



# Partnering Business Operations With Clinical Expertise in Long-Term Care Insurance Claims

By Dr. Anitha Rao

As the life expectancy of Americans continues to increase from advances in medicine, the average age of a Long-Term Care Insurance (LTCI) carrier's block also continues to age. With increasing life expectancy comes increased incidence of cognitive conditions such as dementia, stroke and Parkinson's. The World Health Organization estimates the total number of new cases of dementia each year worldwide is nearly 9.9 million, implying one new case every three seconds. The number of people with dementia is expected to increase to 82 million in 2030 and 152 million in 2050.<sup>1,2</sup>

Today, at least 50 percent of all LTCI claims are for cognitive conditions such as dementia.<sup>3</sup> Original policy language does not provide methods to assess "severe" cognitive impairment in a standardized manner and claims operations teams will face additional pressure to capture relevant, timely and accurate neurological data and to employ guidelines to make appropriate claims adjudication decisions on cognitive claims.

## OPPORTUNITIES FOR CARE OPTIMIZATION AND BEST PRACTICES

Care optimization is a concept very applicable to LTCI. In health insurance and managed care, quality metrics and evidence-based guidelines exists to bridge physicians with the business operations of insurance companies. These joint business units bring together clinical and operational teams to assess the medical necessity, appropriateness and efficiency of health care services, procedures and benefits, and ensure these issues are reflected under policy language.

An example of a typical quality guideline may ask a patient to complete an X-ray for knee pain before ordering a more expensive test such as a magnetic resonance image (MRI). This practice leverages evidence-based protocols and allows the insurance company to "rule out" any obvious knee trauma before approving payment for a more expensive test, in this case the MRI.



Figure 1  
The Partnership Between Clinical Expertise and Business Operations in LTCI Allows for Care Optimization and Best Practices During Claims Processing



## STANDARDIZING CLAIMS PROCESSING WITH ESTABLISHED GUIDELINES

To aid in the diagnosis of dementia as well as to help doctors understand how to rule out other issues, the American Academy of Neurology, Centers for Medicare and Medicaid, and the American Psychiatric Association have established quality guidelines

and best practices to help clinicians accurately assess a patient for severe cognitive impairment.

These guidelines also show the importance of being able to “rule out” treatable conditions. A multitude of conditions present as dementia, but are actually conditions arising from metabolic or infectious causes. For instance, it is common to see patients with urinary catheters develop urinary tract infections that may make mild cognitive impairment appear severe. This type of temporary exacerbation of a cognitive problem is known as delirium.

Clinical research has shown that these guidelines are seldom followed and only 15 percent of physicians employ these established guidelines and protocols, fueling a large gap in care.<sup>4,5</sup> One of the contributing factors is that clinicians are time-constrained in a fee-for-service model and don’t have the training nor the expertise to operationalize dementia best practices in their clinic. Furthermore, neurology is an elective during medical school and there is a systemwide shortage of neurologists across the United States that makes accessing a guideline-based diagnostic approach uniquely challenging and especially relevant to the LTCI market.

Many carriers and TPAs turn to medical records to obtain relevant information, but often describe this experience as “finding a needle in a haystack.”

Several LTCI carriers and third-party administrators (TPAs) say these types of guidelines and protocols are extremely useful when adopted for claims processing both at the carrier and TPA level. The LTCI industry’s use of these clinical guidelines represents an opportunity to reduce cost, leverage data insights and improve quality standards for claims processing.

By embracing this approach to care optimization, carriers can positively impact the quality of care for insureds and, at the same time, improve their bottom line—truly a win-win between business and clinical care. For LTCI carriers who say they are not allowed to “practice medicine,” this affords them an opportunity to advocate for the insured, especially because many insureds and their family members seldom know about these guidelines. Often, a diagnosis of a reversible condition can be found by asking whether an appropriate medical workup has been done and whether the insured truly has “irreversible” dementia (per policy language) before approving the claim.

## CLAIMS AUDIT FINDINGS

In 2019, Neurocern, a predictive analytics and neuroinformatics company, audited the claims process for multiple carriers who collectively represent over 25 percent of the market and greater than 1 million covered lives. In addition, the audit included clinical chart review and auditing claims process practices of three TPAs.

