Actuarial Summary
for Required Rates in Plan 65 Non-Group Filing
Effective February 1, 2011

➢ ***General Methodology***

The methodology for rating Plan 65 has several different components. This actuarial summary will describe the processes for calculating the Plan 65 required rates for our Medigap and Select plans. References to specific schedules in the rate calculations are underlined. Generally, the schedules work from back to front in the development of the required rates.

The required rate per contract per month (PCPM) for every plan consists of two parts. These parts are the projected claims expense, or projected pure premium, and the retention components. The retention components encompass the administrative expenses, system replacement expenses, investment income credit, contribution to corporate reserve, federal taxes, and state taxes. The projected pure premium is calculated by projecting the claims expense for each benefit into the rate year through the use of projection factors and adding the appropriate benefit components together to get the total projected pure premium for each plan. The projected pure premium is added to the retention components to obtain the required rate. Then, the required rate is divided by the present weighted average subscription income to produce the required rate adjustment factor. The present rates within each rate band are multiplied by this factor to derive the required rates for each product. These processes will be described in more detail later in the summary.

The claims base used in this rate filing consists of experience from six products: Medigap Plan A, Medigap Plan B, Medigap Plan C, Select Plan B, Select Plan C, and Select Plan L. Because the enrollment in some of the products is very low, they are not credible to be priced on their own and are pooled with other products for the purpose of the claims projection. Two distinct claim pools are utilized. One pool consists of Medigap Plan A, Medigap Plan B, Medigap Plan C, and Select Plan L. The other pool consists of Select Plan B and Select Plan C. This year, Select Plan L was pooled with the Medigap plans because its risk characteristics are more similar to the Medigap plans. Both Select Plan L and Medigap Plan A are currently open year-round without requiring medical underwriting and therefore tend to attract more undesirable risks. In addition, the Medigap plans have been offered by BCBSRI for a longer period of time than the Select products and thus are comprise of an older population. Select Plan B and Select Plan C are pool together since they were introduced by BCBSRI concurrently and both required medical underwriting for late entrants. Pooling the claims in this manner means that the projected pure premium for each benefit is the same for each product within the same pool.

Note that effective June 1, 2010, a hospice benefit was added to all benefit plans as required by the recent Medigap redesign. This benefit covers the 5% co-insurance for

inpatient respite care and the co-payment (up to $5) for outpatient prescriptions during a hospice stay. We have determined that the impact of adding the hospice benefit is minimal and have not included a provision in rates for this benefit.

The claims base represents 2009 payment data with a few adjustments. Since Select L is pooled with other Medigap plans, Select L claims incurred in 2009 were adjusted to reflect the Medigap level for covered benefits. Also, claims base represents calendar year 2009 payment data for all benefits except for the Part A Co-payment, 365 Additional Days, and Foreign Travel Emergency benefits. Due to the erratic nature of these benefits, their pure premiums cannot be projected using our standard methodology. The claims base for the Part A Co-payment and Foreign Travel Emergency benefits uses an average of the 2006 through 2009 pure premiums for each pool, price projected to calendar year 2009. The claims base the 365 Additional Days benefit uses an average of the 2005 through 2008 pure premiums for both pools combined, price projected to calendar year 2009. CY 2009 claims data is not considered for the 365 additional days benefit since the claims runout is much longer for this benefit and CY 2009 was not considered reliable enough to use at the time of rate calculation. Note also that both pools' claims were combined for the purposes of projecting 365 additional days PCPM since any difference in claims experience is likely attributable to random fluctuation rather than inherent morbidity.

➢ ***Projected Pure Premium***

Since rates are effective February 1, 2011 through December 31, 2011, we must project claims to 2011. The projected pure premiums for all plans are calculated by projecting the claims expense PCPM from the base year 2009 into 2011 through the use of composite projection factors. These composite factors reflect changes in benefits, provider fees, and utilization/mix of services from year to year. Benefit change factors and their supporting calculations can be found in schedules 17 through 19.

