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Longevity is an International Topic

By Kai Kaufhold

The implications of longer life expectancy are globally felt and feared. The demographic shift, which many developed countries are experiencing, will be a burden on their social security systems and will put pressure on the “contract between the generations.” In addition, longevity-related research is an international subject of study, in which views are exchanged on modern methods of modeling mortality and life expectancy and commiseration on the difficulties of collecting useful data and demographic statistics. We find ourselves part of an international community of actuaries and researchers, and indeed, mortality is a “portable risk” as the methods and models used to understand it can be applied universally to any country’s data.

As a topic of research and debate, we are still far from finding the final answer to the longevity dilemma. The solutions to its societal impact, its impact on the insurance and pensions industry and on the economy at large is still neither perfectly understood nor have we found any easy answers to alleviating the impacts we anticipate. Therefore, it is worthwhile to seek inspiration across not only physical boundaries but the boundaries of profession and discipline. Would it be negligent to not to join forces with others who are pursuing the same goals?

Professor Siu-Hang (Johnny) Li of the University of Waterloo is a recognized expert in the field of statistical mortality analysis and projections of future mortality. He will be one of numerous international presenters at the upcoming Living to 100 Symposium, which will be held in Orlando, USA, January 8-10, 2014, which brings together practitioners and representatives of scientific research in various fields to discuss the implications of the demographic changes that our global society is facing. At the recent Colloquium of the International Actuarial Association in Lyon, France, we had the opportunity to conduct an interview with Professor Li.

Professor Li, you presented at several of the Living to 100 Symposia in the past, and are on program for the upcoming Symposium in January 2014. In your opinion, what makes the Living to 100 Symposium an attractive event?

For one thing, the location in Florida is certainly attractive to both speakers and the audience. What I personally appreciate most are the networking opportunities which the Symposium offers, where I can mingle with other researchers and get to know some of the “end-users” of our research, the actuaries and practitioners from other fields. The way the Symposium is set up emphasizes interaction between audience and speakers, and there is plenty of Q&A time. The opportunity for speakers and audience to interact is one of the things I cherish most at conferences.

How did you become interested in the field of mortality research?

Ten years ago, when I was doing my Master’s thesis at the University of Hong Kong, my supervisor Professor Wai-Sum Chan introduced me to the topic, which became the area of research in my thesis and on which I was able to present a paper at the 2005 Living to 100 and Beyond Symposium. As you can see, the L2C Symposium has had a strong influence on my research interests. By the way, did you know that mortality is the oldest research topic in actuarial science? Already in 1825 Benjamin Gompertz published a scientific treatise “On the Nature of the Function Expressive of the Law of Human Mortality...”

The changes in the demographic landscape are a topic of great importance to society, governments and the financial services industry. We are seeing more and more financial innovations, which in turn are generating a demand for more research.

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Speaking of history, are you not worried that the topic of longevity and predicting future life expectancy is a risky business, given that generations of actuaries have gotten it wrong?

It is indeed easy to get future mortality wrong. We have been seeing vast changes in the demographic landscape and these may be enhanced by changes in socio-economic status within the population. However, research is gaining ground on this somewhat elusive problem. One example of this is the so-called cohort effect in the UK, which had not yet been identified at the 2002 Living to 100 Symposium, but on which Renshaw and Habermann published their much-noticed paper in 2003. We just have to continue to do our best to understand what the data is telling us, and continue to be open to new ideas, while we work on the development of better models to understand the phenomena we see.

Professor Li, as an Asian statistician working at the Actuarial Science faculty of the University of Waterloo in Canada, would you agree that future mortality and the implications of longevity are an international topic?

Scientific research in general is all about the sharing of ideas to advance our global knowledge. In North America, we currently can learn a lot from the progress which has been made in the UK on the topic of mortality-linked securities, as well as from the UK actuarial profession's Continuous Mortality Investigation, which collects insured lives data in a consistent manner and works to enhance the profession's understanding of mortality projections.

The Living to 100 Symposium in January 8-10, 2014 will again include a number of topics of international

interest, too. Among others, we will hear presentations on

- A comparative assessment of the adequacy of care for the elderly in six developed countries: Canada, United States, United Kingdom, Germany, France, Sweden.
- A comprehensive population mortality study of England and Wales utilizing modal age of death.
- Interactions between health, mortality and marital status in Taiwan.

Your co-authors come from various different countries in Asia, while you live and work in Canada. Do you find it difficult to keep in touch and collaborate across many time-zones?

Honestly, with today's technology collaboration with colleagues all over the world is not an issue any more. With email, teleconferences and video-conferencing, it is as simple to stay in touch with my international colleagues as with Canadian or American ones.

Professor Li, thank you for the conversation and see you at the Living to 100 Symposium!

The Living to 100 Symposium, will be held in Orlando, USA, January 8-10, 2014. For more information please see: <http://livingto100.soa.org/>. □