

# How can Reinsurers help in dealing with Current Issues of Health Insurance Industry?

**9<sup>th</sup> Seminar on Current Issues in Health Care Insurance  
25 August 2015**

Rajive KUMARASWAMI

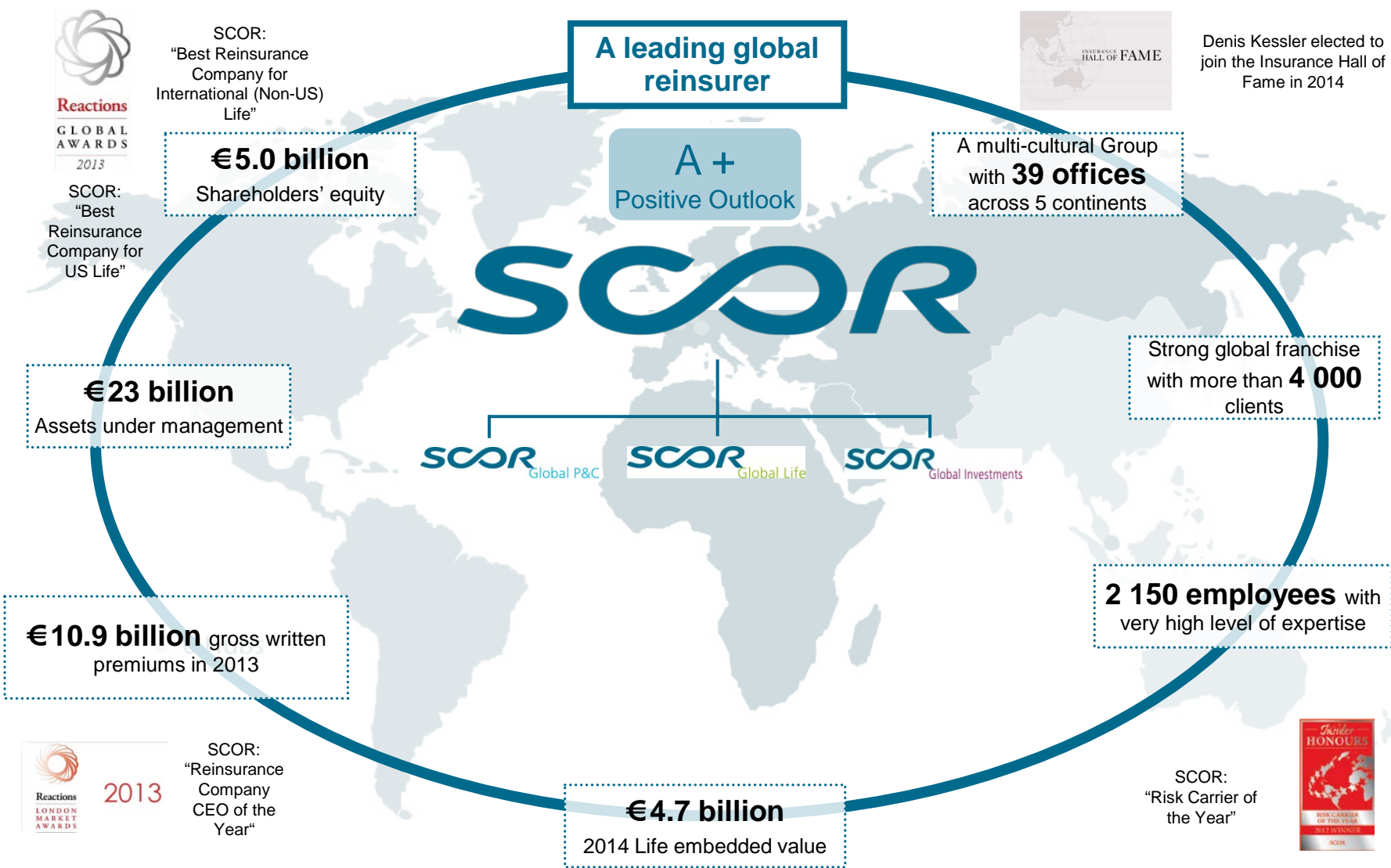
# How can Reinsurers help in dealing with Current Issues of Health Insurance Industry?

1	Overview and Current Issues of Health Insurance Market
2	Role of Reinsurer - Structures and Services on Distribution Solutions
3	Role of Reinsurer - Capital Management
4	Role of Reinsurer - Analytics/ propensity models ~ sharing of best practices
5	Role of Reinsurer - New Products Development
6	Role of Reinsurer - Experience Analysis



# A short introduction on SCOR

# SCOR is the 5<sup>th</sup> largest reinsurer in the world.



# SCOR Global Life provides its clients with a unique range of value-added services



Offering **best-in-class services in underwriting and claims management**, based on high quality analysis and rapid response



A U.S. patented **Life underwriting decision engine** developed for non-medically underwritten life insurance, using multiple databases technology



Providing **market leading Tele-underwriting services**, able to revolutionize the business process and positioned to become a leader in this field



**Global direct marketing and consultancy company**, providing services to acquire, grow and retain profitable customers



A dedicated expert company providing **comprehensive disability risk management services** and helping companies' **workplace wellbeing**, distributed via insurers and insurance brokers

## SCOR Global Life in India

---

- ❑ SGL initiated underwriting its Life & Health reinsurance business in India in 2007, initially broadening its offer to P&C clients by providing Life & Health products
- ❑ This has included selling Critical Illness as part of Mortgage and Loan protection and then broadening into Individual and Group Life, the Direct market and Individual Health arrangements.
- ❑ Going forward, we are applying for a Branch and will increase our staff, presence and capability in our Mumbai office (whilst continuing to provide Regional support (through Singapore) and Global support (through our other hubs) by way of relevant best practices.
- ❑ SGL has access to Regional teams with specific expertise we believe to be of value to our clients in India – specifically in terms of product developments from other markets, an experienced Regional Direct Marketing and Telemarketing team and a Health team.

# How can Reinsurers help in dealing with Current Issues of Health Insurance Industry?

1	Overview and Current Issues of Health Insurance Market
2	Role of Reinsurer - Structures and Services on Distribution Solutions
3	Role of Reinsurer - Capital Management
4	Role of Reinsurer - Analytics/ propensity models ~ sharing of best practices
5	Role of Reinsurer - New Products Development
6	Role of Reinsurer - Experience Analysis

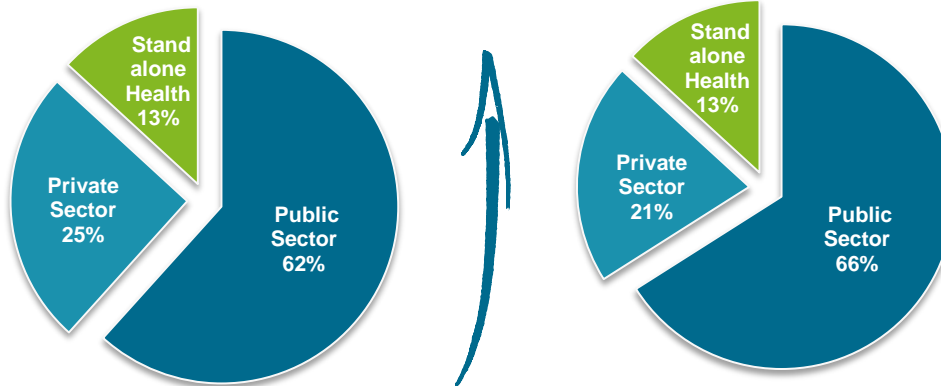
# Overview of the Health Insurance Market

