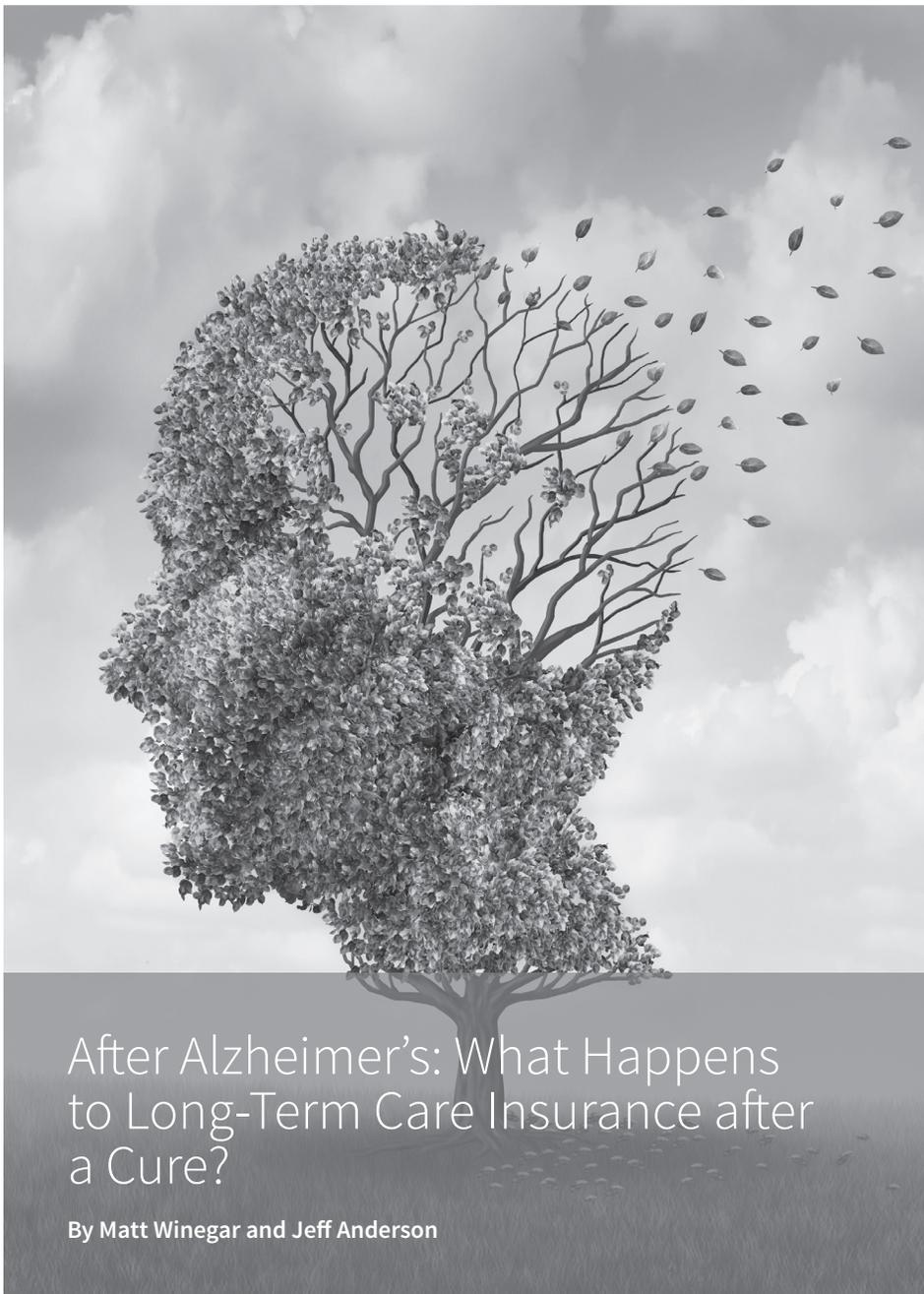


Long-Term Care News



**SOCIETY OF
ACTUARIES**

**LONG TERM CARE
INSURANCE
SECTION**



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Long-Term Care News

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To join the section, SOA members and
non-members can locate a membership
form on the Long Term Care Insurance
Section Web page at <http://soa.org/ltc/>

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Chairperson's Corner

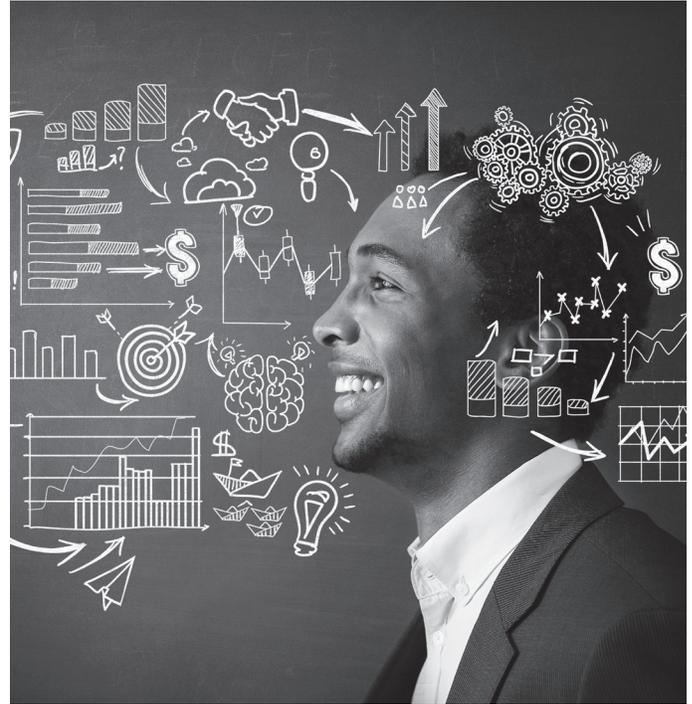
By Rebecca Tipton

Our industry continues to face many challenges. As a council, we are working to create innovative solutions and to provide thought leadership to continue the development of the LTC industry. As I begin my year as chairperson of the LTC Section Council, I'm optimistic for what lies ahead and believe we are making strides to address these challenges.

The LTC Section Council met in November 2016 to create our strategy and goals for 2017. The goals for the year can be broken into two categories: tactical and strategic. On the tactical side, we will continue to provide the services our members have become accustomed to: newsletters, webcasts, podcasts and long-term care sessions for the SOA Annual Meeting & Exhibit, SOA Health Meeting and the Valuation Actuary Symposium. In addition, we will continue to support the ILTCI Conference and sponsor its accompanying Professionalism Course. We will also help develop the Supplemental Health and Protection Conference which will include LTC specific content. Consistent with other SOA sections, we will maintain and expand a Regulatory Resource on the SOA website that includes links to recent LTC regulation changes.

On the strategic side, we will continue our focus on innovation and thought leadership. We are working to transition a few key ideas from the Think Tank to a "Do Tank." The Think Tank recently received approval for research funding from the SOA Research Executive Committee to further develop some ideas generated through the Think Tank related to the "Paying for Care" platform. This is great news and an important step to further develop these concepts. The work is planned to be in two parts. Part one is to perform market research exploring the acceptance of some of the Think Tank's concepts in the marketplace. Part two is to develop actuarial modeling to determine their financial viability.

In addition to the Think Tank efforts, we plan to increase our outreach to other industry groups and expand awareness of our initiatives through email, social media and cross-marketing. We are also planning to continue to educate regulators on the LTC industry and some of its current challenges. We began this process in 2016 via webcasts and LTC-related hearings in state capitals, both of which were well received.



During our meeting in November, we reviewed the current LTC Section mission statement with the intent of broadening it to ensure longer-term applicability in a rapidly changing environment. The proposed mission statement will be presented to the Board for approval:

To encourage and facilitate the professional development of its members, affiliates and other interested parties who are involved in long-term care issues, through thought leadership and educational outreach.

In addition, we plan to survey the section membership regarding perceived value of the section and potential improvement opportunities. We encourage everyone to respond to the survey to ensure we are meeting our members' needs and providing exceptional value.

As we begin the year, I have great optimism about what we can accomplish. I encourage you to get involved with the LTC Section and our planned initiatives by reaching out to any section council member or SOA staff member. (Remember, you do not need to be an actuary to participate.) We welcome suggestions for future LTC Section initiatives. ■



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Editor's Corner

By Robert Eaton

A year of editing Long-Term Care News has been eye-opening for me, and I'm fortunate to be able to continue this role in 2017. I am also very grateful to have Paul Colasanto as my co-editor this year. Paul brings to the team a diversity of background in long-term care (LTC), from a consulting and an insurance carrier perspective. Paul has already made some great contributions in the course of putting together this first issue of 2017.

Over the last year, you—the readers of the Long-Term Care News—have broadened my perspective in a few ways that I'd like share with you:

DIVERSE READERSHIP

Though this is a Society of Actuaries periodical, your fellow readers are far from just actuaries. LTC professionals from all over the industry have given me feedback and have mentioned that they pick up this newsletter: from sales and marketing, operations, compliance and government relations, claims administration, and more. We will do our best through our article topics and focus to support you all.

PASSIONATE PROFESSIONALS

LTC within the SOA has been described as a bit of a niche group, and there's some truth to that. Given some of the recent hardships in the private LTC industry some might imagine downtrodden attitudes and exhaustion. What I see in my interactions with you all is completely the opposite. We've found camaraderie and the understanding nods of shared interest in this niche. Many of us have personal stories which draw us to contribute to this industry. Others have worked in LTC from the beginning. At every meeting I attend, I see clusters of LTC folks energetically discussing our trade. Echoing a recent anecdote I heard, you all are *Fired Up! Ready to Go!* Which gives me quite a bit of ...

FUTURE OPTIMISM

As more and more products are coming to market, and collaborators within the Society of Actuaries and other think tanks and organizations share the fruits of their work, I'm optimistic that the LTC and LTSS industries



have a bright future. There will be stumbling blocks, as companies test the waters and back out again, as regulators weigh the policyholder impact of new product ideas, as customers struggle to perceive value in long-term financing solutions, and as political administrations come and go and change focus. Through all that, there is a need for the services we provide and from what I've observed editing this newsletter in the past year, we are poised to deliver.

Please don't hesitate to reach out to me or any of the LTC Section Council to share ideas for potential article topics—I am happy to take some time to discuss them with you. We have had an extraordinary set of submissions for this edition and I hope you enjoy it as much as I have. ■



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Up Front with the SOA Staff Fellow

By Joe Wurzburger

One year ago in this column, I confessed my Chicago Cubs fandom. I began with a quote from Steve Stone in which he comically reflected on the team's history of losing, and I wrapped up with this: "No more waiting 'til next year. Next year is here."

That worked out well for me.

So one World Series championship later, I'm going back to the well with the hope that drawing LTC lessons from my beloved Cubs is somehow part of the winning equation. As Cubs manager Joe Maddon said (quoting Michael Scott): "I'm not superstitious. I'm just a little stitious."

Actuaries may be too quick to move on from a successful project and miss a chance to reflect on the process.

