Blue Cross and Blue Shield of Vermont
2021 Association Health Plan Filing
Actuarial Memorandum

1. Purpose

Blue Cross and Blue Shield of Vermont (BCBSVT) performs association health plan (AHP)rating on a case-by-case basis. We accomplish rating through a formulaic approach that blends recent 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 to rate Pathway 1 AHPs beginning upon approval of this filing. The formula and factors in this filing apply to Pathway 1 AHPs only.

Once approved, we will use this filing for insured AHPs until superseded by a subsequent filing. In the event that we 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 AHP Filing. The term "communicated," for this purpose, means a written proposal delivered to an association health plan account.

2. Overview and Rate Impact

2.1. Overview

This filing includes a description of the formula and the development of each of the factors used in it. We will describe in detail the formula used to develop rates. We will then detail the factors applicable to all insured AHPs. 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.

2.2. Historical Financial Results

BCBSVT does not currently have any AHPs in its book of business. In 2019, BCBSVT had two AHPs, neither of which was a Pathway 1 AHP. The financial results of those AHPs are not relevant to this filing.

2.3. Impact of Formula and Factor Changes

This is the first formula and factor filing for Pathway 1 AHPs. We cannot measure any change from prior filings.

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.

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 runout[1]. 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 C) the pooling point.

We apply completion factors (line D) developed from the monthly financial reporting process (best estimates before margin) to capped claims to produce completed capped claims (line E). We use the formula and factors described in Milliman's 2017 *Health Cost Guidelines – Reinsurance* to calculate expected claims above the pooling limit (line F). 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 association's pooling point, so we do not pool their claims. We then multiply the large-claim-adjusted experience claims by an adjustment factor (line G) 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. We divide the result (line H) by the number of member months during the experience period (line I) to produce the adjusted experience period claims per member per month (line J).

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. 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 K).

We adjust for any change in the demographics of the association 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 L). We multiply the adjusted experience period claims PMPM (line J) by the demographic normalization factor and divide by the average experience period seasonally-adjusted benefit relativity factor (line K) to produce the benefit-adjusted experience period single claims rate (line M), which is the

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

expected cost for a single contract in the experience, neutral of benefit and seasonality. We then multiply this by a trend factor (line P, as calculated in section 4) to project the claims from the experience period to the rating period. We also multiply by a factor (line Q) to account for differences in contracted pharmacy discounts between the experience period and the projection 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 association'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 of member groups).

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 1Exhibit 6A provides a complete list of upper bound member months by pooling point, while Exhibit 6B details pooling points by current month membership.

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

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

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 an association with 50 percent credibility in each experience year.

Experience Period	Proportion of Rate
YE 202006	50.0%
YE 201906	25.0%
YE 201806	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 of member groups), 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.

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).

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.[2]

The calculation for the total required premium by (plan, tier) is as follows:

{ Projected Claims by Plan and Tier (line B1)	+
Expected Net Cost of Reinsurance (line B2, as described in section 6.4)	-
Projected Pharmacy Rebates (line B3, as described in section 6.5)	+
Administrative Charges (line D, as described in section 6.3)	+
State Mandates and Federal Assessments (line C1 to C4, as described in sections 6.7 and 6.8)	/
{ 1 – Contribution to Reserve (line F, as described in section 6.6) – Broker Commissions (line E)	=
Required Premium by Plan and Tier (line H)	

[2] 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 source.

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 5,000 members, BCBSVT insured large groups, BCBSVT insured small groups, BCBSVT insured association health plans, and TVHP insured large groups. 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 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.

We use claims incurred from November 1, 2015 to October 31, 2019, paid through December 31, 2019. 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. We remove all claims from members who exceeded $500,000 in paid medical claims in 12-month periods preceding October 31, 2019. As the utilization component includes intensity, high cost claimants can unduly impact the year-over-year, time series, and regression calculations. We exclude pharmaceuticals processed through the medical benefit from the unit cost and utilization trend and develop a pure premium trend for those claims.

