SOCIETY OF ACTUARIES Long Term Care Insurance Section

Long-Term Care News

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Strategies To Manage A Closed Block Of Long-Term Care Business

By Ginger Darrough

Is it difficult to manage a closed block of long-term care (LTC) policies? Absolutely. Is it impossible? Definitely not. Many companies in the industry have a closed block of LTC policies. In my experience, there are many opportunities available to manage the performance of the block. The most common approach for managing the performance has been to implement rate increases, and this will likely continue to be a valuable proposition. However, those managing aging blocks will need to be aware that a common consequence of rate increases is adverse claim experience. Another option to consider is to focus on the enhancement of claims practices. Additionally, some companies are beginning to explore ways to improve the likelihood of policyholders remaining independent and thriving at home.

RATE INCREASE STRATEGIES

Companies have been filing for rate increases in the LTC industry for years, and the trend appears to be continuing. As a result of lower than anticipated lapse rates, the changing landscape in care settings (e.g., increased use of assisted living facilities), and an incredibly challenging interest rate environment, most companies are experiencing less than optimal block performance. Rate increase approvals continue to be a challenge, but there are some options that can be offered to encourage regulators to approve a rate increase. Regulators are concerned about protecting the policyholder—as they should be—which requires a delicate balance between being

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Long-Term Care News

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"We Can Do This!"

By Bob Hanes

Several times over the last two to three years, I have managed different teams of colleagues on challenging projects. The projects' objectives and finished products have been typically clearly stated; however, the paths to them were less so. Action plans were created, agreed-upon, and kicked off with the goals in mind—though looming in the not too distant future were the surprises, challenges, and project deadlines that made us scratch our collective heads as to how we were going to be successful in completing our assigned tasks. When faced with these unexpected challenges, I would remind the team that "We Can Do This!" Each time I uttered this encouragement, laughter ensued, but tension was relieved, and good work was performed. I am proud to say that all of the "We Can Do This" projects I have led to date have had satisfactory outcomes.

The long-term care (LTC) industry is in need of such "We Can Do This!" boosts of encouragement. Even as many carriers continue to wrestle with deteriorating experience on their in-force blocks, there are signs that the actively-selling LTC companies are creating new products which will be more stable so that emerging experience is more in line with expectations. Recent stabilizing strategies include offering only limited benefit period policies, eliminating preferred underwriting offers, using updated morbidity, lower interest and lapse rates in pricing. The market has also seen an increasing number of LTC combination products whereby the "use it or lose it" concerns are offset.

Since the need for LTC services will only continue to grow as the baby boomers age and family-support networks shrink, opportunities will continue to grow for LTC insurance as well. Innovative products are on the drawing boards today and different industry and governmental groups are having conversations on how best to meet the future LTC needs. These are good signs. So I offer you, "We Can Do This!" ■

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Long-Term Care From My Lens

By Juliet Spector

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This newsletter marks many exciting firsts for me: first time volunteering with the Society of Actuaries, first time on the LTC section council, and first time editing the newsletter. When Bob Hanes brought the idea of editing the newsletter to me during my first few weeks on the council, I was ready to dive in head first.

As a consulting actuary, I have had the opportunity to wear many hats and do different types of work both inside and outside the LTC industry. One of the hats that I have enjoyed wearing is that of an LTC valuation actuary. Given the large number of LTC blocks currently in existence, it is a hat much of our readership wears. Inforce LTC insurance blocks of business present not only actuarial challenges, but many managerial challenges as well. As such, we have two articles focused on existing blocks. One article written by Ginger Darrough focuses on the challenges and strategies around managing an LTC run off block. And the other written by Ben Keslowitz is on the long dormant, but now brewing LTC transactional market.

All actuaries, pricing and valuation, can benefit from sharpening understanding of emerging modeling techniques. Bruce Stahl and Elizabeth Dinc's article on Monte Carlo simulation discusses one such technique. And it is a nice continuation of a topic that was first introduced by last year's LTC research on volatility.

Another challenge facing our industry involves the future financing of LTC for the aging U.S. population. We look halfway around the world to Japan to see what we can learn from their long-term care market with an article by Dianne Kujubu Belli. We also have exciting initiatives right here in the United States, as John Cutler reports back from the National Academy of Social Insurance (NASI) roundtable. This particular roundtable focused on the link between retirement security and long-term care. I found this article and topic personally relevant. My father has been disabled since the age of 60 with Parkinson's disease. My family has been fortunate enough to be able to finance his long-term care through his disability payments (under 65) and now his pension payments (now that he has turned 65). We have found over the last year that institutionalized care aggravates his lewy body dementia and he is best taken care of in his home. He attends adult day care three days a week and also has home health care. He does not have 24 hour home health care as my Mom is a registered nurse and takes care of him a portion of the time, given the substantial cost of 24 hour care. Our family frequently discusses and considers the implications of this arrangement and how it may jeopardize my Mom's health. Because caretaking is an overwhelming responsibility, my Mom has not been able to work in the past couple of years and has thus not made contributions to her 401(k). My Mom had purchased a group long-term care policy a while ago though and thus has protection for her own long-term care needs in the future, should they arise. In many respects my family has been lucky to have financial means to pay for necessary long-term care (albeit it seems insufficient at times). However, sometimes we feel that we are battling impossible odds with the amount of paperwork, research and due diligence that needs to be done to attend medical appointments, interview caregivers, monitor pensions, fill out tax returns, etc. It feels like one wrong move or memory lapse will start a domino effect. It's hard to believe that other families are dealing with these same struggles with fewer resources available to them. The roundtable article shows that the NASI, SOA and the Academy are starting to dive into these additional issues that my family and other families are experiencing.

In other news, the section council will be launching a new "Cognitive Corner" that Sharon Reed and Siusanne Nichols introduce. We have our first contribution to the "Cognitive Corner" with an article on pseudo-dementia by Jane Mattson.

I would like to thank all of the writers that have contributed to this edition of the newsletter and shared their experience with their peers. Lastly, I leave you with Aristotle's statement in Politics that "a feast to which many contribute is better than a dinner provided out of a single purse." As always, please continue to share your ideas and research in articles for the LTC Section newsletter. ■


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concerned about company solvency and about the impact a rate increase may have on the policyholder. Rate increases can at times be difficult for them to accept.

To ease regulators' concerns, some companies have offered non-forfeiture options to policyholders who did not buy into this option at issue. Non-forfeiture option selection is often assumed to create anti-selection. However, if it increases the percentage of a rate increase that a state is willing to approve, it could be beneficial in the short term and in the long term. In the short term, companies may be able to reduce active life reserves held for policies electing a non-forfeiture option. In the long term, companies will experience additional premium for the remaining premium paying policies on the block offset by anti-selection. Companies need to find the acceptable rate increase percentage for the non-forfeiture option to create economic value.

Shock lapses and anti-selection have been known to exist and are planned for when assessing the economic value of a rate increase. But what is the economic value if a company experiences higher than normal incidence rates for a period of time after mailing rate increase notices? A recent internal study has shown that the age of the policyholder and the rate increase percentage can have an impact on the incidence rate of claims. Rate increases implemented on policyholders who are younger and would not qualify for a claim would not react the same way as policyholders who are older and might already qualify for a claim but have not filed (perhaps the policyholder was receiving informal caregiving from a family member). The rate increase notice can trigger those policyholders who qualify to file their claim. Does the rate increase percentage make a difference? Yes it does. Just as a rate increase of 40 percent will have a higher shock lapse rate than a 5 percent rate increase, claim incidence rates increase with the percentage of the rate increase.

Another option companies can pursue to encourage regulatory approval of rate increases is the option of benefit downgrades. Some companies offer benefit downgrades that fit within the originally filed rates, giving the policyholder options at the time of rate increase notices. Others have started exploring different downgrade opportunities that require additional filings with the state but more attractive options for the company and the policyholder. For example, maybe the inflation percentage could be reduced from 5 percent to 2 percent or 3 percent. If a policyholder with indemnity benefits has reached a reasonable daily benefit amount already, would there be economic value in preventing it from inflating to an unreasonably high amount? This option does appear to have more favorable results for rate increase approvals than the standard downgrade options that have been offered historically.

CLAIMS PRACTICES

So how can claims practices have an impact on the performance for a closed block LTC company?

