experience period to each of the rating periods based on a 2.2 percent annual trend. This projection factor makes a reasonable but modest provision for increases in overall operating costs PUPM. There are no known extraordinary or mandate-related costs at this time which require a separate provision for the rating periods involved in this filing.

To calculate the annual trend increase we assume that personnel costs (wages and benefits) will increase by three percent, the typical budgeted wage increase, and we assume other operating costs will remain flat. Based on year-to-date November 2020 information, we calculate that 72.8 percent of our administrative costs are for salaries and benefits. We therefore increase our total projected administrative expenses by the weighted average of 2.2 percent per annum. We apply the trend increase through 2020, assume no trend for 2021, and apply trend from 2021 to 2022, which broadly aligns with the decision to forgo cost of living increases in 2021.

Development of Administrative Charges Trend		
		Percent of Total
Employee costs	A	55.4%
Purchased services	B	23.8%
Other operating costs	C	20.8%
Subtotal administrative expenses	D = A + B + C	100.0%
Total personnel costs	E = A / (A + C)	72.8%
Trend for personnel costs	F	3.0%
Total administrative charges trend	G = {(1+F) x E + (1.00) x (1-E)} - 1	2.2%

¹⁴ Reported Expenses are from Underwriting Results GAAP Basis, restated for the new allocation, for the Experience Base period.

¹⁵ Commissions are from Internal BCBSVT reports

¹⁶ Reclassification Items are from Internal BCBSVT reports, including the removal of one-time items

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

We anticipate an increase in total BCBSVT membership in 2022, but due to a loss of membership from 2020 to 2021, we expect that membership will have declined from the experience period to the projection period. This decrease in membership results in an increase in admin charges PMPM, as there are fewer members over which to spread fixed costs.

We calculate PMPM admin charges with experience period enrollment and projected 2022 enrollment. Using the lower 2022 enrollment increases the PMPM by 6.2 percent. A recent cost accounting exercise suggests that variable costs represent approximately 30 percent of total administrative expenses. BCBSVT is committed to providing insurance coverage for our members at the most affordable rates possible; as a result, even though it is impractical to react to enrollment shifts by immediately right-sizing staff, we nonetheless remove from our projection the entirety of variable costs associated with the reduced enrollment. We therefore apply a net increase of 4.4 percent to the base PUPM charges to account for the reduction in membership. The table below shows the calculation.

Development of Enterprise Membership Adjustment			
	Enterprise Admin Expenses	Members	Admin PMPM
Experience Period	\$67,551,300	174,250	\$35.24
Projected 2022 Enrollment		164,000	\$37.45
Elimination of 100% of variable costs for reduced enrollment			\$36.78
Adjustment for Enterprise Membership		\$36.78 / \$35.24 = 1.044	

Required Administrative Increase

Using the methodology described above, the administrative charges increase by 14.3 percent:

Administrative Charges – Reasons for Required Increase				
		Admin Charges PMPM	Change PMPM	Percent Change
1	Approved January 2021 admin from Q3 2020 filing	\$53.82		
2	Rebase experience and allocations	\$57.66	\$3.84	7.1%
3	Net enterprise membership adjustment	\$60.19	\$2.52	4.4%
4	Additional year of trend	\$61.50	\$1.31	2.2%
	Total Increase		\$7.68	14.3%

Charges for Group Accounts

Exhibit 5A shows the administrative charge PUPM values used by the rating formula to produce account-specific administrative charges. The formula applies these values to a group account's corresponding unit counts and expresses the resulting charges as an equivalent PMPM.

The administrative charges do not include amounts for special items or unique services not part of BCBSVT or TVHP's standard scope of administrative services (e.g., special booklets, certificates, or reports). Charges for such services will be determined and applied separately on an account-specific basis. The filed charges also do not include commissions based on the commission scale applicable to the account. The rating formula calculates and applies commissions separately.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

6.4. Net Cost of Reinsurance

BCBSVT and TVHP purchased reinsurance for claims in excess of \$1,000,000 for 2021, and we expect to purchase similar reinsurance in future years with limits approximately equal to the 2021 limit. We estimate that the target loss ratio for the reinsurance is approximately 75 percent, which implies a cost of reinsurance of approximately 33 percent of claims above the reinsurance limit. For each pricing period starting quarter, we use the total paid trend of 8.2 percent and a leverage factor for the \$1,000,000 reinsurance limit from Milliman’s 2020 *Health Cost Guidelines – Reinsurance* to calculate the expected annual claim cost above the reinsurance limit, then multiply the cost by 33 percent to determine the annual cost of reinsurance. We divide this by 12 to produce the PMPM cost of reinsurance. The table below shows these PMPM’s based on pricing period starting quarter. If a renewal requires a factor for a pricing period not in the table, identical data, assumptions, and methodology as described above will be used to calculate the net cost of reinsurance.