## Health market by company segment over last 5 years

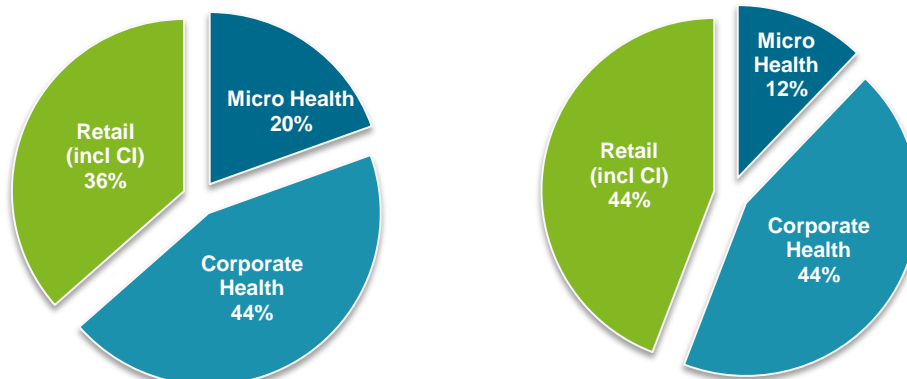
2011 : US\$ 1.74 bn

2015 : US\$ 3.24 bn

CAGR of ~ 13.2%



## Health market by product segment (micro health, corporate health & retail health incl. CI) over last 5 years



## Primary Market

- ❑ Health insurance is predominantly written by P&C and Health insurance companies. Life companies have historically written minimal health insurance
- ❑ Health insurance business accounts for about 24% of the total P&C insurance business in the country
- ❑ Corporate health, which tends to be extremely price sensitive business, is distributed either directly or through brokers & agents (corporate & individual)
- ❑ Micro Health which has almost remained flat in premium volume terms remains a thin margin business and is subject to Government tenders every year
- ❑ Retail health comprises indemnity health products (85%) and critical illness (15%) sold as an attachment to loans
  - Profitable segment of the market witnessed highest growth of 21.75%
  - Retail health products sold by invitation mainly banc-assurance (telesales/ branch banking); limited anti-selection
  - Characterized by high expense ratios and moderate/low loss ratios
  - Typical sum assured for bulk of retail health portfolio are at \$ 8,000 with a few plans going up to \$ 80,000
  - Limits offered on CI products on loans ~ \$ 640,000

## Regulatory overview

- ❑ Health regulations issued in 2013 are applicable to Life, P&C companies and standalone health companies
- ❑ Life companies allowed to issue long term products, but the P&C and standalone health companies can issue a maximum tenor of 3 years
- ❑ Life companies not permitted original terms reinsurance. P&C and health companies permitted to do so
- ❑ While nothing in the P&C reinsurance Regulations prevent quota share structures, the Regulator is generally averse to such structures unless a compelling reason is provided



## Overview of the Health Insurance Market contd.....

Corporate Health (\$m)		
Particulars	GWP	Loss Ratio (%)
Private cos.	342	103%
Public cos.	869	114%
Health cos.	66	91%
<b>Grand Total</b>	<b>1,277</b>	<b>110%</b>

Retail Health (\$m)		
Particulars	GWP	Loss Ratio (%)
Private cos.	248	60%
Public cos.	649	96%
Health cos.	269	61%
<b>Grand Total</b>	<b>1,166</b>	<b>83%</b>

Micro Health (\$m)		
Particulars	GWP	Loss Ratio (%)
Private cos.	121	80%
Public cos.	200	105%
Health cos.	10	56%
<b>Grand Total</b>	<b>331</b>	<b>93%</b>

- Primarily consist of private Corporates
- Individual members of the group covered under standard indemnity terms

- Primarily middle and high income individuals / families
- Predominantly indemnity products
- A few products with fixed benefits

- National scheme targeted at below poverty line population
- Social welfare schemes for middle and low income individuals

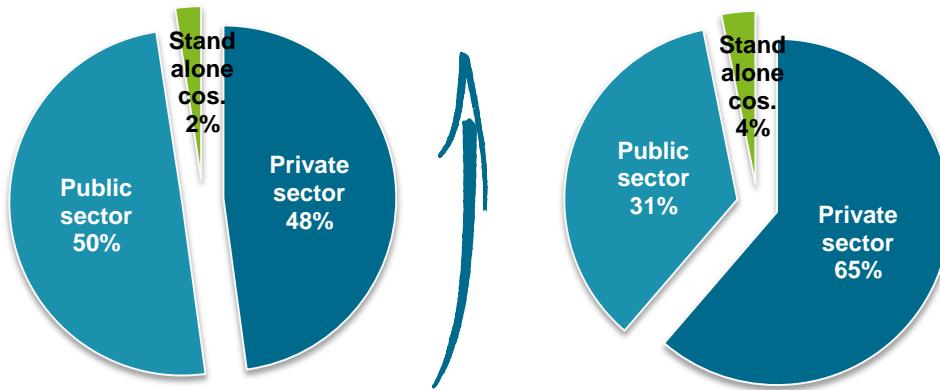
# Overview of the Personal Accident (PA) insurance market

## PA market by company segments over last 5 years

2011- US\$ 0.19 bn

2015- US\$ 0.34 bn

CAGR of ~ 15.5%



## PA market by product segment (corporate schemes & retail schemes and micro schemes) over last 5 years



## Primary Market

- ❑ Unlike Life companies which sell PA as a rider, P&C companies and health companies offer PA as a standalone product
- ❑ Corporate personal accident business covering employees is sourced either directly or through brokers
- ❑ Though competitively priced, the business is profitable though margins are thin on corporate PA business
- ❑ Retail PA business operates on low loss ratios
- ❑ Private companies have given a strong push to the retail personal accident portfolio given the profitable nature of the book
- ❑ Personal accident is sold mainly through banc-assurance (tele-sales platform) ~ online as a channel also being pushed
  - With a view to increase the ticket size and keep the channel incentivized, three year plans are sold with covers ranging from \$ 8,000 per life to \$ 160,000 per life

## Regulatory overview

- ❑ Maximum tenor of 3 years permitted
- ❑ Original terms reinsurance permitted for P&C and health companies
- ❑ While nothing in the P&C reinsurance Regulations prevent quota share structures, the Regulator is generally averse to such structures unless a compelling reason is provided

