



RGA



Simplified Underwriting - The impact on risk and pricing

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Simplified Underwriting (SI)



What is it?

- Many Definitions
- Somewhere between fully underwritten and guaranteed issue
- Commonly it involves asking 3-5 questions
- Sums assured usually within non-medical limits
- Usually the questions are tailored on an accept/reject basis

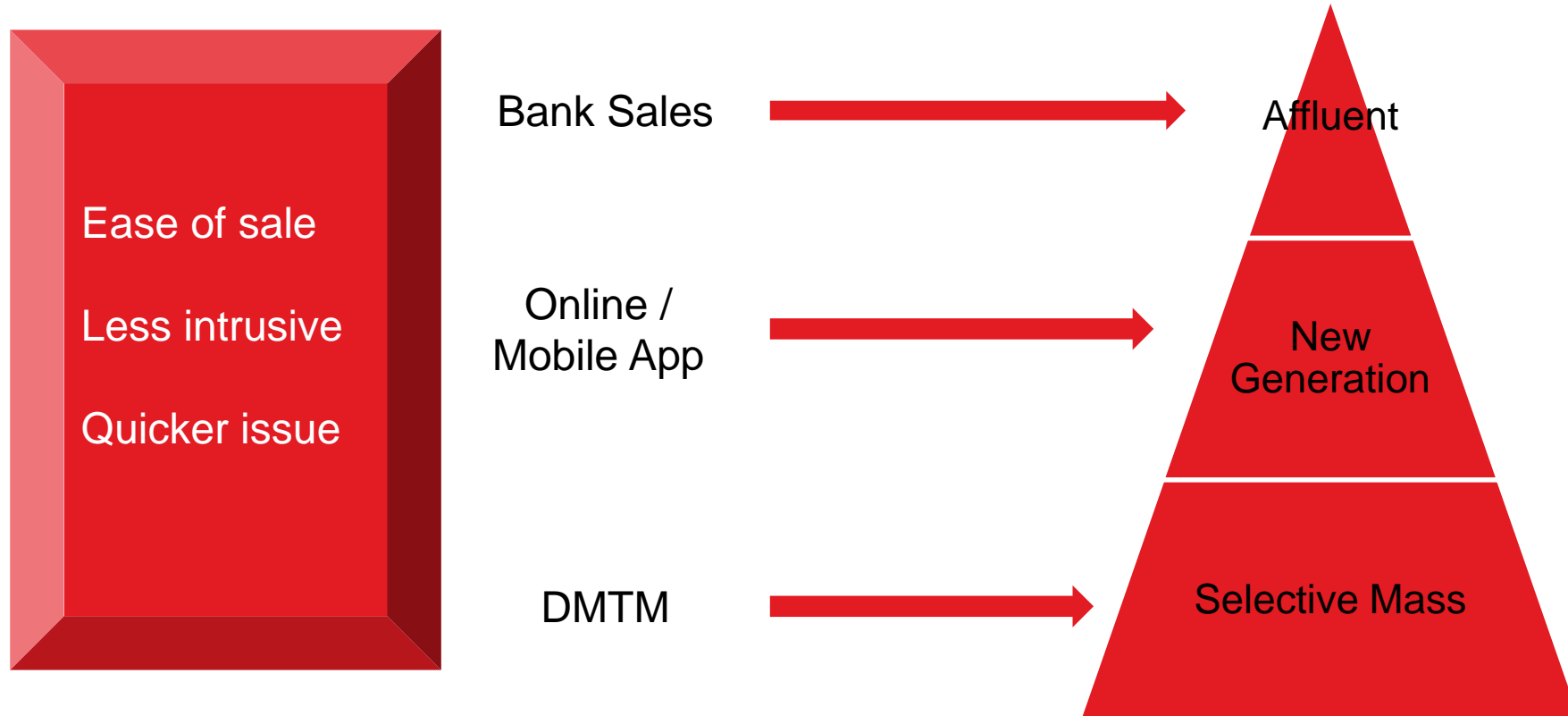
What is NOT Simplified Issue?



- Full application without medical examinations or bodily fluids i.e. US practice
- The inclusion of an additional process e.g. calls for additional tests or even questions if paper based

Simplified Issue

Why and for whom?

