



 Aging and Retirement

# The 2020 Long-Term Care Medical Symposium





# The 2020 Long-Term Care Medical Symposium

Views and Notes from Experts Outside of the LTC Industry

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## Introduction

The 2020 Long-Term Care (LTC) Medical Symposium (the Symposium) was a two half-day conference that extracted the thinking of leading experts on historical and future trends that will influence LTC insurance (LTCL) claim expectations. The Symposium focused on ideas from experts outside of the LTCL industry for the explicit purpose of gathering fresh perspectives on the issues that long-term care insurance companies face, such as expected timing of new claims onset, length of claim, life expectancy and cost of care.

The Symposium was not intended to quantify historical or future trends or to be prescriptive or specific about long-term care actuarial assumptions. Rather, the Symposium aimed to provide the long-term care actuary with environmental context for considering morbidity and other macroeconomic or external factors that may impact LTC experience in the long term. The agenda for the 2020 symposium included topics central to understanding future LTC claims: The role of technology, the evolution of care delivery, trends in cognitive impairment and Alzheimer's disease, and medical advances impacting LTC. This was a unique year as the Symposium took place in December of 2020 in the midst of a global pandemic and was done virtually for the first time. While the Symposium did not devote specific focus to COVID-19, this topic was interwoven into the other topics that are typically covered. Given the timing of the Symposium, some discussion of COVID-19's impact on care delivery and insured attitudes was considered. Also, importantly, we began the discussion of how this will impact the future both from a health perspective as well as insured behavior perspective. Given the point of time and the evolution of the information, we will need to continue to gather data and perspectives on this important topic over time.

The Symposium was professionally facilitated to allow dialogue on topics outside of the published agenda. A handful of LTCL industry participants helped guide the discussion to ensure that the content remained relevant to the primary audiences. Moving forward, the hope is that this type of discussion will be very useful to actuaries in understanding how the environment in LTC changes over time and to get a sense for the pace and source of this change.

*Please note the distinctly conversational tone of this report: This is intended to capture the key thoughts of the experts on the panel as they participated in dialogue.*

This year we created the following report in a slightly different way using a notes-style format. We asked several actuaries who attended the event to help us write this summary. Special thanks to Jim Berger, FSA, MAAA; David Benz, FSA, MAAA; and Rhonda Ahrens, FSA, MAAA. We are also making the recording of the event available upon request.

*Introduction by Robert Eaton, FSA, MAAA; and Shawna Meyer, FSA, MAAA*

### 1.1 DAY 1 SESSION 1

The goal for the Symposium is to provide information to actuaries as they make predictions about the future, e.g., how long do people live, how many will qualify for LTCL claims (ADLs or cognitive). Are claim rates changing and why? How much does care cost? How long will claimants need LTC?

For Alzheimer's and related dementia (ADRD) research, people will think cognitive changes are simply about age. Often people are too late to get the help they need. It has been disappointing to see a lack of medications to address the disease. People are excited about the latest news regarding Alzheimer's research, but then it fizzles. There has not been much new in treatment over the last 25 years.

There are studies saying lifestyle has an impact on cognition even when there is no therapeutic intervention. The Finger (Scandinavia) and Pointer (US) studies about lifestyle show the impacts occur over years, not months. Early detection gives opportunity for lifestyle changes. But will it really have an impact? Will people change their behavior? This does seem to be the case, both in cognitive health and overall health. How is this used for predicting the future? Are there different indicators we should examine?

From an insurance regulatory perspective, are we sure a beneficial effect extends for the length of the actuarial projection, e.g., 50 years? If people live longer, do their bodies wear out in other ways? Is the outcome always better? This is about competing risks. We need to understand this to think about Alzheimer's. Longer life will increase the risk of cognitive issues. Competing risks may not be just about physiology but about what we choose to treat, e.g., do we aggressively treat an Alzheimer's patient's heart disease?

There are limits to human survival. Severity and prevalence will increase with longevity. We may be able to develop ways to slow aging, so the problems do not show up as soon. But we do not know with certainty what will occur. There is much uncertainty even after just a few years.

