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Understanding The Risks At The Younger Ages

Morbidity Experience Analysis

by Scott A. Weltz

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The last edition of this newsletter included a very interesting article pertaining to the risks associated with issuing long-term care insurance (LTCI) at the older ages. The authors concluded that issuing coverage to anyone above age 80 is a daunting task and that the industry should continue to work toward offering coverage to a younger crowd where adverse selection is much less significant. I have been a part of extensive research of a large insured claims database over the past few years, and I could not agree more with their conclusion. It is certainly not easy to manage the risk at those issue ages.

This research has also opened my eyes with respect to managing the risks at the younger ages. It definitely is much easier to underwrite under age 65 simply because fewer individuals at these ages pose an immediate claims risk. Most companies which implement prudent underwriting procedures see extremely good claims experience at the youngest issue ages. However, if underwriters are doing their job, there is no reason why any company should be experiencing numerous claims at these issue ages. Those are not exactly the prime claim paying ages in the first place. The real dilemma is how to accurately project younger *issue* age claims experience at the older *attained* ages.

Projecting young issue age morbidity is now a focus for some carriers; however the industry has not given this area much attention in the past. There are several reasons for this. First, average issue ages were typically much higher in the 1990s, ranging from the high 60s to low 70s. Consequently, issuing a policy at younger ages was not a focal point. Second, conventional wisdom in the 1990s was that ultimate lapse rates were much higher than what carriers now appear to be experiencing. Thus, since few policyholders were expected to be around 30 years from issue, the claim costs assumed at the older attained ages were not very important. Third, rate stability was not the hot topic it is today.

Fast-forward to the year 2002. Average issue ages are often in the 50s and low 60s for most individual carriers. Group LTCI plans continue to grow and the federal government now offers LTCI to their employees. Lapse rates are lower than anyone ever imagined. The NAIC has created a rate stability regulation that some states have implemented. As a consequence, the morbidity assumptions used for an issue age 55-year-old are now much more important, especially at the older attained ages. Thus, the challenges become even greater for those us of pricing and valuing LTCI products.

The reason this task is so difficult is really quite simple. The event the younger policyholders are insuring against is not likely to occur for at least another 25 to 35 years. Seasoned carriers that have some insured claims experience do not have more than 10 policy durations of credible data (at best). Further, because these policyholders are so young, most purchase an option which inflates their daily benefit by five percent annually. Thus, these claim cost assumptions are magnified because the benefits can grow to be *three to five times* the issued daily benefit at the key claim ages.

Now, coverage is not typically offered on a non-cancelable basis, and some might contend that future morbidity

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475 N. Martingale Road, Suite 800
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Phone: 847-706-3500
Fax: 847-706-3599
World Wide Web: www.soa.org

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Bruce A. Stahl, Newsletter Editor
Penn Treaty Network America
146 Lakeview Drive • Suite 203
Gibbsboro, NJ 08026
PHONE: (856) 566-1002
FAX: (856) 566-5165
E-MAIL: bstahl@penntreaty.com

Joe Adduci, DTP Coordinator
PHONE: (847) 706-3548
FAX: (847) 273-8548
E-MAIL: jadduci@soa.org

Clay Baznik, Publications Director
E-MAIL: cbaznik@soa.org

Lois Chinnock, Staff Liaison
E-MAIL: lchinnock@soa.org

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Your help and participation are needed and welcomed. All articles will include a byline to give you full credit for your effort. *Long-Term Care News* is pleased to publish articles in a second language if a translation is provided by the author. If you would like to submit an article, please call Bruce Stahl, editor, at (856) 566-1002.

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Preferred Format

In order to efficiently handle articles, please use the following format when submitting articles.

Please e-mail your articles as attachments in either MS Word (.doc) or Simple Text (.txt) files. We are able to convert most PC-compatible software packages. Headlines are typed upper and lower case. Please use a 10-point Times New Roman font for the body text. Carriage returns are put in only at the end of paragraphs. The right-hand margin is not justified.

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Please send a hard copy of the article to:

Brad S. Linder, ASA (co-editor)
General Cologne Re
695 East Main Street • P.O. Box 300
Stamford, CT 06904-0300

Phone: (203) 352-3129
Fax: (203) 328-5886
E-mail: blinder@gclifere.com

Co-editor
Brad Linder

Thank you for your help.

Society of Actuaries

Chairperson's Corner

by Gregory A. Gurlik

First of all, I want to thank you, the LTCI Section membership, for giving me the opportunity to serve as a Council member, and ultimately, as your Council Chair. We didn't accomplish everything we wanted to this past year, but hopefully we've helped to build a foundation that will allow this year's Council to put an even stronger structure in place for the coming years.

I also want to thank my managers at both Northwestern and Fortis for being supportive of my involvement. It's one thing to support an employee using work time to lead a group of potential business clients, but for a direct writer, it's more difficult to define or quantify the value to the company. It has certainly been valuable to me for personal and professional development, and I encourage you managers out there to consider that as a worthwhile objective in and of itself.

Finally, I want to say what a privilege it is to work in a market where there is such passion about what we do. We can and do truly impact people's lives. We should feel fortunate to be part of this ever-evolving market, and I have for the last 10 years or so. "Ten years?" you say. "But haven't you been doing LTCI exclusively for almost 15 years?" Yes, but unlike many, I did not come to this market because of any personal experience or any particular sense of passion. I came because of the newness, the dynamic environment and the personal opportunity. My initial impression of the market was tainted by the scare tactics and the "nursing home insurance" stigma. It was not until I became more aware of the personal experiences of others, and not until I saw the opportunity for change in the products and the market, that I became more passionate about LTCI.

I know there are many of you out there for whom LTC insurance is your life's calling. You'll search from California to Maine looking for that next opportunity to grow while staying in this market. Yet, for all of us, there is also the struggle of where we sink our roots, where we call home. It's not easy to load the wagon, wave goodbye to family and friends — and set off for new frontiers — even in this day of cell phones and instant messaging.

So when someone asked me, "Where do you want to be in five years?" and started talking about my next opportunity being outside of the LTCI market, it was a difficult proposition for me. Not that it even meant I'd be out of the LTCI market entirely or forever, but still, it's all I've known for so long.

If this wouldn't be a gut-wrenching thought process for you, I envy you — in a way. You have a certain flexibility in your career path that allows you to freely consider more varied opportunities; however, you may be missing out on something even more special. I'm sure millions of people change jobs every year, many of them involuntarily. And many of those people change careers entirely, perhaps again at someone else's behest. But how many of those people lose their true passion? How many of those people look back and think, "You know, I was really emotionally attached to what I was doing?"

I think people in the LTCI market have been that way, are still that way, and will be that way more and more as they all have their own personal experiences. So, if you ever have to think about your next opportunity being outside of the LTCI market, and you're still sleeping well at night, I guess I really don't envy you as much as I at first thought. After all, it has been said, "It is better to have loved and lost than never to have loved at all." Perhaps it is also better to have felt passion in what you do, and then do something else, than to have never felt that passion at all.

Gregory A. Gurlik, FSA, MAAA, is Director of Long-Term Care Product Development at Northwestern Mutual in Milwaukee, WI. He can be reached at greggurlik@northwesternmutual.com.

assumptions are not something we should worry too much about. We just need to take a shot and if we happen to get it wrong, who cares? You can always implement a rate increase, right? Yes, you certainly can. However, I simply believe we have a greater responsibility given that carriers must tell each and every policyholder that these premiums are intended to be level for the life of the contract. In addition, actuaries now must certify with some state regulatory authorities that "premiums are reasonably expected to be sustainable over the life of the form with *no future premium increases anticipated*." I don't know about you, but that pitch sure makes it appear that we have a pretty good grip on this thing called LTCI.

As an industry, I do not believe we should "punt" when it comes to this challenge until more data comes through the door. Some very valuable insured data exists that, if carefully examined, can shed some light on potential scenarios for what may happen in the future.

Analyzing the Data

The focus here will be on incurred claims analyses and the issues to consider when extrapolating the results of such analyses. Consider the actual to expected (A:E) claims study presented in Table I.

Table I
Actual to Expected Incurred Claims Experience Study
Expected Claims on Attained Age Basis (Without Selection Factors)

Policy Duration	Issue Age					
	<60	60-64	65-69	70-74	75-79	Total
1	0.01	0.01	0.03	0.15	0.20	0.10
2	0.03	0.05	0.15	0.30	0.40	0.15
3	0.07	0.15	0.15	0.30	0.40	0.15
4	0.12	0.25	0.50	0.70	0.80	0.40
5	0.17	0.35	0.70	0.80	1.00	0.60
6	0.22	0.45	0.80	0.90	1.10	0.70
7	0.25	0.60	0.90	1.00	1.15	0.75
8+	0.50	0.75	1.00	1.20	1.40	0.80

At first blush, this looks like really great news. If the youngest issue ages are coming in at 50 to 75 percent of the expected ultimate claim cost curve, then the morbidity supporting the premiums at these ages must include ample margins, right? Maybe, but it certainly requires more digging.

The first task revolves around the data you start with and this simple maxim: "Bad data in equals bad data out." Understanding the guts of the data is an essential piece of a good experience study. This process can be a project in and of itself. Communication among areas such as policy administration, marketing, underwriting, systems, claims and actuarial is very important to effectively develop a valid experience study.

A claims study is also only as good as its component parts. In other words, the precursor to a good incurred claims study is a good incidence and continuance experience study. Without them, the claims study can become materially skewed. The continuance study is of particular importantance since a fair amount of incurred claims data will include open claims. Thus, if the claim reserves are misstated due to a poor continuance study, then the recent claims (which are heavily dominated by the claim reserve) will also be impacted.

Developing Morbidity Experience Adjustments

The next task is to develop experience adjustments to the morbidity assumptions. Keep in mind that the actual to expected (A:E) experience analysis should consider each of the key risk factors related to a LTCI claim. To determine what these factors are, separate the A:E analysis for each significant component of your business. A few of the factors we have found that materially impact claims experience are discussed here.

