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Global Underwriting Practices, Processes, and Terminology

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Agenda

- Background of project and goals of the study
- Findings
- Concluding thoughts



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Underwriting Subcommittee members

- Al Klein, Chair (US) – Actuary, MWG
- Michael Eves (Switzerland) – Actuary, MWG
- Cynthia French-Poteet (US) – Underwriter
- Dieter Gaubatz (US) – Actuary, MWG
- Paul Lewis (South Africa) – Actuary, MWG
- James Louw (Australia) – Actuary
- Val Munchez-van der Wagt (US) – Underwriter
- Brian Ridsdale (UK) – Actuary, MWG
- Rafael Shabetai (US) – Underwriter



Comments

“Country by country, the different approaches to underwriting are fascinating. Often ... these are driven by what is culturally or legally acceptable, but I feel there is much we can learn from each other.”

Brian Ridsdale, member of the Institute and Faculty of Actuaries

The views and interpretations of the data expressed in this presentation are those of the presenter.



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Background of project and goals of the study

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Background of the project

- Project came from the International Actuarial Association (IAA) Mortality Working Group (MWG)
- Members of the Underwriting Subcommittee that put the report together extended beyond the MWG
- Sent questionnaire June 2012
- Countries responding through 2013 studied
- Presentation based on paper entitled “Underwriting Around the World”, available at:
 - http://www.actuaries.org/CTTEES_TFM/Documents/MWG_Underwriting%20around%20the%20world_Report_2014-03-13.pdf



Caveats

- Not all countries responded to all questions
- Data from some countries doesn't fit precisely into categories we chose
- Followed up with all countries to make sure we did not misinterpret their responses, but did not hear back from all
- Because of language differences, there was probably still some misinterpretation



Goals of the study

- Not to influence or standardize loadings for particular medical conditions
- Three intended outcomes
 - Provide a centralized source of data on underwriting practices that may encourage countries to consider methods of underwriting not previously used or even contemplated
 - Provide a centralized source of underwriting terminology to enhance communication between practitioners in different regions and between actuaries and underwriters
 - Enable actuaries to better understand and assess the life insurance underwriting risk evaluation tools available as they relate to mortality

16 countries participated

- Australia
- Canada
- Croatia
- India
- Israel
- Italy
- Japan
- Latin America/Caribbean
- Mexico
- Norway
- Russia
- South Africa
- Sweden
- Switzerland
- United Kingdom (UK)
- United States (US)



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Findings

- Underwriting types
- Underwriting tools
- Market limits
- Regulatory issues
- Potential new approaches
- Impact of underwriting on mortality
- Underwriting as a profession
- Terminology





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Underwriting types



Underwriting types

- Focus was on three types of underwriting:
 - Fully underwritten:
 - Medical or paramedical exam
 - Medical questions
 - Simplified issue (SI):
 - No medical or paramedical exam
 - Medical questions
 - Guaranteed issue (GI):
 - No medical or paramedical exam
 - No medical questions

Underwriting types

	Fully Underwritten	Simplified Issue	Guaranteed Issue
Australia	35%	25%	40%
Canada	74%	20%	6%
Croatia	3%	97%	
India	80%	20%	
Israel	95%	5%	
Italy	20%	80%	
Japan	30%	50%	20%
Latin American/Caribbean	74%	20%	6%
Mexico	15%	85%	
Norway	N/A	N/A	N/A
Russia	13%	87%	
South Africa	89%	11%	
Sweden	50%	50%	
Switzerland	70%	30%	
United Kingdom	5%	80%	15%
United States	74%	20%	6%

Use of Medical Exams and Questions

	<u>Exams</u>		<u>Questions</u>
	Medical/Paramedical	No Exam	No Medical Questions
Australia	35%	65%	40%
Canada	49%	51%	6%
Croatia	3%	97%	
India	80%	20%	
Israel	40%	60%	
Italy	20%	80%	
Japan	30%	70%	20%
Latin American/Caribbean	49%	51%	6%
Mexico	15%	85%	
Norway	N/A	N/A	N/A
Russia	13%	87%	
South Africa	89%	11%	
Sweden	15%	85%	
Switzerland	70%	30%	
United Kingdom	20%	80%	15%
United States	49%	51%	6%



