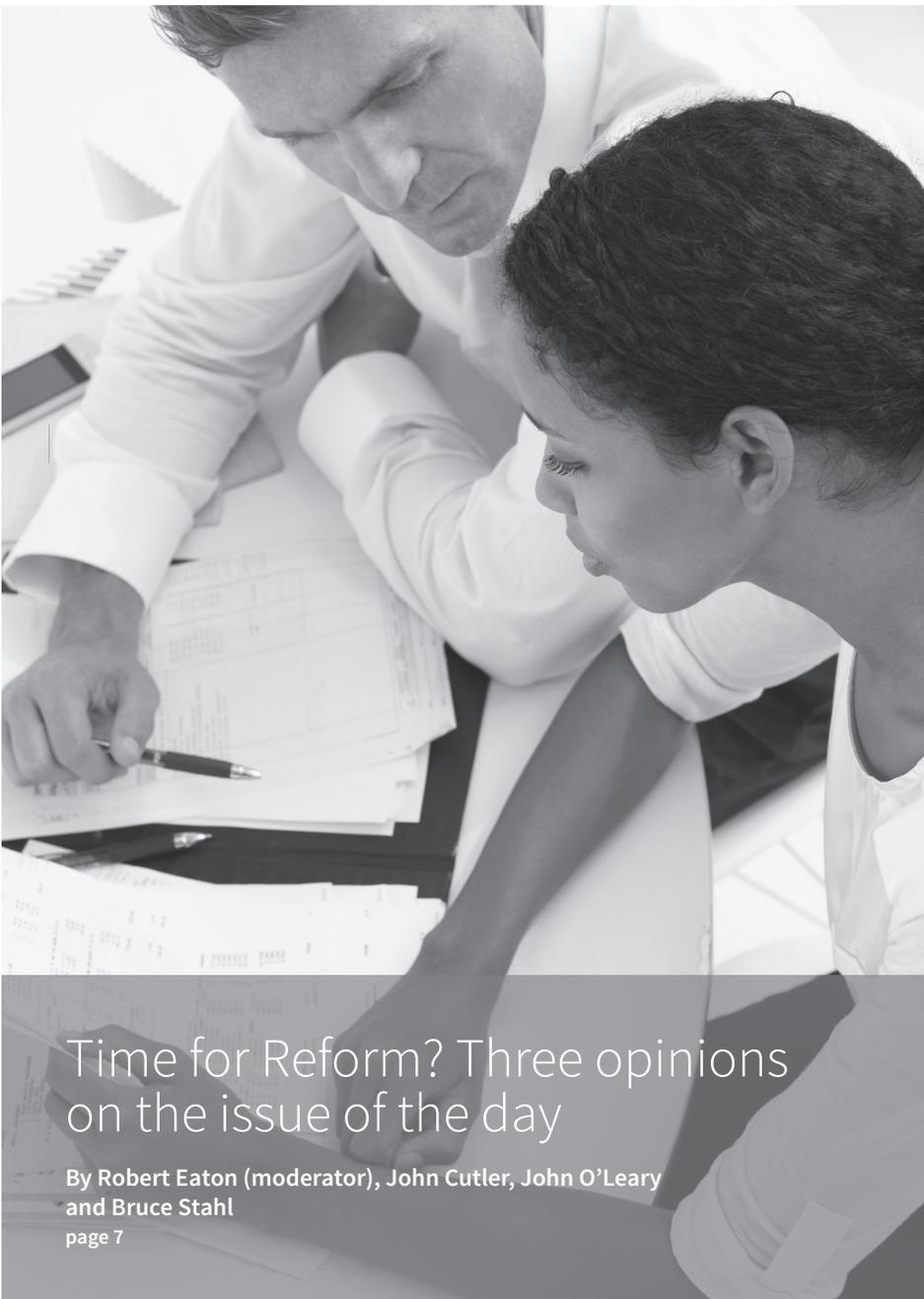


# Long-Term Care News



**SOCIETY OF  
ACTUARIES**

**LONG TERM CARE  
INSURANCE  
SECTION**



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# Long-Term Care News

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

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# Chairperson's Corner

By Vince Bodnar

I'm pleased to provide this update on the activity of the Long Term Care Insurance Section. We've made great progress in our efforts to get the word out on innovation and our outreach to the regulatory members of our section.

## INNOVATION

As I described in the May issue, the section hosted the third in-person Think Tank meeting in October and subsequently published a report summarizing its outcomes and suggestions for next steps.<sup>1</sup> Among these next steps is a communication of findings to key audiences, and we are about half-way through the execution of that effort. These include a webinar that attracted over 500 attendees and a presentation at the recent SOA Health Meeting. Presentations will also be given at the 2016 SOA Annual Meeting & Exhibit and the DI and LTC Insurers' Forum. I'm pleased to state that we have also been granted an opportunity to present the findings to the NAIC's Long-Term Care Innovation (B) Subgroup later this month. In addition to these forums, several Think Tank attendees have presented the report or components of the report at other conferences and to key stakeholders.

Another follow-up step is the formation of three working groups that are each charged with taking a platform of solutions to a point where they can be handed to stakeholders so that some of them can hopefully be brought to life. These groups are currently forming, so please let me or their leaders know if you are interested in joining one or more of them.

The three groups are: *Data Driven Support*, led by John O'Leary; *Service Evolution and Expansion*, led by Eileen Tell; and *Paying for Care*, led by me. Each group will focus on reviewing and evaluating the 86 ideas that came out of the Think Tank. They will identify and clarify three to six key ideas that have the most potential. For each of these concepts, they will also prepare high-level market and competitive scans, list existing regulatory and public policy barriers that need to be addressed and prepare "lean canvas" business plans. Finally, they will identify entities that could potentially develop and launch these key ideas and present findings to them.

## OUTREACH TO REGULATORY MEMBERS

I'm excited to report Rhonda Ahrens has agreed to help us coordinate our outreach to the SOA's members from the regulatory community. She is currently working with the section council to propose a set of educational sessions for regulators that we intend to conduct via webinar. The purpose of these sessions will be to provide information about long-term care insurance. Topics currently being considered include: similarities and differences between life, health and LTC pricing and reserving; hybrid products; new product innovation; claims management; and a history of LTC assumption development. We are also considering a session in which some key regulators participate in a roundtable discussion.

Again, please reach out to me if you would like to participate in either of these efforts, or if you have a suggestion for section activities. ■



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## ENDNOTES

<sup>1</sup> <http://soa.org/Files/Sections/2016-03-long-term-care-think-tank.pdf>

# Editor's Corner Especially the Future

By Robert Eaton

Long-term care professionals, and actuaries in particular, spend a lot of time thinking about the future. We make predictions about policyholders, potential customers, interest rates, political elections, and sometimes when we're taking a break from our professional lives, about "America's Next Top Model," or about baseball. All of this predicting reminded me of some of my favorite predictions which (sometimes favorably) didn't emerge:

- **Hoverboards.** Contrary to Robert Zemeckis' 1989 vision of the year 2015, we don't really have hoverboards. I am sure I will get a few emails pointing me to the salient YouTube clips of actual functioning hoverboards, but the vision—the prediction—was a world of ubiquitous, swiftly moving teens hovering through crowds, over water, past Wrigley field home games of the world-series winning Cubs, etc. Alas this vision hasn't yet been realized.
- **Malthusian catastrophes.** Thomas Malthus argued in 1798 that living standards would have to decline, since population growth seemed to occur geometrically, while he imagined food production could only increase arithmetically. \*whew\*
- **Ehrlich, The Population Bomb, and a bet.** In 1968 Paul Ehrlich and his wife Anne Ehrlich wrote *The Population Bomb*, forecasting mass starvation by the 1980s due to overpopulation. A few years later Paul Ehrlich famously made and lost a public, 10-year bet with Julian Simon over the price of a basket of natural resources. Ehrlich was betting on the belief that these resources must cost more in the future.

- **The 2012 Apocalypse.** The world didn't end on December 21, 2012, contrary to some interpretations of Mayan lore. Another close miss.
- **The 15-hour work week.** In his 1930 essay "Economic Possibilities For Our Grandchildren," John Maynard Keynes estimated that when his grandchildren grew up we would only need to work for 15 hours a week! Thanks to unforeseen economic prosperity, Keynes ventured, man will be more concerned with "how to occupy the leisure, which science and compound interest will have won for him."

Phillip Tetlock, in his work on *Superforecasting: The Art and Science of Prediction*, found that those people who view the world with nuance, are self-reflective, and are willing to learn from their own mistakes, make better forecasters than those who don't. Actuaries have been trained to view the world through an actuarial control cycle, where we do learn from our mistakes and reflect on our techniques. I'm optimistic that this portends well for us as a group of forecasters. Certainly LTC insurance has left no shortage of learning opportunities.

This edition has two reflective articles—a recap of the 2016 ILTCI conference and a review of the Boston College survey of LTC lapsers—and three articles which look to the future: a dialogue about policy, a discussion of estimating mortality, and a view into the latest innovation in the LTC field.

Niels Bohr, summoning some earlier Danish wit and sounding a bit like Yogi Berra, said that "it is difficult to predict—especially the future." While we know all of our predictions are certain to be wrong, let's hope that our inquiries and reflections shine some light on the future of our industry. ■



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# Up Front with the SOA Staff Fellow

By Joe Wurzburger

One of the SOA's key missions revolves around education. This education can take many forms. Students and candidates are intimately familiar with the SOA's basic education: preliminary exams, VEE requirements, FAP modules, etc. More seasoned actuaries appreciate the SOA's continuing education in the form of live meetings, webcasts, podcasts, articles, and other publications. A third target audience should not be overlooked, and the SOA's LTC Section has recently focused on this group for its education efforts: the regulatory community.

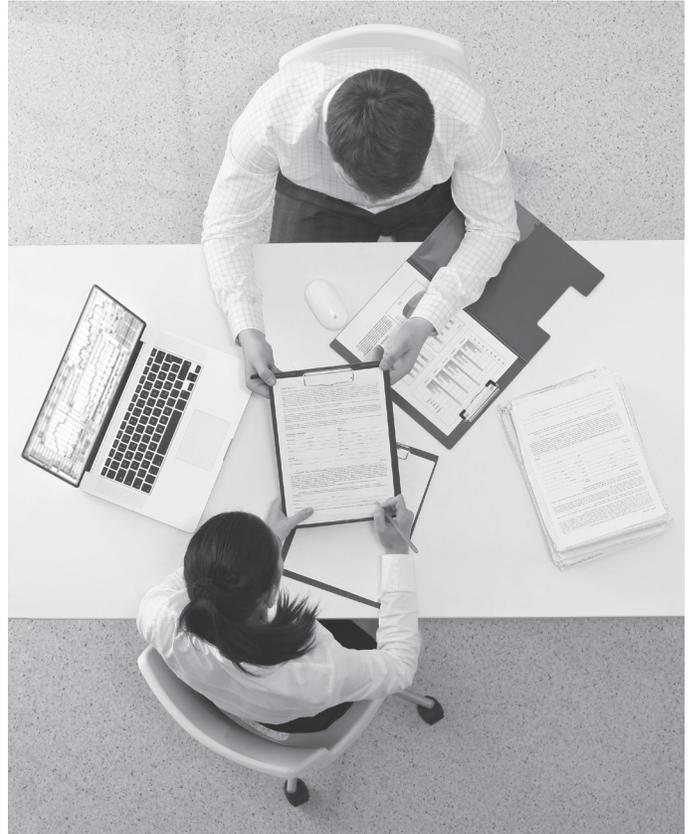
State regulators have a terribly difficult job. On the one hand, they have to represent consumers who have understandably been upset when they have received rate increase notifications. On the other hand, one of their primary responsibilities is to ensure the solvency of LTC carriers in their states so that they are able to pay LTC claims to policyholders as promised. Meanwhile, an ominous crisis looms in the background, as an aging population will need to find ways to fund long-term care needs despite not previously having shown much propensity to plan accordingly; the resulting demands on Medicaid (roughly half of long-term care financing comes from Medicaid<sup>1</sup>) produces tremendous stress on state budgets.

Let's break these issues down into two categories: carrier solvency and innovation.

## CARRIER SOLVENCY

Regulators have been asked in recent years to grant or deny rate increase requests. Typically the final verdict lands somewhere in the middle—a rate increase for less than what was originally requested, a rate increase phased in over multiple time increments, or some combination of rate increase and reduced benefits. Everything about the regulators' job is complicated: the structure of the products themselves, the actuarial justification presented to support the requested rate increases, and the anticipated consumer backlash when such issues are not easily understood.

The SOA's LTC Section has engaged in conversations with regulators and provided education that is relevant to them. This has taken a few forms:



- **Regulator-only webcasts:** Two webcasts occurred in 2015 that were for regulators only. The first was essentially “LTC 101,” and the follow-up was about combo products (that topic was chosen based on feedback after the first webcast). Similar offerings are likely to occur again.
- **Regulatory Liaison:** The LTC Section created a new position in 2016 that is explicitly intended to increase their connection to the regulatory community and to keep regulatory needs prominent in the section's activities. Rhonda Ahrens from the Nebraska DOI has been doing a fantastic job in this role.
- **Presentations at state hearings:** To this point, members from the LTC Section Council have represented the SOA at three separate state hearings on LTC: Maine, Minnesota, and Pennsylvania.

