

My Actuarial Qualifications & Volunteering Experience as My International Passport

When I received a letter to remind me of passport renewal in case if I need to travel in the next 6 months, I sighed at the fact that no one including myself is able to travel freely despite having an international passport – which has been consistently ranked one of the top in the world in past few years.

Looking back at my past 14 years as an actuary - my actuarial qualifications have actually served as my international passport bringing me across continents - from Actuarial Analyst in New York City to Actuarial Consultant in Hong Kong & China, and now an Actuarial Director in an InsurTech (Coherent) based in Singapore.

During the past 10 years settling down in a country where I spent my teenager years and now call it my home, I have been privileged to be given the opportunities to experience different facets of actuarial work from valuation and M&As at a consulting firm to product development at reinsurers for Southeast Asia. Travelling regularly to various Southeast Asian countries to meet clients was my routine; the sense of satisfaction from seeing my product ideas coming into fruition was indescribable.

During the MERS-CoV outbreak in Middle East in 2015, it occurred to me that MERS coverage for Hajj pilgrimage would be critical to give the pilgrim a piece of mind during their once-in-a-lifetime pilgrimage. Many Muslims have saved and queued for years to travel to Mecca for pilgrimage, but some may be deterred due to the MERS outbreak. On the other hand, as a (re)insurer, it was difficult to (re)insure MERS during the outbreak without fully understanding the risk (in the context of today, it would be to insure COVID-19 right at the midst of the COVID-19 pandemic).

When I shared this idea of covering MERS during Hajj at Mecca with the Chief Actuary of a Takaful Operator, he was elated and said that it was the best idea he has ever received and a timely benefit for its Muslim customers in Malaysia. To support this idea, I did a desktop research by reading up on MERS and its statistics on World Health Organisation (WHO) website and checking if other insurers have supported the same (it wasn't a surprise that there was none back then). I did further research on the annual quota of Hajj pilgrimage in Malaysia (which had been around 30k for a country of 20 million Muslims). As MERS outbreak was contained in the Middle East, exposure to MERS was limited to the duration of Hajj pilgrimage which is typically performed over 5-6 days. Equipped with this information, I discussed extensively with the Chief Underwriter and Chief Medical Officer to better understand this medical condition, before all of us agreed on an appropriate and insurable definition which is to cover death during Hajj or within 21 days upon return from Hajj. I also documented all my pricing and underwriting discussion in pricing memo and explained the thoughtful process with Chief Pricing Actuary before we provided a retakaful proposal to the Takaful Operator who launched it within months.

It may seem like a quick and easy task to do just like a typical reinsurance quotation, it is gratifying to see that this Takaful Operator is still providing this insurance cover of value for its Muslim customers 5 years later. A Muslim customer can and will now have a piece of mind when they travel to Mecca for their once-in-a-lifetime Hajj pilgrimage.

Since then, product development has become my passion. Using my actuarial skills, I have priced and developed insurance products to cover phototherapy treatment for babies with severe jaundice, developmental delay for young children, mental health conditions for standard lives, critical illness conditions for people living with diabetes and cancer product for cancer survivors. I was elated to share maternity insurance products in Southeast Asia (including one which I priced and launched for a Singapore-based multinational insurer) at the 2018 International Congress of Actuaries in Berlin.

While I find my professional work experience in product development fulfilling, I also find volunteering at the Singapore Actuarial Society (SAS) rewarding in terms of making societal impact.

As SAS Health Committee Chair since 2019, I have led the committee of 15 members to support health-related initiatives with government agencies in Singapore (e.g. Ministry of Health) to provide actuarial support in policymaking as well as to elevate public education in these areas.

- **Long Term Care (LTC):** Before the previous LTC scheme (ElderShield) was formally retired in October 2020, the SAS Health Committee put together a [Long Term Care \(LTC\) paper](#), comparing LTC systems in various

developed countries (including Singapore) to educate public about the various long term care systems and key LTC pricing assumptions. Noting that there was a public debate on why females need to pay higher premiums (in view of longer expectancy) than male counterparts, we highlighted the need to focus on LTC claims experience as it evolves. Together with the SAS Council, we shared this paper with and proposed to the then-Nominated Member of Parliament (NMP) Ms Irene Quay to include a Fellow of Singapore Actuarial Society (SAS) to be on CareShield Life Council – both were mentioned in the parliamentary speech and the proposal to include a Fellow of SAS was also accepted in the Parliament in September 2019.

After the enhancement to CareShield Life in October 2020, all Singaporeans (above age 30) are now entitled to LTC cover with monthly payout of SGD 600 indexed with annual inflation for life. The CareShield Life Council was also appointed in April 2020 including professionals across different industries and one actuary (who is Fellow of SAS) on the Council.

- **Universal Healthcare (MediShield Life) review:** MediShield Life is the universal health scheme for all Singaporeans and Permanent Residents in Singapore. Different from other developed nations where universal health is funded via national taxation, MediShield Life is designed as a basic health insurance where every Singaporean pays an annual premium. In late 2020, after considering the needs and claim experience of the scheme, the MediShield Life Council appointed by the Ministry of Health (MOH) came up with a number of new enhancements of which the MOH planned to implement coupled with premium increase in April 2021.

To gather public feedback, the MOH issued a Public Consultation and also invited the SAS Health Committee to respond as a professional body. The SAS Health Committee promptly formed a Working Group to study each of the new enhancements as well as its implications to private Integrated Shield plans in Singapore. Without access to proprietary claims data beyond the public consultation, we provided our [comments](#) to the MOH based on our understanding and experience in health insurance landscape in Singapore and supported with research from the public domain. We also presented to the SAS members at afternoon forum to gather further feedback.

It was re-assuring to me that our actuarial experience was useful for policymakers in enacting policy enhancements which effect the entire nation. Our comments were further referenced by public and other professions such as Singapore Medical Association in “SMA 61st Council Position Statement on Troubled Integrated Shield Plans (IPs)”, and also subsequently referenced by the Life Insurance Association (LIA) in its corresponding response. While I will always emphasize that all readers should read this paper in entirety, I was personally glad that our efforts did not go into waste and made an impact in the public debate of rising health insurance costs vs panel selection of doctors by private health insurers in Singapore.

Equipped with actuarial qualifications, I am glad that I have chosen a path where I can further develop my passion in insurance product development at work and further making societal impact in policymaking via volunteering at the SAS. I am also confident that InsurTech start-ups like Coherent can further fulfil my dream of increasing insurance access to everyone from all walks of life with the adoption of technology designed to make insurance product launch fast, intuitive and rigorous.