

The Actuarial Profession
making financial sense of the future

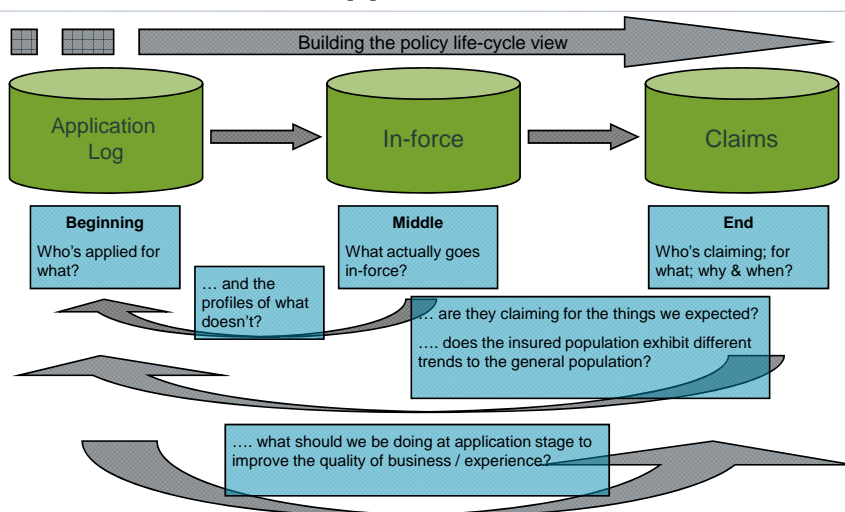
Life Conference 2011
20 – 22 November



Automated Underwriting The Hidden Strategic Value Nigel Mead and Paul Hatley

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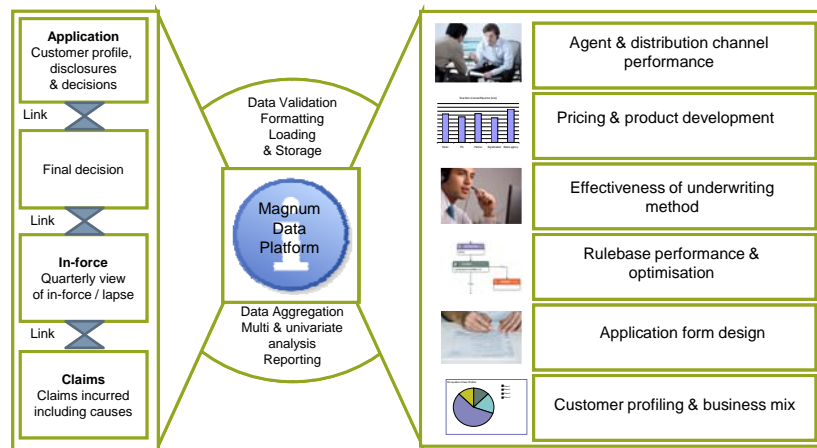
Full Policy life-cycle Inaccessible / untapped value



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Magnum Data Insights from application to claims



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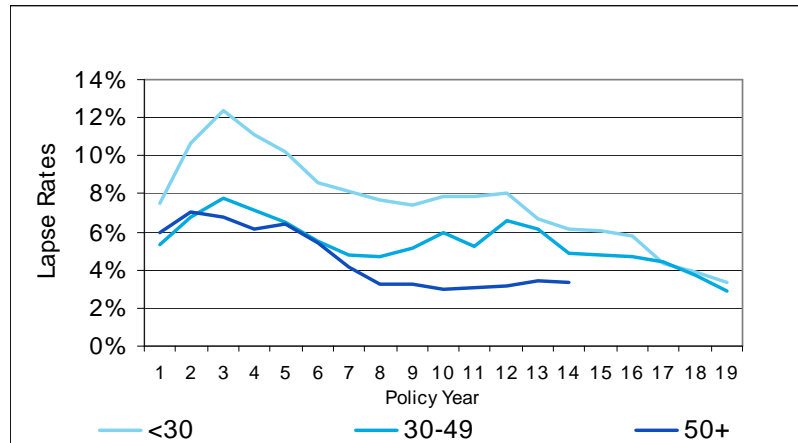
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Analysing Lapse and Claim

