Blue Cross and Blue Shield of Vermont and The Vermont Health Plan
Q3 2022 Large Group Rating Program Filing
Actuarial Memorandum

## 1.      Purpose

Blue Cross and Blue Shield of Vermont (Blue Cross) 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 2023 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small group renewals (we will refer to them collectively as large groups for the remainder of the filing) until superseded by a subsequent filing.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 Blue Cross 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. Blue Cross projects that this filing will affect 6,396 members (3,563 subscribers) in 38 groups. These totals are as of December 31, 2021 and include members of both Blue Cross and TVHP. We will refer to the combined population as Blue Cross 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 Blue Cross. 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 Blue Cross and TVHP insured large group experience. Additionally, we show loss & expense ratios for Cost Plus groups.

| Insured Large Group Experience | | | | | | | |
|---|---|---|---|---|---|---|---|
| Year | Incurred Claims | Administrative Charges | Earned Premium | Gain/(Loss) | Loss & Expense Ratio | Target Loss and Expense Ratio | Member Months |
| 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 | $46,676,144 | $9,376,855 | $56,468,497 | $415,498 | 99.3% | 98.5% | 97,941 |
| 2021[1] | $42,184,467 | $7,166,723 | $43,451,198 | ($5,899,992) | 113.6% | 98.5% | 71,773 |

| Cost Plus Experience | | |
|---|---|---|
| Year | Loss & Expense Ratio | Member Months |
| 2017 | 95.4% | 514,809 |
| 2018 | 99.8% | 5,045 |
| 2019 | 89.2% | 4,893 |
| 2020 | 93.3% | 2,632 |
| 2021 | 148.8% | 2,485 |

The incurred claims, administrative expenses, and earned premium are from Blue Cross 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 |
| 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% | 0.7% |
| 2021 | 1.5% | 0.1% | -13.6% |

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. Unfavorable 2021 results were driven by an

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[1] 2021 underwriting results are preliminary as of December 31, 2021.

increase in high cost claims and COVID-19 costs. Overall, the performance of actual results to expected indicate a consistent absence of conservatism in the factors underlying the filing.

## 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[2]. Two renewals are developed for each group: the first renewal applies the approved factors currently in force (BCVT-132713612 and BCVT-132713919) with an effective date of January 1, 2022. The second renewal uses the factors and formulas detailed in this filing with a January 1, 2023 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** | **2022** | **2023** | **Component Increase** | **Premium Impact** |
| Filing Year | Q3 2021 | Q3 2022 | | |
| Manual Claims (a) | $41,735,042 | $45,068,894 | 8.0% | 7.3% |
| Projected Rebates | -$2,646,726 | -$2,819,567 | 6.5% | -0.4% |
| Admin | $3,882,767 | $4,171,999 | 7.4% | 0.6% |
| Reserve | $677,275 | $730,778 | 7.9% | 0.1% |
| Mandates and Assessments | $1,030,869 | $1,057,883 | 2.6% | 0.1% |
| Additional Items (b) | $1,230,828 | $1,323,594 | 7.5% | 0.2% |
| **Total** | **$45,910,054** | **$49,533,582** | | **7.9%** |

(a) The manual claims increase includes changes in the membership, industry, and update in benefit relativities from groups underlying the manual rate. We normalize the demographic factors and industry factors to the membership in each respective filing.

(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 7.9 percent premium increase for any specific group.

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[2] This excludes three groups with fewer than 12 months of enrollment in the experience period used to develop the manual rate.

**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.

<u>Benefit-Adjusted Projected Single Claims Rate</u>

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[3]. 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 certain COVID-19 related claims (line C) from the development. Exhibit 6C contains a list of excluded primary 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 2021 *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.

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. 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

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

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 discussed 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.

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**

Blue Cross 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 202206 | 50.0% |
| YE 202106 | 25.0% |
| YE 202006 | 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.

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.[4]

**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

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[4] 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.

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 the Blue Cross 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 Blue Cross Cost Plus groups, Blue Cross ASO groups of under 1,001 members, Blue Cross insured large groups, Blue Cross insured small groups with more than 10 members, Blue Cross 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 Blue Cross in 2020 and 2021. 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. Blue Cross experienced large membership movement out of the small group market during the trend experience period. Due to significant changes in membership, we exclude all membership from small groups that were not continuously with Blue Cross throughout the trend experience period. We exclude claims from Medicare Primary members. Medicare Primary trend is discussed in section 4.5. We exclude compounds, vaccines, and over-the-counter drugs from the pharmacy cost trend development.

We use claims incurred from September 1, 2017 to August 31, 2021, paid through October 31, 2021. 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 August 2021, 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, 2022 and October 1, 2023 that support identical commercial increases as those approved for October 1, 2021. The Blue Cross provider

contracting team continually communicates with certain hospitals. Accordingly, we have adjusted projected increases based on recent information from the hospitals. In the event that Blue Cross is made aware of budget increases that would materially diverge from this assumption, Blue Cross will file an interim trend filing to best align the cost trend used in pricing with expected cost trend.

For other providers within the Blue Cross service area, we work with the Blue Cross contracting team to include expected increases to fee schedules.

The provider contracting and actuarial departments worked together to assess the impact these increases would have on contracts for Blue Cross Managed Care, Blue Cross Non-Managed Care, and TVHP Managed Care contracts. For marketing reasons, Blue Cross negotiates different unit cost increases for each of the three contracts. To reflect these differences, we calculate a cost trend for each contract.

