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## ***LTCI Product Pricing Discussion***

*by Andrew Herman*

*Editor's Note: This article is extensively edited from a presentation on LTCI product pricing given by Andrew Herman at the 1999 SOA Spring Meeting in Seattle, WA. The complete transcript will be available in the Record.*

**T**his article shares some professional and regulatory considerations in LTCI product pricing, selection of pricing assumptions, the impact of product features, and some of the common pricing pitfalls.

I'm sure most have read the revised Actuarial Standard of Practice (ASOP) No. 18, which has been around for many years, but was just recently revised and is effective for all work performed on or after June 1, 1999. The revisions are actually pretty significant.

ASOP No. 18 addresses coverage and plan features, assumption setting, premium rate and reserve determination, sensitivity testing, cash flow testing, experience monitoring and communications and disclosure. There are several new features in the revised standard that are of particular importance, the most notable being that the actuary is to establish claim incidence rates, claim termination rates, and costs of eligible benefits separately for at least nursing home, assisted living facility, and home care benefits. Those actuaries who have been adding a claim cost load to their facility assumptions to cover the costs of home care are not following the ASOP. Even more significant is the guidance with respect to assisted living facilities.

Another important point is to identify experience assumptions that are likely to change materially over the plan term, and consider reflecting changes when setting assumptions.

One point which cannot be over-emphasized is that the actuary

should not rely on anticipated future premium increases to justify unrealistic assumptions.

The final point is that the actuary has a responsibility to inform the sponsoring entity of the need to collect experience data in a manner that permits the actuary to compare assumptions with emerging experience.

Pricing actuaries who are involved in product filings, of course, are familiar with the actuarial certification that must be in the actuarial memorandum to obtain product approval, and most states accept fairly standard language that benefits are reasonable in relation to premiums. A couple of states, such as Colorado, require special language. In Colorado, one has to certify that premiums for the line of business are not excessive, inadequate or unfairly discriminatory.

There's an annual rate filing requirement in Florida, and the state has been enforcing this requirement. If one is filing new LTCI products at this time and the company is out of compliance with the annual rate filing requirement, one might encounter some difficulty getting the products approved. The required rating certification is meaningful because the actuary must consider actual past experience relative to pricing expectations before certifying that premiums are still reasonable in relation to benefits. Essentially, through regulation the state is requiring active management of premium levels for in force long-term care business. And since new product filings must compare benefits and premiums to in force products, the state's requirement of active rate management in practice extends to newly developed products as well.

Colorado has an annual rate filing requirement. While the state has taken a different approach from Florida, the intent (to encourage

proper initial product pricing) is similar. For Colorado business, an actuary must certify that the premiums for the LTCI line of business have remained level for existing policyholders and are expected to remain level over the life of the policy. Of course, this certification would only be applicable for business that does not appear to the actuary to be in need of a rate increase.

In terms of consistency among assumption sets, I have seen actual practice where the actuary has several distinct sets of assumptions. In one case, the actuary had a filing assumption set, a pricing assumption set, and a valuation assumption set, and none of them really had any relation to each other. I would not advise such a practice. But with that said, there are some differences between the assumptions used in your loss ratio demonstration and your pricing assumptions. Consequently, in practice the pricing lifetime anticipated loss ratio generally is not the same as the filing lifetime anticipated loss ratio.

I would emphasize in regard to the loss ratio demonstration that your assumptions underlying the demonstration should be consistent with your pricing assumptions. Any material differences should be disclosed.

I think the key difference between the filing and the pricing lifetime loss ratio is the specific interest rate used. In most product filings, the actuary will present the lifetime anticipated loss ratio as well as expected annual loss ratios; and, of course, the lifetime ratio is calculated using some interest rate. Whether this interest rate should be an after-tax rate or a pre-tax rate does not seem clear; I don't think there's really an industry standard or specific professional guidance. I believe that many actuaries choose to use the statutory

valuation interest rate in the filing lifetime loss ratio calculation, which is close to an after-tax pricing interest rate, but it may actually be a little higher. Personally, I use the valuation rate, and I think that works everywhere except for the states of New Jersey and New York, which mandate some special interest rate.

In terms of the definition of the loss ratio, states will generally accept the present value of paid claims plus change in claim reserves and liabilities (without an interest adjustment) divided by the present value of premiums. Paid claims plus change in claim reserves is sometimes just called policy benefits, and I think most states will accept this definition with the calculation of the lifetime loss ratio made using the valuation interest rates. For individual LTCI, most states have a 60% minimum loss ratio standard, except I believe there are four 65% states: New Jersey, New Mexico, New York and Wisconsin.

If you were to calculate the loss ratio on a paid basis rather than an incurred basis, and use your pricing pre-tax earned rate, you'd likely have a loss ratio in the 50% to 55% range. Since on the surface this result may appear to be out of regulatory compliance, it is especially important to disclose assumptions and methodologies in new product submissions.

In Florida the actuary must demonstrate compliance of each combination of base policy plus optional rider, so there can't really be any subsidies across benefit options. Maine continues to require a paid definition of the loss ratio. Compliance with this definition may require a company to lower premiums in order to obtain product approval, and commissions might need to be reduced in Maine (as they often are in the 65% loss ratio states) to maintain product profitability.

