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Standards for Mortality Assumptions

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Board for Actuarial Standards

What is the BAS?

- Created following Morris Review
- An operating body of the FRC
 - Agreement between HMT, Profession and FRC
 - Responsibility for setting technical actuarial standards
 - Ethical standards remain with the Profession
- Strategic Goal:
Users of actuarial information can rely on the information's relevance, transparency, completeness and comprehensibility






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What has the BAS been working on?

- Conceptual framework for actuarial standards
 - Consultation November 2007
 - Exposure drafts of Framework and Scope & Authority March 2008
 - Exposure draft of Reporting standard Spring 2008
- New book of standards
 - Consultation Spring 2008



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Mortality review

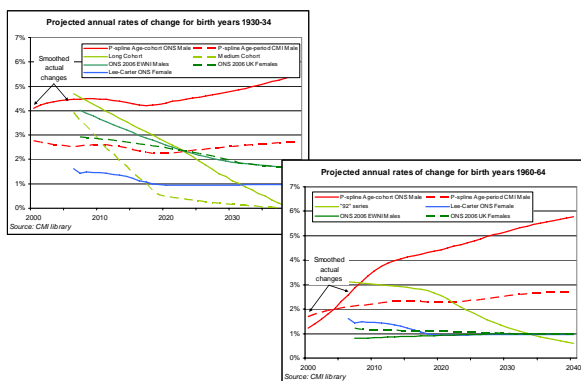
- Research Working Group
 - Academics and other researchers
 - What research is out there that actuaries can use?
- Practitioner interviews (over 50)
- Other stakeholders
- Discussion paper and research paper published March 2008
<http://www.frc.org.uk/bas/publications/pub1557.html>

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The future is uncertain

- “Just get a bunch of experts together and do what they say”... BUT
 - There is no consensus on long term mortality trends
 - There is no consensus on the best type of model to use
- Future mortality rates won't match assumptions exactly

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Decisions have to be made

- Assumptions have to be set
 - By trustees or directors
 - By actuaries
- Information available
 - Past mortality rates
 - Effects of lifestyle, health and other factors
- Communication of the extent and impact of uncertainty is vital

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Explicit assumptions

- Separate assumptions for
 - Current mortality rates (base mortality)
 - Future changes in mortality
- Different information available and levels of uncertainty
- Don't use margins in other assumptions
 - Less transparency
 - Communication more difficult

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Standards

- Generic – apply across all field of actuarial work
- Specific – limited in scope
- Principle based
- Reporting
- Criteria that assumptions should meet
- Limits

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Reporting

- Eg, what the assumptions are, what they are based on, levels of uncertainty, prudent or not
- Can be generic standards (applicable across all areas of actuarial work)
 - Impaired lives, best estimates, prudent, non-UK lives
- Directly address issue of giving users confidence in actuarial information

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Criteria

- Eg, evidence-based, smoothness, relationship to external benchmark, permissible or required techniques
- Mostly generic, but some would have to be specific

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Limits

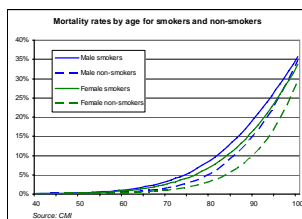
- Need to take account of particular constraints and context of work
 - Eg, requirement for prudence, impaired and non-UK lives
- Specific rather than generic
- Hindsight may prove limits to have been misguided

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Base mortality

- Masses of information
 - Own experience
 - Impact of health, lifestyle and other factors
- Evidence-based judgements are possible for group-specific mortality rates

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Standards for base mortality

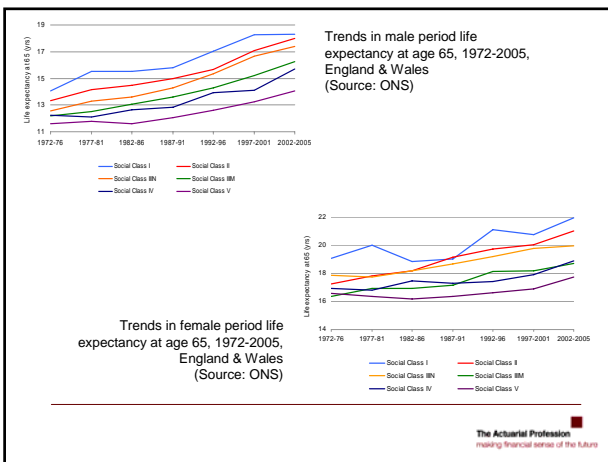
- Reporting
 - Evidence that has been used
 - Summary statistics
 - Best estimate or prudent, and why
- Criteria for assumptions
 - Smoothness, evidence-based, sufficient data, recent published tables
- Limits
 - Published tables?

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Future changes

- Use model or published projections
- Many different models available
- Published projections don't give consistent picture
- Can't rely on evidence-based judgements to differentiate between the future experience of small subgroups

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Standards for future changes

- Reporting
 - Evidence that has been used
 - Summary statistics
 - Best estimate or prudent, and why
- Criteria for assumptions
 - Smooth changes, smooth rates, cohort-based, gender-based
- Limits
 - Prudent and minimum/maximum rates of change?

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Consultation questions ...

- Views on
 - how to communicate extent and impact of uncertainty
 - the use of separate assumptions for base mortality and future changes, not using margins in other assumptions
 - how to communicate the relative and absolute significance of assumptions

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... summary statistics ...

- Life expectancies – is it practicable to be explicit about the future changes included (or not)?
- Ideas for useful summary statistics to describe changes
- Are benchmarks useful? Should the development of benchmarks for future changes be encouraged?

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... standards

- Do you agree that evidence-based differentiation between small groups for future changes is impossible?
- Should the BAS require the use of the most recent applicable tables?
- Comments on the specific proposals for standards

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Finally...

- Responses to bas mortality@frc.org.uk by 20 June 2008