Finally, we derive unit cost increases for providers outside the Blue Cross service area from the Fall 2021 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 chart below summarizes the results of the analysis:

| Medical Unit Cost Trend – CY 2022 | | | |
|---|---|---|---|
| | Blue Cross Managed Care | Blue Cross Non-Managed Care | TVHP Managed Care |
| Vermont facilities and providers impacted by GMCB's Hospital Budget Review | 5.0% | 5.1% | 5.0% |
| Other facilities and providers | 4.8% | 5.0% | 5.0% |
| Total | 4.9% | 5.1% | 5.0% |

| Medical Unit Cost Trend – CY 2023 | | | |
|---|---|---|---|
| | Blue Cross Managed Care | Blue Cross Non-Managed Care | TVHP Managed Care |
| Vermont facilities and providers impacted by GMCB's Hospital Budget Review | 5.9% | 5.9% | 5.9% |
| Other facilities and providers | 4.7% | 4.7% | 4.7% |
| Total | 5.4% | 5.4% | 5.4% |

### 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 August 2021

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 August 2021. We assume that the derived trend for other claims increases monthly on a continuous basis.

To measure the increases for fee schedules and other chargemasters, we apply each schedule to a market basket of services defined using Current Procedural Terminology (CPT) codes & CPT modifier combinations that are present in each of the effective periods covered by the schedules. Using the same experience period data used throughout the trend analysis, we compare total allowed costs for the selected CPT & 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 of charge arrangement, we use the contracted chargemaster increase provided by our provider contracting department.

This accounts for 85 percent of allowed claims dollars during the experience period. Costs for other claims are primarily for out-of-area services. To derive contracting changes for these claims, we use data from the Fall 2021 Blue Trend Survey, which is a proprietary and confidential dissemination of the BlueCross BlueShield Association.

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 August. As the utilization component includes intensity, an increase in high-cost claimants can disproportionately impact the year-over-over and regression calculations.

Exhibit 2B shows the resulting array of allowed PMPM claims costs both before and after normalization for contract changes. We also apply normalization factors to the array of allowed PMPM claim costs for:

- Changes in demographics, using factors from the SOA's report *Health Care Costs – From Birth to Death*[5].
- Normalizing each month to the average number of working days per month in the year ended August 2021, as defined by our reserving models.
- Programs to combat fraud, waste, and abuse (FWA). Due to the migration to a new operating platform, Blue Cross FWA programs slowed in 2019. Further, DFR ordered the suspension of all routine provider audits from March 18, 2020, through August 3, 2020. In the fourth quarter of 2020, we did not engage in routine audits of the University of Vermont Health Network providers while they dealt with a cyberattack. The COVID-19 pandemic is still ongoing and while Blue Cross continues to work on FWA programs, the overall recoveries continue to be dampened as the health care industry as a whole continues to deal with the impacts of this pandemic.  To control for the historical changes in recoveries we normalize claims on a monthly basis based on each respective month's recovery rate.

Exhibit 2B, page 2 shows the development of the factors.

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[5] https://www.soa.org/Research/Research-Projects/Health/research-health-care-birth-death.aspx

4.1.2.1. Facility Claims

Using the array of PMPM claim costs net of high claimants and adjusted for contract, aging, number of working days, FWA, and one-time events, we performed 24-month regressions, 36-month regressions, 48-month regressions and time series calculations.

The year ended August 2021 over year ended February 2020 annualized trend, after the adjustments described above, is -6.7 percent. Though some services saw an escalation in services due to returning care that was deferred in the spring of 2020, many services were below their pre-pandemic levels in the year ended August 2021. We anticipate that facility services will remain at the current level through May 2022 and then rebound to the February 2020 level through the end of calendar year 2023. We consider a 0.0 percent trend rate for post-rebound claims, which is lower than the prior approved trend and in line with other Blue Cross lines of business, to be a reasonable long-term selection for these claims. We provide the historical facility utilization trends through August 2021, and our selected trends for future periods in the table below.

| Facility Claims | | |
|---|---|---|
| Year Ended | PMPM | Annualized Trend |
| February 2019 | $306.73 | |
| February 2020 | $299.16 | -2.5% |
| August 2021 | $283.18 | -3.6% |
| December 2022 | $292.50 | 2.5% |
| December 2023 | $299.16 | 2.3% |

Exhibit 2B, pages 4 to 6, shows the normalized facility time series and regressions. Note that these were not used to inform our trend assumption as they are heavily influenced by the impact of the COVID-19 pandemic on claims patterns.

4.1.2.2. Professional and Ancillary

The COVID-19 pandemic created significant variability in professional claims utilization. Though some categories of services have seen an increase in utilization to make up for services that were deferred in the spring of 2020, other service types have not returned to their pre-pandemic level of volume. This has resulted in a change in the mix and intensity of services, as the services that have seen the most immediate return are likely for more severe conditions, which may have been further exacerbated by the limited access to care in the spring of 2020.

Mental health services, which were seeing an escalation in services prior to the COVID-19 pandemic, continues to see rapid growth in the number of visits. Given the varying experience of mental health and other professional services over the past 18 months of the trend experience period, we select a separate utilization trend for mental health professional services and other professional services.

| Year Ended | Mental Health and Substance Abuse | | All Other Professional | |
|---|---|---|---|---|
| | Visits per 1,000 member per month | Annualized Increase | Visits per 1,000 member per month | Annualized Increase |
| February 2019 | 123.25 | | 754.85 | |
| February 2020 | 139.77 | 13.4% | 757.87 | 0.4% |
| August 2021 | 161.61 | 10.2% | 718.46 | -3.5% |

We provide in the table below the normalized claims cost, which includes adjustments for utilization, intensity, and mix of services. We consider the drop in utilization to be attributable largely to supply constraints and the reluctance of some members to seek care during the pandemic. We anticipate that non-mental health professional services will remain at the current level through May 2022 and then rebound to the February 2020 level through the end of calendar year 2023. We consider a 0.0 percent trend rate for post-rebound claims, which is lower than the prior approved trend and in line with other Blue Cross lines of business, to be a reasonable long-term selection for these claims.

