We began 2021 with a new energy after an incredible year of change. We have more motivation and perseverance than ever. We will continue our focus on relationships with you, our clients, and the quality of work we produce. Together, we will protect the health and financial well-being of people everywhere. Please contact your Milliman consultant with any questions.
**Milliman LARA: LTC Advanced Risk Analytics**

[http://www.milliman.com/lara](http://www.milliman.com/lara)

LTC policyholders want to age healthily in place. LTC insurers also prefer policyholders to age in better health and for longer, before needing formal LTC services. However, LTC insurers traditionally lack detailed information about their policyholders after issue to implement any formal wellness management programs before a policyholder goes on claim (sometimes called “pre-claim”). Milliman’s LARA is a solution to this information gap.

Milliman’s LARA uses policyholder data combined with novel third-party data, including detailed and HIPAA-compliant prescription drug histories and medical records, to stratify the riskiness of policyholders who have not yet had an LTC claim. LARA is partnering with over 10 insurers to build a suite of predictive models trained on actual policyholder historical LTCI claims. These predictive models will give insurers intelligence as to which policyholders may benefit the most from wellness or social interventions. This in turn can allow insurers to implement these programs before the need for a claim arises.

We aim to create a positive result for all parties: finding the riskiest policyholders among a group of insureds, who may have the greatest need for assistance, and providing them concierge care through collaborative partnerships, can benefit both the policyholder and the insurer.

**NAIC Update**

The National Association of Insurance Commissioners (NAIC) has many workstreams focused on LTCI. The Senior Issue Task Force is beginning work on the LTC Insurance Model Update.

The LTC(EX) Task Force is continuing work on a pilot effort for a Multi-State Rate Review. The group is also exploring additional considerations for reduced benefit options for policyholders at the time of a rate increase. The LTC(EX) Task Force continues to meet the other LTC charges set in 2019. In general, the task force focuses on uniformity in rate increases and addressing the best ways to educate the insured on what it means to elect a reduced benefit option to manage premium dollars.

**Spousal Contagion Research**

An individual has heightened risk of death after losing a spouse or subsequent to a claim of the spouse. The influence of “contagion” among spouses has perhaps never been more pertinent than during the past year of the COVID-19 pandemic. The disproportionate disease and mortality burden of COVID-19 at advanced age has motivated further research into what could prove to be significant questions to LTC insurers over the next few years as pandemic (and post-pandemic) experience continues to materialize: “How does spousal contagion influence long-term care needs?”
IMPORTANT WORK HAPPENING AT MILLIMAN

Spousal Contagion Research

(continued)

Our LTC spousal contagion analysis recognizes spouses often serve the role of informal caregiver to one another. “Wear down” impacts can eventually lead to LTC claims for the spouse providing the care. Alternatively, when one spouse dies, the other may no longer be able to care for themselves and may require formal LTC services.

Our first article, *Is Your Spouse Contagious?*, originally published by the Society of Actuaries in the October 2019 issue of Long-term Care News, examined the influence on claim incidence for one spouse when the other spouse commences a claim or dies. The higher level of claim incidence in the presence of a contagion factor was significant.

<table>
<thead>
<tr>
<th>Actual-to-Expected Incidence</th>
<th>Second Spouse After LTC Claim for First Spouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years Since First Spouse’s Claim</td>
<td>A:E</td>
</tr>
<tr>
<td>Less than 1 Year</td>
<td>453%</td>
</tr>
<tr>
<td>Greater than 1 Year</td>
<td>166%</td>
</tr>
<tr>
<td>Total</td>
<td>230%</td>
</tr>
</tbody>
</table>

Note: “First Spouse” = first spouse of couple to incur an LTC claim. “Second Spouse” = remaining “healthy” spouse.

Our current research seeks to build upon our initial analysis, examining potential trends in the level of spousal contagion claim incidence using more recent experience, and further explores second spouse incidence patterns based on claim characteristics of the first spouse (e.g., care setting, claim diagnosis).

We plan to expand this analysis to claim continuance and study spousal contagion influences on length of claim or claim termination (e.g., death or recovery).

With many COVID-19 deaths occurring at ages where LTC claims are most prevalent, claim incidence for surviving spouses may exceed expected levels (based on the patterns above).