A challenge in implementing lifestyle changes is a loss of insight by an individual about the changes this individual is experiencing. They do not tell their doctor about changes since they do not recognize the changes. Thus, the doctor may not make a lifestyle change recommendation for the patient.

There is a limit to human longevity. Is this about an average life expectancy? The average can change due to things outside human health, e.g., self-driving cars that reduce motor vehicle accidents. A large impact may arise from our expanding digital footprint—as it increases, through artificial intelligence we can learn new ways to investigate what activities lead to healthier lives.

Normal aging versus decline due to Alzheimer's—many therapeutics don't work because they are implemented too late. With early intervention, we can slow the progression of disease. Better testing will help in this matter. In Pennsylvania, we observed a decline in dementia patients. This is because people with milder cases were being treated in community settings. The severe cases go to skilled nursing facilities. This can reduce care costs when treating milder cases. A lot of money is being directed toward early detection of dementia and this should give the opportunity for early treatment.

Part of treatment is treating the family or other caregivers. Patients with significant comorbidities may not have caregivers with the knowledge of how to deal with their loved ones, leading to increased costs including institutionalization. The family in these cases may feel there is nothing they can do. Better equipped caregivers could ease this issue.

If lifestyle is so impactful, does this give us an indication of where we should spend our money? For example, in Japan there is the Restaurant of Mistaken Orders that is staffed with people with lower-level dementia. They appear to have a slower progression of the disease due to their continued working. How can we use such knowledge?

Long-term care insurance is driven by incidence, continuance, and utilization rates. People do not want care; we want to take care of ourselves, to delay or avoid care. This cuts down on the number of claims or potentially shortens claims. This pre-claim period is not currently part of the LTCI activity.

Insurance companies may have an incentive to keep policyholders independent longer. Delaying the start of long-term care services means some people will die before ever needing care. Others will still require care but for a shorter period. Companies need to determine whether they view their role as simply paying claims when eligibility triggers are met or whether the company should intervene early and attempt to

manage claims. Widespread adoption of care coordination by LTC insurers has taken time. If companies determine they want to take a more active role, policy design and tax-qualification rules may restrict companies to using administrative funds (versus benefit dollars) to pay for programs. This makes it important for companies to assess the return on investment of programs.

Study results from intervention and care coordination programs have shown mixed results. Outcomes can be better for the patient, but it is unusual to see a study where the cost of intervention and enhancement of services pay for themselves by reducing the cost of care. Studies associating dementia with other conditions are observational studies. It is hard to do definitive studies, so the causal arrow is uncertain.

Telehealth may be a source of critical data to answering questions companies have. Data on individuals operating in their current setting may give companies information before situations become more critical. However, interventions putting cost considerations first may have unintended consequences. Moving someone with dementia to a safer, rather than a less expensive, setting earlier may avoid more catastrophic consequences later. Patients generally want to stay at home but may become a prisoner in their homes. People may thrive more in a different setting with social interaction, three solid meals a day, hobbies, and exercise. Decision makers need to balance risk and quality of life considerations.

Early detection can be good from a research standpoint, but it can be life changing for those affected. It will change the way people interact with the diagnosed. Early detection impacts how others see the diagnosed person and how that person sees herself or himself. There is no evidence that medications or treatments available now can deliver a promise of slowing the decline. By the time professionals have the ability to make a diagnosis, people are substantially disabled.

People can do all the recommended things—exercise, stay cognitively active, etc.—and still get Alzheimer’s. It is a relentless disease. There is no current evidence showing receiving early treatment is beneficial. In fact, it could extend the most agonizing part of the decline. It may be better for caregivers to accept the decline and allow the patient to move to a more controllable state. The available family and support networks determine how the care will go for those affected.

Outside of diagnostics, one of the best long-term predictors of health and wellness is social interaction. This is not easy to determine from a medical chart. One can be terribly lonely in a large group of people so one needs to know something about the quality of the social relationships. How lonely do people feel? Do they have supportive relationships? Divorce and smaller families are changing demographics and the number of “unbefriended” elders will increase in the years to come.