## Overview of the Personal Accident (PA) insurance market contd.....

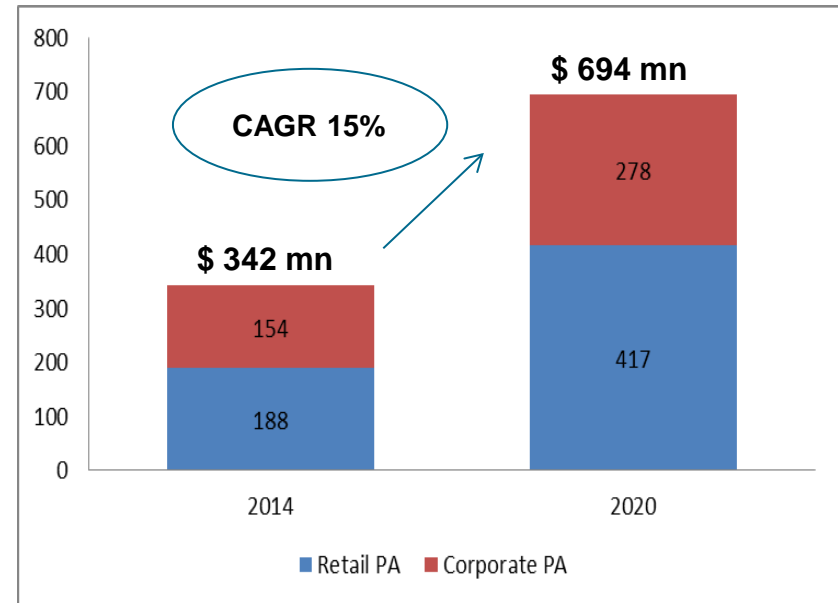
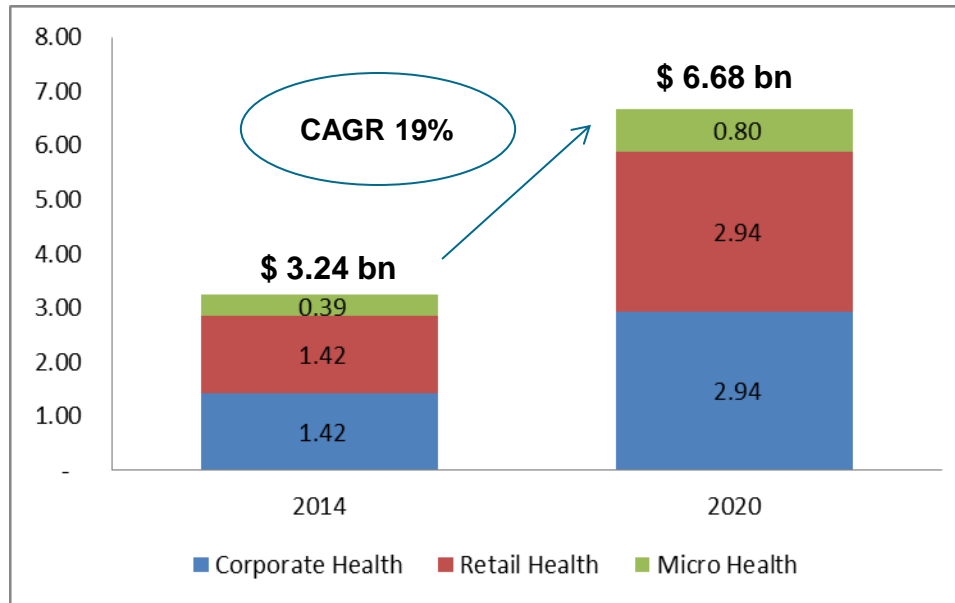
Retail PA Market (\$m)		
Particulars	GWP	Loss Ratio (%)
Private cos.	63	33%
Public cos.	30	64%
Health cos.	3	36%
<b>Grand Total</b>	<b>96</b>	<b>42%</b>

- Primarily middle and high income individuals / families
- Predominantly indemnity products

Corporate PA Market (\$m)		
Particulars	GWP	Loss Ratio (%)
Private cos.	105	82%
Public cos.	67	87%
Health cos.	5	21%
<b>Grand Total</b>	<b>177</b>	<b>82%</b>

- Primarily consist of private Corporates
- Individual members of the group covered under standard indemnity terms

## Overview of Health Insurance Industry – Future Outlook



### Key drivers for growth

- ❑ **Retail**
  - Increased penetration in tier-2, tier-3 cities and unorganized sectors
  - Gradual change in the urbanization trend and population age mix and enhanced product design
  - Premium rates increasing on account of medical inflation
- ❑ **Group**
  - Group segment growth dependent on organized employment growth
  - Growth in premium rates ~ current pricing levels unsustainable
- ❑ **Government**
  - Continued focus by Government on social inclusion schemes

# Overview of Existing Reinsurance Environment

## Corporate Health Market

- ❑ Limited appetite given high loss ratios
- ❑ Some stop loss protections in place; albeit covering entire health portfolio

## Retail Health Market

- ❑ Reinsurers are willing to offer capacity but clients prefer to retain the Medex business
- ❑ Some clients willing to offer reinsurance but on low margins due to limited volatility in results ~ alleviate P&L strain
- ❑ Critical illness reinsured as these are 3 year products ~ higher charge on P&L due to requirement to account for acquisition charges upfront

## Micro Health Market

- ❑ Government has recently transferred this line of business into a Government managed Trust
- ❑ Some reinsurers having an appetite on micro insurance schemes

- ❑ Total reinsurance spends in 2014 estimated at \$ 294m (including mandatory cessions of \$ 160m)
- ❑ Cession intensity under ~ 10%

## Retail PA Market

- ❑ Reinsurers are willing to offer capacity but clients prefer to retain the business given the small limits and profitable & stable nature of business
- ❑ Newer entrants prefer proportional programs till such time they develop a stable portfolio after which they also prefer to retain the portfolio
  - Given the fact that the sourcing is done through banc-assurance, the acquisitions costs tend to be high
  - During ramp up phase, the strain on the P&L could be high

## Corporate PA Market

- ❑ Excess of loss programs in place with strong appetite from the Lloyds market
- ❑ Programs tend to cover risk both on a per life basis as well as provide catastrophe protection
  - Programs cover corporate lines, retail lines as well as travel business
- ❑ Newer entrants prefer proportional programs but unable to compete with players who have excess of loss programs