For mental health claims, 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 10 percent increase best projects the utilization of professional mental health services.

We provide the historical professional utilization trends through August 2021 and our selected trends for future periods in the table below.

| | Professional Trend | | | | | |
|---|---|---|---|---|---|---|
| | Mental Health | | All Other | | Total Professional | |
| Year Ended | PMPM | Annualized Trend | PMPM | Annualized Trend | PMPM | Annualized Trend |
| February 2019 | $11.55 | | $127.25 | | $138.80 | |
| February 2020 | $13.10 | 13.4% | $122.82 | -3.5% | $135.92 | -2.1% |
| August 2021 | $15.21 | 10.5% | $119.08 | -2.0% | $134.29 | -0.8% |
| December 2022 | $17.27 | 10.0% | $121.26 | 1.4% | $138.53 | 2.4% |
| December 2023 | $19.00 | 10.0% | $122.82 | 1.3% | $141.82 | 2.4% |

Exhibit 2B, pages 7 to 12, shows the normalized professional time series and regressions. Note that these were not used to inform our trend assumption as they are heavily influenced by the impact of the COVID-19 pandemic on claims patterns.

4.1.2.3. Pharmaceuticals

The recent acceleration in cost for pharmaceuticals processed through the medical benefit warrants a separate analysis for these claims. Pharmaceuticals processed through the medical benefits include a wide variety of drugs. We split the experience into four categories: Injections with a biosimilar option, biosimilars, other injections costing at least $1,000, and all other pharmaceuticals. The introduction of biosimilars considerably changes the cost per service for injections. To reflect this change in mix, we project the overall number of services for injections and their biosimilar options and project the growth

in the share of services that will be with biosimilar. We apply the overall outpatient cost trend to each category to project the cost per services. With varying utilization of services trends, the average projected cost per service reflects the change in mix, which is included in the total utilization trend below.

Exhibit 2C, pages 1 to 5 show the experience services per 1,000 members for each of the four pharmaceutical categories and the 24 and 36-month regressions. Exhibit 2C, page 6, shows the result of this calculation.

The 'All Other' category includes drugs used during other outpatient and office procedures and are expected to trend at the same rate as the overall facility services.

The high-cost injections experienced a large increase in services in the second half of 2019 before returning to historical levels. We expect these injections to remain at the level of the most recent 12-month period.

| Services per 1,000 for High-Cost injections | |
|---|---|
| YE 201808 | 2.76 |
| YE 201908 | 4.27 |
| YE 202008 | 3.70 |
| YE 202108 | 3.20 |

The combination of Injections with a biosimilar equivalent and the biosimilars have been increasing steadily and we expect it to continue to grow at a 10 percent rate through calendar year 2023.

| Trend for Injections with Biosimilar Equivalent and Biosimilars | |
|---|---|
| Most Recent Year over Year | 3.5% |
| Two-Year | 13.1% |
| 36-month regression on Monthly data | 14.0% |
| 24-month regression on Monthly data | 4.0% |
| 24-month regression on rolling 12 data | 7.8% |

The biosimilars utilization as a percentage of total services for injections with biosimilar equivalent and biosimilars has been increasing logarithmically over the past few years.

| Percentage of Biosimilar Services | |
|---|---|
| YE 201808 | 0.0% |
| YE 201908 | 10.4% |
| YE 202008 | 19.3% |
| YE 202108 | 47.6% |

We do not expect the percentage to continue to double through calendar year 2023. The recent large increase in the percentage of biosimilars is due to the introduction of two new biosimilars, taking the overall number included in this category to five. We expect that the percentage of biosimilars will grow

by about 10 percent per year. At this rate, we calculate that the percentage of biosimilars will be about 70 percent for calendar year 2023, which is aligned with the most recent percentage for drugs that have had a biosimilar for at least 18 months.

Combining all of the categories calculates an overall 7.4 percent trend for pharmaceuticals, which is lower than the prior filing (13.8 percent). This drop is driven by the rapidly increasing availability and utilization of biosimilars.

### 4.1.3. Total Medical Trend

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

| Annual Medical Trend – BCBSVT Managed Care | | | | |
|---|---|---|---|---|
| Category | Facility | Professional | Pharmaceuticals | Total |
| Unit Cost | 5.4% | 4.2% | 5.3% | |
| Utilization | 2.4% | 2.4% | 1.9% | |
| Total Medical Trend | 7.8% | 6.7% | 7.3% | 7.5% |

| Component | BCBSVT Managed Care | BCBSVT Non-Managed Care | TVHP Managed Care |
|---|---|---|---|
| Total Annual Medical Trend | 7.5% | 7.6% | 7.6% |

These represent the annualized trend from year-ended August 2021 to calendar year 2023. Due to the non-uniform trend assumptions for facility and all other professional services, we will apply monthly trend factors to bring the renewal experience period through the rating period. The monthly factors are shown on Exhibit 2G.

### 4.2. Retail Pharmacy Trend

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 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.