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 October 2019, roughly 52 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, 2020 and October 1, 2021 that support identical commercial increases as those approved for October 1, 2019. Inasmuch as expenses at Vermont hospitals exceeded budgeted amounts, we anticipate unit cost changes beginning in October 2020 will exceed those approved in 2019. To adjust for the anticipated increase in unit cost changes, we increase the unit cost change at each facility by 2.1 percentage points, which is the increase in operating expenses rebased for the overall change in net patient revenue for the total of all facilities subject to GMCB review. We assume increases effective October 1, 2021 will return to historical levels; that is, identical to the increases approved for October 1, 2019. Similarly, we assume for other providers within the BCBSVT service area that overall 2020 and 2021 budget increases will be identical to those implemented during calendar year 2019. In certain cases, we augment the most recent increase with market intelligence the provider contracting department has gathered relative to early indications as to potential variations in upcoming budgets.

The provider contracting and actuarial departments worked together to assess the impact these increases would have on contracts for BCBSVT Managed Care and BCBSVT Non-Managed Care contracts. For marketing reasons, provider contracting negotiates different unit cost increases for each of the two contracts. To reflect this, we calculate a different cost trend for each contract. Finally, we derive unit cost increases for providers outside the BCBSVT service area from the Fall 2019 Blue Trend Survey, which is a proprietary and confidential dissemination of the BlueCross BlueShield Association.

We normalize claims to the October 2019 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 October 2019. We assume that the derived trend for other claims increases monthly on a continuous basis. Exhibit 2A displays an illustration of this approach.

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 2021 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
Vermont facilities and providers impacted by GMCB's Hospital Budget Review	5.3%	5.2%
Other facilities and providers	3.6%	3.6%
Total	4.4%	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 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. Similarly, we normalize all local independent lab claims to the lab benefit manager fee schedule in effect on October 31, 2019.

This accounts for 82 percent of allowed claims dollars during the experience period. Costs for other claims are primarily for out-of-area services. We derive contracting changes for these claims from the Fall 2019 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 working days in the year ended October 2019, as defined by our reserving models. Exhibit 2B, Page 1 shows the resulting array of allowed PMPM claims costs, before and after normalization for contract changes. We perform regressions and time series on monthly PMPM costs. We also calculate a year-over-year rolling-12 PMPM utilization trend of 2.5 percent for the year ended October 2019. We provide the regression and time series calculations in Exhibit 2B, pages 2 to 10. We do not include certain time series methods, such as those assuming no trend or those for which there is not sufficient historical data[3], as these are inappropriate for use in trend development and/or for the data available.

We select a utilization trend of 2.5 percent for facility claims and 1.0 percent for professional claims. The total trend produced from these components is in line with the trends from measures that combine all medical services and informs our selection of an overall utilization trend of 2.0 percent.

Analysis that was performed subsequent to the assembly of this filing suggests that our 2020 to 2021 professional utilization trend may be understated. We will continue to assess the impact of this new analysis on the association health plan market, but in the interest of timely having approved factors for January 1, 2021 rating we felt compelled to submit this filing as-is. In the event that we believe that a material change is warranted, we will discuss appropriate steps with the GMCB.

[3] The seasonal additive, seasonal multiplicative, single moving average, and single exponential smoothing methods are not used since they assume no trend. The double moving average method is not used due to insufficient historical data.

These selections represent an adequate, yet not excessive, estimation of future utilization trend for this population.

4.1.3. 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 more appropriate to develop a discrete trend for these claims. Exhibit 2B, page 11 shows the historical allowed claims for this category. We select an 11.3 percent trend, the year-over-year pure premium trend, on pharmacy claims processed through the medical benefit.

4.1.4. 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.

