



## International Actuarial Association

### Mortality Working Group October 11-12, 2013 Pan Pacific Hotel Singapore, Singapore Ocean 3 Room

#### Minutes

##### **Present:**

Martin Stevenson – Chairperson  
Bill Horbatt – Co Vice chairperson  
Henk van Broekhoven – Co Vice chairperson  
Erik Alm  
Bridget Browne  
Michael Eves  
Dieter Gaubatz  
Al Klein  
Paul Lewis  
Mika Mäkinen  
Darko Medved  
Ermanno Pitacco  
Thierry Poincelin  
Lars Pralle  
Brian Ridsdale  
Hiroshi Yamazaki

##### **Absent:**

Chresten Dengsøe  
Séverine Gaille  
Aline Lamoureux  
Ksenia Novikova  
Dov Raphael  
Adam Reese  
Luis Maria Sáez de Jáuregui Sanz  
Paul John Sweeting  
Benoit Laurent Yerna  
Peter Ying  
Marc Tardif  
Zhaolan Zhan

##### **Observers present:**

Ricardo Frischtak – Co Vice Chairperson, Accreditation  
Don Fuerst  
Gary Hibbard – Chairperson Pension and Employee Benefits Committee  
Debbie Lore – Singapore Actuarial Society  
Jason Malone  
Sam Gutterman

The Chairman welcomed all members and observers present.

### 1. Minutes of the previous meeting

The [minutes of the previous meetings in The Hague, Netherlands](#) were accepted.

### 2. New members / retiring members

The following changes in membership were advised:

- Ricardo Frischtak joins the Group
- Jorge Miguel Ventura Bravo (Portugal) joins the Group
- Ewa Dylewska (Poland) joins the Group
- Hans Michael Øvergaard (Norway) joins the Group

Thierry Poincelin advised that this was his last meeting as a member due to his commitment to other committees. He will contact the French Association for a replacement.

### 3. Country reports

Country reports were received in respect of:

- |                                  |                 |
|----------------------------------|-----------------|
| • <a href="#">Australia</a>      | Bridget Browne  |
| • <a href="#">Belgium</a>        | Aline Lamoureux |
| • <a href="#">Chinese Taipei</a> | Peter Ying      |
| • <a href="#">South Africa</a>   | Paul Lewis      |
| • <a href="#">Sweden</a>         | Erik Alm        |
| • <a href="#">United Kingdom</a> | Brian Ridsdale  |
| • <a href="#">USA</a>            | Dieter Gaubatz  |

The Group expressed its appreciation at the work done by the authors of the reports and by Peter Ying for his role in co-ordinating them.

Additional reports will be sought in respect of Finland, Germany, Italy, Poland, Portugal and Spain. Peter Ying will again be involved in co-ordinating the production of these reports.

An interesting development in the USA is that some State regulators are insisting that insurance companies provide information in respect of experience analysis to the regulators. The information is then passed to the SoA for analysis. Dieter Gaubatz is to send details to the Group.

It was agreed that it would be worthwhile to have a summary document of the main aspects of the country reports.

#### 4. Trend modelling

Henk van Broekhoven provided an update on his modelling techniques for future levels of mortality.

The presentation is entitled [Trend modelling](#) A stochastic model based on Drift modelling.

#### 5. International Experience Study

Bill Horbatt presented the results from the [IES investigation](#) in Croatia

#### 6. Historic comparative mortality improvements using the HMD

Bridget Browne presented the results of [comparative mortality studies](#) using the HMD data base. The outputs were heat maps showing whether mortality improvements were aligned with age, year or cohort. After the paper is presented at ICA 2014, a tool will be made available to actuaries to carry out their own investigations.

A lively discussion ensued.

Bridget will send individual country outputs to members to comment on country specific results.

#### 7. Report from the Underwriting Committee

Al Klein updated members of the Group on the [Underwriting Around the World](#) paper that will be presented at ICA 2014. The paper details comparative underwriting methodologies of different countries.

