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# Perspectives from Anna: 2017 Living to 100 Symposium

By Anna Rappaport

The Society of Actuaries (SOA) has sponsored a research program, “Living to 100 and Beyond,” for the last 15 years. This program has been a place for new ideas, exchange of information, discussion of controversies, learning how other disciplines view related issues, and identifying points of agreement and disagreement. The cumulative program output since 2002 includes more than 150 scientific papers, a number of presentations and panel discussions, and six symposia. The triennial symposia bring together a diverse group of experts with different perspectives on the need to understand changes in life expectancy and maximum life span and strategies to adapt to these longer life spans. I personally feel very proud that the SOA has taken the leadership role in sponsoring this effort and bringing together numerous organizations to help.

I really enjoy participating in this program because each symposium gives me a chance to learn new perspectives and developments that I might have overlooked and to network with people from different areas. This article offers some of these perspectives on the 2017 symposium and the effort overall.

**Accessing information about Living to 100:** For each of the six symposia there is a monograph posted on the Living to 100 website at <https://livingto100.soa.org>. The 2017 monograph including the new papers should be available in the fall of this year. Individual presentations from 2017 can be accessed in the “agenda” section of [livingto100.soa.org](https://livingto100.soa.org). All of the papers from 2002 to 2014 and the findings are summarized in a report prepared by Ernst & Young. That report is split between technical issues and implications, and can be found at <https://www.soa.org/research-reports/2016/Living-to-100-Insight-on-the-Challenges-and-Opportunities-of-Longevity/>. The report also highlights areas of agreement and disagreement and it includes abstracts for all of the published papers in an Appendix.

## BIG IDEAS—BIOLOGY

A focus on biology has been a regular part of Living to 100. In 2017, there were two major presentations highlighting developments in biological and medical research. One overlapping theme in those two presentations is a relationship between the biological aging process and the development of many different diseases. If that aging process can be stopped or slowed down, it would have a major impact on the incidence of various diseases and potentially extend the period that people are able to be healthy, albeit not necessarily impacting total life spans.

*Nir Barzilai* is professor of medicine and genetics at the Albert Einstein College of Medicine at Yeshiva University and director of the Institute for Aging Research. His presentation was titled “How to Die Young at a Very Old Age.” He is conducting research on centenarians, and searching for a drug that can intervene in the aging process. He is actively involved in promoting a large research project “TAME: Targeting Aging with Metformin.” The hope is that the study will demonstrate that metformin can target multiple morbidities of aging, and that it will then be approved for use on a widespread basis. The study also has goals of providing a different paradigm for studying next generation drugs that target multiple morbidities of aging, and to apply the studies of science as powerful new tools to achieve primary prevention of numerous diseases. If the associated researchers achieve the hoped-for results, this work could help in extending healthy life expectancy and lead to major reductions in medical costs. It could also change the way medicine is practiced to focus less on specific diseases and much more on the total person and on cross-disease prevention. (You can learn more about his research at <https://www.einstein.yu.edu/centers/aging/longevity-genes-project/>.)

*Judith Campisi* is an internationally recognized biochemist at the Buck Institute for Research on Aging. She has made contributions to understanding why age is the largest single risk factor for developing a variety of diseases including cancer. She explained cellular processes and senescent cells—older cells that have stopped dividing—and how they contribute to disease and the aging process. Senescence occurs when cells experience certain types of stress, especially stress that can damage the genome. The senescent cells help prevent cancer by blocking damaged cells from multiplying. But there is a trade-off: The lingering senescent cells may also cause harm to the body. Her research group found evidence that senescent cells can disrupt normal tissue functions and, ironically, drive the progression of cancer over time. Senescent cells also promote inflammation, which is a common feature of all major age-related diseases. Her research is shedding light on anti-cancer genes, DNA repair mechanisms that promote longevity, molecular pathways that protect cells against stress, and stem cells and their role in aging and age-related disease. Her research integrates the genetic,



environmental and evolutionary forces that result in aging and age-related diseases, and identifies pathways that can be modified to mitigate basic aging processes. She is collaborating with many other research groups on similar issues. Her research and related work has the potential to make major changes in the way aging and disease are viewed. (For more information about her work, see <http://www.buckinstitute.org/campisiLab>.)

Together, these two presentations left me with the idea that there are potentially major changes in the way we view aging, and how we can deal with the diseases of aging, that can lead to modest changes in life expectancy but a big reduction in the number of “sick” years at the end of life. That would be great news. In the final panel at Living to 100, *Jay Olshansky* focused on the future and suggested the above as one scenario. He also explored an opposite scenario, and that is that we continue to attack heart disease and cancer, as well as other major causes of death, without directly addressing aging. He suggested, however, that such a scenario would lead to continued growth of Alzheimer’s disease and longer and longer periods of frailty, which in turn lead to greater demands for long-term care. We all have a major stake in successfully addressing the aging issues so that we can overall have healthier and more meaningful lives.