Vaccines and devices have been moving from the medical benefit to the pharmacy benefit. These two categories are excluded from the non-specialty trend calculations as they would skew the results. We adjust the data for pharmacy working days, which are different from medical working days.

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, the 24-month regressions and the 36-month regressions.

Non-specialty utilization has been increasing at a two to three percent rate from March 2020 through June 2021 before decreasing slightly in the last two months of the experience. We select a 1.3 percent non-specialty utilization trend, which is approximately the average of the regressions on monthly, rolling costs, year-over-year and two-year trends.

Generic Cost Trend
In the previous filing, we used the generic drugs that have been in the market for at least three years to determine the generic cost trend. We modified the definition of *new generic* to be at the drug name level and not NDC level, which reduced the number of new generics. This change in definition and the use of all generics instead of only the generics that have been in the market for at least three years reduced the differences between the regressions and year over year results.

Exhibit 3D, page 1, shows monthly Average Wholesale Price (AWP) cost per days supply and the 24-month regressions. We select 2.8 percent for the generic cost trend, which is the average of the 24-month regressions and the year over year result. The rolling annual trends have been between 2.3 and 3.0 percent for the last six 12-month periods. We consider 2.8 percent to be a reasonable long-term outlook for generic cost trend.

Brands that are going generic will become subject to 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. We also adjust the price of the new generics to reflect the difference in effective discounts as compared to the generics that have been in the market for at least three years.

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 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 10.0 percent for the brand cost trend, which is slightly lower than 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. Therefore, the concept of cost trend does not apply to compounds.

Vaccines, excluding COVID-19 vaccines, experienced major cost increases through the fall of 2019, and then slowed in 2020 before picking back up in 2021. 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 0 percent cost trend for OTC drugs.

The cost of pharmaceutical devices has been increasing rapidly over the previous years due to the introduction of new and more expensive options. To calculate both the cost increases and impact of mix through 2022, we observe the increases by device and their respective market share. With the rollout of Vermont Blue Rx, some devices will no longer be covered and members will be directed to clinically equivalent preferred options. We adjusted the projected mix to reflect this change. We select an overall cost trend for devices of 17.4 percent. Details of the calculation are on page 4 of Exhibit 2D.

Specialty Drugs

Exhibit 2E shows the calculation of specialty trend for all specialty drugs. We select a 16.9 percent specialty trend, which is informed by 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 16.9 percent is lower than the previous Large Group filings and filings for other Blue Cross business.

Total Pharmacy Trend

Instead of explicitly projecting a generic dispensing rate, we separate the drugs into eight categories:
- Generics: Drugs that have been generic since at least September 2018
- New generics: Generic drugs that have been on the market for fewer than 36 months (launched September 2018 through August 2021)
- 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
- Devices, such as continuous glucose monitoring and insulin pens
- All other Brands

As shown on Exhibit 2F, we trend the days supply for each category forward at the same rate of 1.3 percent and calculate the total non-specialty allowed drug trend as 3.0 percent[6].

Using the PMPM claims as weights between non-specialty and specialty claims for the 12 months ended August 2021, we apply the annual trends for 28 months. For drug claims in the year ended August 2021, we apply to AWP the contracted discounts and dispensing fees for both the experience period and CY 2023 to calculate the total effective trend based on anticipated discount improvements:

| Allowed Pharmacy Trend | |
|---|---|
| Category | Annual Trend |
| Generic | -1.5% |
| Brand | 11.5% |
| Brands Going Generic | -29.4% |
| Specialty | 16.9% |
| Total (Contract Adjusted)[7] | 9.9% |

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 experience[8] 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 | $607.98 | 7.5% |
| Pharmacy | $115.38 | 9.9% |
| Total | $723.36 | 7.9% |

### 4.4. Leveraged Trends

The above trends are based on allowed charges and do not account for the leveraging effect of deductibles and copays. Following the methodology used in the Q3 2019 filing, we measured the correlation between the leverage factors calculated using the method described above and the actuarial values (AVs) of the benefits and fit a curve to the results. For medical leverage, we fit a line to all medical products, including the medical portion of integrated CDHP benefits. For drug leverage, we found that using different lines for different types of drug benefits produced the best fits. We produced three lines:

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[6] The non-specialty trend prior to contract adjustments is ███ .
[7] The total trend prior to the contract adjustment is ████ .
[8] We use claims incurred September 1, 2020 through August 31, 2021, projected to calendar year 2023.

one for drug cards, one for CDHPs with wellness drugs covered at 100 percent, and one for all other CDHPs. The formulas for leverage are below:

| Leverage Formulas | |
|---|---|
| Medical | -0.0631 x (AV) + 1.0641 |
| Drug Card | -0.0845 x (AV) + 1.0850 |
| Drug - CDHP 100% Wellness | -0.0517 x (AV) + 1.0529 |
| Drug - All Other CDHP | -0.0802 x (AV) + 1.0805 |

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

Applying the leverage factors for benefits present in the year ended August 2021 for the groups included in the manual rate, we calculate the following paid trends:

| Category | Paid PMPM | Paid Trend |
|---|---|---|
| Medical | $ 503.82 | 9.0% |
| Pharmacy | $ 103.11 | 10.6% |
| Total | $ 606.94 | 9.3%[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 2022 TVHP Medigap Blue rate filing ( BCVT-132956934).

| Category | Allowed Trend |
|---|---|
| Inpatient | 0.3% |
| 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

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

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 |
|---|---|
| August 2019 | $0.58 |
| August 2020 | $0.43 |
| August 2021 | $0.43 |

We expect 2022 and 2023 to remain at the level experienced in the most recent two years ended August; 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 |
|---|---|---|
| August 2019 | 1,594 | $3.84 |
| August 2020 | 1,544 | $2.71 |
| August 2021 | 1,784 | $2.37 |

**4.7.    Prior Experience Period Trend Factors**

We 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 August 2021), 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 a monthly utilization trend. 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 2022 TVHP Medigap Blue Rate Filing (SERFF# BCVT-132956934).

