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Changing Risks, Expecting the Unexpected

17th Global Conference of Actuaries & 2015 AGFA

2nd & 3rd February, 2015 Mumbai - India



Concepts and Impact of Risk Assessment in Health Insurance

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2 February 2015

Agenda

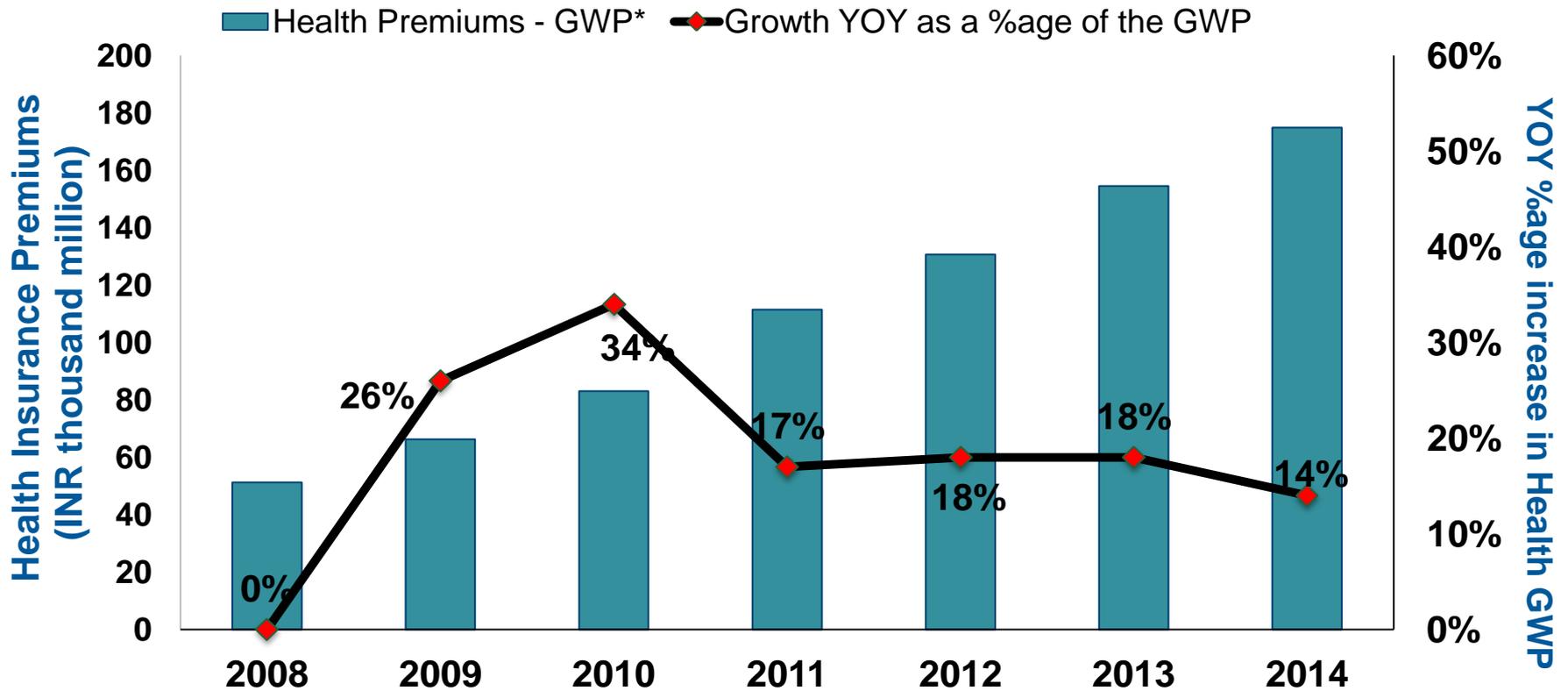
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HEALTH INSURANCE IN INDIA