The following trends demonstrate a need for an independent, clinically based process that uses established evidence-based guidelines and embraces care optimization.

### 1. RELEVANT, ACCURATE INFORMATION AT THE RIGHT TIME IMPROVES THE CLAIMS PROCESS

Many carriers and TPAs turn to medical records to obtain relevant information, but often describe this experience as “finding a needle in a haystack.” In 2019, the Alzheimer’s Association reported that only 16 percent of seniors are screened for cognitive concerns during Medicare annual wellness visits and, of those diagnosed, only half are told the diagnosis by their physician. This clinical gap directly complicates the claims workflow process as carriers and TPAs are tasked with gathering years’ worth of medical records.

Furthermore, obtaining relevant and accurate information during claims review is important. For instance, patients who have been recently discharged from the hospital require very specific (and varying) consult and rehabilitation records during claims processing as opposed to claims originating from the home or assisted living facilities. During a TPA audit and complex case review, Neurocern found that over 51 percent of claims seen (and adjudicated for) by the TPA did not gather the right information at the right time. Obtaining relevant information based on quality standards allows insurance carriers to find substantial evidence that a claim might be too early for benefits or in some cases may be recoverable.

### 2. EMPLOYING BEST PRACTICES CAN CHANGE OUTCOMES

Carriers rely on independent nurses to help assess the cognitive status of an insured during the claims process. Nurses who perform face-to-face assessments are not provided clinical context on the insured’s case and are generally “blinded” to the case; as a result, during an audit, a wide range of inconsistencies in the quality of cognitive assessment testing was found across all assessment vendors.

As a neurologist, we ask our patients to come to our clinic during the “best time of the day” for standardized cognitive testing to obtain their abilities at their best. In the review and audit of claims, it was found that:

- Insureds who met clinical criteria for possible alcoholism (who were concurrently applying for severe cognitive impairment claims) did not have a blood alcohol level test before administering a cognitive assessment as part of the Benefit Eligibility Assessment (BEA).

- Insureds with Parkinson’s disease who are known to have “on” and “off” states of cognition and physical performance were not told to take their medications before cognitive testing.
- Insureds with dementia-related psychosis and urinary incontinence were not tested for infection prior to cognitive testing.

These simple examples represent opportunities for claims teams to improve the quality and standards during BEA testing and implement care optimization principles earlier in the BEA process.

As many carriers look to digitize their existing BEA form, there is a need for clinical standards to be put in place. In addition, advanced communication with the nurse about best practices to improve the BEA can ensure that insureds are being accurately tested during the right time in the right setting.

### 3. PREDICTIVE ANALYTICS CAN FIND AND TRIAGE QUESTIONABLE CLAIMS

In partnership with carriers, the Neurocern analytics engine was introduced during claims processing. It identified at least 20 percent of claims (approved by either a TPA or carrier) that could have gone into a separate workflow for further testing based on evidence-based guidelines and best practices in care. These claims represented cases that could have been delayed as the information provided at intake did not support “irreversible and severe cognitive impairment.”

### ACCURATE CLAIMS DATA CARRIES POSITIVE IMPLICATIONS FOR ACTUARIES

As principle-based reserving becomes more widely adopted across the industry, there will also be an increasing demand to characterize, risk stratify and predict the morbidity, mortality and claim duration of insureds in a particular block. Actuarial practices have generally been retrospective in review. Predictive analytics, on the other hand, can help actuaries capture prospective risk and better characterize and predict the needs of insureds to set active and disabled life reserves accurately.

The relative risk for morbidity and associated liability across carriers varies significantly, as seen in Neurocern’s datalake. So, reinsurers, private equity, and actuaries must consider the heterogeneity of these relative risks when assuming risk and liabilities ahead.

### BRIDGING CLINICAL EXPERTISE WITH BUSINESS OPERATIONS A WIN-WIN FOR ALL

We are taught in medicine that all patients should not be treated the same. Each patient requires a careful history in order to understand their unique symptoms to help formulate a plan of care. As a neurologist, some of my most fulfilling consults include identifying patients with treatable conditions that were misdiagnosed as irreversible dementia.