Three claims practices that can impact the performance of the block are related to claim eligibility, care management and fraud identification.

Claim eligibility decisions for home health care policies are largely tied to an assessment of the policyholder's need for benefits. Companies utilize networks of clinicians to perform these assessments and rely upon the assessment with accompanying documents for making a benefit decision. Should the assessment step be conducted by a clinical nurse, utilization review nurse, or a social worker? Companies have utilized a variety of these options, but which are most accurate? Early results from an ongoing internal study have indicated that eligibility decisions vary by the individual giving the assessment. More research is necessary, but finding the right skill set for doing eligibility assessments can have a material impact on the claim decision and the performance of the block.

Care management is an area that has potential to impact the performance of the block through the use of hands-on intervention. Some companies have explored the potential to return policyholders to independence but have stopped short of playing an intricate role in the personalized care of the policyholder. Historically, hospitals found it easier and safer to discharge a patient into a nursing home, but is it the best plan of care for a policyholder who wants to return home and remain independent? Maybe not. Hospitals are starting to discharge more patients to a home setting. More time and effort may be involved in sending a discharged patient to a home care setting, but if the LTC carrier can participate with the care setting environment and the rehabilitation programs necessary to the policyholder, the policyholder and the company could find benefits.

Fraud identification is an area that is in its infancy with LTC companies but has huge potential. Creating fraud identifiers through the use of historical experience and supplemental data could have a significant impact on the industry. Fraud identifiers and fraud sharing databases are rampant in other lines of business but are scarce in LTC. Supplemental data has huge potential. Prescription drug data could identify policyholders submitting a claim for a common condition that has routine medication management that the policyholder has not properly utilized.

POLICYHOLDER INDEPENDENCE

What more rewarding way can a LTC company manage claim performance than by keeping the policyholder independent? It is a win-win situation. So why doesn't every company do it? There is an upfront cost associated with these programs that requires an investment of resources and time to prove the program is working. It has been proven through many research studies[1] that aging policyholders that have a physically active lifestyle, are social and maintain a good diet will remain independent longer than those who do not maintain a similar lifestyle. So what can an insurance company do to help? Companies are exploring this option now. Some have partnered with external providers and some are trying to tackle the challenge on their own.

A key to success with any program is to connect the policyholder with services that are needed. Research has shown[2] one of the most basic needs in demand as the policyholder ages is transportation. This could be transportation to the doctor, the grocery, the senior community center, etc. How do you connect the policyholder to transportation services in their area? This is a service currently being explored by aging centers and by LTC carriers. If an LTC company can connect the policyholder to needed services, the policyholder may remain independent much longer than if they were left to navigate the environment on their own.

CONCLUSION

There are proven approaches a company can take to manage their closed block of LTC policies in addition to some innovative approaches that are being explored. Companies need to continue to develop creative ways to address the challenges in the industry and ways to make the LTC closed blocks perform to their optimum level. ■

It has been proven through many research studies that aging policyholders that have a physically active lifestyle, are social and maintain a good diet will remain independent longer than those who do not maintain a similar lifestyle.

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Be On the Lookout!

Warren Buffett offered the investment advice, "Be fearful when others are greedy and greedy when others are fearful." Given how fearful many companies are of LTCI right now, is it a good time for astute companies to enter (or reenter) the LTCI market?

The LTC Section Council and ILTCI Conference Association are co-sponsoring a project to analyze the likelihood that current product offerings are more profitable and have more stable premiums than the products of prior generations. The hypothesis is that current product offerings are both more stable and more profitable because their assumptions are now supported by more data, they have higher margins for adverse deviations, and for many assumptions, no longer have very much down-side risk.

To test this hypothesis, six companies that have continuously sold LTC over the last 15 years have provided the researchers with their pricing assumptions at various historical time points. The researchers are using predictive modeling to evaluate the likelihood of rate increases being necessary on products with the new assumptions, and comparing that to what predictive modeling would have said about the likelihood of rate increases in the past.

The results will be published in an SOA research report in the summer of 2015, and will be summarized in the next issue of *Long-Term Care News*.

LTC Transactions: After So Many Years of No Interest, Why Now?

By Benjamin Keslowitz

Back in the good old days, long-term care insurance (LTCI) was a huge seller, a win-win product that was favorable both to the carrier and the policyholder. The carrier had a short expected payout, and thus a relatively low reserve, while also having a guaranteed premium stream coming in the door. On the flip side, the policyholder had the security of knowing that they would be taken care of as their bodies and minds deteriorated. Companies like Genworth, CNA, John Hancock and many others sold substantial amounts of policies to support a need for those who were appreciating in age and beginning to worry about whether their finances would support their future care needs.

So what happened? Well, like for many products we have seen in the past (and like we will undoubtedly see in the future), there was both pressure to sell in a competitive landscape and a complete lack of experience data. The combination of these potent factors made it rather challenging for a pricing actuary to stand firm on conservative pricing. Any fat left in the pricing was eventually consumed by the underwriters prior to product sale. Furthermore, as prices decreased, the vanilla LTCI products grew features like premium waivers, survivorship benefits, restoration of benefits optionality, and of course, our greatest friend of all, lifetime benefits. And what did it matter that you were offering a significantly fat tailed benefit when no one was going to live more than a few years after electing their benefits anyway?

We all know what happened next. Mortality was improving, lapses were dropping, reserves were being strengthened, and companies were leaving the market, licking their wounds. Even those still around dramatically increased prices on new business (and existing business, when hard to obtain rate increases were approved), lowered benefits, and changed benefit triggers and contract language to be significantly more robust. Only thirty or so years after the beginning of the LTC boom, the business had ended up on the bulk of its carriers' "Discontinued Business" balance sheet to shrivel away and die for the next, well, 50 years? Yikes.

And not only were the carriers dropping out of the business, but reinsurance was not exactly attainable, either. No reinsurer wanted this business that many viewed as being challenging. For the same reasons the issuing companies didn't want it, the reinsurers weren't lining up to take it away from them. And let's also keep in mind that, even if there was an interest, LTCI is not the easiest business to take on. LTCI requires subject matter expertise for many of its components and requires ongoing management of the block. Filings, especially for rate increases, are generally necessary, valuation is relatively complex, administration is expensive; suffice it to say that running LTC business off requires a whole lot more than envelope stuffing for benefits payment.

With all that said, it seems like things have again turned around. After nothing but a couple of small deals in the LTC industry in the early 2010s, Beechwood Re and two subsidiaries of CNO Financial Group consummated a $590M+ long-term care transaction, effective in 2013. And with that, all of a sudden there was some buzz around this market. In just over a year since, several key blocks are now on the market and reinsurers far and wide are coming out of the woodwork to accommodate their reinsurance needs. Almost a year to the day after the Beechwood-CNO transaction, Front Street Re closed a sizable transaction with Ability Insurance Company to the tune of $350M.

So, what happened? First, let's touch on the world we live in. You may not have heard this, but interest rates are historically low. In fact, we have all heard our compatriots make comments over the last five years that rates absolutely will be going up, after which they drop another twenty basis points on cue. Initially, the low interest rate market was somewhat of a transaction deal-breaker. After all, why sell a block of business when you need to discount using historically low rates? Companies felt that it was better to wait for some reversion, rather than pony up significant cash that was viewed as being a short-term necessity. That said, over time, the realization has slowly crept in that rates are most likely

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Mortality was improving, lapses were dropping, reserves were being strengthened, and companies were leaving the market, licking their wounds.

not going to shoot up any time soon. As a result of this, asset adequacy and premium deficiency reserves have required significant strengthening, and companies are finally realizing that it may be worth paying some money upfront, rather than slowly bleeding away for a half century in the future.

As risk transfer solutions start to become more attractive, new solutions will be required to generate additional alpha necessary to defease long-term care liabilities, since traditional reinsurers don't necessarily have the investment expertise to hit necessary hurdle rates. To this end, private equity firms, who specialize in alternative assets, are able to deploy the assets backing long-term care liabilities, both for reserves and capital, into more specialized investment vehicles. That said, finding cedants, getting regulators and insurers comfortable with non-traditional assets and working within an asset-liability management framework that is standard for the industry can be challenging. To help with this, such firms are bringing in substantial insurance knowledge in order that they can fluently understand not only the asset and liability risks they are targeting, but also how these assets and liabilities can work together in perfect harmony.