In fact, I will draw my inspiration from Mr. Maddon himself, who is known for his many memorable quotes. One could argue against the actuarial relevance of some Maddon-isms (ex., "If you look hot, wear it"), but one quote in particular jumps out at me as being applicable: "The process is fearless."

From Maddon:

The process is fearless, because I don't want to spend time on the outcome. For me, it's really about staying in the moment and not worrying about the outcome of the game or managing toward the outcome. It doesn't do anybody any good.

LTC actuaries of course have to care about the financial outcomes of their work. But don't let the quote fool you—Joe Maddon cares very deeply about winning baseball games. His

point is that you should not become so focused on the outcome that you lose sight of the process. Many factors that influence the outcome are beyond one's control. A team can win a game despite playing poorly, just as a team can lose a game despite playing well. A manager's job is to focus on getting his team to consistently play well and trust that favorable outcomes will follow. This is as true in LTC insurance as it is in baseball. We must always remain focused on those things that we can control, dedicating ourselves to doing things the right way and trusting that favorable outcomes will follow.

For LTC actuaries, this has many implications. The first that comes to my mind is with respect to professionalism. Precept 1 of the Code of Conduct states that actuaries "shall act honestly, with integrity and competence, and in a manner to fulfill the profession's responsibility to the public and to uphold the reputation of the actuarial profession." This remains true regardless of the outcomes of our work. We are not relieved of the duty to act with professional integrity if the financial outcomes are favorable.

Another application is with respect to outcome bias. "No harm, no foul: The outcome bias in ethical judgments" was a working paper that came out of Harvard Business School in 2008 (Gino, Moore, & Bazerman, 2008). In it, the authors suggest, "the same behaviors produce more ethical condemnation when they happen to produce bad rather than good outcomes, even if the outcomes are determined by chance." LTC actuaries are just as susceptible to outcome bias as anyone else. When financial results are poor, actuaries may feel worse about the process that led to those results than is justified. Conversely, actuaries may be too quick to move on from a successful project and miss a chance to reflect on the process; a successful result may mask mistakes that were made along the way and limit opportunities to improve processes going forward.

Continuing education is an essential element for LTC actuaries who are interested in focusing on the process. Fortunately for you, the SOA and the LTC Section have you covered there:

- Several LTC sessions will be featured at the 2017 Health Meeting, which takes place June 12–14 in Jacksonville, Fla. Following are just a few of these sessions:
 - Consumer Attitudes about LTC: Findings from the SOA REX Pool Study
 - Long-Term Care Criteria/Evaluation of Proposals
 - GAAP - Changes for Long Duration Contracts
- A track dedicated to LTC will be featured at the new Supplemental Health & Protection Conference, which is taking place in Baltimore, on September 25–27. This event replaces and expands upon the successful DI & LTC Insurers' Forum



from prior years and is co-sponsored with LIMRA and LOMA. A sampling of the sessions one may expect to see at this event includes:

- LTC Executive Panel
 - Innovative LTC Products For Targeting Markets
 - LTC Solutions-Debating Three Product Types
 - Medical Changes, Care Delivery and Actuarial
- Additionally, several LTC-focused sessions are expected at this year's Valuation Actuary Symposium (August 28–29 in San Antonio) and at the Annual Meeting (October 15–18 in Boston).
 - Finally, be on the lookout for webcasts featuring LTC topics.

Find out more about the events above at the SOA's events calendar: www.soa.org/calendar.

The LTC Section Council is always interested in ideas for further continuing education, which could include newsletter

articles, podcast and webcast ideas, or suggestions for sessions at meetings. Please reach out to me at jwurzburger@soa.org if you have ideas or want to get involved.

As LTC actuaries, we all feel pressure of one kind or another. The drive for favorable outcomes can be intense. By focusing on the process, we can ensure we uphold our professional integrity while still developing our own skills and qualifications. In the midst of this pressure-filled environment, we should be sure to keep one final Maddon-ism in mind:

“Never let the pressure exceed the pleasure.” ■



Joe Wurzburger, FSA, MAAA, is staff fellow, health, at the Society of Actuaries. He can be reached at jwurzburger@soa.org.

After Alzheimer's: What Happens to Long-Term Care Insurance after a Cure?

By Matt Winegar and Jeff Anderson

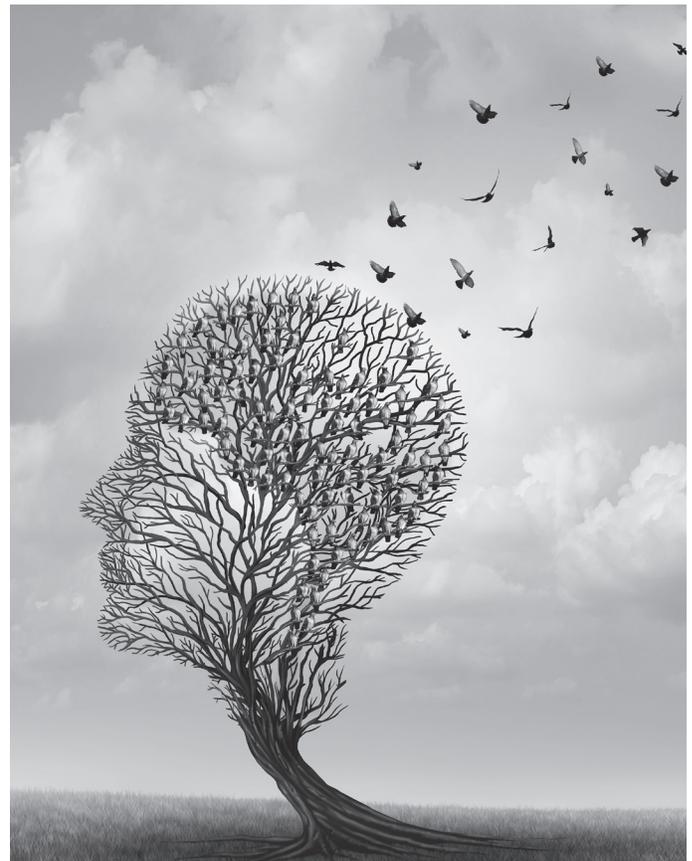
Rainbows End is an award-winning science fiction novel written by Vernor Vinge, set in 2025 California. Vinge's vision of the future centers around ubiquitous computing—computers are everywhere and integrated into everything. People in this world interact with digital technology to alter the way they see the world and to seamlessly interact with other individuals across the globe. Perhaps most interestingly, in Vinge's future, Alzheimer's disease can be cured and aging reversed. The main character in this novel is an old man who “wakes up” to this strange new world after years of suffering from Alzheimer's disease.

Of course, this is all just fun science fiction, but it still makes for a thought-provoking read. Alzheimer's disease is the most common form of dementia,¹ and represents one of the largest long-term care (LTC) insurance risks. If Alzheimer's disease were curable—both preventable and reversible—what would happen to the LTC industry? How would in-force blocks be impacted, and what would it do to new sales? These are just some of the questions we'll explore in this article.

IMPACT ON ASSUMPTIONS

Claim Incidence

There is very little data available to distinguish LTC claim incidence caused by Alzheimer's versus any other diagnoses. However, the Alzheimer's Association² has published statistics



related to Alzheimer's incidence in the general population. Table 1 shows the statistics from the Alzheimer's Association report.

We'll combine statistics from that report with some high-level assumptions for the impact of underwriting to convert these Alzheimer's incidence rates to an insured population. Table 2 shows the details of this conversion. The percentages for the “assumed underwriting effectiveness” are intended to represent the effectiveness of cognitive testing to identify current or soon-to-be diagnosed Alzheimer's patients. Please note that these values are being presented for illustrative purposes only. They should not be relied on for anything more than an aid in suggesting the relative incidence rates for Alzheimer's in an insured population.

Table 1
Alzheimer's Incidence² in the General Population

Attained Age Group	Alzheimer's Incidence Rate
65–74	2 new cases per 1,000 people, or 0.0020
75–84	13 new cases per 1,000 people, or 0.0130
85+	37 new cases per 1,000 people, or 0.0370

Table 2
Assumed Alzheimer's Incidence in an Insured Population

Issue Age	Assumed Sales Mix	Assumed Underwriting Effectiveness by Age of Alzheimer's Incidence		
		65-74	75-84	85+
<55	35%	10%	10%	5%
55-59	24%	25%	10%	10%
60-64	24%	75%	50%	25%
65-69	13%	95%	75%	25%
70-74	3%	95%	85%	50%
75-79	1%	n/a	95%	75%
Total Assumed Underwriting Effectiveness		43%	31%	16%
Assumed Alzheimer's Incidence for Insured Population ³		0.0011	0.0090	0.0311
SOA Total Claim Rate From the Aggregate Experience Tables ⁴		0.0047	0.0236	0.0715
Alzheimer's Incidence as a % of Total Claim Incidence		23%	38%	43%
Assumed Alzheimer's Incidence as a % of Total Claim Incidence		20%	35%	40%
Non-Alzheimer's Incidence Adjustment Factor		80%	65%	60%

Table 2 suggests that Alzheimer's disease might represent 23 percent to 43 percent of all new claims for ages 65 and above. Because some proportion of Alzheimer's claimants would still incur claims for other reasons, we rounded the Alzheimer's incidence down to the nearest 5 percent for the purposes of this article.

Claim Termination

According to the Alzheimer's Association,⁵ the average life expectancy after an Alzheimer's diagnosis is four to eight years, although some individuals may live up to 20 years. Depending

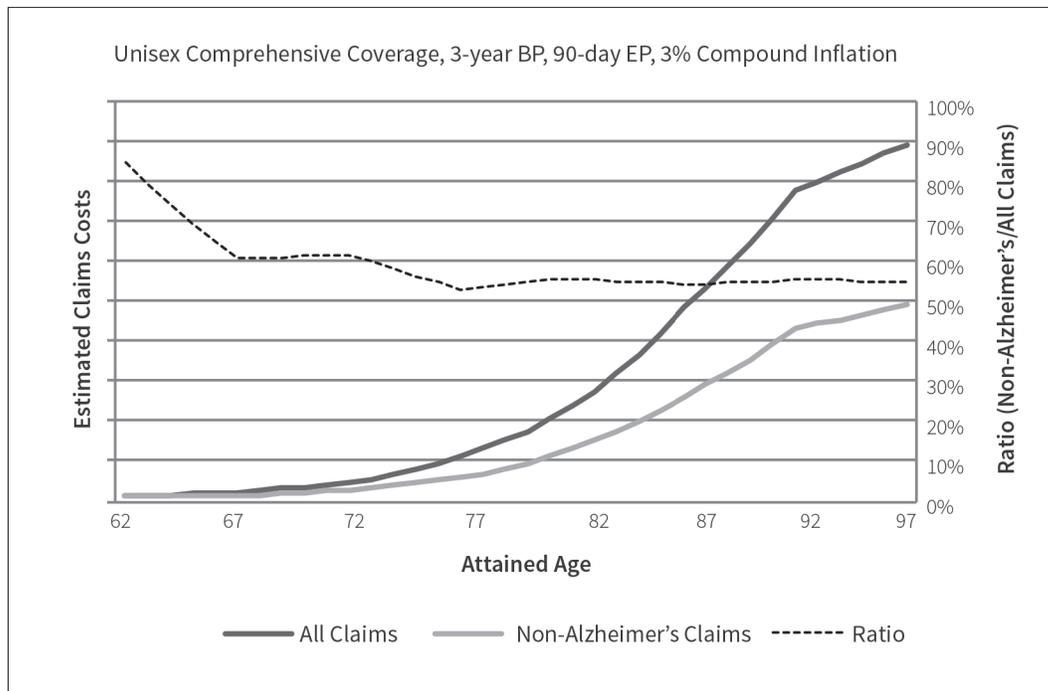
on the progression of the disease, this can lead to very long LTC claims. If Alzheimer's were cured, there would likely be a reduction in the average claim length and an increase in claim termination rates.⁶

Using the Society of Actuaries (SOA) aggregate claim termination database, we developed high level adjustments to claim termination rates. Because we did not normalize the data to adjust for mix and other factors, the adjustment factors in Table 3 are for illustrative purposes only. They were developed based on a comparison of claim terminations for non-Alzheimer's diagnoses and claim terminations for all known diagnoses.

