

# Mortality Working Group Virtual Meeting Tuesday, 13 October 2020 from 07:00 to 09:00 EDT Minutes

### YouTube recording of this meeting linked here

A Full list of participants can be found at the end of these minutes.

Chairperson: Marc Tardif

Co Vice-chairperson(s): Ermanno Pitacco, Leza Wells

### Agenda Item

#### **Welcome and Introduction**

Marc Tardif welcomed everyone to the meeting which included many participants from around the world.

1 There were no suggested changes or additions to the Agenda.

The minutes from Virtual meeting held 27 May 2020 were moved to be approved and seconded by Assia Billig and Dale Hall respectively.

### 2 IAA Restructure Update

Marc Tardif provided an update indicating that Council had adopted the operational structure as proposed and those practice groups including all working groups may be transformed into forums or merged with other entities by the end of 2020. This process will be the task of the newly created Advance Committee with oversight and approval first by the Executive Committee and then to Council on November 18<sup>th</sup>, 2020. The Advance Committee is represented by Full Member Associations (FMAs) and is being Chaired by Charles Cowling.

An email sent out by Amali Seneviratne, Director of Technical Activities, for information on September 26<sup>th</sup> has been added to these minutes which provides a status update with timelines explaining the process (attachment here).

The general terms of reference for forums has been provided based on the sharing of knowledge and expertise by the supporting FMAs. Newly created Forums will have one chair and one vice-chair to be officially nominated through the Nominations Committee and each FMA can appoint one official delegate and can also designate additional representatives. All forums will be evaluated every two years and based on their effectiveness and activity, could be closed should there be little activity, participation or objectives not being met.

The two papers by MWG, Cause of death and Epidemics, have both been approved by the Scientific Committee and are now in their last stage with the Papers Transition Task Force for their review. Once approved, they will proceed to the Communications and Branding Committee for their review and recommendations for publishing.

Decisions about the transition will be communicated as soon as a way forward has been decided and approved. No further questions or comments were raised.

### 3 Research in Mortality – US

Dale Hall gave a detailed high-level presentation (<u>attachment here</u>) update on US mortality which focused on COVID-19 mortality research. Comparisons of mortality from various SOA tools using John Hopkins data shows COVID-19 to be a material mortality event being the 3<sup>rd</sup> or 4<sup>th</sup> leading cause of

deaths in the US in the first half of 2020. Statistics comparing deaths to other countries as well as within the US by county and geographic area shows the impact was focused more in the north east between March and May and then moved to south east in July / Aug. Country health policies have clear impacts.

A Florida Department of Health COVID-19 reported data which was presented showing younger age hospitalizations having increased and the disease has a disproportionate impact on hospitalizations and deaths among non-white races and males.

Excess deaths captured from Centers for Disease Control (CDC) data shows that since February 2020 there have been 200,000+ excess deaths and compares this to influenza excess deaths in recent years. Ignoring the COVID-19 deaths still shows excess deaths in 2020 so far (or possible misclassifications). Other causes of death this year have been mainly due to Alzheimer's and an increase in circulatory disease.

The presentation provides useful links to US research for COVID-19.

# 4 US COVID-19 Mortality Data

Guest speaker Arialdi Miniño, statistician at the US National Center for Health Statistics, part of the Centers for Disease Control and Prevention (CDC) gave a detailed presentation (attachment here). He showed a snapshot of the rapid release program showing the analysis of death certificates in the US from death registry data submitted by each state. A new cause of death code (U07.1) for COVID-19 deaths has been issued.

Arialdi demonstrated the tool on the website highlighting that the data source using death certificates will be different to CDC data tracker which is based on aggregated data however the two data sources track well (except for the last few weeks due to delays in issuing death certificates). Overview of the data releases and tables available on the CDC website and Index surveillance: www.cdc.gov/nchs/nvss/vsrr/covid\_weekly/index.htm

The death counts show that the risk of death above age 85 is significantly higher than the previous age band of 75-84 for both males (2x higher risk) and females (3x times higher risk) At all ages, males are more at risk of death than females and between ages 35 and 54 the relative risk is the most significant with males more than twice the risk at death.

Participants are welcomed to send any further questions or comments regarding this presentation directly to the IAA Secretariat for follow-up.

### 5 Excess mortality in Norway and Sweden during 2020

Rikard Bergström provided a report (<u>attachment here</u>) and briefly presented (<u>attachment here</u>) an update on the Excess mortality in Norway and Sweden for the current year up to August 2020. His report highlights that no excess deaths have occurred in Norway this year even with COVID-19 where Sweden showed excess deaths in April, May and June corresponding to COVID-19 death statistics.

## 6 Research in Mortality – UK

Dan Ryan gave a brief update (<u>attachment here</u>) on the UK COVID-19 research which shows that excess mortality was up until February 2020 which then showed a lighter than usual followed by a high level of excess mortality from February to September 2020. Ignoring COVID-19 in 2020, it would show a very light year for mortality and there is a possibility that COVID-19 has accelerated some deaths and there might be lower mortality in the following months.

All age groups show higher mortality particularly for men. London had the higher peaks and urban areas showed significantly higher impact. Other causes of deaths are down compared to the last 5 months. Some interesting NHS statistics show a 25% increase in number of people waiting for tests as

well as a significantly higher unmet elective surgeries which means people are being left untreated and there will be impacts on health care service in the future with longer delays.

The Actuarial Research Centre has done some research using data analytics to use postal codes and electronic health records to give demographic prediction of mortality. Dan's presentation provides links to various groups who are modelling and researching mortality.

