Simplified Issue Underwriting

Presentation to the Mortality Working Group of the International Actuarial Association

Al Klein
October 11, 2010
Agenda

- What is Simplified Issue Underwriting?
- Why is there interest in SI?
- What underwriting tools provide protective value?
- Society of Actuaries 2008 VBT Limited Underwriting Table
- Possible methodologies for setting mortality assumptions
- Questions

- Presentation will primarily focus on US marketplace
Society of Actuaries Survey on Simplified Issue

- Completed in 2004
  - Published January 2008
- Survey of companies who write US business
- 27 companies responded on multiple SI products
- Some information may be dated, but I think much is still relevant
- Will refer to survey throughout presentation
What is Simplified Issue?

- Many definitions
- Somewhere between fully underwritten and guaranteed issue
- In Australia, guaranteed acceptance with pre-existing conditions exclusion is common, but focus here will be on US
- Some general statements
  - Generally no medical or paramedical exam
  - Typically no bodily fluids collected, but sometimes oral fluid
  - Generally medical questions and a question on tobacco use
  - Generally allow some substandard business, but also have some knockout questions
What is Simplified Issue? (cont’d)

- Most common non-medical information (per survey):
  - Sex (92% of respondents)
  - Height and Weight (73%)
  - Country of residence (67%)
  - Occupation (54%)

- What about policy size?
  - Face amounts ranged from $25K to $2M (per survey)

- One more thing on definition of SI (per survey) – Simplified Issue defined as what it is not!
What is **not** Simplified Issue?

- Nonmedical band of a fully underwritten product
- Routinely required paramedical examinations
- Routinely collected bodily fluids; however, products with agent-collected oral fluid or urine should be included
- Guaranteed issue products
- COLI/BOLI products
- Credit insurance products
- “Group” products other than affinity groups solicited by mass marketing
- Juvenile-only products (e.g., under age 16)
- Annuity products
Why is there interest in SI?

- Quicker issue
- Less intrusive
- Less underwriting often more favorable to customers (both agents and policyholders)
- Only drawback is that you may not be able to provide as competitive a rate as with more extensive testing
Why is there interest in SI? (cont’d)

- Way to enter certain markets
  - Middle income
  - Juvenile
  - Mortgage

- Way to enter certain distribution channels
  - Direct marketing
  - Banks
  - Internet
Why is there interest in SI? (cont’d)

- Top reasons for entering the SI market (per survey):
  - Enter new target market (69%)
  - Agent demand (50%)
  - Quicker issue (46%)
What underwriting tools provide protective value?

- Application questions
  - Medical
  - Financial
  - Lifestyle

- MIB (Medical Information Bureau)

- Motor Vehicle Record (MVR)

- Prescription database

- Tele-underwriting
  - Can be used for drill down questions or simply verification of previously obtained data
  - Can incorporate cognitive testing for older ages
What underwriting tools provide protective value? (cont’d)

- Personal History Interview (PHI), background check, etc.
- Consumer database check
- Credit score
- Oral fluid
- Dry Blood Spot
- Attending Physician Statement (APS) – either required or reflexive
Ways to Minimize Anti-selection

- Responses (per survey):
  - Point of sale interview
  - Follow up call to verify answers
  - Actively at work question
  - Amount applied for should be reasonable relative to income level

- Other thoughts:
  - Make sure medical questions complete
  - Don’t forget to review lifestyle risk
  - Ask catch-all type question
SOA 2008 VBT
Limited Underwriting Table

- Developed using data where only limited underwriting expected

<table>
<thead>
<tr>
<th>Face Amounts chosen for SOA 2008 Limited Underwriting Table</th>
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<tbody>
<tr>
<td><strong>Issue Ages</strong></td>
</tr>
<tr>
<td>Durations</td>
</tr>
<tr>
<td>1 - 10</td>
</tr>
<tr>
<td>11 - 25</td>
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<tr>
<td>26 +</td>
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</tbody>
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- Table is a combination of small policies, conversions and some fully underwritten business but with unknown levels of underwriting

- Smoker/nonsmoker split based on primary table splits
Setting a Mortality Assumption

- Two approaches
  - Start with the 2008 VBT Limited Underwriting Table
  - Start with current company mortality table

- Make appropriate adjustments
  - Must understand underlying table
  - Adjustments may be in both directions

- Considerations
  - Is the new product single premium or premium paying?
  - Underwriting, target market, distribution channel, etc.