4.1.5. 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	5.2%	2.6%	11.3%	
Utilization	2.5%	1.0%		
Total Medical Trend	7.8%	3.6%	11.3%	7.0%

Component	BCBSVT Managed Care	BCBSVT Non-Managed Care
Total Medical Trend	7.0%	6.9%

To calculate the overall medical total trend to be applied in the renewal formula, we trend the manual rate (see section 6.1) experience medical claims based on the network to calendar year 2021. 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)	$63,880,865	$38,473,963	$8,879,757	$111,234,584
Trend Factors for 24 months	1.145844	1.143715	1.145379[4]	
Trended Claims	$73,197,486	$44,003,232	$10,170,685	$127,371,403
Annual Trend				7.0%

[4] From Q3 2020 TVHP Large Group Rating Program filing (BCVT-132350492)

4.2. Retail Pharmacy Trend

ESI has been the pharmacy benefits manager for BCBSVT since July 2009. The initial ESI contract was for a period of three years; new contracts became effective July 2012, July 2015, and January 2018. We base our cost trend calculation on Average Wholesale Price (AWP) and apply a factor in the rating formula to account for the 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 scheduled to 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, along with the corresponding year-over-year and exponential regression trends, for non-specialty drugs. There are separate developments for the generic cost, brand cost, and overall non-specialty utilization categories. 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.

The regressions use 24 data points to best capture an adequate amount of the most recent history of drug costs. Though the regressions calculate positive trends, non-specialty drug utilization has oscillated around a single 30-day supply per member for a number of years, so we select a 0.0 percent non-specialty utilization trend.

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.

Brands that are going generic will be subject to the generic discounts. We do not expect that the AWP for these drugs will significantly change from the experience period due to the lack of generic competition for the main drugs in this category. We adjust the price to reflect the different experienced effective discounts between brands and generics.

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

We select an annual trend of 0.0 percent for generic cost trend. Though the AWP trend has increased in recent months, we consider a 0.0 percent to be a reasonable long-term outlook for generic cost trend.

Brand Cost Trend

We perform a 24-month regression on monthly AWP cost per day supply for brand drugs and select the 24-month regression result of 8.6 percent for the brand cost trend. This result is

consistent with recent filings, and we consider it to be an adequate, yet not excessive, outlook of future trends.

Specialty Drugs

In previous filings, the introduction of certain new specialty drugs required an adjustment to the specialty drug trend calculation. The impact of excluding certain specialty drugs has had an increasingly small impact on specialty trend. Therefore, we combine all specialty drugs to develop trend. We will continue to monitor new specialty drugs and adjust our methodology as necessary.

Exhibit 2E shows the calculation of specialty trend for all specialty drugs. We select a 19.0 percent specialty trend, which is the trend produced by a 24-month regression on monthly cost. For our regressions, we chose 24 points of monthly data to best capture the most recent history of drug costs.

Total Pharmacy Trend

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

- Generics: Drugs that have been generic since at least October 2016
- New generics: Generic drugs that have been on the market for fewer than 36 months (November 2016 to October 2019)
- 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 in Exhibit 2F, we trend each category days supply forward at the same rate of 0.0 percent. Exhibit 2F summarizes the trends for non-specialty drugs and calculates the total non-specialty allowed drug trend as 2.8 percent.

Using the PMPM claims as weights between non-specialty and specialty claims for the 12 months ended October 2019, we apply the annual trends for 26 months and calculate the following:

Allowed Pharmacy Trend	
Category	Annual Trend
Generic	0.0%
Brand	8.6%
Brands Going Generic	-51.0%
Specialty	19.0%
[redacted]	[redacted]

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

Contract Adjustment Factors

For drug claims in the year ended October 31, 2019, we use the AWP of the claims and apply the contracted discounts and dispensing fees, as applicable, for each potential renewal experience period and rating period to calculate adjusted allowed charges. The contract adjustment factor for each experience and rating period combination is the ratio of the adjusted allowed charges.

Applying the discount adjustment from the experience used to develop trend to a 12-month rating period beginning January 2021, we calculate a 10.5 percent effective annual trend.

Exhibit 3J contains the contract adjustment factors that we will apply to the drug claims in an association'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 year ended December 2019 claims experience 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	$ 518.99	7.0%
Pharmacy	$ 119.50	[redacted]
Total	$ 638.49	[redacted][5]

4.4. Leveraged Trends

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

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

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

Applying the leverage factors for benefits present in the year ended December 2019 for the groups included in the manual rate, we calculate the following paid trends:

Category	Paid PMPM	Paid Trend
Medical	$ 419.35	7.8%
Pharmacy	$ 107.06	[redacted]
Total	$ 526.41	[redacted][6]

[5] The allowed trend with the pharmacy contract adjustment is 7.7%.
[6] The paid trend with the pharmacy contract adjustment is 8.5%.