Underwriting Protocols
LTCI underwriting has improved drastically over the past decade. This is evident when looking at the rise in decline rates as well as the resulting claims experience over the years. Therefore, it is important to segment data by underwriting category. This can be achieved by cutting claims data by issue eras, since underwriting generally improves each year as carriers learn which risks to avoid. Further, depending on the structure of your data warehouse, you may be able to further differentiate your data based on the specific underwriting guidelines in place and the resulting conditions which triggered a given claim.

Benefit Trigger
Policies have not always included the activities of daily living (ADL)-based triggers that are currently quite popular in the market. Originally, LTCI policies typically covered nursing facility stays if followed by a minimum three-day hospital stay. The next generation included nursing facility policies with a medical necessity trigger. Policies after that began to include home care benefits and assisted living facility benefits with ADL-based triggers. Because some of these benefit triggers result in materially different morbidity levels, it may be beneficial to segment your data by this criteria as well.

Care Management Procedures
Some studies have been performed which indicate that care management can significantly reduce LTCI claim levels. Thus, if your data contains claims under various care management settings, it may be valuable to split your data by this criteria.

Gender
It is no secret that females tend to claim at much higher levels than males. Because LTCI is often priced on a unisex basis, it is important to understand morbidity levels by gender to fully understand the subsidies in place.

Marital Status
While few carriers track the marital status of a given policyholder, almost all track whether or not a policy is issued with a spouse discount. Segmenting the data by this criteria can be invaluable in determining whether the level of your spouse discount is appropriate.

Geographic Area
Carriers often see significant differences in claims in different regions of the country. These differences typically vary by type of care as well. Often, an area with particularly high facility claims will see low home care claims and vice versa. Because of this, it is often valuable to review morbidity differences by geographic area.

Stand Alone Policies
Carriers often find that their claims are significantly higher on stand-alone policies (i.e. Facility Only or Home Care Only). This is often because policyholders who purchase stand-alone plans substitute covered services for non-covered services. However, geographic area also tends to play a role here because policyholders tend to purchase coverage for services that are more prevalent in their area.

Policy Option and Adverse Selection
Generally, richer plan designs attract worse risks due to adverse selection. For example, even after adjusting for expected benefit differences, claims for policies with longer benefit periods and shorter elimination periods typically experience more claims relative to expected.

By no means is this an exhaustive list; however, it does point out several factors in addition to issue age and policy duration that should be considered when analyzing LTCI claims.

As you develop A:E experience adjustments based on the key risk factors, it is crucial that the adjustments are not developed in isolation. Rather, you should control for the correlation of the various factors as you develop experience adjustments to your morbidity basis. Without this, much of the value of the experience analysis will be lost.

Some may disagree with the need for this level of analysis by arguing that if your underlying expected claims are adjusted for the appropriate mix of business, then this level of segmentation is unnecessary. However, what if the underlying expected costs failed to recognize the immense difference in claims that result when comparing a policy issued without cognitive screens vs. one with such screens in place? Further, what if all of the 50-year-olds were issued with improved underwriting standards while a majority of the 80-year-olds were issued at time without such improvements in place? If that happens to be true (and it is not uncommon), then it becomes very difficult to extrapolate the 50-year old claim costs based on a very different cohort of 80-year olds.

Another example of the potential pitfalls of aggregated analysis is shown in Table II.

Table II
Actual to Expected Claims Analysis
By Issue Age, Gender and Benefit Period (BP)

Criteria	<70	70+	Total
Females			
Lifetime BP	1.20	1.40	1.25
2 Year BP	0.60	0.80	0.77
All BP	1.12	0.97	1.04
Males			
Liftime BP	0.70	1.00	0.78
2 Year BP	0.40	0.80	0.75
All BP	0.66	0.86	0.77
Unisex			
Liftime BP	1.02	1.25	1.08
2 Year BP	0.53	0.80	0.76
All BP	0.95	0.93	0.94

Table II displays a hypothetical claims analysis of a block by gender and benefit period (BP) (note: trends shown are not necessarily representative of actual experience). If the study were simply done on a unisex basis without reviewing benefit period or gender, one might conclude that experience is tracking as expected. At both the younger and older ages, morbidity is roughly five percent to seven percent below expected. However, by segmenting the data more, it becomes clear that this is not always the case.

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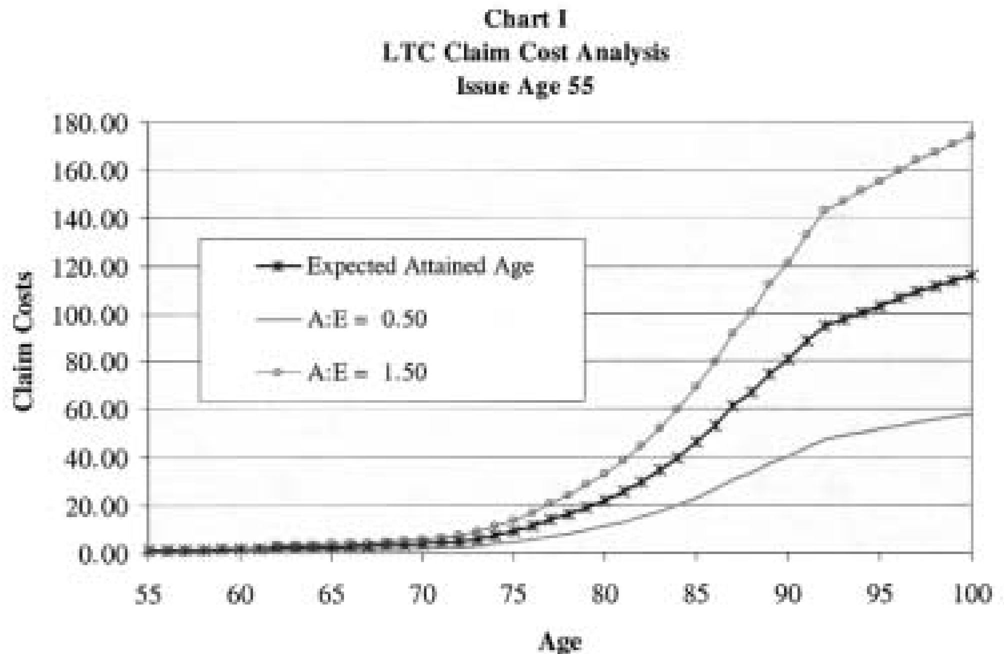
While the two-year BP experience is much better than expected, the lifetime BP experience is much worse, particularly with females. Even more important, though, is the relationship by issue age. Without such a detailed analysis, it appears that the experience by issue age is close to expected. However, further analysis by BP shows that this is certainly not the case. This is very important since carriers often look to their older age experience to determine where to project their younger issue-age claims. If this level of analysis had not been performed, the projection of those older age costs may have been much different.

This leads to the subject of credibility. Almost every claims study is plagued by limited validity or credibility of the data, especially when segmenting the data as suggested here. How credible is your data? The answer hinges on a number of things including the number of life-years exposed and assumed distributions of incidence and average lengths of stay. However, the most important thing to keep in mind is the very nature of credibility theory. It centers around the assumption that you have a best estimate to rely on in the absence of fully credible actual experience. For many carriers, this best estimate is non-existent for LTCI morbidity except for a few population studies which have been performed over the years. However, insured data is often much different than the population data. Thus, the "best estimate" in your credibility formula should be carefully considered before performing such calculations. I was fortunate enough to work with almost $2 billion in actual claims in our research efforts, thus credibility was less of an issue. However, even when dealing with smaller blocks, I tend to give more weight to actual insured experience than I typically would with other product lines simply due to the lack of a credible best estimate in the first place.

Projecting Morbidity Assumptions

Let's make life simple and assume that the claims study in Table I has been reasonably adjusted for the key LTCI risk factors. With mature product lines, most of the work would be done at this point because you could simply take the resulting A:E experience adjustments and project future morbidity based on a previous best estimate of the claim cost curve. If only LTCI were that easy. Unfortunately, this is where the substitution of facts for appearances abruptly ends because we do not have a very reliable "previous" best estimate. This becomes especially obvious at the younger issue ages.

Chart I shows the results of the <60 issue band claim cost analysis from Table I. The middle line is the hypothetical expected ultimate attained-age



claim cost curve assumed in pricing. The bottom line is an issue-age 55-year-old's claim costs using the experience adjustments in Table I. Future experience is assumed to be 50% of the attained age curve. Finally, the top line is a hypothetical 55 year-old's claim cost if experience had come in at 150% of the ultimate attained age curve, rather than 50%.

A number of things become either very clear or very unclear. The comparison of all three lines from ages 55 through 65 emphasizes just how small the younger-age LTCI claim costs are relative to the older-age costs. This is the primary reason why it is relatively easy to underwrite at the younger ages — claims are not expected at these ages in the first place, nor are they expected to occur for quite some time. Because of this, favorable or poor A:Es at the youngest ages may have less significance. When you are dealing with expected costs this small, a slight modification to the expected claim cost curve at the young ages can drastically change the magnitude of the A:Es. Further, to simply take the experience adjustments and project them forward for the life of the contract relative to an expected claim cost curve (which probably had little credibility to begin with) can dramatically impact financial projections. Due to this reality, more analysis is generally necessary.

Attained Age Curve

Since we cannot simply assume the underlying claim cost curve is appropriate to project future morbidity for a younger issue, we must review claims from policies that were issued at the older ages. This is why the previous discussion on properly segmenting the data when developing experience adjustments is so important. Without such segmentation, it is difficult to infer anything from the experience of two issue age bands.

Chart II is a graphical presentation of the claim cost analysis from Table I for all issue age bands. It only includes actual claims experience relative to a hypothetical expected attained age curve. No future projection of claims is included. This presentation of the results certainly tells a much different story than Table I does. While the younger age experience is much better relative to the expected costs, Chart II suggests that all issue ages track fairly well with this expected curve.

