



AMERICAN ACADEMY *of* ACTUARIES

Date: May 3, 2007

To: Julia T. Philips, Chair, NAIC Health Risk-Based Capital (RBC) Working Group

From: Darrell D. Knapp, Chair, American Academy of Actuaries'¹ (Academy) Health Practice Financial Reporting Committee (HPFRC)

Re: BCBS Florida Proposal on Treatment of Medical Active Life Reserves in RBC

Dear Ms. Philips:

The NAIC's Capital Adequacy (E) Task Force had previously made a request of the Academy, asking it to provide comments on a proposal made by Blue Cross Blue Shield of Florida regarding the treatment in the NAIC RBC formulas of medical insurance products for which active life reserves are held. As the Academy no longer has a standing Health RBC Task Force, this matter has been referred to HPFRC. The purpose of this letter is to provide HPFRC's initial thoughts on this matter and seek further input from the NAIC in light of these thoughts.

Background

In the current Health RBC formula, the treatment of medical insurance products (including Medicare Supplement and dental) in the H2 component does not vary based on whether or not the medical insurance products carry active life reserves (ALR). The same is true for the treatment of medical insurance products in the C2 component of the Life RBC formula. For ease of use, throughout this document we will refer solely to H2 risk in the Health RBC formula, although this subject is equally applicable to C2 risk in the Life RBC formula.

Recently, a proposal was made by BCBS Florida to modify the H2 treatment for medical insurance products where ALR are established due to issue-age pricing and/or pre-funding of the wear-off of underwriting selection. Under the proposal, the H2 risk for such products would be reduced for products with ALR, relative to products without ALR; the amount of the reduction would be proportional to the ALR recorded in the statutory financial statement. Based on actuarial modeling performed by Milliman USA, which was done to support the BCBS Florida proposal, BCBS Florida proposed a H2 credit equal to 2% of the ALR balance.

¹ The American Academy of Actuaries is a national organization formed in 1965 to bring together, in a single entity, actuaries of all specializations within the United States. A major purpose of the Academy is to act as a public information organization for the profession. Academy committees, task forces and work groups regularly prepare testimony and provide information to Congress and senior federal policy-makers, comment on proposed federal and state regulations, and work closely with the National Association of Insurance Commissioners and state officials on issues related to insurance, pensions and other forms of risk financing. The Academy establishes qualification standards for the actuarial profession in the United States and supports two independent boards. The Actuarial Standards Board promulgates standards of practice for the profession, and the Actuarial Board for Counseling and Discipline helps to ensure high standards of professional conduct are met. The Academy also supports the Joint Committee for the Code of Professional Conduct, which develops standards of conduct for the U.S. actuarial profession.

Theoretical Considerations

In discussing the issue of whether medical products with ALR should have a different H2 treatment than medical products without ALR, we have noted a number of arguments operating in different directions. In thinking about this issue, the only relevant situations are those in which the experience of the insurer's medical insurance block deteriorates, as those are the situations where the capital required to support the block is positive.

The BCBS Florida proposal focuses on the following argument. As a block of medical insurance with ALR becomes impaired, the insurer will react by increasing rates, which will lead to higher-than-expected lapsation. There are no non-forfeiture benefits with medical insurance, so when a policyholder lapses, the insurer gets to release the entire ALR for that policyholder into surplus. As such, some portion of the insurer's losses on the block, due to deteriorating experience, will be offset by gains from ALR releases on lapsing policyholders. These gains will mitigate the insurer's path towards ruin. Since this source of gains would not be available to an insurer whose medical products do not have ALR, BCBS Florida argues that medical products with ALR have lower risk than those without ALR.

However, there is a counter-argument to this view. As a block of medical insurance with ALR becomes impaired, it will likely become apparent to the insurer that the morbidity assumptions underlying the original ALR factors were understated. As such, while it is true that the insurer will enjoy gains from the release of the ALR on lapsing policyholders, it will likely be necessary for the insurer to strengthen the ALR held on persisting policyholders, in order to continue to meet statutory requirements on reserve adequacy. Since an insurer whose medical products do not have ALR would not need to consume surplus by strengthening its ALR, this line of reasoning suggests that medical products with ALR may actually have higher risk than those without ALR.

The argument above focuses on the speed with which ruin is attained in situations where ruin will eventually occur. The perspective that argues in support of the BCBS Florida proposals, that medical products with ALR have lower risk, is rooted in the belief that the existence of the ALR mechanism diminishes the likelihood that the block of medical business will ever become impaired. All else being equal, annual rate increases should be lower for a block with ALR than for a block without ALR. Hypothetically, this should limit the probability that a block with ALR will get into a rate spiral, compared to a block without ALR.

On the other hand, in situations where ALR are held, the insurer has typically given up some form of flexibility with respect to setting future rate levels. As such, it is intuitive to argue that an insurer who issues medical policies with ALR would bear more risk per policy than if the medical policies did not have ALR.

In conclusion, we feel that there is no clear theoretical case either in favor of, or in opposition to, the proposal that medical insurance with ALR is less risky than medical insurance without ALR. This motivates the need for actuarial modeling in order to shed light on the issue.

Another complicating factor in this discussion is the question of whether RBC treatment should solely reflect theoretical risk differences, or instead also take into account regulatory priorities.

Suppose that it were determined that medical products with and without ALR had the same theoretical risk characteristics. This does not necessarily imply that ALR should not be taken into account in determining the H2 treatment of medical insurance.