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 develop cost trends for the different types of service using trends from CMS[7]. We assume increases for 2021 will be the same as the 2020 increases. Consistent with previous filings, we assume a 0.0 percent utilization trend for Medicare claims.

Category	Allowed Trend
Inpatient	4.1%
Outpatient	3.3%
Professional	0.0%

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.

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 December 2019. We trend the allowed charges 36 months to the 12-month period that begins January 1, 2021.

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 associations. We also exclude groups that have special benefits. This predominantly refers to groups that have specific reimbursement with particular providers

[7] https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/FFS-Trends-2018-2020.pdf

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 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 two provider contracts (BCBSVT Managed Care and BCBSVT Non-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
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

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 3A and 3B display the relativities for active employees for some medical products currently in our insured large group 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 an association may purchase a rider to offer additional coverage (some fertility drugs) or exclusion (lifestyle drugs). We also flag drugs for which an association may offer special cost-sharing arrangements, such a diabetic medications and wellness drugs. We assign these flags by National Drug Codes as reported to us by ESI.

We adjust the experience period data to reflect the major brands that are expected to become generic between 2018 and 2021. The list comes from a report provided by ESI.

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.

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, 2020 or later will have an OOPM of $1,400. It is possible that this limit will increase effective January 1, 2021, 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 insured large group 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 2016 through September 2019 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.

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, [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 3C displays the relativities for active employees for some CDHP products currently in our insured large group book of business.

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 readjudicating claims across families in addition to member-based readjudication. We use the tiered BRVs to calculate the average BRV for both experience and rating benefits.

We use the same tier factors developed in the Q3 2019 Large Group filing to spread the required premium across tiers. Exhibit 3K 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 December 2019, 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 (large ASO groups).

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, 2021. 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 3E displays the relativities for some Medicare Secondary medical products currently in our insured large group book of business.

Benefit Relativity Model: Pharmacy

To calculate relativities for pharmacy benefits for plans that are secondary to Medicare, we use allowed charges incurred between January 2018 and December 2018, paid through December 2019, for members whose primary insurance is Medicare (including members in large ASO groups, as with the medical experience). We trend the allowed charges to the 12-month period that begins January 1, 2021 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 insured large group 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 3F displays the relativities for some Medicare Secondary CDHP products currently in our insured large group book of business.

5.4. Formulary & Pharmacy Options

BCBSVT offers associations a selection of formularies. Associations can select either the BCBSVT Open Formulary or the National Performance Formulary. Associations electing the National Performance Formulary receive greater rebates than those on the BCBSVT Open Formulary. To calculate the impact of the change, we identify rebate-eligible claims for the groups impacted by the Q3 2020 Large Group filing. We calculate rebate totals under the contracted terms of each formulary. For associations 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 Open Formulary	National Performance Formulary	[redacted]
National Performance Formulary	BCBSVT Open Formulary	[redacted]

BCBSVT offers associations an Active Choice pharmacy program. This program requires an active choice regarding the way members obtain their maintenance prescription drugs. For associations electing this program, we decrease simulated paid pharmacy claims in the BRV calculation [redacted].

BCBSVT offers associations an Express Scripts Specialty Pharmacy Exclusive option. Associations electing this option receive greater discounts and rebates 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. Exhibit 3J Page 2 provides the discount factors for the Express Scripts Specialty Pharmacy Exclusive option. The factors below apply to the projected rebates. We develop the factors assuming the entirety of the experience period is on the non-exclusive specialty option and the entirety of the rating period is Express Scripts Specialty Pharmacy Exclusive option. For associations with a mix of specialty options in their experience period, we adjust the factors using an analogous methodology proportionately to the programs in effect.

Formulary	Specialty	Rebate Multiplier
BCBSVT Open Formulary	Express Scripts Specialty Pharmacy Exclusive	[redacted]
National Performance Formulary	Express Scripts Specialty Pharmacy Exclusive	[redacted]

5.5. Riders

BCBSVT files riders with the Vermont Department of Financial Regulation (DFR) that allow AHPs 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 association'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 using underwriting judgment, as described in section 3.