Table 3
Assumed Unisex Adjustments to Convert from Total to Non-Alzheimer's Claim Termination Rates

Claim Duration (mo)	Claim Incurral Age							
	<60	60-64	65-69	70-74	75-79	80-84	85-89	90+
1-6	115%	120%	135%	140%	135%	130%	120%	115%
7-12	115%	120%	135%	135%	125%	120%	115%	110%
13-18	110%	115%	125%	115%	120%	110%	105%	105%
19-24	105%	110%	110%	110%	105%	105%	100%	100%
25-48	100%	105%	105%	100%	100%	100%	100%	100%
49-72	100%	100%	100%	100%	100%	100%	100%	95%
73+	90%	90%	90%	90%	90%	90%	90%	90%

Figure 1
Claim Costs Comparison



Claim Costs

Applying the claim incidence adjustments (Table 2) and the claim termination adjustments (Table 3) to our baseline claim costs produces claim cost curves which approximate the costs for LTC coverage excluding Alzheimer's claims. The graph in Figure 1 compares the projected claim cost curves for all claims and non-Alzheimer's claims. As shown in the graph, the claim cost reductions range from 15 percent to 45 percent by age 75. Reductions of this magnitude, especially at older ages, can lead to dramatic decreases in overall LTC costs.

Mortality

If Alzheimer's disease were cured, actuaries would want to consider potential changes to the mortality assumptions underlying any LTC insurance projections. The Alzheimer's Association⁷ found that of people age 70, those suffering from Alzheimer's are twice as likely to die before age 80 as those without. Some adjustment to mortality rates for the age 65+ or 70+ population may be warranted.

The adjustment itself would depend on the type of actuarial model each company uses. If the models are based on a total life mortality assumption, then mortality rates should go down as fewer insureds suffer from Alzheimer's and therefore

live longer, healthier lives. However, if the company uses a first-principles model—modeling active lives separately from disabled lives—the adjustment might be opposite. Active life mortality would likely stay the same, but disabled life mortality might actually increase. We can infer from the ratios in Table 3 that Alzheimer's claims generally last longer than other claims. This implies that disabled life mortality is lower for Alzheimer's claims than for other claims. Still, the net modeled result should theoretically be the same as a total life model—without Alzheimer's disease, there should be more active lives and therefore lower mortality rates in total.

Voluntary Lapse

A cure would also impact lapse rates as it could induce a shock lapse when insureds reevaluate their perceived need for coverage compared to the cost of the premium. Insureds who purchased coverage believing they had a future risk of Alzheimer's may decide that the coverage is no longer worth the cost. This may be particularly acute on policies with large benefit periods because non-Alzheimer's claims are shorter, on average, than Alzheimer's claims.

A secondary consideration resulting from shock lapse is adverse selection. Insureds who continue coverage after a



shock event are generally considered to be less healthy than those who lapse. This phenomenon has existed as part of LTC rate increases for years, but should be viewed from a different perspective in this context. In many projections, adverse selection is modeled as a load to claims for those who persist. In this situation, the persisting insureds might actually be more similar to the historical average claim levels (when Alzheimer's was present), while those who lapse could be much healthier than the historical average. The adjustment to claims for adverse selection might, therefore, be an increase from the new morbidity level, but would likely still be a decrease from the historical average.

IMPACT ON VALUATION AND RATING

Valuation

The assumption changes described above would likely have different impacts on the various types of reserves. It may be difficult to revise active life reserve (ALR) calculations, but disabled life reserve (DLR) and premium deficiency reserve (PDR) calculations could be revised relatively quickly.

As there is currently no precedent for LTC insurers for a societal change as large as a cure for Alzheimer's, the impact

on ALR assumptions under any basis is unknown. Based on Financial Accounting Standards (FAS) No. 60, GAAP ALR assumptions are locked-in unless a premium deficiency exists, while regulatory approval is generally needed in order to revise statutory ALR assumptions. However, if the industry has moved to principle-based reserve (PBR) calculations by the time of the cure, companies may be able to revise ALR assumptions to reflect updated expectations.

Claim reserves could be more easily revised as the assumptions are not locked-in. If Alzheimer's were cured there would likely be a large release in claim reserves for two reasons. First, some Alzheimer's claimants may cease to be eligible for benefits. Second, if the claim diagnosis is not already reflected, the claim termination assumptions for remaining claims would need to be revised to reflect non-Alzheimer's experience, generally resulting in shorter projected future claims.

Gross premium valuation (GPV) projections used to calculate statutory PDR are based on best estimate assumptions, with provisions for adverse deviation. Therefore, the updated expectations of future morbidity and persistency, along with the updated in-force population after any shock lapse, could

immediately be reflected. This would likely result in PDR releases.

Rating

Rate increases have become a fact of life for the LTC industry over the last decade. However, if Alzheimer's were cured, we may suddenly be living in a world of rate decreases. Today's LTC Model Regulation requires an annual actuarial certification that rates are sufficient to cover anticipated costs. This is a marked difference from certifying that rates are not excessive (though some states do require such a certification). In effect, most states would have to rely on each carrier to voluntarily file for a rate decrease; the state may have no regulatory mechanism to compel a rate decrease. However, some Actuarial Standards of Practice may suggest that the actuary consider a rate decrease eventually. Perhaps an Alzheimer's cure could spur a revision to the LTC Model Regulation.

In lieu of a rate decrease, mutual companies may be able to return excess profits to policyholders via dividends. But what about stock companies? Many insurance regulators assert that carriers cannot recoup past losses when filing for a rate increase. However, would regulators allow carriers to recoup past losses after an Alzheimer's cure before pushing for rate decreases?

IMPACT ON NEW BUSINESS

With a cure for Alzheimer's disease, we would expect a material reduction in LTC premium rates for new business. On the surface this sounds like excellent news for the industry. Increasing premium rates have long been seen as a leading cause for declining stand-alone LTC sales. If new business premiums were to become suddenly cheaper, would it create new sales "like it's 1999?"⁸ Perhaps.

Or perhaps this would be the final nail in the coffin of the stand-alone LTC industry. Alzheimer's disease is one of the most significant risks covered by LTC insurance. If that risk were to go away, would consumers still find value in LTC insurance? Of course, LTC insurance would still cover a wide range of other risks that provide meaningful value to current and prospective insureds, but how would the value proposition change in a post-Alzheimer's world?

A cure for Alzheimer's might also be a boon for other products. Short-term care may see a sudden rise in popularity because the new post-Alzheimer's average claim length could become shorter. Combination products may become even more popular, too. The cost would be lower for the LTC portion of the combination product, and the (sometimes) shorter benefit periods associated with combination products could be perceived as providing more value than today.

IS A CURE COMING?

A cure for Alzheimer's has been a holy grail of the pharmaceutical industry for many years, yet there are no drugs or treatments available today proven to reverse, stop, or even slow the neurological damage from Alzheimer's disease.⁹ Science has not yet brought us into the future imagined by Vernor Vinge, but one thing is clear: a cure for Alzheimer's would not only change the world as we know it, it would also have a significant impact on the LTC industry. ■



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ENDNOTES

- 1 "2016 Alzheimer's Disease Facts and Figures" by the Alzheimer's Association, page 5 Retrieved Dec. 8, 2016 from http://www.alz.org/documents_custom/2016-facts-and-figures.pdf
- 2 "2016 Alzheimer's Disease Facts and Figures" *ibid*, page 21.
- 3 The assumed Alzheimer's incidence for an insured population is equal to the raw Alzheimer's incidence rates from Table 1 times (one minus the total assumed underwriting effectiveness).
- 4 Data from the Claim Incidence Rates data from the January 2015 "Society of Actuaries Long-Term Care Intercompany Experience Study—Aggregate Database" Retrieved Dec. 8, 2016 from <https://www.soa.org/Research/Experience-Study/Ltc/research-ltc-study-2000-11-aggregated.aspx>. Filtered for all genders, all coverage types, all durations, grouped together for the incurral age buckets shown. The incidence rates shown are determined based on a total exposure basis.
- 5 "Stages of Alzheimer's" http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp.
- 6 Data from the Claim Termination Rates data from the January 2015 "Society of Actuaries Long-Term Care Intercompany Experience Study—Aggregate Database" Retrieved December 8, 2016 from <https://www.soa.org/Research/Experience-Study/Ltc/research-ltc-study-2000-11-aggregated.aspx>. Compared claim termination rates by gender, incurral age, and claim duration for all diagnoses except Alzheimer's and Unknown to the same rates for all diagnoses except Unknown. Grouped into claim duration buckets and credibility weighted with the rates for all incurral ages assuming a credibility threshold of 271 claim terminations. Blended assuming 60%/40% female/male distribution to produce unisex adjustment and then rounded to the nearest 5 percent due to data normalization concerns. Judgment used to smooth adjustments across claim durations.
- 7 "2016 Alzheimer's Disease Facts and Figures" *ibid*, page 25.
- 8 Prince. 1999. Warner Bros., 1982. CD.
- 9 "2016 Alzheimer's Disease Facts and Figures" *ibid*, page 13.



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Q&A with an Experienced Insurance Professional New to Long-Term Care: Janine Halldorson

By Paul Colasanto

Editor's Note: New for 2017, we are introducing a series of articles by experienced industry professionals who are relatively new to long-term care (LTC). We will get their perspective on similarities and differences between LTC and their prior lines of business, and what they think of LTC. Our first article is an interview with Janine Halldorson, a vice president at Prudential, and leader of their LTC Experience Analysis team.

Hi Janine. Why don't you start by telling us a little bit about your background?

I started my career with Prudential straight out of college. I began working in Individual Life Insurance (ILI), specifically with the solutions development team. I then worked in pricing on the UL and Term products before moving into ILI Experience Analysis in 2005. For about 10 years, my work focused mostly on mortality and lapse assumptions on a fairly large assumptions team, until I took a position in LTC as leader of their new Experience Analysis group in 2015. For me it was quite a transition!

