



Actuarial Innovation in the COVID-19 era

26 April 2021 - 7 May 2021

Location

undefined

Workshop

Mon, 26/04/2021 - 09:00 -
10:30

How have the IFoA and its members responded to COVID-19?

Louise Pryor, Colin Dutkiewicz, Matthew Edwards and Kathryn Morgan discuss why the IFoA COVID-19 Action Taskforce (ICAT) and the award-winning COVID-19 Actuaries Response Group (ARG) were established, how they now operate and what they have achieved. They will identify the highlights, and discuss lessons that have been learned.

Speakers: Louise Pryor, President-elect; Colin Dutkiewicz, Aon; Matthew Edwards, Willis Towers Watson; Kathryn Morgan, Non Executive Director at Marshmallow

Workshop

Mon, 26/04/2021 - 16:00 -
17:00

Mortality Shocks and Reporting Delays in Portfolio Data

Due to the COVID-19 pandemic, there is a requirement that actuaries track short-term mortality fluctuations in the portfolios they manage. This demands methods that not only operate over much shorter time periods than a year, but that also deal with reporting delays. In this presentation we consider both semi-parametric and fully parametric approaches for tracking portfolio mortality levels in continuous time. We identify both seasonal patterns and mortality shocks, thus providing a benchmark for COVID-19 in terms of a portfolio's own past experience. As part of the session, a model is presented that allows for seasonal variation and reporting delays, as we find that an allowance for mortality reporting delays can be estimated from a single extract of experience data and used to forecast unreported deaths. Results are given for annuity portfolios in France, the UK and the USA.

Speaker: Stephen Richards, Longevitas

Workshop

Tue, 27/04/2021 - 09:00 -
10:30

Sessional Roundtable: The Importance of Biodiversity Risks for Actuaries

To book onto this webinar - please click [here](#).

Actuaries have a lot to offer biodiversity management over the next decade as the world develops more depth to its response to this global challenge. This sessional roundtable offers an opportunity to learn about this emergent risk, to contribute to our thinking as a profession, and help us develop the next steps forward.

It is beyond doubt that biodiversity is being lost at an unprecedented rate (a mass extinction). The economic or financial impact of this loss is unknown. An increasing amount of work focusses on how business and government decision making can account for biodiversity through concepts such as natural capital valuation. This is an important topic on which there has been little actuarial discussion to date. Following the development of an [initial position paper](#), four papers have been written by the IFoA's Biodiversity Working Party on a range of biodiversity topics that are important to actuarial practice:

1. **Natural Capital** has been championed by the UK Government and various business groups, however, it has also been seen as controversial within some non-governmental organisations.
2. **Quantified metrics** (such as monetisation). This paper assesses the impacts on, and the benefits of, biodiversity and summarises a number of metrics that may be of use to actuaries.
3. **Zoonotic pathogens** - the recent [Dasgupta Review](#) suggests that due to biodiversity loss increasing contact between people and wildlife, there is an increasing likelihood of spill-over of infections where pathogens are transmitted from animals to human hosts. COVID-19 has emphasised the significant risk to finance and the global economy that zoonotic pathogens can represent.
4. **Justice** within the context of biodiversity is of increasing global focus. Stakeholders (such as shareholders, policyholders, sponsors and scheme members), local and indigenous communities, intergenerational fairness, as well as nature itself, need to be considered in any evaluation. The concepts developed through actuarial fairness may support an understanding of justice.

After an introduction to these papers, we will host roundtables on the above topics as well as those grouped by actuarial domains to consider the best ways to take the biodiversity work for actuaries forward. You will be asked to make a 1st and 2nd choice of the roundtable during the registration.

We are looking forward to a sessional that will be both informative for you on the emerging understanding of this risk and informing us on the most appropriate next steps.