6. Other Factors Applicable to All Association Health Plans

6.1. Manual Rate

The manual rate for active members is the paid claims PMPM incurred between January 1, 2019 and December 31, 2019 and paid through February 29, 2020 from BCBSVT insured large groups, BCBSVT Cost Plus groups, TVHP insured large groups, BCBSVT insured association health plan member groups, and BCBSVT insured small groups. We only include in the manual rate experience period BCBSVT insured association health plans and BCBSVT insured small groups where the average number of monthly subscribers exceeded 25, and where the group had active enrollment throughout the manual rate experience period. We consider the above lines of business to be representative of the expected association health plans to be covered under this filing. We trend the experience to calendar year 2021 using the trends and

pharmacy contract adjustments described in section 4. We cap claims at $400,000[8] and add expected claims between $400,000 and $1,000,000 (the expected corporate reinsurance attachment point). 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, which includes Medicare Primary members from ASO groups as well as large groups, trended to calendar year 2021 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.

Calculation of the Manual Rate (Actives)		
Incurred and Paid Experience Paid Claims, capped at $400,000	A	$111,400,843
Estimated IBNR	B	$817,150
Expected Claims between $400,000 and $1,000,000	C	$112,21793
Overall Paid Trend factor (8.6% for 24 months)[9]	D	1.17869
Projected Total Paid Claims	E = (A + B + C) x D	$64,879,639
Total Member Months	F	213,895
Manual Rate	**G = E / F**	**$632.81**

Calculation of the Manual Rate (Medicare Primary)		
BRV Experience Paid Claims	A	$ 34,070,146
Overall Paid Trend factor (5.9% for 36 months)	B_1	1.1869
Pharmacy Contract Adjustment[10]	B_2	0.9939
Projected Total Paid Claims	C = A x B_1 x B_2	$ 40,191,294
Total Member Months	D	94,703
Manual Rate	**E = C / D**	**$ 424.39**

As noted in section 5.3 above, we use a version of the Medicare Primary manual rate without the pharmacy contract adjustment as the denominator of the relativity calculation. Per the above calculation, this value is $426.98. We multiply the benefit relativity by the manual rate to calculate projected manual claims. If both the denominator of the relativity and the manual rate were to include the pharmacy contract adjustment, they would cancel in the multiplication and the projected claims would not reflect the discounts in the new pharmacy contract.

We adjust the manual rate to reflect an association's particular characteristics, as demonstrated in Exhibit 4A. We make an adjustment for the average age/gender factor (line B) of the association. For active and Medicare primary members, we use factors from the SOA's report *Health Care Costs – From Birth to Death*[11]. We normalize the factors such that

[8] Selected using the current membership and the table in Exhibit 6B.
[9] Includes the impact of the pharmacy contract adjustment.
[10] This adjustment is applied proportionately based on Medicare Primary membership with pharmacy coverage
[11] 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

the membership in the manual rate experience period has an age/gender factor of one. We assign an industry factor (line C) to an association 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. 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.

Finally, we calculate a contract conversion factor (line D) 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 uses the formula and factors in Milliman's 2017 *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.

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.

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 2019 to November 2019. We use actual BCBSVT and TVHP administrative expenses for the experience period on a GAAP reporting basis as a proxy for administrative expenses for AHPs. Exhibit 5A provides a reconciliation of the experience period to restated GAAP financial report data.

<u>Experience Base of Actual Expenses</u>
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.[12] 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. We combine these segments in this filing for marketing considerations. 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.

Exhibit 5A reflects reclassifications of the base data, including the removal of federal fees (we add these to premium rates separately; see section 6.8), GMCB billback (we add these to premium rates separately; see section 6.7), and fees paid to our vendor Health Equity for the administration of Health Savings Accounts and Health Reimbursement Accounts linked to our insurance products (participation in this service is optional and we assign these fees to associations who select the service). We also remove any expenses incurred due to one-time, non-recurring events, as these fees are not expected to continue to occur in the projection period. These include transitional costs associated with the conversion to a new technology platform. Decreasing membership has reduced total variable costs, but BCBSVT has delayed reducing its administrative budget in order to support transition activities. This transition will be complete by the end of 2019, so we have reflected a transitional savings of $0.53 PMPM in 2021 for the large group line of business.

