

## **EXHIBIT I**

### ACTUARIAL MEMORANDUM AND CERTIFICATION

#### Scope and Purpose

The purpose of this filing is to submit CIGNA Health and Life Insurance Company's group manual rating methodology. Our pricing model was developed to provide a consistent rating methodology across products. This filing includes Open Access Plus, PPO, Network, Indemnity, and retiree medical insurance product, and is applicable for groups of 100 or more lives. Methodology is also included for Pharmacy products.

#### Benefit Description

The benefits covered in this memorandum include group health insurance coverage as described in CIGNA Health and Life Insurance Company forms HP-POL et al, and HC-TOC et al.

#### Census

Member level census will be used when available. If only subscriber level data is available, penetration and translation assumptions will be used to create a member level census for manual rate development. The penetration and translation assumptions used are developed from studies of our book of business, which includes experience from similar CIGNA Health and Life Insurance Company ("CHLIC") policies. Penetration estimates the number of subscribers that will select the CIGNA Health and Life Insurance Company plan; the translation process develops projected subscribers and members within rating tiers.

#### Adjustments to Base Claims

The base claim rates by area are adjusted for certain group and member characteristics. These include industry loads and discounts, age and sex demographic adjustments, and trends.

Adjustments for industry (SIC) are developed from a study of our book of business combined with results from an outside consultant's national industry factor assessment study.

Age and sex demographic adjustments are developed from a study of our book of business. The resulting age/sex slopes are normalized to represent the national census.

Trends reflect historical experience from CHLIC's group medical experience and projections for future levels. Medical trend rates are applied on a daily basis.

#### Benefit Plan Adjustments

Base claims are reduced for specific cost sharing features of the product and benefit plan selected. Copay and other cost sharing benefit design related adjustments are made using assumptions regarding utilization levels by base claim component. Claim distributions are used to determine the impact of deductibles, coinsurance and out of pocket maximums. In addition, a utilization dampening factor is applied to reflect lower utilization levels as cost sharing rises.

#### Renewability Clause

The benefit plans covered under this memorandum are guaranteed renewable.

#### Applicability

CHLIC, Inc. anticipates both renewals and new issues from the forms currently filed.

#### Marketing Method

These products are sold to employer-employee groups, labor union groups and association groups through CIGNA Health and Life Insurance Company group sales offices.

### Premium Classes

Premium rates may vary by product, plan design, geographic area, group demographics, industry, effective date, experience, and underwriting discretion.

### Issue Age Range

There are no issue age restrictions in our policy forms; however, eligibility requirements must be fulfilled.

### Premium Modalization Rules

The CIGNA Health and Life Insurance Company Health Manual produces monthly premiums. Modalization factors are expressed as a function of these monthly rates as follows:

Annual	11.8227
Semi-Annual	5.9557
Quarterly	2.9852

### Distribution of Business

Rates vary by geographic location and group specific characteristics, including demographics. Target distribution is to groups with both single employees and employees with dependents, assuming a 40/60 distribution

### Rating

The group rates filed represent the rate level we expect to be necessary to achieve a desired average loss ratio for all group contracts. Accordingly, actual rates for groups will vary as a result of a variety of factors. These include variation in benefit plan, age, gender, family composition, size, industry, area, healthplan claim experience, pharmacy indicators and underwriting discretion.

Depending upon group size, case specific claim experience may be used to adjust the rate. Credibility is based on group size, pooling level and months of experience. Rates for partially credible groups are based on a blend of experience and manual rating.

For Minimum Premium plans, the premium paid by the policyholder is reduced for the portion of the total claim amount that is expected to be self-insured.

### Anticipated Loss Ratio

The methodology and supporting factors apply to groups of 51 or more employees.

The anticipated large group loss ratio for this policy is 87.2%.

The components of Cigna's retention for our Large Group pricing are as follows:

Administrative Expenses 5.5%

Optional Buy-ups 0.1%

PPACA Fees 0.0%

Risk Charge: 0.0%

Premium and Income Taxes 2.0%

Profit 3.5%

State Assessments 1.7%

Commissions 0.0%

Total 12.8%

### Comparison to Status Quo

This filing includes a number of changes to our medical and pharmacy rating methodologies. It is difficult to quantify each change independent of the others. The average expected increase in manual rates in Vermont is -3.6%. This figure was calculated by comparing the current filed and approved manuals using an illustrative effective date of 1/1/2018 to the proposed 1/1/2019 manuals for a representative sample of Vermont situated business. This figure is inclusive of one year of trend. (Note: The number of fully insured accounts situated in Vermont in 2016 was 5, consistent with the company's Supplemental Health Care Exhibits.)