Polypharmacy (too many medications), normal pressure hydrocephalus (extra fluid around the brain) and toxic metabolic encephalopathy represent just some of the cases I’ve seen clinically that were managed into recovery. From my patients’ perspective, these accurate diagnoses allowed them to regain their livelihood, which in some cases meant retirement could wait and aging in place with family and friends became a reality.

It is rewarding for me to work with insurance carriers and help align the interests between the claims operations teams and medical community. And, it is a powerful win-win for carriers and their insureds to utilize technology that enables more accurate assessment of dementia along with leveraging data insights for aging in place. ■



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## Innovation in the LTC Insurance Market

By Bruce Stahl

Say what you will about long-term care insurance (LTCI) pricing, administration and financial management strategies in the early to mid-1990s, yet you must speak well of the many product ideas insurers implemented at that time.

Back then, insurance companies sought to design LTCI products that would satisfy consumer needs and concerns. Nursing home-only policies saw coverage added for adult day care and assisted living facilities, home health care benefits substantially strengthened and benefit period maximums changed to lifetime maximums.

Providers also altered the benefit qualification requirement of a three-day prior hospitalization stay to three distinct qualifications: deficiencies in activities of daily living, cognitive impairments or medical necessity. Some even found ways to profitably underwrite applicants with substandard health. How many know, for example, that Penn Treaty Network America Insurance Co. had a substandard product which may have been one of the most profitable per premium dollar of any LTCI product sold at that time?

Yet private LTC insurers were not satisfied with penetrating only 10 percent of the potential market. At the time, it appeared to me many in the industry had turned to the federal government for legislation that would raise awareness of and render credence to their products. When the Health Insurance Portability and Accountability Act of 1996 (HIPAA) was signed into law, the industry celebrated. Indeed, I recall being at an LTCI industry conference the day HIPAA's passage was announced. Participants gave it a long round of applause.

However, soon thereafter and rather dramatically, LTCI product innovation came very close to a halt. Companies shifted focus to configuring products to satisfy HIPAA needs and the model regulations of the National Association of Insurance Commissioners (NAIC), and they assumed consumers would follow along with what the regulations expected of them. Some consumers did follow for a time, but not for long. Once insurers discovered that the cost of providing consumer-friendly benefits would ex-



ceed their pricing projections, they focused their efforts on obtaining premium rate increase approvals for their existing LTCI products and spared little effort on product innovation.

Premiums on new business increased and consumer interest plummeted. Essentially, insurers discovered they could no longer price standard LTC policies at levels the average customer would purchase. The equilibrium that is basic to the economic principle of supply and demand was no longer there.

About five years ago, the NAIC began to look for LTC product innovations to recommend, with the help of organizations such as the Society of Actuaries. The recommendations focused on how to keep premiums down through tax relief as well as changes to federal and state regulations that would not alter the basic benefit design. The suggestions did not materially address the long-term risks insurers face in this market.

In hindsight, LTCI providers might have served themselves, and the market, more effectively by redesigning their products so that they would satisfy evolving consumer needs and desires while pricing at sustainable levels. Today, the market for traditional standalone LTCI is tiny, while the market for combination products continues to grow. Combination coverage appears to have replaced standalone LTC but is not able to expand beyond it, as the target market is an affluent one, comprising, ironically, just 10 percent of the total LTC market.

To penetrate the market of those who today are concerned about future long-term care needs, LTCI providers will need to combine strategies for financial sustainability with the consumer-driven product design focus of the early to mid-1990s. Simply put, we have to again consider what a large component of the LTC market truly wants and needs and focus on designing products that will meet those wants and needs.

In 2016, the American Academy of Actuaries published an issue brief that sought to provide guidance for LTCI product innovations which would serve the LTC coverage needs of the U.S.'s fast-growing elderly population.<sup>1</sup> While the issue brief may have had regulatory and other potential public reforms in mind (groups such as the Urban Institute and the Bipartisan Policy Center had prepared reports around the same time with potential public reform ideas), the guidance can be useful for insurance companies.