- Monitor results
  - Be able to react quickly if results don’t come in as expected
Approach 1 – Start with the 2008 VBT Limited Underwriting Table

- What adjustments should be considered?
  - Bring mortality forward to current date
  - Changes to reflect your individual company (target market, distribution channel, etc.)
  - Changes to reflect differences in underwriting
Approach 2 – Start with the Current Company Mortality Table

- What adjustments should be considered?
  - What are differences in underwriting?
  - Anticipated mix of preferred, standard and impaired lives
  - Estimate of anti-selection
  - Durational impact
Question for Group

- Should we form an underwriting section of this working group?
Questions?
Bio – Al Klein

- Al is a consulting actuary with Milliman’s Lake Forest / Chicago office. He joined the firm in 2009.
- Al’s primary responsibilities include 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 Board of Directors
  - SOA representative for the Mortality Working Group of the International Actuarial Association
  - SOA Mortality and Underwriting Survey Committee
  - Joint AAA / SOA Preferred Mortality Oversight Group
  - Joint AAA / SOA Underwriting Criteria 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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Executive Summary

Some of the key results of the Simplified Issue Survey are highlighted below. The percentages and numbers in this summary reflect the proportion of all respondents or products responding to a particular question. Note that most of the report is presented as the percentage (or number) of products that fall into a category rather than the percentage (or number) of companies responding. We recommend reading the full report to better appreciate the statements below.

Company Information

- In August 2004, a survey was sent to actuaries and chief underwriters at U.S. life insurance companies requesting data on simplified issue (SI) products written in the U.S. The survey covered products marketed during 2004, but introduced prior to 2004. The survey also requested some general information on the number and types of SI products sold by each company.

- Twenty-seven companies responded to the survey with 21 providing data on two of their top selling SI products. The number of responses to each question varied. There were only a few questions with responses for all 48 products or from all 27 companies.

Product Characteristics

- Over 75% of the respondents offered more than one SI product, with two SI products being the most common number offered (35%).

- Premiums varied by age (97%), sex (86%) and smoking status (64%).

- Maximum face amounts ranged from under $25,000 to $2,000,000.

- Respondents offered SI products to a rather wide variety of markets. The senior market (43%), blue collar (41%) and middle class/income (41%) were the most common. The primary target market most frequently chosen was Financial Institutions Customer (26%).

Underwriting Requirements and Criteria

- The most common types of application questions used to underwrite SI products are listed below (used by at least 80% of the products):
  - Gender;
  - Use of tobacco products;
  - Alcohol or drug use/abuse;
  - Recent hospitalization or alternative care utilization;
  - Personal history of heart disease, stroke, internal cancer or melanoma, HIV/AIDS, blood disorders, kidney conditions, Alzheimer’s disease or dementia, diabetes, liver conditions, or respiratory conditions.
• All of the respondents asked applicants about personal history of heart disease or stroke.

• It was common to automatically reject or decline applicants who had an adverse history of the following:
  o Convictions for driving under the influence of drugs or alcohol (86%)
  o Drug abuse (85%)
  o Alcohol abuse (80%)

Assumptions and Experience

• The most common underlying base mortality table was the SOA 1975-80 Basic Select and Ultimate Table (46%).

• The top two leading causes of death were heart disease and cancer.

• Mortality assumptions for pricing SI products varied considerably. This was not surprising given the diversity of products in the survey. For example, the expected mortality rate for a male, age 65 in duration 1 ranged from 1.02 per 1,000 to 76.26 per 1,000.

• Lapse assumptions also varied considerably among the products. For example, the expected lapse rate for a male, age 65 in duration 1 ranged from 1.3% to 34%. For those respondents providing actual experience, actual lapse experience exceeded expected except at the later durations (6 and 10).

Technology and Process

• Fifty-six percent responded that an automatic underwriting system was used to process SI product applications. Eighty-seven percent of those with an automatic system allowed the system to make the final underwriting decision at least part of the time. The automated decision, when allowed, was either accept or reject.

• Half of the respondents indicated they exclusively used paper applications for their SI products. Only one respondent indicated that they exclusively used an electronic application and two exclusively used a phone application.

• Actual underwriting and total turnaround time tended to exceed expected underwriting and total turnaround time, respectively.

• The main technology used in the SI underwriting and issue process was imaging (81%).