

Minutes of the IAA Mortality Working Group Meeting April 8, 2011 – Sydney, Australia

Members present

Martin Stevenson	Chairperson
William R Horbatt	Vice-Chairperson
Henk van Broekhoven	Vice-Chairperson
Erik T Alm	
Michael Eves	
Dieter S Gaubatz	
Allen M Klein	
Paul Lewis	
Mika Mäkinen	
Ermanno Pitacco	
Brian Ridsdale	
Thomas S Terry	
Zhaolan Zhan	

Apologies

Taisuke Nishimura

Observers present

Bridget Browne	Australian National University
Ricardo Frischtak	Instituto Brasileiro de Atuária
Helge-Ivar Magnussen	Den Norske Aktuarforening
Tom Ross	Institute and Faculty of Actuaries

1. The Chairman welcomed all members and observers present.
2. **Minutes of last meeting**
The [minutes of the previous meeting in Vienna](#), Austria were accepted.
3. **Website update**
Brian Ridsdale updated the group on progress with the working group's website. The website is accessed from the main site: www.actuaries.org from the "Committees" tab on the top navigation bar, and then clicking "Mortality" on the drop down list.

Considerable progress has been made, but a considerable amount of further work is still required.

The responsibilities for the various web pages are:

Top level pages	– Brian Ridsdale
Overview	– Martin Stevenson
Sources of mortality data worldwide	– Paul Lewis

Society of Actuaries' International Mortality Experience Study	– Bill Horbatt
Mortality trends and uncertainty	– Henk van Broekhoven
Pandemics	– Mika Mäkinen
Social and demographic stratification	– Brian Ridsdale
Analysis by cause of death	– Brian Ridsdale
Projection techniques	–
Mortality of disabled people	– Ermanno Pittaco
Mortality-related financial products	–
Underwriting	– Al Klein
Mortality assumptions used in pensions and annuity reserving	– Brian Ridsdale
Other sources of information	– Brian Ridsdale

Henk van Broekhoven volunteered to be the author of the Projection techniques page.

The working group expressed its appreciation for the work carried out to date by Brian Ridsdale.

Action Plan: All authors are to update their web pages by the end of May, and provide the updates to Brian Ridsdale. Also, if there is a volunteer for the Mortality – related financial products page, he/she should contact Brian Ridsdale and Martin Stevenson.

4. **Cass study on mortality improvement assumptions**

A study was carried out in 2005 by Cass on a comparison for a number of countries, of the rates of mortality assumptions (base and trend) used by actuaries in the valuation of pension funds on company balance sheets. At a previous meeting the Mortality Working Group requested an update by Cass, and the project has been funded by the UK Actuarial Profession through the Mortality Research Steering Group.

A draft has been prepared of this revised paper and was made available (on a restricted basis) to members of the Mortality Working Group. The analysis has been carried out for twenty countries. Brian Ridsdale updated members on the progress that had been made.

Action plan:

- a) Members are to comment on the paper (through Brian Ridsdale and Martin Stevenson) as soon as possible. General comments will be welcome but in particular members should comment on the section about their own countries.
- b) When the paper is finalised, an advance copy is to be sent to the OECD.
- c) When the paper is finalised, the IAA should publicise the findings.

5. **Emerging trends in mortality and longevity – 2011 Symposium**

The Mortality Working Group is a sponsor of the emerging trends in mortality and longevity 2011 symposium, to be held at Warwick University, UK on 13 - 14 September 2011. Brian Ridsdale gave an overview of this international and multi disciplinary event, and encouraged members of the Mortality Working Group to attend. Speakers at the event from the Mortality Working Group include Brian Ridsdale, Henk van Broekhoven and Al Klein.

6. **Collection of global mortality tables / SoA table manager**

Dieter Gaubatz provided an update on the project to update the SoA's Table Manager.

Phase I is expected to be completed by early May. Phase I is improving functionality and includes enhanced sorting and filtering capabilities, the addition of a search facility, improved data manipulation and improved administration capabilities for SoA staff to add, update and delete tables.

Phase II is to update the inventory of tables with tables already identified to be added. These include tables from recent SoA studies, tables identified by the Mortality Working Group and some health and pension tables. Phase II will hopefully be completed by the next meeting of the Mortality Working Group.

Action Plan: Members of the Mortality Working Group to send additional mortality tables to Dieter for inclusion in SoA's Table Manager.