Dementia is harder on the caregiver than the diagnosed. People with dementia often have periods where they are very difficult. Caregiving for dementia is loneliness inducing. This leads to caregiver burnout.

If one assumes life spans are somewhat fixed, and the onset of dementia is pushed back, people will be exposed to other causes of decline. The “last batter up” seems to be sarcopenia (progressive and generalized loss of skeletal muscle mass and strength). People who have few issues with other organ systems and avoid accidents still succumb to sarcopenia in their 90s to 100s. It appears the medical profession does not have a good way to stop sarcopenia. One can compensate by having good muscle mass going into the 80s so when one loses 30 percent of mass, he or she can still get out of a chair. Even people who were active younger still have a hard time getting around when they are 100. As medical advancements delay and whittle away at other causes, there will still be people who cannot get around due to muscle loss.



## DAY 1 SESSION 2

The mini-mental state exam (MMSE) is widely used as a diagnostic tool for Alzheimer's Disease. While it was a good tool initially, it tends to be educationally and culturally loaded, meaning educated people may score higher with the same level of cognition as those who are less educated. It also does not test executive functions. The three-word recall is the most important aspect, but disorders like Parkinson's can also present difficulty in three-word recall.

A better test is the Montreal cognitive assessment (MOCA). This test is preferable to the MMSE as it tests memory and allows for semantic cues that can help separate disorders like Parkinson's from Alzheimer's. For example, if one of the memory words is "penny," a semantic cue could be "money." If the individual is then able to recall the word, it may not be Alzheimer's. The MOCA test also tests visual and spatial executive functioning. Education can still mask results on MOCA, but it may be preferable to the neuropsychological testing as it is quite extensive and can take two to three hours. For individuals suffering from delirium caused by acute conditions, trauma, exhaustion, etc., it may not be practical to participate in such a long exam. Geriatric depression may also play a role. Depression is quite common in 80- and 90-year-olds and this can also cause memory issues. Both the MOCA and MMSE are under copyright rules so doctors must pay every time they administer these tests. The need for constant supervision is reliant on the patient's judgement. For example, do they know who to call in an emergency? Doctors often feel they are too busy to administer a cognitive test and therefore Alzheimer's may be under-detected. There are a few quick and easy tests to administer such as asking a patient to draw a clock or name as many animals as they can. Finally, all tests have limitations. Tests should be used to determine whether further investigation is needed, and multidimensional approaches are ideal. Telenursing assessments (video interviews) were expected to have a 40 percent to 50 percent adoption rate but is achieving closer to an 85 percent adoption rate. This will help the innovation of new tools and move away from tests like the MMSE.

When it comes to long-term care services, innovation and caregiving are in the very early stages and a crisis is coming. The ability to create vaccinations quickly for COVID-19 has been amazing and society should leverage the learnings from this effort. We need to find a way to mobilize our society and we can do that with an awareness of the crisis.

Ageism is real. There are more geriatricians dying each year than entering the field. Geriatricians make 30 percent less income compared to other practitioners and new doctors with student loans feel they cannot afford to go into geriatrics even if they want to. Financing of nursing homes and the availability of services do not get discussed enough. Society needs to focus more on social arrangements. We spend a lot of money on health care and diagnostic testing, but the individual may not have a place to live or food to eat. The United States has lacked focus on chronic care and long-term care services are cobbled together as a result. End of care cost is continuing to rise (incubators, ventilators, etc.). As a society, we struggle to let people go.

One way to get on the public agenda is to show fiscal consequences. A report was published 10 years ago showing the future cost of long-term care services will bankrupt the system. We should drive innovation based on these fiscal consequences. Bank of America is now employing gerontologists teaching portfolio managers how to deal with Alzheimer's to retain clients.

To drive change, we need to understand collective harm, but the data is fragmented. COVID-19 has helped us to understand collective harm to the elderly population. We need to collect better data to understand decision making.

