



SOCIETY OF ACTUARIES

**A World of Mortality Issues and Insights Seminar
May 23, 2012**

Welcome and Introduction

Moderators

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Martin Stevenson, BSc, FIAA (IAA MWG)

IAA MORTALITY WORKING GROUP

- AN OVERVIEW

Martin Stevenson
Chair IAA MWG



The IAA



- § The worldwide association of professional actuarial associations.
- § Encourages the development of a global profession, acknowledged as technically competent and professionally reliable, which will ensure that the public interest is served.
- § Represents the actuarial profession and promotes its role, reputation and recognition in the international domain

Terms of Reference (1)



AAI IAA MWG

- § To monitor selected activities focusing on mortality research, and to assist in ensuring that the results of this research are available to insurance professionals and other interested persons in increasing their understanding of the drivers of mortality outcomes.
- § To selectively monitor data collections efforts internationally and to facilitate continuous improvement in the quality and extent of data collection.
- § To facilitate the sharing of mortality knowledge across the various regions served by the IAA.
- § To ensure that the work done by the various Sections and Committees of the IAA in the area of mortality is coordinated, including when this involves cooperation with other international bodies.

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Terms of Reference (2)



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- § To encourage the extension of the body of knowledge of the international actuarial community in respect of mortality through:
 - the global encouragement of actuarial research;
 - making research accessible to actuaries globally;
 - partnering with national organisations to assist in conducting and publishing experience studies;
 - assisting countries with less developed actuarial resources;
 - collecting and disseminating research from both actuarial and non-actuarial sources;
 - encouraging attendance and providing presentations and papers at professional seminars, colloquia, conferences etc.
 - encouraging and coordinating with other actuaries the production of presentations and papers at professional seminars, colloquia, conferences etc.
 - organising sessions related to mortality at professional seminars, colloquia, conferences; and
 - Conducting research on mortality

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Our meetings (1)



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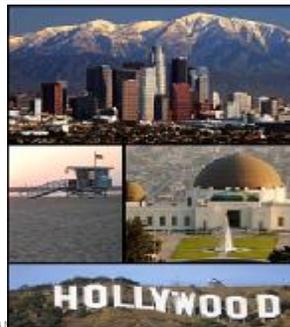
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Our meetings (2)



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Information Base



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COMMITTEES

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Mortality (Working Group)

Information Base

Insights about the level of mortality rates around the world, and the trends of future rates of mortality, have never been more important. While mortality rates are declining in most countries, in other countries they are stable and in some instances are even increasing. Rates of mortality affect many aspects of society.

The following pages provide information about areas of investigation by the Working Group.

Areas of investigation

Overview

[Sources of mortality data worldwide](#)

[Society of Actuaries' International Mortality Experience Study](#)

[Mortality trends and uncertainty](#)

[Pandemics](#)

[Social and demographic stratification](#)

[Mortality by cause of death](#)

[Projection techniques](#)

[Mortality of disabled people](#)

[Mortality-related financial products](#)

[Underwriting](#)

[Mortality assumptions used in pensions and annuity reserving](#)

[Health longevity](#)

[Other sources of information](#)

Contact us

The members of the IAA Mortality Working Group are listed on the IAA web site www.actuaries.org/Mortality. Please feel free to contact any member of the Working Group with any requests for information by emailing: iaamwg@actuaries.org

We would be particularly interested in receiving advice of any papers, research or studies that you consider worthy of inclusion in our information base.

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Mortality by Cause of Death



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Mortality (Working Group)

Mortality by Cause of death

Social changes, medical breakthroughs and increased awareness of basic healthy lifestyle behaviour have resulted in enormous shifts in the cause of death. Studies of cause of death can assist in the analysis of medical and treatment outcomes and can affect pricing and valuation decisions by financial institutions. Understanding the trends in causes of death can assist in the projection of future rates of mortality.

Activity to date

Mortality by cause of death and by socio-economic and demographic stratification 2010.

Brian Ridsdale and Adrian Gallop

Paper for ICA2010

Slides from presentation at the International Congress of Actuaries, March 2010

Drawing from international and national mortality and longevity analyses and actuarial papers, this paper covers, with references, areas of particular interest to actuaries. These include the impact of specific causes of death on historical trends in mortality, international trends in mortality by cause and by socio-demographic classification, the availability and use of data suitable for underwriting, pricing and analysis, modelling of mortality by cause and the use of "by cause" information in mortality projections.

Papers of interest

A review of life time risk factors for mortality 2009, D. Kuh et al

Reviews evidence for the impact on adult mortality of characteristics of the individual's lifetime socio-economic or psychosocial environment or phenotype.

The Atlas of Heart Disease and Stroke, WHO, 2009 K Mackay and G Mensah:

International figures including risk factors for cardiovascular disease

National Vital Statistics Reports Deaths: Preliminary Data for 2010, L Sherry et al

Preliminary U.S. data on deaths, death rates, life expectancy, leading causes of death, and infant mortality for 2010 by selected characteristics such as age, sex, race, and Hispanic origin.

Scoping mortality research (report of the Mortality Research Steering Group); A discussion paper. 2008. C

Macdonald

UK Mortality Developments Scoping Project Steering Group's initiative to map current research into mortality developments across a wide range of disciplines and to provide an overview of the key areas, as well as areas of overlap and gaps in the research.

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The above papers have extensive reference lists.

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Mortality by Cause of Death



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Websites of interest

World Health Organization (WHO)

Covers data from civil registration systems from 130 countries. Covers data from civil registration systems from 130 countries, including cause-of-death analyses.

European mortality database (MDB)

WHO/Europe's HFA-DB data source and more detailed DMDB data source provide mortality data for European countries

National Vital Statistics Reports

Regular issues cover provisional birth, death, marriage, and divorce statistics.

Office for National Statistics

Economic, social and demographic statistics relating to the United Kingdom

For further information

WHO Links to National Health-Related websites

SoA 2011 Living to 100 Monograph

Contains a number of papers of interest.

Subject author

Brian Ridsdale

Contact US

Please feel free to contact Brian Ridsdale or any other member of the Working Group with any suggestions for improvements or additions, or any request for information by emailing: iaamwg@actuaries.org The members of the IAA Mortality Working Group are listed [here](#).

We would be particularly interested in receiving advice of any papers, research or studies that you consider worthy of inclusion in our information base.

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Membership



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§ Membership determined by the MWG, and should meet following criteria

§ Interested in subject of mortality

§ Fill a gap in the Committee from a

- Geographic perspective
- Subject perspective

§ Be prepared to participate actively; for example

- Travelling to face-to-face meetings
- Being responsible for a subject (alone or with somebody else)
- Giving presentations to the Group.

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