Pricing Period Starting Quarter						
Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
\$1.41	\$1.49	\$1.56	\$1.64	\$1.72	\$1.81	\$1.90

6.5. Pharmacy Rebates

We calculate pharmacy rebates by taking the experience period rebates and trending them using the total trend for brands eligible for rebates (see table below). We subject the trended rebates to the minimum guarantees for the rating period. There is a lag between the receipt of pharmacy rebates and the time of the original claims. For months in the experience for which we do not have detailed rebate information, we include an estimated rebate amount in the calculation.

Claim Type	Experience Period Allowed Charges	Projected Allowed Charges after Contract Changes
Brand Going Generic		
Brand		
Specialty		
Total		
Total Trend for Drugs Eligible for rebates	=	= 13.0%

6.6. OneCare Coordination Fee

BCBSVT and TVHP pay OneCare Vermont a care coordination fee for attributed members. This payment directly supports ACO providers, including community providers, as they deploy new care models. This model mirrors the investment Medicaid has made in the ACO provider network and supports the comprehensive care models being tested within the ACO program. The monthly charge for members attributed to OneCare is \$3.25. We will update this estimate if we receive additional information.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

6.7. Contribution to Reserve

As directed by management, we include the following contribution to reserve factors in the rate calculation:

Contribution to Reserve	
BCBSVT Insured Groups	1.5% of premium
TVHP Insured Groups	2.0% of premium
BCBSVT Cost Plus Groups	0.375% of equivalent premium

A memo from BCBSVT senior management regarding the contribution to reserve factors can be found as Attachment A. We consider the above-listed contribution to reserve factors to be sufficient in the long-term.

6.8. State Mandates and Assessments

Vermont Vaccine Purchasing Program Payments

The Vermont Vaccine Purchasing Program¹⁷ offers health care providers state-supplied vaccines at no charge by collecting payments from Health plans, insurers, and other payers. This assessment is a PMPM charge applied to members residing in Vermont who are ages 0 to 64. On May 1, 2020, the Vermont Vaccine Purchasing Program released a memo that included the anticipated rates for April 1, 2021 – March 31, 2022: *“For planning purposes, the best estimate at this time for the SFY2022 assessment rate is \$10.60 per child covered life per month and \$1.09 per adult covered life per month. The SFY2021 assessment rate will be reviewed for final determination in April 2021..”* We will update these rates once the actual rates are known.

New Hampshire Purchasing Program Payments

The New Hampshire Purchasing Program¹⁸ offers health care providers state-supplied vaccines at no charge by collecting payments from health plans, insurers, and other payers. The assessment for 2021 is \$6.25 for each child that is a New Hampshire resident. The current best estimate of the 2022 rate is \$6.25 per assessable life per month. We will use the new rate once it is approved.

New York State Health Care Reform Act

BCBSVT and TVHP pay the New York GME Covered Lives Assessment¹⁹ for all members who are New York residents as part of the New York State Health Care Reform Act. The assessment varies based on the county of residence. We will use the new rates once they are approved.

Maine Guaranteed Access Reinsurance Association

BCBSVT and TVHP pay the Maine Guaranteed Access Reinsurance Association Assessment²⁰. The 2019 assessment is \$4.00 per member per month for each member that is a Maine resident. We will use any new rates once they are approved.

¹⁷ <http://www.vtvaccine.org/>

¹⁸ <https://nhvaccine.org/>

¹⁹ <https://www.health.ny.gov/regulations/hcra/gmecl.htm>

²⁰ <http://www.mgara.org/>

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

Health Care Claims Tax

The Health Care Claims Tax of 0.999 percent applies to all claims or capitations incurred by members with Vermont zip codes. We use the percentage of current members with Vermont ZIP codes to estimate the percentage of rating period claims expected to be incurred by Vermont members. Act 73 of 2013 sunset the 0.199 percent assessment for the Health IT-Fund. Given this fee has routinely been extended close to its sunset date, we will include it in the calculation and update the charge if new information becomes available.

Blueprint

BCBSVT and TVHP participate in the Vermont Blueprint for Health program. The current assessments for this program, applied to members who are attributed to a Blueprint provider as of the month the renewal is produced, are \$2.77 PMPM for the Community Health Team and \$3.00 PMPM for the Patient Centered Medical Homes (PCMH). PCMH are eligible for up to \$0.50 for performance. We project that our total PMPM for PCMH will be \$3.20. We base the projected performance payment on the average payment for large groups in the year ended October 2020. We will incorporate any updates made to the Blueprint Manual²¹ in renewals.

Green Mountain Care Board Billback

The Green Mountain Care Board assesses BCBSVT and TVHP a billback. We apply billback amounts from the administrative charges experience period described in section 6.3 to projected member months to develop the charge of \$2.31 PMPM.

