

## Minutes of the IAA Mortality Task Force Meeting November 3, 2008 – Limassol, Cyprus

### Members Present

Martin Stevenson, Chairperson  
William R Horbatt, Vice-Chairperson  
Henk van Broekhoven, Vice-Chairperson  
Chresten Dengsøe  
Paul Leslie Lewis  
Mika Mäkinen  
Brian Ridsdale  
Yoshihiro Takahashi  
Marc Tardif (by conference call)

### Invited Guest

Paul Seymour                      Board for Actuarial Standards (UK)

### Observers Present

Allan Brender	Canadian Institute of Actuaries
Peter Dingwall	Institute of Actuaries (UK)
Jeremy Goford	Institute of Actuaries (UK)
Morten Harbitz	Den Norske Aktuarforening
Richard Kingswood	Cyprus Association of Actuaries
Tim Sheldin	Institute of Actuaries (UK)
Francois Chauvet	Institut des Actuaire (France)
Toshihiro Kawano	Institute of Actuaries of Japan
Helge-Ivar Magnussen	Den Norske Aktuarforening
David Martin	Faculty of Actuaries (UK)
Ksenia Orekhova	Russian Guild of Actuaries
Dave Sandberg	American Academy of Actuaries
Dimitry Denisov	Russia Guild of Actuaries
Fayek Tawdros	Egyptian Society of Actuaries

### Apologies

John Armstrong  
Peter Ying

1. The Chairman welcomed all members and observers and in particular the two new members since the last meeting: Paul Lewis from South Africa and Marc Tardif from Canada.

## **2. Minutes of previous meeting**

The minutes of the previous [meeting in Quebec City](#) were accepted, with one change: the first line in item 3 should read, “It was noted that persistency rates are frequently more significant than rates of mortality in life insurance ...”

Under Item 11 it was noted that Anne Drouin of ILO and Florian Léger of ISSA had been invited to join the task force, but no reply had been received.

## **3. Report on progress on collection of information in respect of mortality studies of actuarial associations**

Bill Horbatt presented. Data had been received from Australia, Chinese Taipei, South Korea and Japan. Despite a number of reminders, the data had not yet been loaded into Table Manager. A number of members commented that Table Manager is not user friendly; however, Table Manager remains the only actuarial tool to make mortality tables available to IAA members worldwide.

Brian Ridsdale commented that UK’s mortality data base (constructed by the CMI – Continuous Mortality Investigation) was very comprehensive, and did it make sense to copy this to Table Manager? Bill Horbatt stated that it was preferable for such a large data base to remain stand alone.

## **4. Relationship of our work to the Human Mortality Database**

Erik Alm spoke about the Human Mortality Database (HMD).

The HMD was created to provide detailed mortality and population data to persons interested in the history of human longevity. The project is conducted by the University of California, Berkeley and the Max Planck Institute for Demographic Research.

The database currently contains detailed data for a collection of 34 countries or areas. The database is restricted to populations where death registration and census data are virtually complete, since this type of information is required by the uniform method followed in the HMD.

Another project is also being developed – the Human Lifetable Database – which will hold life tables constructed by external individuals or institutions, using a variety of techniques.

Erik commented that the HMD was a very sound data base for population tables, and the Mortality Task Force / Table Manager should not attempt to duplicate it.

Martin Stevenson commented another major data base was that sponsored by the World Health Organization (WHO).

## **5. IES Mortality Studies in less developed countries**

Bill Horbatt gave a presentation on the Society of Actuaries’ International Experience in respect of two recent studies on the Philippines and Vietnam.

Twenty companies participated in the Philippines and nine in Vietnam.

Mortality and persistency rates were calculated and mortality rates compared with a US standard table.

***Action Plan arising out of items 3, 4, and 5***

A summary of the four major data sources (SoA's Table Manager, HMD, WHO's tables and the UK Profession's CMI data bases) is to be provided. The summary is to include a description of each data base, its strengths, weaknesses and areas of future development. The Chairman stated that he would be seeking "volunteers".

Members of the task force who had not advised Bill Horbatt of the most up to date life and mortality tables in their country were requested to do so pending further discussion on the relationship between Table Manager and HMD.

**6. Improvement and Projection techniques**

Henk van Broekhoven provided a presentation on the likely form of his paper on improvement and projection techniques. Improvements in the short term could be extrapolated from recent trends in the group under study; however this method was not reliable in the long term. For the long term a preferable approach is to consult with experts to set the future base level.

Henk proposed to apply this method to a number of countries. The members of the group would be requested to assist.

There was enthusiasm for Henk's proposal from the members of the task force. It was agreed that the paper should also mention other possible methodologies.

Chresten Dengsøe mentioned that there had been a study of 18 countries, and that whilst each country showed considerable variation of levels of mortality improvement at different points of time, when the experience of the countries was combined, there was remarkable smoothness.

The question was raised: did countries mandate that, for pension valuation purposes, mortality improvements must be taken into account? and if so, was there a prescribed level of mortality improvement? It was agreed that a survey should be sent to member associations, although the task force needed to be sensitive to the fact that many associations did not have the resources to respond to many surveys.

***Action plans***

1. Henk to complete his paper, with assistance from task force members.
2. Chresten Dengsøe to distribute the study of 18 countries to members of the task force.
3. A survey is to be prepared in respect of whether mortality improvement assumptions are mandated or recommended.

## 7. **Social and demographic stratification and analysis by cause of death**

The Chairman thanked Brian Ridsdale for preparing the paper included with the papers: “Mortality by Cause and by Social and Demographic Stratification”.