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

Exhibit 5B, line C shows the experience period administrative expenses PUPM.

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. These projection factors make a reasonable but modest provision for increases in overall operating costs PUPM. There are no known

[12] 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.

extraordinary or mandate-related costs at this time which require a separate provision for the rating periods involved in this filing.

We assume that personnel costs (wages and benefits) will increase by three percent, the budgeted wage increase for 2020, over the projection period. We assume other operating costs will remain flat. Based on year-to-date November 2019 information, we calculate that 73.9 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.

Development of Administrative Charges Trend		
		Percent of Total
Employee costs	A	56.7%
Purchased services	B	23.3%
Other operating costs	C	20.0%
Subtotal administrative expenses	D = A + B + C	**100.0%**
Total personnel costs	E = A / (A + C)	73.9%
Trend for personnel costs	F	3.0%
Total administrative charges trend	**G =** {(1+F) x E + (1.00) x (1-E)} - 1	**2.2%**

For 2020, we project total BCBSVT membership will decrease, resulting in an increase in admin charges PMPM. We calculate PMPM admin charges with experience period enrollment and projected 2020 enrollment. Using the lower 2020 enrollment increases the PMPM by 6.0 percent. Cost accounting exercises suggest that variable costs represent approximately half 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 3.0 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	Member Months	Admin PMPM
Experience Period	$68,691,905	2,502,754	$27.45
Projected 2020 Enrollment		2,631,991	$29.08
Elimination of 100% of variable costs for reduced enrollment			$28.26
Adjustment for Enterprise Membership		$28.26 / $27.45 = 1.030	

Charges for Group Accounts

Exhibit 5B shows the administrative charge PUPM values used by the rating formula to produce account-specific administrative charges. The formula applies these values to an association'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.

6.4. Net Cost of Reinsurance

BCBSVT purchased reinsurance for claims in excess of $1,000,000 for 2020 and expects to purchase similar reinsurance in future years with limits equal to the 2020 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. We use the total paid trend of 8.5 percent and a leverage factor for the $1,000,000 reinsurance limit from Milliman's 2017 *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 net cost of reinsurance for association plans effective January 1, 2021 is $1.62 PMPM.

6.5. Pharmacy Rebates

We calculate pharmacy rebates by taking the experience period rebates and trending them using the brand cost trend (from Exhibit 2F). We pay pharmacy rebates with an average seven-month delay from 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.

6.6. OneCare Coordination Fee

BCBSVT pays OneCare VT a care coordination fee for attributed members to directly support 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.

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 AHPs	1.5% of premium

6.8. State Mandates and Assessments

Vermont Vaccine Purchasing Program Payments
The Vermont Vaccine Purchasing Program[13] 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

[13] http://www.vtvaccine.org/

64. On May 1, 2019, the Vermont Vaccine Purchasing Program released a memo that included the anticipated rates for April 1, 2020 – March 31, 2021: *"For planning purposes, the best estimate at this time for the SFY2021 assessment rate is $10.07 per child covered life per month and $1.02 per adult covered life per month. The SFY2021 assessment rate will be reviewed for final determination in April 2020."* We will update these rates once the actual rates are known.

New Hampshire Purchasing Program Payments
The New Hampshire Purchasing Program[14] offers health care providers state-supplied vaccines at no charge by collecting payments from health plans, insurers, and other payers. The assessment for 2020 is $6.80 for each child that is a New Hampshire resident. The current best estimate of the 2021 rate is $7.00 per assessable life per month. We will use the new rate once it is approved.

New York State Health Care Reform Act
BCBSVT pays the New York GME Covered Lives Assessment[15] 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 pays the Maine Guaranteed Access Reinsurance Association Assessment[16]. The 2019 assessment is $4.00 per member per month for each member that is a Maine resident. We will use the new rates once they are approved.