- ❑ Cession intensity likely to be under ~ 10%

## Current Issues of Health Insurance Industry

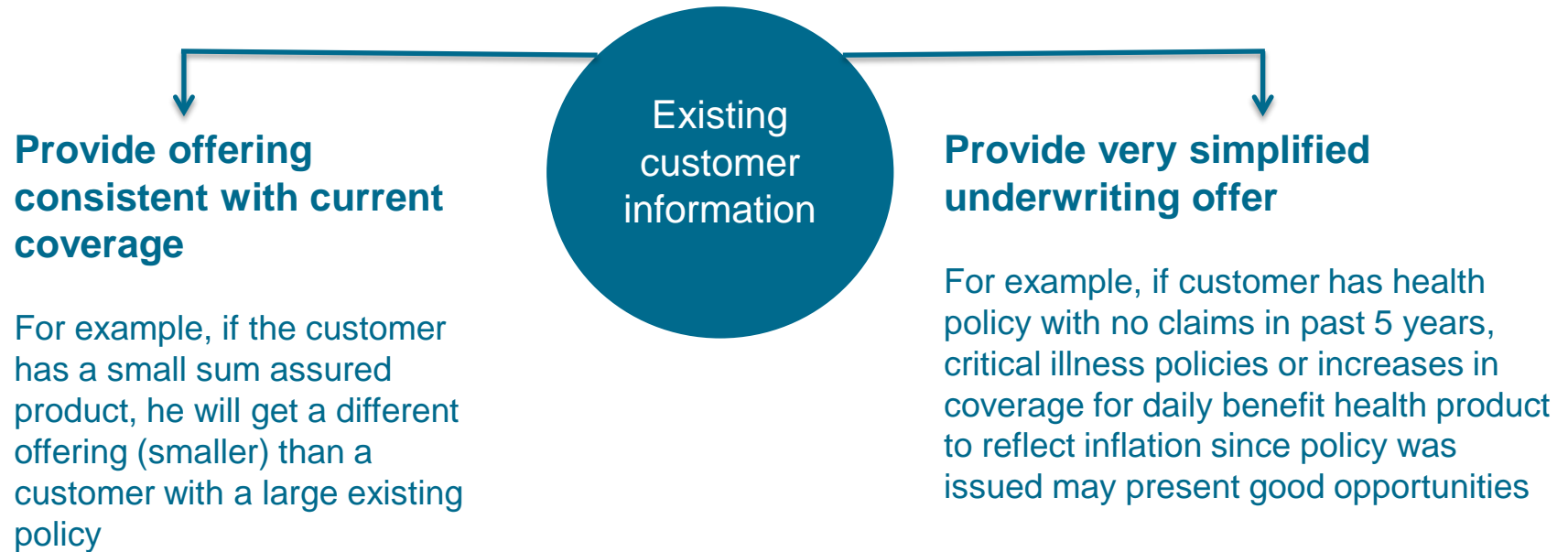
Some key recommendations of the Expert Committee on Health Insurance*	Role of Reinsurance
<b>Products and Distribution</b>	
<ul style="list-style-type: none"> <li><input type="checkbox"/> To encourage innovative and new products (“pilot products” for a 5 year period before regularizing ~ life time renewability)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Assist primary companies in new product development</li> </ul>
<ul style="list-style-type: none"> <li><input type="checkbox"/> Entry age based pricing based on when the first policy was purchased ~ improve persistency</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Assist in data driven modelling and predictive analysis</li> </ul>
<ul style="list-style-type: none"> <li><input type="checkbox"/> Commission structures and management expenses ~ set overall expense cap</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Distribution financing reinsurance structures</li> </ul>
<ul style="list-style-type: none"> <li><input type="checkbox"/> Pricing revision, Fraud Management and Other Risk Management</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Assist in Experience Studies</li> </ul>
<b>Reinsurance and Solvency</b>	
<ul style="list-style-type: none"> <li><input type="checkbox"/> Permit quota share reinsurance structures</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Standard structures in a global context</li> </ul>
<ul style="list-style-type: none"> <li><input type="checkbox"/> Factor based retentions to be replaced by actual retentions</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Tool to manage capital optimally</li> </ul>
<ul style="list-style-type: none"> <li><input type="checkbox"/> Migrate to a Risk Based Solvency regime</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Assist companies by sharing of best practices to help them migrate to an risk based solvency</li> </ul>

# How can Reinsurers help in dealing with Current Issues of Health Insurance Industry?

---

1	Overview and Current Issues of Health Insurance Market
2	Role of Reinsurer - Structures and Services on Distribution Solutions
3	Role of Reinsurer - Capital Management
4	Role of Reinsurer - Analytics/ propensity models ~ sharing of best practices
5	Role of Reinsurer - New Products Development
6	Role of Reinsurer - Experience Analysis

## Marketing to Inforce customers using direct response



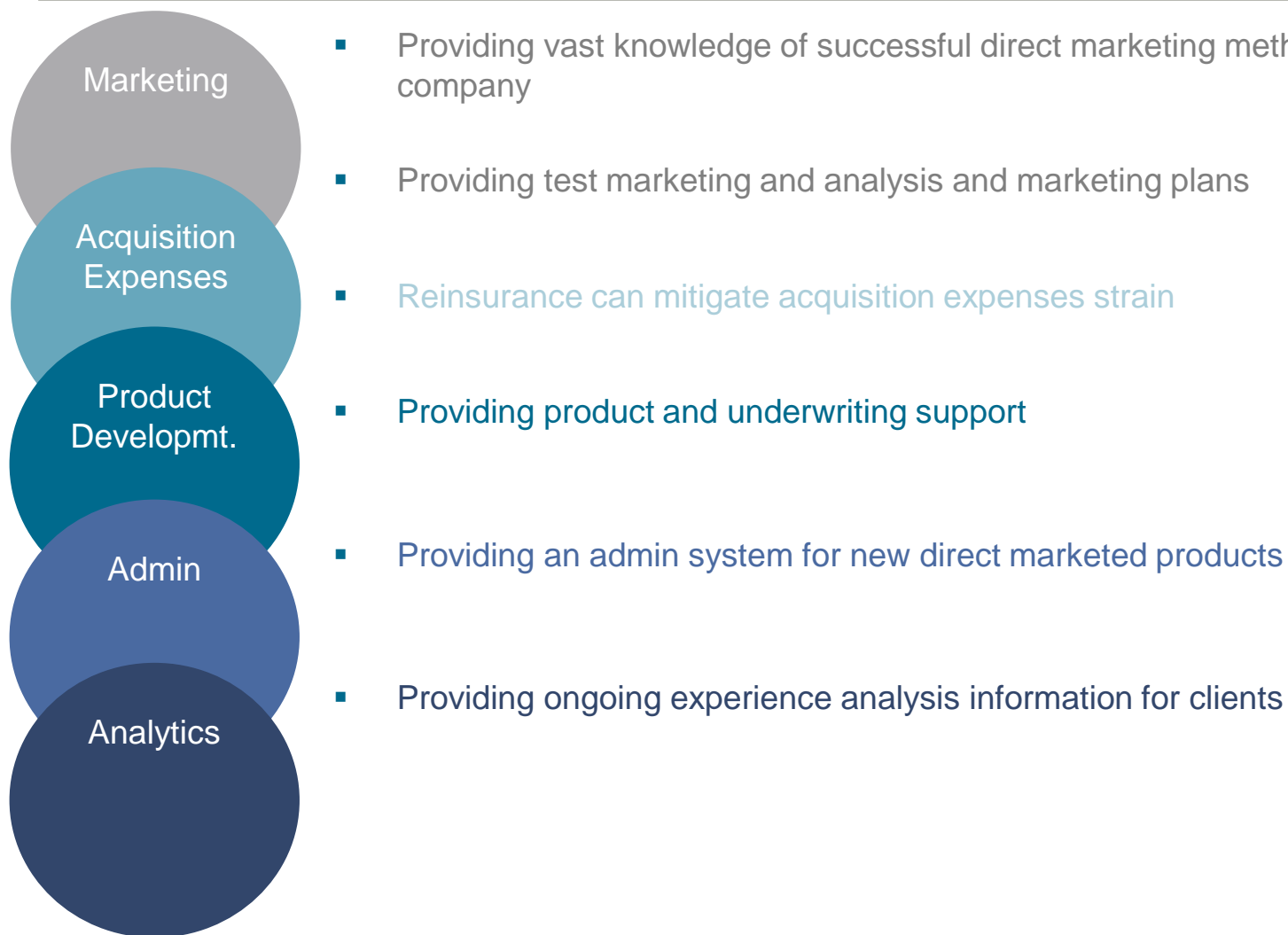
### Choose customer base and product offering

- Orphaned policies are a good place to start because there is no agent conflict
- Inforce medical expense policies provide good underwriting information
- There may be opportunities to cross sell to different lines of business – use of auto or property customer base to sell health, CI and accident policies