At age 85, an individual has a 50 percent chance of developing Alzheimer's. People are shocked to learn this. We, as a society, do not have a good understanding of the prevalence. People can talk to an individual with Alzheimer's and not realize it because they are able to carry on conversations. Alzheimer's will bankrupt us if we do not find a cure, as treatment is not enough. We may be able to address the issue through prevention. One politician said that to get something done, we need to look at the impact on children. If we do not solve this issue, it will impact everyone. A cure for Alzheimer's is not likely. Only one disease has been cured historically speaking.

An important area of focus is taking a tele-doc model used for acute care and integrating it with chronic care. There could be big benefits from virtual chronic care interactions. To effectively postpone chronic care, we need to intervene with virtual care much earlier in the process since it can be difficult to get the patients in to see their doctor and collect important data.

The impact COVID-19 will have on long-term care insurance claims in the long-run is difficult to predict. For example, Individuals may get chicken pox and shingles, separated by decades of time, and post-polio syndrome emerged decades after people survived polio. The long-term consequences of COVID-19 will be largely unknown, but likely not positive.

COVID-19 has created some earlier deaths for people with an LTC need. Those people who survive and have a longer-term LTC need could see an earlier functional decline. One may be able to associate the COVID "long-haulers"—the chronically ill who are not improving—with fibromyalgia patients and learn more about disabling conditions.

Some practicing clinicians are screening patients for loneliness during COVID-19, which has a very negative impact. Some neurologists are evaluating if cognitive issues arising during COVID-19 may be persistent following the pandemic.

There has been a tremendous increase in demand—for those receiving care in the home—for informal caregiving (i.e., family members). Some LTCI companies will pay for this through an alternate plan of care provision in the contract if they do not have an explicit pool of money to cover informal caregiving.

During COVID-19, fewer changes in care settings have been observed, and generally a lot less mobility than would be typical. There will still be a need for nursing facilities in the long run, but these may be much different than today's nursing homes. The future of care will introduce more technology, including more robots for assistance. For those receiving care in a community, and who are isolated, this can have a very positive impact.

The current nursing home financial model has problems. The nursing home institutions are trying to care for two populations: Those who need post-acute care and those with long-term care needs who are functionally or cognitively impaired.

The post-acute care population is not homogenous, and can be thought of in three segments:

- One group will only need care for a few weeks, and their families need to prepare for receiving them;
- another group are on their way to dying; and
- the final group are more typical of a long-term care population.

We generally do not have good measurements about what constitutes an effective community for long-term care, and until we do, it will be difficult to measure success in implementing new LTC programs. LTC



insurance policies are written for the individual, but do not really address the larger community of workers, transportation, and caregivers.

Many providers institute programs to improve the rate of incidents such as falls. The pandemic has disrupted routine operations at long-term care providers, and thus disrupted those efforts.

## DAY 2

The goals and focus of geriatrics research could be changed from lifespan to health span. There is currently a Longevity Dividend Initiative, with evidence that some biologics slow aging. This can be studied and used to improve health span. It will take at least 10 years.

Currently, the risk that things can go wrong (in longevity) doubles every seven years of survival—can we change it to 10? Even if we get the biologics in 10 years, people need to use them for unknown amounts of time to change the “red zone,” i.e., the years before terminal lifespans.

This postponing of claims may result in claim compression. If a person is 100 years old, he or she may live the last five years in a disabled state. If one stretches lifespans 10 years longer, does one take those last five years and make them seven? Or does the period of LTC claim (five years) not change if the longevity is increased?

The distribution of deaths has shifted dramatically to older ages over the last century. Frailty and disability accumulate with the passage of time. Aging science is designed to compress the “red zone” (versus stretching longevity). The goal is to have people living as long and functional as possible.

Not everyone believes a major reduction in the per person risk of disability late in life will be seen as long as the average age of death is 72. If we extend that to 85, maybe three to four years of extension would include improvement in the last few years.

