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Future of LTC Pricing

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Loida R. Abraham
Genworth Financial
Long Term Care Chief Pricing Officer

Introductory Statement

- All the thoughts I will share with you today represent my personal views and do not represent in any way, shape or form that of any of the companies I worked for or currently work for.
- I have been in the long term care insurance industry for over 25 years. Some of my many learnings about LTCI are included in this presentation.

Concerns about LTC Pricing

- With increasing frequency of rate increase actions from almost all carriers, some consumers and distributors have become cautious about long term care policies
- Their questions are “What could have caused some of these rate increases?” and “What actions are carriers taking to either eliminate or reduce them in the future?”

Concerns about LTC Pricing

- Looking Back
  - Started with the identification of a huge unmet need in society (*i.e.* the inadequate funding for long term care which was projected to get worse with the aging of America)
  - Recognized that this could not be solved by Medicare or Medicaid alone
  - Given the lack of insured data, insurance solutions had to rely on guaranteed renewable contracts and the ability to adjust rates should the assumptions be inaccurate to limit the risk exposure

Concerns about LTC Pricing

- What drove the high rate increases?
  - According to a Milliman Study published in the Contingencies Nov/Dec 14 issue, the rate increases needed if implemented in 5, 10 or 15 years from issue would have been 97%, 173% and 350% respectively assuming rate stability regulations and the following changes in assumptions:
    - Ultimate lapse dropping from 4.75% to 1%
    - Interest rate dropping from 6.9% to 4.5%
    - Morbidity higher than expected by 10%

Concerns about LTC Pricing

- What drove the high rate increases?
  - Unfortunately, though rate increases would have been lower if carriers moved faster and raised rates sooner, carriers typically waited 20 or 30 years until they had enough credible experience and were confident that the experience they were witnessing was not temporary or an aberration
  - Higher than expected interest rates could have helped alleviate carriers' financial losses; State regulations vary as to whether lower than expected interest rates can contribute to rate increases

Carrier Actions

What Are Carriers Doing To Help Improve Future LTC Pricing?

- Plan Design Changes
  - Will Be Discussed by Alex Silva from John Hancock and Jay Bushey from Life Secure
- Focus on Improving the Fundamentals
  1. Development of Pricing Assumptions
  2. Robustness of Pricing Models
  3. Research and Development (Out of The Box Thinking)

(1) Pricing Assumptions

- Past Challenges
  - Lack of credible insured LTC data
    - Past pricing relied on other products' experience as well as general population nursing home data
  - Lack of LTC actuarial expertise
    - Relied on health insurance expertise
    - More short term in nature
- Today
  - Many carriers now have close to 20 years of actual credible long term care insured data
  - More expertise

Causes of the Rate Increases

1. Ultimate Lapses Lower Than Expected
   - Original lapse rates were set based on other products' experience like disability income.
   - As it turns out, this market truly believed in this product and would keep it for as long as they thought it made sense. Even with today's rate increases, lapses (including "shock lapses") have remained low.

Carrier Solution: Better Informed Assumptions

- Most carriers today are assuming very low ultimate lapse rates and are continuing to monitor lapse experience very closely
- Need a better understanding of what drives lapses – the economy? Generational consumer attitudes?
  - According to the Contingencies Nov Dec 2014 article, a one point drop in ultimate lapse rate results in
    - 9% increase in noninflationary rates
    - 13% increase in inflationary rates

Causes of the Rate Increases

2. Interest Rates
   - Given product designs to-date, LTC is a long term product and investment yields can have a huge impact
   - According to the Contingencies Nov Dec 2014 article, a one point drop in investment income results in
     - 7% premium increase for plans with no inflation
     - 11% premium increase for plans with inflation

Carrier Solution: Better Informed Assumptions

- Interest Rates
  - Asset Liability Matching Challenges
    - Given the long duration of liabilities, long term assets are difficult to find
    - Difficult to find corresponding asset duration but some exist; consider changing RBC rules to enable more investing in alternative investments such as equities
  - Other Solutions
    - Hedging – Difficult to do given the expense of carrying collateral and given the low interest rate environment;
    - Assume low interest rates in pricing– prudent solution; Still requires constant monitoring

Causes of the Rate Increases

3. Lower Mortality Rates than Expected
   - Like lapse, people staying in-force longer than expected is positive since it means people are paying premiums longer than expected.
   - However, the additional premium can be outweighed by a significant increase in claims in the tail, thus making lower mortality negative in the long run.