If you believe that LTCI is a select and ultimate risk, you may be inclined to simply modify the attained age curve such that costs are reduced at the younger attained ages and increased at the older attained ages. Chart III demonstrates one potential variation of this approach in which all issue ages reach an ultimate level by policy duration eight. This pure select and ultimate approach

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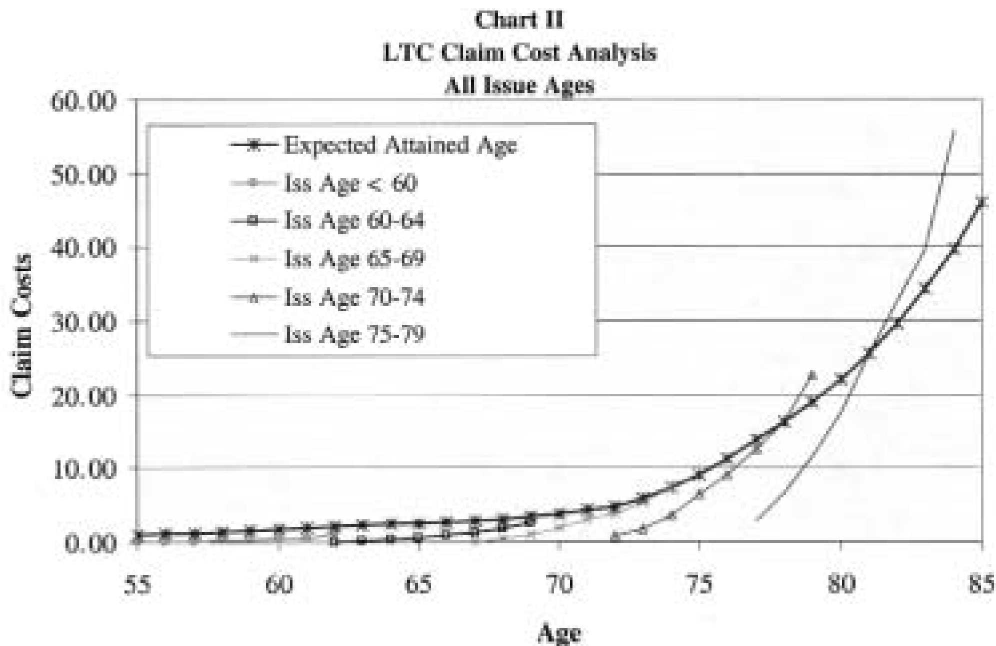


inherently assumes that each policyholder will exhibit the same level of claims at any given age beyond the first eight policy-year durations. Thus, the 55-year-old policyholder will have the same probability of claiming and the same length of claim as the 80-year-old policyholder once they both reach age 90. This scenario also implicitly assumes that any selection, either positive or adverse, will be gone by policy durations eight and later.

If you think Chart III looks reasonable, you may have doubts after performing a competitive premium analysis or a gross premium valuation. By bringing all of the younger age claim costs up to an ultimate level which is closer to the older age experience, we have effectively implemented a much steeper claim cost curve. Chart IV demonstrates this by showing a comparison of the original and revised attained age curves.

Projecting a steeper curve with realistic lapse rate assumptions produces premiums that tend to be very uncompetitive at the youngest issue ages. "Compounding" this problem is the fact that most younger policyholders purchase inflation protection coverage, thus steepening the curve even more. However, whatever is projected for ages 90 and beyond is also largely an educated guess due to the small amounts of insured (and population) data available at the extreme ages.

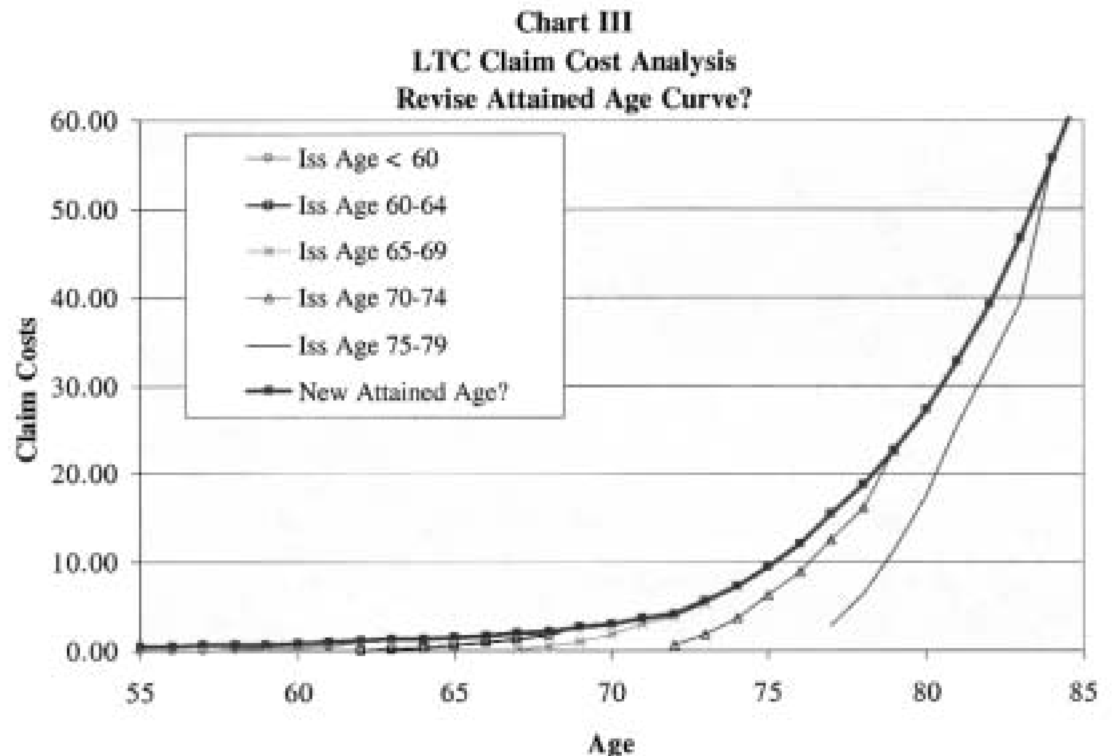
So, does this mean catastrophic financial results are only a matter of time? Not necessarily. Fortunately, there are reasons to believe that projecting with one attained age curve may not be appropriate.

Issue Age Curves

There are valid arguments for using different claim cost curves by issue-age band. The theories center around the following ideas.

Adverse Selection

There is no question that a group of LTCI applicants in their 80s looks drastically different from a group of applicants in their 50s. The older applicants often have a LTC need in mind and it is the underwriter's job to determine if the risk is worth it. On the other hand, the younger group is often simply buying a policy to protect themselves financially for such a need in the future. While underwriters are learning more and more about the proper way to control the risks at the oldest ages, the resulting risk group for older issue-age bands almost always exhibits worse experience than their younger counterparts. LTCI is subject to significant adverse selection, and experience indicates that more unhealthy individuals are accepted for coverage as issue-age increases. If the risk pools by issue age are materially different,



then ultimate differences may also exist but probably diminish some over time. Unfortunately, the amount of insured claims in the later policy durations is not credible enough to determine the exact magnitude of these differences on an ultimate basis.

Declining Lengths of Claim with Policy Duration

Another theory deals with the potential for a reduction in average claim length as an insured is further removed from underwriting. The article from the last newsletter on older age morbidity touched on this somewhat as well. The thought is that individuals are the healthiest at the point of issue and become more frail as they age. If this is true, then the 50-year-old issue at attained age 85 is more likely to experience higher mortality rates than an 80-year-old issue at attained age 85. In effect, this would result in shorter claim lengths for those issued at the younger ages. Unfortunately, even if the entire industry put their data together, there may not be enough claims to give us a valid continuance study of this nature. Still, the theory seems plausible.

Morbidity Improvement

It has been demonstrated that the prevalence of ADL deficiencies has been declining in the elder population over the past two decades. Published trends in general population morbidity support this theory, which is often attributed to advances in medical technologies. Further, insured data generally indicates that morbidity is improving as well. However, keep in mind that insured data is significantly impacted by the market maturation process as carriers learn the risks associated with LTCI. While the pace of this improvement may slow some in the future as the market continues to mature, some believe it is reasonable to assume a level of morbidity improvement into the future. Assuming you subscribe to this theory, it is reasonable to assume that a younger insured is much more likely to benefit from future medical advances than an older insured who may require LTC services before such advances materialize. This is yet another reason why a true LTCI attained-age morbidity curve is unlikely.

Chart V considers some of these issues. This chart shows the results of Table I assuming that each issue-age curve is a percentage of the original expected attained-age curve. The percentage is simply set equal to the ultimate A:E shown in durations eight and later. (Note: this is the same methodology which produced the lower issue age 55 curve in Chart I)

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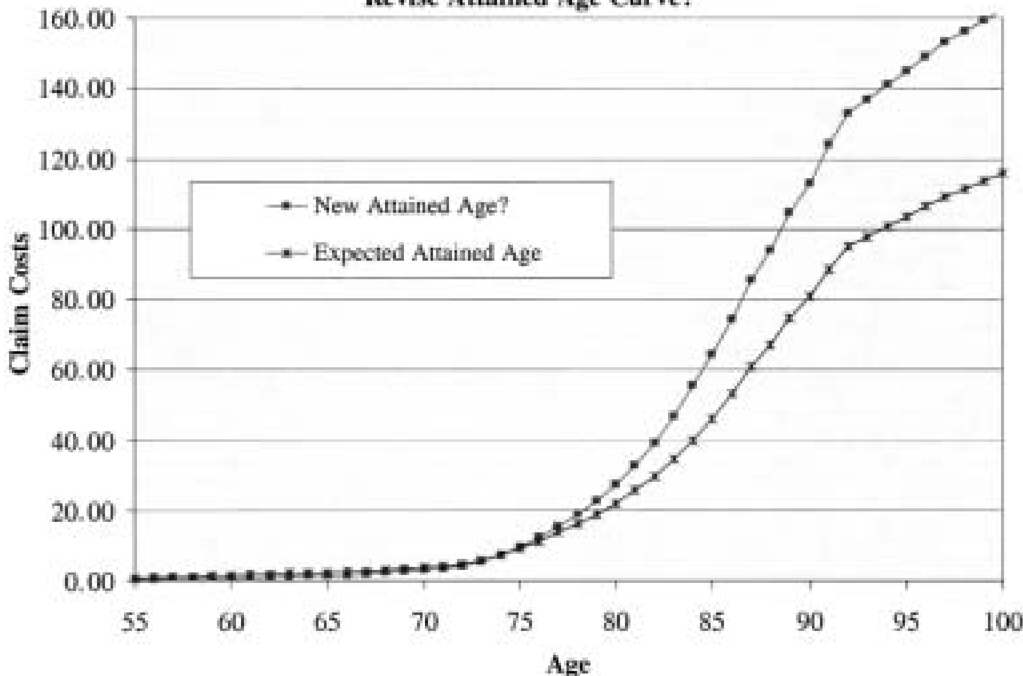