Several states have regulatory requirements of some form of level commissions. Delaware, like

Indiana, has adopted the 200% rule, which states that total first year compensation can be no more than 200% of the renewal year compensation, and that must be paid for a reasonable number of years. Wisconsin has a 400% rule. Michigan requires level commissions for the first three policy years for ages 65

spousal discounts that are based on the purchase of a separate contract and, interestingly enough, the state cites the entire contract provision of the policy. While this makes some sense, when both spouses purchase a policy the carrier has evidence that a healthy care-giver is present. National statistics along with the

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and up. Pennsylvania has a commission cap: 50% in the first year and 10% in renewal years for the direct writing agent.

As the regulatory environment for LTCI continues to evolve, new state regulatory issues generally emerge with each new product filing. Here are three product issues that have surfaced recently:

1. Care coordination provisions, which serve the company's interest by helping to control claim costs, may also serve to minimize disputes between claimants, doctors, and the insurance company. Yet, several states generally resist approval of LTCI products that include such provisions. Texas consistently resists approval of policy incentives in which a higher level of benefits is paid when benefits are accessed through the company-approved care coordinator. Missouri just very recently has been going the route of Texas. Other states that closely review care coordination provisions include Pennsylvania and California.

2. Spousal discount is another. Most of today's policies offer a 10%, 15% or even 20% spousal discount for both policies when a husband and wife are issued. Michigan requires an actuarial statement certifying that the spousal discount is experience-based.

Recently, Florida began rejecting

vast majority of LTCI industry experience indicate that the presence of a primary care-giver significantly impacts benefit utilization. In Florida one very well may have to base eligibility on marital status alone with no other requirements. Further, the state generally resists approval of discounts that may be removed in the event of divorce or death.

New Jersey and South Dakota are other states in which one may encounter some difficulty obtaining approval for spousal discounts.

3. The industry is leaning increasingly towards selling tax qualified (TQ) LTCI coverage rather than non-tax qualified (NTQ) coverage. However, many carriers, particularly in the brokerage marketplace, need to have a NTQ product available because the agents like to sell it.

California is the one state that requires a NTQ product offering, based on state-regulated benefit triggers.

For a NTQ product in Tennessee, three benefit triggers are required. One of these is medical necessity, which is particularly of concern for home care benefits. Many carriers that market NTQ home health care coverage will not offer such coverage in Tennessee.

A company's field force may desire to sell a TQ policy with the familiar

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two of six ADL benefit triggers, and a NTQ policy at the same rates but that triggers benefits from only one ADL. From an actuarial perspective, this construct may be feasible, for instance, when the ADL list in the NTQ policy is pared down to five ADLs by excluding bathing (which is generally the first ADL lost). But, with states that have adopted a regulation that requires definition of six ADLs (including bathing) in the NTQ policy, the construct breaks down. Either the premiums would need to be increased, or the NTQ ADL benefit trigger would need to be changed to two of six, as in the TQ policy.

Regarding pricing assumptions, I have seen several cases where a rate increase is needed because the original termination assumptions were on the high side. Now that the industry is a little more mature, we're getting a feel for what the ultimate lapse rate looks like. Some carriers are experiencing an ultimate voluntary lapse rate as low as 2%. If the actuary priced with 10% ultimate lapse, there's really going to be a deficiency in the premiums. It may be appropriate to vary lapse rates by issue age, payment method, benefit type or other factors. The first year lapse rate and the Not Taken Out (NTO) rate may be influenced by your distribution system. High pressure tactics generally will lead to high NTO rates and first year lapses.

When setting mortality assumptions, most actuaries would agree that life insurance tables are inappropriate because they are conservative in the wrong direction for LTCI. Good sources for mortality assumption may be U.S. population data along with selection factors or an annuity table such as the 1983 GAM or the 1994 GAM.

For morbidity assumptions, I think everyone would agree that your own company's experience is the most relevant source. You should consider the sales region, the type of

distribution system, and the level of underwriting expertise. Region has been a real issue. Some of the states in the Midwest, including North Dakota, have had utilization problems with facility coverage. Other regions, such as South Florida, have experienced claim problems with home health care. Home health care utilization in general will be higher in large metropolitan areas, such as Chicago, Houston and Los Angeles, relative to rural areas. Regional pricing may be the best strategy, particularly for a stand-alone home health care policy.

The net investment income assumption is going to have a huge impact on these products because there's a very long tail on them. I've seen some companies recently setting the assumption for the pre-tax interest rate as low as 6.0% level. Larger carriers often are more aggressive in assumption setting, as they can segment their assets to benefit from the longer duration of the LTCI liabilities. Today, they may be able to use a rate of 7% or 7.5%, perhaps grading down over time. It is critical to avoid a disconnect between your assumptions and your actual investment practices.