Underwriting types – Wide range of usage

- Fully underwritten ranged from 3% in Croatia to 95% in Israel
- Simplified issue ranged from 5% in Israel to 97% in Croatia
- Guaranteed issue was offered by six countries, with the percentages ranging from 6% to 25% of all underwritten business



A few interesting practices

- Some countries limit the first year death benefit to natural causes on SI and/or GI underwriting
- Australia on GI and South Africa on SI have a pre-existing conditions exclusion
- India uses nonmedical underwriting for cases that get kicked out of the automated rule-based engine
- Sweden can deny coverage on a nonmedical basis if the rating is greater than 150%



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Underwriting tools

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Underwriting Tools Used

- Most frequently (by 90% or more)
 - Blood test
 - Urine test
 - Electrocardiogram and/or Exercise Stress Test (EKG/EST)
 - Statement from an attending physician
 - Financial verification
- Least frequently (by only 1-2 responding countries)
 - Age verification using electoral database records (India)
 - Electrocardiogram can be requested for underwriting evaluation (Russia)
 - Motor Vehicle Record (MVR) – (Canada, USA)
 - Oral fluid (Canada, USA)
 - Passport copy, visa type, and entry stamp (Latin America/Caribbean)
 - Pharmacy profiles (USA)
 - Questions for politically exposed persons who may have a threat of kidnapping or assassination (LA/C)

Underwriting Questions Used

- Most frequently (by all 12 of responding countries)
 - Name
 - Full personal medical history
 - Height
 - Weight
 - Five used by 11 countries:
 - Address
 - Gender
 - Family history
 - Date of birth
 - Occupational details
- Least frequently (by only 1-2 responding countries)
 - Language (South Africa)
 - Marital status (South Africa, UK)
 - Drivers license number (Canada, US)
 - Average distance traveled per year (South Africa)
 - Banking details (Australia, South Africa)
 - Highest educational qualifications (Norway, South Africa)
 - Sexually transmitted disease (UK)
 - Exposure to HIV (Israel, UK)



A few interesting practices

- Norway – NEMNDA
 - Committee for health assessment provides guidelines on how different health conditions affect mortality and future disability and disease risk to ensure equality in treatment of insurance applicants
- South Africa – ASISA (Association of Savings and Investments South Africa) and Astute
 - Two industry registers
 - ASISA keeps track of previous insurance loadings
 - Astute keeps track of previous insurance



Less frequently used testing (1-2 countries)

- eGRF – Detects early kidney damage
 - Australia, South Africa
- Thyroid gland – Stores hormones and regulates heart rate, blood pressure, body temperature and rate at which food converted to energy
 - Australia and Russia
- Inspection report (Criminal activity)
 - USA



Challenges with Underwriting Tools

- Compliance with EU unisex requirements
- Laboratory services vary widely from tight quality controlled state of the art environments to questionable handwritten reports
- Uneven quality of data
 - India doesn't even seek medical records
 - There is no APS retrieval service for any LA/Caribbean countries
- Telephone application success varies
 - Huge success for some, however, for others customers can be reluctant to share personal, medical, and financial data with a person on the phone for fear of future personal risk of extortion or kidnapping



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Market limits

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Market Limits on BMI

Obesity Class	<u>Body Mass Index Limits</u>	
	Current (WHO)	Proposed Asian (IDI)
Underweight	< 18.5	< 18.5
Normal	18.5 – 24.9	18.5 – 22.9
Overweight	25.0 – 29.9	23.0 – 24.9
Obesity Class:		
I	30.0 – 34.9	25.0 – 29.9
II	35.0 – 39.9	> 30.0
III (Morbid obesity)	> 40.0	

Rank of Geographic Areas by BMI

Group	BMI region
5 (Lightest)	East Asia, including Southeast Asia
4	Indian subcontinent
3	Switzerland, Europe (low risk), Middle East, Rest of Africa
2	United Kingdom, Canada, Ireland, North & Eastern Europe, Australia, New Zealand, Rest of Americas, South Africa (females)
1 (Heaviest)	USA (males and females), South Africa (males)

Source: Swiss Re



Insurance findings related to BMI

- Mortality is higher with the highest BMIs, except at the older ages where both mortality and morbidity are highest with the lowest BMIs
- Disability is higher at all ages with overweight and obese people