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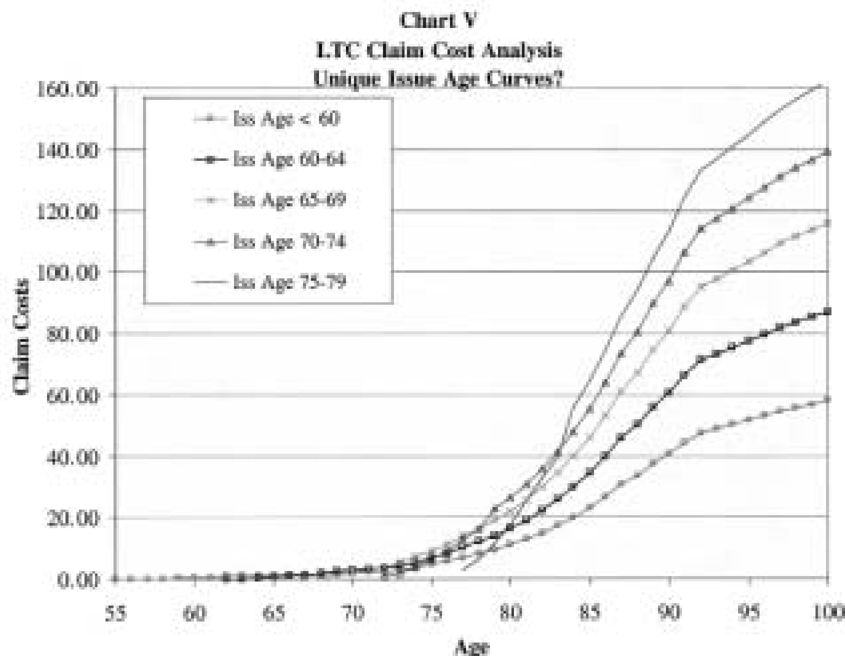

This is a significantly different view of the morbidity curve by issue age. By projecting the morbidity in this manner, we are assuming that ultimate claim costs for the 55-year-old issue will be roughly one third the level of ultimate costs for a 77-year-old issue. Could this be correct? Sure, anything is possible. Some might even say it is conservative since an explicit adjustment for shortening lengths of claim and morbidity improvement is not included here. However, others might argue that this is implicitly incorporated since the ultimate claim levels are so different by issue-age band. Most would probably agree that it simply does not make sense for ultimate claim cost levels to be that far apart regardless of how much adverse selection exists at the upper ages or how much lower the 55-year-old's claims may ultimately be due to declining average claim lengths and morbidity improvement. A more likely scenario is an adaptation of Chart V which brings the ultimate costs somewhat closer together at the older attained ages as selection diminishes.

Conclusion

What is reasonable? That is for each company to decide for themselves. A combination of Charts III and V seems like a plausible compromise at this time. It certainly seems unreasonable to believe all policyholders will experience the same ultimate level of morbidity as Chart III suggests. A claim-cost curve that steep simply does not seem possible given the significant amount of adverse selection that is present at the older issue ages. However, Chart V's extremely different issue-age curves seem just as unreasonable as Chart III. To extrapolate the younger issue-age curves based on experience where claims are so tiny can be misleading.

Still, we must be able to glean some information from the older-age data to determine where to reasonably project the younger insureds' future claims. To answer some of the questions brought up here certainly requires additional modeling. Due to the lack of data available at the later durations, this modeling will have to be theoretical in nature for now. However, most probably agree that a theoretical model with insured data as its backbone is much preferred to one with none at all.

Analyzing insured claims data is very important to the future of this industry. It is a resource that becomes more valuable each year as benefits are paid to a policyholder pool, which continues to grow. Moreover, accurately projecting claims experience for a younger risk pool takes on even greater importance as issue ages decline, sales increase and liabilities become a more prominent piece of LTCI financial statements. As actuaries, we must develop reasonable assumptions based upon careful scrutiny of the data available to us so that we can develop potential scenarios regarding what *may* happen in the future. In some cases, this type of examination is a real eye opener and may lead to significant changes to various components of a company's LTCI operations.

Scott A. Weltz, FSA, MAAA, is an actuary at Milliman USA in Brookfield, WI. He can be reached at scott.weltz@milliman.com.

A Visit to On Lok

by Gregory A. Gurlik

On Tuesday afternoon of the 2002 SOA Spring Meeting in San Francisco, about 15 actuaries took advantage of the opportunity to visit one of the original On Lok senior health facilities. These facilities provide a broad program of medical, chronic and social needs designed to allow seniors to remain independent as long as medically, socially and financially possible. Although a presentation by a facility administrator provided great background on the development of the facilities, actually seeing the facility layout and operations in person provided a unique perspective for field trip participants.

On Lok means "peaceful, happy abode" in Cantonese. The On Lok centers are more than just "facilities." They provide a gathering place for seniors — a place with a social atmosphere. On Lok's emphasis is on prevention of poor health and accommodation of limitations. This leads to a lot of program flexibility. A very broad range of services is provided in one location, including:

- Primary medical and specialty care
- Nursing care
- Adult day health
- Social services
- Prescription drugs
- Physical, occupational and recreational therapies
- Home health care and personal care
- Nutrition services and meals as necessary, including special dietary needs
- Transportation and emergency medical transport
- Acute hospital and nursing home care
- Medical specialists such as audiology, dentistry, optometry, podiatry and speech therapy

I was impressed with the sheer breadth of services provided on-site, particularly the medical specialists. In addition, some particular services really made an impression on participants. The kitchens prepare and serve hundreds of meals each day — not just on-site, but also to be taken home by members — all the while balancing the special dietary needs of their challenging membership.

Also, because of the lack of transportation services available for the frail elderly, On Lok essentially created their own transportation company. There were only two companies that could even handle On Lok's frail members and they charged normal fees plus $1 per step for moving wheelchair-bound individuals up and down in buildings without elevators. John Timmerberg of the CONSECO companies related, "You could just envision these van drivers hauling these people in wheel chairs up and down four flights of stairs every day." Interestingly, van drivers are part of the multi-disciplinary team that provides personalized care to each On Lok member.

To be eligible for the program, members must require a nursing home level of care as required by the State of California. However, consistent with On Lok's objective of allowing members to remain in their homes as long as possible, only sevenpercent of members actually live in nursing home settings. Ninety percent of members need help with instrumental activities of daily living like shopping, meal preparation and housework. Eighty percent of members need help with bathing, while roughly 50-60 percent need help with other activities of daily living other than eating (24 percent).

Eric Stallard of Duke University observed, "Considering that all of these people were nursing home certified, they seemed quite active, inquisitive and alert." Given the uniqueness of the On Lok program, participants got the impression that On Lok members see a lot of visitors to the center, but the residents generally expected to be ignored. "When I started saying 'Hi' to people," Timmerberg recounted, "they seemed surprised, but very responsive."

On Lok was the model for the Program of All-inclusive Care (PACE) for the Elderly, which The Health Care Financing Administration (HCFA) authorized in 1986 to be replicated in other states. Over 40 states have established PACE programs to date. On Lok members who are eligible under both Medicare and Medi-Cal (California's Medicaid program) pay no premiums, co-payments or deductibles. On Lok requires fixed monthly fees from those who are Medicare-only beneficiaries and from those who qualify as "medically needy only" under Medi-Cal.

Rivaling the breadth of services was the breadth of the activities for members as they whiled away the time, waiting for their van rides home. From the clatter of tiles of the ancient game of mahjong to the soft whirring of disk drives on computers, there seemed to be a certain serenity. Stallard concluded, "Overall, it seemed to be a pleasant, even desirable, set of surroundings." And that is what one would hope for in a "peaceful, happy abode."

It was interesting to note that part of On Lok's general information packet contains a review of a television show about On Lok by David Steinberg, "a journalist and author who is 'more interested in the actual than the actuarial.'" Hopefully Mr. Steinberg would appreciate all of us getting out of our actuarial sessions long enough to experience a little of the 'actual' that is On Lok.

A Word from the Editor

by Bruce A. Stahl

This edition of the "Long-Term Care News" will likely appear one-sided. It will do so, not by design, but by its dependence upon volunteers to prepare its articles. While the editors and the SOA LTCI Section Council plan to provide representative views on a variety of subjects, they can only assure success if they pay for the articles. We will still welcome other views on these topics in future editions. Yet the observations in this edition serve as a small illustration of how insurance can succeed. It can assure success only when the insurers can expect to make a profit.

The expectation of profit is certainly a question you should have in mind as you read Joan Ogden's editorial on the NAIC model regulation. It is also the motive that drives reinsurers to nurture the industry as my own article addresses. The expectation of profit is what drives insurance companies and consulting actuaries to thoroughly analyze the experience and to make reasonable assumptions about the future, as Scott Weltz's and Phil Barackman's articles support. The expectation also drives insurers to manage their business more effectively, as is identified in Jim Berger's article on product trends.

Even the consumers are motivated by profit. They do not want to spend-down their own accumulated profits on long-term care needs. This is evident in Anna Rappaport's article on retirement.

Well enough of this discussion. I need to get back to making a living. ♿

SOA Committee on Post-Retirement Needs and Risk

by Anna M. Rappaport

Several years ago the SOA identified post-retirement risks (including health and long-term care needs) as a key area for attention. Since we believed that most of the attention around retirement planning focused on asset accumulation and the pre-retirement period and not on risk management, the SOA created the Retirement Needs Framework Task Force charged with looking at retirement in its entirety. That task force has now been restructured into the Committee on Post-Retirement Needs and Risks. Committee members and associated interested parties include a variety of expertise. In addition to actuaries, the group includes economists, experts in survey research, policy experts and attorneys. I chair the new committee.