Agent compensation is the biggest piece of expenses. Broker total compensation rates as a percent of premium are usually in the neighborhood of 75% first year and about 15% renewal years. The first year rate may be even higher, particularly at the younger ages. To help maintain product profitability, it may be helpful to design riders to pay no commissions or just first-year commissions only. Like riders, guaranteed purchase option increases are an element of coverage in which full commissions may not be paid. It also helps profitability to not pay commissions on waived premiums or rate increase premiums, if there are any.

In thinking about how product features impact claims, several features come to mind.

☞ Whether your coverage is stand-alone or comprehensive is

very, very important. Stand-alone coverage, most notably home health care, has had different experience relative to policies that cover the whole continuum of LTC. Many carriers market stand-alone home care coverage with premium rates that are two times or two and a half times the rates of a home health care rider, and it's actually the right number.

☞ In particular for stand-alone home care coverage, care coordination has proven effective in controlling claims; the pricing should take into consideration any such provisions..

☞ Automatic inflation increases of 5% compounded annually are generally required by states, so these benefits are offered everywhere. The high price tag has really limited sales. Some companies sell about 90% of their business with no inflation protection, which becomes a consumer issue, but guaranteed purchase option provisions help address the issue. Through these provisions, policyholders that don't purchase inflation protection at issue will have the ability to increase coverage later without providing evidence of insurability. It is critical to price compound inflation benefits properly. There may be a tendency for the actuary to inflate the claim costs by 5% compounded annually. That doesn't quite work, because one thereby ignores the continuation of inflation protection after claim status begins. That could mean understated attained age claim costs by 30% at age 50 decreasing to 10% over attained age 85.

☞ Waiver of premium for confinement is a standard feature in today's contracts. Competition has led carriers to waive premium on home health care; often benefits with some regularity are required, such as eight days per calendar month or four or five days per week. Waiver of

premium provisions are very, very costly at the older issue-ages, and it generally would not be suitable to load premiums across the board by a flat percentage. Using a proper modeling approach, the waiver provision should cost 20%, 30% or even more at the older issue ages.

☞ Dual waiver is popular among some of the carriers, particularly in the brokerage marketplace. There, the premium for a spouse policy may be waived whenever the policyholder's premium is waived; or one may waive the spouse's premium just on the policyholder's confinement rather

than on home health care, to keep the cost down.

☞ The lifetime waiver of premium for surviving spouse benefit is appealing from a marketing perspective but presents significant risk to the company. The policy becomes non-cancelable once it's paid up. I'm not sure how one reflects that in pricing, but one certainly should think about it. Currently, there are many variations in the benefit design on the market, yet it may be difficult to obtain approval in certain states. Florida will object to benefits of this nature if they are included in the base policy; the benefit must be

offered only as an optional rider.

☞ Limited pay policies tend to be even riskier than lifetime waiver provisions. In today's marketplace, several carriers are marketing ten pay, and a few are even offering single pay. I personally would not advise doing single pay at this point unless one can charge quite a bit of extra premium to cover the non-cancelable aspect.

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## ***President Clinton's Long-Term Care Initiative Presentation on January 4, 1999***

*by Gerald Elsea*

**O**n January 4, 1999, President Clinton and Vice President Gore unveiled a long-term care initiative to support family caregivers and help address growing long-term care needs. This is a 4-part initiative, costing \$6.2 billion over five years. Over 5 million Americans need long-term care due to illness or disability. Two-thirds are elderly and one-third are younger adults or children that have either birth defects or have developed a chronic condition. The number of Americans 65 and older will jump from 34.3 million presently to 69.4 million by the year 2030. Twenty percent of Americans will then be elderly. The population of 85 and older individuals will rise from 4 million currently to 8.4 million in the same time frame and almost half will need assistance with activities of daily living.

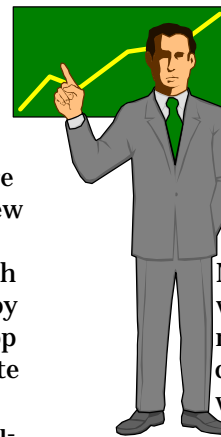
The initiative has four parts and is designed to address the broad-base and varied needs of the population. The four parts are:

1) A \$1,000 tax credit to individuals

who need long-term care or to the family members who care for and house their ill and disabled relatives. The tax credit would support a wide range of formal or informal long-term care for people of all ages. This proposal would provide needed financial support to about 2 million Americans including 1.2 million older Americans, over 500,000 non-elderly adults and approximately 250,000 children.

2) The creation of a National Care Givers Support Program. This new program would support families who care for elderly relatives with chronic illnesses or disabilities by enabling states to create "one-stop shops" that provide quality respite care and other support services; critical information about community long-term care services that best meet a family's needs; counseling and support, such as teaching model approaches for care-givers that are coping with new responsibilities and offering training for complex care needs.

3) Launch a national campaign to educate Medicare beneficiaries about the program's limited coverage of long-term care and how best to evaluate their options. Nearly 60% of Medicare beneficiaries are unaware that Medicare does not



cover most long-term care and many do not know that long-term care services would best meet their needs. This new nationwide campaign would provide all 39 million Medicare beneficiaries with critical information about long-term care options including: what long-term care does and does not cover; how to find out about Medicaid long-term care coverage; what to look for in a quality private long-term care policy; and how to access information about

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