It is important to clarify the SOA's role at these state hearings. To be clear, the SOA has not been in favor of or against any individual rate increases and has steered clear of any policy-related discussions or decisions. Instead, representatives from the SOA have given education-focused presentations at each hearing. Vince Bodnar created the presentation that has been used so far, and he delivered it in Minnesota and Pennsylvania (Matt Morton represented the SOA in Maine).

The reality is that many state regulators who are asked to make key decisions regarding LTC do not understand the product as well as they would like. They have requested educational opportunities to allow them to do their jobs better, and the presentations have been extremely well received. Rhonda Ahrens, in her role as the section's Regulatory Liaison, has suggested that the section should strive to present at even more such hearings—providing this kind of education is, as she said, “a responsible decision.”

## INNOVATION

It is no secret that the current LTC funding options are not meeting consumers' needs, or at least not as broadly and completely as would be desirable. As I wrote about in last issue's column, there is a lot of room for improvement in terms of LTC financing options, especially for those who are not among the most or least affluent. Many efforts are underway in the industry to explore innovative solutions to this challenge, including the SOA's own *LTC Think Tank*.

Many of the possible solutions presented would require cooperation with the regulatory community. Fortunately, many regulators are astutely aware of this and have shown an impressive amount of dedication and passion for exploring such opportunities. I have had conversations with regulators from more than one state who are seeking to understand various options, and I know other members of the LTC Section have also had similar conversations.

To this end, the NAIC has established the Long-Term Care Innovation Subgroup of the Senior Issues Task Force. Teresa Miller from Pennsylvania is the chair of the subgroup, and Mike Rothman from Minnesota is the vice chair. It is perhaps not a coincidence that these two regulators hail from two of the three states where the SOA has participated in LTC hearings as described above—Commissioners Miller and Rothman have both been very proactive in their desire to better understand long-term care financing options and make the best decisions

*Tell me and I'll forget; show me and I may remember; involve me and I'll understand.*

—Chinese proverb

possible on behalf of the constituents in their respective states. This subgroup is in its formative stages, but I have high hopes that significant strides can be made given the caliber of people involved.

The regulatory community has expressed the desire to learn more about LTC, and the SOA's LTC Section has taken significant steps to answer the call. More than simply generating educational content and pushing it out, the section has involved the regulatory community in the process. Between Rhonda Ahrens' role as the regulatory liaison, ongoing conversations with representatives from various states (including Commissioners Miller and Rothman with the NAIC's Innovation Subgroup), regulator-only webcasts, and continued participation in state LTC hearings, the SOA's LTC Section is doing its part to help regulators ensure carrier solvency while not losing sight of the opportunities provided through innovation. ■



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## ENDNOTES

- <sup>1</sup> “Medicaid and Long-Term Services and Supports: A Primer” (<http://kff.org/medicaid/report/medicaid-and-long-term-services-and-supports-a-primer/>). Figure 3

# Time for Reform? Three Opinions on the Issue of the Day

By Robert Eaton (moderator), John Cutler, John O'Leary  
and Bruce Stahl

For some time now, we have known about the demographic trends that will be facing our country over the coming decades. Driven primarily by 75 million baby boomers, America's aging population is facing a future long-term care (LTC) crisis of major proportions. The aging of the baby boomers, increasing pressure on state and federal budgets and the challenges being faced by private LTC insurance carriers, have piqued interest in reforming LTC financing.

Recently, the SCAN Foundation, AARP, LeadingAge, and the Department of Health and Human Services (HHS) funded an economic modeling study conducted by Milliman and the Urban Institute to provide further dimension on how much the need for LTC will increase over the coming decades, what the costs are likely to be, what the implications will be for the over-65 population, and for state and federal governments.<sup>1</sup>

That study was the first of a series of modeling papers that will likely continue into 2017. As the initial study, it set the stage by providing foundational data and a framework to look at a number of different policy options including voluntary and mandatory versions of a two-year "front-end" product, a "back-end" product with a two-year deductible that would provide coverage for catastrophic situations, and a comprehensive product that would include both front-end and catastrophic coverage.

Based on results from the economic modeling work, several groups, including the Bipartisan Policy Center (BPC), the LTC Financing Collaborative and LeadingAge released reports supporting, to one degree or another, the concept of a universal program to cover "long-duration" care needs.

The LTC industry has over the years generated ideas to address the on-coming expansion of LTC needs in the U.S. For example, the SOA sponsored LTC Think Tank (the Think Tank) published the "Land this Plane" study in 2014. That study generated and evaluated many ideas, including an LTC Savings plan, an LTC high deductible plan and a short-term care (STC) plan to help individuals plan for and afford their potential care needs. Moreover, the Think Tank recently published the results of a brainstorming session conducted in October 2015

that generated over 80 concepts for ways consumers can better afford the LTC that many will need. In addition, the SOA's Post-Retirement Needs and Risks committee also has focused attention on retirement security and LTC.

Regular readers of the *Long-Term Care News* saw many of these efforts outlined in Joe Wurzburger's "Up Front with the SOA Staff Fellow" column in the May issue. For this article, led by Editor Robert Eaton, we have brought together three individuals who have long involvement with LTC financing to discuss some of the recent ideas and provide some perspectives on their pluses and minuses.

The print version of this conversation has been edited for size. The complete version can be found on [www.soa.org/ltc](http://www.soa.org/ltc).

*The terms long-term care (LTC) and long-term support and services (LTSS) are used interchangeably.*

**Robert Eaton:** *Tell us why you are so interested in this topic, beyond what we can read in your bio?*

**Bruce Stahl:** My bio points to my interest as a reinsurer of LTC insurance. Before joining RGA in 2007, I spent several months considering what the LTC insurance industry needed, and one of the items I observed was access to reinsurance. Few reinsurers remained in the market, and insurance companies were looking for capital relief, access to broader expertise in setting assumptions and assistance with risk management in general. I joined RGA's effort to enter the LTC reinsurance market in order to be a part of a program that helps people plan for their future needs, and I wanted to be a part of helping people because I am a Christian. Being a Christian means that I want to trust Christ, follow Christ, and glorify God in all that I do. I believe Christ came to serve in a very big way (pardoning the guilty while satisfying divine justice). I can follow Him by trying to serve others in a small way, and I try by helping insurers help individuals and families plan for some of their future needs.

**John O'Leary:** My interest in LTC began with family experience. In the early 1990s my mom was diagnosed with Alzheimer's disease and following that, my mother in law also came down with the disease. As a family we lived with Alzheimer's disease for over 19 years. We experienced first-hand the difficult aspects that come from caregiving two very close family members with dementia.

Professionally, I am a consumer products marketer, with an MBA from Harvard University. For over two decades, I used that background and skill set to help organizations like John Hancock, CNA, and Genworth develop and market products that would better serve the needs of consumers as they encountered situations like those my family faced. Today I operate a

consulting business—O’Leary Marketing Associates—that has a clientele of state and national organizations interested in LTC reform. In conjunction with that work I have been active with the SOA LTC Think Tank as author of the “Land this Plane” Delphi research study, and now as one of the co-chairs of the Think Tank. I am on the steering committee for the ILTCI (Intercompany Long Term Care Insurance) conference, co-chairing the alternative solutions track, and I speak, write, and advocate for reforming the way we fund and deliver LTC for our aging population.

**John Cutler:** I have been involved in LTC reform since 1997. I was hired away from AARP (where I was basically in charge of compliance for their various products) to HHS. This was what I call Clinton 2 (his second administration) where the focus was on targeted initiatives and not on universal reforms as in the first administration. We came up with four ideas the president moved forward: caregiver grants to the states, a caregiver tax credit, an education campaign, and LTC insurance for federal employees, retirees, and others in the federal family. Those last two were mine. The education campaign became “Own Your Future” and the insurance program became the Federal Long-Term Care Insurance Program. Since my retirement from OPM I’ve gotten clients in the reform space, including one with a concept based on using the death benefit in life insurance for LTC, and another

I see “disruptive innovation” opportunities on the private market side to begin to change the way LTC services are envisioned.

that wants to add a home care benefit to Medicare Advantage and Medicare Supplement plans.

**Robert:** *Could you go into a little more detail about your expectations for LTC reform this year and next?*

**John C:** That is a tougher question than you think. We could have what happened during the Bush administration where all the LTC advocates were poised to make a charge only to have the president go for Part D prescription drug coverage. It’s hard for aging advocates to be against that! But it derailed reform until we got to the point where the CLASS Act was mature enough for legislative consideration. That, again, shut down other potential reform approaches. We are now in the “let a thousand flowers bloom” part of reform. The question going forward is whether one specific legislative approach is chosen—say catastrophic coverage or

something for caregivers—versus a package of reforms more like what President Clinton moved forward in the late ‘90s.

**Bruce:** Informal caregivers carry the largest burden associated with financing LTC services. While I think it is reasonable to assume that family members will attempt to care for their own when they can, in many cases the caregiver is overwhelmed and needs respite. Furthermore, in cases where services are required for lengthy periods of time, caregivers may face making significant sacrifices to their careers and their ability to participate in society. I think reform should build upon the needs of these caregivers, recognizing the value of their contributions, yet also giving them regular respite and potential for knowing there is an end in sight to their services, should the recipient of care require it for a prolonged period of time. With this in view, in the next two years I hope to see some innovation in LTC insurance offerings so that more of the middle-income market can plan and benefit as well as those who have been able to afford insurance to date.

**John O:** With the most unusual and polarizing political situation we have faced in a national election since the sixties, it’s impossible to know what we will be facing come 2017. With that in mind I’m not optimistic that we will see anything like a comprehensive national LTC solution over the next two or three years, despite the fact that it is sorely needed.

I do see the potential for incremental reform in a few places. First at the state level, where forward thinking states are seeing the need to plan for and test reform ideas now, to offset what they see as an imminent budget crisis looming in the future. Second, I see “disruptive innovation” opportunities on the private market side to begin to change the way LTC services are envisioned, delivered, and funded. Some of the ideas from the LTC Think Tank’s brainstorming work of last fall are a start in that direction. Finally, I see incremental improvements in recent product trends such as combination products (making them simpler and more affordable for middle-income purchasers) and short-term care products (even if only a partial solution).

Regarding Bruce’s point about caregivers, I think he is onto something when it comes to finding ways to develop products that recognize and support unpaid caregiving. Today some states are already seeing significant capacity shortages in caregivers, and that is only going to be exacerbated by the future demographic trends. The numbers point to a sizable reduction in the ratio of caregivers to those needing care from about seven to one today to less than three to one in 2040.<sup>2</sup> This suggests that while an increasingly important factor in the short-term, unpaid caregiving in the future will likely suffer from lack of supply and hence will need to be supplemented. One offsetting example might be innovative use of technologies that help provide more accessible and potentially more efficient care.

**Robert:** *Certainly when product design is contemplated, it is important to consider the management of risk. Any thoughts on risk management?*

**Bruce:** I think the most important way to manage risk is to align the interests of the policyholder and the insurer. With life insurance, ordinarily both the policyholder and the insurance company would like the policyholder to live as long as possible. In contrast, LTCI policyholders today sometimes have incentives to remain on claim, while the insurer would obviously prefer to see the policyholder recover. For example: many assisted living facilities (ALFs) are so pleasant, that as long as the price is right, residents may like to stay after they recover enough to return to independent living. LTC benefits can make that price right. (A review of the most recent SOA LTC Experience Study claim termination models reveals that fewer recoveries occurred in the first year of an ALF stay than in either nursing home (NH) or home health care (HHC) settings.) Similarly, benefits for services provided in the home or elsewhere can sometimes exceed the actual cost of the services if the benefit is on an indemnity rather than an expense reimbursement basis. A typical waiver of premium benefit may also give the policyholder a financial incentive to remain on claim.

**John O:** Actually, I look at the risk management situation a little differently. I think in order to manage the risk, it helps to understand the nature of the risk that is coming down the track as much as we can. I'm not sure as an industry that we are as proactive as we should be in reaching out to our insureds to understand their individual health situations and attempting to help them manage those situations even before they go on claim. One area where some state programs are making headway is with interventions to identify health issues early on, and with helping people manage them in advance to minimize costly crisis situations and ER visits. That is a trend the industry should look at to see if it could help bring down claim costs and at the same time provide the type of customer service that other industries use successfully.

I agree with the goal of aligning the interests of policyholders and carriers. And it is true that if our policies provided incentives for recovery that might be an approach worth analyzing, to see whether it might be both appealing to consumers and also help carriers mitigate some of their risks. That said, the consumer's primary expectation of this product is that it will be there to help them pay for care, when they are no longer able to care for themselves. I wonder how many of our purchasers were thinking of recovery as an option when they purchased the product. It certainly isn't an option for those with chronic conditions like Alzheimer's, Parkinson's, or MS. And those are the types of long duration expensive conditions that would seem to be among the most problematic for the industry. As we think about future product designs, I could envision products that incent people to remain at home as long as possible—with funding flexible



enough to take full advantage of unpaid caregiving and emerging self-care technologies—and limited enough so that institutional care is attainable only as a last resort.