Brian Ridsdale then made a presentation which expanded on some of the issues in the paper and also sought guidance on the way ahead. There was general agreement that the approach taken was correct:

- A relatively short paper giving the essence of the subject matter; and
- A bibliography giving interested persons the opportunity to read about the subject in detail.

Understandably the paper currently drew heavily on UK material.

Brian mentioned that he could provide a presentation on the CMI STP Software.

### *Action plans*

1. Members of the task force are requested to provide comments on Brian’s paper, and to add bibliographic references from their own country.
2. At the meeting in Tallinn, Brian to do a presentation on the CMI STP Software.

## 8. **Pandemics**

Mika Mäkinen gave a presentation in respect of pandemics. There had been a great deal of interest in pandemics a few years ago when there had been outbreaks of bird flu.

Mika explained that there were a number of papers on pandemics containing historical details as to the development of Pandemics.

It was also agreed that AIDS was an appropriate sub-topic under pandemics, and Paul Lewis agreed to provide material to Mika.

It was suggested that an important part of Mika’s paper would be risk management techniques that financial institutions could undertake in respect of pandemics.

### *Action plans*

1. Members of the task force to send to Mika any papers of interest in respect of pandemics.
2. Mika to present a paper in respect of pandemics at the Tallinn meeting.

## 9. **Other topics**

The Chairman thanked Chresten Dengsøe, Paul Lewis and Marc Tardif for taking on the leadership roles for respectively Uncertainty, Data availability and Mortality related financial instruments.

It was agreed that the topic “Data accessibility” would be dropped since it was essentially the same as “Data availability”. For the moment, consideration by the task force on “Graduation techniques” would be deferred.

Chresten, Paul and Marc briefly outlined the approach that would be taken.

The task force agreed that one of the most important roles of actuaries was to provide insights into the uncertainty about both base mortality tables and projections of future rates of improvement in mortality.

It was noted that mortality data availability was very important for building a firm foundation for developing countries' Social Security systems.

In respect of financial instruments, it was agreed that the securitisation of life policies should be included.

Another topic regarded as worthy of inclusion is "selection". It was agreed to defer consideration of this topic for the moment.

Action plans: Draft reports in respect of Uncertainty, Data availability and Mortality related financial instruments are to be prepared for the Tallinn meeting.

## **11. ICA 2010**

Correspondence with the Program Committee was tabled. It was not certain whether:

- a) The task force would co-ordinate a structured mortality stream of the Congress (as proposed, and our preferred option); or
- b) The task force would organise a number of papers on mortality – each on a standalone basis.

### ***Action Plan***

Paul Lewis to discuss the issue with the Program Committee.

## **12. Other Organisations**

The Chair thanked Paul Lewis (World Bank), Chresten Dingsøe (ILO and ISSA) and Helge-Ivar Magnussen (IOPS) for accepting their respective leadership roles.

In respect of the World Bank, it was reported that the Supranational Committee saw an opportunity for the task force to assist in obtaining reliable mortality data. However the task force must ensure that it does not "over sell" its capabilities.

There were no developments with ILO or ISSA at the current time.

With IOPS we could:

- a) Keep them informed of the work of the task force;
- b) The task force could prepare a general note for IOPS in respect of good practice for setting mortality assumptions for pension valuations (a model may already exist in the UK).
- c) The task force could conduct a review of practice in respect of countries nominated by IOPS.

Items (b) and (c) would require a fee.

***Action Plans***

1. Paul Lewis, in conjunction with Supranational Representatives, to determine the World Bank's needs through discussion with the World Bank.
2. Helge-Ivar Magnussen to keep IOPS informed of the work of the task force, and if appropriate to determine if there are any specific actions required by the task force.

**13. Framework of our report**

Martin Stevenson's memo dated 20 October 2008 was discussed. There was general agreement that the Mortality Task Force should have a portal within the IAA website. This would include results of our work and links to other pertinent sites (eg WHO, SoA, other local actuarial associations).

This would contain information about the task force, work produced by the task force and links to mortality studies and papers.

***Action Plan***

Martin Stevenson to discuss with Christian Levac about the task force's work being included in the IAA's website.

**14. "Marketing" Document**

Martin Stevenson's memo dated 20 October 2008 was discussed. There was general agreement in respect of the document and in particular in the Vision Statement:

**Vision**

The vision of the IAA Mortality Task Force is

Whenever insights are required in respect of mortality and trends in mortality, the body of knowledge produced by the IAA Mortality Task Force is sought for its valued and authoritative coverage.

***Action Plans***

1. Martin Stevenson to complete the marketing document and circulate to members of the task force for comment.
2. After sign-off from the task force, approval is to be sought from the IAA.

**15. Funding**

Brian Ridsdale's note of 17 October 2008 was discussed. It was agreed that assistance from local associations was the most likely source of "funding" for the task force.

It was also noted that any work carried out for an external organisation (eg World Bank, IOPS) should be carried out on at least a costs recovery basis.

**16. IAA Committees and Sections**

It was agreed to keep in contact with other IAA Committees and Sections, and in particular:

- Supranational Committee
- Social Security Committee
- Pension and Employee Benefits Committee
- Life Section

**17. Any other business**

Martin Stevenson mentioned that an Asian Mortality Group was likely to be established with informal links to the task force. The Asian Group was seeking reliable data for pricing post retirement products.

**18. Next meeting**

The next meeting will be held in Tallinn, Estonia, in conjunction with the IAA committee meetings 27 - 30 May 2009.