- We can start to analyse lapse and claim by factors collected during the underwriting phase
- Caveat - The following are very early results and are shown to illustrate what is possible rather than definitive results

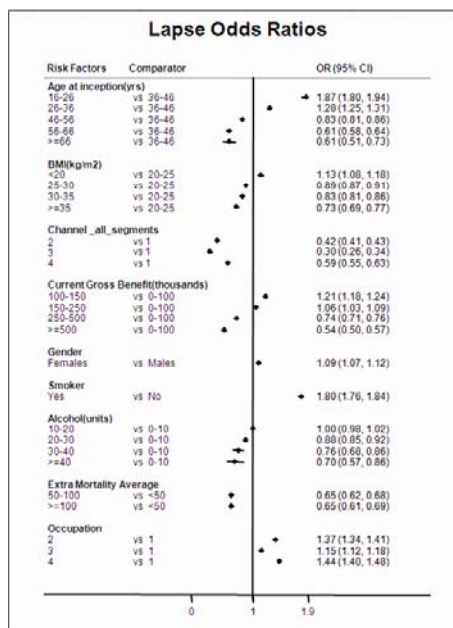
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Lapse analysis by issue age group (Term life)



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Insights from our in-force

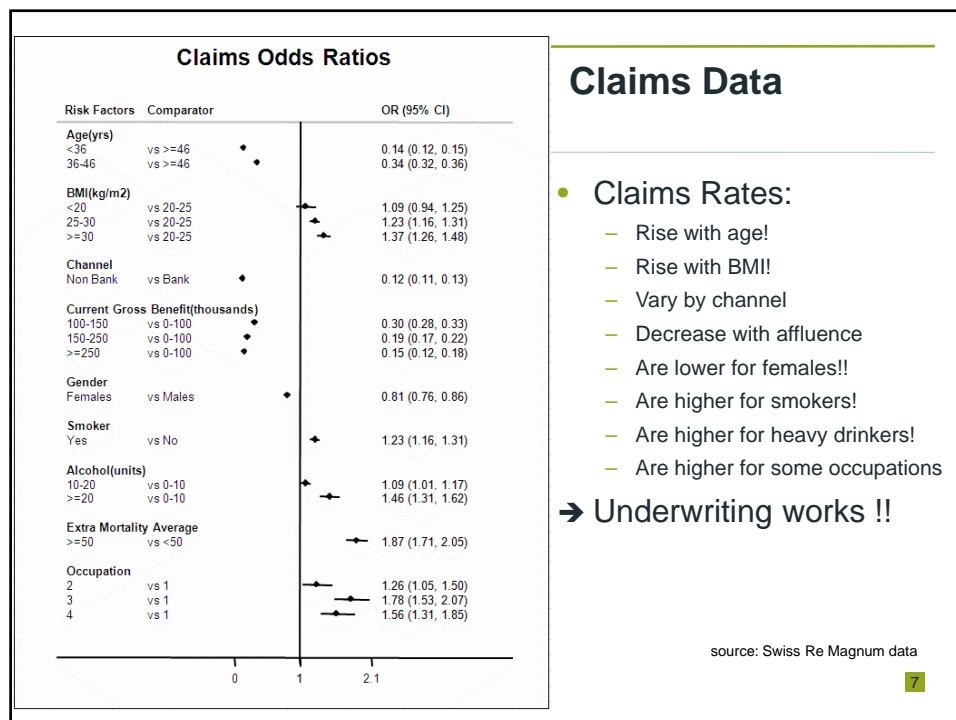
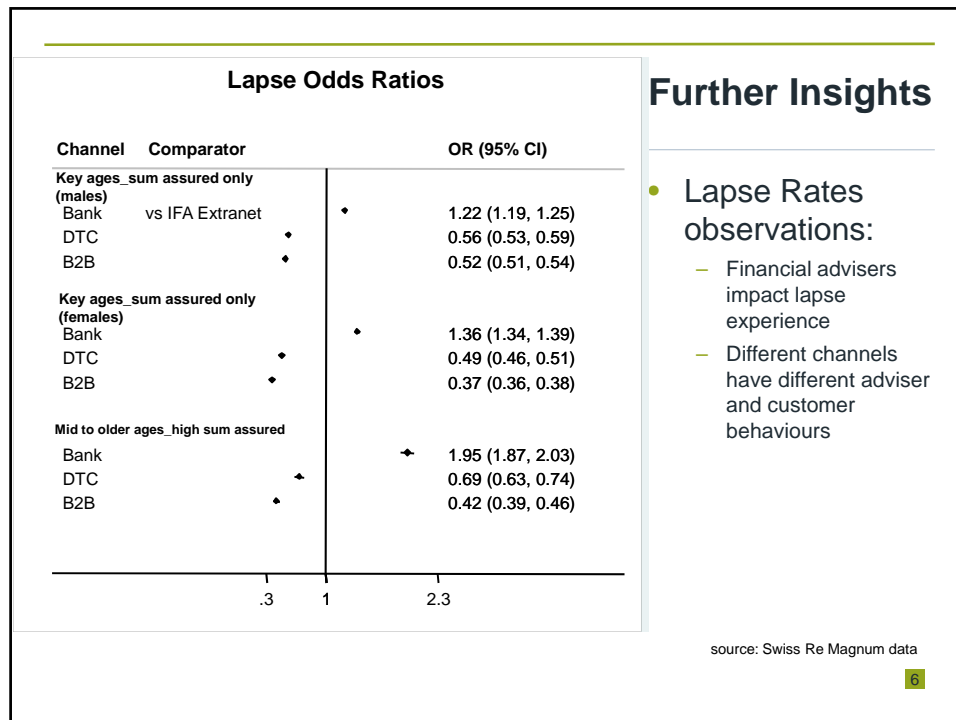