LTC is like a community. I was impressed with the tight knit feel of the industry conferences I attended.

What similarities did you notice when you started in LTC?

The concepts of developing assumptions are similar, with mortality and lapses existing in both businesses. They of course, however, mean very different things with regard to claims between the two lines! LTC products are lapsed supported, similar to some UL plans in ILI. Also, there are shock assumptions

related to rate increases, but LTC shock lapses are not nearly as large as shock assumptions in the Level-Term world that I was used to, though still very meaningful to reserves.

And so what are some of the differences that you have seen between LTC and life business?

There are clearly a number of differences. First, LTC is a relatively young business compared to individual life insurance. Generally, it's been around for approximately 30 years versus more than 100 years for life insurance. This has many implications when comparing experience analysis functions and the industry influence on assumptions.

As I mentioned earlier, mortality in ILI is probably one of the biggest assumptions with more deaths being adverse while in LTC, more deaths are favorable to loss recognition margins.

One of the most influential assumptions within LTC are the morbidity assumptions. We, like many LTC companies, take a total claims cost view in our modeling. This presents different challenges and is certainly different from the way ILI is modeling its products. I left the world of FAS 97 and entered into a world of FAS 60, where assumptions are frozen unless you fail LRT. For the most part, as our Disabled Life Reserves are updated and refreshed regularly with new best estimate assumptions. Under FAS97, the morbidity analysis takes on a different meaning since you are looking at assumptions relative to a margin (i.e., is there margin, yes or no?) rather than immediate financial impacts (do we want to update assumptions based on our best estimate in light of what it would mean to our financials?).

What led you to take a role in LTC, and what kind of reaction did you get from co-workers?

Actually, I got some interesting remarks about moving from a large organization that had open and closed block assumptions to a much smaller closed block of business. It was a great opportunity to push myself a little out of my comfort zone, since I had lived and breathed ILI products for so long. This book of business, while closed, is challenging and complex.

What kind of differences and challenges did you see in your day-to-day activity when you moved to LTC?

The products are unique and can vary greatly within a company and across the industry. Due to the various features of the LTC plans, these assumptions are extremely complex and entirely new to me.

Unlike ILI, there aren't industry published tables specific to LTC. This makes it quite different when looking at assumptions that aren't fully credible using company experience.



Another aspect of LTC assumptions that was very different than my previous role was the differences in experience analysis tools. We are working with systems conversions and enhancing tools in a different way since this is a closed block of business. The industry exploration of predictive analytics is also interesting and exciting.

As far as other challenges, a recently published NAIC study stated that the total potential value of inforce policies are \$1.98 trillion, with more than 73,000 filing new claims. Our LTC claims are still in the infancy stage so what will the claims pattern be like for us? We are one of the few companies that had sold cash, or indemnity benefits, as opposed to reimbursement, so what does that mean for assumptions and modeling? How can we gain benefits of industry experience where we aren't credible if data doesn't really exist?

While LTC is a relatively small slice of Prudential, it is still very much an important slice. It's a challenging and exciting time to be able to be working with the LTC Experience analysis group. I feel like my background in ILI has positioned me well for this role. I'm still learning and there is still much to do!

What has been your experience with your new LTC colleagues?

One of the more interesting aspects for me was the industry itself. LTC is like a community. It's generally small and it seems everyone really knows each other. I was impressed with the tight knit feel of the industry conferences I attended. I have learned

so much from my colleagues within LTC at Prudential and I am grateful to be part of this team.

And finally, what kinds of things do you think about that aren't directly experience related, but will most impact LTC claims in the future?

There are a lot of really interesting questions about future LTC claims. People are living longer but what does that mean? Are more people becoming disabled in their older ages? Are more people staying disabled longer? Will government programs designed to handle some costs be enough? Will baby boomers overwhelm the system and the care facilities? Will technology innovate the world of home health care to keep people from going into nursing facilities? Those are just a few that I look forward to finding out the answer to! ■



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Rate Increases in Three Easy Steps: A Summary of the 2016 Milliman LTC Rate Increase Survey

By Missy Gordon and Shawn Stender



In the realm of long-term care (LTC) insurance, no topic has garnered more attention in recent years than rate increases. State departments of insurance (departments) want to ensure that companies are financially sound to pay future claims, creating an environment that allows companies to manage risk (otherwise, the market goes from small to none), while also balancing “fairness” to policyholders. Companies navigate intricate and diverse regulations across states as well as the administrative complexities of implementing increases and assisting policyholders. They do this while balancing what the company needs financially and the burden on policyholders. Policyholders weigh alternatives to rate increases, potential for future increases, and affordability against their investments to date and the continuing perceived value of the insurance. With so many stakeholders participating in this complex balancing act, it feels as though the industry is perpetually searching for “the answer” to this complex situation, for which there may not be a one-size-fits-all solution.

For over a decade, we have seen a wide array of issues and solutions as we’ve assisted numerous companies with countless rate increase filings. Our clients often ask what our experience has been with other companies and/or approaches to certain issues. We took a leap with the hope that others may be interested too, and performed a comprehensive survey in September 2016 related to LTC rate increase filings to summarize the “state” of the current environment.

This article provides not only a summary of the results of the survey, but also additional commentary from our experience with rate increase filings. As the responses to the survey are company-specific, the information provided in this report may not be true for all companies or situations. Commentary offered throughout this article includes the authors’ opinions, which do not necessarily represent those of Milliman. It reflects recent experience with rate increase filings and the current regulatory environment, which is fluid and subject to change. Full details, limitations, and qualifications of the results from the survey appear in the report found

on Milliman’s website (<http://www.milliman.com/insight/2017/Long-term-care-rate-increase-survey/>).

IT’S AS EASY AS 1, 2, 3 ... RIGHT?

Twenty-six companies participated in this inaugural survey, representing \$8 billion in annualized premium (73 percent of the industry by premium volume). All participants, except two, filed for at least one rate increase on their LTC business. The process of filing a rate increase can be daunting and, within the process, companies (and regulators) may have countless questions, including but certainly not limited to:

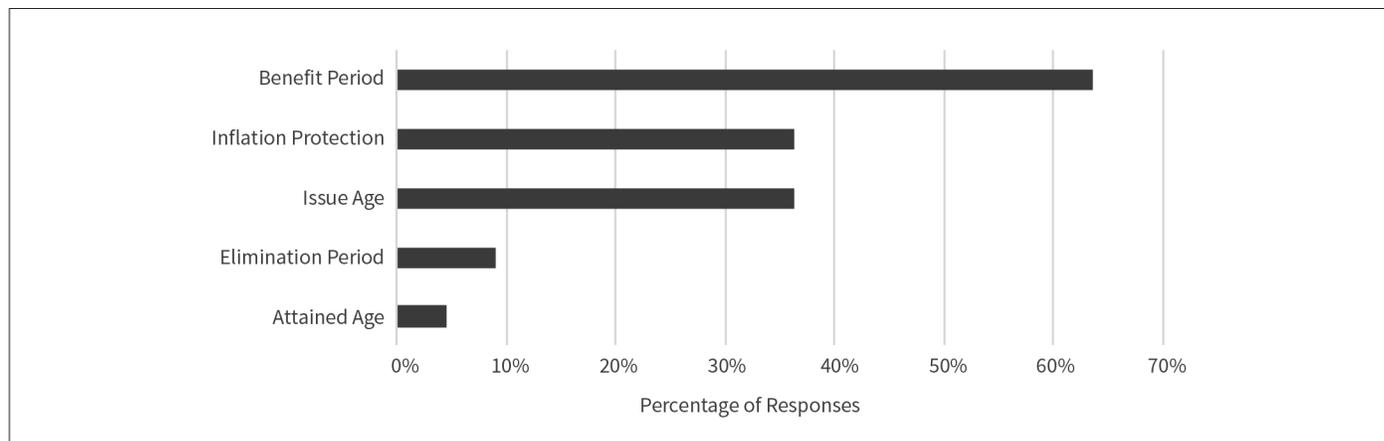
- How much is justified, needed, and can be requested? How does this change for business that is subject to rate stability regulation? Should the rate increase vary and, if so, how? Should it be phased in?
- How will regulators react? Are meetings with regulators helpful? What expectations should insurers have relative to time to approval and amount?
- How will policyholders react? What alternatives to the rate increase can be offered to policyholders?

The results of the survey can be helpful in addressing these questions and many more. We summarized the answers into three broad steps of the rate increase process: setting the rate increase, filing it with the state departments, and communicating it to policyholders. In pursuing a rate increase there are a plethora of considerations, so this three-step process is certainly not comprehensive!

STEP 1: SETTING THE RATE INCREASE

Adverse deviations in experience and projections from what was expected in the original pricing can trigger a rate increase. It was no surprise that higher persistency was the most common reason for rate increases, followed by adverse morbidity, and then lower interest rates.

Figure 1
Varied Rate Increase Request



Note: Responses total more than 100% as more than one parameter may apply to a filing.

When determining a rate increase strategy, the most common factors considered include the actual-to-expected lifetime loss ratio and the actual-to-expected future loss ratio. More than half of the companies calculate the rate increase by targeting a lifetime loss ratio where only future premiums are increased. Additionally, management strategy or philosophy was a factor for about half of the companies (i.e., it wasn't just the numbers).

The impact of adverse deviations may differ by rating cell depending on the reason for the rate increase. Because the impact of a rate increase can vary by issue age and/or benefit feature, companies face additional considerations, such as credibility of the variations, administrative complexities, and definition of class, to name a few. Some companies choose to vary the rate increase request to recognize differences in experience, while others request a uniform increase. That said, even if a company requests a uniform rate increase, some departments prefer the rate increase to vary by benefit or issue age.

It is worth noting that while most companies (91 percent) have the capability to vary rate increases by several parameters, only a little more than half actually varied the increase, because doing so can still be very cumbersome and costly. Figure 1 provides the parameters by which the requested increase varies within a filing for the 14 companies with a varied increase.

Another alternative to requesting a "standard" uniform rate increase is for companies to phase in a rate increase over multiple years; however, only 14 percent of companies used this approach for their generic requests. That said, while it may not be common to request a phase-in up front, it oftentimes becomes a negotiation point for companies and/or departments.

When an increase is phased in, a larger cumulative increase is needed to be actuarially equivalent to a single increase.