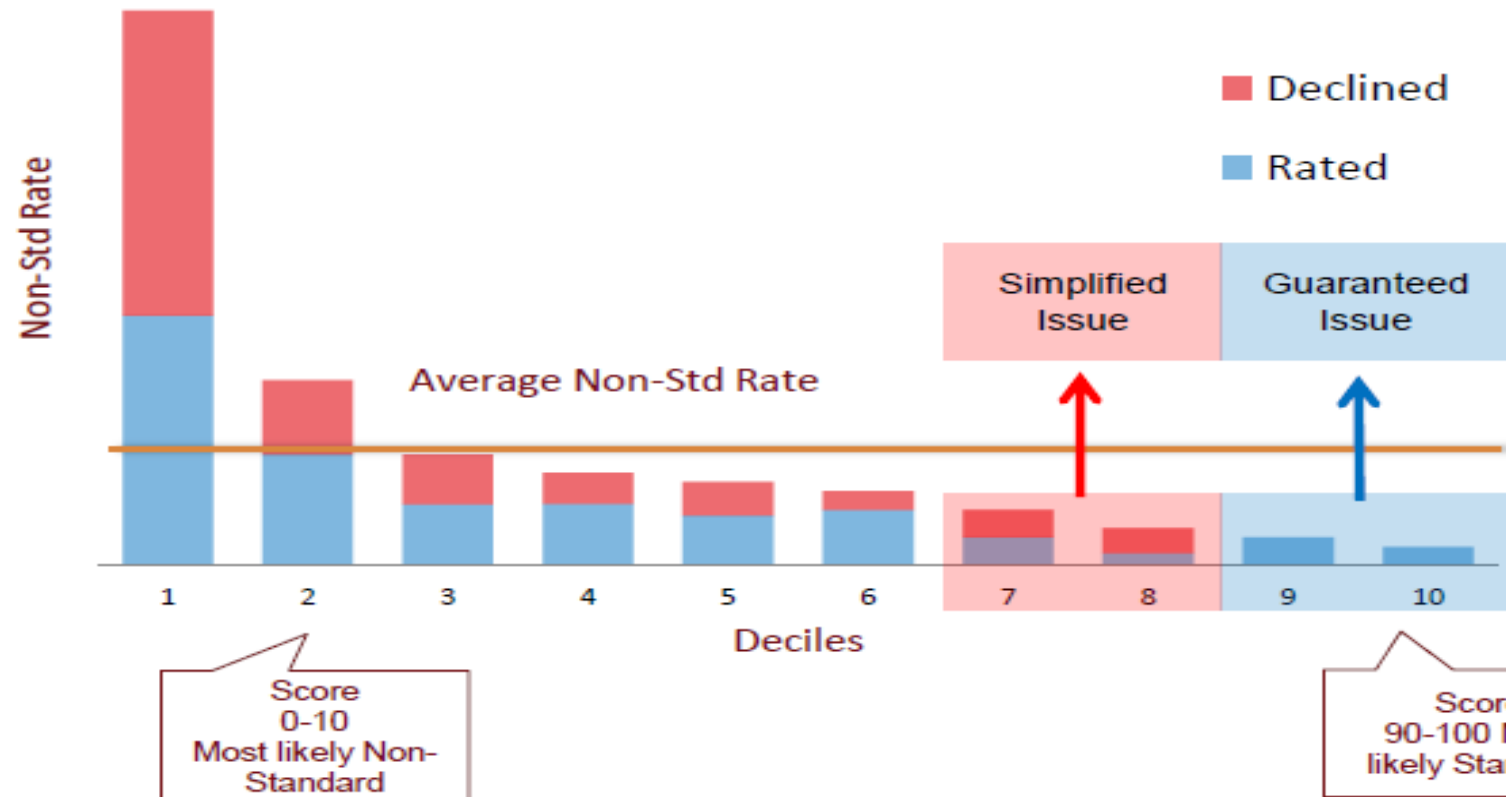


Predictive Modelling

Modelling existing bank customers

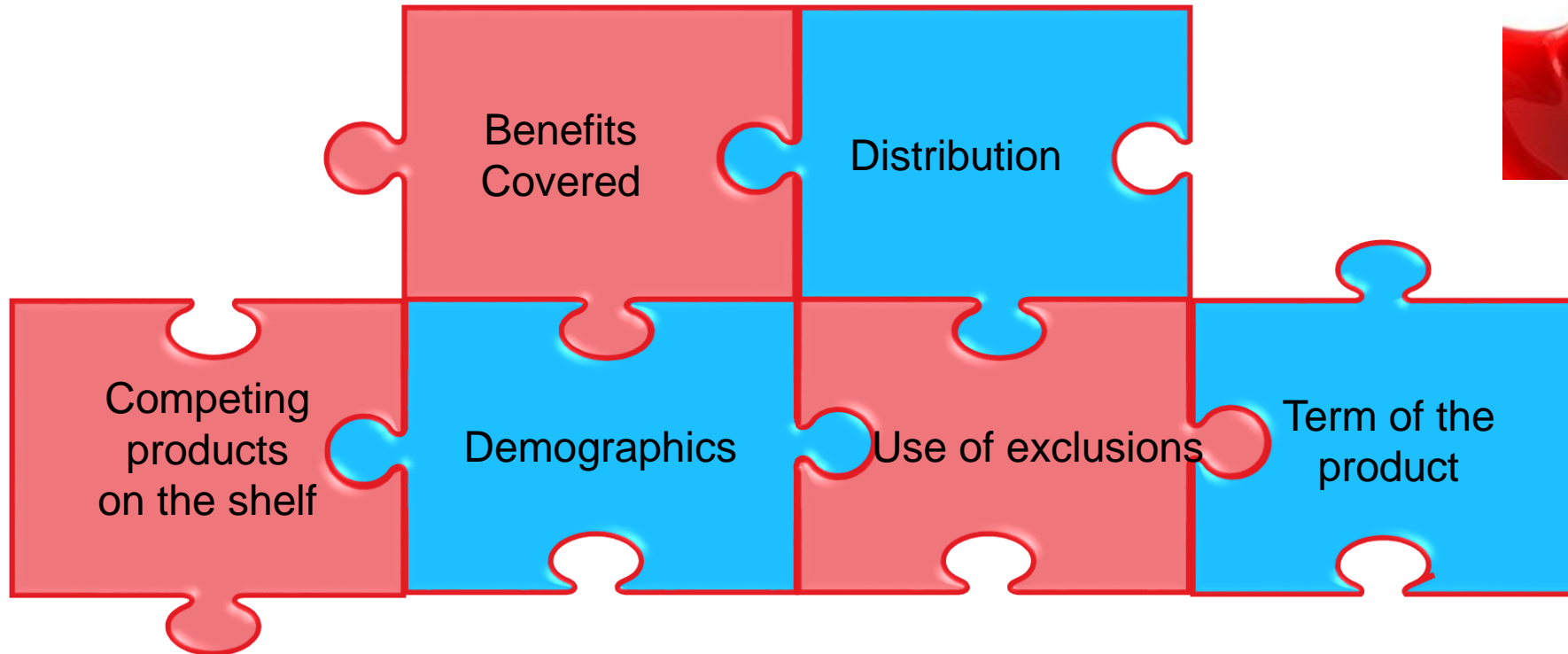
Most Predictive Variables

- Age at entry
- Branch
- Assets Under Management
- Customer Segment
- Nationality



Simplified Issue

It's not just about the health questions...



Simplified questions - Sample

Is this simplified?

- Have you ever had, or been told you had, been treated for or hospitalized or consulted a specialist for medical advice for high blood pressure, Stroke, Chest Pain, Heart Disease, Kidney Disease, Diabetes, Respiratory Disorder, Thyroid Disease, Nervous System or Mental Disease, Urinogenital Disease, Digestive Problems, Liver Problems (including Hepatitis B Carrier), Blood Disease, Disorder of the bones, Spine or Muscle, Cancer or Tumor / Mass / Growth, AIDS or AIDS related complex or any other diseases not mentioned above ?
- Have you been advised to be hospitalized for treatment of a medical condition or scheduled for a surgical operation which has not been performed or have you at any time had any Accident or Sickness necessitating you being under medication or drug for more than 14 days or undergone any surgical operation at a hospital or clinic, or undergone any diagnostic test or investigations (including X-rays, ECGs, Blood Test, Biopsies, etc) or under observation?