While investment management advantages are a substantial factor in the appeal of the acquisition or reinsurance of a long-term care liability, that's not to say there aren't several other appeals to buyers outside of this factor. A great example of this is morbidity compression. The theory goes that, whereas mortality is improving, so is morbidity, and furthermore, that the extension of one's lifetime does not lead to greater overall claims. Effectively, claims are first occurring later in life, and even with increased longevity, claimants are still not living long enough to utilize as much of the benefits as they had in the past. The additional advantage is that the extension of the pre-claim period lowers the present value of future payments, and thus the reserves.

Other advantages of completing a transaction are those which have existed forever. Those still selling new business would happily take on additional industry data to supplement their pricing studies. In fact, even those carriers who have discontinued new business would be interested in reviewing extra data to be used in experience study development for ongoing valuation efforts. Furthermore, acquisition of another carrier can lead to additional insurance licenses in favorable domiciles, better or complementary distribution channels, knowledgeable employees to supplement various functions within their companies, and of course name recognition and strong company rating, depending on the company acquired.

It's worth noting that private equity firms aren't the only ones interested in these liabilities either. In fact, there are several broad groups of companies that would have an interest. Examples include consolidators that can take advantage of expense efficiencies when combining new blocks into their existing administrative frameworks, pension funds that are looking to leverage their longevity data for pricing non-correlated risks, mutual companies looking to grow their balance sheet without having the typical public company worries of quarterly balance sheet volatility and strategic insurance companies looking to diversify their business mix.

While there are many aspects of long-term care insurance blocks that are becoming more appealing to the reinsurance market, and more buyers and sellers now exist in the marketplace than there were not too long ago, it's certainly not all unicorns and rainbows either. Rate increases have been trending downward, facilities are more expensive and more appealing (some assisted living facilities are glorified spas, after all), flexible benefit and rider language isn't going away anytime soon, and long-term care insurance isn't ever going to be an easy business to manage well. That said, with much momentum moving in the direction it has been, don't be shocked if a big long-term care carrier offloads its risk to a reinsurer near you. ■

Economic Capital for LTC for "One in 200" Events

By Bruce Stahl and Elizabeth Dinc

When an insurance company's chief risk officer wants the long-term care actuary to identify the economic impact of adverse experience in the next 12 months at the 99.5th percentile (without incorporating investment income), it is to determine how 1-in-200 events are going to impact the company's capital.

The answer to this question forms the basis for identifying the risk from an LTC book, and therefore helps identify how much capital to hold under a principles-based perspective. Insurance companies are increasingly setting capital through modelling of risk rather than through factors, so this calculation is an important one to undertake.

In addition, as many of today's providers of long-term care insurance have only been around for the past 25 years at most, this question needs to be answered using stochastic modeling. Using other statistical methods would not work as well, as much of the data is non-homogenous.

BENEFITS OF MONTE CARLO SIMULATION

Monte Carlo simulations, the stochastic technique to make the one-in-200 determination, may be the easiest technique to use and understand. Monte Carlo simulations can measure combined volatility and misestimation risk as well as the interaction of each of the variables all at the same time. It allows consideration of all of the variables at one time, with the distributions for one variable recognizing the dependency on other variables.

For each variable (lapses, mortality, claim incidence, claim continuance, and claim utilization), a probability distribution is identified from the more recent experience of similar businesses, from the more recent historical experience at that particular company, or from a combination of the two. Each probability distribution has an expected value. These are called "sample" distributions, implying that that the sample may not necessarily have the same expected value as will experience from the relevant historical population.

Not knowing for certain whether a projected sample will have the same expected value is known as misestimation risk (or parameter risk). Even if the likelihood of misestimation risk is very close to zero, there could be some fluctuations around the expected value. For example: given a large enough number of tosses, an evenly balanced coin should fall heads or tails an equal number of times. However, for any sample of 20 tosses, there might be fewer heads than tails, or vice versa. In fact, there is a real—albeit very small—probability that all 20 coin tosses will land tails up. This fluctuation is called volatility risk (or process risk).

PRACTICAL LIMITATIONS AND SOLUTIONS

A simulation may identify a misestimation that could occur in the next 12 months. That misestimation's economic impact could continue into the future. Projections beyond month 12 would need to recognize that a misestimation identified in any one simulation run may continue. In other words, future expectations are not independent of the misestimation aspect of a particular simulation; rather, future expectations depend upon the simulated value. If a simulation is sufficiently adverse to prompt an insurer to file for a premium rate increase for its LTC product, future premiums may also depend upon the future adverse expectations. Therefore, the economic impact of adverse experience in the next 12 months includes the future consequences of what happens in the next 12 months.

As even a Monte Carlo simulation of 12 months requires significant computing power, projecting each trial well into the future is impractical. To ease the system requirements and simplify the process, a table of hypothetical economic reserve factors representing the present value of all future economic expectations can be incorporated into the analysis (factors expressed per unit of exposure). These factors would be derived through common deterministic projections rather than stochastic simula-

Stochastic modeling—Tool that recognizes the probabilities of variation in inputs (assumptions)

Monte Carlo simulation—Type of stochastic modeling that uses randomly selected values for a large number of trials.

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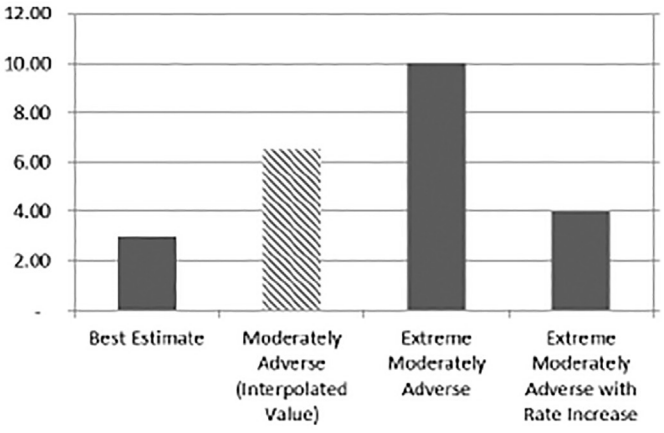
tions. Then the outcome of each 12-month simulation will determine which hypothetical economic reserve factor(s) to use with the remaining exposure in the simulation.

Of course, creating a table with an infinitely large number of hypothetical economic reserve factors is also impractical. A reasonable alternative is to interpolate using three sets of factors: "best estimate," "extreme moderately adverse," and "adverse scenario that warrants rate increase." For example, a table can be created of the hypothetical economic reserve factor for the "best estimate" assumptions, and another table for the extreme end of the moderately adverse range. (The extreme moderately adverse scenario will be the set of adverse circumstances with the highest financial impact before a rate increase is filed.) Any simulated 12-month scenario that suggests adverse experience between the extreme and the "best estimate" can use an interpolated factor derived for the extreme and the "best estimate." Any simulated value that suggests favorable long-term experience can use the "best estimate" factor because it will be conservative, and not alter the perspective on the adverse 1-in-200 event.

Figure 1: Reserve Factors per Unit of Exposure



The remainder of the simulated values—those suggesting adverse experience sufficient to warrant the filing of a premium rate increase—will use a third set of hypothetical economic reserve factors. These factors will also be identified by a deterministic model, and will represent the economic future impact assuming premium rate increases will be implemented within two or three years. Normally these factors will be more favorable than the extreme moderately adverse factors.

THE TAIL

After the simulations are run, and after the reserve factors are applied to each simulation's exposure and summed with the cash flow from the simulation, the totals for each simulation should be ranked from highest to lowest. The middle simulation after such a ranking is the 50th percentile value, and called the median. The value that is being sought is the value associated with the simulation ranked at the 99.5th percentile. Anything at this point or beyond is a 1-in-200 (or less frequent) event. In this context, the value of the risk of an event less frequent or less likely than 1-in-200 (or tail event) can be quantified.

Clearly the number of simulation trials needs to be high in order to find reasonable values at the beginning of the "tail." If 1,000 trials produced values at the 99.4th, 99.5th, and 99.6th percentiles that were not close together, then it might be difficult to identify the value at the beginning of the tail. The number of trials needs to be high enough to see values that are relatively close around the beginning of the "tail." Achieving this may require 3,000 trials or more.