**John C:** Private insurers have been dealing with risk management a lot longer than government in the LTC arena. To me, that means it would behoove the social insurers to take note of what private insurers have already discovered. But, beyond that, part of the reason I'm a fan of a public/private solution is the desire to see the two systems talk to each other in spite of their different histories. Most LTC insurers, for instance, cut off the risk at the front end via underwriting. The public programs do it at the back end by requiring long delays (e.g., SSDI) or developing arbitrary rules (the Medicare homebound and improvement standards are just two among many that come to mind). In the fantasy world I sometimes reside, I think we could do better than either of those two approaches.

**Robert:** *Do you have an example of how any program might improve the management of its claims?*

**John C:** There is a big debate between reimbursement and disability. The way the German model handles this is to give you cash if you like, but then discounts that benefit. By contrast, the U.S. "cash and counseling" Medicaid pilot gives you the same amount—no discount—but still allows for a better allocation. But the U.S. program requires intervention in the form of case management. All the fears surrounding the Medicaid pilot, about the woodwork effect and fraud, appear to be over-exaggerated. So that is one approach. The other thought is that we enlarge what insurers do now with the alternative plan of care. Let the claimant make a case for managing their own claim better and cheaper (or at least not more expensively) but have the program manager (private insurer or governmental entity) sign off. But it can't be an exception to the rule. It has to be built in from the beginning. The expectation is that the claimants can structure the care best for themselves. The default is the traditional LTC insurance reimbursement model.



**John O:** I've spoken earlier in this paper with some thoughts that I think could improve claims management through earlier interventions with insureds prior to their going on claim and potentially building incentives for healthier behaviors into the plan designs.

Regarding alternate plan of care, it would be interesting to know the extent to which claimants are currently using that benefit. Anecdotally, I have heard that the number is small. If that is the case, perhaps it needs to be redesigned or re-named if we can prove that is an effective way to actually reduce claim costs in the long-term by providing more benefit flexibility.

Regarding Bruce's point on face to face interviews with claimants, I like the idea of reaching out to claimants periodically to determine both whether they are in fact still eligible for benefits (which is mandated) and whether they might be better served in another site of care than where they are. Some states have had some positive experiences moving people from institutional settings back to home and community settings when it was feasible and in their best interests. By doing so they have seen savings for those individuals. Under the heading of public/private joint learning, it might be worth evaluating those state experiences to see if they are worth emulating.

With that said, I would be very interested in understanding the percent of claims that LTC insurers expect to recover. My sense (see earlier comments) is that recoveries are the exception for LTC situations, not the rule.

**Bruce:** I agree with John's idea about a well-managed Alternative Plan of Care provision in LTC policies that is built into the claim from the beginning. The benefit provision needs to be structured so that the incidence of claim is not increased due to its presence. I have a couple of other thoughts as well. Many times over the past nine years working at RGA, I have suggested to insurers that they perform a face to face assessment on claimants in advance of the date of their expected recovery. I don't know that any ever actually followed that advice because their systems are often set up to work with average expected recovery time. Yet averages often have a wide range, and perhaps half of the claimants might recover from a particular diagnosis sooner than average. While the managers of the programs did not find financial savings, or at least did not demonstrate financial savings in order to induce change, I expect that with advanced technology, we will see improvements in monitoring real levels of care needs even while someone is not physically present. For claims that are not expected to be permanent, technology may help to close the margin for concern over misalignment of interests in the timing of coming off of claim.

**Robert:** *Let's return to your expectations for the next couple of years. What is the greatest obstacle or concern you face in achieving these expectations?*

**John C:** Good question! My worry is that some people try to kill suggested solutions because they are not close enough to their desired way of doing things. Any government program should start small, take a serious look at what the private sector already knows and, last but not least, assume it will need mid-course corrections.

**Bruce:** In general, market innovation tends to flourish when all the potential stakeholders in new transactions know their planning will have the potential to help in the future. If any of the stakeholders think there is a material likelihood that the "game will change," such as the state or federal government mandating benefits, market innovation will likely be stifled. Government mandates may initiate a whole different set of innovations, yet those new innovations will not be focused on individually designed plan options, but rather on compliance with government requirements on individuals whose situations may or may not fit well into the mandate. For more on this, see Luke A. Stewart's research, "The Impact of Regulation on Innovation in the United States: A Cross-Industry Literature Review."<sup>4</sup>

Furthermore, private and social programs normally have unforeseen consequences. In the case of private programs, the investors

and other participants in the general market either lose or profit from the unforeseen consequences. In the case of government programs, the public as a whole takes notice because they all will pay for unforeseen but consequential financial burdens. For example, Medicaid was and is explicitly intended to be a welfare program. Yet based upon comments made by members of Congress from both political parties during an early 2016 hearing regarding LTC reforms, many people attempt to plan their finances such that when they need LTC, Medicaid or other government program will cover it. Some, if not many, people get the false impression that they can count on the government to cover their own needs and fail to purchase insurance.

It is reasonable to assume that LTC reforms will have unintended consequences. Some recent proposals included a universal “catastrophic” insurance program (presumably government mandated). If such were to be implemented with the expectation that private insurance policies would cover costs of care up to the point the universal program begins, policyholders will likely view the coverage as a package and behave as if they have unlimited or relatively high levels of benefits. Private insurers have learned that policyholders with unlimited benefits behave differently than those with more limited benefits. If the continuance models from the most recent SOA LTC Experience Study are representative of this behavior, the difference to a private insurance plan’s benefits with and without such a government plan could average two or three months of services on a two-year or three-year maximum. These extra services can be priced into the private plan, but the price will increase. The increase in benefits would likely include existing private plans that were issued before such a hypothetical government program was even a thought, inviting the likelihood of premium rate increases on in-force policies.

Turning to the total program from onset of disability to recovery or death, we can consider why private insurers over the past few years have for the most part stopped selling the unlimited maximum option with their LTC policies. The insurer and policyholder behavior is different. One might expect that the incidence rate for unlimited benefits might be substantially smaller than policies with maximum limits because underwriters would presumably be more cautious in issuing unlimited benefits. In fact, the 2015 SOA experience study’s predictive models identified a 2 percent to 6 percent smaller incidence in such plans. That is significant, but not as substantial as one might expect. The greater difference is found in policyholder behavior once they enter claim: insureds with unlimited benefit periods remain on claim longer. Applying two sets of claim termination rates from an SOA model in the same SOA study, one designed for policies with a three-year lifetime maximum and one designed for an unlimited maximum, to claimants with

unlimited maximums, we find the unlimited claim termination set to identify an average claim life that is more than 125 percent of that using the three-year benefit claim termination set.

**John O:** Once again, I come at this a little bit differently. With regard to Bruce’s point about Medicaid it has been a long-held industry assumption that the presence of Medicaid “crowds out” LTC insurance. I think that may be an element of truth to this, but probably not to the extent many of us in the industry would like to believe. I don’t disagree that people may have a “perception” that somehow a government program may be there to help, but study after study has indicated that consumers are woefully uneducated about ALL aspects of LTC, including how likely they will be to need care, how much that will care cost, and what they would need to do to avail themselves of the government safety net, if they wanted to. I have no doubt that some do plan this out, but thinking that “many” are logically thinking this issue through may be giving consumers too much credit on this issue.

That said, I think Bruce raises a very valid question regarding the concept of a universal catastrophic program, and what impact such a program would have on pricing of potential “front-end” private market products. The data he cites confirm what we have been hearing for several years, that purchasers of policies with larger lifetime benefits, especially unlimited lifetime benefits, behave differently than those with smaller capped benefits. His argument raises a couple of questions for me. First, do we know what is causing the behavioral differences? Are they a function of just the size of the benefit or could they relate to the characteristics of the voluntary buyers—who for the private policies in question would likely be at the very high end of LTC insurance purchasers? What impact does the size of the premiums they paid have on their behavior? You could argue that the more you pay for any consumer product, the more you will expect from it, and with LTC insurance that would mean a higher likelihood of trying to use the benefits to the fullest. Lastly, if the catastrophic plan is universal, would there be incentives to encourage higher participation for front-end products, up to and including making it universal as well? And would the lower price of broader coverage offset the kinds of increases Bruce points out?

I’m not suggesting that there may not be an impact on the pricing of private front end policies if a universal catastrophic program is instituted. What I am saying is this is a great question that needs more study and investigation as to whether the behavior seen on private policies with higher lifetime benefits translates to broader based universal programs.

15 percent of all seniors and 20 percent of females over 65 will have catastrophic LTC needs. Finding a viable solution to this issue is at the heart of the LTC financing dilemma.

**Robert:** *One curious thought that comes to mind as a final question is where people fit into all this. By that I mean, we all develop our products and ideas and then trot them out as if we really know what will work or what people will buy. Reaction?*

**John C:** Good question again. I will poke both the private guys here and the public solution advocates. LTC insurers do all this testing and get feedback from the buying public so, in theory, are light years ahead of public advocates. Yet, private LTC insurance really hasn't done as well as we all hoped. So that is a big disconnect for any private insurance fan trying to explain how wonderful the private sector is when it comes to LTC insurance. On the other hand, private insurers frequently run focus groups and field other consumer research on their product ideas. Their feedback loop is better and nimbler. Public program advocates often don't do any of this. So how do they know people want what they are trying to sell? I don't have a cosmic solution but suggest the best way to avoid problems with the buying public is coordination between the public and private sector when they develop and test any reform proposals.

**Bruce:** People are often opting not to purchase LTC insurance. People are individuals who each have different expectations, financial capabilities, and needs. Yet the private insurance market has been forced to market within tight boundaries. For example, the federal government imposes a floor on the qualifications for benefits that it considers long-term enough for premiums to be tax qualified—that is, no fewer than two ADLs—whereas most states do not currently permit insurance policies with more than two ADLs to be sold. Presumably and hypothetically, policies with tighter requirements such as requiring deficiencies in at least three ADLs would be less expensive and therefore more affordable. The American Academy of Actuaries published an issue brief in 2015 on the subject of flexibility in policy design that addresses this point.

Insurance products are intended to help people plan who otherwise would face risks that make planning difficult. Individuals' expected risks may change over time, and insurance programs need the flexibility to adjust with those expectations. For example, many people will likely be able to use genomics not long from now, allowing them to determine their individual expectations for future LTC needs. Insurers will need to be nimble and turn this knowledge into a flexible product structure that helps satisfy the particular financing of each individual's expected needs.

**John O:** So a couple of points in closing. I know it is often assumed that insurance companies spend enormous amounts of money researching and understanding consumer's needs and wants, in depth, through expansive consumer research. From my experience in LTC marketing, that hasn't been and isn't the case, especially relative to other consumer facing industries, and

specifically over the past 10 years when the industry has been in precipitous decline. Looking at actual product designs that have been brought to market, they typically have been the result of what distribution thought they could sell, coupled with what was allowed by regulation, as opposed to what consumer's actually want. If we are to be successful, that needs to change. There are some excellent research techniques to get below the surface of the typical focus groups and understand the behaviors that are motivating, or not motivating, the consumer to act. And those motivations need to be balanced by whether companies can develop viable and profitable businesses around them. I'm optimistic that they can, but this means the private industry needs to work together with regulators and the public sector to re-envision and re-create the way LTC is provided, delivered, and funded in this country, and that needs to happen now, before it is too late.

**Robert:** *Thanks to you all for this eclectic and informative discussion!* ■



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#### ENDNOTES

- <sup>1</sup> *Microsimulation Analysis of Financing Options for Long-Term Services and Supports*, Urban Institute, Nov 2015. See also the *Health Affairs* article dedicated to this "Financing Long-Term Services And Supports: Options Reflect Trade-Offs For Older Americans And Federal Spending," November 2015, accessed at <http://content.healthaffairs.org/content/early/2015/11/24/hlthaff.2015.1226>
- <sup>2</sup> AARP Public Policy Institute, *Valuing the Invaluable: 2011 Update*
- <sup>3</sup> *Long-Term Care Awareness and Planning: What do American's Want?* RTI International, July 2015
- <sup>4</sup> "The Impact of Regulation on Innovation in the United States: A Cross-Industry Literature Review" <http://nationalacademies.org/hmd/-/media/Files/Report%20Files/2011/Health-IT/Commissioned-paper-Impact-of-Regulation-on-Innovation.pdf>
- <sup>5</sup> Long Term Care Think Tank: Exploring the Possibilities for Helping The American Public Manage The Financial Burden Of Long Term Care. <https://www.soa.org/Files/Sections/2016-03-long-term-care-think-tank.pdf>

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# Mortality: A Quest for the Ultimate

By Missy Gordon and Shawn Stender

**A**lthough generally decreasing over time, mortality assumptions for long-term care (LTC) have been a moving target. Additionally, the length of the assumed selection period has been increasing—years ago, the select period might have been only 10 years, but today it could be as long as 20 or 25 years. There may be a number of reasons why the select period is longer, one of which may be due in part to decreases in the average issue age for LTC insureds. We seek to provide more insight into the elusive ultimate mortality level by developing an assumption using a combination of modeling techniques.

Today, a plethora of tools and approaches exist to develop lifetime projections of LTC business. Within these tools lie two distinct approaches to project mortality; namely, by using assumptions that are applied: (1) to an all-lives exposure base, or (2) separately for disabled- versus active-lives exposure bases. Using disabled versus active mortality allows for more granular modeling of the two different cohorts that exhibit dramatically different mortality. Therefore, when using an all-lives mortality assumption, is the projection missing important details about the appropriate mortality level? Herein lies our quest.