Benefit Changes

Benefit changes reflect the change in Medicare deductibles and co-payments for each benefit. In most cases, the benefit change factor is the projection year deductible or co-payment divided by the deductible or co-payment from the previous year. The benefit changes for each benefit are shown below. Both pools have the same benefit changes with the exception of the Part B Co-payment, as explained below.

- Since the Part A Co-payment and Skilled Nursing Facility (SNF) Co-payment are directly proportional to the Part A Deductible, all three benefits will increase at the same rate. Therefore, they share the same benefit change factors. The increase in the Part A deductible from 2009 to 2010 can be found in the Federal Register as cited on schedule 17. The estimated 2011 increase in the Part A deductible was calculated using the latest estimates of the 2011 hospital market-

basket increase and real case-mix increase published in the Federal Register. The increase in the Part A deductible is the product of these two increases.

- The 365 Additional Days benefit change factor from 2009 to 2010 is the payment-weighted hospital increase and can be found in the Federal Register as cited on schedule 17. The payment-weighted increase is used instead of the total hospital increase since the nature of this benefit implies that mix of services does not significantly impact this benefit (i.e. there are few services for which a member would be hospitalized for more than 150 days, when this benefit would begin to be utilized). The benefit change factor from 2010 to 2011 is estimated to be the proposed hospital market-basket increase, which can be found in the Federal Register as cited on schedule 17.

- The increase in the Part B Deductible from 2009 to 2010 can be found in the federal register as cited on schedule 17. The benefit change factor from 2010 to 2011 was developed using the average increase inherent in the *Medicare Economic Index (MEI) Update Scenario* and the *0-Percent Update Scenario* shown in *"Projected Medicare Part B Expenditures under Two Illustrative Scenarios with Alternative Physician Payment Updates"*, published by the CMS Office of the Actuary on May 12, 2009 in conjunction with the Trustee's Report.

- The benefit change factor for the Part B co-insurances is the estimated decrease in Part B co-insurance claims cost due to the estimated increase in the Part B Deductible and are developed separately for both pools. This decrease is attributed to the fact that an increase in the Part B Deductible will result in a decrease in the Part B co-insurance, since the co-insurances for Part B services are made only after the Part B Deductible is met. This calculation is shown for each benefit change factor on their respective schedules. These factors are applied to co-insurances for physician and outpatient services.

- There is no change in the Foreign Travel Emergency benefit.

Provider Fees

The provider fees factor represents fee changes in physician services and outpatient services that affect the respective Part B co-insurances. The physician services fee increases for 2010 and 2011 can be found on schedule 18, titled "Calculation of Part B Physician Fee Change Factors Effective 2010 and 2011." The physician fees are based on the actual and projected increases in the Part B physician conversion factor.

Also, as part of the Medicare Improvements for Patients and Providers Act (MIPPA), the co-insurance for behavioral health services will gradually decrease from the current 50% to 20% over the next several years. In 2010, for example, the behavioral health co-insurance was reduced from 50% to 45%. The change in the behavioral health co-insurance is reflected in the physician fee change factor calculations on schedule 18.

From January 1, 2010 through May 1, 2010, Congress passed a series of laws that kept the physician conversion factor at the December 2009 level. On June 24, 2010, President Obama signed the "Preservation of Access to Care for Medicare Beneficiaries and Pension Relief Act of 2010," which increased the physician conversion factor by 2.2% retroactive to June 1, 2010. The law maintains the physician conversion factor at this level through November 30, 2010.

Current law calls for a reduction to physician fees of at least 21% beginning December 1, 2010. Given that Congress has historically overridden similar decreases since 2005, this scenario is highly unlikely. Therefore, there is no assumed change to physician fees at December 1, 2010. Furthermore, the recommendation of a 1.0% increase in the conversion factor for 2011, made by the Medicare Payment Advisory Commission (MedPAC) in a report to Congress published in March 2010, was utilized for 2011.

Payments to physicians under Medicare are also adjusted by region by multiplying them by a Geographical Adjustment Factor (GAF). This factor represents the average geographical adjustment to Medicare physician payments in Rhode Island. The final 2009 and 2010 Rhode Island GAFs can be found in the Federal Register. The proposed GAF for 2011 can be found in the federal register as well. The change in the GAF for Rhode Island is shown on schedule 18 of the filing document.