Figure 2: Illustration of the need for more than 1,000 trials.

	1,000 trials	3,000 trials
Median (50th Percentile)	$10,000,000	$10,000,000
99.4 Percentile	8,900,000	8,600,000
99.5 Percentile	8,700,000	8,500,000
99.6 Percentile	8,000,000	8,400,000

Using the described process to measure the risk of a 1-in-200 event, and therefore to identify the right amount of principles-based economic capital, may not work well for non-cancelable LTC policies or LTC policies with limited premium paying periods. This is because the process depends upon the ability to plan on premium rate increases. However, because the magnitude of the adverse experience is essentially capped, the process works very well to identify the right amount of economic capital for policies that can receive a premium rate increase. ■

LIVING *to* 100

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Call for Papers—2017 Living to 100 Symposium

The Committee on Living to 100 Research Symposia requests professionals, knowledgeable in the important area of longevity and its consequences, prepare a high quality paper for presentation for the 2017 Living to 100 Symposium. The topics of interest include, but are not limited to:

- theories on how and why we age,
- methodologies for estimating future rates of survival and
- potential benefits and risks associated with the increasing numbers of retirees and potential answers to other difficult issues that arise.

Please submit an abstract or outline of your proposed paper by Sept. 30, 2015. The abstract should include a brief description of the subject of the paper, data sources and methods to be used, key items to be covered, and how your paper will contribute to current knowledge, theory and/or methodology.

A brief curriculum vitae or resume is also required.
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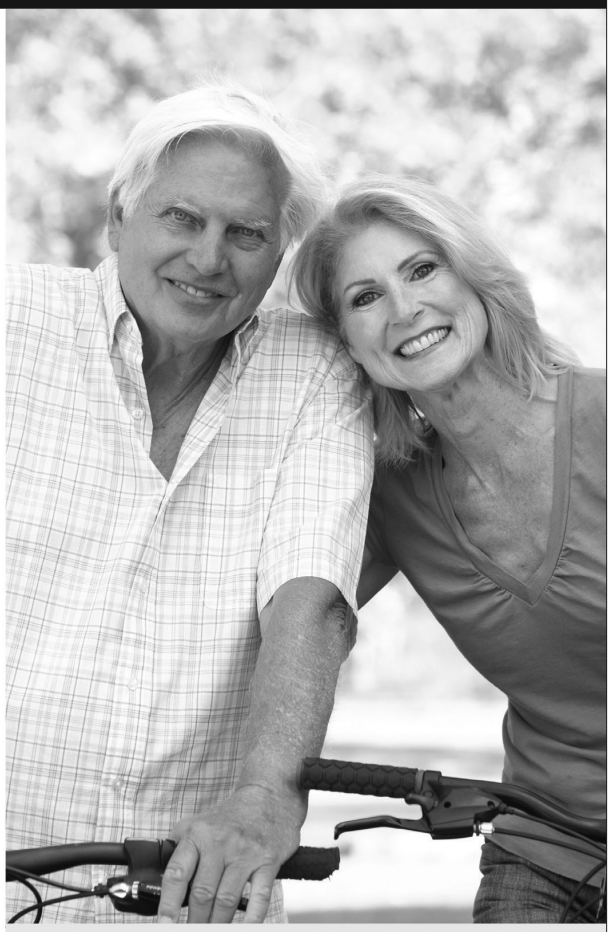

Learn more about the call for papers, including the complete topic list, by going to Livingto100.soa.org

Questions may be directed to Ronora Stryker, research actuary, at *rstryker@soa.org*.

Can Japan Serve as a Model for U.S. Health and Long-Term Care Systems?

By Dianne Kujubu Belli

Editor's Note: This article was originally published by the American Society on Aging in May 2013. *www.asaging.org*

The global population is aging, especially in developed nations: Japan and Italy are tied as having the oldest population cohorts in the world, with nearly one in five people ages 65 and older. The rest of the nations with the largest elder populations are in Europe, with the United States rounding out the top 15.[1]

Japan is often looked to as a model of how a country meets the needs of its rapidly aging population. Its health and long-term care systems, while not perfect, offer comprehensive and affordable care to older Japanese. As the United States looks to reform its healthcare system to control spending and shift the focus to managed and preventive care, Japan presents some suggestions. Although a healthcare system does not shape a population's health alone, it can help change the population's approach to health through services offered. Instead of a solely acute medical model, U.S. healthcare is slowly shifting toward managing chronic disease, long-term care and prevention. In addition to lowering costs, such a shift can help people live healthier longer.

Health indicators can explain some of the life expectancy differences between the United States and Japan. The United States has one of the highest obesity rates in the world[2] at 35.7 percent, while Japan has one of the lowest[3] at 3.1 percent. Obesity increases the risk for a number of chronic illnesses, including diabetes, hypertension and heart disease. America also has higher diabetes prevalence than Japan. Smoking is another factor. Although Japan now has higher smoking rates than the United States, historically this was not the case. Because of America's past high smoking rates, life expectancy is now an estimated two years lower.[4]

Aside from health factors, cultural values also influence an aging population. Japan has one of the longest working populations,[5] so older adults can support themselves longer. And their strong family and social networks mean that families provide much of the care for older adults, although this has been changing with modernization.

HEALTH COVERAGE IN THE UNITED STATES AND JAPAN

Although the United States and Japan are facing similar challenges regarding increased aging populations, these countries have approached their needs differently. Traditionally, the U.S. healthcare system focused on acute medical care, addressing disease problems as they arose rather than preventing or managing them. With the growth in chronic disease prevalence, more people, particularly older adults, will need long-term medical and social services to assist them in managing their conditions. Many of these chronic illnesses are also preventable through lifestyle behaviors such as healthy eating and regular exercise.

Although health insurance coverage is currently not universal in the United States, almost 50 years ago the government recognized the unique needs of the older population by creating the Medicare program. Today, almost all adults 65 years and older are covered through Medicare. Some also supplement what Medicare doesn't cover with private insurance. And about one in six qualify for Medicaid. However, Medicare is neither free nor comprehensive, creating gaps in care when clients cannot find adequate services or pay for them.

And although Medicare covers almost all older adults, it focuses on acute medical care. Medicaid is a means-tested program for low-income people of all ages, covering both acute and long-term care. Many older adults also purchase private insurance to supplement Medicare. Medicare and Medicaid are extremely expensive, costing more than $900 billion in 2010.[6] These programs also require all but the poorest participants to share in the costs, and out-of-pocket expenses are growing.

In addition to rising healthcare spending, the health and long-term-care systems for older adults are

fragmented and confusing. The consumer likely does not know what services are available, for which he or she is eligible, and who pays. Communication between the consumer's service providers is often lacking, although case managers can help to mitigate that. And family caregivers may lack adequate support. For older adults with disabilities and chronic illness, this complex system creates barriers to their ability to receive adequate and timely care.

The Affordable Care Act offers some solutions such as improving care coordination through electronic medical records, covering preventive services for older adults and giving providers financial incentives to get care right the first time.

Unlike in the United States, all Japanese have healthcare coverage, covered either by a mandatory employment-based system, or a "community-based" system under which municipalities insure residents who are not covered by the employment-based system. Exceptions to these two systems are adults older than age 75, who are covered by the prefecture-sponsored system, and the very poor, whose healthcare costs are included in the Public Assistance Program. The plans are funded through a "pay-as-you-go" system, with three funding streams: insurance premiums, general tax revenue and user fees or co-payments. Insurers set the insurance premiums based on several factors, including average income and healthcare usage.[7]

The national government determines the fee schedule for services and products (medications, equipment, etc.), which remain fairly uniform around the country. Allocated tax revenues cover some shortfalls of the insurance that covers relatively lower-income groups, such as employees of small-sized companies, the self-employed, part-timers and older adults. The premiums and user fees vary by income level, thus making healthcare relatively affordable for most Japanese. Government-set rates also keep healthcare spending low, at about 9.3 percent of GDP compared to 17.9 percent in the United States.[8]

LONG-TERM CARE IN JAPAN

With its rapidly aging population, Japan has focused on long-term care. Over the past 20 years, Japan has instituted several health and long-term-care

reforms aimed at elders. The emphasis has been on home- and community-based services, in part to reduce the burden on family caregivers, most of whom are women.[9] This includes assistance with household chores and activities of daily living, case management, adult daycare and respite care. The current long-term-care insurance system provides a continuum of care, from in-home services to assisted living and skilled nursing facilities. The greatest growth has been in home- and community-based services, which saw a 203 percent increase in use[10] over the past 10 years. Facility use also grew, but only by 83 percent,[11] partly due to government control of the number of beds. Keeping people healthy and in their communities for as long as possible will also likely reduce the need for more expensive acute medical care.