#### BIG IDEAS—A FOCUS ON PEOPLE: LIVING WELL IN GOOD COMMUNITIES

There were different discussions of the human aspect of aging, a new focus for Living to 100. *Steve Vernon* presented the Stanford Center on Longevity’s *Sightlines Project*, which defines three major domains for living well to old ages: financial stability, health and social engagement. The formal recognition of social engagement is new for many people. This project includes indicators of how well we are doing in these domains and recommendations for improvement. Social engagement was a new area of emphasis for Living to 100. The SOA is a sponsor and

supporter of the Sightlines Project. At the same session, *Cynthia Hutchins*, director of Business Gerontology from Bank of America Merrill Lynch, provided insight about the need to plan for seven life priorities: health, home, family, leisure, giving, work and finance. Both of these discussants provided strong messages that merely planning for money and health is not enough.

*Phyllis Mitzen’s* “The Changing Face of Eldercare” presentation focused on big ideas: making communities friendly to an aging population, and steps that support people staying in their communities longer. The World Health Organization has established a program of age-friendly communities and a process to help communities become more age-friendly. The eight domains of an age-friendly community are:

1. Community and health care
2. Transportation
3. Housing
4. Outdoor space and buildings
5. Social participation
6. Respect and social inclusion
7. Civic participation and employment
8. Communication and information.

She said that there are 332 age-friendly cities today in 36 countries. The AARP is the U.S. affiliate of this network. The AARP program focuses on safe-walkable streets, age-friendly housing and transportation options, access to needed services, and opportunities for residents of all ages to participate in community life. Age-friendly communities do not replace the need for senior housing and nursing homes, but they give people new options and may make it feasible for them to stay in the community longer.

Mitzen also focused on the “Village” movement, or the formation of neighborhood-based groups for seniors that support people aging within the community. Such organizations are heavily reliant on volunteerism and people helping each other. The first village was formed in Boston in the Beacon Hill neighborhood in 2002. Mitzen founded and chairs **Skyline Village** in Chicago. <sup>1</sup> My view is that villages are very helpful and can replace or supplement extended family for seniors who need to be part of a support network where they live. To learn more about the village movement, see [http://www.vtvnetwork.org/content.aspx?page\\_id=0&club\\_id=691012](http://www.vtvnetwork.org/content.aspx?page_id=0&club_id=691012).

#### MORTALITY IMPROVEMENT: A MAJOR CONCERN

Actuaries establish prices and calculate reserves for financial security products and programs. Rates of mortality improvement are important in these financial calculations. Different mortality tables are used for different programs based on the populations covered, the purpose of the calculations and the product or program in question.

Living to 100 was started around the year 2000 because of the difficulty in finding reliable data at very high ages and the added difficulty of projecting change. In 2017, Social Security actuaries from the United States, United Kingdom and Canada again compared mortality and projection methodology. *All agreed that mortality improvements at the high ages are slowing compared to the past 25 years.* Canadian mortality continues to be significantly lower than U.S. mortality. The United States has a shorter life expectancy than many other (“first world”) countries. In addition to the discussion by the Social Security actuaries of what they do, *Larry Pinzur* presented a session on approaches to the measurement and projection of mortality improvement. Recent Retirement Plans Experience Committee (RPEC) work blends near-term mortality improvement based on recent experience with longer-term mortality improvement based on expert opinion. Social Security considers cause of death analysis in setting assumptions as to longevity improvements.

For me, it was very interesting that there did not seem to be any major disagreements about future mortality improvement. This was in sharp contrast to some of the earlier conferences that indicated much more divergence of opinion. Many of the papers deal with mortality improvement and modeling. I do not know whether the absence of sharp disagreement was a reflection of the attendee mix or whether it reflects greater consensus about this key assumption.

## PUBLIC POLICY ISSUES

Population aging is changing the fabric of our societies, and affects many areas of policy. *David Sinclair*, director of the International Longevity Centre in the United Kingdom, provided insight into several big policy challenges in the United Kingdom. They were addressing issues such as the cost of aging, saving more, providing an adequate workforce, getting older people to spend more, delivering health and care (which we would call long-term care or long-term services and supports), maximizing the opportunity of technology, and responding to the issues surrounding housing wealth. In my view, there is a major overlap with big underlying issues in the United States.

*Rob Brown*, retired professor from the University of Waterloo and former president of the SOA and the International Actuarial Association, provided insight into issues getting recent attention in Canada. Social security benefits had recently been increased, but following a failed attempt to raise statutory retirement ages, the legislation was reversed. The majority of the public does not have employer-sponsored benefits. There are challenges in funding health care, and in the provision of health and long-term care. Canada seems to be going in a different direction than many countries, as it is maintaining and/or improving social benefits.