- The estimated provider fee change factors effective for Part B physician co-insurance beginning for 2010 and 2011 are 1.0118 and 1.0173, respectively, per schedule 18, lines 10 and 11.

The institutional services change factor reflects the expected change in the outpatient services co-insurance cost, and is calculated in detail on schedule 19. This factor is impacted by the implementation of the hospital Outpatient Prospective Payment System (OPPS) on August 1, 2000. Before the OPPS was introduced, the member co-insurance for Part B Outpatient services was calculated as twenty percent of billed charges. This often resulted in the member paying much more than twenty percent of the Medicare allowed amount, sometimes as much as fifty percent or more. When the OPPS was introduced, one of the intentions was to, over time, reduce the member co-insurance to be equal to twenty percent of the Medicare allowed amount. That level of co-insurance will be achieved by holding the member cost-sharing per service at a fixed dollar level until it is equal to twenty percent of the Medicare allowed amount for that service. At that time, the member co-insurance will increase at the same rate as the Medicare allowed amount, by way of the increase in the conversion factor, thus preserving the member co-insurance ratio at twenty percent.

Initially, the impact of the OPPS on member cost-sharing was minimal and we had assumed in previous filings that there was essentially no dollar increase in member cost-sharing. In order to more accurately reflect increases in Part B outpatient cost-sharing, we have included the impact of the year-to-year increases in the Part B outpatient

conversion factor. Using published Medicare utilization data and the current Part B Outpatient co-payments and Medicare allowed amounts, we have estimated that approximately 36% of the outpatient co-insurance dollars are at twenty percent of Medicare allowed amounts in 2009. Thus 36% of the co-insurance dollars will increase along with the outpatient conversion factor in 2010. We expect approximately 38% of the outpatient co-insurance dollars to increase along with the outpatient conversion factor for 2011. The percentage of outpatient co-insurance dollars at 20% of Medicare allowed is expected to increase as more outpatient services reach that level.

Other factors that influence the outpatient co-payment (i.e. geographic and inflation factors) are also included in the calculation of the outpatient co-insurance price factors. These calculations are detailed and documented in schedule 19.

- The estimated provider fee change factors effective for Medigap and Select Part B outpatient co-insurances beginning January of 2010 and 2011 are 1.0135 and 1.0073 respectively, per schedule 19, line 10.

Utilization/Mix

The utilization/mix trend factor represents the increase in utilization of services from year to year and the changes in the mix of services used. This factor is calculated using trend analysis for each benefit.

Five years of claims experience per contract per month is used to create trend lines. An adjustment was made to exclude claims from roughly 70 subscribers with end-stage renal disease (ESRD) from the utilization trend calculation. These subscribers transferred to Plan 65 from our BlueCHiP for Medicare product during calendar year 2009 after a 20% coinsurance was introduced on dialysis services. Claims expenses for a subscriber with ESRD are much higher than the expenses for the average Plan 65 member, so this migration caused trends to appear higher than they otherwise would have been. We decided to eliminate the impact of this migration on the trend calculation because this was a one-time occurrence rather than a reflection of the underlying trend.

All benefits are converted to their calendar year 2004 price level by dividing out the price factors for each year relative to calendar year 2004. This process is known as "de-pricing," and it assures that any changes in pure premium from year to year are attributed only to changes in utilization and mix of services.

Trend lines are fit to sets of data points utilizing the method of linear least-squares, which is a statistical technique for quantifying trend levels. Linear least-squares has been used for calculating trends for past rate filings. The principle of least squares states that the line of best fit to a series of observed values is the line where the sum of the squares of the deviations (the deviations between the line and the actual values) are the minimum or "least" possible. While it is possible to subjectively draw a line that best fits the data, this method provides a completely objective way of drawing that line. Following standard

Blue Cross procedures, calculations are made to determine the line that best fit the data points with a minimum of the most recent two years of data (the most recent five data points or more). If there does not exist an r-squared value higher than 0.7 with five or more 12-month moving points, or the data is otherwise not conducive to this test, then actuarial judgment is used to select a trend.