Although long-term care is a separate insurance system from healthcare, in Japan they work in similar ways. All Japanese older than age 40 are required to pay long-term-care insurance premiums.[12] They may access services at age 65; those between ages 40 and 64 can use long-term-care services under limited circumstances. As with the "community-based" plans for healthcare, the local governments set insurance premiums and the national government determines the fee schedule.

Before a person can receive services, a case manager assesses the person, and the insurer (municipalities) determines the "care level" of each indi-

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vidual based on the results of the assessment and the opinion of the primary doctor. The case manager consults with the person and his or her family again about the services that he or she is going to use, taking into account the client's physical and mental condition. However, it is the client who is in charge of his or her care—choosing from preapproved service providers and how often the service is provided.

There is a usage cap according to the level of care needed, but most clients do not exceed it. This system has some similarities to the now-defunct CLASS Act, in trying to keep people at home for as long as possible and allowing users to manage their service needs.

Despite its success, Japan's health and long-term-care systems face similar sustainability issues as the United States, including rising costs and increasing demand. The Japanese government is considering and pursuing several options: preventive services, promotion of community-based services, and increasing taxes, premiums or fees. In 2011, reform centered on the comprehensive community care model took place. Somewhat similar to an accountable care organization, this model would ensure access to long-term care, medical or hospital care, preventive services, residential care facilities and "life support" (or legal services) within a community where an elder lives. The focus on prevention and service consolidation will hopefully result in decreasing use of more expensive services because the population would remain healthier.

A JAPANESE AMERICAN MODEL OF CARE

Like Japan on a global scale, the Japanese American community is the oldest ethnic community in the United States, with one in five people older than age age 65, according to the 2000 Census. For the general U.S. population, this figure is one in 10. Thus, examining the Japanese American community, which is already experiencing an "age wave," can provide helpful insights for anticipating and addressing aging issues in the U.S. population as a whole.

Ethnic communities in America offer an interesting third point of comparison between their home countries and the United States. The Japanese American community's response to its large aging population, while it does work within the American health and long-term-care systems, shows many similarities to Japan's. As a microcosm of what an aging United States will look like in the coming decades, the Japanese American community model can demonstrate how one community adapts to the needs of its elders.

Keiro Senior HealthCare, the largest Japanese American elder healthcare organization in the United States, has been providing culturally sensitive care to the Japanese American community in Southern California for more than 50 years, working within the confines of the American healthcare system. Besides caring for its residents, Keiro also provides ongoing support to family caregivers and those whose loved ones may eventually need care.

Health indicators for the Japanese American community are closer to that of the United States than Japan. This suggests that lifestyle factors play a more influential role in chronic disease development than genetics alone. The United States has one of the highest diabetes prevalence rates at 8.3 percent,[13] slightly lower than the nearly 10 percent for Japanese Americans, according to the 2009 California Health Interview Survey.

While the Japanese American obesity rate at 12.8 percent is much lower than the U.S. national rate, it is still one of the highest among Asian ethnic groups in America, according to the 2009 California Health Interview Survey.

In response to these trends, Keiro established The Institute for Healthy Aging to address the needs of older adults in the community. All services strive to meet at least one of the eight dimensions of wellness: physical, occupational, financial, emotional, social, spiritual, intellectual and environmental. Through evidence-based programs, healthy living conferences and community partnerships, The Institute for Healthy Aging, supported by volunteers and donors in the community, gives older adults the

resources they need to live a genki (healthy) life. Although Keiro's facilities may continue to serve as a safety net for the frailest elderly, "supporting the community to age with confidence" is the goal for the future.

ASA Board member Dianne Kujubu Belli is chief administrative officer at Keiro Senior HealthCare in Los Angeles and Executive Director of The Institute for Healthy Aging at Keiro. Dr. Eileen Crimmins, AARP Chair in Gerontology; Dr. Kathleen Wilber, Mary Pickford Foundation Professor of Gerontology and Professor of Health Services Administration;Professor Taichi Ono of the University of Tokyo, now with the Japanese Ministry of Health, Labour and Welfare; and Shawn Miyake, President & CEO of Keiro Senior HealthCare, all contributed to this article. ■

END NOTES

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2 http://www.cdc.gov/nchs/data/databriefs/db82.htm

3 https://www.cia.gov/library/publications/the-world-factbook/rankorder/2228rank.html

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5 http://www.slideshare.net/keiroservices/healthy-aging-sumiit-world-population-aging

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2015 National Academy of Social Insurance Roundtable: The Link between Retirement Security and Long-Term Care

By John Cutler

John Cutler, JD currently works both on long-term care insurance and related issues at the US Office of Personnel Management (OPM) as well as in the new health care reform office of National Healthcare Operations within OPM.

As part of the annual meeting of the National Academy of Social Insurance (NASI), the Society of Actuaries, along with the American Academy of Actuaries, hosted a roundtable on recent work of the SOA and Academy on Jan. 28, 2015, at the National Press Club.

The roundtable, entitled "The Link between Retirement Security and Long-Term Care," focused on recent work funded by the SOA in 2014. A call for papers on the topic of the link between retirement and long-term care resulted in acceptance of 12 papers for presentation at the SOA annual meeting in October 2014 and the resulting release of a monograph with those papers.

Within the public policy community there has been a recent increase in attention on long-term care (LTC), especially around financing. While many believe we have a good understanding of the growing need for LTC, we have fewer solutions. In addition, the policy community has not typically made much of a connection between LTC and retirement security. Thus, over the last several years the actuarial profession, through both the SOA and the Academy, has begun to focus attention on issues related to improving LTC financing and security, especially around the link between retirement security and long-term care.

The roundtable explored these issues through two panel discussions, first setting the stage and then moving toward possible solutions. The speakers for the first panel were:

- Anna Rappaport, an independent consultant well known for her leadership in the SOA, including heading up the their Committee on Post-Retirement Needs and Risks
- Cindy Hounsell (from the Women's Institute for a Secure Retirement, filling in for Sandra Timmermann, formerly of the MetLife Mature Market Institute) and
- Rich Johnson from the Urban Institute

Second panel speakers were:

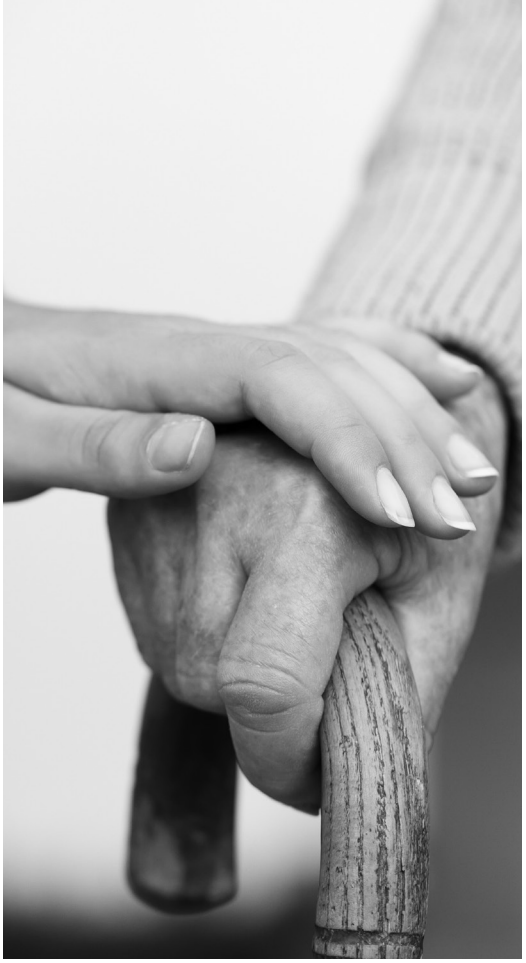
- Don Fuerst, senior pension fellow, of the American Academy of Actuaries
- Eric Stallard, associate director at Duke University's Center for Population Health and Aging and
- John Cutler, U.S. Office of Personnel Management

Andy Peterson, a staff fellow with the Society of Actuaries, moderated both sessions.