To complete our quest, we examined the experience and results developed from one company as an illustrative case study (with the company's permission). It is worth noting that these results may vary for different blocks of business and/or underlying assumptions.

## MIX OF ACTIVE VS. DISABLED DEATHS

When using an all-lives model (as is usually the case when using claim costs), all policies are projected using a total mortality assumption that does not track or vary according to whether the policy is active or disabled—that is, all policies receive the same mortality assumption. Traditionally, an all-lives mortality assumption is often developed through a comparison by policy duration (and possibly gender) of actual mortality experience for all lives with what would be expected using a chosen standard mortality table. Typically, the standard table provides mortality rates by gender and attained age (not by issue age and policy

duration). The comparison is used to create a vector, commonly by policy duration, of percentages of the standard table—there may be only one vector for all policies (unisex) or two if the vectors differ materially by gender. The vector(s) are then used to adjust the standard table's mortality rates to create a mortality assumption that varies by gender, age and policy duration. We will refer to this development process as a “traditional study” and refer to the vector produced by the study as an “all-lives durational vector.”

Underlying the mortality experience is a mix of active versus disabled deaths. Consideration for this underlying mix, and how it might change over the projection period, is typically missing from a traditional study.

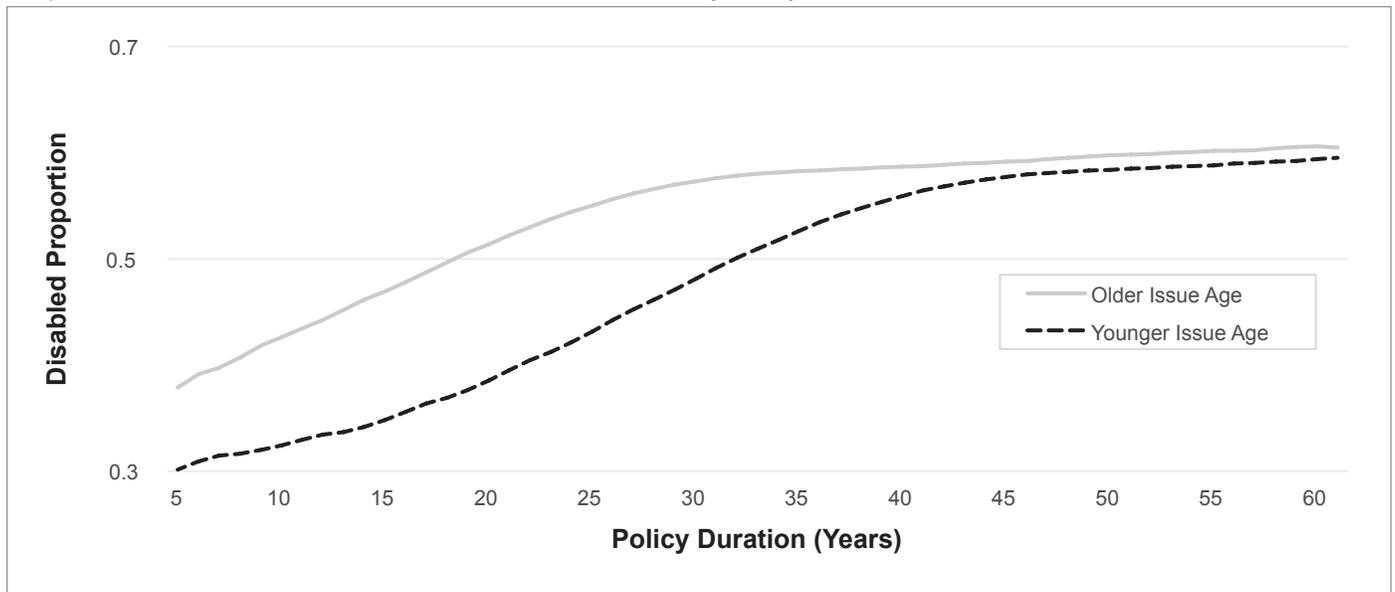
This is the first leg of our quest: understanding how the mix of active versus disabled mortality changes over time. To do so, we performed separate active mortality and disabled mortality studies by comparing one company's historical experience with the 1994 Group Annuitant Mortality Static (94GAM) table. We then used Milliman's MG-ALFA® first principles model to project active versus disabled deaths using this one company's experience to provide an illustrative case study.

From the study of active-life mortality as a percentage of 94GAM, we found the percentages to be relatively flat by policy duration, and from this created an “active-lives durational vector.” The disabled-life mortality study revealed that the percentages of 94GAM by attained age exhibited a wide variance, but decreased by attained age. Using this experience, we developed a “disabled-lives attained age vector.” Assumptions that are more granular could be developed if supplemented with industry experience to increase credibility. However, we developed high-level assumptions, using the experience of one company, to isolate the impact of considering an active versus disabled mix in the assumption development compared with that of a traditional study for illustrative purposes.

Issue age matters, big time.

These assumptions (along with additional assumptions required for a first principles model) were used to project active and disabled deaths over the life of the business from issue. Figure 1 provides a graphical comparison of the projected proportion of total deaths from the disabled cohort by policy duration. The “Older Issue Age” line shows the disabled death proportions for a block with an average issue age in the mid-60s, whereas the “Younger Issue Age” reflects an average issue age in the low 50s.

Figure 1  
 Proportion of Total Deaths That Are From Disabled Cohort by Policy Duration



The disabled proportions are connected to attained age and so the younger average issue age cohort takes longer to reach the point at which the disabled proportion levels off. These proportions are dependent on the underlying morbidity assumptions. For instance, higher incidence or lower recovery will result in a higher proportion of disabled deaths.

#### COMPARING A NEW ALL-LIVES ASSUMPTION WITH A TRADITIONAL STUDY

Next, we developed a new durational all-lives mortality vector assumption using active and disabled deaths from the first principles model, along with extensive algebra that essentially calculates a weighted average of the active-lives durational vector and the disabled-lives attained age vector.

Because the disabled-lives vector is by attained age, but we want an all-lives vector by duration, for consistency with a typical traditional study, we projected active and disabled deaths by quinquennial issue age bands. This allowed us to produce a table of deaths by attained age and policy duration for use in the weighted average calculation. The results were then aggregated across policy duration to develop a new all-lives durational vector.

Comparing the new all-lives durational vector with that developed from a traditional study, we found that the assumptions aligned reasonably well for an older issue age (average in mid-60s) block. The new assumption reached an ultimate level at a little later duration and higher level compared with that produced by a traditional study based on all-lives experience for

durations over 20. However, as the active versus disabled mix will vary based on the age of the block, we looked at an illustration for a younger issue age (average in low 50s) block. What we found was that the average issue age materially affects the length of a select period (that is, when the block reaches its ultimate level).

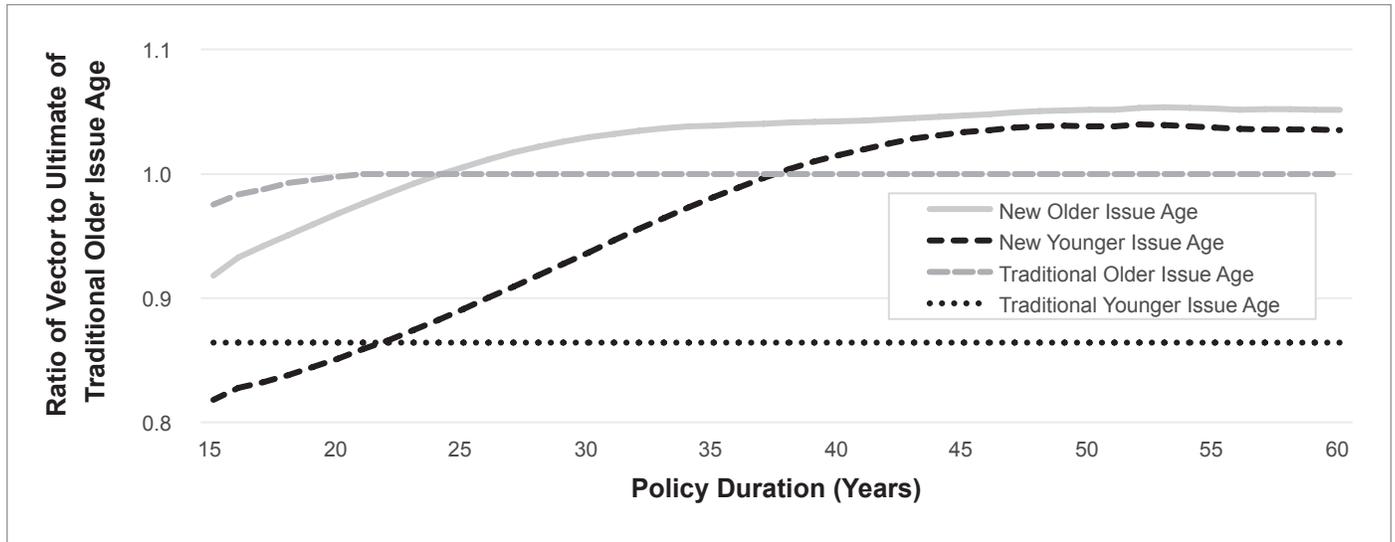
Figure 2 provides a graphical comparison of the new all-lives durational vector for each block (older and younger issue age) relative to the ultimate levels that might be produced by a traditional study.

Figure 2 reveals the following key findings relative to studies used to develop all-lives mortality assumptions in the “traditional” sense.

1. Ultimate level is *too low*: Setting an ultimate level (that is, percentage of the standard table) based on the experience for durations 15+ or 20+ may understate mortality. This is because the vector continues to increase as the block ages, which creates a downward bias in the average level. The understatement is more substantial for younger issue age blocks because the percentages of the standard table are lower for a longer period of time, which produces a bigger downward bias on the average level.
2. Ultimate duration is *too early*: A select period of 15 or 20 years may be too short. Depending on the average issue age of the block, the ultimate duration may not be for another 10 or 30 years, which will overstate mortality for a number of durations.

Figure 2

All-Lives Durational Vector Relative to the Ultimate Level for an Older Issue Age Insured Using a Traditional Study



Often, the experience of an established, credible block is used to set the ultimate assumption for a newer block. While the ultimate level of the two blocks may be close (assuming all else equal), the number of years to reach the ultimate level is materially different, as shown in Figure 2, and could be reached too early. If the average issue age of the block is not considered, then mortality may be overstated because the ultimate level is reached *too early*.

- Issue age matters, big time: Its impact on how the proportion of disabled deaths changes over time is an important consideration in developing a mortality assumption that avoids setting the ultimate too low or too early.
- Choice of standard table impacts the select period: Underlying the 94GAM table is a mix of active versus disabled deaths that varies by attained age. If the underlying mix is not “correct,” then the length of the selection period will vary by issue age in order to capture the correct mix by attained age. Using a different standard table could result in a shorter selection period that is more consistent by issue age.

#### FINANCIAL IMPACT OF “NEW” ALL-LIVES ASSUMPTION

The final leg of our quest considers an illustration of the financial impact on the future loss ratio (LR) and present value of future profit. These illustrative financial impacts are shown in

Figure 3 and represent the impact of moving to a new all-lives durational vector relative to what might have been generated under a traditional study for a younger issue age block.

The new all-lives durational vector corresponds to what is shown in Figure 2 above as the “New Younger Issue Age.” As a comparison with what might result from a traditional study, we developed two illustrative scenarios and set the ultimate assumption at durations 15 or 25.

One scenario assumes the ultimate level is set too low (and too early), by holding the values in the new all-lives durational vector constant starting in durations 15 or 25. This is an illustration of what could occur if the traditional study uses experience for durations over 15 or over 25 of the younger block to set the assumption. Also shown is the impact relative to using the “Traditional Younger Issue Age” mortality assumption from Figure 2 above.

The second scenario assumes that the ultimate level is set too early (but at the right ultimate level), by using the ultimate level from duration 50 starting in duration 15 or 25. This is an illustration of what could occur if the experience of an older block is used to set the assumption. Also shown is the “Traditional Older Issue Age” mortality assumption from Figure 2 above, which captures the combined impact of too early and too low (albeit slightly).

Figure 3

Illustrative Financial Impact\* of Changing to New All-Lives Mortality Vector Assumption

Ultimate Duration	Ultimate Level Based on Experience in Select Period (set too low)		Ultimate Level Based on Older Block Experience (set too early)	
	Change in Future LR	Change in Future Profit	Change in Future LR	Change in Future Profit
Duration 15+	-8%	37%	5%	-24%
Duration 25+	-4	19	4	-19
“Traditional”	-5	23	2	-11

\* Impact of changing from what could occur under a traditional study to that under a new study as percent change.

The illustrations in Figure 3 show that it is financially beneficial to change approaches to use a new all-lives durational vector (rather than what might be produced by a traditional study) when there is a reduction in the future loss ratio or increase to profit. Using a new all-lives durational vector has a substantially larger impact on future profit compared with that on the future LR. This is because, in addition to shifts in the mortality assumption that affect projected claims and premium, this vector also impacts the timing of reserve release, investment income on reserves, and expenses (e.g., lower persistency reduces claim administration, premium, and policy expenses).