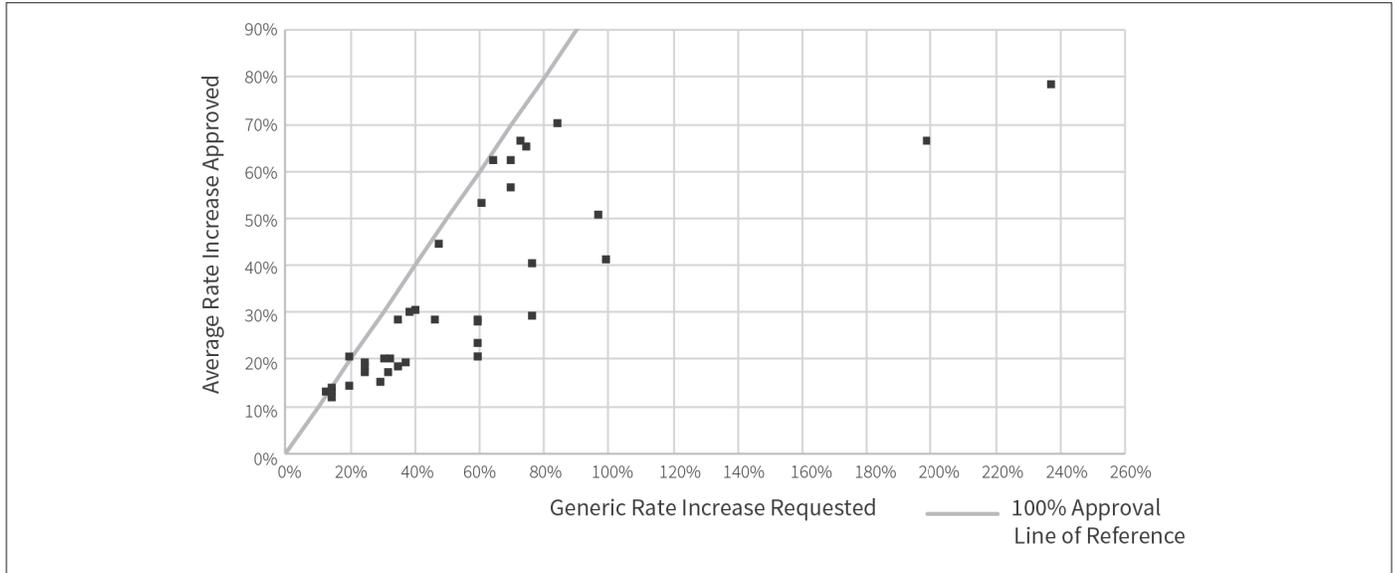
Another complexity faced by companies in setting a rate increase request is how to deal with complex requirements such as rate stability regulation (i.e., dealing with policies issued under and making a certification to rate stability). Companies considered this in setting the increase request, and most companies requested the same increase for policies subject to loss ratio regulation and rate stability regulation. That said, for the minority that varied the rate increase request for policies subject to rate stability, companies generally requested a higher increase on the rate stability business.

STEP 2: FILING WITH STATE DEPARTMENTS

Yes, the process of filing a rate increase may be grueling, but about 75 percent of the filings reported by companies received a full or partial rate increase approval. To show how widely the requested and approved increases can vary, Figure 2 provides for each filing the "generic" nationwide rate increase request made by companies versus the average rate increase approved. The generic request is what was submitted to all jurisdictions, except where jurisdiction-specific modifications to the request are needed.

To obtain these rate increases, companies needed to comply with various requirements, whether regulatory or not, from departments. Some of the common requests from departments included reducing the increase amount, phasing in the increase, revising the policyholder notification letter, and offering a rate guarantee for a number of years. For more cumbersome jurisdictions (top 10 can be found in the report), organizing in-person meetings with departments may be productive in the sense of obtaining an approval, a higher rate increase, and/or faster time to approval.

Figure 2
Average Rate Increase Request Approved by Amount of Generic Request



Reasons for a reduced or disapproved rate increase vary greatly by state, but the most common are due to a political cap or non-actuarial reason. While companies reported that the majority of decisions made on increases were some form of approval, it is worth noting that this likely was in the form of a reduced increase; only a small percentage of filings were outright disapproved. Of the filings disapproved, companies cited that 63 percent of disapprovals were the result of disagreement with the departments on justification of the rate increase. While only a fraction of companies chose to request a phased-in rate increase up front, 81 percent of companies reported that departments required a phase-in for approval.

Figure 3 provides the most common reasons cited by the jurisdictions for reducing or denying a rate increase.

Changes in the review process for departments are fluid, which makes it difficult to predict the outcome of a rate increase request. As seen below, departments depend on a myriad of analyses and reasoning for reducing or denying an increase. One of these limiting factors is whether the request is “recouping past losses”—companies reported that 37 percent of disapprovals related to this criterion. Of the companies indicating that their actual historical loss ratio exceeded what was expected in pricing, 65 percent determined the rate increase in such a way that it excludes the past losses. There were multiple approaches companies used to exclude the past losses, which are summarized in the report. The

Figure 3
Jurisdiction Reasons for Rate Increase Reduction or Disapproval

Reason	Percentage of Responses
Requested increase is unreasonable (i.e., political cap/non-actuarial)	84%
Disagreement on justification of the rate increase	63%
Historical loss ratio too low	56%
Subsidizing other jurisdictions	40%
Request “recoups past losses”	37%
Jurisdiction-specific lifetime loss ratio too low	21%
Not enough time passed since last increase	16%
Lifetime loss ratio too low	5%
Low income/poor state	5%
Average age of insured is too old	5%

Figure 4
Reduced Benefit Options (RBO)

Option	Percentage of Responses
Lowering the benefit period	98%
Increasing the elimination period	88%
Lowering the daily/monthly benefit	88%
Dropping inflation protection	72%
Reducing inflation protection to another existing inflation protection option	53%
Landing spots	26%
Dropping optional riders	7%
Reducing home care coverage percentage	7%

approach, which was met with uniform reception by the National Association of Insurance Commissioners (NAIC) and the Health Actuarial Task Force, and was adopted into the 2014 Model Regulation, is to cap historical losses at what was expected in the original pricing. Other methods were viewed as too risky for the LTC product; that is, the rate increase is too restricted and does not allow companies to manage the financial risk.

STEP 3: COMMUNICATING WITH POLICYHOLDERS

When a rate increase is approved, companies often offer options to offset or avoid the rate increase either voluntarily or as required by regulation.

Figure 4 provides the alternative options for insureds to reduce benefits in lieu of rate increases that were offered by participants in the survey. Landing spots are relatively new and allow a policyholder to reduce benefits to a level that is not already offered, in order to partially or fully offset the rate increase. While only a quarter of companies have offered landing spots, they are most typically offered as a reduced inflation protection rate, but can also be a reduced benefit period that is actuarially equivalent. Although departments are often receptive to filing landing spots, we have found that inclusion of these spots does not always result in higher approvals. In fact, if landing spots are only available to a limited number of policyholders, the department may look upon them unfavorably.

Another option for insureds, if available, is a contingent benefit upon lapse (CBUL). Half of the companies offered a CBUL only where required by regulation or requested by a department as a condition for rate increase approval. The remainder of the companies voluntarily offered a CBUL to all insureds regardless of issue age or issue date. Over 25 percent of the companies responded that 5 percent to 9 percent of the insureds elected the CBUL rather than receiving the rate increase. For another approximate 30 percent, the election rate was 4 percent or less and one company responded with an election rate of 30 percent to 39 percent. The remaining respondents did not provide this

information. As some carriers consider whether to offer a CBUL to all insureds voluntarily, they may ask: “What is the financial impact?” We explored this question as part of our article focused on CBUL in the December 2016 issue of *Long-Term Care News*.¹

WHAT’S NEXT?

Whether you are a carrier, a regulator, or even a consumer—we don’t foresee discussion around LTC rate increases slowing any time in the near future. Given the plethora of questions and considerations around rate increases, we hope the results of the survey are helpful in understanding the current environment and the challenges that may lie around the corner.

With the success of the inaugural survey, we expect to conduct the survey every few years to monitor industry trends going forward. In doing so, we look forward to carrying on the discussion as the fluid environment of LTC rate increases continues to evolve. ■



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ENDNOTES

- 1 Gordon, M. & Williamson, C. (December 2016). Nonforfeiture benefits and long-term care rate increases: What is the financial impact on insurers that offer nonforfeiture? Society of Actuaries LTC Newsletter.

Where's the Beef in Long-Term Care Insurance Protection?

By Marc Glickman

Editor's Note: This original version of this article appeared in Broker World Magazine. It is reprinted with permission here.

Life insurance policies with living benefits, also known as hybrid or combo products, have emerged in popularity with a plethora of variations now available from insurance carriers. These products complement traditional long-term care insurance (LTCI), filling out the continuum of much needed retirement planning solutions. In this article, I will analyze the main long-term care product categories to show:

- Where's the Beef? Which insurance products provide most of the long-term care protection in the market today as a percentage of premium.¹
- What the latest features and tax incentives available on traditional long-term care products are, including the Reverse Combo.
- How traditional LTCI and life combo products fit in your tool kit of customer solutions.

THE SPECTRUM OF LTCI PROTECTION

There is a spectrum of insurance products that address long-term care protection ranging from pure LTCI to nearly pure life insurance. We can measure the amount of long-term care protection that they provide by estimating what portion of the premium price tag is expected to be paid for long-term care relative to acceleration of the life insurance customer's death benefits.

Insurance premiums are also paid over different schedules ranging from one large single premium to smaller annual premiums over the policyholder's lifetime. Equivalent recurring annual premium for single pay products can be estimated by dividing the single pay amount by twelve.²

The 2015 industry LIMRA surveys for traditional LTCI and combo long-term care provide total sales figures for each

segment. Figure 1 summarizes the data from the LIMRA study after adjusting single pay premium as described above.

Traditional LTCI: As the purest form of long-term care coverage, virtually 100 percent of premiums are dedicated to paying long-term care benefits. Traditional LTCI allows consumers to leverage the most long-term care protection per premium dollar.

The newest traditional product on the market provides two people residing in the same household LTCI coverage under a joint policy. As an example of leverage provided by traditional LTCI purchased today, both individuals would be covered for up to a total of \$438,000 of tax-free benefits for a single premium of \$29,000 if both are age 50 or \$38,000 if both are age 60. \$438,000 is equal to the total benefit pool available using the sample benefits selected: 3 year benefit period x \$200/day x 365 days x 2 people.

Lifetime benefits on this product cost exactly double what three year benefits cost. Most traditional LTCI products are purchased with a 90 day waiting period "deductible." Inflation protection is also very common and desirable in the high-end market to keep up with the cost of care over time. Some carriers have gravitated toward more limited benefits or providing short term care, so that individuals can get at least some coverage at a lower target premium. However, a new carrier has emerged with popular high-end features such as lifetime benefits, 10-pay and single pay options.

Many people are surprised by the amount of leverage still available on traditional LTCI. It's all a matter of perception. Ten years ago, prices were half of what you see today for the same benefits, with rate increases slowly bringing them back to today's rate adequacy.

Insurance carriers have learned the hard way from legacy products that traditional LTCI can only be offered to healthy individuals who plan well in advance of the need. Policyholders have confirmed that the coverage has tremendous value based on customer retention at higher renewal rates than any other insurance product. In addition, customers' claim satisfaction rates are likewise favorable. Couples get the best deal because they subsidize the cost by taking care of each other before tapping into their benefits. The good news is that new products sold today have a record low likelihood of requiring future rate increases based on a recent Society of Actuaries study.³

The Beef: There were a total of 104,332 traditional LTCI policies sold in 2015, accounting for \$261 million of lifetime recurring premiums. The first single pay alternative in many years recently became available late in 2016.