For more on the National Academy of Social Insurance (NASI) and its program, focused this year on Medicare and Medicaid, visit https://www.nasi.org/civicrm/event/info?reset=1&id=170

The SOA monograph featured at the Roundtable, "The Link between Retirement Security and Long-Term Care," can be found at *https://www.soa.org/Library/Monographs/Retirement-Systems/managing-impact-ltc/2014/mono-2014-managing-ltc.aspx*

Previous work of interest also includes the SOA's Delphi study, Land this Plane, found at https://www.soa.org/Research/Research-Projects/Ltc/research-2014-ltp-ltc.aspx



SETTING THE STAGE: FIRST PANEL DISCUSSION

Links between Long-Term Care Insurance and Retirement Security

Anna Rappaport told the audience why this matters and where we are in understanding and handling risks in retirement.

In the first part, Anna Rappaport presented her monograph paper (co-authored with Vickie Bajtelsmit) which shows the connections between long-term care and retirement. She also discussed the "Land this Plane" Delphi study the SOA had completed last year, reflecting the opinions of various long-term care experts and stakeholders on a wide range of financing issues.

Anna discussed four methods of private financing individuals and families use to protect themselves from the expense of LTC needs, indeed in some cases financial ruin:

- LTC insurance
- Savings
- Continuing Care Retirement Communities[1]
- Housing equity

Anna raised questions about how advisors can help their clients improve decision making, whether there might be better ways to frame and communicate challenges and even if there might be better product designs (private and public) for financing LTC needs while addressing basic retirement income needs and asset protection.

She noted how a major LTC event can devastate retirement security for most households. For households below the financial median who need an extended stay in a nursing home, Medicaid is probably the only viable option. For others, private insurance is an option, but none of the various approaches match needs perfectly.

She concluded by reminding the audience that managing risks, including the possibility that an individual would need LTC, is a critical part of retirement financing. Most people do not have enough money set aside to cover the risks. And no method of private financing is a perfect match and risk free, though insurance can be very helpful to the middle market. For many, though, any major event requiring LTC will often deplete assets and ultimately need to be financed by Medicaid.

Modeling various long-term services and supports (LTSS) policy options

Rich Johnson spoke on the work to create an enhanced micro simulation model to form the basis for assessing underlying long-term care needs and how to address them going forward.

Richard Johnson had a fascinating presentation about the work Urban and Milliman are doing around modeling various LTSS policy options. The nomenclature (LTSS) speaks to the policy and advocacy community's attempt to enlarge LTC so it covers services and not just care. He outlined the three approaches they will model:

- Status quo (what if we do nothing differently?)
- New insurance options (including front-end insurance, catastrophic and comprehensive)
- Making changes to existing programs or products such as private market reforms and Med-

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"[Anna Rappaport] concluded by reminding the audience that managing risks, including the possibility of that an individual would need LTC, is acritical part of retirement financing."

icaid changes to eligibility or benefits.

Rich told the audience that the output will come from DYNASIM, Urban's dynamic microsimulation model.[2] They are modeling out 75 years (to 2087). The model looks at key outcomes related to LTSS needs, LTSS use and cost, as well as private LTC insurance and Medicaid coverage.

Advantages of the DYNASIM model are that it can show all percentiles of health and spending distributions, not just means and medians, and can examine outcomes at a point in time and over a lifetime. But there are modeling challenges especially around the assumption that relationships or trends won't continue indefinitely. For instance, for outcomes that are trending, should one assume that those trends will continue at the current rate, slow down, or stop?

Role of the Caregiver

This talk's central theme was how the often neglected component of the care system is instead a critical element that, left unsupported, has huge societal costs.

Cindy Hounsell/Sandy Timmermann's presentation, delivered by Cindy, was on the often-overlooked role of the caregiver and family support structures. She discussed who these caregivers are (for instance, paid versus unpaid) and what forces are at work that make caregiving an issue of increased importance. She also spoke about the financial impact on families and on employers and government.

In the presentation the audience was provided a profile of caregivers and the financial impact on families. There are 65.7 million family caregivers, representing 29 percent of the population. The economic value of caregiving is $450 billion and the lost lifetime wealth for caregivers who drop out of the workforce—factoring in lost Social Security, wages and savings—is a disturbing $303,800 per person.

She also spoke about the impact on employers/employees since seven in ten caregivers are working. This represents a $25 billion loss to employers annually due to absenteeism, crises in care, workday interruptions, unpaid leave, and so forth. And while many employers have worklife programs and resources for caregivers, they are underutilized.

Important to this issue is the fact that caregiving issues will become more prominent over the next 20 years as boomers retire. Since families provide most of the care now, but are likely to be smaller and more spread out than in the past, they will be stretched to the limit and financially at risk. Part of the problem is that there is a projected shortage of paid caregivers to supplement family care. So while the "Aging in Place" phenomenon is gaining traction, the infrastructure to support families isn't there, and this will deeply impact family finances and retirement security.

Some strategies and ideas to deal with this were offered:

- View the family caregiver as part of the care delivery system and offer support and tax credits
- Incentivize employers to track data and put programs in place
- Create jobs/training programs to ramp up the paid caregiver pool, and look into changes in immigration policy
- Build on successful community models that integrate public services, small businesses, technology, and volunteers

- Address caregiving expenses and the possible need to finance parents' care in a holistic retirement financial plan
- Consider/repurpose reverse mortgages to pay for care
- Re-explore caregiver insurance, riders and other benefits

FINDING POSSIBLE SOLUTIONS: SECOND PANEL DISCUSSION

Addressing LTC expenses in retirement income planning

Don Fuerst spoke on insurance and other products to meet these needs, stating that all have some element of uncertainty and thus fall short of taking care of those risks.

Don Fuerst spoke about lifetime income and long-term care. Retirees can be grouped into three broad categories: (1) those with insufficient assets to maintain their standard of living, (2) those relatively few with more than enough assets to maintain their standard of living and (3) those in between that are challenged with making their assets last for their lifetime of unknown length.

Don said that the typical planning process (greatly simplified) in retirement is that people determine a target replacement ratio—often 75-85 percent—and accumulate sufficient savings to replace income, with the plan being to spend those savings over their expected lifetime. In addition, they usually plan on level or gradually increasing expenses (to account for inflation). But there are fairly universal problems with this planning process including the absence of enough savings to reproduce income and the uncertainty inherent in projecting inflation and investment returns.

In addition, the planning process does not address the "LTC wildcard" which has the potential for creating large expenses near the end of life.

Don went into potential solutions:

- LTC insurance
- Longevity insurance
- Under consumption and
- Contingent bequest

Each of these solutions has benefits but also drawbacks. For instance, LTC insurance might be considered an ideal product to deal with the risk, but unfortunately sometimes that ideal is hard to find in the current market. Likewise longevity insurance (long deferred annuity contracts) can provide income at an advanced age (typically 80 or 85) but does not fit the need well since a true LTC event would require a large longevity policy and the timing of the payment isn't linked to the need for LTC.

Under consumption—spending less in retirement to save funds for LTC—is an option but only for those able to live on less. And, as with the other options, it does not fit the need well given those who do not need LTC lowered their standard of living to pay for care they ultimately did not need.

Don's notion of what he called a contingent bequest was most interesting. Some retirees intend to pass assets on to the next generation as a separate intended bequest from the assets used to generate income or used for expenses. That intended bequest could be used if LTC is needed. This solution could work if the person doesn't mind giving up the bequest and if the amount is adequate for LTC.

In summary, potential LTC expenses are often not addressed in retirement income planning. And while it is an insurable event, there isn't a great deal of satisfaction with current products. Given that, Don suggested that more creative solutions are needed.

Criteria for Evaluating LTC public policy options

Eric Stallard provided a framework for how one can assess long-term care solutions and outlined some of what he believed would address these problems

Eric Stallard, associate director at Duke University's Center for Population Health and Aging, spoke on the considerations for developing LTC policy proposals and the criteria for evaluating these proposals.