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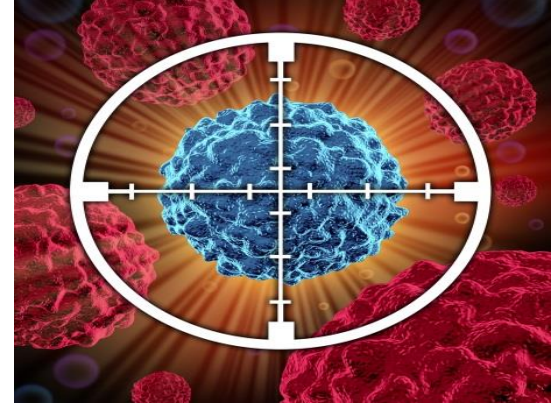
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The secret of good SI questions

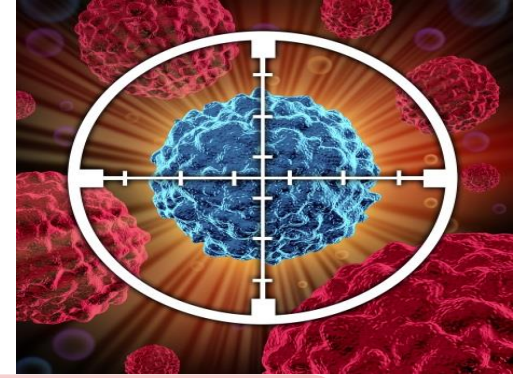
- Avoid asking about common insignificant impairments
- May introduce qualifier statement i.e. common colds, flu, vaccinations may be disregarded
- Clear and concise – avoid too many “ands” or “ors”
- We want to allow for most lives to go through e.g. 80% STP
- But eliminate the significant substandard lives

Case Study – simplified issue

- Product: cancer lump sum
- Distribution channel: affinity outbound
- Target age group: 20-50 year olds
- Request for 4 simplified questions



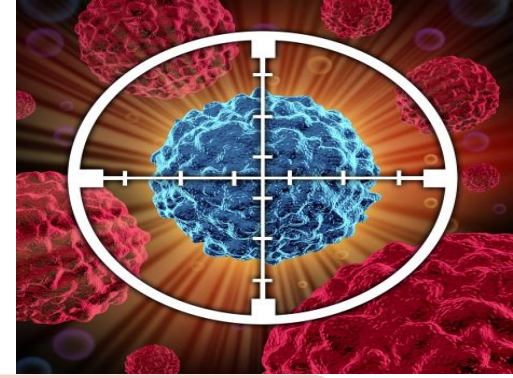
SI with 1 question (approx. 30% loading)



Cancer and its synonyms

- Have you ever had, or been told that you have, or are under current investigation for cancer, carcinoma in situ, tumour, lump, cyst, polyp, growth of any kind, or liver disease?

SI with 2 questions (approx. 25% loading)



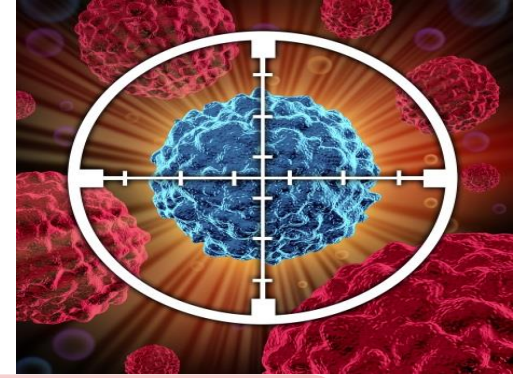
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Cancer related investigations

- Have you undergone any investigation, or awaiting any follow up, as a result of an abnormal blood, urine or stool test, ultrasound, cervical smear, mammogram, endoscopy, colonoscopy or prostate examination?

SI with 3 questions (approx. 15% loading)



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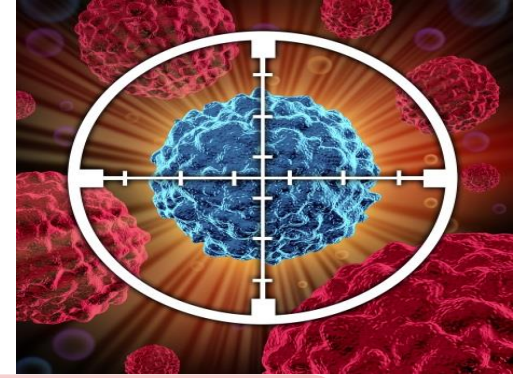
Cancer related investigations

- Have you undergone any investigation, or awaiting any follow up, as a result of an abnormal blood, urine or stool test, ultrasound, cervical smear, mammogram, endoscopy, colonoscopy or prostate examination?

Family History of Cancer

- Have two or more of your parents, brother or sisters ever suffered from cancer before age 50?

SI with 4 questions (approx. 10% loading)



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Family History of Cancer

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Cancer Symptoms

- Are you currently experiencing fatigue, fever, nausea, weight loss or symptoms for which you intend to seek medical attention or treatment?