## Direct Marketing Reinsurance Structure

---

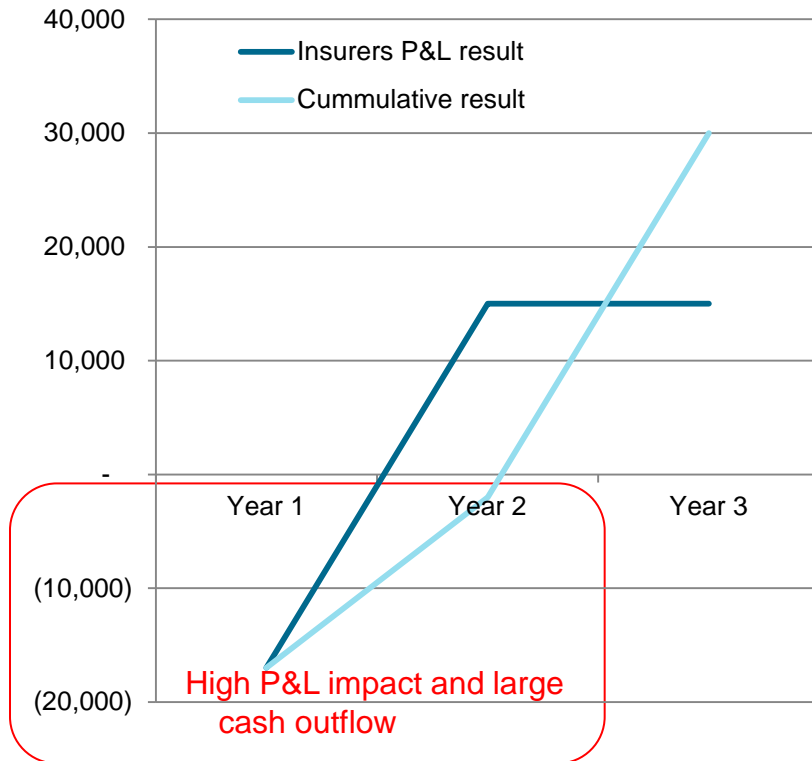


# New customer acquisition/sales have a heavy P&L and cash strain in early years

## Without reinsurance

Large cash outflow and P&L hit in early years

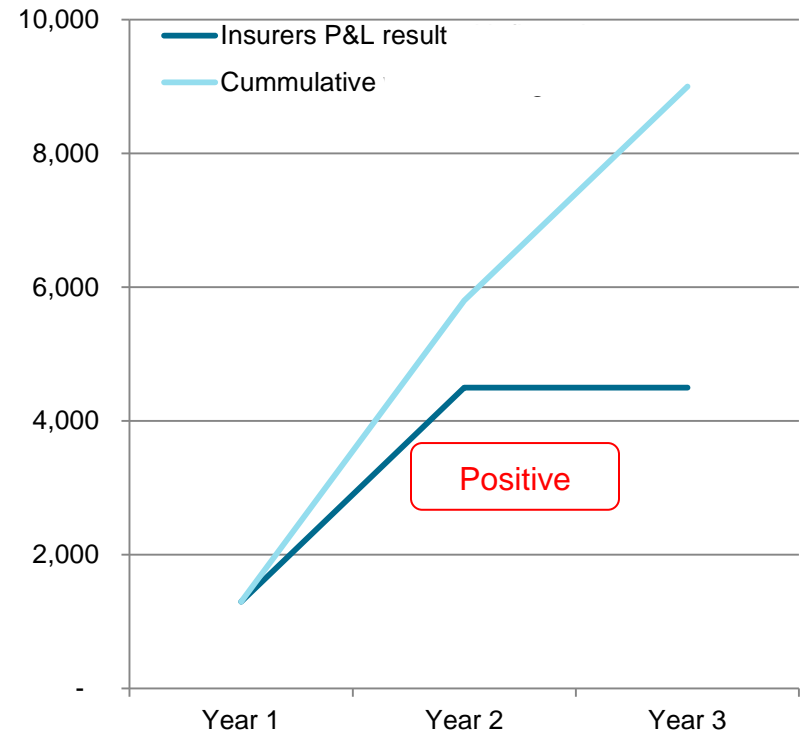
Insurance result – annual and cumulative



## With reinsurance

Reinsurance can mitigate P&L and cashflow strain

Insurance result – annual and cumulative



# How can Reinsurers help in dealing with Current Issues of Health Insurance Industry?

---

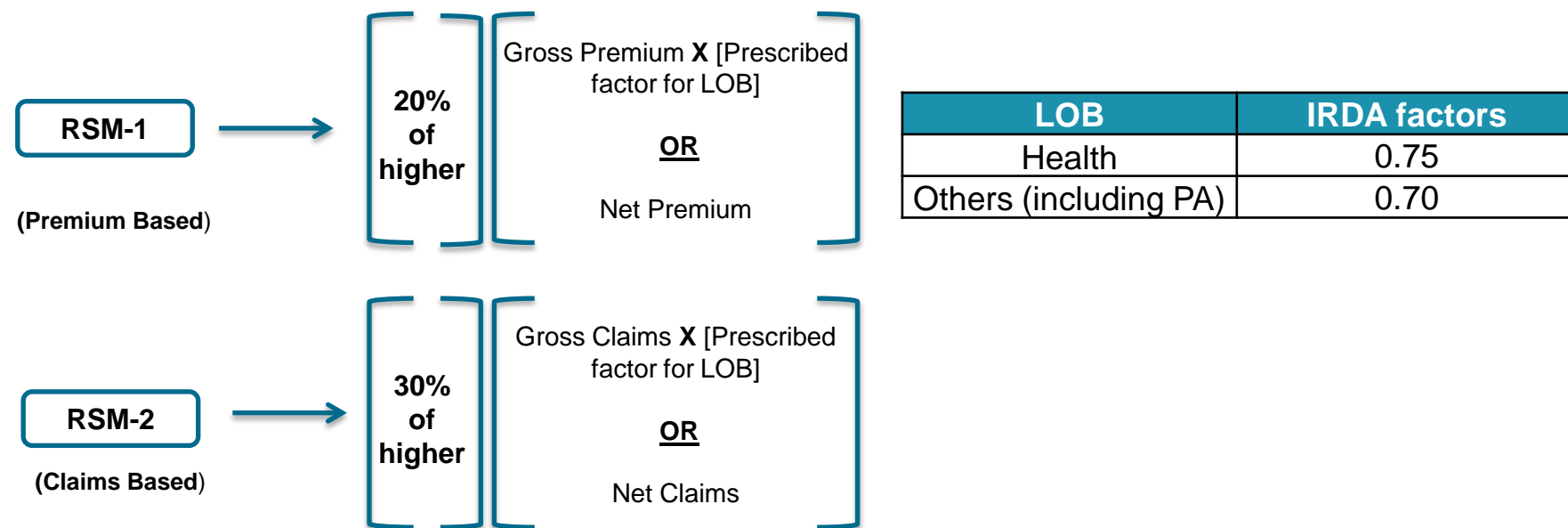
1	Overview and Current Issues of Health Insurance Market
2	Role of Reinsurer - Structures and Services on Distribution Solutions
3	Role of Reinsurer - Capital Management
4	Role of Reinsurer - Analytics/ propensity models ~ sharing of best practices
5	Role of Reinsurer - New Products Development
6	Role of Reinsurer - Experience Analysis