The ideal client is using traditional LTCI as a leveraged way to protect assets in retirement. While the hope is that the benefits will never be needed, the coverage provides a safety net for a catastrophic event. This concept is reminiscent of term life or disability income insurance and can be thought of as the next phase for retirement planning.

It is estimated that the total target market is over 10 million for those in the right age range who are currently healthy with assets to protect, and do not already have a long-term care plan in place.⁴

Traditional LTCI has many built-in advantages provided by the government to incentivize long-term care planning. Among the most popular are:

- Traditional LTCI benefits are generally received tax-free.
- LTCI premiums may be fully tax deductible for business owners with a full or partial tax deduction for the employee, and without discrimination requirements.
- Traditional LTCI premiums can be paid directly using non-qualified annuity or non-qualified life insurance cash values through a tax-free 1035 exchange.
- Pre-tax HSA funds can be used for LTCI premiums.
- Public-Private LTCI partnership programs are available protecting assets in Medicaid situations.

TRADITIONAL LTCI—REVERSE COMBO

A new concept released in 2016 that has reinvigorated interest in the traditional LTCI product is offering a rider to provide a return of premiums (ROP) paid back to the policyholder upon death and an option to surrender the policy for a return of 80 percent of the premium. I call this feature the reverse combo because it offers a life insurance-type benefit on an LTCI-based product instead of a long-term care rider on a life insurance based product.

The reverse combo provides greater long-term care coverage and less life insurance than life combos with the wide flexibility of traditional LTCI designs. There is also a version of the policy that provides both ROP and all long-term care claims without offset. The product provides about 60 percent of premiums dedicated to long-term care protection. Often advisors lead with the reverse combo design and then find customers choosing lifetime benefits in lieu of ROP for roughly the same cost.

LIFE INSURANCE WITH LTC EXTENSION OF BENEFITS (EOB) RIDERS

The next product in the spectrum of providing long-term care coverage is life insurance with an acceleration of the death benefit upon meeting the long-term care trigger. Once the cash value is exhausted, the policy provides an extension of benefits (EOB) to continue to pay long-term care benefits up to a specified benefit period. Another way to think of this is that, for example, the first two years is the long-term care deductible where the customer is spending down the life insurance death benefits before the extended long-term care coverage kicks in.

This funding mechanism results in an estimated average of 27 percent of premiums dedicated to long-term care protection with a range of about 10 percent to 40 percent depending on how much EOB and inflation protection is purchased.

Life insurance with EOB inhabits an important part of the long-term care spectrum because it offers a variety of niches where traditional LTCI products have receded:

- Alleviates concerns about rate increases on traditional LTCI products that do not have single premium or 10-pay options;
- Allows life insurance asset accumulation with account value growth and the ability to take out loans;
- Offers effectively a longer deductible than can be provided on traditional LTCI; and,
- Allows individuals with some health conditions no longer acceptable for traditional LTCI to obtain coverage.

The Beef: There were a total of 25,471 life with EOB rider policies sold in 2015, accounting for \$193 million of lifetime recurring premiums. Applying 27 percent of those premiums as covering long-term care protection results in \$52 million of long-term care protection sold in 2015.

LIFE INSURANCE WITH LTC ACCELERATION OF BENEFITS (AOB) RIDERS

Life insurance with acceleration of benefits (AOB) is a more limited version of the EOB rider, because only the life insurance death benefit can be accelerated for long term care. Once that death benefit is exhausted, no more long-term care coverage is provided. A multitude of carriers offer versions of this feature on a variety of life insurance products because the cost of the AOB rider is on average only about seven percent of the premium¹. The popularity of this product is part of the trend to expand the availability of benefits for asset based life insurance and can be done at relatively low cost for the carriers. The products with these features in most cases utilize life insurance underwriting, which then provides access to this coverage for individuals with health conditions who might not have otherwise qualified for traditional LTCI or life insurance with EOB riders.

The Beef: There were a total of 109,615 life with AOB rider policies sold in 2015, accounting for \$388 million of lifetime recurring premiums. Applying seven percent of those premiums as covering long-term care protection results in \$27 million of long-term care protection sold in 2015.

LIFE INSURANCE WITH CHRONIC ILLNESS RIDERS

This product is a cousin to the life with long-term care rider concept in that it provides a lump sum percentage of the life

insurance death benefit for an individual with a permanent end of life need. The rider can be added for an average of three percent additional premium because the acceleration period is shorter. The acceleration period is shorter because policies using chronic illness benefits are likely to die sooner, so the life benefit would otherwise have been paid a little sooner for these claimants than for non-chronic illness claimants. Underwriting is simplified and agents need not be specially trained in long term care. However, the product cannot be advertised as long-term care coverage nor does it have the regulatory protections of long-term care products.

The Beef: There were a total of 94,154 life with chronic illness rider policies sold in 2015, accounting for \$533 million of lifetime recurring premiums. Applying three percent of those premiums (which in some cases is presented as a 3% reduction in coverage) as covering “long-term care” protection results in \$16 million of long-term care protection sold in 2015.

WHERE'S THE BEEF?

Life insurance with AOB and chronic illness riders represent the fastest growing segment of the long-term care continuum with more carriers offering these features every year. Similarly, the number of traditional LTCI carriers has been decreasing although a new carrier entered the LTCI market during the summer of 2016 for the first time in nearly a decade. Surprisingly, despite these trends, nearly 75 percent of long-term care protection still originates from traditional LTCI and for good reason. Traditional LTCI is still a highly desirable product from a leverage and tax advantaged standpoint and fulfills a clear purpose. Healthy customers leading with the need for long-term care protection will get the most value from traditional LTCI and life with EOB riders. Similarly, customers primarily needing life insurance now have a multitude of options available to them and can find policies that fill a variety of needs especially if there are health concerns. ■



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ENDNOTES

- 1 Based on 2015 Year End LIMRA Surveys on LTCI Standalone and Combo LTC
- 2 Calculated as follows, using slide 4 of <https://www.soa.org/Files/Pd/2016/las/pd-2016-05-las-session-65.pdf>: Single Pay / (Equiv Recur Premium – Recurring Pay)
- 3 <https://www.soa.org/Files/Sections/ltc-pricing-project.pdf>
- 4 Estimated using census data to determine the affluent population in the target age range, less the population that already has LTC coverage.

Recouping Past LTC Losses

By David Plumb and Robert Eaton

There has been a fair amount of industry discussion over the years about recouping past losses on long-term care (LTC) policies. Both insurance carriers and regulators are generally in agreement that LTC insurers should not be able to recoup past losses through premium rate increases. Prior to the 2014 NAIC LTC Model Regulation (the Model Regulation), this prohibition had not been uniformly regulated, and in fact past losses on LTC had not even been defined.

During the latter part of 2013, an NAIC actuarial task force worked with the industry on revisions to the NAIC LTC Model Regulation regarding premium rate increases. One topic that the task force addressed was ensuring that past losses are not recouped through rate increases.

One idea that was floated in those discussions was that past losses should be defined as past premium inadequacies given current, updated information. That view says that companies should have charged higher premium rates from the beginning, as if they knew then what they know now. The company's failure to charge the higher premium rate from policy inception, in that view, is deemed to be a "past loss" that cannot be recouped. The way of determining a "past loss" is perhaps intended to reflect an opportunity cost of not charging higher past premiums. In reality, though, there is no opportunity for a company to have this perfect knowledge from policy inception.

Under this view, a company could show in a rate increase filing that past losses were not being recouped by assuming the proposed increased rates had been in effect from the policy's issuance. The company could then demonstrate compliance with the loss ratio test¹ under this alternate scenario.

After discussion, the NAIC task force agreed that it is not realistic to define past losses in this way. This line of reasoning greatly expands the risk in the product, injecting additional pricing risk by not allowing companies to seek the appropriate premium levels needed to maintain the future financial health of the policies. This risk is particularly germane as the bulk of LTC claims on today's inforce blocks will emerge in the coming decades.

The following examples illustrate this risk:

1. We assume that actual experience is exactly in-line with original pricing expectations for the first 20 policy years. After 20 years, a new type of care emerges which is more expensive and more desirable than the prior care options. LTC carriers now expect that future claims will be more than originally anticipated in pricing. Those higher future costs need to be funded by rate increases.

However, if the industry has to assume those higher rates had been charged in the first 20 years to satisfy the loss ratio test, the industry could suffer extreme losses.

Figure 1
Original Pricing Expectation

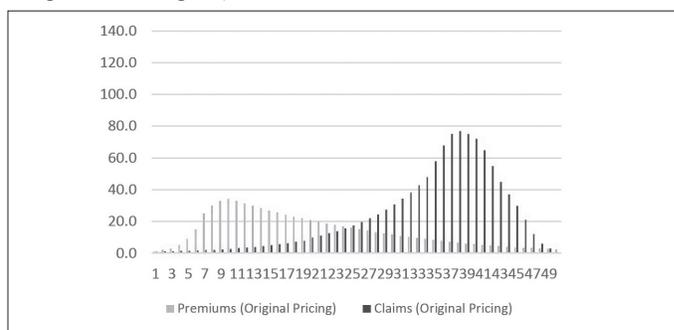


Figure 2
... with actual experience through duration 20

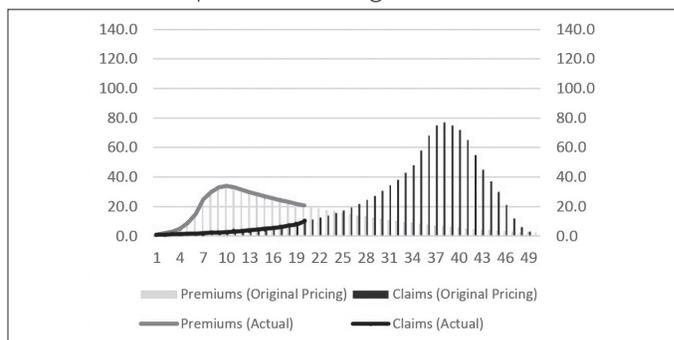


Figure 3
Original Pricing, Actual, and Projected Experience as of duration 20

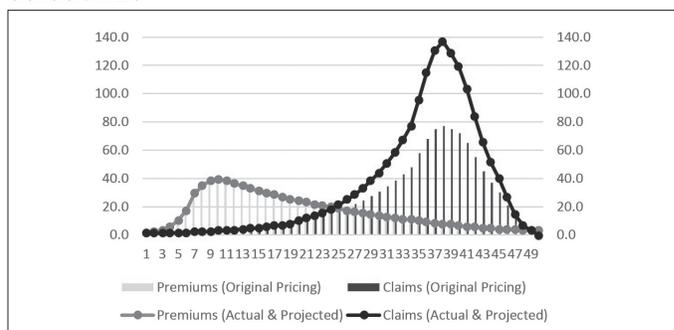


Figure 4

C. All premium rate schedule increases shall be determined in accordance with the following requirements:

- (1) Exceptional increases shall provide that seventy percent (70%) of the present value of projected additional premiums from the exceptional increase will be returned to policyholders in benefits;
- (2) Premium rate schedule increases shall be calculated such that the sum of the *lesser of* (i) the accumulated value of *actual* incurred *claims*, without the inclusion of active life reserves, or (ii) the accumulated value of historic *expected claims*, without the inclusion of active life reserves, plus the present value of the future expected incurred claims, projected without the inclusion of active life reserves, will not be less than the sum of the following:
 - (a) The accumulated value of the initial earned premium times the greater of (i) fifty-eight percent (58%) and (ii) the lifetime loss ratio consistent with the original filing including margins for moderately adverse experience;
 - (b) Eighty-five percent (85%) of the accumulated value of prior premium rate schedule increases on an earned basis;
 - (c) The present value of future projected initial earned premiums times the greater of (i) fifty-eight percent (58%) and (ii) the lifetime loss ratio consistent with the original filing including margins for moderately adverse experience; and
 - (d) Eighty-five percent (85%) of the present value of future projected premiums not in Subparagraph (c) of this paragraph on an earned basis;
- (3) *Expected claims shall be calculated based on the original filing assumptions assumed until new assumptions are filed as part of a rate increase. New assumptions shall be used for all periods beyond each requested effective date of a rate increase. Expected claims are calculated for each calendar year based on the in-force at the beginning of the calendar year. Expected claims shall include margins for moderately adverse experience; either amounts included in the claims that were used to determine the lifetime loss ratio consistent with the original filing or as modified in any rate increase filing;*