All projected present values underlying Figure 3 use one new all-lives durational vector assumption that is reflective of the weighted-average issue age of the block. We tested the impact of using a different all-lives durational vector for each issue age band and found that implementing such granularity in the mortality assumption does not have a material impact on the financial results in aggregate.

LOOKING FORWARD

In our quest for the ultimate mortality, we found an approach to developing an all-lives mortality assumption that takes advantage of certain first principle concepts for companies that have not yet made the transition to a first principles model.

Considering the average issue age, and how the mix of active versus disabled deaths changes as the block ages, can materially affect the ultimate mortality level and length of the selection period. The ultimate mortality may be set too low if based on experience that does not capture the ultimate proportion of disabled deaths. On the other hand, it may be set too early if based on the experience of an older issue age block. Revising the mortality assumption to consider the average issue age of the block and projected mix of deaths may have a positive (if otherwise set too low) or negative (if otherwise set to early) financial impact.

Traditional studies might also consider introducing issue age bands as another variable beyond policy duration (and possibly gender), if credible experience is available at this more granular level. Using an all-lives assumption that does not vary by issue

age may result in mortality that is too high or too low for projections of a subset of the block with a different average issue age.

The vectors used in this analysis are based on the experience of one company relative to 94GAM. Underlying a standard table is a mix of active versus disabled lives by attained age. To the extent that different experience or underlying standard mortality table is used in developing a mortality assumption, these implications may vary or not be applicable. Using a standard table that better captures the “correct” underlying mix could result in a shorter selection period from that shown in this illustrative analysis. It may be fruitful to test different standard tables. This is especially true in a traditional study or when company experience is limited and more reliant on the mix underlying the standard table. Performing a traditional study by attained age to adjust the standard table to better reflect the correct underlying mix, and then developing adjustments by policy duration, may also shorten the selection period.

While we pursued a new look into mortality assumption development in this article, our quest is not yet over. The implications for considering changes in mix between active and disabled lives as the block ages extends to an all-lives lapse assumption as well. Benefit expiry may be embedded in an all-lives lapse assumption for policies with non-lifetime benefits. For younger attained ages, there will be relatively few benefit expiries, but they will grow as the block ages. Our quest for the ultimate continues as we explore the impact on the all-lives lapse assumption. ■



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# Innovative Ideas in LTC Insurance

By Matt Winegar

There are numerous studies and publications estimating the future need of long-term care (LTC) services.<sup>1</sup> The estimates vary, but they all agree that the need is great and the funding mechanisms are lacking. Private LTC insurance is one obvious solution, but traditional standalone LTC insurance sales have declined significantly in recent years.

Luckily, there are several industry and governmental groups brainstorming ideas for new ways to solve this LTC funding gap. This article highlights a few of my favorite ideas in the insurance industry, recently discussed at the Intercompany Long Term Care Insurance (ILTCI) Conference in March.

## LIFESTAGE LTC INSURANCE

The state of Minnesota is working hard to get ahead of the LTC funding gap before it becomes a serious problem. A subgroup within Minnesota's Own Your Future<sup>2</sup> advisory panel is championing a new product concept described as a LifeStage insurance product. This product concept acts as term life insurance to age 65, then acts as LTC insurance from age 65 and later, for one level premium payable for life. The goal is to capitalize on the hedging characteristics of life/LTC combination products, but bring the premium lower by isolating the life and LTC coverage based on the insured's "life stage." The state hopes that this product will serve as a viable insurance solution for younger middle-income families. However, there are a number of unknowns regarding the taxation of this potential insurance product, and it is unclear if this product can be approved under current insurance regulation.

## INSURANCE LINKED TO WEARABLE TECHNOLOGY

The market for wearable technology (e.g., Fitbit, Apple Watch) is exploding right now, and this new technology brings with it access to an unprecedented level of biometric data. Some life insurance carriers and health plans have already started to tap this new market by linking life or health insurance premiums to the insured's individual fitness level or diet.

Is this a future possibility for LTC insurance? Both cognitive and physical impairments contribute substantially to LTC insurance claims, so perhaps a fitness tracker would need to be combined

with a mental health app for this to be viable for LTC insurance. The Society of Actuaries (SOA) LTC Think Tank proposed just such a concept—the Health Longevity App<sup>3</sup>—to promote and track physical, mental, and emotional health. There is already significant research available showing that regular exercise and a healthy diet can have significant positive impacts to a person's health as they age, even suggesting that these may help prevent Alzheimer's and dementia.<sup>4</sup> If these positive health impacts could be quantified into future LTC morbidity savings, LTC insurance could be linked with wearable technology.

## REPACKAGING EXISTING LTC INSURANCE

LTC insurance is a complicated product, with a plethora of benefit options and riders available. Some LTC insurance carriers are taking their existing LTC insurance products and repackaging them into a few easy-to-understand product options. This is similar to what the Affordable Care Act (ACA) did to traditional health insurance. Individual health insurance under the ACA must be categorized into four "metallic" packages—bronze, silver, gold, or platinum—based on the level of coverage provided. For LTC insurance, the "bronze" package might be a two-year benefit period with \$100 per day benefit and no inflation option, whereas the "platinum" package might be a six-year benefit period with \$300 per day benefit and 5 percent compound inflation.

The goal here is to make the product less complex, thereby making it easier to understand and creating a simpler sales process. This concept also has the nice feature of not requiring new product innovation. The carrier can use its existing product design, simply packaged and marketed in a new way.

## RETIREMENT ACCOUNTS TO FUND LTC

This idea expands on the tax-deferred aspects of retirement accounts (e.g., 401(k) or IRA) by allowing those retirement accounts to also fund LTC services or insurance premiums prior to retirement. This concept is convenient because retirement planning and LTC planning often go hand-in-hand, so it's a natural combination. Plus, it provides a bucket of tax-favored money that an individual could use to fund a LTC insurance policy, helping to alleviate the impact to the individual's cash flow.

Expanding the intended use of retirement accounts could also lead to new insurance product innovation. What if new LTC insurance designs could be built within the retirement account? For example, an insurance carrier could provide \$1-\$3 of LTC insurance benefits for every \$1 contributed to the LTC portion of retirement savings. Employers could also get involved by matching contributions or self-funding the insurance benefit component.

While a convenient combination, this concept would require federal tax law changes. Further, studies have found year after

year that a significant portion of American workers (a third to half, depending on the study) have no personal retirement savings, and an even larger portion has an inadequate amount. This concept would only be beneficial to people who could fund their LTC needs through the account without jeopardizing their retirement.

#### “UBERIFICATION” OF HOME HEALTH CARE SERVICES

As may be obvious from the title, this concept redesigns the home health care provider model after the popular Uber app. While this is not an insurance solution, such a drastic redesign of the provider marketplace could have a real impact on the profitability of existing blocks of LTC insurance. This new service would provide a low-cost means for aspiring home healthcare providers to become appropriately licensed and to “be their own boss.” Individuals needing LTC services, or perhaps the children/grandchildren of the individual, could then request a home healthcare provider with just a push of a button on an app. The app acts as a middleman—connecting independent providers with individuals needing care—and as a means of processing payments.

One key to the success of “Uberfication” would be quality control. A rigorous system would need to be in place to ensure the providers are appropriately trained and held accountable for the quality of their work. The SOA LTC Think Tank<sup>3</sup> has proposed that a nonprofit, government-like entity may be best suited to run such a service. Given the already high amount of fraud in the home healthcare industry, the vulnerable nature of individuals needing LTC services, and some of the negative publicity surrounding the ride-hailing app Uber, this may be the most appropriate solution.

However, this idea may not be as far-fetched as it first appears. In fact, it already exists! *Care.com*, traditionally used to connect parents of young children with childcare providers, has a similar service available for senior care. The website can connect the user to home health care agencies or to individual, independent home health care providers. All of the payment processing occurs through the website. Another app, called TaskRabbit, launched recently as a solution to connect people to perform common household tasks, handyman services, or simply run errands. This app is not designed for senior care, but aspects of it could be considered homemaker services covered under existing LTC insurance policies.

The one aspect of “Uberfication” that these apps are missing is the on-demand nature of Uber, but is on-demand home health care really needed? Something seems to be missing, though, as neither app has garnered anything close to the level of popularity of Uber.

#### A WICKED PROBLEM

The LTC funding gap has been described as “a wicked problem” during several presentations and webcasts this year. I originally thought this might be a good thing (“wicked!”), but the consulting firm Maddock Douglas<sup>5</sup> disagreed, describing “a wicked problem” as something difficult or impossible to solve because of changing or contradicting requirements. Solving one aspect of the problem may actually cause other problems to arise.

This seems like an accurate description of the LTC industry today. Standalone LTC insurance was created as one of the first means to solve the LTC funding gap. However, insurers at the time did not anticipate how future persistency, morbidity, and investment return would unfold on this new product, creating today’s environment of large in-force rate increases and few carriers remaining in the market. Now, the product is more stable, but with it has come an increasingly high price tag, contributing to the decline in sales. Insurers are now looking for new product solutions to meet the growing need for LTC services.

The need keeps growing. Existing standalone and combination LTC insurance products create a solution for a portion of the population, but there is still a huge unmet gap. The optimist in me still views this “wicked problem” as an opportunity—there is a huge market available if only we can figure out how to serve it. ■



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<sup>1</sup> The National Clearinghouse for Long-Term Care Information (<http://longtermcare.gov/>) indicates that someone turning age 65 has a 69 percent chance of needing long-term care services for an average of three years. The American Association for Long-Term Care Insurance ([www.aaltci.org](http://www.aaltci.org)) contains similar statistics. They indicate that someone turning age 65 has a 69 percent chance of needing long-term care services, and 52 percent of individuals turning age 65 will need long-term care services for one year or more. An issue brief from the Center for Retirement Research at Boston College (“Long-Term Care: How Big a Risk?” by Friedberg, et. al) showed that 44 percent of men and 58 percent of women turning age 65 will use nursing home care.

<sup>2</sup> Minnesota Own Your Future (<http://www.mn.gov/dhs/ownyourfuture/>) is a state organization to “help Minnesota prepare for the dramatic increases in the number of people who will be age 85 and older by the year 2030. Many of these individuals will need long-term care.”

<sup>3</sup> View the full report of the SOA’s LTC Think Tank October 2015 workshop at <https://soa.org/Files/Sections/2016-03-long-term-care-think-tank.pdf>

<sup>4</sup> Alzheimer’s Association research center ([http://www.alz.org/research/science/alzheimers\\_prevention\\_and\\_risk.asp](http://www.alz.org/research/science/alzheimers_prevention_and_risk.asp))

<sup>5</sup> Maria Ferrante-Schepis, Luisa Uriarte, and Lauren Schwartz of Maddock Douglas (<http://maddockdouglas.com>) have discussed this during the March 9, 2016 SOA LTC Think Tank webcast and during the March 2016 ILTCI Conference.

# 2016 ILTCI Summary

*This article was composed by the 2016 ILTCI Organizing Committee members.*

The 2016 Intercompany Long Term Care Insurance Conference was held from March 13–16 at the Grand Hyatt in San Antonio. The conference kicked off with our keynote speaker, Ken Schmitt, who talked about messaging and presented us with three key questions to ask when considering our customers:

- What are they saying?
- What do we want them to say?
- How do we get them to say it?

Long-Term Care (LTC) products can be confusing to consumers and sales can be tedious. It is important not only to the individual companies, but also to the support organizations, that we get the correct message out. While bells and whistles may be important, it is the personalized support that we give to our clients that makes us stand out.

The conference theme of “Transforming the Options, Refining the Risk” was carried throughout the conference sessions. Here we provide a synopsis of the key learnings at the conference.

## ACTUARIAL TRACK SUMMARY

The 2016 Actuarial track featured a total of nine sessions including a three part seminar on predictive modeling. A pre-conference session was given on “Data Analytics and Predictive Modeling,” which introduced us to the statistical software, predictive models, and general linear models.

Monday’s “Rate Increase Potpourri” session covered a variety of topics through a diverse panel of six—including consultants, carriers and regulators. The session’s key takeaways included landing spot alternatives, impact of nonforfeiture elections, timely implementation, and regulator perspectives. The “Development of LTC Actuaries” session asked several intriguing questions of the panelists and audience, provoking good discussion about what experiences and skills are most useful to an LTC actuary. The session on “Data Analytics and Prediction Modeling” provided an overview of experience studies, predictive models and regression.

On Tuesday, the day began with “Opportunities from Emerging Demographic and Attitudinal Trends,” a session that walked us through the characteristics of current generations, LTC purchasing trends and technology advances related to LTC delivery. “Actuarial Systems Implementation and Change Management” explored topics that each impact a broad system transformation—model conversion, industrialization, governance and control, and organization structure. .. Details of the changes in one company’s valuation and projection systems were presented, covering the steps employed (preparation, implementation, governance, communication, monitoring, testing, and documentation). The last sessions of the day included two options, “Future of LTC Pricing” and “Stochastic Modeling.” The first provided the history of LTC pricing, sales and current inforce challenges, then discussed some of the current pricing structures that address carrier and policyholder needs going forward. “Stochastic Modeling” provided insight on formulating a first principles model, path-dependent contingencies and some complications that can be expected. The session continued with the modeling of claims—expanding on the challenges and risks.