**5.    Benefit Factors**

To determine standardized claims rate relationships, also called relativities, Blue Cross 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 Blue Cross'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 Blue Cross claims adjudication system. The claims data includes benefit service 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 September 2020 to August 2021, paid through October 2021. We trend the allowed charges 28 months to the 12-month period that begins January 1, 2023. 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). We do not adjust the claims for the impact of deferred and returning care due to COVID-19. The trend factors we apply to the claims reflect the change in claims patterns anticipated from year-ended August 2021 through calendar year 2023, which includes the impacts of returning care in the experience and the expected return to pre-pandemic levels of utilization by 2023.). We exclude direct costs for COVID-19.

The data includes claims from Blue Cross Cost Plus groups, Blue Cross ASO groups, Blue Cross insured large groups, Blue Cross 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 Blue Cross's contracts and/or claims processing function. We exclude claims from groups that do not have pharmacy coverage through Blue Cross. 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 model experience period to produce its benefit relativity value (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.

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Blue Cross offers products on several different networks based on the three provider contracts (Blue Cross Managed Care, Blue Cross 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 Blue Cross'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 | Blue Cross Managed Care | N/A | N/A |
| VHP | Blue Cross Managed Care | Out | Out |
| EPO PCP | Blue Cross Managed Care | In | N/A |
| VHP Open Access | Blue Cross Managed Care | In | Out |
| EPO | Blue Cross Non-Managed Care | In | N/A |
| PPO | Blue Cross Non-Managed Care | In | Out |
| Indemnity | Blue Cross Non-Managed Care | In | In |

If Blue Cross 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 a 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 2020 and 2023. 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.

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). 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, 2022 or later will have an OOPM of $1,400. It is possible that this limit will increase effective January 1, 2023, 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 September 2018 through August 2021 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 ███████████ █ ████████████

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.

In prior filings, we included an adjustment for the type of benefit being modeled (CDHP vs. drug card). Claims incurred on a CDHP historically had a lower cost per script than claims incurred on a drug card, but the model includes claims from both CDHPs and drug cards. 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. Based on the data in the model for this filing, there is no longer a disparity in cost per script between the two benefit types. Rather than eliminate this adjustment altogether, we intend to phase it out over the course of the next two filings to avoid significant pricing changes. For CDHPs, the factor for this filing is ██████ and for drug cards the factor is ██████.

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.

**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.

Blue Cross and TVHP sell products with rate tiers for multiple members. We develop tier factors to spread the required total premium across the different rate tiers. We refer to products that have family limits in addition to individual limits as stacked, and to products with only family limits as aggregate. For products renewing after January 1, 2016, members on aggregate plans are subject to the federal maximum allowed individual out-of-pocket, even if the aggregate out-of-pocket maximum is higher. We refer to these plans as hybrid.

To calculate the tier factors, We used the BRV models to calculate member paid amounts for each member in the model and used every combination of members to create "families" in the following categories:
- One Adult
- Two Adults
- One Adult and One Child, … , One Adult and Seven Children
- Two Adults and One Child, … , Two Adults and Seven Children

For each category of family, we calculated the average plan paid amount subject to the family cost sharing. Then we combined the categories of families into rate tiers using the proportion of each category in the experience period membership as a weight. The ratio of plan paid amount for each rate tier to the plan paid amount for the single rate tier is the tier factor. For aggregate and hybrid factors, we grouped products together into three ranges of out-of-pocket maximums and calculated tier factors for each range. We calculated different factors for products with separate medical and drug benefits and for products with integrated benefits (CDHPs). The hybrid factors assume a $8,700 individual out-of-pocket maximum, which is the 2022 individual out-of-pocket maximum set by HHS. To limit rate disruption to our customers, in cases where the tier factor changed by more than +/- 0.04 from the previous approved factor, we limited the change to +/- 0.04. Exhibit 3L contains the tier factors calculated for each range and type of benefit.

There are separate factors for stacked plans with family multipliers of two, two-and-a-half, and three for deductibles and out-of-pocket maximums. The aggregate and hybrid factors assume a family multiplier of two. If a group requests a benefit with a non-standard multiplier, out-of-pocket maximum, tier structure, or individual out-of-pocket maximum (for a hybrid plan) that is not in the exhibit, we will use identical data, assumptions and methodology as described above to calculate appropriate tier factors for the requested benefit.

### 5.3.    Models For Age 65+ Medicare Secondary Plans

Benefit Relativity Model: Medical
Medicare Primary rate tiers are only available on the Blue Cross 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 September 2020 and August 2021, paid through October 2021, 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. As with the models for active employees, we exclude direct costs for COVID-19 but do not separately adjust for the impact of deferred and returning care.

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, 2023. 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.