Determination of the impact of SI questions



The 4 step approach

Gaps

- Establish “Gaps” in the SIO questions as compared with traditional u/w setting

Research

- Identify prevalence of the “missing” diseases in target population

Calculate

- Calculate “excess morbidity” of the missing diseases

Adjust

- For channel, issue ages, limits, exclusions (business mix modifier)



Basis of questions: 4 step approach

1. Establish Gaps

- a) “Gaps” are diseases giving rise to increased cancer risk e.g.
 - Diabetes, hepatitis B, build, smoking
 - any kind of family history < 2+ family members at youngish ages
- b) Discount by the effect of asking “catch-all” questions e.g.
 - we don’t ask about diabetes but we might catch these applicants by asking about abnormal blood tests
 - morbid obesity would often require hospitalization

2. Research for prevalence of these missing conditions –

- medical websites – pubmed, medline, etc



Basis of questions: 4 step approach

3. Use the Global Underwriting Manual derive severity classes and loadings and apply a weighted average e.g.
 - moderate/severe hypertension could represent about 5% of all hypertensives and produces a cancer excess of +100%,
 - remaining 95% are mild and represent virtually nil cancer excess

GUM

RGA's Global Underwriting Manual

| | <90 | 90 | 92 | 94 | 96 | 98 | 100 | 102 | 104 | 106 | 108 | 110 | 112 | 114 | 116 |
|---------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|
| ≤135 | +0 | +0 | +0 | +0 | +25 | +25 | +50 | +50 | +75 | +75 | +100 | +125 | +150 | +175 | +175 |
| 136-140 | +0 | +0 | +0 | +0 | +25 | +25 | +50 | +50 | +75 | +75 | +100 | +125 | +150 | +175 | +175 |
| 141-145 | +0 | +0 | +0 | +0 | +25 | +25 | +50 | +75 | +75 | +100 | +125 | +150 | +175 | +175 | +200 |
| 146-150 | +0 | +0 | +0 | +25 | +25 | +50 | +50 | +75 | +100 | +100 | +125 | +150 | +175 | +200 | +225 |
| 151-155 | +0 | +0 | +25 | +25 | +25 | +50 | +50 | +75 | +100 | +125 | +150 | +150 | +175 | +200 | +225 |
| 156-160 | +25 | +25 | +25 | +25 | +50 | +50 | +75 | +100 | +100 | +125 | +150 | +150 | +175 | +200 | +225 |



Basis of questions: 4 step approach

4. Adjust for

- a) Channels with product conflict, savvy third party intervention,
 - i.e. for agency, the expected prevalence of disease will increase
 - for inbound – the risk is also increased because anyone could apply
 - for impulse affinity outbound channels, the effect of anti-selection will be reduced
- b) Product features – waiting periods, exclusions, limits, issue ages

