

BruinCare Actuarial Memorandum

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BruinCare's operations in the state of California are expecting major developments in the Los Angeles, Berkeley, and Santa Barbara regions. Recent proposals on the state level detail the redrawing of borders for all three areas in 2018 resulting in the growth of population in LA and Berkeley, but shrinkage in Santa Barbara. Additionally, an announcement by US Care has indicated that they will cease their businesses in the Santa Barbara region. On top of the government and industry scale changes, we also stand to face internal adjustments regarding our insured members on the matter of rising claims expenses. Ultimately, these collective events call for a holistic evaluation and recalculation of our current premiums.

To this end, BruinCare's actuarial team will utilize the company's member data, which details member claims, ages, and member months, and combine it with the impact of external events to make projections for cost metrics, age distribution shifts, calibration factors, and finally, the 2018 premium we will offer to our individual health insurance members.

In projecting our premiums, we first concern ourselves with the claims expenses. Using historical data from the years 2015 and 2016, we uncover time-dependent trends in the unit costs and utilizations of our current members. Then, we use these factors to construct projections for the rising costs in the each of the service categories included in the ACA essential health benefits ruling. Following this, we consider our future calibration factors for age and area. For area calibration, we evaluate the changes in membership for the three covered regions; this is performed by projecting the future populations and ages in each region, and then estimating our expected market share in two years. Lastly, for the age calibration, we adjust our age distributions based on trends found in our membership data combined with the demographic projections from the California Department of Finance. After projecting these metrics, we factor in the risk transfer payments, administrative costs, and the profit margin to arrive at our final average premium of \$435.35. Using a formula to account for local parameters, namely the age and area using the calibration factors, we can refine our offered premiums to tailored rates for the individual members.

Ultimately, our analysis of the data points to the conclusion that with rising costs, an aging member pool, and population changes, our premiums will rise in the next two years. A snapshot of the premiums is pictured below. As these events unfold, the BruinCare actuarial team will continue to monitor and adjust the rates so that the company can remain competitive amongst other healthcare insurance providers while continuing to produce steadfast profits and offering comprehensive coverage for our members.

Regional Premium Prices for Various Ages

Age Range	Age Curve	LA	Berkeley	Santa Barbara
21	1.000	\$ 257.60	\$ 310.87	\$ 239.51
34	1.214	\$ 312.73	\$ 377.39	\$ 290.76
54	2.135	\$ 549.97	\$ 663.70	\$ 511.35
64 +	3.000	\$ 772.80	\$ 932.60	\$ 718.52