Both pools are assumed to have the same utilization trends for each benefit for every year. The trend graphs produced by this method can be found on schedules 20 through 25. The annual utilization trends are as follows:

- The annual utilization trend factor for Part A Deductible is 1.0000, representing an assumed zero percent increase in utilization. Due to the unreasonableness of the indicated trend, actuarial judgment warrants the replacement of the calculated trend, -7.60% with an r-squared value of 0.98 and six 12-month moving points, with a trend of 0.00%, or no change.

- The annual utilization/mix trend factor for the Part A Co-payment is 1.0000, representing an assumed zero percent increase in utilization and mix. Due to the unreasonableness of the indicated trend, and the erratic nature of the benefit, actuarial judgment warrants the replacement of the calculated trend, 12.83% with an r-squared value of 0.75 and twelve 12-month moving points, with a trend of 0.00%, or no change.

- The annual utilization/mix trend factor for 365 Additional Days is 1.0000, representing an assumed zero percent change in utilization and mix. This assumption is based on actuarial judgment, due to a lack of sufficient, stable data to evaluate trends, since by their nature these claims are infrequent and can fluctuate widely.

- The annual utilization trend factor for the Skilled Nursing Facility Co-payment is 1.0388, representing a 3.88% increase in utilization. The calculated trend of 18.92% with an r-squared value of 0.90 and five 12-month moving points is unreasonably high and not expected to continue. 2008 claims expense appeared aberrantly low, and thus the unreasonably high trend represents a reversion to the normal underlying trend. To develop an appropriate utilization trend, we calculated the annualized actual utilization trend from CY 2007 to CY 2009, which yields a much more reasonable trend of 3.88%. This calculation skips over the aberrant CY 2008 experience.

- The annual utilization/mix trend factor for the Part B Deductible is 1.0000; representing an assumed zero percent change in utilization and mix. Actuarial judgment is warranted by the cyclical nature of this benefit. This is due to the fact that the Part B Deductible is relatively small and usually met in the beginning of the year by most subscribers, resulting in a non-linear payment pattern.

- The annual utilization/mix trend factor for the Part B physician co-insurance is 1.0539, representing a 5.39% increase in utilization and mix. This increase is based on the calculated regression trend with the highest r-squared value of 0.97 and seven 12-month moving points. Since this trend meets our minimum r-squared value and there is no evidence to the contrary, this trend was used to project the Part B physician co-insurance claims.

- The annual utilization/mix trend factor for the Part B outpatient co-insurance is 1.0336, representing a 3.36% increase in utilization and mix. The calculated trend is 5.48% with an r-squared value of 0.95 and seven 12-month moving points. However, this trend has developed rapidly over the past year, and actuarial judgment warrants using a more moderate trend. The 3.36% trend was developed using eleven 12-month moving points. The resulting r-squared value from this trend is 0.83, which is still above the threshold set in the methodology. Furthermore, the first point of the data this trend uses appears to be an inflection point.

- The annual pure premium trend factor for the Foreign Travel Emergency benefit is 1.0000, which represents an assumed zero percent change in pure premium. This assumption is based on actuarial judgment, due to a lack of sufficient, stable data to evaluate trends, since by their nature these claims are infrequent and can fluctuate widely.

Once the benefit change, provider fee, and utilization/mix factors have been obtained, they are multiplied together to get the composite projection factor. The composite projection factor represents the overall increase in the pure premium for each benefit from year to year, as shown on schedules 9, 10, 13, and 14.

The pure premium for each benefit has been projected and aggregated to obtain the total projected pure premium for each benefit plan for calendar 2011.

➢ ***Retention***

The retention component of the required rate is made up of six parts; the administrative expenses, system replacement expenses, investment income credit, contribution to reserve, federal tax, and state tax.

