BruinCare 2018 Projections

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Executive Summary

The selection of geographic rating regions is one of the most significant choices the state has the authority to make that will impact the affordability of health insurance for consumers, playing an important role in determining what level of "premium disruption" consumers' experience. A proposal by the actuarial team at BruinCare highlighting our strategies in response to the state government's plans to redraw California geographic rating areas in 2018 is submitted for your review. We are aware that in 2018, BruinCare will be affected by this change in the three regions we are providers in: the LaLa Region, Tangelo Region, and Inland Empire. According to our predictions, BruinCare will have increased total membership in all three regions by 2018. Currently in 2016, there are approximately 4,999 members in the three regions combined, a persistency rate of 75.1% from 2015 to 2016, and thus a projected 5812 members in 2018. Taking into consideration cost projections, we have priced 2018 premiums in compliance with Affordable Care Act standards and are confident that they accurately fit the demographics for each of our three regions. This document will discuss the methods we used to price the premiums, analyses of these rising values, as well as further considerations from here.

Methodology

Our main focuses for calculating the premiums by region were the projected age, number of claims, and average cost of each member broken down by region. So, in order to obtain this goal, we first began analyzing our data by noting member month trends to get a general sense of the typical volume of members at certain points in time. We also observed the addition of new members and broke down each member by region, age, and sex so we could get a solid idea of what our member base initially looked like and how our member base would possibly morph to in the future. The most prominent pattern that we noticed was how our amount of younger member months tended to decrease or remain stagnant while our amount of older member months increased. So, while taking into account our current membership demographics, we applied this inclination and generated new proportions of members by age. Below is a bar chart portraying the projection of our membership months.
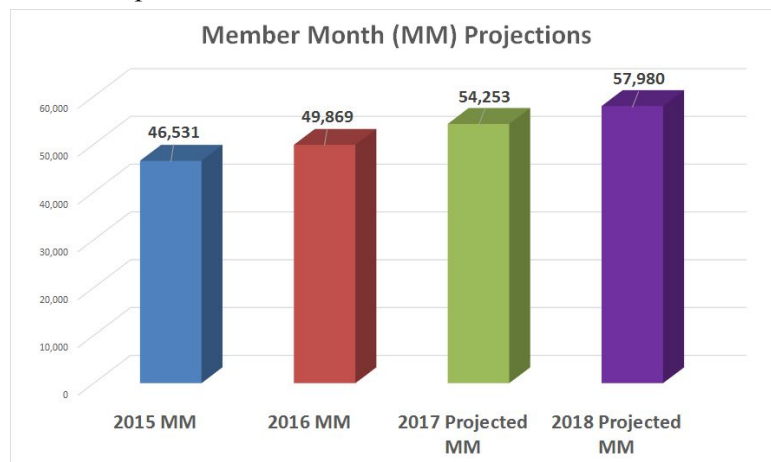

Figure 1: Membership Month Projections for years 2015 through 2018

Next, we processed our claim data to forecast the percentages of claims by region and age group and how much those claims would cost. Utilizing our analysis of the typical cost of a person belonging to a certain region subdivided by service category, we calculated the PMPM's for each region. We were then able to find appropriate age calibrations for each region based on the projected average ages of the regions. Next, we generated our area calibrations for each region which were established from the trends of the number of claims and cost by region. We adjusted our area calibrations due to the fact that region lines were redrawn and that a competitor U.S. Care was withdrawing focus from the Finland Empire. We then took our regional PMPM's and applied the age and region calibrations to yield our final regional

PMPM's (shown below in Figure 2) which we finally employed to calculate our regional premiums after taking into account the fees and paid to allowed factor.
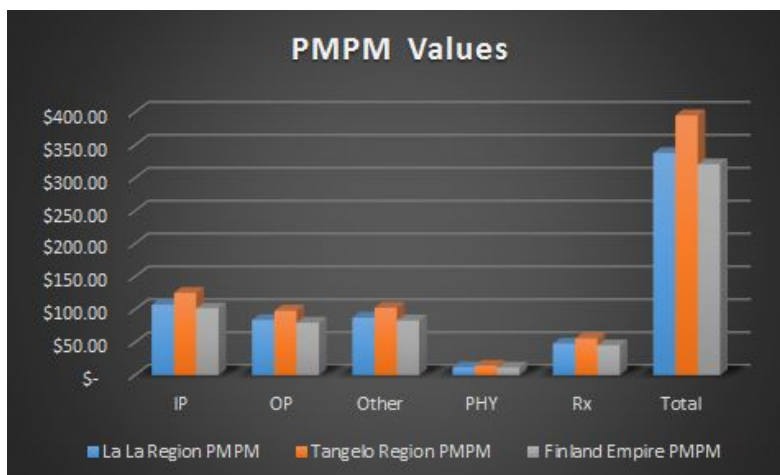

Figure 2: Per Member Per Month Data

Results

The Tangelo Region had the highest projected premium value of $395 due to having the greatest increasing trends in the cost of members, while the Finland Empire had the lowest projected premium value of $321 due to the hopeful exploitation of new members in the market caused by a decreased presence of U.S. Care. However, our projections may be off and in reality, the Finland Empire, and other regions, will see an increase in premiums due to the effects of the death spiral and the saturation of less healthy people in the market.

We expect BruinCare's marketshare to increase in region 3 and stay roughly the same in the La La Region and the Tangelo Region. New members will enroll, but not considerably since we have a 75.1% persistence rate. We expect to see older and sicker demographics as 2018 approaches and a decrease in risk averse young and healthy people due to the raises in premium.

Further Considerations and Suggestions

We noticed U.S. Care dropped out of the Finland Empire region and initially believed it was due to this region being historically unhealthy compared to other regions. However, our data suggests this region is homogenous with other regions in terms of health. To increase membership, BruinCare should market heavily in the Finland Empire.

Our results were found by trends and assumptions that the Affordable Care Act persists through the time period. However, with the changing political environment, this could pose a problem to the accuracy of our analysis due to the fact that political circumstances seem to suggest that the Act will be repealed in the coming year. Because of this likelihood, our team suggests that management should request for a separate set of 2018 projections in an ACA-free environment, which may be more accurate for predicting future data. In order to develop these 2018 projections, our team suggests using predictions for how new policies will affect our markets, as well as growth trends (split into gender/age/region groups) from data found in years prior to the Affordable Care Act's implementation in 2010.

Monthly premiums in the Finland Empire are our lowest currently, so we can reap benefits increased membership there without too much risk exposure. Premiums may be set too high and we may be witnessing the onset of a death spiral, we suggest to make sure to incentivise younger people to enroll. Tangelo Region currently has the highest premiums and is our oldest population. Adding younger members in region 3 will shift some risk.

Although we were not provided with smoking data, we feel that it is not necessary for our pricing model. Studies show that the majority of people do not accurately report their smoking status and claims data is sufficient to extrapolate health trends.