Figures 1, 2, and 3 reflect this block of policies initially filed with a 70 percent loss ratio calculated at the maximum statutory discount rate. Following the emergence of the new type of care, the actuary projects a lifetime loss ratio of 100 percent. The actuary determines the maximum allowable rate increase according to the “58/85” test found in the Model Regulation, and using the higher, originally filed 70 percent loss ratio as the basis.

Had the actuary been required to pass the test by applying a proposed rate increase to all historical periods as well, the loss ratio on the premium increase would be 365 percent. While the present value of claims would increase by 113, the present value of premiums would only increase by 31, meaning the company could only fund about 25 percent of the increased claims through premium increases.

2. A young block of business with lower issue ages has experienced modestly favorable claims for 10 years compared with the actuary’s original pricing. The original pricing assumptions were based on industry data at the time the policy was first issued. Since that time, industry data have shown that ultimate voluntary lapse rates are likely to emerge much lower than originally anticipated. As a result, the actuary recommends an increase to premium rates for this young block of business.

The block of business has been closed for three years, and roughly half of the expected lifetime premium is in the past. If the actuary is required to pass the loss ratio test by re-stating all past premiums up to the proposed rate level, the allowable increase will be far lower and the company will suffer substantial future losses. This is true, in spite of the fact that there were no past claim losses on this block (in fact there were modest past gains).

Following much discussion, the NAIC task force decided that past losses should be defined as any excess of actual past claims over expected past claims. If a company has had years of claims losses and hasn’t done anything about it, then those losses cannot be recouped. But if their losses are projected to be in the future as in the examples above, then there are no past losses. The portions (in bold italics) from Section 20.1 of the Model Regulation in Figure 4 illustrate how this concept ensures that past losses are not recouped through premium rate increases.

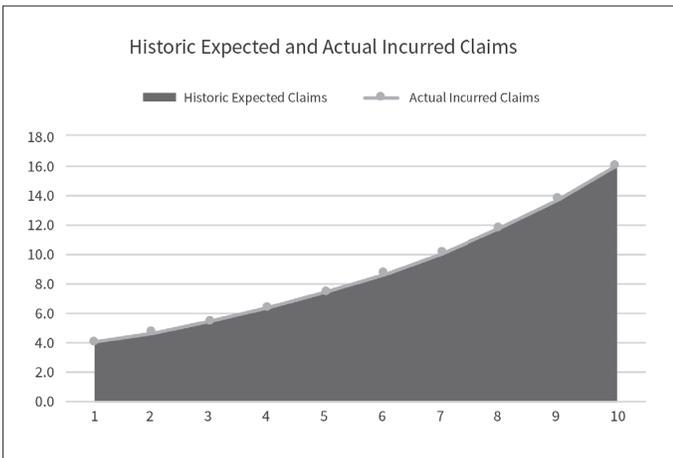
A numerical example, illustrated in Case 1, Case 2, and Case 3 demonstrates the application of this latest update to the Model Regulation. In each case an LTC actuary is considering re-pricing a block of policies that has not been re-priced in the past. To calculate the allowable premium rate increase according to Section 20.1, she examines the actual incurred claims and the historic expected claims based on the definitions above.



In each case the actuary must accumulate actual incurred claims and historical expected claims. Historical expected claims for a given year are based on original filing assumptions* applied to the policies inforce at the beginning of that year, including an expected margin for moderately adverse experience. Because the original filing* morbidity assumptions are applied to actual inforce policies, the expected claim calculation automatically adjusts for the actual persistency vs. the original filing* persistency assumption. Table 1 summarizes the three cases, and the past claims which may be used to determine the maximum premium rate increase.

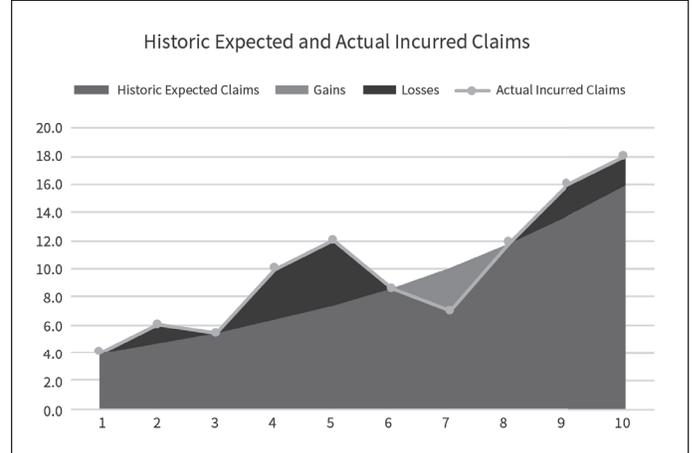
Case 1

Actual incurred claims are equal to historic expected claims.



Case 2

Actual incurred claims are greater than historic expected claims.



Case 3

Actual incurred claims are less than historic expected claims.

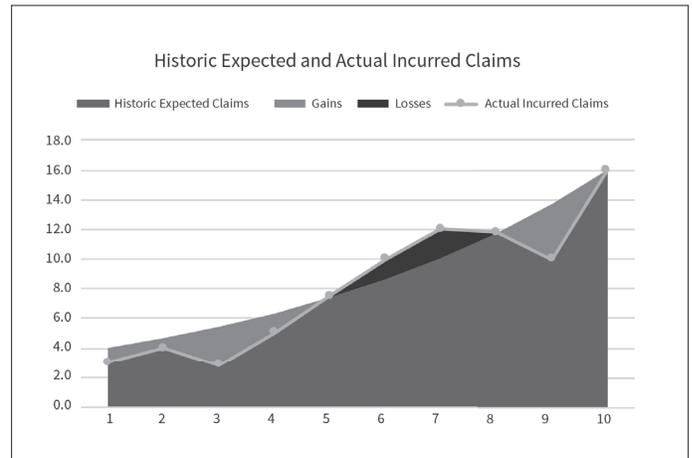


Table 1

Accumulated value at the end of year 10

Case	(a) Historic Expected Claims	(b) Actual Incurred Claims	Past losses	Lesser of (a) and (b)
1	100.7	100.7	0.0	100.7
2	100.7	113.5	12.8	100.7
3	100.7	93.3	0.0	93.3

In Case 2, there are past losses. The actuary is required to reflect the historic expected claims in determining the maximum allowable rate increase. This will produce a lower maximum rate increase than if actual incurred claims were used. In Case 3, where there are past claim gains, the actuary must reflect the favorable experience.

*In the calculation, the actuary must use prospective adjustments based on the assumptions established at the time of any prior rate filings.

POSSIBLE DRIVERS OF FUTURE LOSSES

Some companies today are finding themselves in the position that claims are higher than expected at the older attained ages and later policy durations. There are many reasons why this might be the case, including:

- The company's underwriting may have been better than originally expected. The company will not start to recognize its ultimate claim levels until this underwriting has worn off, and more policyholders reach the older attained ages. While a company may have years of favorable claims due to this good underwriting, they may be only starting to see what claims will be like at the older ages and later durations as the business matures.
- Companies may observe higher persistency, both in the form of lower mortality and lower voluntary lapse. This may result in more future claims and premiums. Since LTC claims are typically incurred in later durations while LTC premiums

are earned mostly in early durations, this could cause a future loss scenario.

- New technology and innovation will likely produce LTC methods, institutions, and devices which insurers could not have anticipated at the time of original pricing. If policyholders prefer these innovations, and they are more costly than traditional LTC care, then current premium rates may be inadequate to fund future claims.

Each of these scenarios indeed reflects future losses, not past losses, and the 2014 NAIC Model Regulation appropriately treats them as such. ■



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ENDNOTES

- 1 Long-Term Care Insurance Model Regulation, Section 20 C and Section 20.1 C, <http://www.naic.org/store/free/MDL-641.pdf>, accessed Jan. 18, 2017

Recent Changes to California LTC Insurance Code

By Kevin Healy

Last year, California enacted legislation updating Insurance Code Section 10235.52, which is California's version of Section 26 of the NAIC Long-Term Care Insurance Model Regulation – Availability of New Services or Providers.

NAIC Model Section 26 requires an insurer to notify policyholders of the availability of a new long-term care (LTC) policy series that provides coverage for new LTC services or providers that are material in nature. Basically, this requirement is intended to give policyholders, who may have purchased their LTC policy years ago, the option to upgrade their benefits as carriers add new services or providers to their latest LTC product offerings. Section 26 allows a carrier to make the new coverage available to its policyholders in one of three ways:

- a) adding a rider to the existing policy at the current issue age
- b) issuing a new policy with premium credits to reflect past insured status
- c) issuing a new policy at the original issue age

NAIC Section 26 included a number of exemptions that are not found in California's version.

However, California's version, first enacted in 1997, predated Section 26 and there were key differences between the two. Since most states follow the standards outlined in Section 26, industry reached out to California with the goal of updating its law to get it more aligned with the NAIC version.

In 2016, the American Council of Life Insurers (ACLI) and the Association of California Life and Health Insurance Companies (ACLHIC) worked with the California Department of

Insurance on a bill (Assembly Bill 2366) that is more consistent with NAIC Model Section 26. There were three major clarifications that were accomplished with this bill:

1. It clearly defined "new benefits or benefit eligibility" to mean coverage for new LTC services or providers that are material in nature.
2. It clarified that new benefits that are material in nature do not include changes to policy structure, benefits, or provisions that are minor in nature.
3. It clarified what benefits are material in nature and what are minor in nature. Changes that are minor in nature include, but are not limited to, changes in elimination periods, benefit periods, and benefit amounts. Under California's prior version, an insurer may have decided not to offer the 0-day elimination period on new policies just to avoid having to offer the 0-day elimination period to in-force policies. This scenario has been eliminated by Assembly Bill 2366.