Private innovation can resurge despite regulatory hurdles. I know from first-hand experience that entrepreneurial individuals can team together to solve the puzzle of developing products at price points which will meet consumers' LTC financing needs. If the initial results are innovative, non-traditional products that may not necessarily comply with every state or federal regulation, companies may need to file and administer these novel products differently. Insurance companies definitely have the ability to innovate and, as state Medicaid budgets continue to climb, most states right now have the will to make something work.

Insurers should use government requirements to enhance progress rather than hamper it. Innovation in LTC product design may

require more discussion with state and federal regulators, yet in the end, the gains from this additional effort may strengthen both LTCI products and its providers' risk management capabilities.

Regulators and consumers are looking for affordable and innovative LTC solutions and are waiting for insurance companies to come up with them. My recommendation to LTC insurers: Resurrect the innovative approach of the early to mid-1990s and address the demand with viable products. ■



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#### ENDNOTES

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**SOCIETY OF ACTUARIES**



# Advantages, Disadvantages and Considerations for LTC Policy Buyouts

By Jeff Anderson and Mike Bergerson

Recently, there has been a lot of buzz around the possibility of offering a buyout option for long-term care (LTC) policies alongside a rate increase request. This option was utilized in 2017 as part of rate filings for Penn Treaty Network America Insurance Co. These filings offered a cash payment equal to the greater of the actuarial liability of a reduced paid-up policy and 50 percent of the actuarial liability under the policy, with consideration for the respective guaranty association limit.

While we have seen other innovative rate increase ideas, such as landing spots, spread like wildfire to other LTC carriers, we have not yet observed a proliferation of the LTC buyout option. There may be multiple reasons for this, but we believe the most fundamental is the difference between a going-concern insurance entity and an entity being managed by guaranty associations. That being said, other carriers are considering buyout options as a way to manage their LTC book of business. A recent rate increase filing for another company included what could be viewed as a buyout option by allowing certain policyholders that dropped their coverage as part of the rate increase to receive a full return of premium paid less any benefits received.

The remainder of this article will explore the advantages and disadvantages of LTC policy buyouts from various stakeholder perspectives and discuss actuarial considerations for a carrier thinking about offering a buyout option.

There are several advantages and disadvantages to LTC buyouts, which vary by stakeholder and are described below. Depending on the structure and acceptance rate of the buyout, along with the level of adverse selection, a buyout could be either advantageous or disadvantageous from a financial perspective for multiple stakeholders. If the buyout is well structured and does not have unfavorable selection, it could increase financial stability for the company and premium stability for remaining policyholders. Alternatively, if the structure is unsound or if there is



severe adverse selection, a buyout could result in worse financial performance than would otherwise have been expected.

## CARRIER PERSPECTIVE

We will continue our summary of the advantages and disadvantages of LTC buyouts from the perspective of the insurance company.

### Advantages

- The liability is quantified and settled for policyholders that accept the buyout offer. This is important because the company's future contractual liabilities and downside risks for these policyholders are effectively released.
- Removing policyholders from the block will reduce uncertainty for management.
- Uncertainty and riskiness will decrease for rating analysts and other external stakeholders, providing an opportunity to view the block more favorably.
- The company will not have to file additional rate increases for policyholders that accept a buyout. Rate increases on LTC business have become a fact of life in many cases and carriers are seeking ways to limit or eliminate continued rate increases.
- Certain expenses based on volume, such as per policy administration fees, will be reduced as there will be fewer policies after the buyout.

### Disadvantages

- A policy buyout offered to policyholders could result in legal challenges, such as class action lawsuits by policyholders that accept the buyout but then need LTC services in the future. Even if the company is successful in defending the buyout, litigation can be very expensive.

- It is certain that not every policyholder would accept a buyout offer; rather it would be accepted by only a fraction of the population. The company should expect that the population not accepting a buyout offer would exhibit higher levels of morbidity due to adverse selection. We discuss this important consideration in detail later in this article.
- Regulators may not be amenable to approving buyout offers. At the 2019 Intercompany Long Term Care Insurance (ILTCI) Conference in Chicago, a small number of regulators indicated they were hesitant to allow buyout offers for going-concern companies.
- A buyout offer may go against a company's mission and vision of protecting insureds in their time of need. This may be an especially important consideration for mutual insurance companies and fraternal benefit societies.
- Expenses on a per policy basis may be higher after the buyout because fixed costs will be allocated to a smaller base of policies. Additionally, a payment to agents may be necessary to offset the loss of future commissions on policies that accept a buyout.