# 7 Research in Mortality – Canada

Marc Tardif gave brief overview (<u>attachment here</u>) of three provinces weekly causes of deaths (January to May 2020). Quebec in particular, is showing a significant increase in mortality in mostly at older ages.

The data collected from insurance companies for the period of January 2019 to June 2020 was presented showing claims numbers and claim amounts up in Q2 2020 for individual business with April 2020 being unusually high.

# 8 MWG Projects

- i. Long Term Drivers of Future Mortality The report needs to be reviewed with the sub-committee and is currently with Al Klein to review and progress this paper.
- ii. Cause of Death The paper is with the task force for approval and then publishing. Dov Raphael mentioned that this topic was presented at the virtual Longevity symposium in July and he took the opportunity to provide an overview and objectives of the IAA MWG.
- iii. Epidemics The paper is with the task force for approval and then publishing however some edits are being done and will be reviewed by the MWG sub-committee. Sam Gutterman indicated that the research was started in 2019 and hence it is not a COVID-19 specific paper. It has been split into two parts with the second part providing more details than before on the aspects of modelling pandemic risk. Given how topical the paper is it was encouraged to put pressure to expedite the publication with concern expressed with the time to get approval.

### 9 Expectations for Future Mortality and Morbidity

Guest speaker Julianne Callaway, VP and Actuary, RGA Reinsurance Co. (USA) provided an interesting presentation (<u>attachment here</u>) on the considerations for predicting future mortality. The current COVID-19 projection models cannot project far into the future due to the uncertainty and various models giving different results with wide confidence intervals.

Julianne highlighted that the age shape of COVID-19 is very different to previous respiratory pandemics. Predicting mortality is going to be difficult with many factors influencing the models including available data and demographics of a country. Best guesses will need to be continually refined.

A framework was proposed for considering the various impacts on future mortality in the short, medium, and long-term and various contributors to the impact of future mortality were identified.

Participants are welcome to forward any further questions or comments directly to the IAA Secretariat for follow-up.

#### 10 | Editorial Committee

Ermanno Pitacco informed the group that a restructure of the MWG information base pages is being proposed. Currently there are 15 topic areas with papers and research saved accordingly and normally would have one person responsible for maintaining and updating each topic. He informed that the pages will be simplified into 3 macro areas namely mortality modelling, mortality data and insurance and financial practice. Papers and reports within each area would then be sub-categorized.

Ermanno proposed that 3 sub-committees with approximately 5 people be set up to maintain each macro area to encourage participation in keeping the information base up to date.

Ermanno advised that he would be looking for participation on these sub-committees at a later time which would be subject to the agreement of FMAs' appointments to membership and participation.

# 11 Next meeting and Adjournment

The Mortality Working Group will be officially disbanded at the end of November 2020. The potential transformation of those practice groups (including Mortality) into Forums will be assessed by the newly created Advance Committee with recommendations going to the Executive Committee and then discussed for approval at Council on November 18<sup>th</sup>. Confirmation of a clear way forward will be communicated to the group once decisions have been made at that time.

Further meetings will be arranged and communicated thereafter.

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# **List of Participants**

#### **Members**

Aalabaf-Sabaghi, Morteza Arnold, Séverine Bergström, Rikard Billig, Assia Gutterman, Sam Hall. Dale Horbatt, William Katsuno, Kentaro Kuvs. Ania Muhanna, Ibrahim Novikova, Ksenia Øvergaard, Hans Michael Pralle, Lars Raphael, Dov Reese, Adam Rvan. Dan Skucaite, Aldona Wolfsdorf, Kurt (Ex-Officio)

#### Secretariat

Seneviratne, Amali Director, Technical Activities Kelly, Nancy Assistant, Technical Activities

# **Guest Speakers**

Miniño, Arialdi Centers for Disease Control and Prevention

Callaway, Julianne RGA Reinsurance Company

**Observers** 

Bosley, Tiffany

Bui, Hoa

Daykin, Chris

Demol, Philippe

Member, Population Issues WG

Actuaries Institute Australia

Institute and Faculty of Actuaries

Institut des Actuaires en Belgique

Deville, Richard Institut des Actuaires

Grace, Elayne Actuaries institute of Australia
Girard, Annie Canadian Institute of Actuaries
Grace, Elayne Actuaries Institute Australia

Hernández Pacheco, Colegio Nacional de Actuarios A. C.

Abraham

Kitamura, Keiichi Institute of Actuaries of Japan

Klein, Allen Society of Actuaries

Kuosmanen, Harri Suomen Aktuaariyhdistys (Finland) Lyn, Cathy Caribbean Actuarial Association

Marcelloni, Raffaello Istituto Italiano degli Attuari and Ordine degli Attuari

Mandel, Reuven Israel Association of Actuaries

Ménard, Jean-Claude Member, Social Security Committee (Canadian Institute of

Actuaries)

Niittuinperä, Jari Suomen Áktuaariyhdistys (Finland)
Park, Kyusuh Institute of Actuaries of Korea

Rojas, Óctavio Member, IACA Section Sayre, William Society of Actuaries

Shimizu, Nobu
Sotona, Petr
Svendsen, Odd
Urzhumova, Dina
Yamada, Ryu
Institute of Actuaries of Japan
Ceská Spolecnost Aktuárù
Den Norske Aktuarforening
Actuarial Society of Kazakhstan
Institute of Actuaries of Japan