<table>
<thead>
<tr>
<th>Actual-to-Expected Incidence</th>
<th>Second Spouse After Death for First Spouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years Since First Spouse’s Death</td>
<td>A:E</td>
</tr>
<tr>
<td>Less than 1 Year</td>
<td>310%</td>
</tr>
<tr>
<td>Greater than 1 Year</td>
<td>122%</td>
</tr>
<tr>
<td>Total</td>
<td>155%</td>
</tr>
</tbody>
</table>

Note: “First Spouse” = first spouse of couple to die. “Second Spouse” = surviving “healthy” spouse.
WISH Act and Other LTC Reform Work

The investigation and proposals for reforming LTC financing appear to be increasing. In recent years state-based reform activity has been on the rise, with the state of Washington’s program being the most notable. Activity on the federal level has been quieter, but that may be changing. One potential reform that may be introduced by Congressman Thomas Suozzi from New York is called the Well-Being Insurance for Seniors to Be at Home (WISH) Act. It is intended to be a public/private partnership to provide LTC insurance for older adults. The public program would provide “catastrophic” LTC coverage to individuals covered under the program. Some of the key structural considerations include:

- Funded by a payroll tax.
- “Catastrophic” coverage will be defined differently for individuals depending on lifetime income. Those with higher lifetime incomes will have longer waiting periods before benefits commence.
- Eligibility will be based on quarters of payroll tax contributions.
- Cash benefit payments will be made in lieu of a reimbursement for services design.

Numerous details of the program will need further definition and consideration, many of which will impact the pricing and financial viability of the program. We find the activity and discussions around LTC issues and reforms to be a very positive development as our country looks to address a very large and looming problem.

Upcoming Studies

In 2021, we will be releasing results from the rate increase survey and the valuation survey, an update to the Combination Product Experience Study, and the new iteration of the LTC Guidelines. We look forward to collaborating with you in these areas. Here are links to the prior studies: Rate increase survey, valuation survey, Combination Product Experience Study. If you need more detail, please reach out to your Milliman consultant.
Anatomy of a Long-Term Care Rate Increase
Although the LTC rate submission and approval processes vary by state, common elements exist in most or all jurisdictions. This brief is organized around a common process.

Impact of COVID-19 on Long-Term Care Insurance
Milliman consultants contributed to both studies with other peers in the industry.

The American Academy of Actuaries released an issue brief on COVID-19’s impact on long-term care insurance.

The Society of Actuaries and Milliman collaborated to conduct a survey and issue a report on COVID-19’s impact on LTC insurers.

Long-Term Care Population Management: Pursuing Healthful Strategies
One strong step in making LTC an acceptable, insurable risk for insurance companies is to better understand the latent morbidity risk in advance of an LTC need. This article highlights the conceptual and technical precursors on a new path to LTC in-force management.

Unpacking Predictive Analytics for the Long-Term Care Insurance Industry: How New Approaches to Model Visualization Can Support Greater Understanding of Results
Data storytelling is a key component of communicating risks, as predictive models continue to permeate our analyses. We need to explain how we arrived at our results to regulators, shareholders, and policyholders. Here is an article on using Shapley additive explanations (SHAP) values to understand gradient boosting machine (GBM) results. This article is from the Long-Term Care News, February 2021, published by the Society of Actuaries.
UPCOMING MILLIMAN WEBINARS

Please join us for upcoming live webinars on the dates below to learn more about exciting developments occurring in the healthcare market. We look forward to sharing our expertise to help you better understand complex problems and make informed decisions impacting your business.

Please contact your Milliman consultant if you would like to be added to the mailing list to receive ongoing information regarding these webinars.

April 7, 2021  Medicare

May 5, 2021  Employer

June 2, 2021  Health Insurance Technology

July 7, 2021  Long-Term Care
Diversity, Equity, and Inclusion and Corporate Social Responsibility

Milliman's various initiatives are described here: https://www.milliman.com/en/social-impact

In this issue we highlight our Opportunity Scholarship: Milliman awards 17 opportunity scholarships in program’s fourth year.

Please take some time to read Milliman’s statement on racial equity and justice.

Our mission is to serve our clients and protect the health and financial well-being of people everywhere.