## REGULATOR PERSPECTIVE

The next perspective we will consider for policy buyouts is that of the insurance regulator.

### Advantages

- Policyholders have more options available to them. Rate increases are difficult not only on policyholders, but also on regulators and company personnel. If policyholders are able to make informed decisions, having an additional option available to them when faced with a rate increase may be a positive.
- For policyholders that accept a buyout offer, there will be no additional premium and, therefore, no additional rate increase requests.

### Disadvantages

- LTC is already a strain on state Medicaid budgets. Private LTC insurance has low penetration rates and states are looking at ways to expand coverage options. Buyout offers would instead reduce coverage by eliminating existing policies. This could lead to even more strain on the Medicaid system.
- Regulators may have concerns about whether policyholders can properly assess the value proposition of their buyout offer compared to the existing coverage and make an informed decision.
- Adverse selection, as mentioned above, could lead to the remaining pool of policyholders having higher than average morbidity. If severe, this could lead the block to have worse financial performance than prior to the buyout offer.

If a company has weighed the various advantages and disadvantages of offering a buyout and decided to move forward, there are still many additional considerations. ...

## POLICYHOLDER PERSPECTIVE

Finally, it is important to also consider the perspectives of policyholders regarding a buyout offer.

### Advantages

- They have an option to “get out” of the contract and get some portion of their premiums back. Anecdotally, we have heard that some policyholders have tired of consistent rate increases and inquired about being able to cancel the policy and get their money back. A policy buyout would give these policyholders the type of option they are looking for.
- Policyholders that have been subject to rate increases can make a final decision, similar to electing a paid-up shortened benefit period option, so that they will not be subject to future rate increases and need to reevaluate their LTC needs in response to a future rate increase.

### Disadvantages

- Policyholders that accept a buyout will no longer have coverage and may not be able to purchase a new policy. While policyholders will have aged since the policy was issued and may have a better idea of their health status than they did at policy issue, they will still most likely not be able to accurately determine if they will ultimately need LTC services.
- Adverse selection of those declining a buyout offer could lead to more uncertainty regarding future benefits for the remaining policyholders. In an extreme situation, a poorly designed buyout or severe adverse selection could result in company insolvency. If management is transferred to the guaranty associations, benefits may be reduced.

## KEY ACTUARIAL CONSIDERATIONS

If a company has weighed the various advantages and disadvantages of offering a buyout and decided to move forward, there are still many additional considerations prior to implementing the decision. Three such actuarial considerations described below are (1) how the buyout amount should be calculated, (2) the potential impacts of adverse selection and (3) interaction with reinsurance.

### Valuing the Buyout

There are multiple ways that a company could value a buyout offer. These range from relatively simple options such as 100 percent of premiums paid, to complex options such as a project-



ed future net liability with premium capping and claim offsets. The overall goals of the company should be considered as they will impact the structure of the offer. Potential objectives include reduced LTC liabilities, ease of administration, perceived fairness of the offer by consumers and regulators, the perception of the offer by rating agencies and analysts, and the impact on other stakeholders. Once the objectives are understood, there are multiple options that could be considered in calculating the buyout. These can be classified as premium-based, reserve-based or a composite. All options should consider an offset for historical claims paid.

The simplest premium-based option is full return of premium. This has the benefit of being easy to administer and explain but could be a very generous benefit relative to expected future liabilities depending on the characteristics and age of the block (e.g., a late duration block with high attained ages may have higher historical premiums than expected future liabilities). Companies could also consider offering a reduced percentage, such as 75 percent of the historical premium, with the reduction, along with lost investment income by the policyholder, justified as the cost of insurance since issuance of the policy.