Carrier Solution: Better Informed Assumptions

- Improved Mortality Studies
  - Carriers are reviewing their mortality data more frequently and are splitting out active life vs. disabled life mortality
  - Some carriers are also looking at other data sources: life insurance mortality data; population data at the tail to look at emerging trends or patterns that may be applicable
- Assume Lower Mortality Rates
  - Lower than current experience and incorporate future mortality improvements

Causes of the Rate Increases

4. Higher Morbidity Than Expected

- Morbidity Assumptions in the 90's
  – Based on Population Data (*e.g.* National Nursing Home Surveys)
  – Due to their method of reporting, these surveys were double counting admissions if they were site of care transfers (*e.g.* intermediate care facility to nursing home), and thus understating lengths of stay
  – Home Care data was just starting to emerge
  – Assisted Living Facilities did not exist

Causes of the Rate Increases

- Early Trends From Emerging Data
  - Lower than expected incidence rates were observed by some carriers; correlated to both the level of underwriting as well as birth cohort
  - Lower than expected utilization rates as more claimants preferred home care
  - Initially difficult to identify the impact of longer lengths of stay since the total amounts paid were not increasing due to the increase in home care claims

Causes of the Rate Increases

- New Trends From Emerging Data
  - A hypothesis: more rigid underwriting, though effective in lowering the number of claimants, may have actually increased the amounts paid per claimant given that the resulting group of insureds, and thus claimants, may have longer life expectancies
  - The advent of assisted living facilities has increased both utilization relative to home care as well as lengths of stay relative to nursing home since nursing home claimants tend to have higher mortality

Causes of the Rate Increases

- New Trends From Emerging Data
  - Unlimited (*i.e.* lifetime) benefit periods may have encouraged early incidence, high utilization, and longer lengths of stay
  - Lower utilization has been observed with limited (*i.e.* non-lifetime) benefit period plans as insureds may prefer to preserve their benefits to ensure they have coverage for when they need it most

Carrier Solution: Better Informed Assumptions

- Improved Morbidity Studies
  - Studies are looking at the various components of morbidity to a more granular degree to better understand future trends
  - Incidence Rates
    - Though incidence rates have been reducing by each new product series, prudent to assume reductions to decrease in the future
    - Recognize increasing trend towards assisted living facilities

Carrier Solution: Better InformedAssumptions

- Improved Morbidity Studies
  - Utilization Rates
    - Should be monitored very closely to look at correlation with cost of care by site of care and its relationship to interest rates
  - Lengths of Stay
    - Claim Termination Rates should be more granular to better understand the drivers – mortality, recoveries, benefit exhaustion; site of care; gender; marital status; underwriting class
- Price with appropriate provision for adverse deviation (PADs)

(2) Enhanced Pricing Models

- Past pricing was based on simpler pricing models (“Total Lives”)
  - Probability of Claim x Expected Total Payout Per Claimant (Claims Cost)
- New pricing models are “multi-state”
  - Healthy Lives vs Disabled Lives assumptions provide more precise splits of the in-force into the healthy, disabled, lapsed, dead, recovered, premium paying, paid-up, etc.

Enhanced Pricing Models

- New pricing models look at more variables that could impact the pricing
  - Benefit Utilization Rates that vary by site of care, benefit inflation type, daily benefit amount
  - Claim Termination Rates that vary by disabled life mortality and recoveries
- Long Term Care Pricing Software is available from various vendors, but actuaries need to make sure they understand the software they are using

Enhanced Pricing Models

- Importance of Replication Pricing Models
  - Many carriers today replicate the pricing software in Excel to ensure they have a complete understanding of the algorithms (& changes thereto as they are introduced)
    - Some years ago, I heard of an actuary who simply entered assumptions in a new long term care pricing software at the time. As it turned out, the software assumed that the compound inflation on benefits stopped when an insured went on claim. That had the impact of underpricing the product by at least 15%.

(3) Research and Development

- Studies to gain insight on the tail
  - Healthspans - Partnering With Geriatricians and Demographers Expert in Aging Studies
  - Mortality Experience of Life vs LTC – Looking at life studies that have more years of experience
- Understanding claimant behavior
  - Partnering with Elder Care Providers
  - Generational Studies
- Stress test scenarios to improve ability to develop “Management Responses/Actions”

(4) Expectations of the Future

More Credible Data

Enhanced Pricing Models

Sharpened Actuarial Expertise

Improved Pricing