Living well at age 70, 80, or 90 is difficult, and improvements will differ by level of affluence. The distribution of health span improvements will be a factor. This does not mean it cannot or should not be developed for the affluent world.

The biology of aging is not understood. Aging is not talked about, but risk factors are, as we think about why the body breaks down. Public health solutions versus LTCI or other insurance solutions are not the same.

Loneliness has a huge effect on mortality. If one has children who want to be around, it can make a difference in how one feels about seeking or receiving care. This affects one’s continued health, mental state, etc. This makes a difference in elderly who have loved ones versus those who feel they do not.

Home care and, possibly, facility care employees are underpaid but the care of a vulnerable elderly population is put in their hands. Demand for care is going up while the supply of workers is going down. As supply of these workers goes down the cost will go up. A solution to the declining supply of workers is to pay them better. Another solution is to better fund social programs to increase the supply of care. Either way, this may mean the costs will go up faster than inflation at some point. We have not seen this yet. Increasing pay should attract workers, resulting in less turnover and less training expenses (or more effective training). This may at least partially offset the increase in cost.

Necessity is the mother of invention: If the mismatched supply and demand of caregivers is not addressed, innovations in care delivery will need to be made to address a growing demand with an aging population. Is one solution to the supply problem to develop programs to incent families to provide care?

Regarding the State of Washington program and other potential legislation, the advantage of public programs is that they could reduce marketing costs for the LTC insurance industry. These programs would

improve education and awareness and may lead to less expensive products and more market saturation, or more demand for insurance products.

Medicare Supplement insurance is more successful because it is a wrapper around Medicare. Medicare does most of the marketing and performs the primary determination of the claim before the Medicare Supplement insurer needs to consider its obligation, so there is an efficiency in both the marketing and the claims paying process.

There are ideas about community intervention, including a “caregiving bank” and retirement communities where everyone helps one another. With this program one could get credits (e.g., grocery shopping for someone) and can dip into the credits when help is needed. Technology can play a role in this through apps and other programs.

The current caregiver ratio is 7:1, and in 20 years it will only be 3:1. Some people do not have kids as direct support. Could a robot help a 72-year-old woman with the heavy lifting needed to care for her ailing husband? This dynamic could also address supply and pay issues, as many people may be unattracted to caregiver roles because of the risk of their own injuries or the heavy labor often involved.

We cannot ignore the human factor; there are likely to be technology solutions for this as well. It is possible to have systems where a human checks in with care recipients remotely on a screen. We need to ensure human contact and interaction.

There is a supply issue regarding paying a living wage, and this varies across the country as the living wage varies in dollar amount by state, and even within state. That should be kept in mind if a solution to pay more to generate supply is considered.

People five, 10, or 15 years from retirement need to work long-term care into their retirement planning in some way. Depending on Medicaid may only give one access to a waiting list, especially when it comes to home care.

Perhaps a better solution for middle America is a focus on the very long tail risk. People can find friends and family to care for them for a while and eventually dip into an insurance or a public program benefit. Current long-term care insurance products do not allow that as an option. There is currently very little coverage available for long, long-term care needs.

How will the places for care delivery change over the next 10, 20, or 30 years? We have nursing home, assisted living facility, and home care now. The emergence or need for communities of shared responsibility and caregiver “credit” programs have been discussed. Perhaps, there has been a change in preference from people saying they want to “age in their own home” to wanting to “age in their own community.”

The door has been opened for managed care to pay for some long-term services, specifically Medicare Advantage. Over time, this could blur the line between what is thought of as medical care versus long-term care and the two may become synonymous.

We see the possible introduction of supportive housing in communities driven by care providers and insurance companies, or the public. This is pre-assisted living care; there is more connectivity between the health delivery system and the social services delivery system.

There is so much health data stored on every individual these days. At what point will insurers be able to or be motivated to use it to lower the cost of premiums or help them better predict and manage the care of the individuals? Privacy and protected health information really prevents this being widely used by an insurance company, especially years after the policy is issued. Are there ways to get consent from insureds so this can be monitored? How would a company get it for everyone in the block?