Speakers: Nick Spencer, Chair IFoA Sustainability Board (Chair)

Aled Jones, Chair of IFoA Biodiversity Working Party

Ryan Allison, Co-chair, Valuation Metrics subgroup

Georgina Bedenham, Co-chair Zoonotics subgroup

Alex Darsey, Co-chair, Natural Capital subgroup

Jessica Fifield, Co-chair, Justice subgroup

Workshop

Tue, 27/04/2021 - 13:00 -
14:00

A Mental Health 'Loose Wo(men)' Event

This 'Loose Women' style event, with an adviser, development underwriter, business development actuary and mental health charity expert, will openly discuss the topic of mental health. We will discuss how mental health is viewed from each of our specialisms, and determine where our views are symbiotic and where they diverge in order to develop an understanding of different perspectives and discussion points for learning.

The audience will hear alternative views on how to approach insurance for people living with mental health. For example:

- does data modelling support mental health in modern society?
- are we asking the right questions about mental health?
- what classes as disclosable anxiety?
- what support should be offered to help a client that is seen as vulnerable?

This session will bring people from different stages of the insurance journey together, so that we can learn from each other. Our respective counterparts in the audience can hear from 'the other side' too.

Panellists include:

Kathryn Knowles, Managing Director, Cura Financial Services

Sarah Murphy, Associate Director, Rethink

Matt Rann, Director, Rann Risk Consulting

Lisa Balboa, Business Development Acutary, Hannover Re

Workshop

Tue, 27/04/2021 - 16:00 -
17:00

A Global Pandemic - How Solvency II Operated During the Crisis

The crisis has given life insurers an opportunity to look back and assess whether their capital planning and models, investment strategies, and risk management frameworks operated during the crisis as intended. Equally, we imagine the crisis has given regulators an opportunity to look back and assess whether their regulatory measures and frameworks operated during the crisis as intended. In this presentation we will:

- look back at what happened
- examine elements of Solvency II that were intended to reduce procyclicality and excessive volatility in order to enable insurers to provide long-term guarantees, and consider whether these operated during the crisis as intended
- highlight areas where Solvency II could exacerbate financial crises, or force insurers to undertake uneconomic actions which typically, would be to the long-term detriment of stakeholders.

From an innovation perspective, we will conclude by presenting our views on potential modifications to countercyclical measures in light of the crisis. The presentation will have a Life Insurance focus and will cover the collective outputs of the ICAT Capital Management workstream.

Speakers: Rosalind Rossouw (ICAT workstream lead), Paul Fulcher (ICAT workstream lead), and Nicholas Miller-Smith (ICAT workstream member).

Workshop

Wed, 28/04/2021 - 09:30 -
10:30

Long COVID and the implications for the future of healthcare

The term 'Long COVID' refers to a set of symptoms that persist beyond 12 weeks in those who have had COVID-19, with prevalence ranging anywhere from 10-90% depending on the population. These symptoms are reported by those who have had mild illness through to severe disease and include reports of joint and muscle pain, fatigue, headaches, shortness of breath, and inability to concentrate, with diagnoses of heart disease, neurological disease and lung damage.

In this presentation we will describe the clinical aspects of this condition, the prevalence and predictors of risk, and consider the future morbidity burden that may be experienced. It will also propose potential ways to model that burden and the challenges of meeting this emerging and novel health need within the health system.

Speakers: Nicola Oliver and Josephine Robertson, members of the COVID-19 Actuaries Response Group (ARG)

Workshop

Wed, 28/04/2021 - 13:00 -
14:00

Meta-research on COVID-19 models – methods and results of PAN1 reviews

PAN1 was formed with the objective of conducting meta-research on COVID-19 models, by identifying models relevant to actuaries, performing rigorous reviews, and documenting their biases and limitations. Numerous models of variable quality have been published within months, and as the pandemic evolves rapidly, there is the risk that model assumptions become dubious, or that incorrect conclusions are drawn from inappropriate usage of models. We will introduce the concepts relating to meta-research and discuss issues arising at the interface of science, media and policy.

