SOCIETY OF ACTUARIES

Article from:

Health Section News

October 2004 – Issue No. 48

Reserving Challenges for Consumer-Directed Health Products

by Steve Kaczmarek

New health care products always come with new challenges for the actuaries responsible for their development and upkeep. The introduction of consumer-directed health plans (CDHPs) is no exception. Actuaries responsible for the pricing and reserving of health reimbursement arrangements (HRAs) and health savings accounts (HSAs) are faced with a new set of challenges and must continually evaluate the appropriateness of their methods and the reasonableness of their results in light of new information as it becomes available. Since very little has been written on this topic to date, this article provides some new perspectives to which other actuaries can react and respond. It outlines a number of considerations for developing appropriate reserve levels for CDHPs and explains a technique that can be used to develop one of the reserves that may need to be held by an insurer or by the plan sponsor of an ASO plan.

Reserve Types

There are three broad categories of reserves that could conceivably be held for a health product.

1) Claim reserves: CDHPs, like all health products, require a claim reserve. Claims incurred, but not paid as of a certain date, need to be recognized and a reserve calculated. An adjustment to traditional reserve approaches may be necessary to recognize the difference in how claims are likely to be paid for a CDHP product compared to more conventional health care coverage. In addition, aggregate reserve levels will likely fluctuate a bit more for high-deductible plans than other policies.

- The structure of an HRA may cause an additional layer of complexity for IBNR calculations when the policy covers both the fund (either an HRA or HSA fund) and the high deductible core medical coverage. Insurers that write such policies will have an initial liability for the fund involved, followed by a corridor of the consumer's responsibility for payment until the deductible is met, and finally the insurer is liable for most of the claims in excess of the deductible. As fund balances accumulate, insurers will be faced with changing liabilities from the different magnitudes in coverage and gaps in coverage. As CDHPs grow in popularity, it may be necessary to recognize and account for the durational mix of business since the typical size of the gap could vary significantly for the participants in a book of business based on the number of years that they have been participating in a CDHP benefit and accumulating a fund balance. There are at least two factors that will influence the typical gap (or distribution of gaps) between fund and core medical coverage. The number of new accounts (which will have relatively low fund balances) and the number of new participants within the groups covered (due to turnover or new elections at open enrollment) will both have an impact on the level of fund balances.

- The paid claim pattern is often different for high-deductible plans, which typically accompany HRAs, than for plans with first dollar coverage or small deductibles. Since incurred claims may not exceed the high deductible in the first few months of a policy year for many plan participants, the paid claim pattern will be different than other

plans. One important example of that difference is that the percentage of total claims paid in the second half of a policy year is likely to be greater than the first half of the policy year. As a result, valuation actuaries may need to recognize the policy year start date distribution for the book of business for which the reserves are being calculated. The claim reserve at year end will be greater for a block of business with a predominance of first-quarter effective dates than for a block with fourth-quarter effective dates. While this will not directly impact the reserve calculation, it may explain more volatile variations in total claim reserves from quarter to quarter than is normally otherwise observed.

2) Policy Reserves: HSAs vest immediately and are the property of the individual consumer who owns them, so a policy reserve would not be necessary. Policy reserves may be necessary for HRAs, however, if the product was priced to reflect the present value of the claims that eventually result from the current policy year's fund contribution. The need for such a reserve would apply to both an insurer or an employer that self-funds its employee benefits. For example, if an employer contributes $400 per employee per year to an HRA, the average employee is likely to use a portion of that fund in the first year. However, since the unused balance rolls over into the next policy year, one might view the $400 as being earned in the first year, which would require a reserve to reflect the accounting principal of revenue and liability matching (discounted appropriately for interest and withdrawal). A strong case can be made for this requirement if you consider a person close to retirement. Since HRA funds can be used after the employee retires, it makes sense to hold a liability to reflect that future obligation. An insurer's policy language will govern exactly how its product works, but even in the event that an employer switches back to a conventional plan after only one year in an HRA, the insurer may have a liability to pay out on fund balances for the employees that retire after one year in the fund.

If the insurer prices the product based on the expected claim cost, comprised of the portion of the fund used in the policy year as well as the claims from the high deductible plan, an insurer may be able to rationalize that a policy reserve is not needed (except, perhaps for the covered individual that retirees at the end of the year). In this case, however, the annual increase in the premium would be significantly higher than other plans and could cause persistency problems for an insurer. The significant premium increase results from larger total HRA fund payouts in the second and subsequent years from unused first-year rollovers.