## Indian Solvency ~ reinsurance as a tool to manage Capital

- ❑ Solvency is defined as Available Solvency/ Required Solvency

**RSM**

(Required Solvency Margin) is 1.5 times higher of RSM - 1 and RSM - 2



- ❑ If the extent of reinsurance is higher than the prescribed IRDA factor, then the benefit of reinsurance is disregarded as per the solvency formula prescribed by the Regulator
- ❑ Gross premium and Net written premium of current 12 months should be taken into account
- ❑ Gross incurred claims and net incurred claims is higher of (current 12 months) and (average claims per annum of 36 months preceding current 12 months)

## Estimation of Capital needs for health business in future

### Capital requirements assuming current reinsurance intensity of 10%

(Figures \$ 'million)

	Gross written premium	Net written premium	Loss ratio %	Gross Incurred claims	Net incurred claims	Premium Based	Claim Based	(Max of RSM1 and RSM2)	IRDA factors
LOB	GWP	NWP	Net	GIC	NIC	RSM1	RSM2	RSM	
Personal Accident	694	625	55%	382	344	125	103	125	0.7
Health	6,675	6,008	85%	5,674	5,106	1,202	1,532	1,532	0.75
Total	7,369	6,632		6,056	5,450	1,326	1,635	1,657	
<b>Minimum Capital Required is 1.75 times RSM</b>								<b>2,900</b>	

### Capital requirements assuming increase in reinsurance intensity and same level of IRDAI RSM factors

	Gross written premium	Net written premium	Loss ratio %	Gross Incurred claims	Net incurred claims	Premium Based	Claim Based	(Max of RSM1 and RSM2)	IRDA factors
LOB	GWP	NWP	Net	GIC	NIC	RSM1	RSM2	RSM	
Personal Accident	694	486	55%	382	267	97	80	97	0.7
Health	6,675	5,006	85%	5,674	4,255	1,001	1,277	1,277	0.75
Total	7,369	5,492		6,056	4,523	1,098	1,357	1,374	
<b>Minimum Capital Required is 1.75 times RSM</b>								<b>2,404</b>	

- Use of reinsurance to the extent of IRDAI factors for health and accident would release ~ \$ 495 million of capital for the industry in 2020
- If loss ratios do not moderate in 2020 and continue at existing level then capital of \$ 522 million will be released

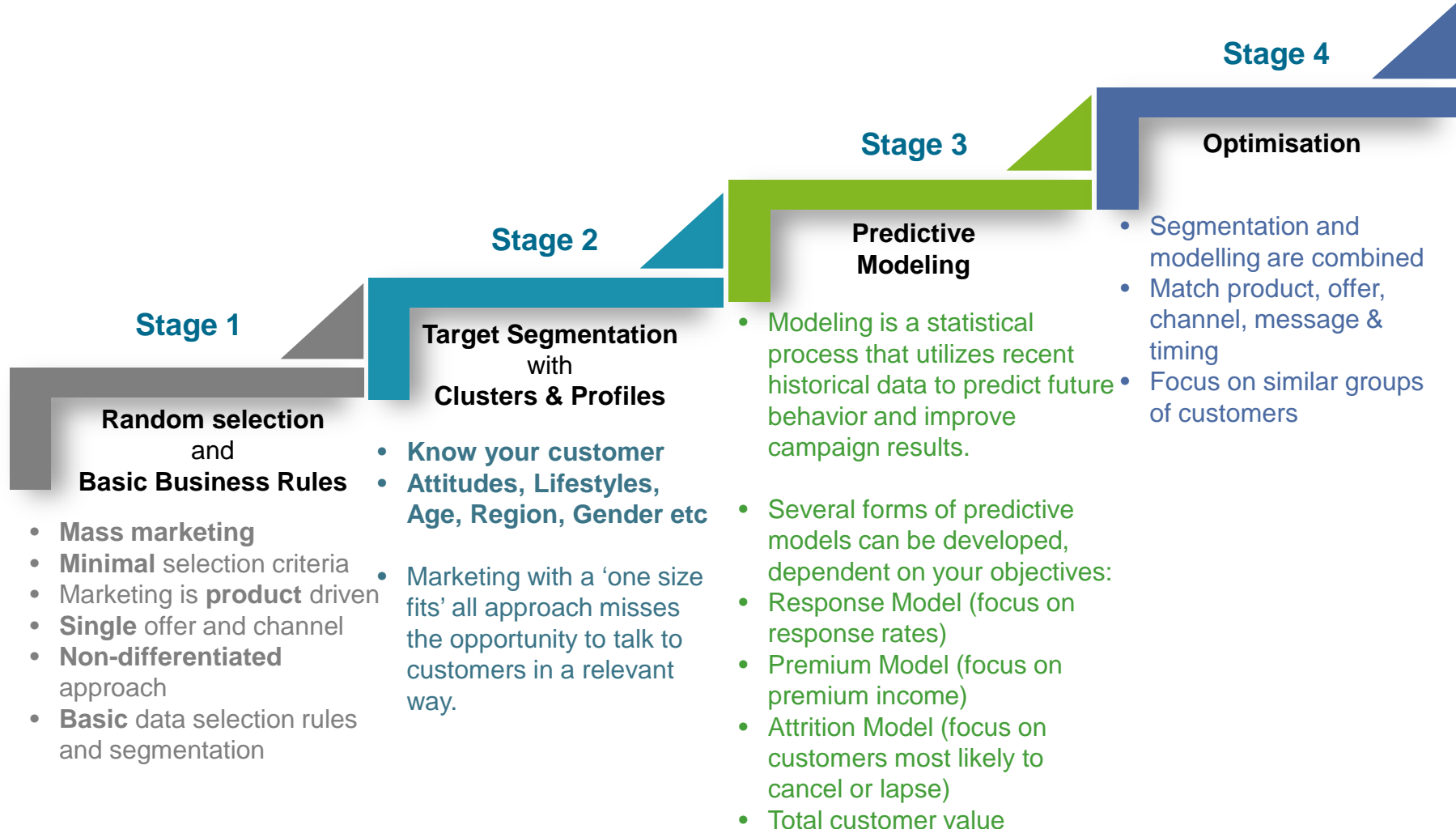
# How can Reinsurers help in dealing with Current Issues of Health Insurance Industry?

---

1	Overview and Current Issues of Health Insurance Market
2	Role of Reinsurer - Structures and Services on Distribution Solutions
3	Role of Reinsurer - Capital Management
4	Role of Reinsurer - Analytics/ propensity models ~ sharing of best practices
5	Role of Reinsurer - New Products Development
6	Role of Reinsurer - Experience Analysis

# Reinsurers assistance in Data driven marketing

## Different stages of data in use



# Predictive modelling concepts

## Ranking of scored customers

Scored customers are 'ranked' or put into groups of people with the same range of scores.

- The ranges are then sorted into 10 segments or 'deciles'.
- Top deciles have the highest scores and are therefore the most likely to buy.
- Bottom deciles have the lowest scores and therefore are the least likely to respond.