From a policyholder's perspective, replacing an existing issue-age-rated policy may cause more financial harm than replacing an attained-age-rated policy. This distinction would theoretically increase as the level of pre-funding increases. Consequently, regulators could determine that medical products with ALR should receive a higher H2 factor than medical products without ALR in order to provide a higher level of protection to holders of issue-age-rated medical policies.

Conversely, in recent years, actuarial regulators have expressed an interest in rate stability as a key objective of health insurance rate regulation. Medical products with ALR tend to lead to more predictable rate increases than medical products without ALR. Consequently, regulators could determine that in order to promote rate stability, medical products with ALR should be given a competitive advantage by being assessed a lower H2 factor than medical products without ALR.

Milliman Model

After reviewing the BCBS Florida proposal and the associated actuarial modeling performed by Milliman in support of the proposal, we feel that some changes to the model would be desirable before the results of the model could form the basis for a potential recommendation to change the H2 treatment of medical products with ALR.

The Milliman model is a variation of the original model used by the Academy to develop the H2 factor for medical insurance. As the original model did not contemplate ALR, modifications to that model were required. The modifications implemented in the new Milliman model largely involve the definition of operating gain. Two new components of operating gain are included for products with ALR. First, a component is added to reflect gains from the release of ALR due to excess shock lapsation associated with rate increases. Second, a component is added to reflect investment earnings on the ALR in excess of required interest. For purposes of the model, the ALR is assumed to represent a constant multiple of premium throughout the projection, i.e., the ratio of ALR to premium does not vary with either time or with the block's experience. The choice of this constant multiple assumed that the insurer's block was in a steady state.

Our principal observation of this model is that it does not address the potential need to strengthen ALR (i.e., increase the ratio of ALR to premium and hence decrease operating gain) due to worsening morbidity in the scenarios where the insurer's experience is deteriorating. As discussed earlier, the need for ALR strengthening during a rate spiral may be significant in determining the capital required to support a product with ALR. A more sophisticated approach to modeling the evolution of the ALR would seem to be necessary in order to properly capture

this dynamic. In light of this issue, it seems likely that the Milliman study understates the capital requirements for medical products with ALR.

Another question regarding the model is the treatment of investment earnings on the ALR. The model allows interest gains on the ALR (i.e., investment earnings less required interest) to flow into operating gain. If this were not allowed, then presumably the study would have produced higher capital requirements for medical products with ALR. This raised a question in our minds: Is there precedent within the NAIC RBC structure (i.e., within the Life RBC formula) for a capital requirement to be reduced due to an assumption that the interest rates used to discount the insurer's reserves are conservative? If not, then the issue under discussion might not be the appropriate place to initially adopt such an approach to determining capital requirements.

Finally, we do not understand why the treatment of variation in lapse experience in the model should be asymmetric. The model provides for additional operating gain due to ALR releases due to higher-than-expected lapses, but it does not provide for lower operating gain in situations where lower-than-expected lapses result in higher-than-expected ALR growth. However, we do not expect that this issue is likely to materially impact the study results.

Practical Considerations

Under the BCBS Florida proposal, the amount by which the insurer's H2 is reduced would be directly proportional to the amount of ALR recorded by the insurer. Even if it were determined that giving medical products with ALR a favorable H2 treatment was both appropriate and desirable, the form of the BCBS Florida proposal may be problematic in practice.

Potential implementation difficulties with this approach include the following:

- This approach assumes that the medical insurance ALR for which credit is appropriate can be readily distinguished from other Accident & Health ALRs for which the credit would not apply. In practice, it seems likely that mistakes would be made by insurers in completing the RBC formula and state regulators might not be well-positioned to catch those mistakes, resulting in an under-reporting of Authorized Control Level (ACL) RBC by some companies who took more ALR credit than they were entitled to.
- Since the modeling underlying the ALR credit factor was based on a certain assumption as to the ALR-to-premium ratio, inappropriate results could ensue from applying the factor to insurers having different ALR-to-premium ratios than the model assumption. Some form of limitation on the ALR H2 credit may be necessary to protect against this situation.
- There is a wide variety of practice among health insurers as to how ALR for medical insurance are calculated and what types of risks are being pre-funded via the ALR mechanism. A one-size-fits-all approach to providing H2 credit for ALR may provide an excessive credit to some insurers and an inadequate credit to others.

Next Steps

We believe that substantial additional analysis would be necessary in order to support any modification to the H2 treatment for medical products with ALR. In light of the discussion in this letter, we would like to have the Health RBC Working Group first address whether a credit to the risk charge for ALRs is appropriate or desirable, and then provide some guidance as to priority setting and how to address some of the issues raised above.

If the Working Group would like HPFRC to move forward on this subject, we would then attempt to work with BCBS Florida to have appropriate modifications made to their model, in order to support a specific recommendation regarding an action to be taken.

If there are any questions about these comments, I invite you to contact Geralyn Trujillo, the Academy's staff liaison to the Health Practice Financial Reporting Committee, at (202) 785-6924 or trujillo@actuary.org. Also, if it is desired by the Working Group, we can make a representative available at the Summer NAIC Meeting in San Francisco to discuss this topic. Thank you for your time and consideration.

Sincerely,

Darrell D. Knapp
Chair, Health Practice Financial Reporting Committee
American Academy of Actuaries

cc: Mike Abroe, Chair, Academy Committee on State Health Issues
Dan Swanson, NAIC staff