As background, Eric reviewed the Community Living Assistance Services and Supports (CLASS) Act. The Academy and SOA had expressed concerns about affordability and sustainability of the program at the time it was being considered for passage. Given that the CLASS program was not implemented, new public policy/stakeholder discussions are continuing to be held. As part of that, the Academy hosted the National Conversation on

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"The economic value of caregiving is $450 billion and the lost lifetime wealth for caregivers who drop out of the workforce—factoring in lost Social Security, wages and savings—is a disturbing $303,800 per person."

LTC Financing which involved various stakeholder groups. These stakeholders examined LTC financing, LTSS, private/public approaches, and public models to address the problems.

Of interest to the audience were considerations behind developing LTC proposals. These include questions such as:

- Should a program be voluntary or mandatory?
- Is it better to approach it via social insurance or private insurance (or a hybrid)?
- Should it be prefunded or pay-as-you-go?
- What should the benefit design features be—including cash versus reimbursement, the use of an elimination period, policy duration and eligibility?
- As to the criteria for evaluating these options he spoke about the need for financial sustainability, affordability, comprehensiveness, choice, eligibility and an efficient use of system funds.

Specific policy options included reforming Medicaid (e.g., tightening financial eligibility rules and encouraging more community based care) as well as expanding "Partnership" policies (these link LTC insurance to Medicaid which is more an insurance based alteration as opposed to true Medicaid reform). Other public approaches included expanding the Program of All-Inclusive Care for the Elderly (PACE) and/or expanding Medicare, by creating a Medicare benefit that explicitly covers LTC.

Existing reform proposals

John Cutler gave the audience a 30,000 foot tour of what has been suggested to solve the long-term care part of retirement risk and where we might be headed.

John Cutler reported on his monograph paper, described various reform proposals, and listed the organizations working in the reform space. As background he reminded the audience that while LTC coverage is dominated by Medicaid and Medicare, these programs have private sector analogs or supplements, for instance medigap to Medicare and the "Partnership" programs to Medicaid.

While private LTC insurance has its challenges—rising costs, low interest rates (and investment returns), lower-than-expected lapse rates—so does social insurance. Challenges to social insurance include rising costs, demographics (an aging population), uncertainty of acceptance into coverage (including waiting lists and spend down) and inadequacy of the benefit payment.

Also discussed in this talk was the history of some of the reform efforts going back to the Clinton era and moving forward to the CLASS Act. To date the changes—reforms perhaps being too strong a word—are around changes to Medicare made by CMS that restrict or alter access to benefits, as well as some state initiatives around Medicaid involving home and community-based services.

The conclusion is that if large-scale reform comes about, the organizations to watch include AARP, Leading Age, the SCAN Foundation (and their funding of Milliman and Urban), the Bipartisan Policy Center and the states (especially Minnesota and California though New York and Hawaii are pushing forward with LTC education campaigns).

But will we really see a LTC proposal adopted on the scale of, say, the Affordable Care Act? Most likely not. But while unlikely, it is not impossible, especially if subsumed in something even larger such as entitlement reform. ■

ENDNOTES

1 Continuing Care Retirement Communities (CCRCs) are retirement complexes that offer a range of services and levels of care. Residents may move first into an independent living unit, for instance a private apartment or a house on the campus. The CCRC provides social and housing-related services. If and when residents can no longer live independently in their apartment or home, they move into assisted living and, later still, to the CCRC's on-site or affiliated nursing home. http://longtermcare.gov/the-basics/glossary/

2 DYNASIM is short for Dynamic Simulation of Income Model. It was developed by the Urban Institute in 1973 and is a microsimulation model developed to gauge the effects of social and economic trends on future generations of retirees and their benefit needs and to project the characteristics of future retirees. As a microsimulation, it starts with a representative sample of individuals and families, then "ages" the data year by year, simulating such demographic events as births, deaths, marriages and divorces, and such economic events as labor force participation, earnings, hours of work, disability onset, and retirement. The model can also simulate Social Security coverage and benefits, pension coverage and participation, home and financial assets, health status, living arrangements, and income from non-spouse family members. For more on this see http://www.urban.org/publications/410961.html

"The conclusion is that if large-scale reform comes about, the organizations to watch include AARP, Leading Age, SCAN Foundation, the Bipartisan Policy Center and the states ... "

Cognitive Corner

By Sharon Reed and Siusanne Nichols

Sharon Reed is SVP Insurance Operations at Penn Treaty Network America Insurance Company in Allentown, Penn. She can be reached at *sreed@penntreaty.com*.

Siusanne Nichols is communication editor at Penn Treaty Network America Insurance Company.

Education and awareness of long-term care (LTC) clinical research is a significant factor that can impact SOA LTC Section members. For example, sophisticated researchers are enrolling at-risk clients and working with academics on interpreting comorbidities and practical studies. They are using age-banded cohorts and readily available neuropsychiatric testing to increase cohort size and research breadth. The volume of research and results of numerous cognitive studies can be overwhelming to our actuaries and other section members.

To increase awareness of current research, cognitive treatments, brain exercise programs and overall long-term care, we will be adding a regular feature to the LTC Section newsletter, tentatively called the "Cognitive Corner." This feature will provide a place to share existing academic research and health-related outcomes related to cognitive factors. It is the hope that this information will spur thought-provoking discussions and debates that impact your work regarding these hypotheses.

In addition, a specific section of the SOA LTC Section's website will be designated to increase awareness of cognitive activities in research, treatments and brain exercise programs. We will focus on understanding the risks, health, exercises, social interactions and clinical presentations that are distinct to long-term care.

In conjunction with these initiatives, section members can begin to critique research to focus on variables such as insured population, age, genetics, control groups, etc., that impact LTC products. We want to increase dialogue, improve understanding and provide some education for our members on this important topic.

The success of these initiatives will require adequate volunteer support from those that are passionate about this topic. Are you a subject matter expert? Do you read articles or otherwise look for this type of information? We are seeking volunteers to submit articles or provide research links to cognitive topics for the council to distribute. If you are interested or would like more information on this volunteer activity, please contact Sharon Reed at *sreed@penntreaty.com* or Leslie Smith at *lsmith@soa.org*. ■

Pseudodementia: An Insurable Condition?

By Jane Mattson

Editor's Note: Reprinted with permission of *ON THE RISK*, Journal of the Academy of Life Underwriting. *www.ontherisk.com.*

For a life underwriter, the word dementia on a physician's report or a prescription for an anti-dementia drug or drugs, absent a dementia diagnosis, can immediately send up a host of red flags.

Whether the coverage is for life, long-term care or disability, any indication of dementia in an applicant's medical paperwork means more investigation and more research in order to arrive at the insurability determination, which is almost always a declination (or, at the very least, a high substandard rating).

If, however, an examining doctor uses the word pseudodementia, the application must be analyzed in a different light. The underwriter still has to dig deeper, but the insurability determination could be far more positive (depending, of course, on the type of coverage for which the application was submitted).

Consider, for example, this recent life case: The applicant, a 69-year-old female nonsmoker, had no concerning factors from her history, application or phone interview. Her cognitive interview, senior assessment test results and EEG also showed no particular red flags. However, her attending physician's report mentioned both pseudodementia and dementia, as she had been experiencing some mild forgetfulness, and her prescription database check showed that for the past 3 years she had been taking Venlafaxine, which was consistent with the diagnoses of fibromyalgia and dysthymic disorder (depression) in her medical history, and she was also taking Donepezil, a drug commonly prescribed for dementia. However, there was no specific detail as to why Donepezil had been prescribed.

Clearly, additional investigation was, and is, needed about the mentions of both dementia and pseudodementia. Is there a real difference between the two? And, could an applicant with pseudodementia be insurable?

Executive Summary

Pseudodementia is a term that describes specific types of reversible dementias. It is primarily associated with depression, but can be due to other causes as well. This article distinguishes pseudodementia from true dementia, discusses pseudodementia's causes, characteristic signs and symptoms, diagnosis and treatments, and covers its most important mortality concerns.

PSEUDODEMENTIA AND TRUE DEMENTIA

Dementia, in medical literature, is an umbrella term covering diagnoses of progressive neurological conditions that exhibit symptoms such as memory loss, confusion, declining problem-solving skills and judgments, and language deficits.