Non-Life & Standalone Health Insurance Gross Written Premiums



Increasing consumer demand will continue as the Indian economy grows

* Source - IRDA of India

HEALTH INSURANCE v/s LIFE INSURANCE UNDERWRITING

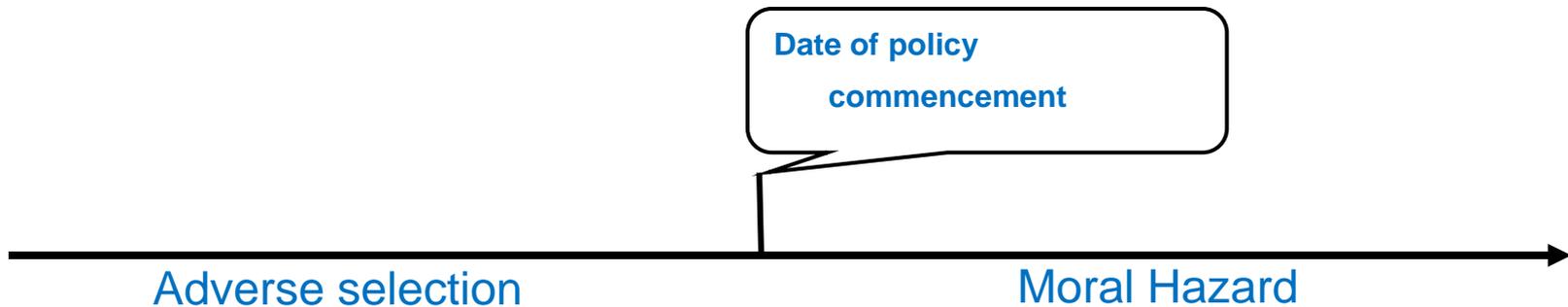


Health Insurance v/s Life Insurance Underwriting

Adverse selection and moral hazard is more likely in health insurance than in life insurance!

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

“Patients and medical supplier can easily influence the time and scope of treatment”



Health portfolios are notoriously difficult to manage - erroneous pricing, inappropriate underwriting, inefficient claims management and ineffectively managed providers can result in poor business results and poor consumer experiences

Health Insurance v/s Life Insurance Underwriting

➤ Risk of adverse selection

Life Insurance:

- predominantly limited to non-disclosure of pre-existing conditions
→ Controlling one claim!

Health Insurance:

- influenced by more dimensions, like over-utilisation, frequency of claims, insured benefits, basic local parameters and additionally marked by supplier induced demand (risk continues during whole policy period)
→ Controlling several claims!

Health Insurance v/s Life Insurance Underwriting

- Evaluation of excess of mortality (Life) and of morbidity (Health)

Life Insurance:

Good statistics regarding diagnosis and excess of mortality are available

- risk assessment is more data driven and often marked by consistent approach within several markets

Health Insurance:

Close relation with complexity of product and often characterised by lack of statistics regarding excess of morbidity within a specific environment

- risk assessment is often driven by market/company experience and circumstances and often marked by inconsistent approach within same / several markets

Health Insurance v/s Life Insurance Underwriting

➤ Health Underwriting – Morbidity

- Heterogeneous u/w approach
- Type of benefits and conditions
- Steep risk curve over age 40
- Medical inflation risk high
- High adverse selection risk

➤ Life Underwriting – Mortality

- Homogeneous u/w approach
- Exposure / lump sum
- Steady risk curve to age 60
- No medical inflation risk
- Generally low adverse selection risk

Health Insurance v/s Life Insurance Underwriting

➤ Adverse selection in Health Insurance

- High frequency of claims
- Many influencing parameters
- High claims handling risk
- Influence by legal requirements high
- High risk of fraud
- High policy turnover / short mindset

➤ Adverse selection in Life Insurance

- Just one claim
- A few influencing parameters
- Low claims handling risk
- Influence by legal requirements low
- Low risk of fraud
- Low policy lapse/long mindset

CONCEPTS AND IMPACT OF RISK ASSESSMENT IN HEALTH INSURANCE



Concepts and Impact of Risk Assessment in Health Insurance

Private health insurers have to know the risk to be insured precisely, in order

- to be able to ask for premiums commensurate with the risk based on the equivalence principle
(= congruence of performance and counter-performance)
- to achieve a profitable portfolio which influences the standard insurance premium → Competitiveness
- Two aspects:
 - 1. Risk adequate premiums**
 - 2. Adverse selection**

Concepts and Impact of Risk Assessment in Health Insurance

Aspect of risk adequate premiums

For the premium calculation (standard premium) only the general (statistical) risk circumstances of the risk are taken into account (the "abstract" average basic risk, so to speak)

→ Therefore, the individual risk should be evaluated separately

→ If not possible (regardless to reason), it is necessary to tighten measures as exclusion of all pre-existing conditions combined with

→ (e.g.) strict point of claim underwriting and/or preliminary target group risk selection!