Lapse Rates

- decline with age
- increase for higher-risk occupations
- declines as BMI increases
- declines as benefit increases
- decline the more alcohol is consumed
- do not significantly vary by gender
- significantly higher for smokers
- significantly lower for those who are rated

source: Swiss Re Magnum data

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Tracing case background in claims assessment

Claim ID: 999634286-56 Cause: Myocardial Infarction Magnum Decision: Refer Rating: +0
Policy duration at Claim: 10 Months

			Family History			
Claim ID	Impairments	Claim ID	Relation Name	Relation Problem	Claim ID	Avocation
999634286-56	Blood Tests	999634286-56	Father	Heart attack	999634286-56	Sports Diving
999634286-56	Dislocated jaw	999634286-56	Mother	Diabetes	Total:	1
999634286-56	X-ray on wrist	Total:		2		
Total:	3					

Could the FH diabetes include CAD (i.e. 2x FH CAD)?

Could the diving have precipitated the event? – not material

Were the blood tests cardiac related?

... and were they followed up at UW stage?

Linked information from application disclosures (Magnum logs)

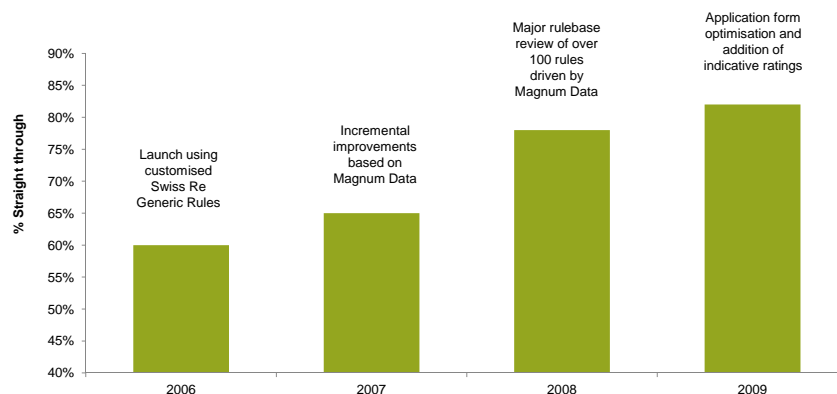
The analysis will help understand the relation between claim causes and disclosures. It will help to show if there is any correlation between the claim causes and the disclosures discussed during the application process.

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Continuous System Improvement Engaging with your rules pays dividends

Scottish Widows, Straight through decision rate (Life Cover)



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Hidden Value

- Benefits of Automated Underwriting System
 - Customer service
 - Savings in FTE and medical fees
 - Consistent and accurate decisions
 - Management Information
 - **Steer the business and**
 - **Police the information being entered**

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Steering the business

Main areas for constant review

- Referred in
 - Most of medical expenses budget incurred by cases referred in for manual assessment
- Outcome of business underwritten
 - Automated UW decisions against persistency of the business

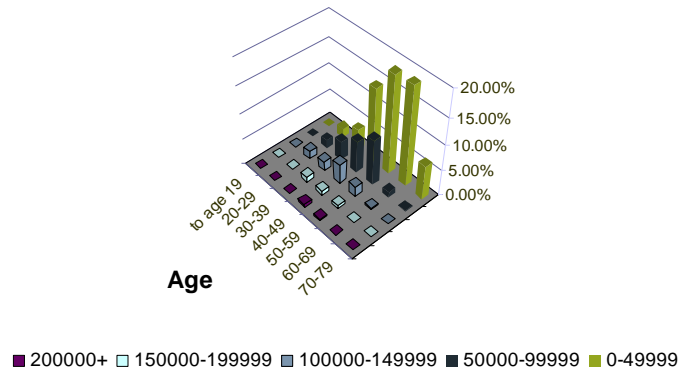
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Steering the business

Referred in for medical information

Referred in by age and sum assured

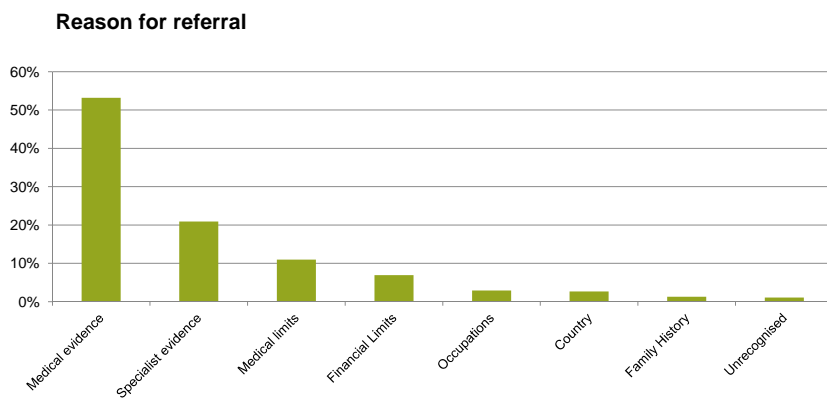


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Steering the business

Reason for referral (all age groups)



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Steering the business

Refining the questions asked

Impairment	Efficiency	Impairment Questions Referred In %	Final Policy decision (%) Std / Load/ Dec
Hypertension	78%	Q1 refers 5%	30 / 34 / 36
		Q2 refers 8%	40 / 20 / 40
		Q3 refers 9%	3 / 5 / 92
Mental Illness	81%		
Diabetes	72%		
Back Disorders	99%		