Two post-conference seminars covered advanced actuarial education. The professionalism course offered an overview of the Code of Conduct, followed by case studies that encouraged thought on how best to address professionally challenging situations. A hands-on seminar, “Data Analytics and Predictive Modeling,” showed how one could use statistical software to assist in building a predictive model. The seminar was a workshop-like concept, and participant feedback was very positive. The ILTCI expects to continue this workshop in future years.

The sessions provided a broad background in many areas of interest to actuaries and other LTC professionals.

## ALTERNATIVE SOLUTIONS TRACK SUMMARY

The Alternative Solutions track produced seven sessions focused on a variety of innovative ways to better address the problems, risks, and costs of financing long-term care. The sessions addressed both product innovations and key issues and options for public and private sector collaboration on solutions.

An important double session presented “hot off the presses” findings from the economic modeling effort for LTC finance reform funded by The SCAN Foundation, AARP, and LeadingAge. We heard from both the sponsoring entities and the experts behind the analytics. Findings from other leading finance reform work from the Bipartisan Policy Center and the LTC Financing Collaborative were also discussed.

In “New Research on LTC Insurance,” preliminary findings from the 2015 study of LTC insurance buyers and non-buyers was presented. This represents the 25th year for this important industry study. Views of the general population with regard to private LTC financing were presented. The second portion of



this session presented preliminary findings from a recent study of LTC insurance claimants, focusing on satisfaction with filing claims, finding care, assisting family caregivers, and the like.

“Beyond Traditional Stand-Alone LTCI” provided a detailed look at some newly emerging product options including short-term care insurance, care annuities, and a non-insurance home care product that helps people find and arrange for home care with a predictable cost.

The “Lifestage LTC Product” session explored design and pricing of an alternative private market product, combining term life and LTC as a viable option for the middle market. The session provided pricing, product, industry, and regulatory feedback on the concept.

In “What Role Should Informal Caregivers Play in Alternative Solutions,” the role of informal caregivers, the challenges they face with and without LTC insurance, and the resources available to them, were discussed.

The track’s final session, “Thought Leaders’ Forum,” was a frank, informative, entertaining and honest “open mic night” with some of the most esteemed and experienced industry experts speaking out on the successes, failures, hits and misses of our industry. They provided insights on key lessons of the past and how they could or should inform moving forward.

#### CLAIMS & UNDERWRITING TRACK SUMMARY

The Claims & Underwriting track produced many exciting sessions on a variety of topics, including that underwriting combination Life/LTC policies is not as easy as simple addition. The “1+1≠2, the Challenges of Underwriting Combo Life-LTC

Policies” session began with identifying the multi-faceted focus when underwriting combination Life/LTC products. The session continued with presenting underwriting and claim statistics, then finished with the presentation of case studies. The session encouraged audience participation in conversation around the following: the challenges while underwriting morbidity and mortality simultaneously; determining the right time to request a consult with the medical director; identifying factors within the policy design that might change or alleviate morbidity and/or mortality concerns at time of underwriting.

A plan of care is one of the building blocks of LTC claim benefits. Carriers have many options in how they create and administer them. In the “POC, Easy as 1, 2, 3” session, the different approaches to the creation of a plan of care were explained: developing in house, using a vendor to create, and/or using other external plans of care (POCs). In addition, the adjudication of a plan of care was examined, including: Does the claim admin system restrict payment to the plan of care? What if you get bills over the plan of care? What if the insured doesn’t agree with the plan of care?

Deciding at what point an insured becomes eligible, due to cognitive impairment, is one of the most difficult of claims decisions. In the “Initial Adjudication of Cognitive Claim” session, the best tools and/or processes for detection of mild cognitive impairment vs. severe were examined. The session sought to give insight to the following questions: Is it a temporary or irreversible impairment? What weight does the onsite assessment have vs. the attending physician or facility records/care notes. Once approved, what is the best approach for follow-up and reassessment?

Undiscovered claims fraud costs the LTCI industry millions each year. The “LTC Claims Fraud - Hindsight is 20/20” session discussed and reviewed three different case studies, which each resulted in substantial losses for the LTC carrier. The presenters analyzed these cases, looked at commonalities between the three cases and suggested analysis and management techniques which, if done earlier in the claims process, might have identified the fraud before it caused a big loss to the company.

LTC insurance claims are non-standardized, complex and difficult to process. The “Claim Standardization & Auto-Adjudication” session looked at trends in data structure and standardization, in order to enable auto-adjudication and straight-through processing. The presenters reviewed current LTCI industry trends on the use of rules-based auto adjudication, and explored the ways data structure and standardization are possible to help LTC insurers become more efficient, more predictable and consistent, and improve the customer experience.

Musculoskeletal disease, whether inflammatory or degenerative, is common in both the LTC applicant and claimant



populations. The second of the two underwriting sessions, the “Medical Directors’ Forum—Musculoskeletal Disease Case Studies,” offered the audience an opportunity to view complex case studies from both the underwriting and the claim perspectives. Through live polling, the audience identified the most concerning risks presented at time of underwriting. These risks were then compared to the risk factors that ultimately lead to claim. The open discussion identified not only that the cause of claim often is not related to any underwriting concern, but also that without a strong understanding of both degenerative and inflammatory musculoskeletal disease, subtle statements at time of underwriting may be deemed insignificant when, in fact, they indicate significant LTC claim risk.

Hiring experienced Long-Term Care claim professionals is a difficult task as the population is small and specialized. The “Developing Adjudicators: Clinical vs. Non-Clinical” session examined, through a live debate, the various methods of hiring and developing Long-Term Care claim adjudicators. The panelists encouraged audience participation in discussions around examining which individuals succeed in these roles, as well as how to develop their skills and increase their level of expertise.

#### COMBINATION PRODUCT TRACK SUMMARY

For the second year, the ILTCI conference had a Combination Product track. A series of sessions were produced to provide both top-down and bottom-up views regarding the current status, opportunities and challenges of the combination product industry. The sessions covered topics on sales and marketing, claims and operation, administration, legal and compliance, product development and actuarial considerations.

“What’s on the Minds of Combo Product Thought Leaders” was the first opening session for the track. During this session, thought leaders around the industry discussed the surge in linked

product sales in the last few years.. Participants were privy to the inside story on what led to the development and successful launch and distribution of the top linked products currently on the market. Learnings included what went right and what could have been done better; product development challenges and how they were overcome. Session participants walked away with ideas related to future market growth and where the experts see this product in the future.

The second session, “Traditional vs Linked Benefits . . . A Show-down at the Alamo,” was held in a debate format. Attendees enjoyed an informative and stimulating debate between two passionate advocates for their preferred LTC planning solution. Two heavyweight, LTC insurance champions battled this out in the universe of ideas. The audience had a chance to take sides as to which LTC planning solution thought is the best for consumers and carriers.

In the panel discussion, “Comparing the Relative Value to Consumers of Various Long-Term Care Insurance Solutions,” top actuaries and sales and marketing professionals examined the confusion created in the marketplace due to the large amount of available LTC planning solutions., The panel members looked to answer questions such as: What are the quantitative variables and attributes facing product actuaries as they design new alternatives? What are the qualitative differences and features marketing and sales professionals are looking for when they analyze and recommend various product choices for the consumers that they serve? Is there a place for multiple product solutions, along a continuum, as consumers cope with a growing universe of LTC planning solutions?

“Company & Distributor Strategies to Integrate Combo Products in Daily Activity” provided a deep-dive into how brokerage general agents integrate new LTC planning solutions into their day-to-day marketing and training activities. The audience discovered what successful distributors and insurance companies are doing to get traditional LTCI and life insurance advisers to adapt their practices to sell linked benefit products—what is working and why?

“Combo Product Concepts for the Mid-Market” focused on the underserved middle market. We’ve solved the LTC planning conundrum for many affluent Americans, but along the way, we seem to have forgotten the mass middle market. In this session, some of the greatest minds in LTC insurance product development and marketing turned their attention to mid-market hybrid and combo planning solutions. This all-star panel discussed what’s working now and provided a glimpse into what may be on the product development blackboard that will help those with the largest unmet LTC liquidity needs.

The last session in this track, “Combo Products—Open Kimono” was a reality check for much of the audience. The decision to get

into the combo business comes down from the corporate suite. This is when the vision evolves into work. Panelists described the challenges involved in taking an idea and turning it into a marketable and profitable venture for their company.

#### FINANCE, MANAGEMENT & OPERATIONS (FMO) TRACK SUMMARY

The Finance, Management & Operations (FMO) track sponsored five engaging sessions covering a broad range of topics. The first session, “LTC Risk Management, Auditing and Financial Controls,” was designed to appeal to LTC insurance company financial management employees. An actuarial auditor from Ernst & Young discussed the three lines of defense risk management framework, how external audit firms approach the process of identifying and quantifying financial risk exposures at their client companies, and then assist them to mitigate the risk. In addition, an internal company director of LTC reporting and analytics shared several real life examples of how analytical tools and internal company auditing and financial controls resources can be utilized to identify and reduce instances of claims leakage and improve operational efficiency and effectiveness.

The session challenged participants to think differently about the ways in which we approach language, graphics, and statistics in our efforts.

The other session designed to appeal to financial leadership personnel, “LTC CFO Round Table,” was brought back in 2016 by popular demand from the prior year. In this year’s session, the CFO of a large LTC reinsurer and administrator, and the LTC CFO and chief actuary of a large individual LTC writer shared their perspectives on a wide variety of business management topics with the 2016 FMO track chair, who is an actuary by trade and the LTC line of business head for a large individual LTC insurer.

In the management session called “LTC Policyholder Wellness and Other Claims Improvement Initiatives,” an internal company employee with a geriatric clinical nursing care background spoke. She is responsible for developing wellness programs and claims improvement programs for her company. She updated the audience on possible ways to improve the trajectory of claims relating to Alzheimer’s Disease, cardiovascular disease, and falls and injuries and discussed how care coordination services may assist insurers and their insureds to mitigate the overall cost of claims when they occur. Meanwhile, an actuary from a leading

consulting firm discussed how to monitor and measure the effectiveness of any claim improvement initiative so that the insurer can be confident that its investment in the initiative is well spent.

In the interactive and literally eye-opening, session called “Eye of the Beholder - Experience the View from Your Customer’s Perspective,” attendees donned various types of visual impairment glasses and then attempted to complete written claims paperwork to simulate the difficulties our potentially visually impaired insured population may experience in transacting business. In addition, attendees were asked to insert ear plugs and then attempt to converse with others to simulate the experience our potentially hearing impaired insureds may have when interacting by telephone. Through these exercises, the audience gained first hand appreciation of some of the impairments of our LTC insured population, and the insights gained can be used by operational leaders to improve the customer experience for policyholders and their families on a daily basis. This session also discussed claims and customer service employee recruitment, training and development and how to develop and implement a quality assurance program for your operations team with a particular focus on monitoring and measuring commitment to continuous improvement and improving the customer experience.

In the last session, “To Move or Not to Move,” a panel composed of two TPA executives and a large carrier executive discussed the increasing pressure each year to manage a LTCI block to maximize performance and efficiency. The discussion included solutions to resource constraints, performance challenges, and the complexity of LTCI administration. The session contained information regarding the hurdles, potential benefits, risks and risk mitigation of outsourcing the total process, partial process and evaluating the vendor/partner relationship. The panelists presented multiple points of view in a professional manner and provided a game plan for the decision process, capabilities of a TPA, the selection process, cost considerations, compliance issues, and overall partner flexibility.

#### LEGAL, COMPLIANCE & REGULATORY TRACK SUMMARY

The Legal, Compliance and Regulatory track presented a variety of sessions including “Anatomy of a Rate Increase.” In this session, Debbie Ellingboe, Robert Eaton, and Michael Rafalko provided an in-depth look at rate increase issues. The presentation included discussion of regulator-related issues, actuarial perspectives, and legal risk. Ellingboe kicked off the discussion by getting inside the head of a regulator. She reminded the audience of regulators’ key concerns, and the importance of addressing those in order to have meaningful dialogue with regulators. She also provided useful tactics for reaching creative agreements with regulators.

Robert Eaton then discussed, as he amusingly labeled it, “the unmentionables,” *i.e.*, the actuarial aspects of a rate increase. Eaton first provided a 101-style overview of rate increases from an actuarial perspective. He then described policyholder benefit options in place of full rate increases, the importance of the time value of money, and the need to maintain compliance through follow-up certifications with the states. The session concluded with a discussion on trends in rate increase regulation.

Mike Rafalko then discussed steps for reducing the risk of legal exposure throughout the rate increase process. Rafalko first provided some historical background, describing the early lawsuits, followed by a period of some success for the industry. He explained that the theories of liability have shifted, and no longer focus solely on the contract; rather, recent actions have taught that there must also be clearly documented and self-explanatory compliance with the law. In addition, Rafalko emphasized the importance frequent and professional communications with insureds and regulators. The session concluded by circling back to benefit downgrade options as an alternative to a flat rate increase.

The session titled “Between a Rock and a Hard Place: Compliance” focused on compliance conundrums in which the carrier has to either make the best of a number of options that each have downsides, or must make a decision where there is very little or no regulatory guidance. Long-term care insurance is particularly rife with these types of conundrums given the patchwork quilt of regulations that govern the product on both the state and federal levels. This panel brought together three speakers with three different roles in the industry—Jane Brue at LTCCG, Patrick Reeder and Genworth, and Nolan Tully at Drinker Biddle & Reath LLP—to offer their views on how best to navigate these tricky waters.