To date, our workstream has identified and classified ~25 pandemic models. We developed and applied a standardised review procedure, based on actuarial validation and academic critical appraisal processes. Each model was independently reviewed by two members, according to a model evaluation framework designed to extract relevant information, then critically appraise the data, assumptions, model structure and results (with accompanying scoring systems). Pairs of reviewers then consolidated their reviews and summarised key conclusions and limitations of the models, disseminated through: (1) a website, (2) a short summary report, and (3) engaging with other IFoA groups and industry. We will demonstrate how to rapidly access our findings through the website, and how they can be used in actuarial contexts.

Speakers: Mei Sum Chan, University of Oxford; Natasha Naidoo, Generali UK; and David Shaffer, Just

Workshop

Wed, 28/04/2021 - 16:00 -
17:00

An ICAT Health and Care Helicopter Tour

The IFoA's Health and Care Board is proud of the ten ICAT publications in the health and care space. In this webinar we present a helicopter view of all these contributions, grouping into the following 3 themes:

- professional development - new techniques and jargon actuaries have learned
- how the protection industry has been impacted and may change longer term
- building a better society

This will be a panel presentation with authors of the individual papers giving a short overview, followed by a summary of the key themes running through the papers.

Speakers: Christopher Reynolds, Partner Re; Adele Groyer, Gen Re; Scott Reid, Zurich; John Ng, RGA; Richard Purcell, Hymans Robertson; Josephine Robertson, Optum; Leonel Lopes, PhD fellow and Visiting Lecturer at City, University of London

Workshop

Thu, 29/04/2021 - 09:30 -
10:30

National Narratives on COVID-19

The ICAT National Narratives workstream has gathered actuaries from around the globe to collect data and to provide actuarial perspective on events surrounding COVID-19 in the countries they know. One direction we have taken is to gather this collection of case studies in which local actuaries describe the 'national narrative' of their own country. We hope that this actuarial viewpoint will add insight to the actuarial analysis and public understanding of COVID-19.

The original article covered the countries below and was current as at 30 November 2020. This session is intended as a follow up to the article and will be updated to 31 March 2021; it may include additional countries.

Brazil - Kirsty Howitt, FIA, Gallagher Re

Ghana - John Abonongo, C.K. Tadam University of Technology and Applied Sciences

India - Rajeshwarie VS, FIA, Chubb Business Services India and Rishabh Gulati, Delhi University

Malawi - Dziwana Shawa, Old Mutual Malawi

New Zealand - Kate Dron, FIA, Suncorp

Poland - Maciej Zabojski, KPMG Poland

Singapore - Alvin Fu, FIA, AIA Singapore

United Arab Emirates - Memona Ali, FIA, Union Insurance

Speakers: Kate Dron, Suncorp NZ; Randall Wright, Swansea University; Alvin Fu, AIA Singapore

Workshop

Thu, 29/04/2021 - 16:00 -
17:30

Future Mortality Impacts of the Pandemic joined by speakers from the Society of Actuaries in Ireland COVID-19 Action Group

The immediate impact of COVID-19 has been thoroughly monitored, assessed and publicised. Research has (quite rightly) focussed on how we, as a society, deal with the immediate challenges that it presents. But as hope grows that we can bring the pandemic under control, what can we expect in terms of longer term impacts on mortality? In this session Joseph and Andrew will consider the challenges facing actuaries needing to set long-term mortality assumptions, consider what we already know, and where some of the greatest areas of uncertainty lie.

The **Society of Actuaries in Ireland** have carried out analysis work on excess mortality from COVID in Ireland and this may be of interest to UK members for comparison purposes.

Speakers, Andrew Gaches, Hymans Robertson, Joseph Lu, Legal & General and Caroline Twomey, Deloitte

Workshop

Fri, 30/04/2021 - 09:30 -
10:30

Impact of COVID-19 on the assumption setting in life insurance

Life 3 ICAT Workstream in 2020 researched the impact of the current pandemic on the assumption setting process for Life insurers. A set of articles has been published in October and November 2020 by the workstream, in order to draw the market's attention to additional factors that may need to be taken into account when setting the YE2020 assumptions. The workstream's research did not cover mortality and morbidity assumptions due to dedicated workstreams looking specifically at these two assumptions. We propose to cover the key highlights of our last year's publications and a fresh overlay of views resulting from the pandemic still continuing.