Other Assessments

We include other state mandates and assessments in the calculation as applicable.

6.9. Federal Assessments

Patient-Centered Outcomes Research Institute Fee:

This fee is part of the Affordable Care Act and applies to all plan years ended after September 30, 2012 and before October 1, 2029. We provide the estimated fees in the table below. We will update this estimate if we receive additional information.

PCORI	
Plan Year Ending Between	Fee Amount
October 2020 - September 2021	\$2.66 PMPY
October 2021 - September 2022	\$2.74 PMPY
October 2022 - September 2023	\$2.91 PMPY

Other Assessments

We include other federal mandates and assessments in the calculation as applicable.

²¹ <http://blueprintforhealth.vermont.gov/>

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

7. Factors applicable only to specific Products

7.1. Stop Loss Coverage for Cost Plus products

Cost Plus groups assume the risk for the claims incurred by their members. To protect themselves from high claims, they must purchase both Individual Stop Loss (ISL) and Aggregate Stop Loss (ASL) from BCBSVT²².

7.1.1. Individual Stop Loss

We develop ISL charges using the same formula and factors as described in section 6.2. We develop the charges for the rating period, rather than the experience period. They include a load for a 70 percent loss ratio. We use stacked tier factors to spread the charges across the different contract tiers, even when the benefit itself is aggregate, as the accumulation of the family cost sharing for the benefit does not have a meaningful impact on claims above the ISL attachment point.

7.1.2. Aggregate Stop Loss

The aggregate stop loss factors are unchanged from the Q3 2020 Large Group filing (BCVT-131835151).

8. Medical Loss Ratio Projection

We use the factors and formula in this filing to project a Medical Loss Ratio (MLR) for 2022. Using the manual rate as a proxy for projected claims, we project a 2022 MLR of 89.1 percent for BCBSVT and 87.7 percent for TVHP. The BCBSVT credibility-adjusted MLR for Large Group was 99.0 percent in 2018 and 95.3 percent in 2019. The TVHP credibility-adjusted MLR for Large Group was 104.3 percent in 2018 and 94.5 percent in 2019.

²² With the exception that with the approval of BCBSVT's Executive staff, Cost Plus groups can shop their stop loss in accordance with strict guidelines set forth by BCBSVT.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

BCBSVT MLR			
(A)	Manual Rate	\$612.01	Exhibit 4A
(B)	Rebates	\$17.43	2019 MLR Filing, untrended
(C)	Estimated HCQ	\$2.75	2019 MLR Filing, untrended
(D)	State Mandates and Assessments	\$13.84	Calculation as described on Exhibit 1C, using latest actual PMPM as needed
(E)	MLR Numerator	\$611.17	= (A) – (B) + (C) + (D)
(F)	Projected Claims	\$608.42	= (A) – (B) + (D)
(G)	Net Cost of Reinsurance	\$1.56	Actuarial Memorandum, Section 6.4
(H)	Administrative Charge	\$55.62	Calculation as of January 2022, from Exhibit 5A
(I)	GMCB Billback	\$2.31	Actuarial Memorandum, section 6.8
(J)	Patient-Centered Outcomes Research Institute Fee	\$0.24	Actuarial Memorandum, section 6.9
(K)	Subtotal	\$668.15	= (F) + (G) + (H) + (I) + (J)
(L)	Total Premium	\$686.01	= (K) / (1 - 0.011 - 0.015)
(M)	Commissions	\$7.57	= (L) x 1.1% (from 2019 MLR filing)
(N)	Contribution to Reserve	\$10.29	= (L) x 1.5% (from Actuarial Memorandum, Section 6.6)
(O)	MLR Denominator	\$686.01	= (L)
(P)	MLR	89.1%	= (E) / (O)

TVHP MLR			
(A)	Manual Rate	\$612.01	Exhibit 4A
(B)	Rebates	\$13.94	2019 MLR Filing, untrended
(C)	Estimated HCQ	\$3.27	2019 MLR Filing, untrended
(D)	State Mandates and Assessments	\$13.84	Calculation as described on Exhibit 1C, using latest actual PMPM as needed
(E)	MLR Numerator	\$615.18	= (A) – (B) + (C) + (D)
(F)	Projected Claims	\$611.91	= (A) – (B) + (D)
(G)	Net Cost of Reinsurance	\$1.56	Actuarial Memorandum, Section 6.4
(H)	Administrative Charge	\$55.62	Calculation as of January 2022, from Exhibit 5A
(I)	GMCB Billback	\$2.31	Actuarial Memorandum, section 6.8
(J)	Patient-Centered Outcomes Research Institute Fee	\$0.24	Actuarial Memorandum, section 6.9
(K)	Subtotal	\$671.64	= (F) + (G) + (H) + (I) + (J)
(L)	Total Premium	\$701.22	= (K) / (1 - 0.022 – 0.020)
(M)	Commissions	\$15.56	= (L) x 2.2% (from 2019 MLR filing)
(N)	Contribution to Reserve	\$14.02	= (L) x 2.0% (from Actuarial Memorandum, Section 6.6)
(O)	MLR Denominator	\$701.22	= (L)
(P)	MLR	87.7%	= (E) / (O)

The above calculations represent estimates assuming that all pricing assumptions hold true, and assuming no change from 2019 values for various quantities (e.g. rebates, commissions).