Concepts and Impact of Risk Assessment in Health Insurance

Aspect of adverse selection

High risk of adverse selection due to voluntary nature of private health insurance

since regularly in individual business each person freely decides:

- whether to apply for insurance protection,
- when to apply for insurance protection,
- on the risks to be covered,
- and on the amount of coverage

Concepts and Impact of Risk Assessment in Health Insurance

Risk factors in health insurance business - Objective risks

- Age at entry
- Gender of the applicant
- Job of the applicant
- Health status of the person at inception of the policy

Concepts and Impact of Risk Assessment in Health Insurance

Examples of potential other underwriting indicators – statistic correlation

- Married male **higher frequency** cost than single male
- Unmarried male age > 45 **higher severity** risk
- Working female spouse **lower frequency** cost than non-working female spouse
- Non-working female spouse = **higher maternity** risk
- Length of employment at same employer = **lower risk**

Concepts and Impact of Risk Assessment in Health Insurance

Examples of potential other underwriting indicators – statistic correlation

- Smoker status combined with occupation indicator for cardiac disease.
- Family history
- Occupation also determines **frequency** risk (e.g. teachers); solution could be to determine risk loadings for specified occupational groups
- Meanwhile, genetic disposition is gaining importance

Concepts and Impact of Risk Assessment in Health Insurance

Risk factors in Health Insurance – Adverse Selection and Moral Hazard

- Adverse selection (before policy commencement)

- Lack of experience in completing proposals

- Non-disclosure of pre-existing illnesses (including fraud)

- Sales process: Distribution etc.

- Socio-economic class

Concepts and Impact of Risk Assessment in Health Insurance

Risk factors in Health Insurance – Adverse Selection and Moral Hazard

- Moral Hazard (after policy commencement)
 - Over-cautious treatment
 - Over-sensitivity
 - Fraud (e.g. invoices for uninsured persons)
 - Attempts to influence doctors, chemist's, hospitals
 - Habits / Abuse (insured, claims handler and providers)

Concepts and Impact of Risk Assessment in Health Insurance

Possible underwriting results

- **Standard**
Accept the risk at standard tariff rate

- **Loading**
Add an extra premium for substandard risks per product type (this will be expressed as a percentage extra rating/premium to be charged over and above the standard tariff rate)

- **Exclusion**
Exclude from coverage either the impairment or the impairment and related diseases

- **Deferment**
Postpone the decision to accept or reject, allowing for re-application after a certain period of time or after missing underwriting information has been provided

- **Medical Report**
Request a report by a practicing medical examiner before assessment suggestions can be made

- **Decline/Rejection**
No offer possible

Concepts and Impact of Risk Assessment in Health Insurance

Exclusion of (certain) pre-existing conditions and/or specific exclusions

Mixture between **point of claim underwriting** and **qualified medical risk assessment at point of application**

➤ General and specific exclusions instead of **risk loadings**

Advantages:

- No increased premium (i.e. risk loading)
- Quick underwriting decision

Disadvantages:

- No transparency for insured
- Need for extensive checks once a claim is coming up “strong skills needed within claims department”
- Negative press for the insurer
- No willingness to carry substandard risks
- The payment exclusion can be circumvented by clever formulations of the treatment invoice

Concepts and Impact of Risk Assessment in Health Insurance

Risk loadings

- In health insurance, so-called risk loadings (extra premiums) can be charged to compensate for the additional risk. This is estimated if the expected extra costs compared with the standard premium can be approximately calculated. For individual illnesses, only average values can be used since the individual courses of the illnesses — and therefore the individual costs — can vary considerably
- Compared with exclusions, risk loadings have the advantage that the client is fully insured and less checks are necessary in the event of a claim. This avoids 'disputes' with the insured

Law of large numbers is valid for risk loadings in equal measure as for standard premium calculations

Concepts and Impact of Risk Assessment in Health Insurance

Qualified medical risk assessment at point of application

➤ Applicable for

- comprehensive product types
- products with high exposure
- products with high frequency of claims

Possible formulation of pre-existing condition clause in case of full medical underwriting with risk loadings:

Pre-existing conditions are excluded unless they have been declared by the applicant on the individual application form in the health declaration section and accepted by the company in writing, on or before to the affirmation date of the coverage, as detailed on the insurance policy or in another amendment of the insurer

Concepts and Impact of Risk Assessment in Health Insurance

Medical underwriting should focus on the following main considerations:

- Medical diagnosis including statistical disease group considerations
- History of disease (time, duration, sequels)
- Risk of recurrence (relapses)
- Therapy (frequency and type of treatment)

The most important information are the medical diagnosis and the actual status of the illness

Concepts and Impact of Risk Assessment in Health Insurance

Rejections

➤ We try always to increase the insurability, but in some cases accepting the risk is not possible!

e.g. - in the case of high-risk diseases such as malignant neoplasm (cancer), HIV infection, or the combination of several high-risk factors, insurance cover cannot be granted

In case of pending in-patient treatment, the application should generally be declined or deferred