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Regulatory issues

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Recent and Potential Regulatory Issues

- EU – Equal treatment between men and women in pricing, premiums, and underwriting
 - Effective 21 December 2012
- India – Minimum insurance amount available increased
 - Effective 1 October 2013
- Israel – Potential legislation regarding equal opportunities for disabled applicants
- Mexico – Discrimination law regarding disability
 - Approved in 2012



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Genetic Testing

- Prohibited – Israel, Mexico
- Prohibited unless applicant provides – Italy
- Cannot require genetic test, but if applicant has taken one it can be requested
 - Australia, Canada
 - Sweden and Switzerland (only above certain sum insured limits)
 - UK (only above certain sum insured limits or if Huntington's disease found)
- Not used, but not prohibited
 - Japan, Latin America/Caribbean, Russia, USA



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Potential new approaches to life underwriting

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Potential new approaches – life underwriting

- Electronic submission of forms
- Expert underwriting systems
- Use of national databases (e.g., prescription databases)
- Tele-interviewing and tele-underwriting
- Preferred underwriting (i.e., more refined risk classification)
- Special “older age” underwriting (e.g., cognitive and functional testing)
- Use of social media
- Use of consumer/personal data (e.g., buying habits, post code, etc.)
- Use of Customer Identity Number for Know Your Customer usage of credit report for financial underwriting (India)



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Measuring the impact of underwriting on mortality experience

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Measuring the impact of underwriting on mortality experience

- Can study broad concepts (e.g., mortality from full underwriting vs. SI) through experience studies
- Countries in which actuarial associations or government agencies conduct and publish fairly frequent studies include:
 - Canada
 - Japan
 - Mexico
 - UK
 - USA



Measuring the impact of underwriting on mortality experience (cont'd)

- To study the mortality from a specific underwriting tool, a protective value study can be done
 - Compares the related cost and benefit
 - Link to some published cost/benefit analysis:
<https://www.soa.org/research/research-projects/life-insurance/research-medical-markers.aspx>
 - Protective value studies are not widely done
 - When done, they are typically proprietary and not published



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Underwriting as a profession

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Countries that have a formal profession

- Australia – The Australian Life Underwriters and Claims Association (ALUCA)
- Canada – The Canadian Institute of Underwriters (CIU)
- India – The Association of Insurance Underwriters (AIU)
- Mexico – Asociacion Mexicana de Seleccionadores (AMS)
- UK – The International Underwriting Association (IUA)
- USA – The Association of Home Office Underwriters (AHOU)



Underwriting as a profession

- Some countries provide formal training and designations
 - Canada
 - Israel (training only)
 - UK
 - USA (FALU designation is available to any underwriter, but training material and exams are only in English)
- Some countries provide continuing education
 - Australia (requirements for 2 of 3 levels within ALUCA)
 - USA (ALU provides webinars, but no formal training)



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Terminology

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Some unique terminology

- Australia
 - MBA20 blood test – Multiple Biochemical Analysis is for lipids, liver enzymes, glucose, and kidney function
 - Medi Lite – 15 minute health check
 - MSU – Mid-Stream urinalysis
 - Dip stick – Dip stick test of a sample of urine
- Canada
 - Oral fluid – Screen for cotinine, cocaine, HIV, Hepatitis
 - Guaranteed-to-issue – Cannot be turned down for coverage, but can be rated



Some unique terminology (cont'd)

- Croatia
 - Ultrasound scan – External scan allows doctor to look more closely at organs (e.g., heart, womb) to detect problems
- India
 - Questionnaires – Specific questionnaires are given to assess any medical, financial, avocational, or occupational risk issue
 - Online verification of applicant's age – Done with an electoral database available for each state in India
 - Financial Surrogates – Getting tax returns for self-employed is difficult, so bank statements, vehicle insurance details, property papers, mutual fund and fixed deposit receipts can be substituted



Some unique terminology (cont'd)

- Italy
 - Abdominal ultrasound – Examines internal organs of the abdomen
- Norway
 - Workability underwriting – One question determines whether case is workable (i.e., able to be underwritten) or not
 - ROFF – National register that keeps track of denials, ratings, limited coverage, for 10 years. Can call other company for details.
 - NEMNDA – Committee for health assessment sets guidelines, on how health conditions affect mortality, morbidity, and disability. Based on medical statistics in Norway so all insurance applicants treated fairly.