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

9. Act 193 Information

The table below shows the year-over-year increase in plan spending and the percentage of the 2022 manual rate for generic, brand, and specialty drugs. We calculate the percent of 2022 manual rate as the experience drug claims (November 2019 – October 2020, paid through November 2020), trended to 2022 and adjusted to the pharmacy contract in force for 2022, divided by the 2022 manual rate of \$612.01 (from section 6.1). We calculate the year-over-year increase as the increase in drug spending from the experience period used in the 2021 renewals for the 2020Q3 filing (January 2019 – December 2019, paid through February 2020) to the experience period used for the 2022 renewals in this filing.

Drugs Processed Under the Pharmacy Benefit		
Type	Percent of 2022 Manual Rate	Increase in Plan Spending
Generic	2.0%	12.1%
Brand	7.2%	3.1%
Specialty	10.5%	-16.0%

The increase in drug spending compared to other premium components is below:

Premium Increases	
Component	Increase
Rx Claims	-6.1%
Medical Claims	5.1%
Non-Claims Components	-11.1%

Please see Attachment B for the specialty formulary as of 12/1/2020.

Drugs administered in an outpatient setting and covered by the medical benefit represent 8.6 percent of the 2022 manual rate. We trended drug claims covered by the medical benefit from the renewal experience period to 2022 and divided by the 2022 manual rate of \$612.01.

OptumRx will act as the pharmacy benefit manager (PBM) for BCBSVT's Vermont Blue Rx pharmacy program beginning in July 2021. OptumRx will manage claims processed through the pharmacy benefit but not claims processed through the medical benefit for use in a facility.

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

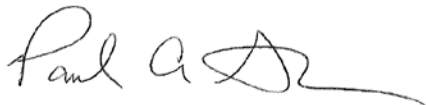
10. Actuarial Opinion

I, Paul Schultz, Chief Actuary, am an employee of Blue Cross Blue Shield of Vermont and a member of the American Academy of Actuaries. I have experience in the area of insured health care programs.

Section 11 lists applicable limitations and disclosures.

It is my opinion that the rating formula and factors presented in this filing are reasonable and have been prepared in accordance with applicable Actuarial Standards of Practice. The formula and factors will produce premium rates that are reasonable in relation to the benefits provided and will not be excessive inadequate or unfairly discriminatory.

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries, and I meet the Academy's Qualification Standards to render this opinion.



Paul A Schultz, F.S.A., M.A.A.A.

February 9, 2021

Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2021 Large Group Rating Program Filing
Actuarial Memorandum

11. Disclosures

Information Date: The analysis provided in the report is based on information as known on February 5, 2021.

Scope: The purpose of this filing is to establish the formula, manual rate, and accompanying factors that will be used for renewals of Blue Cross and Blue Shield of Vermont and The Vermont Health Plan large group plans. This filing is not intended to be used for other purposes.

Intended Users: This material has been prepared for the GMCB. BCBSVT understands that this memorandum and accompanying exhibits will be posted publicly.

Uncertainty or Risk: Future events may affect the results presented in the memorandum.

Reliance on Other Sources for Data and Other Information: This analysis relies upon data from the BCBSVT data warehouse. I have reviewed the data for reasonableness, but no audit was performed. This analysis relies upon several sources of information that are cited as footnotes at their respective references. If any of the sources we have relied upon are incorrect or inaccurate, it may affect the accuracy of the results presented in the report.

Subsequent Events: New information related to the COVID-19 pandemic continues to emerge on a regular basis. Subsequent events may affect the projected MLR presented herein. The degree to which future events may materially change the MLR is unknown. Notably, the filing does not include an assumption for additional claims expense due to ongoing COVID-19 vaccination on an annual basis. It remains uncertain whether the vaccines will require annual administration.

As of February 5, 2021, Vermont remains in a state of emergency regarding the COVID-19 pandemic. Given BCBSVT's previously communicated position of paying for pandemic-related costs through policyholder reserves, we would not include vaccine costs in the rate development even if emerging evidence demonstrates that an annual booster will be required.

Assumptions: Contribution to Reserves were set by BCBSVT management.