DIFFERENCES REMAIN

The industry made great strides in California in 2016, yet California law still does not completely track the NAIC Model, so carriers will have to make adjustments to their California LTC product filings.

More specifically, the NAIC Section 26 included a number of exemptions that are not found in California's version, including:

- policies issued prior to the effective date of the section
- policies that had previously been in claim status
- policyholders who would not be eligible to apply for coverage due to issue age limitations under the new policy
- alternative programs approved by the commissioner
- proprietary policy series

Here are three scenarios where the lack of exemptions are important for insurers to think through:

1. A carrier that wants to offer coverage for a new LTC service on new policies in California will need to determine a price for it, as usual, up to the maximum issue age. It will also need to determine a price for the new coverage at all ages since there can be no issue age cap on the offer to in-force policyholders.
2. Also, without an exemption for policies issued prior to the effective date of the regulation, the law potentially applies to all policies. This raises an interesting question of whether adding a rider to a pre-HIPAA policy jeopardizes the grandfathered tax qualification status.



3. For policies that were previously on claim, it may not be clear how to account for a new LTC service or provider. For example, the new policy may provide for 12 months of coverage of the new LTC service or provider (e.g., international coverage). If the insured only has six months of benefits remaining on the existing policy, would the new feature provide coverage for six months or 12 months? If the answer is 12 months, then is the insured only eligible for the new LTC service or provider (international) in months 7–12? If the answer is six months, the insurer will need to develop a price for only providing six months instead of 12.

A NOTE ON COMBO PRODUCTS

California did not exempt life insurance policies or riders containing accelerated long-term care benefits. Further, the option to issue a new policy with premium credits is subject to California's Insurance Code Section 10234.87. However, that section does not apply to life insurance policies that accelerate

benefits for LTC so the option to issue a new policy with premium credits is not available for combo products.

CONCLUSION

The collaborative efforts of the ACLI, ACLHIC and the California Department of Insurance resulting in Assembly Bill 2366 has provided carriers with significant guidance. While this has been welcome legislation for insurers, LTC providers need to be aware that when bringing new products to market in California, there are still some administrative questions to confront. ■



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Detail Matters: Level vs. Relative Premium Increases and Their Effect on Actuarial Equivalence in Long-Term Care Insurance

By Mike Bergerson and John Hebig

As the long-term care (LTC) insurance industry continues to seek ways to manage disparities between premiums and costs—especially on older books of business—premium increases and benefit reductions are likely to remain significant factors in business decision-making for some time to come.

While states have generally come to accept the need for premium increases, the process of obtaining approval for any given set of changes can still be complex and challenging. In addition to the need for regulatory approval, insurers must also carefully consider the impact of rate changes on their bottom line—not just in terms of raw numbers, but in how they relate to experience and the potential for future profits or losses across the spectrum of benefits.

Regarding both state approval and business soundness of changes to premiums and benefits, one important factor to consider is actuarial equivalence among benefit levels. In the NAIC Model Regulation, Section 27, Subsection C.(2), it is stated that a premium for reduced coverage should be consistent with the approved rate table. In theory, absent variation for competition and other reasons, each rate in the original rate schedule represents a “value” for its corresponding benefit that is actuarially equivalent to the “value” of other rates in the original schedule.

In general, to state that rates are “actuarially equivalent” implies the premium rates for various risks are commensurate in relation to the expected claims. This suggests that across-the-board rate increases are considered actuarially equivalent. However, because of differences in emerging experience with respect to how various benefits and benefit levels affect future

losses, such an increase may not preserve actuarial equivalence among cells. Preserving actuarial equivalence may require adjusting the premium charged for a given benefit option in a manner proportional to its expected value.

While ideally actuarial equivalence would always be preserved, in the real world of LTC benefits, doing so is somewhat more complex. In theory, when a given product was originally priced, premiums reflected the issuer’s best estimate of what risks would cost, with some variation for other reasons, such as competitiveness of rates. However, in the time since pricing, emerging experience most likely tells a different story.

For example, the expected future cost of a four-year benefit period might be 20 percent higher than was originally expected when pricing the plan, while the cost of a two-year benefit period might be 20 percent lower. Raising the cost of both policies by 10 percent would penalize the holder of the two-year benefit period policy and favor the holder of the four-year benefit period policy. Add in all the various options for elimination period, inflation protection, reimbursement method, and so on, and the picture can get complicated very quickly even within a single product. In this case, one could request a flat increase and follow the NAIC’s guidance and still produce rates that are not, in fact, actuarially equivalent based on current outlook of the value of benefits.

... to state that rates are “actuarially equivalent” implies the premium rates for various risks are commensurate in relation to the expected claims.

Let’s take a look at examples using two ways in which justified rate increases can be determined. In each case, we will compare justified rate increases based on the entire block to the justified increases of specific cohorts within the block to see how different they might be.

The first method, Lifetime Analysis, calculates a justified rate increase based on the entire life of a policy. So, if a product was priced to yield a 61 percent loss ratio, and that product is currently projected to yield a 100 percent loss ratio, a 64 percent increase would be needed. This 64 percent reflects the increase in premium which would be necessary from the product’s inception to achieve the initial target loss ratio of 61 percent. It is important to note that, as we cannot increase premiums which have already been paid, the resulting projected loss ratio would still exceed the pricing target.

Table 1
Actuarial equivalence using the Lifetime Analysis method

	Combined	Lifetime Benefit Period	Limited Benefit Period
A. Pricing Loss Ratio	61%	64%	58%
B. Current Loss Ratio	100%	115%	90%
C. Justified Rate Increase = B / A - 1	64%	80%	55%
Subsidization (from C)	n/a	16% (= 80% - 64%)	-9% (= 55% - 64%)

Table 2
Actuarial equivalence using the Future Analysis method

	Combined	Lifetime Benefit Period	Limited Benefit Period
A. Pricing Loss Ratio	304%	304%	303%
B. Current Loss Ratio	335%	361%	312%
C. Justified Rate Increase = B / A - 1	10%	19%	3%
Subsidization (from C)	n/a	9% (= 19% - 10%)	-7% (= 3% - 10%)

Table 1 examines cohorts within the block to determine whether the justified rate increases differ by cohort. In this case, the cohorts represent projected experience for policies with either a lifetime benefit period or a limited benefit period.

As seen in the example, the projected loss ratios for the lifetime benefit and limited benefit groups differ both at the original point of pricing and using current projections based on actual experience and updated assumptions. As a result, the justified rate increases for these cohorts differ from that calculated on a combined block basis. The question arises: is a rate increase actuarially equivalent if some policies are subjected to increases larger than they should be based on current projections? As shown in Table 1, the limited benefit period policies would be subsidizing the lifetime benefit period policies if a flat increase across all policies was pursued. While subsidization could be measured in a number of different ways, it is shown as the difference in justified increases in this article.

The second example provides a similar analysis, with the exception that it uses a different approach for calculating the justified rate increases. This approach only looks at future experience and determines the necessary rate increase for experience going forward from the point of calculation, with the goal of achieving a future loss ratio consistent with that under original pricing assumptions. This method does not look at any historical experience (in this case, 2016 and before) and is referred to as the Future Analysis method.

The result of this analysis is similar to that of Table 1, as the justified rate increases vary based on the cohort of policies being analyzed. The end result is the same: some policies will be subsidizing others if a flat increase across all policies is implemented, due to the fact that differences in pricing relativities exist in current expectations even without the use of historical experience. Even though both methods result in one cohort subsidizing another, the methods result in different levels of subsidization as seen by comparing Tables 1 and 2. So to state that rates are actuarially equivalent to one another, even in a scenario where the rate increases are broken down by benefit characteristics, will depend on perspective and the analysis (future, lifetime, or some other method) chosen for the block.

RELATIVITY IS RELATIVE

Given the potential for significant differences among benefit groupings in a plan, issuers must carefully consider whether a uniform increase is the best approach. For example, the richest policies in terms of benefits tend to be the worst-performing in terms of losses, and yet these policyholders are often the most likely to hold onto their coverage in the face of rate increases. If the holders of leaner policies are subsidizing the holders of the richest policies, this could result in higher losses over the long term than if a rate increase that minimized subsidization were pursued. In a scenario where subsidization exists but a flat rate increase is pursued, it is plausible that larger numbers of leaner policies lapse or reduce their benefits while the richer policies (being subsidized by the leaner policies) hold on to their coverage more fervently. Experience will vary among issuers and



plans, but potential differences in loss ratios and policyholder abandonment at least justify looking at the issues in detail.

There are also several arguments against cell-wise adjustment of rate relativities. First, one must consider what is allowed by a given state's department of insurance. States may limit an insurer's ability to adjust rates based on certain class characteristics and these restrictions vary from state to state. As a result, applying for a rate increase which is more granular than a uniform rate increase may result in more scrutiny from state regulators and in vastly different rate increases being approved from state to state. Company legal counsel should be consulted before making any decisions regarding varying rate increases across different cohorts of policyholders for confirmation of the variation being considered a class characteristic from a legal perspective.

Secondly, there is the issue of statistical credibility. Cutting a plan into individual cells across various benefit levels can leave relatively small numbers of policyholders in each cell, which in turn reduces the credibility of the analysis. Additionally, non-level increases based on limited experience can introduce non-logical relationships that make it difficult to justify rate decisions.

There is also the issue of transparency. Level increases are easy to explain to policyholders and regulators without delving into the finer points of differences in emerging experience and actuarial equivalence. This can make it easier to obtain approval from regulators and buy-in from policyholders, even if it may be objectively more accurate to calculate different rate increases for separate cohorts.

The in-force management actuary should also consider the complexities of benefit administration. A company's administrative systems are already built to accommodate existing rating cells. Changing these relativities may require additional changes be made to processes and software, which can be non-trivial in terms of cost and complexity. The company should consider any added administrative costs with potential revenue added from a varied rate increase to determine the rate increase strategy that is best for both the company and policyholders.

Finally, any changes to benefits as a result of the requested rate increase need to be factored in. If benefit reductions are offered as an alternative to premium increases, the projected experience of those changes need to be part of the equation. A decision must be made whether the level of needed rate increase be based on the original set of benefits or the new set held after the policyholder accepts a benefit reduction in lieu of a premium increase. Which of these approaches should be considered appropriate, is up for debate.

As experience on blocks of LTC emerges and time passes from original pricing, the expectation of the value of benefits across rating cells also changes. These changes in the relative value of benefits have resulted in questions regarding fairness of rate increase requests and benefit reductions. One potential way forward would be for the LTC industry to accept that fairness among rates, or actuarial equivalence, is an ideal to strive for. However, it may be unattainable in a system that has so many limitations, variations, and where original pricing expectations rarely become a reality. ■



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