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 September 2020 and August 2021, paid through October 2021, 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, 2023 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**

Blue Cross and TVHP offer groups a selection of formularies. Groups can select either the Blue Cross Formulary or the National Performance Formulary. Groups electing the National Performance Formulary receive greater rebates than those on the Blue Cross 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 |
|---|---|---|
| Blue Cross Formulary | National Performance | ■ |
| National Performance | Blue Cross Formulary | ■ |

The National Performance Formulary covers different drugs than the Blue Cross Formulary. To reflect the difference in covered drugs between the two formularies, we apply a factor to the drug BRV for the Blue Cross Formulary. Using the claims in the drug BRV model, we compare the average cost per script, including the impact of brand and generic dispensing rates, for both formularies. We compare the cost per script for each formulary to the cost per script for all claims in the model to calculate adjustment factors for each formulary.

| Formulary | Adjustment Factor |
|---|---|
| Blue Cross Formulary | ■ |
| National Performance Formulary | ■ |

### 5.5. Riders

Blue Cross 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.

### 5.6. Rate Smoothing Charges

Blue Cross and TVHP offer groups the option to apply the composite rate change to each tier's rate change. There is no charge to smooth rate changes by tier within a benefit if the change by tiers varies by less than two percentage points. If the tiered rate changes vary between two and five percentage points, there is a charge of 0.2 percent applied to the total of the absolute values of the rate deviation by tier. Rate smoothing is not allowed if the rate increases by tier vary by more than five percentage points.

If a group offering multiple benefits elects to apply the same rate change across benefits, the charge begins at 0.2 percent of the total of the absolute values of the rate deviation by benefit and increases continuously by 0.1 percent for every percentage point deviation. Benefit smoothing is not allowed if the rate change by benefit varies by more than five percentage points.

**6.    Other Factors Applicable to All Large Groups**

**6.1.    Manual Rate**

The manual rate for active members is calculated from medical and pharmacy paid claims PMPM incurred between November 1, 2020 through October 31, 2021. Both medical and pharmacy claims include claims paid through December 31, 2021. We use claims from the groups impacted by this filing, trended to calendar year 2023 using the trends and pharmacy contract adjustments described in section 4. We cap claims at $90,000[10] and add expected claims above $90,000. 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 2023 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) | | | |
|---|---|---|---|
| Claim Type | | Medical | Pharmacy |
| Incurred and Paid Experience Paid Claims, capped at $90,000 | A | $27,555,808 | $6,683,416 |
| COVID-19 Related Claims | B | $2,210,189 | $80,855 |
| Estimated IBNR | C | $140,486 | $361 |
| Expected Claims above $90,000 | D | $6,454,791 | $430,827 |
| Experience Adjustment Factor | E | 1.0000 | 1.0000 |
| Demographic Normalization | F | 1.0073 | 1.0073 |
| Overall Paid Trend Factor | G | 1.1995 | 1.2401 |
| Projected Total Paid Claims | $H = (A - B + C + D) \times E \times F \times G$ | $38,594,461 | $8,786,383 |
| Total Member Months | I | 71,568 | 71,568 |
| Medical/Pharmacy Manual Rate | $J = H / I$ | $539.27 | $122.77 |
| **2023 Manual Rate** | $K = J_1 + J_2$ | **$662.04** | |
| Q3 2021 Approved Manual Rate | L | $612.01 | |
| Manual Rate Increase | $M = K / L - 1$ | 8.2% | |

| Calculation of the Manual Rate (Medicare Primary) | | | |
|---|---|---|---|
| Claim Type | | Medical | Pharmacy |
| BRV Experience Paid Claims | A | $10,304,718 | $19,345,477 |
| Paid Trend Factor | B | 1.1275 | 1.1847 |
| Projected Total Paid Claims | $C = A \times B$ | $11,618,244 | $22,918,603 |
| Total Member Months | D | 78,864 | 78,864 |
| **Medical/Pharmacy Manual Rate** | **$E = C / D$** | $147.32 | $290.61 |
| **2023 Manual Rate** | $F = E_1 + E_2$ | **$437.93** | |
| Q3 2021 Approved Manual Rate | G | $450.97 | |
| Manual Rate Increase | $H = G / F - 1$ | -2.9% | |

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[10] Selected using the highest level a group in the manual rate membership base would be pooled at using the table in Exhibit 6B.

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.

Changes in the experience base, an update to the trends detailed in this filing, and an additional year of trend cause the change in the active manual rate. As noted in the trend section, the "Update Experience Base" component results in a decease to the manual rate due to claims being lower than expected due to COVID-19. We expect these claims to rebound to normal levels, which results in an increase in the "Update Trend" line. Lastly, we trend the claims underlying the manual rate from 2022 to 2023.

| Manual Rate Development | PMPM | PMPM Change | Impact |
|---|---|---|---|
| 2022 Manual Rate | $612.01 | | |
| Update Experience Base | | $(24.48) | -4.0% |
| Update Trend | | $16.52 | 2.7% |
| Trend to 2023 | | $57.99 | 9.5% |
| 2023 Manual Rate | $662.04 | | |

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 Death*[11]. 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. 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 2023, we adjust the manual rate for trend to reflect the group's projection period (line D). Finally, we calculate a contract conversion factor (line E) 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.

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[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.

**6.2.    Large Claims Factors**

Blue Cross and TVHP use the formula and factors in Milliman's 2021 *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 Blue Cross and TVHP large group experience.

We multiply the adjusted adult and child claim 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.

The guidelines included a refresh of the area factors. We are phasing in the area factors with a two-
thirds weight of the 2021 factors and a one-third weight of the 2020 factors .

**6.3.    Administrative Charges**

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

Experience Base of Actual Expenses
The Blue Cross cost accounting system allocates administrative expenses to lines of business. We use
Blue Cross 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.

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[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.