#### 8. Publicising the activities of the MWG

Brian Ridsdale provided an [update on publicity](#). Whilst there was only limited response to the method adopted (ie publicising the activities of the MWG to local associations) it was decided that it was appropriate to continue this action a few more times, as it was likely that the message needed to be reinforced.

It was also decided to publicise the MWG through the Life Section and PBSS Section of the IAA.

It was also agreed that we should seek publicity after ICA 2014 on the release of the tool that Bridget Browne had developed in respect of comparative mortality using the HMD.

#### 9. Upcoming events

SoA's Living to 100 Symposium  
(January 2014)

Henk van Broekhoven is on the Committee;  
Ermanno Pitacco is presenting a paper.

Mortality Seminar of European Actuarial  
Academy

[Paper](#) will be presented by Ermanno Pitacco.  
Papers will also be presented by Erik Alm and Henk van Broekhoven.

ICA 2014

Papers will be presented by Bridget Browne, Séverine Gaille, Al Klein and Ermanno Pitacco. Our brochure is to be printed and made available to delegates through the IAA booth. Three members of the MWG will be invited to attend the Advice and Assistance reception (Paul Lewis, Bill Horbatt plus one to be nominated by Paul).

It was noted that Jay Olshansky and James Vaupel would be presenting at ICA 2014.

Mortality and Longevity Symposium (September 2014)

Brian Ridsdale to send further details to the Group as they become available.

IAA Committee Meetings (Zurich April 2015; Vancouver October 2015; St Petersburg May 2016)

The MWG will offer to talk at local association meetings or to run a seminar, in conjunction with the Committee meetings. Paul Lewis to circulate the list of our topics / speakers (this may need updating). Co-ordinators of our involvement:

Zurich – Michael Eves  
Vancouver - Marc Tardif  
St Petersburg – Ksenia Novikova

## 10. Debrief on Geneva meeting with international organisations

Brian Ridsdale presented on his [Geneva meeting](#) with international organisations. (ILO, ISSA and OECD).

## 11. Local associations' registers of mortality and longevity research

A comprehensive discussion was lead by Brian Ridsdale. Outcomes of the discussion included:

- the country report templates could be altered to accomodate advice of research being undertaken (rather than only including research completed).
- some of the current papers in the Information Base are becoming out of date. Brian Ridsdale is to check which papers might need updating and ask page owners to provide updates.

Paul Lewis will meet the chair of the UK's CMI to discuss working together to promote more interaction between national actuarial societies when creating mortality projections.

## 12. How Swiss Re manages mortality uncertainty

Michael Eves provided a comprehensive presentation on [How Swiss Re manages mortality uncertainty](#). Topics included:

- Risk measures
- Mortality Trend Model
- Modelling of Influenza Pandemic Risk
- Risk Assessment and Risk Management
- Options to reduce mortality exposure
- Modelling the future
  
- Members of the Group expressed their appreciation of the presentation.

## 13. Integrating our various areas of study

A discussion was led by Bill Horbatt, Bridget Browne and Henk van Broekhoven. In particular there was a [demonstration](#) showing a comparison of population and insured mortality in Estonia. The spreadsheet was put together by combining the work of the International Experience Study and Bridget's paper on comparative mortality using the HMD.

## 14. The effect of the economy on mortality

Paul Lewis provided a presentation on [the effect of the economy on mortality](#).

The counter intuitive result was that short term economic downturns lead to a decrease in rates of mortality.

## 15. Topics for the next meeting

The topic chosen for the next meeting of the Group was a comparison of mortality according to sub-group: population, insurance, annuity or pension.

The members working on this topic will be:

Bill Horbatt (Chair)  
 Erik Alm  
 Henk van Broekhoven  
 Paul Lewis  
 Mika Makinen  
 Ermanno Pitacco  
 Martin Stevenson

## 16. Office holders going forward

Following the close of the meeting the new office holders are:

Chairperson – Paul Lewis  
 Co Vice Chairpersons – Al Klein and Brian Ridsdale

**17. Next meeting**

The next meeting will be held in Washington 26-29 March 2014.

DRAFT