The presentation focused on a number of specific compliance problems, and for each one the speakers walked through, in a collaborative way, the thought process that they would go through when dealing with that specific issue. Some of the specific issues discussed included: (i) regulations concerning notifying insureds about the pending lapse of coverage; (ii) circumstances where states have issued requirements by either DOI bulletin or by statute, but there are no accompanying regulations; (iii) external review procedures; (iv) compliance with the licensure requirements of the HCSCPA in California; (v) compliance with Medicaid/Partnership laws; and (vi) responding to specific, targeted questions from state regulators where there are potentially conflicting sources of authority. The panel featured lively participation among the panelists and from the audience. At the end, while the questions that were discussed did not have “right answers,” the group was able to spend time working through the problems and examining the process for crafting the best responses to these difficult issues.

The “Interstate Compact: Leveraging the Filing Process for Products that Serve Chronic Illness & LTC Needs” session was presented at the 2016 ILTCI by Karen Schutter (Interstate Insurance Product Regulation Commission), Robert Eaton (Milliman), and Patrick Reeder (Genworth). The presentation was designed to provide the audience with an overview of the Interstate Compact and how the Compact could help long-term care insurance professionals when seeking approval of insurance forms.

The panel discussed how the Interstate Compact, which has been enacted by 39 states for LTCI products, can drastically reduce the work needed to receive approval for policy forms. The Compact can be utilized for non-LTCI products, such as accelerated death benefit riders, and traditional LTCI products. For LTCI products there are only three required submissions: 1) policy/riders/rates/outline of coverage, 2) self-certified forms, and 3) advertising forms. The panel also discussed what happens once policy forms are reviewed and approved.

Finally, Patrick Reeder laid out the benefits of the Interstate Compact for LTCI companies. The presentation highlighted that the Compact allows companies to submit fewer forms, receive quicker approvals, and limit the number of product variations.

In the session titled “Litigation Update,” Stephen Serfass, partner at Drinker Biddle, and Joshua Akbar, partner at Dentons, returned to present an update on LTC insurance litigation trends, discussing rate increase litigation, and claims and facility based litigation. The 2012 jury verdict in *Hull* foreshadowed an uptick in LTC insurance (LTCI) class actions. Since *Hull*, litigation in the LTCI segment has grown significantly and plaintiffs’ theories for recovery continue to grow in sophistication. And LTCI now has the attention of well-connected plaintiff’s attorneys that have explored and pushed forward innovative issues and theories for litigation.

Serfass and Akbar presented on several recent cases to identify emerging trends and key issues facing the LTCI community. As just one example, the speakers highlighted administrative fora as an emerging battleground for insurers on rate increase issues, noting that administrative challenges to rate increases are becoming more adversarial and facilitating that discussion with two case studies, *Driscoll* and *Hatfield*. They also highlighted recent developments in LTCI class action litigation, framed by two recently certified LTCI class actions, *Sanchez* and *Gardner*. Finally, the speakers discussed trends in individual litigation, including a case study on continuing care retirement communities and an update on the continued debate on the meaning of “continuing inpatient basis,” framed by a discussion of *Pistoresse* and *Gutowitz*.

Privacy is a hot topic and Angela Rodriguez-Hoteling, vice president of compliance & regulatory affairs at MedAmerica, and Steven Brogan, associate at Drinker Biddle, presented on taking



a proactive approach to privacy compliance in preparation for the long-anticipated OCR HIPAA audits. The presenters warned that audits were coming and, just days after their presentation, OCR announced that it has officially launched the long-anticipated 2016 Phase 2 HIPAA Audit Program. During this focused privacy session, Brogan and Rodriguez-Hoteling discussed what covered entities and business associates should expect from OCR's Phase 2 program, including data gathering exercises, targeted "desk audits" (*i.e.*, reviews of organizations' privacy and security compliance policies and procedures), and more comprehensive on-site audits.

Rodriguez-Hoteling offered an in-house perspective and discussed how organizations can build a culture of compliance. She discussed the five pillars of HIPAA privacy compliance, including (1) robust information and data use privacy and security policies; (2) an understanding of your organization's data infrastructure; (3) tools for risk identification and mitigation; (4) clear communication and expectations for vendors/business associates; and (5) training and education. Her experience and insights offered audience members practical tips and a structure to achieve the culture of compliance necessary to build an effective compliance program (and prepare for the forthcoming OCR audits).

The "Market Conduct Exams" presentation addressed all aspects of both targeted and general examinations in the LTC space, including preparing for the examinations, exam follow-up, and potential fines and enforcement issues that may arise. The presenters recommend that companies properly assess the scope and timeframe of any exam notification letter, immediately working with different areas in the company to assess what information is requested and what expertise is needed. This includes open lines of communication, pre-exam meetings, and coordination on document production and any written responses for consistency and completeness. With regards to document production, companies should consider a platform or portal to house the documents to streamline the collection and ensure diligent records.

For post-exam issues, companies should thoughtfully respond to written inquiries, though remain cautious when acknowledging errors. Companies should also engage internal and external counsel to evaluate any litigation risk and properly understand the regulatory requirements. If there are any disputes, fines, or enforcement actions, companies should be willing to escalate issues internally but also offer creative (but realistic) compromises to resolve issues. In closing, the presenters noted current trends in the industry, including an increase of contract examiners and multi-state exams, with focus on issues such as underwriting guidelines, denied claims, agent licensure, and advertising.

"Navigating Regulatory Issues" was a session presented by Stephanie Duchene of Dentons US LLP, Frederic Garsson of Saul Ewing LLP and Stacy Koron of Milliman.

The presentation had a nice flow to it, showing the path of a product during the regulatory life cycle. Starting with the fledgling product and the issues associated with it (development, marketing, sales) and working towards issues with rate increases, claims, and possibly litigation, the session made sure to cover each stage of the cycle. The first stages of product development (including innovation and fresh marketing ideas) are often times stifled by regulatory requirements, including form filing and approval, rating and underwriting, and review of the suitability of marketing and sales practices from a regulator standpoint. This presentation demonstrated some valuable ideas on how to overcome what can be seen as stifling regulatory practice and focus on where innovation and compliance mix—through combination products (featuring accelerated death benefit riders) and worksite sales.

The presentation also spent some time addressing rebating practices, both generally and from a state-specific view (for Florida and California). There was also an in-depth discussion of marketing and sales practices as they relate to payments to non-licensees (including positive and negative commission states), LTC compensation limitations and LTC Rate Increase

limitations. As is a big concern in the industry, the speakers delved into rate increase limitations from a regulatory standpoint, discussing those states that have sought to impose rate increase caps (and the regulations for the same).

Wrapping it all up, the speakers presented on how best to handle scrutiny from regulators and provided a list of some of the issues to pay closer attention to. Like many legal advisors would recommend, it is always better to mitigate issues with better communications, and to address the increase in recent complaint activity with a quick and thorough approach. The presentation also set forth the risks associated with regulatory scrutiny, which is a key component of understanding how decisions at a lower level can affect the companies as a whole (such as imposing penalties, bad press, complaints, and interplay with other rate filings). Lastly, the presentation gave a good overview of the Filed Rate doctrine and how it can assist companies in avoiding liability where filed rates (approved rates) are upheld.

#### MARKETING, SALES & DISTRIBUTION TRACK SUMMARY

The 2016 Marketing, Sales, and Distribution track's mission was to explore the many opportunities in front of the LTCI industry, with an emphasis on tactical methods that can be leveraged to tap into those opportunities. "Post-Sale Marketing" took a look at the state of relationship management after the sale. Specifically, what marketing and sales opportunities can be uncovered by leveraging post-sale communications as an important customer touch point. The session examined case studies of successful post-sale initiatives that led to referrals, cross-selling, and brand loyalty.

"Selling LTCI Tomorrow" explored how shifts in technology and supply chain inefficiencies would transform the way in which LTCI was distributed, focusing on worksite sales as the most significant opportunity. Panelists shared examples of how leveraging technology combined with concise sales guidance can help achieve scalability in that market, as well as ways in which the industry might apply those principles to other disciplines, such as individual sales.

There has been a sea change in marketing across a number of products and services over the past decade—the shift from outbound to inbound marketing. In "The Advent of Inbound Permission-Based Marketing," the panel focused on how increasing ineffectiveness of cold outreach has necessitated a new paradigm in sales and marketing based on the distribution of thought leadership and the cultivation of inbound leads (such as a customer downloading a resource from a vendor's website). Examples of successful implementation were given, focusing on the instant feedback that marketers can gain from tracking results.

Public awareness of LTC planning and LTCI is a perennial topic of interest at the conference. "Public Awareness and LTCI" examined both government- and industry-backed efforts, discussing the history of such campaigns and why they were or were not successful. Inconsistency in funding and support was highlighted as the biggest headwind to implementing a successful campaign. The panel then surveyed successful life insurance campaigns as a benchmark for the LTCI industry to strive towards.

Additionally, the track curated the closing general session, "It's Not Me, It's You: A Consumer View of LTCI," which took a look at the LTCI sales conversation from the perspective of behavioral economics and social psychology. Jeremy Pincus and Luisa Uriarte examined the fundamental disconnect between our sales and marketing rhetoric vis-à-vis consumer preferences. The session challenged participants to think differently about the ways in which we approach language, graphics, and statistics in our efforts, by taking insights in consumer behavior into consideration.

#### TECHNOLOGY TRACK SUMMARY

The Technology track presented and discussed the opportunities and challenges for our industry regarding a migration towards business process technologies and patterns currently being leveraged in other industries. We dove into the details regarding a sound eSignature approach and the importance of process with technology being a secondary factor. We discussed the need to support the diverse mobile device environment and presented the values provided with different approaches. And we presented and discussed how big data analytics are being leveraged today in other industries and drew parallels to our own, and painted a picture as to how disruptive this could be.

Planning is already underway for the 2017 ILTCI Conference to be held at the Hyatt Regency Jacksonville, Florida from March 26–29 and we hope you are marking your calendars to attend. Copies of the sessions mentioned in this article can be found at <http://iltconf.org/>.

*The introduction and closing sections for this article are provided by Conference Chair Denise Liston, vice president with LifePlans, Inc, and Conference Co-Chair Mike Rafalko, with Drinker Biddle & Reath. Track chairs provided session summaries on their respective tracks: Peter Sutton and Robert Eaton for actuarial; John O'Leary and Eileen Tell for alternative solutions; Jen Vey, Mark Beagle and Michael Gilbert for claims & underwriting; Linda Chow and Barry Fisher for combination products; Nolan Tully and Mike Gugig for legal, compliance & regulatory; Loretta Jacobs and Sharon Reed for finance, management & operations; Alex Ritter and Tom Riekse for marketing, sales & distribution; and Ken Liebow and Jim Ferrell for technology. ■*



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## Save the Date

Registration for the 2017 Living to 100 Symposium will open soon. This prestigious event on longevity brings together a diverse range of professionals, scientists and academics to discuss:

- How and why we age;
- Methodologies for estimating future rates of survival;
- Implications for society, institutions and individuals;
- Changes needed to support an aging population increasing in size;
- Applications of existing longevity theories and methods for actuarial practice.



# A Response to Recent Lapse Research

By Claude Thau

The Boston College Center of Retirement Research (BC CRR) has published articles relating to long-term care insurance (LTCI), including a November 2014 study, “Long-Term Care: How Big a Risk?”<sup>1</sup> and an October 2015 study, “Why Do People Lapse Their Long-Term Care Insurance?”<sup>2</sup>

Copyright for these studies belongs to the Trustees of Boston College, Center for Retirement Research. The researchers for the 2014 study were Leora Friedberg, Wenliang Hou, Wei Sun, and Anthony Webb.<sup>3</sup> Hou, Sun, and Webb were again the researchers for the 2015 study. The research was supported by the National Institute on Aging.<sup>4</sup>

These studies make some nice contributions and I present my comments below.

The 2014 study:	Observations
Includes valuable information about nursing home usage	
Observes that there are many very short needs for LTC.	Nearly 90 percent of LTCI policies issued currently have a 90-day elimination period (EP). For policies with a 90-day or longer EP, needs of less than 90 days are irrelevant unless the policy’s EP was satisfied by a previous need. Statistics indicating that 70 percent of 65-year-olds are likely to need LTC overstate the need for LTCI. The appropriate question is “what percentage need significantly more than 90 days of care?”
Correctly indicates that the reason to buy LTCI is the risk of not being average.	People often ask about the “average length of stay.” As noted above, short stays are largely irrelevant to LTCI because of the EP. Approximately 50 percent of 65-year-olds will need care for one year or longer. Based on my past analysis of SOA data, such people average between 4 and 4.5 years of needing LTC.
Seems to support buying small monthly maximums	Small monthly maximums can provide valuable home care and asset disregard for middle class people who might rely on Medicaid for eventual NH care.

The 2015 study highlights that even a low annual lapse rate results in many people lapsing their policies over time. It also raises meaningful questions about why people lapse their LTCI policies.