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 regularly 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 participates 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 $3.22. We base the projected performance payment on the average payment for large groups in 2019. We will incorporate any updates made to the Blueprint Manual[17] in pricing.

[14] https://nhvaccine.org/
[15] https://www.health.ny.gov/regulations/hcra/gmecl.htm
[16] http://www.mgara.org/
[17] http://blueprintforhealth.vermont.gov/

Green Mountain Care Board Billback
The Green Mountain Care Board assesses BCBSVT 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 $2.09 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 2021 - September 2022	$2.91 PMPY
October 2022 - September 2023	$3.09 PMPY

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

7. Medical Loss Ratio Projection

We use the factors and formula in this filing to project a Medical Loss Ratio (MLR) for 2021. Using the manual rate as a proxy for projected claims, we project a 2021 MLR of 90.5 percent. Some of the line items, such as rebates, estimated HCQ, and broker commissions, use insured large group experience as a proxy for associations.

BCBSVT MLR			
(A)	Manual Rate	$632.81	Exhibit 4A
(B)	Estimated Rebates	$14.57	2018 large group MLR Filing, untrended
(C)	Estimated HCQ	$3.04	2018 large group MLR Filing, untrended
(D)	State Mandates and Assessments	$13.44	Calculation as described on Exhibit 1C, using latest actual PMPM as needed
(E)	**MLR Numerator**	**$634.73**	**= (A) - (B) + (C) + (D)**
(F)	Projected Claims	$631.68	= (A) – (B) + (D)
(G)	Net Cost of Reinsurance	$1.62	Actuarial Memorandum, Section 6.4
(H)	Administrative Charge	$49.67	Q3 2020 Large Group Filing
(I)	GMCB Billback	$2.09	Calculation using 2019 Charges
(J)	Subtotal	$685.07	= (F) + (G) + (H) + (I)
(K)	Total Premium	$701.54	= (J) / (1 - 0.008 - 0.015)
(L)	Federal Insurer Fee	$0.00	= (K) x 0.0% (from Actuarial Memorandum, Section 6.8)
(M)	Estimated Commissions	$5.95	= (K) x 0.8% (from 2018 large group MLR filing)
(N)	Contribution to Reserve	$10.52	= (K) x 1.5% (from Actuarial Memorandum, Section 6.6)
(O)	**MLR Denominator**	**$701.54**	**= (K) - (L)**
(P)	**MLR**	**90.5%**	**= (E) / (O)**

The above calculations represent estimates assuming that all pricing assumptions hold true, and assuming no change from 2018 values for various quantities (e.g. rebates, commissions).

8. Act 193 Information

The table below shows the percentage of the 2021 manual rate for generic, brand, and specialty drugs. We calculate the percent of 2021 manual rate as the experience drug claims (January 2019 – December 2019, paid through February 2020), trended to 2021 and adjusted to the pharmacy contract in force for 2021, divided by the 2021 manual rate of $632.81 (from section 6.1).

Drugs Processed Under the Pharmacy Benefit	
Type	Percent of 2021 Manual Rate
Generic	1.8%
Brand	6.5%
Specialty	13.4%

Please see Addendum A for the specialty formulary as of 1/1/2020.

Drugs administered in an outpatient setting and covered by the medical benefit represent 9.1 percent of the 2021 manual rate. We trended drug claims covered by the medical benefit from the renewal experience period to 2021 and divided by the 2021 manual rate of $632.81.

Express Scripts (ESI) administers BCBSVT's pharmacy benefits. ESI will manage claims processed through the pharmacy benefit but not claims processed through the medical benefit for use in a facility.

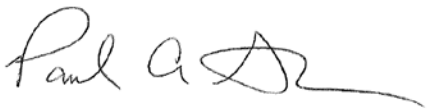
9. Actuarial Opinion

The purpose of this filing is to establish the formula, manual rate, and accompanying factors that will be used for Blue Cross and Blue Shield of Vermont association health plans. This filing is not intended to be used for other purposes.

The data used in this analysis has been reviewed for reasonableness and consistency; however, it has not been audited.

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, deficient 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.

April 30, 2020