7. **Underwriting Specialist Group**

Al Klein updated the working group on the activities of the Underwriting Subgroup. The goals of the underwriting group include:

- Determine types of underwriting around the globe
- Quantify the mortality impact of the types of underwriting done
- Provide guidance for countries deciding on whether to implement new underwriting approaches/programs
- Provide information as situations develop around the world such as the latest EU decision on gender based pricing.

The eventual goal is to present results at ICA 2014 and other venues.

Action Plan: For the MWG meeting in Zagreb, the underwriting subgroup is to present a report on current underwriting types by country.

8. **Cognitive testing**

Al Klein gave an excellent presentation on cognitive testing for Underwriting Life Insurance. Topics covered included:

- What is cognitive testing
- The prevalence of cognitive impairment
- Extra mortality associated with cognitive impairment
- Cognitive testing
- Application to older insured lives

Members of the working group were relieved that there was not enough time for a cognitive testing of the attendees!

9. **European Court of Justice Ruling on use of gender in insurance pricing**

A discussion on the European Court of Justice's Ruling on use of gender in insurance pricing was led by Erik Alm and Henk van Broekhoven. On 1 March 2011 the European

Court decided that using different rates for males and females in insurance (both life and non-life) is discriminatory and should therefore be forbidden. This ruling is effective 21st December 2012.

The ruling only applies to new contracts. Therefore from December 2012, portfolios will be a blend of gender differentiated and non-differentiated rates. This will cause additional uncertainty and hence greater capital requirements.

It was noted that the Groupe Consultatif was the appropriate committee to engage tactically with the issue. It was further noted that there is a danger that the ban on allowing for statistical differences could spread to other geographies and/or other parameters (e.g., age).

Action Plan: The Mortality Working Group should keep a watching brief on developments. The group's role is long term rather than short term activity.

10. **Mortality trends and uncertainty**

Henk van Broekhoven gave a presentation on mortality trends and uncertainty. Every risk should be analysed in terms of:

- volatility
- uncertainty (model/parameter)
- extreme events

Henk's subgroup on mortality trends and uncertainty is to investigate:

- How to recognise drifts (trends) : short/long
- How to model conditional trends
- How to model uncertainty
- How the random walk in the trend interacts with the volatility

Action Plan: A report is to be presented at the Zagreb meeting on progress made.

11. **Mortality of disabled people**

Ermanno Pitacco presented to the working group on the mortality of disabled people. The presentation covered:

- Types of insurance covers involved
- Actuarial approaches to disability benefits
- Currently available material – from Canada, United States and United Kingdom.

Action Plan: A paper on the mortality of disabled people is to be presented at the next meeting of the working group in Zagreb.

12. **SoA International Experience Study**

Bill Horbatt updated the working group on current progress with the SoA's International Experience Study.

13. **New members**

Erik Alm led a discussion about the process of admitting new members to the working group. There was agreement about the following points:

- It was desirable for a new member to provide expertise in a new field or be from a new geographical location;
- New members should have an interest in, and some expertise on, mortality;
- New members should be prepared to contribute to the working group's activities;
- Existing members are expected to contribute regularly in some way to the Group's activities;
- New members should be formally approved for membership at the Group's six monthly meetings.

The working group unanimously decided to admit to membership Bridget Browne and Darko Medved.

Action Plan: At the meeting in Zagreb, Erik Alm to present a formal set of criteria for admitting new members and the conditions for existing members to retain membership of the working group.

14. **ICA 2014**

Martin Stevenson advised that he had written to Bob Conger (Chair of the ICA 2014 Organizing Committee) recommending that mortality be a topic for a plenary session at ICA 2014. In particular, it was suggested that Professor S. Jay Olshansky would be a suitable speaker. Bob Conger replied that the suggestion would be given serious consideration and that he would consult with Roger Hayne (Chair of the Scientific Committee for ICA 2014). He also put forward the view that ICA 2014 should focus on multidisciplinary sessions, and that mortality was an obvious choice.

Action Plan: Martin Stevenson to follow up Bob Conger/Roger Hayne by end of June.

15. **Other business**

Dieter Gaubatz volunteered to give a presentation at the next meeting on Preferred Mortality.

Ricardo Frischtak gave a brief update on developments on the production of mortality tables in Brazil.

The Chairman noted that one important topic that had not yet been considered by the Group is healthy longevity.

It was agreed that at the next meeting the Group required more than 3 hours.

16. **Next meeting**

The next meeting of the Mortality Working Group will be held in Zagreb, Croatia; 29 September – 2 October 2011.