Some unique terminology (cont'd)

- South Africa
 - Business overhead projector – Short-term disability contract
- United Kingdom
 - General Practitioners Report (GPR) – Generally provides underwriter with additional information needed to make a medical underwriting decision on the proposed insured, but generally takes at least 20-30 days to receive
 - Subject Access Request (SAR) – Alternative to GPR. Data Protection legislation used to request and get full copy of medical records faster than GPR, but use is controversial



Some unique terminology (cont'd)

- United States
 - Medical Information Bureau (MIB) – Keeps track of rating/decline decisions of proposed insureds from member companies for seven years. Member companies can access this information for further investigation if it was not disclosed on the application or other forms. Formed to prevent fraud.
 - Motor Vehicle Records (MVR) – Each state keeps track of driving information (e.g., moving violations, driving under the influence, reckless driving, suspension of or special licenses
 - Oral fluid – Screen for cotinine, cocaine, HIV



Some unique terminology (cont'd)

- United States (cont'd)
 - Pharmaceutical profiles – Provides prescription drug usage of proposed insured
 - Preferred underwriting – Multiple risk classes determined based on proposed insured's personal medical history, family history, blood pressure, build, cholesterol, and several other factors



Medical report from doctor has many names

- Australia – Personal Medical Attendant's Report (1)
- Canada – Attending Physician Statement (2)
- Croatia – Internist examination (3)
- India – Attending Physician Statement
- Israel – Personal Medical Attendant's Report
- Switzerland – Attending Physician Statement
- United Kingdom
 - General Practitioners Report (4)
 - Subject Access Request (5)
- USA – Attending Physician Statement



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Concluding thoughts



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Concluding Thoughts

- Caution needs to be used when studying results
 - Probably some misunderstanding of what was wanted, terminology
 - Some specific items just don't fit cleanly in our pre-defined categories
- Despite this, there is a lot of valuable information in the report
- Practices between countries vary – sometimes considerably
 - What works in one country will not necessarily work in others
- While I spent most of the time discussing the bigger differences between countries, there are also some subtle differences that may also be of interest



Concluding Thoughts (cont'd)

- Three hopes going forward:
 - This will help actuaries and underwriters work better together
 - Some will be able to utilize the learnings to improve their practices
 - This is a living document that will be updated with new developments and new countries



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Questions? / Discussion

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ertise
ponsorship
Thought leadership
Progress
Community
Sessional Meetings
Education
Working parties
Volunteering
Research
Shaping the future
Networking
Professional support
Enterprise and risk
Learned society
Opportunity
International profile
Journals
Support

Al Klein, FSA, MAAA

- Al is a consulting actuary with Milliman's Bannockburn / Chicago office. He joined the firm in 2009.
 - Al's primary responsibilities include performing industry experience studies and helping clients with life and annuity product development and reinsurance-related issues. His expertise includes mortality- and underwriting-related issues, including older age, simplified issue, and preferred.
 - Prior to joining Milliman, Al most recently worked for a large stock life insurance company where he was responsible for experience studies across all lines of business. He has also worked for other life insurance companies, a reinsurer, and consultant, where he has been responsible for strategic planning, product development, and traditional reinsurance aspects of the business.
 - Al is a frequent speaker at industry meetings and is currently involved with a number of industry activities, including:
 - SOA representative for and vice-Chair of the Mortality Working Group (MWG) of the International Actuarial Association
 - MWG Underwriting Around the World – Chair
 - SOA Longevity Advisory Group
 - SOA Mortality and Underwriting Survey Committee
 - Joint American Academy of Actuaries (AAA) / Society of Actuaries (SOA) Preferred Mortality Oversight Group
 - Joint AAA / SOA Underwriting Criteria Team
 - 2014 SOA Valuation Basic Table (VBT) Development Team
 - SOA Longevity Game Development Team
 - Longer Life Foundation Advisory Board
 - Al received a Bachelor of Science degree in Actuarial Science and Finance from the University of Illinois, Urbana.
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