**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 Blue Cross and TVHP insured large groups. Groups can offer a choice of Blue Cross 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.

| Reconciliation of Experience Base Administrative Expense to Restated GAAP Expenses (dollars in thousands) | | | | | |
|---|---|---|---|---|---|
| Business Segment | Reported Expenses[13] (01/20 – 12/20) | Commissions[14] | Reclassification Items[15] | Reallocations | Adjusted Experience |
| | (A) | (B) | (C) | (D) | (E) = (A) – (B) – (C) – (D) |
| BCBSVT Insured | $7,055 | $552 | $1,564 | $1,585 | $3,354 |
| TVHP Insured | $2,322 | $143 | $589 | $281 | $1,310 |
| **Large Group Subtotal** | $9,377 | $695 | $2,152 | $1,866 | $4,664 |

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.

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[13] Reported Expenses are from Underwriting Results GAAP Basis, restated for the new allocation, for the Experience Base period.
[14] Commissions are from Internal BCBSVT reports
[15] Reclassification Items are from Internal BCBSVT reports, including the removal of one-time items

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 December 2020 information, we calculate that 73.6 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 assume no trend for 2021 and apply trend from 2021 to 2023, which broadly aligns with the decision to forgo salary increases in 2021. Blue Cross is closely monitoring the impacts of inflation on overall expenses, including personnel costs, to adequately balance the need for salary adjustments for employees and lower premiums for members.

| Development of Administrative Charges Trend | | |
|---|---|---|
| | | **Percent of Total** |
| Employee costs | A | 55.4% |
| Purchased services | B | 24.7% |
| Other operating costs | C | 19.9% |
| Subtotal administrative expenses | D = A + B + C | **100.0%** |
| Total personnel costs | E = A / (A + C) | 73.6% |
| Trend for personnel costs | F | 3.0% |
| **Total administrative charges trend** | **G** = {(1+F) x E + (1.00) x (1-E)} - 1 | **2.2%** |

We are experiencing overall growth in enterprise membership; however, customer demands have required we introduce new capabilities including arrangements with new vendors. This dynamic continues to shift the operating expenses among our businesses.

We calculate PMPM admin charges with experience period enrollment and projected 2022 enrollment. Using the lower 2022 enrollment increases the PMPM by 13.0 percent. A recent cost accounting exercise suggests that variable costs represent approximately 30 percent of total administrative expenses. Blue Cross 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 10.4 percent to the base PUPM charges to account for the reduction in membership. The table below shows the calculation.

| Development of Enterprise Membership Adjustment | |
|---|---|
| | Members |
| Experience Period | 188,743 |
| Projected 2022 Enrollment | 164,249 |
| Adjustment for Enterprise Membership | = 1+0.7(188,746/164,249-1) = 10.4% |

Required Administrative Increase

Using the methodology described above, the administrative charges increase by 9.2 percent:

| | | Admin Charges PMPM | Change PMPM | Percent Change |
|---|---|---|---|---|
| | **Administrative Charges – Reasons for Required Increase** | | | |
| 1 | Approved January 2022 admin from Q3 2021 filing | $50.41 | | |
| 2 | Rebase experience and allocations | $48.66 | ($1.75) | -3.5% |
| 3 | Net enterprise membership adjustment | $53.73 | $5.09 | 10.4% |
| 4 | Additional year of trend | $54.94[16] | $1.19 | 2.2% |
| | Total Increase | | $4.53 | 9.0% |

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 Blue Cross 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 and TVHP purchased reinsurance for claims in excess of $1,000,000 for 2022, and we expect to purchase similar reinsurance in future years with limits approximately equal to the 2022 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 allowed trend from 2022 to 2023 and a leverage factor for the $1,000,000 reinsurance limit from Milliman's 2021 *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 2022 | Q4 2022 | Q1 2023 | Q2 2023 | Q3 2023 | Q4 2023 | Q1 2024 |
| $1.90 | $1.99 | $2.09 | $2.19 | $2.29 | $2.40 | $2.52 |

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[16] In a national survey of Blue Plans Commercial insured lines, the median PMPM for 2020 was $56.67, which is slightly higher than our projected 2023 PMPM. (https://sherlockco.com/docs/navigator/June2021/Blue%20Late-June%20Navigator%202021.pdf).

**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 | | | | 12.0% |

**6.6.      OneCare Coordination Fee**

Blue Cross 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.

**6.7.      Contribution to Reserve**

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

| Contribution to Reserve | |
|---|---|
| Blue Cross 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 Blue Cross 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 reasonable..

**6.8.      State Mandates and Assessments**

**Vermont Vaccine Purchasing Program Payments**
The Vermont Vaccine Purchasing Program[17] 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

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

charge applied to members residing in Vermont who are ages 0 to 64. On April 26, 2021, the Vermont Vaccine Purchasing Program released a memo that included the anticipated rates for April 1, 2022 – March 31, 2023: *"For planning purposes, the best estimate at this time for the SFY2023 assessment rate is $10.91 per child covered life per month and $1.60 per adult covered life per month. The SFY2023 assessment rate will be reviewed for final determination in April 2022."* We will update these rates once the actual rates are known.

### New Hampshire Purchasing Program Payments

The New Hampshire Purchasing Program[18] offers health care providers state-supplied vaccines at no charge by collecting payments from health plans, insurers, and other payers. The assessment for 2022 is $6.85 for each child that is a New Hampshire resident. The current best estimate of the 2023 rate is $7.15 per assessable life per month. We will use the new rate once it is approved.

### New York State Health Care Reform Act

Blue Cross and TVHP pay the New York GME Covered Lives Assessment[19] 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

Blue Cross and TVHP pay the Maine Guaranteed Access Reinsurance Association Assessment[20]. 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.