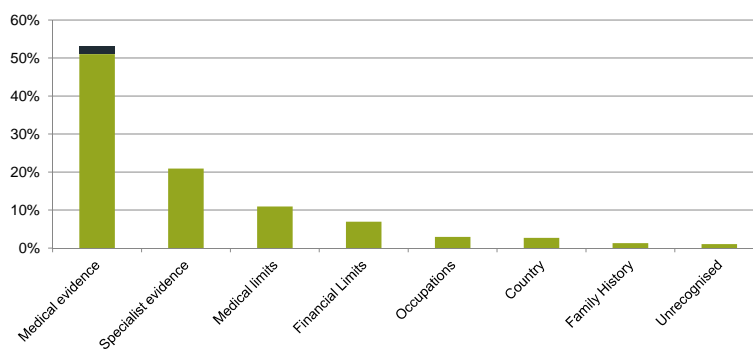
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Steering the business

Effect of changing the automated UW system

Effect of changing the automated system



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Steering the business

Underwriting decisions and persistency

Automated System decision / Status	Standard	Loaded	Refer	Decline
Inforce	2000	500	500	300
NTU	400	150	250	
Claim	5	2	0	
Declined	10		20	300
Etc				

- Look at outcomes by product type, SA size and age groups.
- Data is for illustration purposes only

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Steering the business

Early claim – able to look back at UW records

UW Question	Answer given
What type of cancer ?	Breast Cancer
When was your last treatment?	01/07/1998
Has your cancer spread to other parts of your body?	No

- Applicant had treatment in 2005 and 2011, at time of application cancer was Stage 3
- Stage 3 usually means the cancer is larger. It may have started to spread into surrounding tissues and there are cancer cells in the lymph nodes in the area. (source Cancer research UK)

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Policing the system

- Policing Data entering the system
 - Need to make customer journey smooth and avoid disputes at claim.
 - Poor data will lead to incorrect risk assessment of the policy.

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Policing the system

- Need to ensure that the applications represent a true and fair view of the health status of the applicant.
- Our main checks are:
 - From underwriting system
 - Agent behaviour through the Acceptance and Impairment report and resubmitted policies
 - From other sources
 - Asking all clients to check the answers given to the medical questions.
 - Random sampling
 - Target sample

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Policing the system Acceptance and Impairment Report

- This is one of the most valuable reports from the Underwriting system MI.
- Measure agent behaviour by:
 - Disclosure
 - Completion
- We look for sellers with high acceptance rates and very low impairment rates.
- Build picture up over time, look at distinct quarters.

Agent	Quarter	Number	Acceptance	Impairment	Status
ALL	average		67%	35%	
X181	Q4 09	50	71.8%	36%	
	Q1 10	61	91.8%	8.1%	Fail
	Q2 10	87	81.3%	17%	Fail
	Q3 10	67	66%	34%	

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The End

- What I have shown you is a small part of the statistical work undertaken by Scottish Widows but hope it demonstrates that
 - the value of a automated underwriting system goes beyond just assuming it is a tool for underwriting, it is a very powerful means of managing your business.

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Data accuracy

- The data underlying the graphs is based on live data taken from the SW database, August 2011.
- Please do not rely on the results of any graph as the volume of data is not significant to permit accurate conclusions to be drawn.

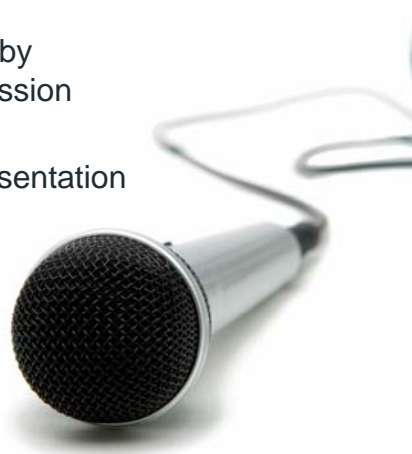
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Questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

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



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