Past accomplishments of the Retirement Needs Framework Task Force include the Retirement Needs Framework call for papers, Symposium and Monograph and the research on Post-Retirement Risks completed late last year. This monograph can be ordered from the SOA Web site (*www.soa.org*). The monograph includes a paper by Eric Stallard looking at health and long-term care risks and their prevalence. The research report from the *Post-Retirement Survey* can also be accessed on the SOA Web site. This survey shows that the public is moderately aware of the risks of being in a nursing home, but they are also in denial. While many more people think that others will need care, a much smaller number believe that they themselves will need care. The task force developed a Web page offering links on post-retirement risk. The original idea at the time of the first call for papers was that the papers and symposium would be about data and modeling, resulting in a better understanding of the topics and information about where data can be found. That idea proved to be overly optimistic and we found that there were more questions than we had anticipated and much future work to do. The new Committee will carry on and expand the work.

The Committee on Post-Retirement Needs and Risks is working on an agenda going forward. The Committee will be updating the Web site to offer links to more work, and to offer access to more of what is happening. The items selected for the initial agenda are as follows:

- Discussion of paper on disconnects areas where public perception of post-retirement risk is out-of-step with reality. The SOA's study on public perceptions documents gaps in understanding post-retirement risk as does the Life Insurance Marketing and Research Association (LIMRA) study. The two studies have overlapping findings and are generally compatible but cover different universes and issues. Such disconnects are also shown in studies by American Association of Retired Persons (AARP) and Employee Benefit Research Institute (EBRI).
- Prepare chart on post-retirement risks.
- Focus on the definition of retirement.
- Look at issues relative to annuities.
- Repeat the post-retirement risk survey in 2003. ♿

Retirement Implications of Demographic and Family Change

by Anna M. Rappaport

This project was sponsored by the SOA Committee on Social Security — Retirement and Disability Income. It was in response to concerns that as society is changing, financial security systems and programs do not always respond rapidly to them. This concern can be reflected in specifics with regard to the design of employee benefits and retirement programs and the use of insurance products such as long-term care insurance, life insurance and annuities. Fundamental issues underlying the project include:

- Population aging in many countries, with very dramatic changes in the United States as a result of the aging of the Baby Boomers and more rapid aging in Japan and countries in Europe
- Changes in the way people are exiting the labor force, but without formal changes in the retirement system to accommodate those changes most effectively
- Legal structures governing pension plans that do not support phased retirement
- Diverse family patterns, but with financial security systems that often still seem designed to fit the needs of traditional families. U.S. Social Security does not adequately reflect diverse family structures.
- Poverty rates among U.S. elderly women living alone that are much higher than for couples. While elderly couples have poverty rates of about five percent, for women alone, it is closer to 20 percent, depending on which group we are viewing.

In response to these issues, the committee sponsored a multi-part project: Retirement Implications of Family and Demographic Change. This project started with formulation of the key issues and a call for papers. The papers were posted on the SOA Web site, and the project then followed with a symposium held in conjunction with the 2002 Pension and Health spring meeting. The papers are now available on the SOA's Web site as part of an online monograph series.

This project served to bring together people from different disciplines and organizations. Seventeen cooperating organizations participated in the project. Topics covered spanned health and disability, as well as pensions and included private and government programs. This material provides good background for the long-term care actuary who is interested in a background on vital issues affecting our aging population.

Changing patterns of retirement are interwoven with health and disability issues. Decision factors for individuals include when to retire, the availability of health insurance (both before and after retirement), personal health status and the health status and care needs of family members. Many people, particularly women, end up leaving the workforce or reducing their work schedules because family members need care. At the same time, these people often do not have personally adequate retirement resources. The paper "Alternatives for Providing Family Retirement Benefits in Social Security and Employer Sponsored Pension Plans" by Anna Rappaport and Manha Yau focuses on different family structures and how well they meet personal retirement needs. It looks at what is done in other countries as well as the United States, as a way to think through the issues. Beverly Orth, in her paper, focuses on how decision making within couples is interrelated.

I would also like to point out several information sources for the long-term care actuary. There is an overview of all of the papers in the March 2002 edition of *The Actuary* and the online monograph. A paper presented by Douglas Andrews called, " Policy Implications of Long-Term Care." It was written by Yung-Ping Chen, a noted gerontologist provides a big picture view of long-term care benefits. Robert Brown shows how we can look at pension and health risks as balancing each other in "Qualified Pension Plans and Health Care for the Elderly: The Perfect Macrodemographic Immunized Portfolio."

In addition to the papers, there were two panels: an overview of key factors facing the retirement system, and an employer perspective. Some highlights from the second panel are included here.

Long-Term Care Implications of Employer Perspective on Workforce Aging and Phased Retirement

This panel provided insight into what employers are thinking about with respect to demographic changes and phased retirement. Some of the discussion has implications for the

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It was in response to concerns that as society is changing, financial security systems and programs do not always respond rapidly to them.

use of long-term care insurance. As a group, the panelists represent several roles that are important in benefit and workforce management includeing the financial management of benefit plans, providing advice on plan design and how benefits align with the organizational strategy, employee education and retirement planning. The companies they work for span middle-and large-size manufacturing, home building and financing, mining, forest products and financial service. More detail on the panel will be available in the online monograph.

In this article, I focus on the perspective of employees and health care issues and what employers have said about them. Quotation marks are used where comments are reflective of direct statements.

Business Impact of Population Aging

Economic realities are driving business action today. The business slowdown is serving to mask the impact of the aging of the baby boomers. For companies going through mergers, consolidation is a common theme. They are also unlikely to be focused on the talent issues that are just around the corner. While workforce shortages are not widespread today, there are exceptions.

Cost challenges link to the level, variability and changes in obligations. Population aging is interacting with increasing health care costs and declining investment markets. It is partly driving the increases in health care costs. This combination is serving to increase the costs for pension and retiree health plans well above what would have been predicted several years ago. These forces make it less likely that companies will offer financial support for long-term care insurance, but not less likely that they will sponsor a program.

Anna M. Rappaport, FSA, MAAA, is employed at William M. Mercer, Inc. in Chicago. She can be reached at anna.rappaport@mercer.com.

Perspective of Employees

Employees are asked to discuss their hopes and dreams, fears and concerns in planning seminars. One panelist conducts financial planning seminars and talks to many employees as they near retirement and states, "The number one or two fear is either finances or health, and that is almost always the response. Sometimes health is the number one concern; sometimes finances are the number one concern, but those are always the top two. When you probe below the surface on what concerns people have about health, it's health care costs, uncertainty about future health care costs and accessibility of care." Healthcare costs are related to finances and are an important part of the concern about finances. Findings from AARP studies are very similar to the concerns reported in the seminars. The strong concerns about health care can easily extend to long-term care in the future and indicate a good future potential market. Our panel reinforced those concerns.

The panelist continued, "As workers age, their concern is really about wealth accumulation and protection of assets. And, as many boomers find themselves in the sandwich generation are dealing with aging parents, they are becoming acutely aware of health care costs and also of the issues surrounding long-term care. They are taking care of elderly parents and often must take time off from work. They are lobbying for long-term care insurance products."

While the population over all is living longer and is healthier, chronic disease is a problem for many as they reach the mid-50s. "Approximately one-quarter of workers I see around age 55 have significant health issues as they near retirement. For many, they have made poor lifestyle choices. Although many boomers have taken good care of themselves, others have not. I see increases in Type 2 diabetes, heart disease and cancer. For some part of the population, health related issues will force early retirement and have a significant impact on their costs and finances in retirement."

Family status makes a big difference. While dual earner couples often are very well off, other groups are not. "Those workers that are not going out early tend to be divorced, widowed and unmarried women. They are desperate to hang on to their jobs, want to work full-time and want to work to age 65 or beyond."

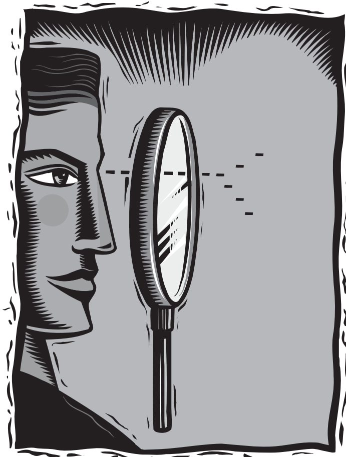
Lump sums are particularly important in retirement decisions and in success in retirement. Another panelist pointed out that many of their programs allow a lump sum option. "You find people at all levels, from executives to lower levels, suddenly facing the opportunity to have the biggest pot of money they've ever had in their lives. From a financial planning point of view, financial planners are saying it's best for you to grasp that money now, because it might not be available later. You and your spouse may not live long enough to enjoy it." Designers of long-term care products may wish to focus on whether there is a special approach useful at the point of retirement, particularly when people get lump sums. ♿

LTCI Pricing and Product Development Trends

by James C. Berger

Long-term care insurance (LTCI) is not a dull way for an actuary to spend his or her day. Change within this line seems to outpace other insurance lines. Perhaps this is due to the newness of the products, but it could also be the regulatory need of the senior marketplace that transforms yesterday's product standards into a brand new presentation today. Since LTCI lives at the actuarial crossroads of life and health insurance, any actuary lingering for awhile must gain fluency and give acceptance to the contravening matters of lifetime level premiums and ever-changing care delivery, and consider long-term asset management vs. not-well-understood liabilities.

The future can be viewed through a mirror as we look behind us at the past. While this limits our perspective by the range of vision that mirror allows, some guidance can be found. It was for this purpose that LTCI actuaries were queried for their opinions on pricing and product development issues with respect to LTCI. The results were presented at the June 2002 Spring Meeting of the SOA in San Francisco and the highpoints are presented in this article. The survey was the joint effort of Greg Gurlik, Peggy Hauser and the author.



Survey Introduction

The nature of an opinion-base survey is that the results are anything but definitive. It is believed that the targets of the questions are too mobile for definitive responses, and the variation in survey responses seemed to verify this thought. Rather, the goal in doing such a survey was to find out what people thought today and how they think the LTCI industry has changed in recent years — five years being the survey's benchmark. The reader should expect two-thirds of the results to be respondent thoughts and the other one-third to be the opinions and biases of the survey compilers.