3) Premium Reserves: An insurer may need to establish premium reserves, the same as any other product, depending on the premium payments received. However, the need for premium deficiency reserves is more likely for a new product with an unproven claim history. Premium deficiency reserves are fundamentally different from policy reserves. Policy reserves recognize a liability from a planned timing difference between premium receipt and benefit payment while premium deficiency reserves result from an unexpected claim development. As insurers assess their experience they may need to establish a premium deficiency reserve for their CDHP products if the payouts from the funds occur differently than planned.

Insurers cannot usually combine the results of their CDHP products with their PPO block of business based on requirements from the NAIC's Statement of Statutory Accounting Principles number 54. It states, "Contracts shall be grouped in a manner consistent with how policies are marketed, serviced and measured." Since CDHPs are marketed and tracked as a distinctly different product than PPOs, an insurer will need to perform premium deficiency tests for those policies as a separate block of business. A case could be made, however, to group all of a carrier's PPO business if the policy is written to provide PPO coverage only and the group self-funds the HRA fund. In addition, if the volume of HRAs is immaterial it may be permissible to combine the policies with other similar products.

New Policy Reserve Technique

Since sufficient claims experience may not exist to determine fund use patterns, it may be necessary to model how and when participants will use the funds that are deposited into HRAs so that policy reserves can be calculated. One well-suited approach to this problem uses claim distributions that are modified to reflect the characteristics and anticipated morbidity of the block of business. The group is stratified into a number of major categories that represent a variety of health care use

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patterns (e.g., people with chronic conditions, healthy people with occasional claims). The distributions are used to generate multiyear claims patterns including the impact of random high-dollar claim events (e.g., major traumas). The claim projections of the individuals are aggregated to reflect the composition of all enrollment tiers since the HRA funds are managed at the employee level and not the member level. Termination and retirement rates appropriate for the block are factored in and scenarios are generated to estimate fund balances at different durations. Projections should be performed for a sufficient period of time to assess the liability. The sensitivity of the underlying assumptions should also be tested to determine their impact on the resulting liability. The outcomes can be quite different in groups with different turnover rates.

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Future Challenges

New legislation continues to impact CDHP products and the variations of this type of medical benefit. Valuation actuaries will need to continue developing appropriate modeling techniques for new variations and refining their models as credible claims experience evolves. Sharing our successes with these techniques and models will benefit the profession and foster an environment that benefits the industry and promotes the image and reputation of our profession.

Meet The New Kids

The Younger Actuaries section got the nod of approval at the Board of Governors June 2004 meeting. The new section was created out of the need to establish a stronger link to recently qualified and future actuaries. Led primarily by younger actuaries, the section will work to advance the actuarial profession by addressing the needs of actuaries who are in the earlier part of their careers. Among other activities, the section will serve as a venue for identification and development of future SOA leaders, will educate its members about and give them a voice in SOA activities, increase the sense of belonging to the profession, and will develop various programs targeted at professional advancement of younger actuaries. There is no age or credential requirement to join the section. Senior members are encouraged to join to stay in touch with the ideas and needs of the next generation of actuaries and to serve as mentors to the younger actuaries. Candidates and those early in their career are encouraged to join to link to the profession and benefit from section programs and activities that will further their professional and personal development. In order to ratify the section, 200 SOA members must sign up. Please support this cause, sign up today at: *www.soa.org/ccm/cms-service/stream/asset/?asset_id=5179052&g11n*

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The Health Section continues to focus our efforts on activities to help our membership meet these opportunities and challenges. Two activities in particular come to mind. The first is continuing education. Through this newsletter, seminars, and health related sessions at the Spring and Annual SOA meetings, we strive to bring our members useful and timely information on topics relevant to their everyday work. A big thanks to Jeff Miller, Darrell Knapp, Karl Volkmar, and Catherine Liang for their leadership roles in continuing education. The second activity is the Health Section's sponsorship of relevant, practical and timely research. We currently have a number of active research projects on topics such as the Evaluation of Medical Management Interventions and Analysis of Claims by Policy Duration for Individual Major Medical Insurance. Several research RFPs are also underway, these include a general RFP for research relevant to practicing health actuaries as well as a targeted RFP on Stochastic Methods for Health Insurers.

We welcome your feedback and suggestions. Only you, our members, can tell us whether we are achieving our goal of identifying the issues most important to you, and better preparing you to address those issues.

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