The presentation can be expected to discuss areas researched by the workstream such as:

- the impact of COVID-19 on life insurance new business assumptions
- additional considerations for with-profits products bonus setting assumptions
- considerations for lapse and expense assumptions
- impact of the pandemic on margins over and above best estimate and unit-linked charge assumptions
- considerations for resulting impacts on business mix and product offering.

Speakers: Marino Savvides, Manager - Life Actuarial & Risk, Mazars; Natalia Mirin, Senior Life Actuary, Mazars; Justine Morrissey, Non Executive Director (Anglo-Saxons Friendly Society and SAGIC)

Workshop

Fri, 30/04/2021 - 13:00 -
14:00

Social Protection Initiatives and COVID-19 in Africa

This webinar will focus on the challenges for social protection safety nets in Africa resulting from the pandemic and the potential for policymakers to respond with innovative solutions. An actuarial perspective on these challenges will prove valuable. There will be contributions from actuaries working in a number of countries across Africa as well as input from the IFoA's Social Security taskforce.

Speakers: Chris Sutton, Queen Mary University London; Laura Llewellyn-Jones, Callund Consulting; Tawanda Chituku, Consulting Actuary

Workshop

Tue, 04/05/2021 - 09:30 -
10:30

Hospital Capacity Management – Modelling the Front Line with Nottingham University Hospital

This presentation will map how Nottingham University Hospital managed the surges in COVID patients over the last year. This will include the benefit of previous links to Chinese respiratory doctors and the difficult trade off of other critical treatment. Of particular focus will be the triage of daily capacity management using NUH internal modelling, NHS projections and external independent actuarial pandemic modelling.

Speakers: Richard Hubbard, Mark Simmonds, Dominick Shaw, Joe West and James Robinson, Nottingham University Hospital

Workshop

Tue, 04/05/2021 - 12:00 -
13:00

Emergency Epidemiology: Research with Little Data and Even Less Time

In this talk, the speakers (both from the COVID-19 Actuaries Response Group) look at how epidemiology helped to tackle the pandemic, despite (initially) little data and (all the time) little time. Topics covered include:

- early studies on infectiousness and mortality, and their weaknesses
- laying down data-collection programs
- how the precautionary principle should work, and whether it can be reversed (with reference to face masks and vitamin D)
- how different countries approached the '1 or 2 dose' question with the vaccine
- how the virus's mutations are identified and researched.

Speakers: Matthew Edwards, Willis Towers Watson and Daniel Ryan, COIOS

WorkshopTue, 04/05/2021 - 16:00 -
17:00Is it better for a country to be fair or prosperous in a
pandemic?

This session will explore the hypothesis “It is the level of equality (fairness) rather than the level of absolute wealth that has led to better health and economic outcomes from the COVID-19 pandemic.”

The hypothesis is explored by correlating income inequality and GDP per capita with health and economic outcomes. The results are somewhat counter-intuitive; more prosperous countries have experienced higher death rates and worse economic outcomes, so too have fairer countries. This is largely driven by continental differences, most notably in Africa where the impacts of the pandemic have been lower. We conclude that fairer countries have seen less worse impacts than more prosperous countries, but that this is overshadowed by the counter intuitive nature of the results.

Speakers: Andrew Robinson, Aviva Canada, Sukrita Chhabra, John Branford and Naliaka Wafula

WorkshopWed, 05/05/2021 - 09:00 -
10:30Panel Discussion: Beyond the numbers: the use of data and
statistics in informing policymaking during a pandemic

Join this expert panel to gain an insight into some of the challenges around the use of statistics and datasets during the pandemic. Much has been made of the use of data to inform policymaking and policy decisions over the last year. Key decisions will continue to be made as nations emerge from lockdown and more will be understood about the impact of the virus and its consequences – both economic and social

Panel includes:

Jospehine Robertson (Chair), Sir Ian Diamond, Stuart McDonald and David Spiegelhalter

WorkshopWed, 05/05/2021 - 11:00 -
12:30

Government Response to COVID-19

Hear the Government Actuary's Department's (GAD) response to COVID-19 presented by Jacqui Draper, Andrew Jinks and Colin Wilson, Government Actuarial Department.