There are programs that give vitality credits that could be premium discounts. Airbnb and VRBO-type startups have tested a “Golden Girls” model—essentially marketing a roommate system where the tenants

can lean on one another. Additional apps would cater to their needs such as dog-walking services when the dog owner is less able to provide that level of care for a pet but otherwise benefits from having a pet.

Predicting claims is only part of the equation. The cost of care can vary widely from county to county. That must also be predictable in order to help insurance companies predict the cost of claims in the future. Individual's acceptance of care that extends life or acceptance death is upon them may vary by geographic region.

There are different supply sources for caregiving needs by geographic region and nursing home lobbies are stronger than individual lobbies. So, depending on the politics of a region, caregivers may be dis-incented to control costs.

Take the example of a healthier person living in a facility who contributes to the rest of the community: A 100-year-old delivering newspapers to everyone else. There is a sense of community for some individuals living in these facilities. Families have the capacity to care-give across many generations: It is now not uncommon to have three generations of a family all receiving some level of care.

## Appendix : Panelists

### LIST OF PANELISTS

<b>Name</b>	<b>Role</b>	<b>Company</b>
Chris Gorham	Moderator	Retired
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Robert Eaton	Symposium Leader	Milliman
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Dr. Victoria Braund	External Expert - Geriatrics	Northshore University HealthSystem
Michael G Mercury, PhD	External Expert - Geriatrics	Northshore University HealthSystem
Dr Samir Qamar	External Expert - Technology	Medwand
Char Hu	External Expert - Caregiving	The Helper Bees
Dr Joanne Lynn	External Expert - LTC Policy	Altarum
Michael Hodin, Ph.D	External Expert - Geriatrics	Global Coalition on Aging
Victor Lane Rose	External Expert - Caregiving	ECRI
Marc Cohen	External Expert - LTC Policy	University of Massachusetts Boston
Karley Yoder	External Expert - Technology	GE Healthcare
Tyler Armstrong	Notetaker	Milliman

## About The Society of Actuaries

With roots dating back to 1889, the [Society of Actuaries](#) (SOA) is the world's largest actuarial professional organization with more than 31,000 members. Through research and education, the SOA's mission is to advance actuarial knowledge and to enhance the ability of actuaries to provide expert advice and relevant solutions for financial, business and societal challenges. The SOA's vision is for actuaries to be the leading professionals in the measurement and management of risk.

The SOA supports actuaries and advances knowledge through research and education. As part of its work, the SOA seeks to inform public policy development and public understanding through research. The SOA aspires to be a trusted source of objective, data-driven research and analysis with an actuarial perspective for its members, industry, policymakers and the public. This distinct perspective comes from the SOA as an association of actuaries, who have a rigorous formal education and direct experience as practitioners as they perform applied research. The SOA also welcomes the opportunity to partner with other organizations in our work where appropriate.

The SOA has a history of working with public policymakers and regulators in developing historical experience studies and projection techniques as well as individual reports on health care, retirement and other topics. The SOA's research is intended to aid the work of policymakers and regulators and follow certain core principles:

**Objectivity:** The SOA's research informs and provides analysis that can be relied upon by other individuals or organizations involved in public policy discussions. The SOA does not take advocacy positions or lobby specific policy proposals.

**Quality:** The SOA aspires to the highest ethical and quality standards in all of its research and analysis. Our research process is overseen by experienced actuaries and nonactuaries from a range of industry sectors and organizations. A rigorous peer-review process ensures the quality and integrity of our work.

**Relevance:** The SOA provides timely research on public policy issues. Our research advances actuarial knowledge while providing critical insights on key policy issues, and thereby provides value to stakeholders and decision makers.

**Quantification:** The SOA leverages the diverse skill sets of actuaries to provide research and findings that are driven by the best available data and methods. Actuaries use detailed modeling to analyze financial risk and provide distinct insight and quantification. Further, actuarial standards require transparency and the disclosure of the assumptions and analytic approach underlying the work.

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