Health Insurance
Underwriting

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Aspects of Health Insurance Underwriting

Munich Re Group

Agenda

Risk Assessment in Health Insurance
Individual Underwriting
Group Underwriting
Underwriting supported by IT-Systems
Practical Examples - India
Risk Assessment in Health Insurance
Risk Assessment

... in Private Health Insurance is essential in order:

To arrive at risk commensurate premiums based on the equivalence principle (= congruence of performance and counter-performance).

To develop a profitable portfolio which supports competitiveness of the standard insurance premium.
Aspects of Health Insurance Underwriting

>> Risk Assessment

Adverse selection and moral hazard is more likely than in other classes of insurance.

“People tend to palliate their health status at the point of application.”

“People are more likely to know when they will get sick than when they will die.”

“People can easily influence the time and scope of treatment.”
Individual Underwriting
Individual Underwriting

Why is individual underwriting/assessment necessary?

For the premium calculation (standard premium) only the general (statistical) risk circumstances are taken into account which as a result represents the “average sick or healthy person”

Therefore, each individual risk has to be evaluated separately by considering

– adverse selection,

– excess-morbidity risk

and additional

– the possibility of moral hazard.
>> Individual Underwriting
... Different types and aspects

Risks in health insurance business

Objective risks as

– Age and Sex, Profession, Health status, Family history

Moral hazard as

– Over-cautious behaviour and treatment, non-disclosure of pre-existing conditions, submission of invoices for uninsured persons, attempts to influence doctors, hospitals, socio-economic class etc.
>> Individual Underwriting

... Different types and aspects

General exclusion of pre-existing conditions.
“Point of claim underwriting”

Medical Underwriting
“Qualified assessment at point of application”
Aspects of Health Insurance Underwriting

>> Individual Underwriting

... Different types and aspects

Advantages of Qualified Medical Underwriting

**For the policyholder**
- Fair underwriting process
- Full protection
- Prompter payment in the event of claims:
  (reduces point of claims underwriting to non-disclosure cases)

**For the insurer**
- Less administrative work in the event of a claim
- Risk-adequate premium
- Better portfolio performance
- Less “negative press”
Group Underwriting
# Group Underwriting

**Why do we differentiate between individual and group underwriting?**

| Individual business is underwritten according to the individual risk of the insured person |
| Group business is underwritten according to the structure and needs of the insured group |
>> **Group Underwriting**

Therefore, the following items are relevant for group underwriting:

- size of the group
- type of the group (voluntary or compulsory)
- geographic distribution of employees
- industry
- sex distribution
- age distribution
- number of dependants including age and sex distribution
- number of dependant children
- salaries of insured group
- policy holder’s (employer’s) administrative facilities
Underwriting supported by IT-systems
Underwriting supported by IT-systems

Knowledge creating systems (actuarial approach)
– Lack of data and often too small database for reliable results.

Rule based expert systems (knowledge based systems)
– High flexibility. Good controlling and transparency of data.

Self learning systems
– There is a high risk of: Garbage in \( \rightarrow \) Garbage out
  Lack of transparency on decisions
>> Underwriting supported by IT-systems

A consistent underwriting approach at point of application is in our point of view one important key to create profitable health insurance business.

Only an IT-based assessment system can “guarantee” a consistent approach.

Our preference is clearly a rule based system.
>> Underwriting supported by IT-systems

How can a rule based system be used?

for a centralized Underwriting
(integration as “black box” into an existing IT-environment or as simple as a PC stand alone solution)

at the Point of Sale (PC-Solution) or at branches (Client-Server)

or for direct selling via Internet
Practical Examples
India
Practical Examples - India
... Effects of Insufficient Underwriting

Burning Costs

- 00-35 years
- 36-45 years
- 46-55 years
- 56-65 years
- 66-70 years

- Individual
- Group
Practical Examples - India
... Detecting an Objective Risk

Claim Frequency

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<th>Age Group</th>
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<th>Non Metro</th>
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Practical Examples - India
... Detecting an Objective Risk

Burning Costs

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Male
Female
Thank you for your interest

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Herbert Meister, Actuary (DAV)