The 31 respondents represent many of the more knowledgeable actuaries practicing in the LTCI industry. Ninety percent of the respondents had 10 or more years of experience in the insurance industry. Eighty-four percent had six or more years of LTCI experience. Seventy percent spend more than three-quarters of their time on LTCI. Fifteen of the respondents work for direct writers of LTCI, six practice as consultants or third-party administrators and five are employed by reinsurers. Several respondents were anonymous.

Items that the author views as key findings are presented in *italics*.

Product Development Trends

As companies seek to differentiate themselves in the marketplace, benefit period and elimination period options provide a way to do so. *The general opinion of the respondents was that there are more elimination period and benefit period options than there were five years ago, but not many more*. Differences must be meaningful. Offering a 10-year benefit period and an 11-year benefit period seems to be unnecessary and is confusing to both consumers and agents in the marketplace, as the premium differential would be very small. One respondent noted that the number of earned premium (EP) offerings is reducing due to lack of interest from the marketplace.

Items that the author views as key findings are presented in *italics*.

Comprehensive LTCI policies have varying home care benefit levels such as 50 percent or 100 percent of the nursing facility daily benefit. While there may be one more option (75 percent), this is not a standard and may once again add to market confusion. Home care relativities to facility levels may get "strange" in the group market, where one respondent theorized that consultants have wanted to "add value" by fine-tuning the home care percentage.

Assisted living facility (ALF) benefits are felt to be offered and adjudicated more liberally than they were five years ago. They are more likely to be offered at par with the nursing facility daily benefit and there are fewer restrictions as to what an ALF is at time of claim.

There seem to be more riders today than five years ago. What isn't clear is if this apparent trend has to do with older riders not being pulled from the market even though their sales have been low. There may be little motivation to pull such a rider and if one successful agent liked the rider, it would remain. A rider that has picked up steam is the "shared-care" benefit in which a couple can

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dip into the same bucket of money, either from the first day of claim or perhaps, for example, after their individual two-year bucket was exhausted. "More" of the shared-care rider still does not seem to mean a majority.

The return of premium (RoP) rider comes in several forms. It may return premium only on death or on both death and lapse (respondents thought this latter form to be less popular). It may grade to zero at an age such as 70, or it may run for life thought to be more popular. It may return premium every 10 years, or only once in the life of the policy. It may return premium less claims or return a maximum amount of premium such as 80 percent. RoP is desired in the employer market since if the sponsor is paying the premium they would like returned if the employee opts to drop coverage on leaving employment. Several states require some sort of nonforfeiture benefit for limited-pay policies — the RoP can meet this need as can a shortened benefit period nonforfeiture rider. The Health Insurance Portability and Accountability Act of 1996 (HIPAA) has made this rider less popular since many believe such a benefit is not completely consistent with tax-qualification.

Inflation protection appears to need more scrutiny as well, especially as lapse rates appear to be below that of coverage without inflation protection.

LTCI is known to be complex as an insurance product. The opinion expressed in this survey is that it hasn't become less so. Even with HIPAA standardizing benefits, there is much variability in the marketplace. Thus, complexity goes hand-in-hand with product differentiation. Riders are a major tool in this differentiation through complexity. Still, even though the products may contain the same or more complexity vis-à-vis five years prior, some of the complexity is thought to be counterbalanced by better agent and consumer education.

Compensation structures may be changing with more companies varying first-year commissions by age band, paying higher first-year commissions at younger ages to give agents a "sufficient" level of compensation no matter what age they sell. This does encourage younger-age sales, though this author wonders if this is consistent thinking with the knowledge that younger ages have more risk due to claim cost changes, persistency concerns, with inflation protection and investment risks.

Small groups are commonly written using individual forms, perhaps in a franchise filing. This can include the increasingly targeted carve-outs of employers' executives as an extra employer-offered benefit to them. Underwriting is liberalized, perhaps using a simplified issue form or the actively-at-work criteria toward the extreme. *While the survey respondents were evenly split as to whether underwriting of applicants was tighter, the same, or looser, there was consensus that underwriting of the sponsor had become tighter*.

In the "true group" marketplace (a master contract with certs), individual underwriting appears to be decreasing, but as with small groups, the underwriting of the sponsor has increased. Pricing in the market has been decreasing but may have bottomed out according to one respondent. The feeling exists that this market is saturated. Effort is going more to the small groups than the large groups.

Product Pricing Trends

Two-thirds of respondents felt ratebooks are more factor driven. The zero-day EP and the lifetime benefit are both thought to be more conservatively priced. The industry has begun to view these benefit parameters as antiselective. Inflation protection appears to need more scrutiny as well; especially as lapse rates appear to be below that of coverage without inflation protection. *Half of respondents believe that both five years ago and today inflation protection has been subsidized by coverage without inflation*. While the phrasing in the survey indicated that it was "intentionally" subsidized, there seems to have been ambiguity in what this might mean.

Has the claim cost data that actuaries work from improved? Forty-five percent felt general population data was somewhat improved. Seventy percent felt that inter-company data was somewhat improved. When it comes to internal company data, the actuaries seemed to feel they were doing a better job with 94 percent saying that internal company data was somewhat improved to greatly improved. Consultants had the greatest optimism concerning internal data while reinsurers had the least confidence.

Many tools have been used to price LTCI. But what we "think" is being used isn't quite what "is" being used. For purposes here, software packages will refer to industry tools such as TAS, PTS, and ALFA. *The perception is that 33 percent of pricing work is done with these software packages, 42 percent with spreadsheets running macros, 12 percent with spreadsheets with no macros and 13 percent use something else such as internally written programs. Perception isn't quite in line with respondents' confessions. The true story appears to be that eight percent of pricing work is done with these software packages, 53 percent with spreadsheets running macros, 15 percent with spreadsheets with no macros, and 24 percent use something else*.

Pricing goals were queried in the survey. The trend is to price with profit measures at a cell level, then to validate an overall loss ratio target. This should be expected to continue as states adopt the NAIC rate stabilization regulation that does away with the loss ratio target for initial filings.

Competitive positioning may cause a

company to price some cells at profit levels below the target. S*eventeen percent of respondents felt that less than 10 perccent of pricing cells fell below profit targets. The rest were evenly split between the 10-20 percent selection and the 20 percent or more selection for cells that do not meet the profit target*. Direct writers tended to believe that 20 percent or more of pricing cells were subsidized, while consultants and reinsurers gravitated to the 10-20 percent range.

Seventeen percent of respondents priced using a pre-tax measure as their first metric. Thirty percent used pre-tax as a secondary goal. The author speculates that multiple product lines within a company may mean the corporate actuaries ask for pre-tax measures and then work the after-tax magic themselves. *The primary pricing goal for 66 percent is ROI. Twenty percent use percent of premium profit margin, 11 percent GAAP ROE and six percent value added*. Secondary measures run 40 percent as percent of premium, 33 percent as ROI and 27 percent as GAAP ROE.

Management and Product Positioning Trends

While the general consensus is that underwriting is getting more conservative, direct writers had less of a conviction than the other survey segments. This may be due to the ambiguity of the question when cognitive screening is getting tighter at the same time that some conditions, such as cancers, are being seen as less of a risk due to shorter claims. As for the use of medical records, it seems consultants and underwriters are divided into two camps — one believing that fewer medical records are being order while the other sees more. Reinsurers saw no change.

Claims practices appear to have become somewhat more conservative over the last five years through more appropriate scrutiny. Post-claims underwriting is a diminishing practice. *There is a strong suggestion from respondents that external claim management services have become even more popular due to their proven track record*. However, other voices in this survey and in actuarial meetings believing there is evidence to the contrary have increased. These contrarians say the cost of the services is as much if not more than the savings.

The survey respondents' view of the alternate plan of care found somewhat of an increase in its utilization. Some thought it has led to increases in claims perhaps because of market pressures to use this benefit. Others thought alternative plans of care are useful when focusing on cost effectiveness, especially when claims departments are more skilled.

For many survey questions, the consensus result was consistent with what the three reviewers believed, but when asking about distribution channel trends, we could only lean back in our chairs and ponder what to think. Of those respondents that felt "very confident" in their answers, 57 percent said sales increases were more from independent agents while 43 percnet said sales increases were more from captive agents.

Home Care Only (HCO) plans are leaving the marketplace. Eighty-one percent said there are fewer of these plans. Additional comments were that those companies that still have a HCO plan are not trying to sell them. The question was raised as to whether any company had seen acceptable experience with these plans. Nursing Home Only (NHO) plans also seem to be dwindling in number offered, but not as much as HCO. There may always be a market for NHO policies due to the lower cost and spouses that intend to give all care when at home or singles that don't have support networks to supplement formal care at home. Some wonder if the cost is really much lower than the comprehensive plan with 50 percent home care coverage.

Companies appear to be ceding more to reinsurers than five years ago, but it may be at the smaller company end. Larger companies tend to cede less today. The style of ceded business indicates more use of excess loss vs. quota share coverage. Offshore deals appear to be more popular, unless it is a reinsurer answering the question.

Non-consultants felt that there was more use of consultants than there was five years ago. Curiously, consultants did not concur, seeing levels of engagement at about the same as five years ago. One can surmise that there simply may be more LTCI consultants than five years ago.

Finally, 75 percent of actuaries responding feel that rate stabilization efforts by regulators will cause an increase in pricing levels. When asked about greater scrutiny of initial rate filings, there was a split on what this would do to pricing levels. One respondent did not believe there would be greater scrutiny, as how can scrutiny increase without more information given in filings? Along the same vein, another respondent saw any regulation as simply transferring more responsibility to the pricing actuary. Actuaries feel the trend of states toward limiting elimination period and benefit period offerings has subsided. Overall, there was a level of frustration voiced. One can imagine this is not just among pricing actuaries, but also with regulators.