The simplest reserve-based option is a buyout based on statutory reserves. The active life reserve, unearned premium reserve, disabled life reserve (DLR) and allocated-incurred-but-not-reported reserve could all be considered, although there are reasons to exclude the DLR. The DLR held for active claimants is often quite large, but it is less than the full policy benefit. Therefore, we expect that buyout acceptance for active claimants will be quite low. Additionally, a buyout offer for active claimants could be received unfavorably by regulators and raise legal concerns.

An alternative reserve-based approach is to base the buyout on an estimate of the present value of future liabilities. Projected cash flows from premium deficiency reserve (PDR) testing or cash flow testing are already used to estimate reserve sufficiency. Best estimate projections at a policy level could be discounted to estimate the present value of future claims and expenses in excess of future premiums. The resulting net liability could then be used as a basis for the buyout. However, there are both practical and theoretical concerns with this approach.

From a practical perspective, it may be onerous to develop and store projection results at a policy level. Many projection systems are not capable of producing policy-level results without adjustments to the setup. Additionally, the company should consider the amount of expenses that it actually expects to save (e.g., certain costs are fixed) and whether a payment to agents for lost future commission will be necessary. From a theoretical perspective, the key consideration is the applicability of projections at a policy level. For a block in aggregate, projections generally represent a reasonable proxy for future cash flows. This is not the case at the policy level where policyholders do not behave like the average. Some will have very high levels of claims and others will have no claims at all.

There are various ways to combine the options noted above into a composite buyout offer that includes both premium and reserve components. As noted previously, we would expect most buyout offers to have a cap and/or a floor that is based on percentages of the historical premiums paid, along with an offset for historical claims paid. Key considerations in any composite calculation are the ease of administration and communication with stakeholders.

### Adverse Selection

Insureds likely have a better understanding of their short- and mid-term needs for LTC coverage than the company. This information asymmetry leads to adverse selection. If policyholders believe they will not utilize their LTC benefits, they will be more inclined to accept a buyout offer.

The two extremes of selection are perfect selection (i.e., the insured has perfect knowledge of all future LTC needs) and no selection (i.e., the insured has no knowledge regarding their future LTC needs). In a perfect selection scenario, insureds who know they will have very little or no claims will accept the buyout. This would reduce future premiums but result in an immaterial reduction to future claims. In this scenario, the buyout would have a materially negative impact on the company. In a no selection scenario, we would expect reductions of similar proportions to both future premiums and future claims.

Using sample insured data, we modeled the potential impacts of a buyout for various acceptance rates and adverse selection scenarios for two example buyout structures. We randomly selected sample acceptance populations for each acceptance rate from the

non-claimant premium-paying population and removed their experience from our projection model. We sampled 10 acceptance populations for each acceptance rate in a Monte Carlo-style simulation and analyzed the changes to cash flows. Table 1 provides metrics for the insured population used in our analysis.

**Table 1**  
Overall Population Metrics

Metric	Value
In-force policy count	16.3k
In-force annualized premium	\$31.1M
Average attained age	64.2
Total historical collected premium	\$431.7M
Total historical paid claims	\$48.6M
Statutory reserve (excl. PDR)	\$409.7M
Best estimate gross premium reserve	\$510.2M

As can be seen in Table 1, the block used in our analysis is in a premium deficiency situation, even prior to the inclusion of any margins for adverse deviation in the projection assumptions. For a block with sufficient premiums, consideration should be given to the estimated release in statutory reserves as part of a buyout. Our analysis focused on the change in the gross premium reserve.

In the perfect selection scenario, we assumed that only policyholders who know they will have no future claims accept the buyout. This was modeled by assuming no reduction to future claims but a reduction to future premium based on each sample acceptance population. In the no selection scenario, we removed both the projected premiums and claims for each sample acceptance population.

We also considered a middle ground selection scenario in which only a portion of future claims for the sample acceptance population is removed. In this scenario, we assumed that 10 percent of projected claims for the sample acceptance population would be removed in years 1 through 3, 50 percent in years 4 through 6, and 90 percent in years 7 and later. This scenario is based on judgment, assuming that insureds have a better understanding of their short-term LTC needs (close to perfect selection), but over the long term they have imperfect knowledge and the claim reductions will revert to a level close to the no selection scenario.