DECILE	Score Range			Total Population			Response Rate	
				Records	Int. %	Cum. %	Int. %	Cum. %
1	652	-	High	26745	9.5%	9.5%	<b>1.91%</b>	1.91%
2	448	-	651	24863	8.9%	18.4%	<b>1.10%</b>	1.52%
3	402	-	447	30021	10.7%	29.1%	<b>0.87%</b>	1.28%
4	307	-	401	25836	9.2%	38.3%	<b>0.70%</b>	1.14%
5	246	-	306	30429	10.8%	49.2%	<b>0.56%</b>	1.01%
6	241	-	245	19905	7.1%	56.3%	<b>0.55%</b>	0.95%
7	180	-	240	34859	12.4%	68.7%	<b>0.41%</b>	0.86%
8	147	-	179	29045	10.4%	79.0%	<b>0.34%</b>	0.79%
9	130	-	146	26736	9.5%	88.6%	<b>0.25%</b>	0.73%
10	Low	-	129	32079	11.4%	100.0%	<b>0.23%</b>	0.67%
Total				280518			0.67%	

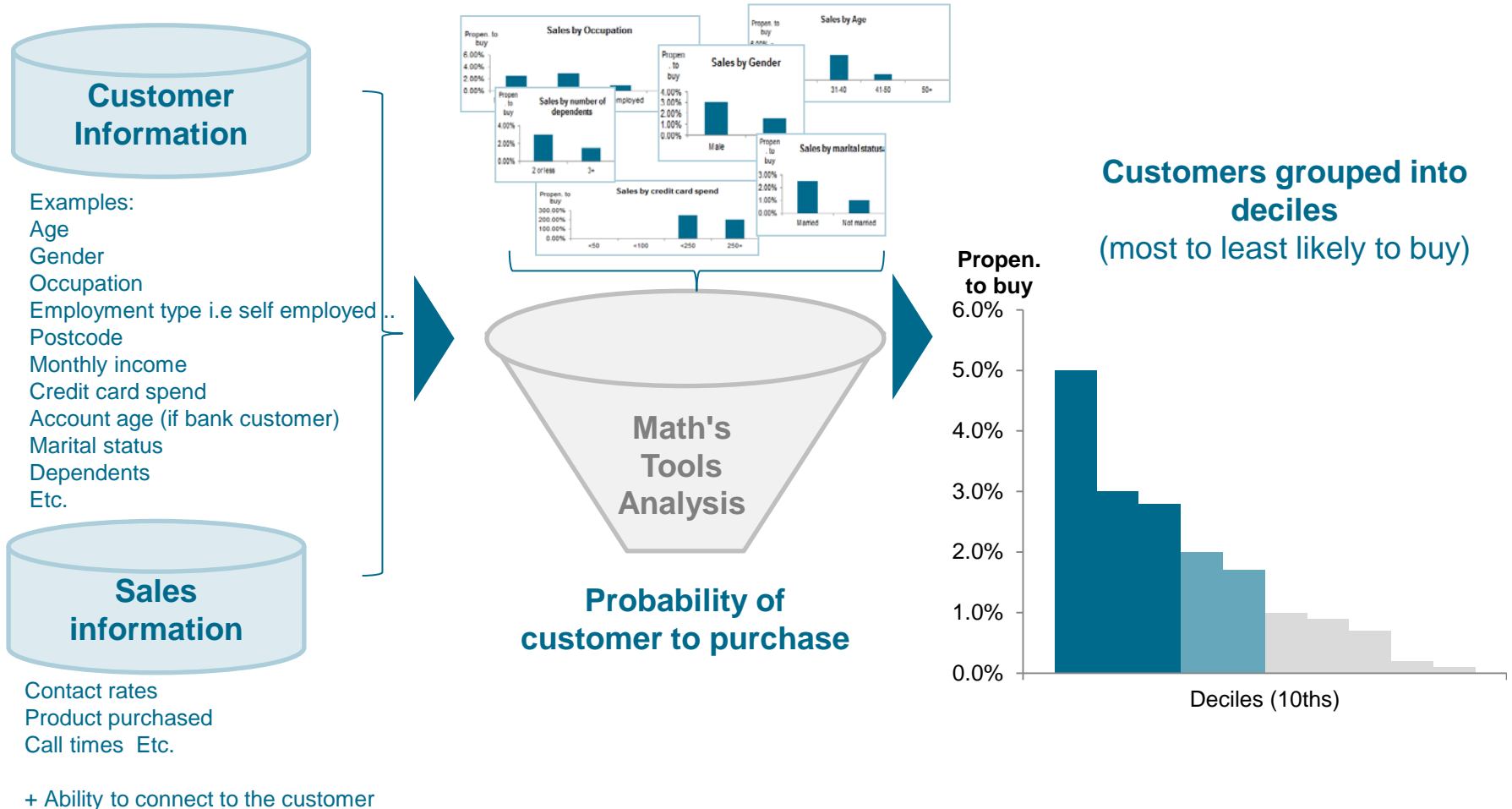
Best Responders

Worst Responders

Modeling can often produce between 10 – 40% uplift



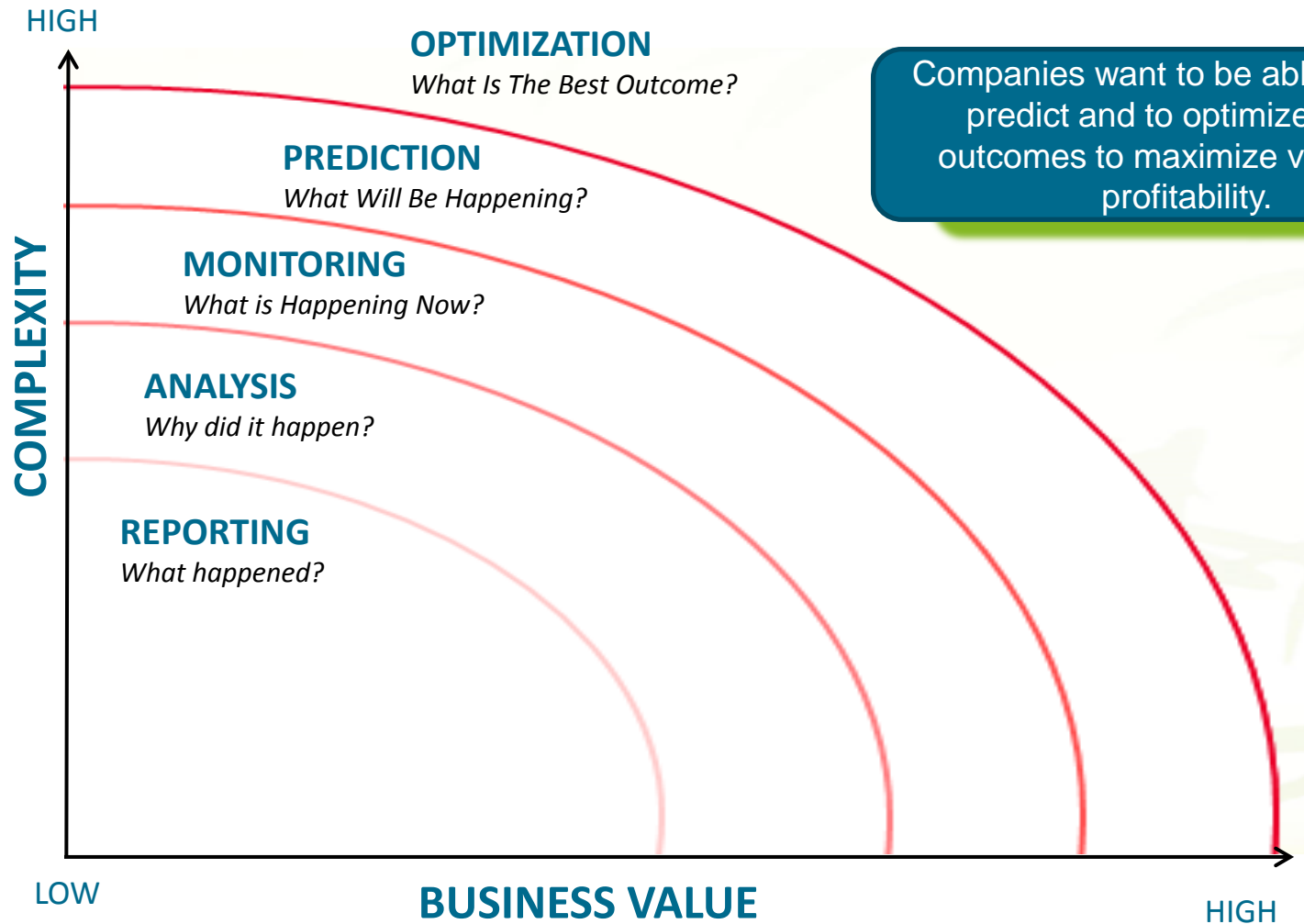
# Mathematical models are at the heart of propensity scores