Perhaps the greatest message for actuaries reviewing results of this survey is that there is a diversity of opinion. Actuaries need to continue to dialogue to gain as much understanding as they can about this challenging marketplace. As actuaries that are new to the LTCI field begin their practice, they should be aware of these differing opinions and ask many questions before arriving at their conclusions. ♿

James C. Berger, ASA, MAAA, is vice president and product actuary at Pyramid Life Insurance Company in Shawnee Mission, KS. He can be reached at jberger@pyramidlife.com.

Understanding Secondary Differences in LTC Experience

Summary of Session 44 PD, 2002 Spring Meeting, San Francisco

by Philip J. Barackman

A few years ago, Long-Term Care (LTC) sessions at insurance industry meetings tended to cover only the basics. Many of us working in LTC felt we couldn't afford to skip such sessions per chance some bit of new information might be gleaned, but were often disappointed. However, since its inception, your SOA LTCI Section has played an active role in planning and coordinating LTC content of such meetings, and it has become more relevant to actuaries already working in that specialty. A good example is the Understanding Secondary Differences in LTC Experience session held at this year's SOA Spring Meeting in San Francisco. The presenters represented LTC experience from various perspectives, including actuarial consulting — Andrew Herman, FSA MAAA, consulting actuary, Wakely & Associates; insurer — John Timmerberg, FSA, MAAA, second vice president, Conseco Insurance Group; and academic research — Eric Stallard, ASA, MAAA, research professor, Duke University.

In free markets, economic opportunity tends to drive refinement in pricing, as the actual costs of products are better understood. For example, many of us still remember the days when life insurance rates did not yet reflect smoker/nonsmoker status. Once the first company adopted that significant cost parameter in its rate structure, it didn't take long for the whole industry to follow. No one wanted to be the insurer of mostly smokers by default!

Former Secretary of Defense Robert McNamara gave some advice that speaks to the need to pay attention in such situations:

- To measure what can be easily measured, that is okay, as far as it goes.
- To disregard what can't be easily measured or give it an arbitrary value, that is artificial and misleading.
- To presume what can't be easily measured really isn't important, that is blindness.
- To say what can't be easily measured really doesn't exist, that is suicide.

Secondary differences in LTC experience involve those parameters that are not necessarily explicitly reflected in premium rate structures, but appear to have emerging significance to claim costs, and therefore could lead to changes in strategies for pricing, underwriting and/or marketing LTC insurance.

So, what did the distinguished presenters identify as important secondary differences in LTC experience?

Gender

Andrew Herman pointed out that, although industry experience suggests that female-to-male ratios of claim costs are lower than indicated by the 1985 National Nursing Home Survey, female claim costs are generally still higher than males. He also suggested that some of the impact of this difference on pricing is partially offset, in that females have been known to have higher lapse rates. Andrew believes that the actuary should consider varying morbidity and lapse assumptions by gender for reserving purposes.

The *SOA Intercompany Study* shows similar incidence rates and claim continuance by gender, and this holds also for John Timmerberg's company sample data with males showing only slightly lower incidence and shorter claims than females.

Eric Stallard presented a lot of gender-specific data from his analysis of the National Long Term Care Surveys relating to residual life expectancy by disability status (non-disabled, mild/moderate disability, HIPAA ADL only, HIPAA CI only, and HIPAA ADL+CI.) He noted that much of the additional life expectancy that females enjoy over males is spent in a disabled state. He also presented disability status transition rates by gender and age grouping, which lends itself to using a Markov chain approach to modeling how a population develops the need for LTC over time.

Marital Status

Herman indicated that industry experience shows that married insureds have lower claim levels — as much as half the level of single insureds (at least in early durations.) This has led the industry to increase spousal discounts and liberalize rules for its application.

The conventional wisdom of males being slightly better risks than females, and married couples much better risks than singles, might lead one to conclude that married males have the best experience and single females the worst. However, Timmerberg's data indicated that married females have the best experience, followed by married males, single males and single females.

Timmerberg's sample data showed an extremely large (7x) difference for incidence rates for single vs. married females, whereas the incidence rates for single vs. married males was much less dramatic (1.5x). The expected length of a facility claim with a four-year benefit also showed a greater impact of marital status for females — 463 days for single and 244 days for married. For males, it was 408 days for single and 364 days for married.

Stallard noted that married males show lower mortality and disability transitions than single males; however, married females show higher mortality but lower disability transitions than single females. This might be partially explained by the traditional caregiving that married females provide their husbands, thus benefiting the male, but extracting some mortality toll on the female.

Region/Product Type

Andrew stated that although some insurers have adopted nationwide rating, emerging experience indicates the need for area or state-specific rating. Regional variations are most pronounced for stand-alone products. Facility-only products have had unfavorable experience in low population density such as Iowa, KS, MN, MO, ND, NE, and SD. Home care-only experience has been very unfavorable in areas with a high density of seniors such as south Florida, New York City, Los Angeles, Chicago, Houston and Philadelphia.

Integrated products tend to show less regional variation in experience, while stand-alone home care designs do not appear to justify the same degree of spousal discount.

Distribution Channel

Andrew believes that brokerage distribution can result in double the claim costs of captive distribution, which no doubt, can be managed more effectively. He points out that rate increase activity has so far been minimal for captive produced business. This could have rather profound implications for profitability, pricing and marketing strategies if this difference holds true for the industry. Some of this difference might be explained by broker exploitation of underwriting weaknesses in working with multiple insurers. Hopefully, this dynamic will become less problematic as underwriting continues to improve by obtaining more data, using more appropriate guidelines and making more disciplined decisions.

Education

Stallard's analysis showed some tantalizing correlations. Mildly disabled high school graduates have an increased likelihood of recovery, and are less likely to transition to CI than those who did not attain that level of education.

U.S. Population Disability Decline

Stallard observes a 1.3% per year decrease in disability in his analysis of the U.S. senior population. In the face of decreasing investment rates of return and greater persistency than originally assumed, it's nice to know that something is moving in the right direction!

The presenters shared lots of quantitative data with numerous caveats. Therefore it would not be appropriate to assume that the results necessarily apply to all LTC insureds in general (or your business in specific.) The apparent impact of these secondary differences were sufficiently impressive to underscore the need to carefully monitor and consider them in managing all aspects of the LTC insurance business including product design, marketing, underwriting and claim management as well as pricing and valuation.

If you would like further details of this session, e-mail: *phil_barackman@ gcr.com*, and I'll be glad to send hard copy of the presentation slides to your SOA listed address or as otherwise instructed.

Philip J. Barackman, FSA, MAAA, is vice president at General Cologne Re in Stamford, CT. He can be reached at phil_barackman@gcre.com .

Some Thoughts on Rate Stabilization

by Joan P. Ogden

I have been ruminating on the recent move by many in the regulatory community to "rate stabilization" concepts and approaches for LTC insurance. I find myself confused by the motives driving this move. I also struggle with the position into which we, in the actuarial world, become forced.

Before I go further, I need to make clear that I have been involved with LTC insurance since the mid-1980s, primarily with one client, which has never implemented a rate increase. I have worked in the health insurance actuarial world since 1976, and thus have seen myriad changes to the way the world "works" with respect to the need for, use of and delivery of health care services. So, while I would not claim my background makes me an expert, it does make me old enough that I have a reasonable amount of history (not to mention more than a few gray hairs) upon which to draw.

Not having had any regulator specifically detail for me his or her objectives with respect to the implementation of "rate stabilization", I can only speculate what the regulators hope to accomplish and what has driven them to this approach. I am also guessing that the heart of the regulators' concern is the "senior" population — age 65+.

Historic Response to Inadequate Profit

Certainly, a primary driver has been the responses of a number of carriers of LTC insurance to less than optimum financial results with resultant rate increases. Regulators have regularly shown a decided dislike for premium rate increases applied to the senior population. That phenomenon has certainly not been limited to LTC coverage, but has been evident for years when fully documented, justified requests for Medicare supplement rate increases have been filed, only to receive a response that some lesser percentage of the justified increase would be permitted.

My speculation is that regulators see the senior population as not only living on a fixed income (despite annual cost-of-living increases in Social Security), but moreover, living in a marginal fashion due to inadequate income. Certainly, some portion of the senior population is impoverished, but one would hope that those are not the segment buying LTC coverage. While the facts belie the categorization of the senior population as not knowing where their next meals are coming from, that is not the thrust of this musing, and I will leave that to the reader to verify.

Dependency of Senior Population?

A second driver — again my speculation — is that regulators see the senior population as "vulnerable." I base this speculation on recent insurance-department proposed legislation in one of the states in which I am active, which sought to define "vulnerable adults" as those adults with limited mental capacity and age 65 and over. The idea of the senior as limited in mental capacity is nothing new. The move to standardized Medicare supplement plans (10 sizes fit all) was often supported by the contention that seniors were unable to understand what they were buying. The closer I get to senior status (those gray hairs again) and being married to a senior, the more annoyed I am that there are those who would marginalize a significant segment of the population by treating them — or worse, declaring them in law — as incompetent to conduct their own affairs. However, I am guessing that regulators believe that as vulnerable individuals, seniors would not expect premium increases, nor be able to cope with them when received, despite annual experience with increases in Medicare supplement premiums.

Inadequate Information

So, we are now approaching an environment where not only must the purchaser of the LTC product be warned of the premium increases the insurer has implemented in the past, but that same purchaser must pay a rate which incorporates a margin for "moderately adverse experience", whatever that is. Thus, since there are no caveats to the warning about past increases, (unlike stock prospectuses which warn that past experience is no guarantee of future results), the purchaser is led to expect that a carrier which has increased premiums in the past will be expected to do so in the future and may unfortunately conclude that a carrier who has had no increases in the past will also have none in the future.

Paying Too Much

Today's purchaser will likely pay "too much" for their LTC policy because every actuary will be forced to "pad" the expected experience to provide for that "moderately adverse experience." The restrictions applying to a future rate increase are such that it is easier for every company to just "jack up the price" so that they think they will never need one, and certainly no actuary wants to have to go back to the regulators and indicate that the expected "moderately adverse experience" wasn't adverse enough.

Frankly, I believe it is supreme arrogance to even pretend to claim we have a view of the future which extends 20 or 30 years, moderately adverse or not. I remember being asked about the future of national health insurance back in the late '70s and my response was that I thought it was very likely, because I could not see employers

willing to tolerate premium increases of three percent and four percent year after year for employee health coverage. Look how wrong I was.