Dementias fall into two categories: irreversible (true dementia) and reversible (pseudodementia). True or irreversible dementias include:

- Alzheimer's disease.
- Spongiform encephalopathies such as Creutzfeldt-Jakob disease and variant Creutzfeldt-Jakob disease (the human form of mad cow disease).
- Fronto-temporal conditions such as Pick's disease, Huntington's disease, Korsakoff's syndrome and Lewy body disease (also known as Lewy body dementia).
- Multi-infarct or vascular dementias that can occur with diseases such as Parkinson's and multiple sclerosis.
- AIDS dementia complex (ADC). ADC, which results directly from advanced stages of acquired immune deficiency syndrome (AIDS), is unique in that it is not caused by an oppor-

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tunistic virus, but rather directly by the human immunodeficiency virus.

Pseudodementia is a term used to describe a variety of conditions and disorders that mimic true dementia. This disorder is generally caused by depression or other functional condition(s). Once the condition causing the pseudodementia can be determined and diagnosed, it can be treated, and is almost always fully or partially reversible.

PSEUDODEMENTIA CAUSES

Since the late 1800s physicians have been aware of the group of clinical symptoms that today are referred to as pseudodementia. However, the actual term was not coined until 1961, the year British psychiatrist Leslie Gordon Kiloh published a paper titled "Pseudodementia" in the journal Acta Psychiatrica Scandinavia. The article did not provide objective or explicit diagnostic criteria for the condition, which for a time sparked disagreement over whether it was an actual condition or just a variant on depression.

Physicians today agree that pseudodementia is an actual condition, distinct from true dementia. According to a 1983 British Medical Journal paper on pseudodementia by Tom Arie, Emeritus Professor of Health Care of the Elderly at University of Nottingham (UK) and considered to be one of the founding fathers of old-age psychiatry, "The term 'pseudodementia' is used to describe disorders which present with the features of dementia but which, on closer study or because of their subsequent course, turn out to be of different origin – and in old people, the underlying disorder is most often depression."

Although Professor Arie recommended confining the term pseudodementia only to dementia-like presentations of depressive illnesses, the condition can stem from a range of psychological and physiological disorders, from schizophrenia, bipolar disorder and dissociative disorders to conversion disorders, malnutrition and metabolic disorders.

Both schizophrenia and bipolar disorder can present with cognitive symptoms like those of depression (indeed, schizophrenia was once known as "dementia praecox"). Because the symptoms will reverse upon treatment, the cause in these two conditions is generally deemed pseudodementia. Dissociative disorders develop primarily in response to unpleasant/stressful situations and head injuries, and frequently present in men between the ages of 15 and 40. Patients with conversion disorders (where anxiety converts to physical symptoms) will often exhibit dementia-like cognitive impairments without any organic evidence of dementia. These individuals, most of whom are in late-middle or early-old ages, frequently exhibit age regression as well as increasing physical dependency.

Pseudodementia can also result from endocrine conditions such as impaired thyroid, adrenal and gonadal function, from normal pressure hydrocephalus (also known as symptomatic hydrocephalus or "water on the brain"), from anemia, from a brain tumor (or tumors) and from metabolic disorders such as diabetes.

An additional condition, fibromyalgia, is also emerging as a cause of pseudodementia. This condition is characterized by a collection of symptoms including long-term body-wide pain and tenderness, fatigue, sleep problems, headache, depression and anxiety. Fibromyalgia sufferers experience confusion, lapses in memory and difficulty concentrating – a group of conditions known as "fibro-fog" – which frequently render them no longer able to work.

Other conditions that can cause pseudodementia include malnutrition resulting in nutrient and/or enzyme deficiencies, specifically of co-enzyme Q10, folic acid, B12, B6 and B1; dehydration; bacterial

infections such as bartonella and mycoplasma; and inflammatory conditions such as Lyme disease.

Medication and/or drug interactions can also cause pseudodementia. Sedatives, hypnotics and medications that treat high blood pressure and arthritis are the most common agents, especially among older adults, as their bodies metabolize medications less efficiently. A wrong medication, an incorrect dose of the correct medication, or unforeseen interactions between medications currently being taken can also be culprits.

SIGNS/SYMPTOMS

Pseudodementia symptoms in older, depressed individuals often mimic true dementia. These symptoms will include anxiety, early-morning awakening, reduced libido, delusions, self-neglect, social withdrawal, and feelings of guilt or suicidality. The individuals will also many times present physical symptoms consistent with dementia, such as motor retardation and disturbances in sleep or appetite.

These symptoms will be more exaggerated in pseudodementia than in true dementia. According to some research studies, approximately 10% to 20% of patients referred for further investigation of dementia will turn out to have pseudodementia caused by another disorder. Another study found that up to 15% of patients with dementia had one of the reversible types, and that depression accounted for about half of the reversible dementias.

Older individuals experiencing memory loss along with slowed movements and/or speech are sometimes misdiagnosed with dementia. However, cognitive impairments for depressed elderly individuals are generally not as severe as those in true dementia, and will involve fewer areas of cognition.

Depressed elderly persons who don't have true dementia will usually not show disturbances in language, nor will they have difficulty with the Visual Association Test, used to detect dementia of the Alzheimer type. Their histories may show recent life events, such as loss of a close relative or friend; a family history of depression; or depressive-type ill- nesses. These individuals are often verbal about their memory defects and relatively clear on their current and past medical histories. They have poor attention spans, can often become distressed, and do not make a great effort to do even simple tasks.

The most impaired functions for individuals with pseudodementia will be attention, motor speed, spontaneous elaboration and analysis of details. Cognitive tests will show reading comprehension, name recollection, verbal delayed recall, calculations and psychomotor speed will be relatively preserved. These patients will often say they don't know answers to questions posed and may become emotional, upset or distressed when questioned.

Keep in mind that older depressed individuals can present with true dementia. These patients will respond to cognitive tests differently from pseudodementia patients. True dementia patients do not recall their past histories, give wrong answers to questions, make current complaints, show poor attention and concentration, appear indifferent or unconcerned, but generally try to do their best when given a task to complete.

DIAGNOSIS AND TREATMENT

As with most medical conditions, the outcome of pseudodementia is determined by the final diagnosis and, ultimately, the patient's response to the treatment.

If the cognitive impairments exhibited are caused by depression, drug therapy and counseling will of- ten reverse the memory loss and mental status test scores will improve. Where pseudodementia is due to organic conditions, the symptoms can be reversed via treatment targeted to the particular organic condition. Where mismedication is the culprit, cognitive dementia symptoms will usually reverse as soon as the problem is corrected. The

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symptoms, however, might take several weeks of treatment to show a noticeable decrease.

Some physicians believe patients with depression who are experiencing cognitive changes may be at greater risk for dementia than individuals of the same age without depression, and that the pseudodementia might be an early sign of true dementia.

Let's go back to the case study cited earlier in this article. Interestingly, no mental status exams had been performed by the examining physician. The applicant, when asked by the underwriter about her cognitive issues, said her only complaints were not remembering details of previous days, which she attributed to the deaths of her husband and sister in the same year. She also said she had been the primary caregiver for her husband, who was completely disabled for years prior to his death.

When asked about her Donepezil prescription, she said she had asked her physician to prescribe Donepezil for her moderate-to-severe fibromyalgia. Little clinical proof is yet available about Donepezil's efficacy in this usage, but circumstantial evidence on fibromyalgia blogs mention frequently that Donepezil can provide some relief from "fibrofog" symptoms.

UNDERWRITING THE RISK

Pseudodementia poses a challenge for underwriters when determining insurability. Underwriters need to be alert to medications prescribed, symptoms exhibited, and the cognitive tests and treatments administered or recommended. This information should give some insight into the underlying cause or causes of the pseudodementia.

Pay close attention to your company's underwriting requirements, including the prescription database check. Be sure to check whether the applicant has visited physicians other than his main one, whether the applicant is taking prescriptions not listed in the APS, and the results of cognitive exams and screenings.

Favorable features in applicants with pseudodementia will include normal brain imaging, good neuropsychiatric testing, pre-existing depression, sustained improvement in cognitive changes, and favorable biomarker studies including cerebrospinal fluid studies, amyloid testing and imaging studies.

Though a challenge to underwrite, an applicant showing cognitive stability and/or improvement, as well as some of the other favorable elements listed above, may turn out to be an insurable risk.

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