The administrative expenses represent our expected costs for administrating the Plan 65 non-group products during the rate year. The projected costs for calendar year 2011 are shown on schedule 27. Similar to the claims expense, only calendar year 2011 is needed for the rate calculation. The administrative expense during the rate year is $19.25 PCPM. The 2011 Plan 65 budget was developed by utilizing the 2009 actual cost allocation ratios applied against a projected corporate budget. Areas that are impacted by enrollment were

adjusted to reflect the gains/losses in the market place. In addition, areas that are corporate in nature were adjusted to reflect the corporate outlook (i.e. cost reduction strategies, strategic projects, etc). The budget was also compared by natural account (personal service cost, equipment, consulting, etc.) to prior year actual experience and some adjustments were made based on observed trends.

The system replacement expenses represent expenses associated with the core computer system replacement project (i.e. TriZetto Facets) that will replace the current LSRP system. These expenses are intended to recoup extraordinary expenses necessitated by the installation of the new BCBSRI core operational computer system. BCBSRI is collecting an assessment of 0.34% of premiums from all lines of business, including Plan 65. Thus, 0.34% of the Plan 65 Non-group rates effective February 1, 2011 will contribute toward these expenses.

The investment income credit component represents the reduction of the required subscription income PCPM due to the anticipated return on invested funds. This credit is calculated by looking at the contingency reserves, prepaid subscriptions, and claim reserves and is applied as a percentage of the projected pure premium plus the administrative expenses per contract per month. This percentage is calculated to be 0.21%.

The contribution to reserve/tax factor of 0.9800 accounts only for the state premium tax. The state premium tax is currently 2.00%, per section 44-17-1 of the RI general laws. This factor does not include a provision to contribute to corporate reserves.

The administrative expenses, system replacement expenses, investment income, contribution to reserve, federal tax, and state tax components cover the retention portion of the required rate.

➢ ***Required Rate Adjustment Factor***

The projected pure premium plus the retention portions yield the required rates. The required rate adjustment factor for a given plan is calculated as the required subscription income divided by the present weighted average subscription income.

The present rate of income (PRI) for each plan is calculated first by dividing the total Plan 65 PRI at April 2010 without age-in credit by the total Plan 65 PRI at April with age-in credit. This divisional factor is then applied to the PRI without age-in credit for each plan to yield the PRI used for rating purposes. This process ensures an equitable distribution of age-in credit savings for rating purposes. This calculation can be found on schedule 16. It is important to note that this process does not change the overall required rate increase, but simply distributes the impact of the existing age-in discounts evenly across all plans.

After calculating the PRI, the required rate is divided by the PRI for each plan yielding the rate adjustment factor for each plan. The rate adjustment factor represents the required increase to the present rates.

In the cases of Medigap B and Select L, the rate adjustment factors for those plans were exceptionally high. The Medigap B and Select L required rate increases are 42.0% and 28.7%, respectively. These rate increases are undesirable as they would be unaffordable to the subscribers in those plans, so this warrants redistributing the rate increases for the Medigap and Select L combined pool.

Medigap B was originally priced at a discount relative to Medigap C and that discount was intended to be permanent. Therefore, in order to maintain this discount, Medigap B should receive the same rate increase as Medigap C. Also, we decided to cap the rate increase for Select L at 16%. While the Select L increase is still high, it allows us to ease-in the fully adequate rates for Select L over the current and future filings. In order to satisfy these two conditions and still collect the necessary premium, we spread the shortfall to the other two plans in the pool, Medigap A and Medigap C. Their rate adjustment factors were increased by 0.3% to make up for this shortfall. This redistribution of required premium is shown on schedule 6.

The rate adjustment factor is then multiplied by the present monthly subscription rates in each plan to derive the required monthly subscription rates.

➢ ***Conclusion***

In conclusion, the pure premium and retention portions of each Medigap and Select plan comprise the total rate for this year's rate filing. The pure premium is projected from calendar year 2009 to 2011 using factors accounting for benefit changes, provider fees, and utilization/mix. The retention components encompass our expected administrative expenses, system replacement expenses, investment income credit, and reserve contribution and tax liability. The sum of these components yields the required subscription income. The required subscription income divided by the adjusted present rate of income yields the required rate adjustment factor for each plan. Where the rate adjustment factors were deemed exceptionally high, they were lowered while the premium shortfall was spread to other products. The rate adjustment factor is then applied to each plan individually to yield the required rates for each product.