WorkshopWed, 05/05/2021 - 16:00 -
17:00

The prevalence of procyclicality in the financial industry

As part of the COVID-19 Action Group, our working party has researched over 50 academic and regulatory papers, in addition to new emerging evidence, in order to consider whether the financial services industry (primarily looking at pension schemes and insurers) exhibits procyclicality. The paper builds on previous research and validates past findings whilst offering new perspectives.

Our presentation will run through the key aspects of our research (risk based capital regimes, credit ratings and specific investment strategies) and test 2 hypotheses in each of these areas.

Speakers: Gareth Mee, EY; Pablo Vazquez, Credit Suisse; Denis Walsh, Mercer

WorkshopThu, 06/05/2021 - 10:00 -
11:30

Whose Health is it Anyway?

Covid-19 has shown how vulnerable society, our economy, and day-to-day lives are to illness, but despite this we have not valued the pivotal role of good health.

In this talk, former Chief Medical Officer for England, Dame Sally Davies, and public health doctor Jonathan Pearson-Stuttard will outline why health is truly our most untapped opportunity for prosperity and happiness in the 21st century, individually and jointly as whole nations.

A panel discussion with Dame Sally Davies and Dr Jonathan Pearson-Stuttard**Workshop**Thu, 06/05/2021 - 13:00 -
14:30

Helping Stop Disasters Destroying Lives: The Crisis Lookout Coalition

A webinar introducing the Crisis Lookout Coalition (www.crisislookout.org)

The Crisis Lookout Coalition is calling for a new form of international collaboration for the worst disasters, where an entire country's ability to save lives and meet the immediate needs of its citizens would be overwhelmed. The collaboration would better predict risks, such as large pandemics, floods, droughts, and agree in advance the financial support that would be needed to help affected communities. Understanding these risks and planning financially for them would require a multidisciplinary approach, and actuarial skills can play an important part in this.

Anticipated outcomes:

- awareness of the Crisis Lookout Coalition and its vision and proposals
- increased understanding of the limitations of the current crisis financing system, and how effective disaster risk finance can address these
- increased awareness of the wider applicability of actuarial skills

Speaker: Joanne Meusz, Centre for Disaster Protection

WorkshopThu, 06/05/2021 - 16:00 -
17:00

Social Care: What have we learned from the pandemic and what lies ahead

This session will include the following elements and learning outcomes:

- understanding the epidemiology of outbreaks in Care Homes during the first wave, identifying those factors that drove the worst experience
- examining the range of initiatives that Care Homes have taken to limit potential further outbreaks and the extent to which these have been successful
- learnings from contrasting experiences of Care Homes in other countries (to include USA, Belgium, Germany)
- threats to the viability of individual Care Homes and the entire industry through additional requirements (reporting, staffing, protective gear) and changing attitudes towards elderly care
- assessment of likelihood of restricting/regulation driven by Social Care legislation

- insights on the likely impact on product development and consumer appetite for insurance solutions for Social Care

Speaker: Daniel Ryan, COIOS and member of the IFoA's COVID-19 Actuaries Response Group

Workshop

Fri, 07/05/2021 - 09:00 -
10:00

Keynote: A year in the life of an Actuary by day

Speaker: Stuart McDonald

Workshop

Fri, 07/05/2021 - 11:00 -
12:30

2020: The Year That Was

Speaker: Tan Suee Chieh

IFoA President Tan Suee Chieh will close the fortnight with his reflections on the pandemic and its impact on the IFoA and the wider profession. He will look back at the disruption caused by COVID-19 and set out his thoughts on how the IFoA reacted positively to the challenges that 2020 posed.