Concepts and Impact of Risk Assessment in Health Insurance

Point of application u/w

- Reduced adverse selection risk
- Reduced pre-existing costs
- Reduced administration costs
- Decreased litigation risk
- Increased rejection rate – positive selection effects

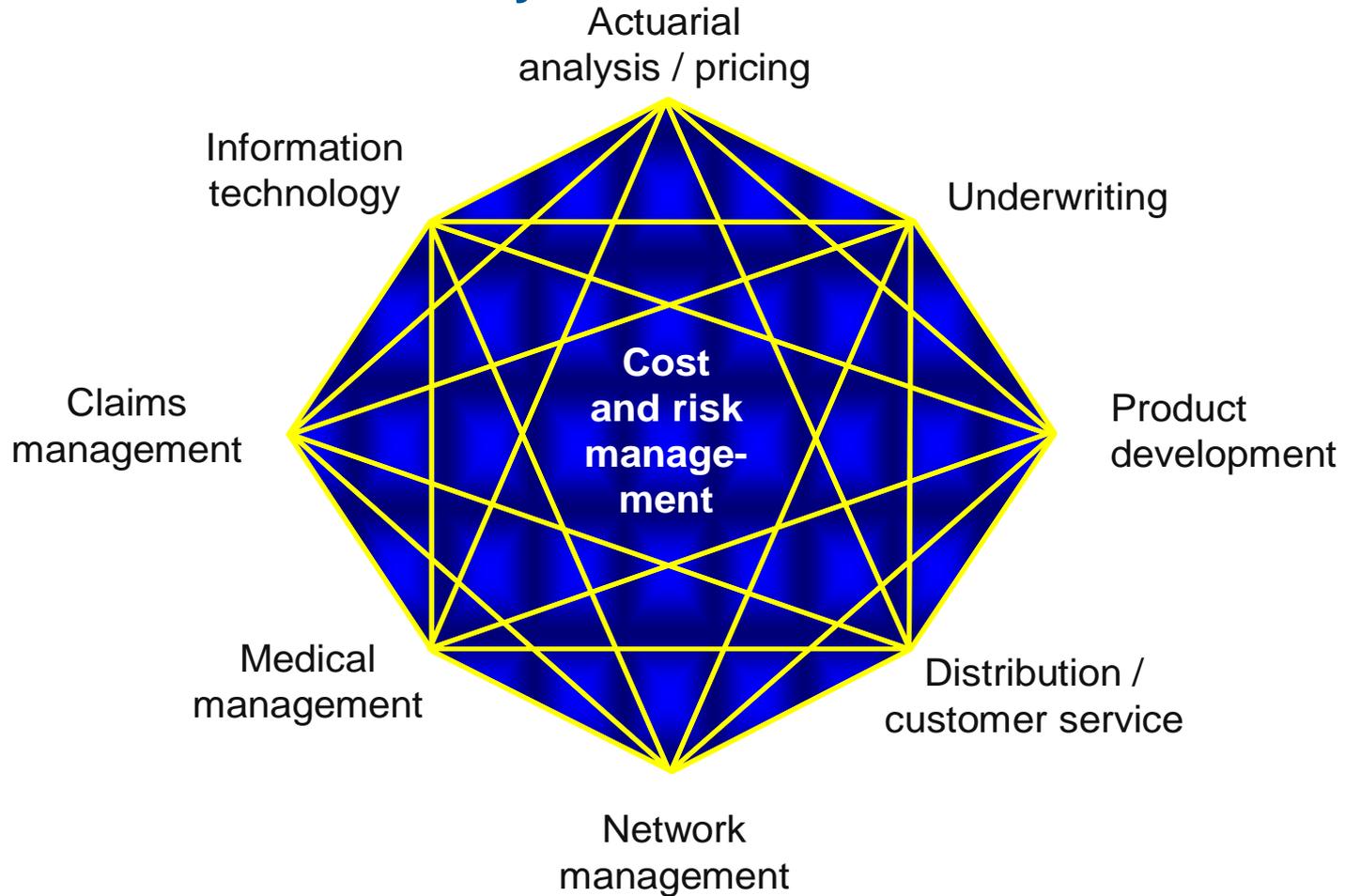
Tends to result in more competitive rates

Point of claim u/w

- Increased adverse selection risk
- Increased pre-existing costs
- Increased administration costs
- Increased litigation risk
- Decreased rejection rate – negative selection effects

Tends to result in less competitive rates

In Conclusion Profitability of Health Insurance Portfolios



Cost and risk of health insurance need to be managed very actively

Thank you for your time