## Changes to Methodology for the 2019 Cigna Rate Filing

- Medical
  - Updates to the medical base claims
  - Updates to the medical area factors and trend
  - Updates to demographic factors and aging trend
  - Updates to the medical claims probability distribution
  - Updates to the medical capitation percentages
  - Updates to the tiered benefits methodology
  - Updates to the POS Load coefficients
  - Updates to Medical OON Program Savings Factors
  - Updates to the enhanced non-par claims adjustment
  - Updates to the Modular Medical Management Adjustment
  - Updates to medical riders
  - Updates to multiple offering load medical savings
- Behavioral
  - Updates to the MHSUD trend and rates
- Vision
  - Updates to the vision cost
  - Updates to frequency and service utilization
  - Updates to trend
- Pharmacy
  - Updates to average wholesale price per script
  - Updates to average script count per customer
  - Updates to script to channel distribution assumption
  - Updates to average wholesale price to channel distribution assumption
  - Updates to pharmacy cost trend
  - Updates to pharmacy utilization trend
  - Updates to pharmacy area factors
  - Updates to pharmacy demographic factors
  - Updates to pharmacy clinical management adjustment assumption
  - Updates to pharmacy discount

## Credibility Formula

Cigna has updated its credibility formula in this latest filing.

Cigna Health and Life Insurance Company uses experience rating on large employer commercial customers to set future rates based on the past experience of the customer, where a customer is defined as the aggregation of all Cigna Health and Life Insurance Company accounts associated with a given employer, nationwide.

For prospectively rated accounts, the number of member months at which the experience is considered fully credible depends on the pooling point, as well as if the account is a presale or a renewal. Partial credibility (blending experience with manual) would be reflected using the following formulas, depending on whether or not a certain boundary is reached:

$$\text{Formula A: Credibility} = \frac{(k + \frac{\text{Member Months}}{3})}{(1000 + \frac{\text{Member Months}}{3})}$$

$$\text{Formula B: Credibility} = \sqrt{\frac{\text{Member Months}}{36,000}}$$

Formula A is run for any amount of member months less than the formula bound, while any amount of member months greater than or equal to the formula bound causes Formula B to be run to determine preliminary credibility. Constant k and the formula bound vary by both the pooling point for the account as well as if it is a presale or a renewal. Shown below is a chart detailing these values for presale and renewal accounts by pooling point:

Pooling Point Range	Formula Bound (Presale)	k (Presale)	Formula Bound (Renewal)	k (Renewal)
\$0 - \$24999	33500	425	33200	525
\$25000 - \$49999	31700	300	32400	400
\$50000 - \$89999	31200	225	31900	325
\$90000 - \$139999	30500	125	31000	200
\$140000 +	30000	50	30300	100

There is a minimum of 5 months of experience for paid claims and 4 months for incurred claims as well as a minimum overall of 100 member months to have any credibility. If member months are greater than or equal to 36k, credibility is 100%.

Experience is taken from the most recent twelve-month incurred period, with two months of run-out. The claims are put on a fully incurred basis by dividing by an average completion factor. To prevent the irregular nature of large claims from distorting the experience, claim amounts in excess of a threshold (pooling point) on an individual are excluded from the experience. All accounts have an average amount of these claims (pooling fee) added to their experience as part of this smoothing process.

Experience, once completed and smoothed, is trended to the rate projection period using the same anticipated medical cost trend used for the commercial pooled rate development. Capitation is added in separately. These projected claims are divided by the commercial loss ratio to get a required revenue number (including administrative expense and profit) for the rate period. This required revenue is further adjusted, if necessary, for any expected change in the account's demographic mix or benefit plan from the experience period to the rate period.

## ACTUARIAL CERTIFICATION

### Opinion

In my opinion, the rates were developed using reasonable actuarial assumptions, and the rate levels are reasonable in relationship to the benefits provided. The actuarial data and experience will be maintained by the company and available for review by the Green Mountain Care Board upon request.

I certify that to the best of my knowledge and judgment, this rate filing is in compliance with the applicable laws and regulations of the State. In summary, I believe that the rating assumptions proposed will produce rates which are not excessive, inadequate, or unfairly discriminatory



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Date: 1/29/2019