*John Cutler*, an attorney and senior fellow at the National Academy of Social Insurance, pointed to the huge uncertainty in the United States linked to the Trump election. Concern about jobs, particularly among mid-career people and those nearing retirement, as well as flat/declining wages, seemed to be very important in the election, but other than encouraging manufacturing in the United States, it is unclear what, if anything, will be proposed to address these issues. The federal government plays a huge role in health care and it is quite unclear how that role may change going forward. Proposals to modify that role are a high priority in the new administration, but there is no universal consensus about the replacement programs. Less visible but also very important are the need to bring Social Security into financial balance as well as private pension and retirement savings issues.

Even though aging affects many areas of life, there does not appear to be a consistent, integrated, multidisciplinary focus on aging outside of Living to 100 and a few other similar efforts. *Mitzen*, in the Changing Face of Eldercare session, shared points made in a letter from the SCAN Foundation to then-President-Elect Trump. They requested that he:

- Name and give authority to a national leader who will build solutions for older Americans across all domestic policy areas.
- Protect older Americans and their families from financial bankruptcy when long-term care needs strike.
- Modernize Medicare to pay for team-based, organized care to get more value for older Americans with complex care needs.
- Accelerate federal and state efforts to integrate Medicare and Medicaid.
- Build new ways to measure health care quality based on what older Americans want.

While the above are ambitious goals, they provide some ideas about changes that would be very positive if appropriate focus were given them.

My view is that there are many similarities between demographics and the big issues facing our countries as we deal with population aging, but our solutions vary. Sharing of information is very valuable. An international issue that concerns me greatly is the ever-increasing length of retirement and the failure of policymakers to appropriately address it.

## REPEATED THEMES

There was a lot of emphasis on illness and the need for long-term services and supports throughout the 2017 Living to 100 conference. The scientific presentations pointed to developments that may reduce the need for such services in the long term. The public policy panel on the Impact of Aging pointed

out that there are gaps in the system for providing and financing support in all of the countries discussed. The U.S. is badly in need of a better system. The companion individual session also pointed to difficulties around caregiving. Long-term care was prominently featured in the panel on Challenges and Strategies for Financing an Increasingly Long Life. A major long-term care event that is not prepared for is a major threat to the retirement planning of middle class Americans, and a major cause of running out of money. Private insurance markets are in need of innovation, and a variety of product approaches were presented. The Changing Face of Eldercare session brought in an entirely different dimension, looking at ideas to help people age in their own communities. Technology also offers new options and was mentioned at several different points.

Retiring later and working in retirement were also mentioned during the discussions, but there was much less current emphasis on these topics, having been major areas of interest in the 2014 symposium. In fact, in 2014 these two topics seemed to be the major recurring areas of emphasis.

Public programs are very important to the economic and health security of the aged in all of the countries discussed. There are challenges to the health care systems and some uncertainty about them in all of the countries. Technology offers great promise to health delivery. The United States has major uncertainty over health policy due to the recent change in national government.

Financial products is a theme that seems to be discussed in every recent Living to 100 conference. The SOA post-retirement risk research indicates that private sector financial products, other than health insurance, are not very popular with individuals and that they want to rely more on employee benefits. Two areas discussed (and where innovation is taking place, but more is needed), are long-term care insurance and payout products. Other SOA projects and Living to 100 offer considerable discussion about these products.

The last theme that I would like to mention is the individual and their responsibility to plan for themselves and deal proactively with the unavoidable prospect of aging. SOA post-retirement risk research documents gaps in knowledge and how people plan and manage assets. Occasional “shocks” are unpleasant to

think about, but it is important to deal with them in advance rather than merely on an “as-they-occur” basis. Living to 100 touched on this and related issues several times. For me, the new message was the need to expand our discussion, as we think about these topics, to include a focus on the individual in the community and the community around them.

## CONCLUSION

For me, it has been a great privilege to participate in Living to 100 as a member of the planning committee, as a paper writer, and as a presenter. If I think about the large and complex variety of issues that we are dealing with as society ages as a mosaic, each of us has knowledge and perspectives that fill in some of the tiles. For each of us, they are different. At Living to 100, I am able to fill in more tiles and to have contact with people whose knowledge is in very different parts of the total space. That helps me deepen my understanding in the areas where I concentrate and change my perspective. I hope that many of you will read the papers and the overview paper, and that you will participate in the next rounds of Living to 100. A big “thank you” to the SOA for this effort. ■

**P.S.: A personal story:** This effort is particularly meaningful to me since “*Responding to the Aging Society*” was a major theme when I served as SOA president 20 years ago, in 1997–1998. I have chaired the Committee on Post-Retirement Needs and Risks since its inception, and its work overlaps with Living to 100 and was highlighted in several sessions. I keynoted the first Living to 100 and have written a paper for each of the six symposia.



Anna Rappaport, FSA, serves as chairperson of the Committee on Post-Retirement Needs and Risks (aka the Committee on Post-Retirement Risk).

## ENDNOTES

1 <http://www.skylinevillagechicago.org>