Unfortunately, these studies published conclusions that I and other LTCI professionals consider unjustifiable. When asked by several people to comment on these studies, I engaged the researchers to try to assure my comments are fair and intelligent. I contacted the researchers in May 2015 regarding the 2014 study and in November 2015 regarding the 2015 study and I can report the following progress:

1. The researchers intend to update their 2014 study to address its reliance on rehabilitation data. It is not clear whether the revised paper will clarify or modify other information which concerned LTCI professionals.
2. On May 13, 2016, after considering my concerns and speaking with Marianne Purushotham and Cindy MacDonald (experts on the SOA lapse studies), the researchers published a brief revising their 2015 study. The researchers’ brief has bridged our differences as to lapses, but their comments about cognitive lapses still seem to be unjustified.
3. The researchers have stated that their future papers regarding LTCI will be vetted with LTCI industry experts prior to publication.
4. New related research is being contemplated by the SOA LTCI Section Council.

## BC CRR’S CUMULATIVE LAPSE RATE FINDING

1. The October 2015 study stated that 33 percent of men and 38 percent of women who have LTCI policies at age 65 lapse them. The new brief states that more than 27 percent of men and more than 29 percent of women who *buy* LTCI policies at age 65 lapse them. Thus, the researchers have concluded that their 2015 study overstated lapse rates in the following meaningful ways:
    - a. The researchers were unaware that the SOA published new, more accurate data after their initial analysis but before the 2015 paper was published.
    - b. Although their original statement related to everyone who purchased a policy before age 65 and still had it at age 65, they had applied new business lapse rates for everyone in their projection. I believe their study would have been better served had they adjusted to apply lapse rates consistent with an inforce block, but they chose to restate the population to be consistent with their new business lapse assumption.
- As a result of the above changes, I estimate that the researchers’ original paper overstated the lapse rates for 65-year-olds by nearly 50 percent.
- c. The researchers now assume a first year lapse rate of 4.7 percent. The level annualized equivalent of their lapse



assumptions for years 1–5 is 2.5 percent and the level annualized equivalent to their lapse assumptions for policy years 6+ is 1.3 percent. From purchase at age 65 to end-of-life, the equivalent annual lapse rate is 1.7 percent.

2. I applaud the researchers for adding the following acknowledgment in the body of their new brief: “The Society of Actuaries, which publishes the data used to produce these estimates, cautions that actual lapse rates are likely to be lower because some individuals who have died may be incorrectly coded as having lapsed.”

The caveat indicates that the researchers’ new conclusions may still be overstated due to misreported deaths. On the other hand, they may be overstating mortality and the SOA data does not reflect partial lapses. Readers may wish to do more analysis to judge whether my “50 percent” estimate is accurate or whether the researchers’ current 27 percent and 29 percent figures are correct, as applied.

3. I fully agree with the researchers’ statement “Even so, lapses are an important issue.”
4. For readers who may be unfamiliar with the issue of misreported deaths in lapse studies, consider a couple who buy LTCI policies. When the first spouse dies, the survivor may contact the insurer to explain that their spouse died, hence premiums will be paid prospectively only for the survivor’s policy. When the survivor dies, most likely premiums cease with no explanation. When premiums stop with no explanation, past practice has been to code the termination as a “lapse.” Recent SOA studies report lower lapse rates than prior studies because participating insurers are increasingly doing additional research to correct records which were misclassified as “lapsing.” Despite these efforts, the SOA, as pointed out by the researchers, still has good reason to believe that

its ultimate 1.3 percent lapse rate is overstated with regard to policies terminated by lapse. (Note: technically-inclined readers might like to consider that the miscoding of deaths indicates that more than 47 percent of the lapses occur in the first five years.)

5. Not surprisingly, the researchers identify that many lapses occur because the “policy has become unaffordable.” Because people purchasing LTC products today have less exposure to premium increase risk, the cumulative lapse percentage of 65-year-olds purchasing today is likely to be lower than the 27 percent and 29 percent figures from these studies. A recent LTC Pricing study, sponsored by the SOA’s LTCI Section, to be published in 2016, indicates that, in 2014 pricing, the actuaries’ average ultimate lapse assumption was 0.7 percent (as opposed to the 1.3 percent used by the researchers).
6. The researchers continue to provide inconsistent definitions of “retention rates” on page 1 of the new brief and continue to base their Table 1 on the earlier SOA data. The first definition is “the percentage of policyholders who *do not* lapse,” whereas the second (correct) definition is “the percentage of policies still in force.” The researchers conclude that “retention rates remain relatively low, which means lapse rates are relatively high.” However, the vast majority of policies terminate due to death not lapses (and terminations also occur because of benefit exhaustion and exchanges). Hence, the retention rate would trend toward zero even if no one lapsed!

#### BC CRR’S FINDING THAT COGNITIVE IMPAIRMENT STIMULATES LAPSES

1. The researchers’ introduction continues to state “people who subsequently use care are more likely to lapse” and “two types of individuals are more likely to lapse: 1) those with low cognitive ability, who may lose the capacity to manage their finances; and 2) those with lower incomes and less wealth, who may find that their policy has become unaffordable.”

On page 4, the researchers continue to state “Cognitive impairments both precipitate lapsing and are predictive of subsequent care use.”

In its conclusion, the researchers state, “Third, and importantly, the study finds that lapses are common among the cognitively impaired, perhaps reflecting poor financial decision-making. The consequences of lapsing are significant, as those who lapse are also more likely to subsequently use long-term care.”

2. The researchers acknowledged in a foot-note that some critics believe the Health and Retirement Study (HRS) data on which it relied is inaccurate. Unfortunately, the researchers did not address the fundamental weaknesses of a thesis that lacks credibility, is based on unreliable data and does not consider the possible impact of erroneous HRS responses.

3. The researchers inferred that a person lapsed LTCI if, in 2002, they responded positively to a question asking if they have LTCI, but responded negatively in either 2004 or 2006. The researchers found that people who had cognitive impairment between 2006 and 2012 were more likely to be in their “inferred lapse” group. So they made a second inference — that the people had been cognitively impaired when they “lapsed” their policy. The researchers concluded “that lapses are common among the cognitively impaired.”
4. While that theory has some superficial appeal, it does not stand up when carefully considered. First, I’ll clarify the researchers’ thesis, then provide what I believe to be a more realistic explanation of their data.
5. The researchers posit that people who had cognitive issues in 2006–2012 already had cognitive deficits in the 2002–2006 period, which:
  - were not bad enough to justify being on claim status;
  - did not interfere with their ability to answer the comprehensive HRS survey in either 2002 or later;
  - in particular, did not lead to any false positives to the HRS LTCI question in 2002 nor any false negatives in 2004 or 2006;
  - yet were severe enough to cause them to lapse valuable LTCI, and
  - that they lapsed their policies despite the Third Party Notification and Unintended Lapse safeguards.

Is it reasonable that the cognitive conditions were so mild that they did not interfere in their accuracy answering HRS questions (and did not qualify for benefits under the policy), yet were sufficient to cause them to not pay a critical premium and that their third party (most often a child) took no action?

6. My personal theory is that inaccurate HRS responses could invalidate the researchers’ conclusions.
  - a. The researchers report “23 percent of those using care in 2006–2012 lapsed their policy in the preceding four-year period, while only 16 percent of non-care-users lapsed.”
    - i. As noted above, the first half of their paper, using SOA data, is built on assumptions that people who buy at age 65 average 1.7 percent lapses per year for the rest of their lives and after five years, the annualized equivalent lapse rate is 1.3 percent.
    - ii. The effective annual prospective lapse rate of *existing* policyholders age 65 will be lower than 1.7 percent because nearly all of them are past the high first year lapse rates.

- iii. From the HRS data, the researchers infer an annual lapse rate about 3 times the lapse rate from the most reliable source that exists (SOA). Is that not a major red flag?

- b. As I understand it, the HRS study involved about 10,000 individuals age 65+ in 2002. The researchers pared that down to 824 people with fully usable data who they believed had LTCI in 2002. So they intuited fewer than 150 lapses over the four-year period.

If 1 percent of the people in the HRS study erroneously said they had LTCI in 2002 but correctly reported in either 2004 or 2006, BC CRR’s lapse data would have included about 100 false lapses. Removing those false positives would have dropped their “observed” lapses to 50, causing their “observed” lapse rate to fall in line with the SOA data. (It would really take noticeably less than 1 percent to have such effect because people could have responded inaccurately in either 2004 or 2006 as well as in 2002.)

Does it seem reasonable to put credence into lapses when two-thirds of them might easily be misstated and, indeed, probably are misstated because they result in an unbelievably high reported lapse rate?

- c. The researchers posit that errors balance out because some people may have falsely stated that they had no LTCI policy in 2002, then lapsed later. Such errors are possible, but I estimate that their impact is minor. I believe that it is unlikely that a recent buyer would misstate. Hence most people who erroneously denied having coverage should have only a 1.3 percent annual lapse likelihood (the researchers’ effective annual lapse assumption for policy years 6+), which produces only a 5 percent chance that false negatives in 2002 would have lapsed by 2006 (calculated as  $1 - .987^4$ ).

If 1 percent erroneously reported a false negative in 2002, the researchers would have missed about five real lapses, whereas an equal number of false positives in 2002 produces 100 imaginary lapses. An error of five does not balance an error of 100.

- d. It seems ironic that in footnote 7, the researchers brush off two earlier studies (at least one of which concluded that lapsers are *less likely* to enter a nursing home) because their conclusions were based on “misreporting of insurance coverage in earlier HRS waves.”

7. An important new footnote (10) explains “One caveat is that the analysis assumes that all respondents answered the question about lapsing correctly. Misreporting by respondents is always a possibility for self-reported data, and some critics have argued that individuals may be more likely to misreport

a long-term care insurance lapse than other information such as their income, wealth, or family characteristics.”

However, the HRS survey does *not* ask the respondent if he/she has lapsed a LTCI policy. The researchers infer a lapse based on the following question:

“Do you have any type of health insurance coverage, Medigap or other supplemental coverage, or long-term care insurance that is purchased directly from an insurance company or through a membership organization such as AARP (the American Association of Retired Persons)?”

It then asks “What kind of coverage do you have?” The HRS offers the following five alternatives: basic health insurance; Medigap; other supplemental health insurance; long-term care insurance; other (specify). The HRS asks the respondent to check all that are appropriate.

Later in the survey, the respondents are asked the same questions about their partner. I don’t know if the researchers analyzed consistency between responses regarding self and those about a partner as a clue to accuracy. Obviously, either the responder or partner might have LTCI without the other having LTCI, but often either both spouses have LTCI or neither spouse has LTCI.

The researchers’ caveat acknowledges potential false negatives in 2004 or 2006. My bigger concern is that many people probably answered incorrectly in 2002 (a false positive).

## PROPOSED RELATED RESEARCH

As noted above, the researchers raised a good question regarding cause of lapses. Although their conclusions seem unjustified, the question is worth consideration.

Eileen Tell and I are mapping out potential research to determine the efficacy of Third Party Notification and Unintended Lapse provisions in avoiding lapses due to cognitive impairment. We also intend to ask about methods which make or could make such provisions more effective.

At the request of a regulator, we also intend to ask about carrier communications with paid-up policyholders to minimize the risk that the paid-up policy is forgotten.

The SOA LTCI Experience Committee is intending to improve cause of claim data in the next release. We could then consider if the cause of claim data provides insight as to whether cognitive claims are “missing” from the SOA data in a way that would indicate that some cognitive lapses are occurring.

## CALL TO ACTION

BC CRR’s 2015 report was widely reported. People who read that report think that LTCI policyholders are 50 percent more likely to lapse than data suggests (and as noted above, today’s buyers are even less likely to lapse).

They also are likely to think people lapse because of being cognitively impaired. They may falsely conclude that insurers take advantage of these policyholders and that regulators do nothing about it.

I urged the researchers to mention the safeguards against cognitive lapses. They responded, “We are aware of these provisions but are unable to incorporate their effects in our analysis.” Although I told them I was not asking that they “incorporate their effects” but rather that they simply acknowledge the efforts, they chose, once again, not to mention those provisions in the revised brief.

The researchers’ November 2014 paper, “Long-Term Care: How Big a Risk?” essentially concludes that many more people need LTC than was previously thought, but that the need lasts a short time, so LTCI is not valuable. My primary concerns are that the researchers’ analysis is based primarily on rehab, which of course is common and short, but has nothing to do with LTC. Moreover, it is not clear that they have included home care and assisted living facility care in their analysis.

My interaction with BC CRR highlights the value of actuaries fostering dialogue with professionals performing related work. Timely discussion can contribute to clearer conclusions and more accurate consensus. ■



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<sup>1</sup> Long-Term Care: How Big a Risk?, Friedberg, Hou, Sun, and Webb. [http://crr.bc.edu/wp-content/uploads/2014/11/IB\\_14-18\\_508\\_rev.pdf](http://crr.bc.edu/wp-content/uploads/2014/11/IB_14-18_508_rev.pdf)

<sup>2</sup> Why Do People Lapse Their Long-Term Care Insurance? Hou, Sun, Webb. [http://crr.bc.edu/wp-content/uploads/2015/10/IB\\_15-17.pdf](http://crr.bc.edu/wp-content/uploads/2015/10/IB_15-17.pdf)

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<sup>4</sup> Why Do People Lapse Their Long-Term Care Insurance? Hou, Sun, Webb. [http://crr.bc.edu/wp-content/uploads/2015/10/IB\\_15-17.pdf](http://crr.bc.edu/wp-content/uploads/2015/10/IB_15-17.pdf)



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