Rough indications

Medical Research approach

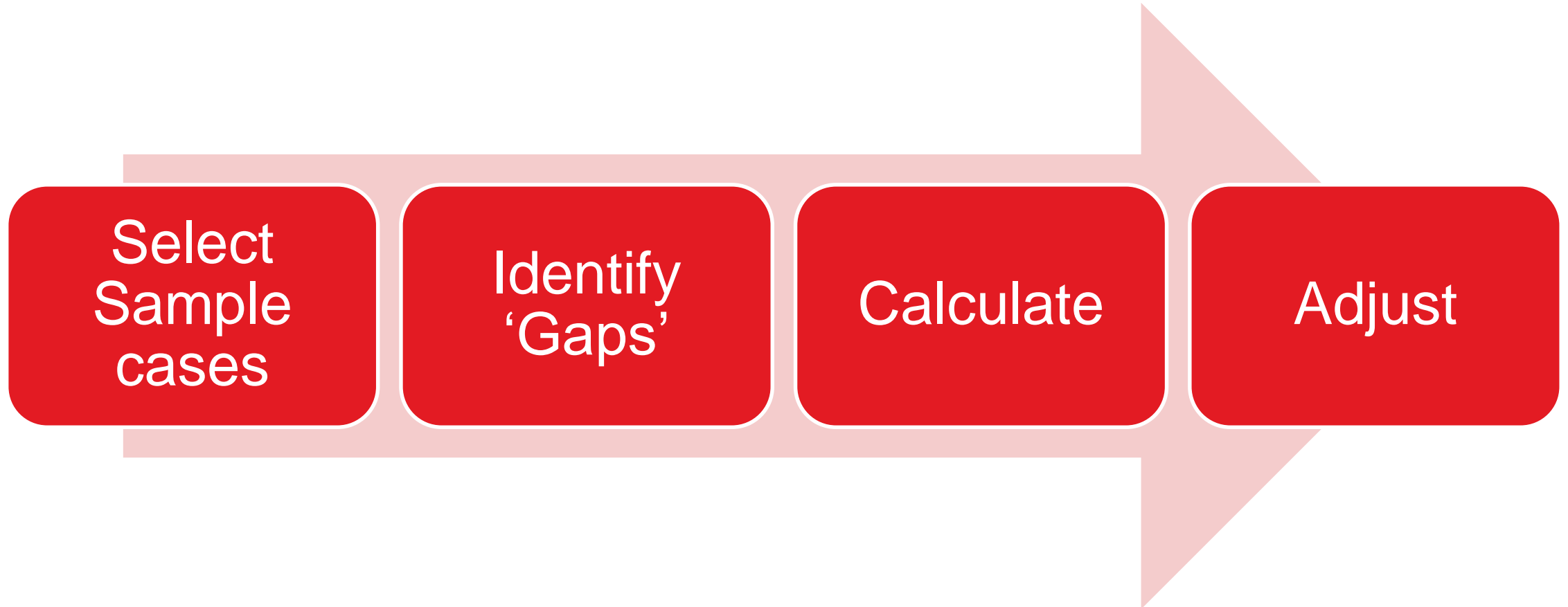
Cancer product *outbound affinity* targeting 20-50 year olds

- Combined prevalence of “missing” disease - approx 25%
- Reduced to about 20% by the effect of the catch-all question
- Average cancer excess morbidity +75 = 15% (20×0.75)
- Assume no change in the business mix for outbound affinity = 15% loading for 4 questions



Second approach

Case Sampling



Case Sampling

Example of past agency cases

| | |
|--|--|
| No of total cases evaluated | 200 |
| Cases missed | 25 (22 substd + 3 declines) |
| Reasons: FH, abnormal LFTs, Hepatitis carrier, diabetes, high BMI, etc | |
| Average loading for substd cases (example) | +75 |
| Average loading for decline cases (example) | +600 |
| Total loading missed | $(75 \times 22) + (600 \times 3) = 3450/200 = 17.25\%$ |
| Adjustment for business mix, final loading | No change for distribution in this example |

The anti-selection effect

Anti-selection is higher

- Where the non-medical limits are publicised
- Where there is an identical product with full underwriting
- Where cover is bought not sold e.g. internet, inbound
- In broker channels
- Markets with high non-disclosure rates or fraud
- Where there is no demonstrable hardship to the applicant e.g. answering a few extra questions only

Anti-selection is lower

- Where applicants are unaware of the limits
- Where the product and price is packaged e.g. multi-benefit
- Where cover is sold not bought
 - outbound affinity telemarketed limited period push products
 - Existing customer database
- Markets with good disclosure rates
- Where there is a genuine hardship to the applicant e.g. elderly routinely having to be examined

RGA



Case Studies



Case 1

- Female aged 35
- Traditional life only policy
- USD 100,000
- Sold through agency
- 3 question approach



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- ***Agent has choice of selling two policies***
- ***The simplified version is more expensive and has gaps in the underwriting***

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- × ***Why would someone pay more for filling in a few more questions?***
- × ***They are not required to be medically screened either way***
- × ***Answer – the unhealthy or anti-selective lives***
- × ***Bad idea***

Case 2

- Female aged 67
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- USD 5,000
- Sold through media e.g. TV in a limited offer manner with free gift
- No health questions
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- *Only competing product requires her to be examined i.e. zero NML*
- *Noting the sum assured, why would she want the hassle of visiting a doctor*
- *Sense of urgency and gift appeals to broad audience*



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× *Of course there will be unhealthy lives*

✓ *The campaign and target audience ensures the product is not price sensitive*

✓ *The removal of the hassle factor appeals to healthy lives*

✓ *Partial refund of premium removes the no-lose bet scenario that we see for 100% refund*

✓ *Good idea*

Wrap it up...

- SI and GI underwriting is increasingly popular
- Complex and involves numerous variables
- Questions need to be clear and concise
- The distribution process is key
- If in doubt, ask your *friendly neighborhood* reinsurer





THANK
YOU

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