Now, I believe most actuaries did their best to price LTC coverage for a level premium over the lifetime of the policy (guessing about a lot, including what they thought the lifetime of the policy was), but did not price to issue that policy on a "non-can" basis. They knew that the future was not perfectly predictable. The pricing allowed for a rate increase in the future should one become necessary due to adverse circumstances. Some, for whatever reasons, found that the "future" need for a rate increase was uncomfortably too soon. Under the terms of "rate stabilization", I believe actuaries are forced to find themselves pricing with pretty close to a "non-can" mentality.

Let me draw a parallel with buying a refrigerator. I can buy one with or without a maintenance contract. Just speaking as a normal human being (instead of an actuary), if you tell me that I can pay an even $1200 for the refrigerator with protection against adverse circumstances (a refrigerator breakdown) for service for the life of the refrigerator or pay $790 for the same refrigerator with no protection against adverse circumstances and take my chances on paying for service should I need it, I know what my answer is. I'll pay the $790, thank you very much, since past experience tells me that refrigerators need service infrequently and I may save some money to permit me to pay for that service call should the refrigerator need it in the future.

Even if I don't save the money, I can choose to gamble that my income sources will permit me to pay for that service call when I need to. If I have no choice and am forced to pay for the inclusion of the service now, I will likely choose a less costly brand, or maybe even stomp my feet and refuse to buy it and live with the old one.

Further, the deal for the inclusive refrigerator may be to my detriment because there may not be adverse circumstances — the refrigerator may never need service, I may decide to move to where I cannot use that refrigerator or, even worse, I may not live long enough to reach the stage where the refrigerator needs service. So to put this analogy on ice (sorry, couldn't resist), I would have really overpaid, to no avail!

Now, speaking as an actuary (clearly not a normal human being), given the choice of a lower price now and an additional charge in the future vs. a higher (and likely too high) price for the duration to protect against future adverse circumstances, I will take the former, thank you very much. I can calculate present values and I have a reasonable assumption that I will be better off with the former. Ibelieve that regulators do the buyer of LTC coverage a disservice to establish an environment where that buyer has to "overpay" now to avoid the possibility of an increase in the future.

Blaming Someone Else?

A third driver of the regulatory approach might be the very human desire to "blame someone else." After all, regulators (some of whom were/are actuaries) reviewed those early LTC filings, and approved those initial assumptions and rates, which were later to prove inadequate in many cases. In the regulators' defense, it was a new product. They didn't have the resources to know that a particular set of assumptions was out of whack. Neither did many of the actuaries generating those sets of assumptions, although we all "know" of some carrier or another who deliberately underpriced.

Rate stabilization would put the onus on the carrier to be "perfect" — that is, generate a premium rate which should not need an increase and take the heat off the regulator's back. Should conditions change over the next 20 to 30 years from everything we can guess about the future now (never happened before, right?) resulting in the need for a rate increase, the regulator can deliver the carrier a satisfying "whack upside the head," and in the meantime, be a hero to all of those seniors out there who have never had a premium increase.

Consequences

The nasty little secret is that with policies priced for "moderately adverse experience," a number of carriers are going to have windfall profits paid for by those same seniors the regulators have sworn to protect. I invite you to guess with me as to the response by regulators to LTC premiums which, in 15 or 20 years from now, turn out to have generated significant profits for their carriers (e.g., return of premium for Medicare supplement coverage where loss ratios are too low).

Another thing to consider is, if premium rates set for "moderately adverse experience" reduce the number of policies issued, then there will be a social and political outcome. The government, at its various levels, will find more individuals relying on tax dollars to support their LTC, and more families will find themselves sandwiched between kids in college and parents in LTC. Will we all then be better off because of rate stabilization?

Have there been abuses by some carriers in the LTC market? Sure. Were some carriers unwise, or did they get into business they did not understand, or did they make mistakes? Sure. Do we solve the problem of abusive, unwise or erroneous practices with rate stabilization? In my view, no more than my third grade teacher solved the behavior problems of Bobbie by having the whole class stay one-half hour longer, although she touted peer pressure of the rest of the class on Bobbie as having the potential to make the little guy stay in his seat. We were eight years old back then. What did we know about Attention Defecit Hyperactivity Disorder (ADHD) and why was it presumed we could solve Bobbie's problem by warming our seats an extra 30 minutes? We just ended up hating Bobbie and the teacher. ♿

Joan P. Ogden, FCA, MAAA, is principal at Joan Ogden Actuaries in Salt Lake City, UT. She can be reached at jpogden@xmission.com.

Reinsurance:

Sharing More than Morbidity Risk

by Bruce A. Stahl

As insurance professionals, we know that insurance supports the entrepreneurial spirit of american businesses. It helps the "mom and pop" shops and it helps large corporations. Similarly reinsurance supports the entrepreneurial spirit of small and large insurers alike.

Long-term care reinsurance during the 1990's is a case-in-point. Reinsurers normally depend on direct writers for their distribution systems and they are willing to assume risk and offer other services to attract them. Long-Term Care Insurance (LTCI) reinsurance during the 1990s involved the sharing of morbidity risk, the sharing of other important peripheral risks, the sharing of expertise and the sharing of financial resources.

Sharing morbidity risk

When companies first entered the world of the unknown LTCI risk, unknown even with large exposures, they often sought to avoid low-likelihood, yet potentially high, losses. Early LTCI products did not offer lifetime benefits. As more consumers sought that product feature, insurance companies turned to reinsurers to help mitigate the long-term exposure. At least one company issued lengthy home health care benefit periods on stand-alone home health care and comprehensive long-term care policies only after obtaining reinsurance on benefits that exceeded a certain duration or dollar limit. The reinsurer charged a premium greater than the expected value, yet the direct writer willingly paid the reinsurance premium knowing that under the unlikely scenario that the lengths of service would be longer than expected, the exposure might be greater than their surplus could handle.

Sharing other risks

There are other risks that insurers sought to avoid or share because they represented a significant aspect of the profitability objectives. For example, some insurers understood that their returns on investment were sensitive to their investment yields and they sought to hedge the returns with reinsurance, which was designed to return the underwriting profits and a guaranteed return on the associated assets.

Sharing of expertise

Since few insurance executives, managers and personnel had expertise in long-term care, some reinsurers offered turn-key services where they would provide the policy language, the pricing, the underwriting and/or the administration to the direct writers who retained some risk and provided the distribution networks. Sometimes reinsurers had the expertise and personnel to perform the functions themselves. Other times they subcontracted the work to third parties.

Also, underwriting is a good example of how reinsurers shared expertise even without turn-key services. Insurers could obtain valuable underwriting advice, and sometimes even underwriting manuals, from reinsurers.

Sharing financial resources

Often, small insurers seeking a unique niche in the senior market needed to reinsure the risk in order to avoid exposing themselves beyond what their surplus could support. These same insurers often needed to pay higher first-year commissions in order to attract agents. The additional expense placed even more strain on the limited surplus.

Furthermore, the surplus strain was not always limited to the first policy year. Statutory reserve margins are so high that the strain was often visible in the mid-durations around the fourth through eighth policy years. In addition, the extra tax on non-qualified forms in the second year made life all the more difficult for that segment of the sales. (Reserves on non-qualified forms are based on a two-year preliminary term basis for taxes, while they are on a one-year preliminary term basis for statutory reporting. Reserves on qualified forms are on a one-year preliminary term basis for both taxes and statutory reporting).

Sharing the Role of Consumer Protection

Reinsurance has been a big factor in the growth of long term care insurance, and has also had an important role in protecting the consumer from inadequately underwritten, administered, and priced long-term care insurance policies since the late 90s. The NAIC was not patient enough to see the impact that reinsurance would have, yet most reinsurers shared the same concerns as most departments of insurance and most direct writers. The original pricing assumptions, while reasonable in the early 90s, were not bearing out in actual experience only a few years later.

Many changes occurred in the long-term care provider system, and simultaneously, policies evolved to the point where benefits were not improving enough to encourage insureds to lapse a policy in order to purchase better coverage. For example, policyholders were willing to lapse a nursing home-only policy with a three day hospitalization requirement to purchase a policy with home care and assisted living facility benefits. They are not as likely to do the same for the newer "bell and whistle-type" innovations. Also, pricing assumptions for assisted living facility benefits were primarily based on judgement because data was not available to provide empirical support. Home health care provisions increased significantly with utilization often greater than anticipated, and with care management savings smaller than anticipated.

Reinsurers took the lead in trying to protect the industry from future pricing difficulties by carefully reviewing the pricing, auditing the underwriting, and in some cases, auditing the claim administration of the direct writers. These are all actions that were serving to guard the consumer from rate increases due to moderately adverse experience.

Reinsurers have even introduced new technologies to the LTCI industry. One of the early uses of face-to-face underwriting assessments was wrapped into reinsurance coverage. The underwriting assessments were touted as being able to reduce early duration cognitive claims. In order to prove this assertion, the reinsurer paid for the assessments and reinsurance was provided only to individuals who passed the face-to-face assessment. Today, it is a common LTCI underwriting practice to use these assessments.

In conclusion, the German poet, J. W. Goethe wrote of government and of the governed:

> "What government is best? That which teaches us to govern ourselves."

LTCI reinsurers have been the teacher of the LTC Insurance industry. Certainly, the industry has had growing pains, yet the state regulators will do well to give LTCI reinsurers room to bring the industry to maturity. ♿

Bruce A. Stahl, ASA, MAAA, is Vice President and Chief Actuary at Penn Treaty in Gibbsboro, NJ. He can be reached at bstahl@penntreaty.com.

LTCI Section Meets in Boston

Gathering after the Long Term Care Insurance Section breakfast in Boston, left to right – Tom Corcoran (retiring BOG Health Practice Area Head), Phil Barackman (2003 Annual Meeting Representative), Mike Abroe (2002-2003 Section Chairperson), Steve Sperka (2002-2003 Treasurer and Web Liaison), Loida Abraham (2000-2001 Section Chairperson), Jim Glickman (2002-2003 Vice-Chairperson), Mark Newton (2002-2003 Co-Secretary).

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