Tables 2 and 3 illustrate the potential impacts of adverse selection at multiple acceptance rates in the three noted selection scenarios assuming two different buyout offers: 75 percent of historical premiums paid and 75 percent of the best estimate present value of future net liabilities. The best estimate future net liabilities are calculated as the sum of future claims and expenses, less future premiums, discounted to the valuation date at 5 percent. The gain/(loss) is calculated as the decrease in the best

estimate future net liability, less the cost of the buyout payments. The tables present the average results for the 10 simulations within each acceptance rate. The varying acceptance rates illustrate the sensitivity of the results to the portion of policyholders assumed to accept the buyout.

**Table 2**  
75% of Historical Premiums Buyout (in \$Millions)

Acceptance Rate	Gain/(Loss) by Selection Scenario*		
	None	Middle Ground	Perfect
1.0%	1.1	0.2	(5.0)
2.5%	3.3	1.2	(12.9)
5.0%	6.2	1.9	(25.5)
10%	12.3	3.7	(50.9)
20%	24.5	7.5	(101.1)
30%	37.4	11.8	(151.8)
50%	62.1	19.7	(251.8)

\* Gain/(Loss) = [decrease in best estimate future net liability] – [cost of buyout]

**Table 3**  
75% of Best Estimate Future Net Liabilities Buyout (in Millions)

Acceptance Rate	Gain/(Loss) by Selection Scenario*		
	None	Middle Ground	Perfect
1.0%	0.7	(0.1)	(5.3)
2.5%	2.0	(0.1)	(14.2)
5.0%	4.0	(0.3)	(27.7)
10%	7.9	(0.7)	(55.3)
20%	16.1	(1.0)	(111.9)
30%	23.7	(1.9)	(165.5)
50%	39.3	(3.1)	(274.6)

\* Gain/(Loss) = [decrease in best estimate future net liability] – [cost of buyout]

As shown in Tables 2 and 3, the perfect selection scenario is very unfavorable, while the no selection scenario would result in gains (i.e., decreases in net liabilities net of the buyout cost). Neither of these results are particularly surprising as we believe these are the most likely outer bound scenarios and actual results should lie somewhere within their range. The middle-ground selection scenario results in gains if the buyout is valued as 75 percent of historical premiums but results in losses if valued as 75 percent of the best estimate future net liabilities. For an older block, with more historical premium, there may be losses under either option as structured for this analysis. Additionally, note that the values in the tables above are the average results. When looking at the minimum and maximum middle ground

scenario results within the simulations, there are simulations of the premium-based buyout with losses and simulations of the net liability-based buyout with gains. This variability is based on the mix of business assumed to accept the buyout and presents an additional unknown for companies to consider when valuing a buyout.

### Reinsurance

In addition to the items discussed previously, the interaction of the buyout with reinsurance should also be considered. There is a range of reinsurance types within the LTC industry and many blocks have reinsurance coverage. Depending on the structure, a buyout offer could have varying impacts, so a company considering a buyout should discuss the calculation and cost sharing of the buyout with their reinsurers. In addition to determining how the cost of any buyouts accepted would be shared, reinsurers would likely also be interested in the impact of adverse selection for persisting insureds.

While the calculations for a coinsurance treaty are relatively simple, complications arise for treaties with excess of loss (XOL) coverage and/or treaties with a yearly renewable term (YRT) premium schedule. For treaties with XOL coverage, the calculations should consider how much of the savings from any buyout are related to risks above the attachment point. Additionally, the leveraging effect of the attachment point in XOL treaties may amplify the impact of adverse selection. For both XOL and YRT treaties, another consideration is whether the reinsurance pre-

miums would remain adequate after a buyout due to an increase in aggregate morbidity attributable to adverse selection.

### CONCLUSION

There is not yet a consensus on whether buyout offers will see widespread adoption within the LTC industry. As discussed, there are several stakeholders impacted, with advantages and disadvantages for each. The various complications and considerations may result in limited industry recognition of buyout offers as a viable approach to manage LTC risk. However, it is also possible that the industry is waiting for a structure to emerge that balances the impacts on the various stakeholders and is well received by both regulators and consumers. If that were to happen, we may see a wave of buyout offers, which could result in a dramatic shift in the risk profile of the LTC industry. ■



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