### 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

Blue Cross 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 $3.21. We base the projected performance payment on the average payment for large groups in the year ended October 2021. We will incorporate any updates made to the Blueprint Manual[21] in renewals.

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[18] https://nhvaccine.org/

[19] https://www.health.ny.gov/regulations/hcra/gmecl.htm

[20] http://www.mgara.org/

[21] http://blueprintforhealth.vermont.gov/

**Green Mountain Care Board Billback**
The Green Mountain Care Board assesses Blue Cross 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 2021 - September 2022 | $2.79 PMPY |
| October 2022 - September 2023 | $2.93 PMPY |
| October 2023 - September 2024 | $3.07 PMPY |

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

### 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 BCBSVT[22].

### 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.

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

**7.1.2.   Aggregate Stop Loss**

**Distribution of Individual Claims by Amount**

We stochastically model the distribution of individual claims by amount by using the membership and claims from fully insured large group, fully insured association health plans, small groups, and certain ASO groups. We sum allowed charges and paid claim amounts for each member. We then sort into categories by the amount of allowed charges. The categories used are:

- $0 up to $50
- $50 up to $100
- $100 up to $200 … $1,900 up to $2,000
- $2,000 up to $2,500 … $9,500 up to $10,000
- $10,000 up to $15,000 … $995,000 up to $1,000,000

We calculate paid-to-allowed ratios for each category. We average each year's ratios for each category and smooth the resulting ratios at allowed amounts greater than $1,000. We trend allowed claims to 2023 and apply the paid-to-allowed benefit factor to create a simulated paid claims amount, which we use in the stochastic modeling.

For each number of members (N) 5,10, 15, 20, 25, 50, 100, 150, 200 to 1000 (by increments of 100), 1,500, 2,000 to 5,000 (by increments of 1,000) and 10,000 to 20,000, we run 20,000 simulations. Each simulation assigns a random number to every member and selects the (N) lowest members. For each specific stop loss level, we calculate the expected claims amount and standard deviation of the distribution of claims less than the specific stop loss level.

**Expected Claims Factors**

For each number of members (N) noted above and for each ISL limit, we calculate a preliminary expected fraction of aggregate claims in excess of 110%, 115%, 120%, 125%, 130%, 140% and 150% of expected aggregate claims. We then adjust for uncertainty in the projection of expected claims as described in the table below:

| Expected to projected expected | >107.5% | 107.5% - 102.5% | 102.5% - 97.5% | 97.5% - 92.5% | < 92.5% |
|---|---|---|---|---|---|
| Fraction of projections | $F_1$* | $F_2$* | $F_3$* | $F_4$* | $F_5$* |

  * Estimated for distribution

We then divide the factors developed by 0.7 to produce an expected loss ratio (net of the provision for default) of 70 percent.

To protect against potential default situations (i.e. to cover the risk of the group failing to fund claims), the proposed ASL rates include an additional fixed risk charge of 0.5 percent of expected claims under

the ISL limit for groups with fewer than 20,000 members, and a reduced fixed risk charge of 0.4 percent of expected claims under the ISL limit for groups of 20,000 members or more.

The final factors are applicable to total expected claims under ISL.

To ensure that the factors on each line are strictly decreasing with increasing stop loss percentage, in cases where the ratio for a 150% stop loss percentage is less than 0.0001:
- we increase the calculated value for 150% by 0.00001
- we increase the calculated value for 140% by 0.00002
- we increase the calculated value for 130% by 0.00003
- we increase the calculated value for 125% by 0.00004
- we increase the calculated value for 120% by 0.00005
- we increase the calculated value for 115% by 0.00006
- we increase the calculated value for 110% by 0.00007.

Exhibit 6D provides the tables of factors.

If the expected number of members (N) in the rating period is not one of the values in either table, we determine the value by interpolating linearly between the entries in the table for the numbers of members immediately below and above N.

If a group requests an ISL limit that is not in the exhibit, an aggregate attachment point that is not in the exhibit, if there are more than 20,000 members, or if the contract period is not 12 months, we will use identical data, assumptions, and methodology as described above to calculate the appropriate Aggregate Stop Loss Rating Factor for the required attachment point.

**8.      Medical Loss Ratio Projection**

We use the factors and formula in this filing to project a Medical Loss Ratio (MLR) for 2023. Using the manual rate as a proxy for projected claims, we project a 2023 MLR of 89.3 percent for Blue Cross and 88.5 percent for TVHP. The Blue Cross credibility-adjusted MLR for Large Group was 95.3 percent in 2019 and 90.1 percent in 2020. The TVHP credibility-adjusted MLR for Large Group 94.5 percent in 2019 and 97.0 percent in 2020. Exhibit 4C provides the development of the projected MLR. The calculations represent estimates assuming that all pricing assumptions hold true, and assuming no change from 2020 values for various quantities (e.g. HCQ, commissions).

**9.      Act 193 Information**

This information is included template filed in SERFF with this filing  (*VT Rx Data Template - BCBSVT - Q3 2022 Large Group.xlsx)*.

The data in the template is based on actual and projected experience for the groups included in the manual rate.

**10.     Actuarial Opinion**

I, Martine Lemieux, Manager, Actuarial Services, 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 an Associate 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.


*Martine B Lemieux*

Martine Lemieux, A.S.A., M.A.A.A.

February 17, 2022

11.      **Disclosures**


**Information Date**: The analysis provided in the report is based on information as known on February 16, 2022.


**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. Blue Cross 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 Blue Cross 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.