A minimum number of tests or pilots are needed to complete propensity models.

Advanced models that look at total customer value including e.g.: propensity to claim / lapse require inforce data.

# Business Intelligence continues to evolve



# Reinsurers can share best practices with insurers in data analytics and predictive modeling

Other industries are already using predictive modeling and analytics to improve efficiency and profitability

**Many identified uses of Predictive Modeling in insurance:**

Propensity to Buy | Pricing | Risk selection / underwriting | Retention | Claims | Fraud | Agent quality



Create a 'what's under your hood' competitive advantage

# How can Reinsurers help in dealing with Current Issues of Health Insurance Industry?

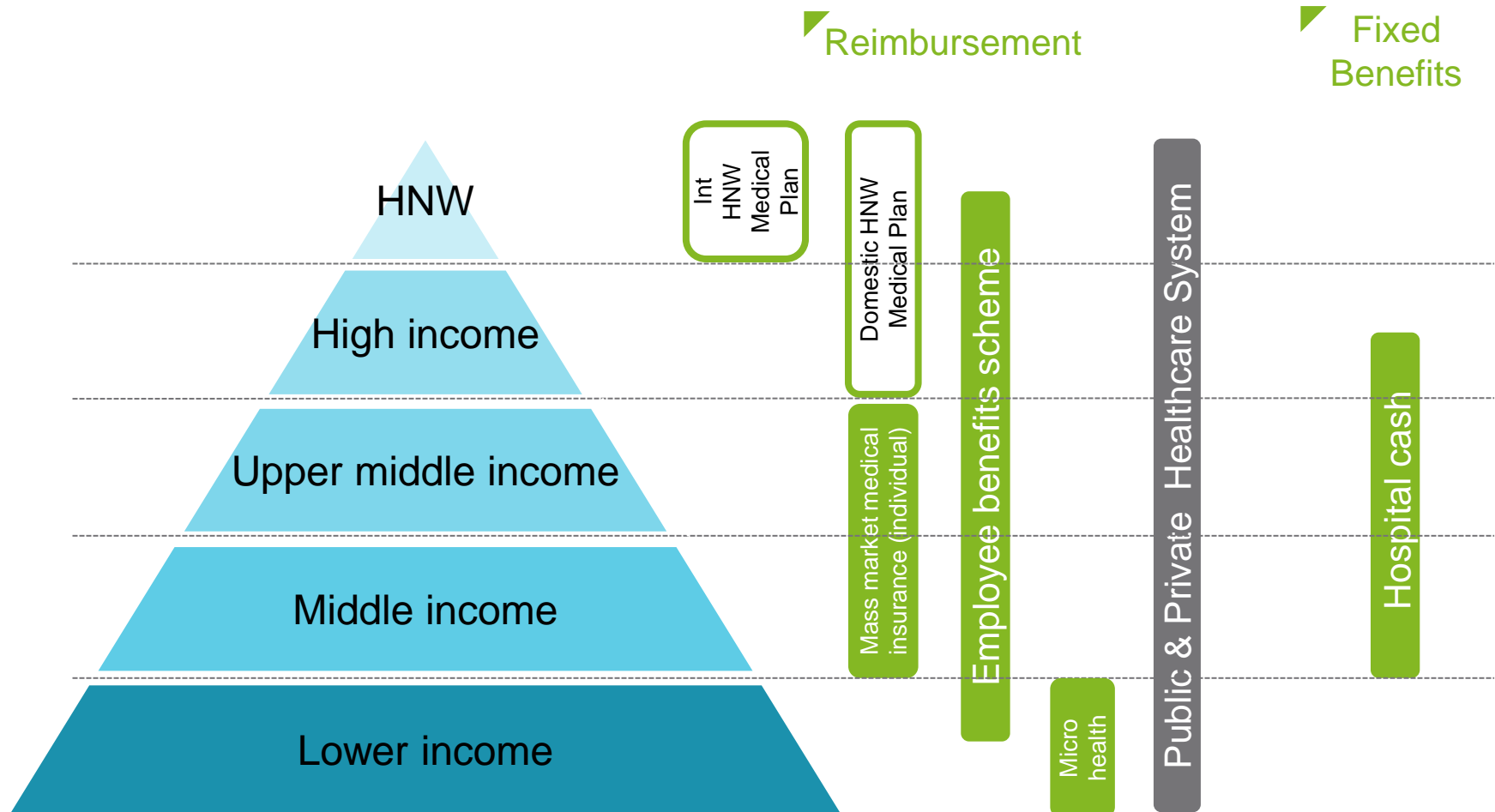
---

1	Overview and Current Issues of Health Insurance Market
2	Role of Reinsurer - Structures and Services on Distribution Solutions
3	Role of Reinsurer - Capital Management
4	Role of Reinsurer - Analytics/ propensity models ~ sharing of best practices
5	Role of Reinsurer - New Products Development
6	Role of Reinsurer - Experience Analysis

## New Products Development – Reinsurers Role

- ❑ Reinsurers assist primary companies in product development initiatives to met untapped customer segments, product gaps in existing customers etc.
  
- ❑ Product development projects always work well when done in in conjunction with primary companies inputs keeping in mind the local nuances of demographic profile and customer behavior
  - Cater to market needs and calibrate the product, based on the risk factors peculiar to the market
  
- ❑ Recipe for developing a Successful New Product covers, some but not limited to:
  - Pay attention to cultural sensitivity
  - Know your customer
  - Know your strengths and weaknesses
  - Address the risks – identify, avoid, accept, manage and monitor

# New Products by Customer segmentation



## Some other New Product Ideas\*

---

- Disease specific insurance products targeting sub-standard risks:
  - Cancer Medical Plan
  - Diabetes Medical Plan
  - Dementia Insurance
  
- Insurance products specific to cover Out-of-Pocket Expenses:
  - Dental Insurance Plan
  - Vision Insurance Plan
  - Critical Illness Annuity Plan

# How can Reinsurers help in dealing with Current Issues of Health Insurance Industry?

---

1	Overview and Current Issues of Health Insurance Market
2	Role of Reinsurer - Structures and Services on Distribution Solutions
3	Role of Reinsurer - Capital Management
4	Role of Reinsurer - Analytics/ propensity models ~ sharing of best practices
5	Role of Reinsurer - New Products Development
6	Role of Reinsurer - Experience Analysis



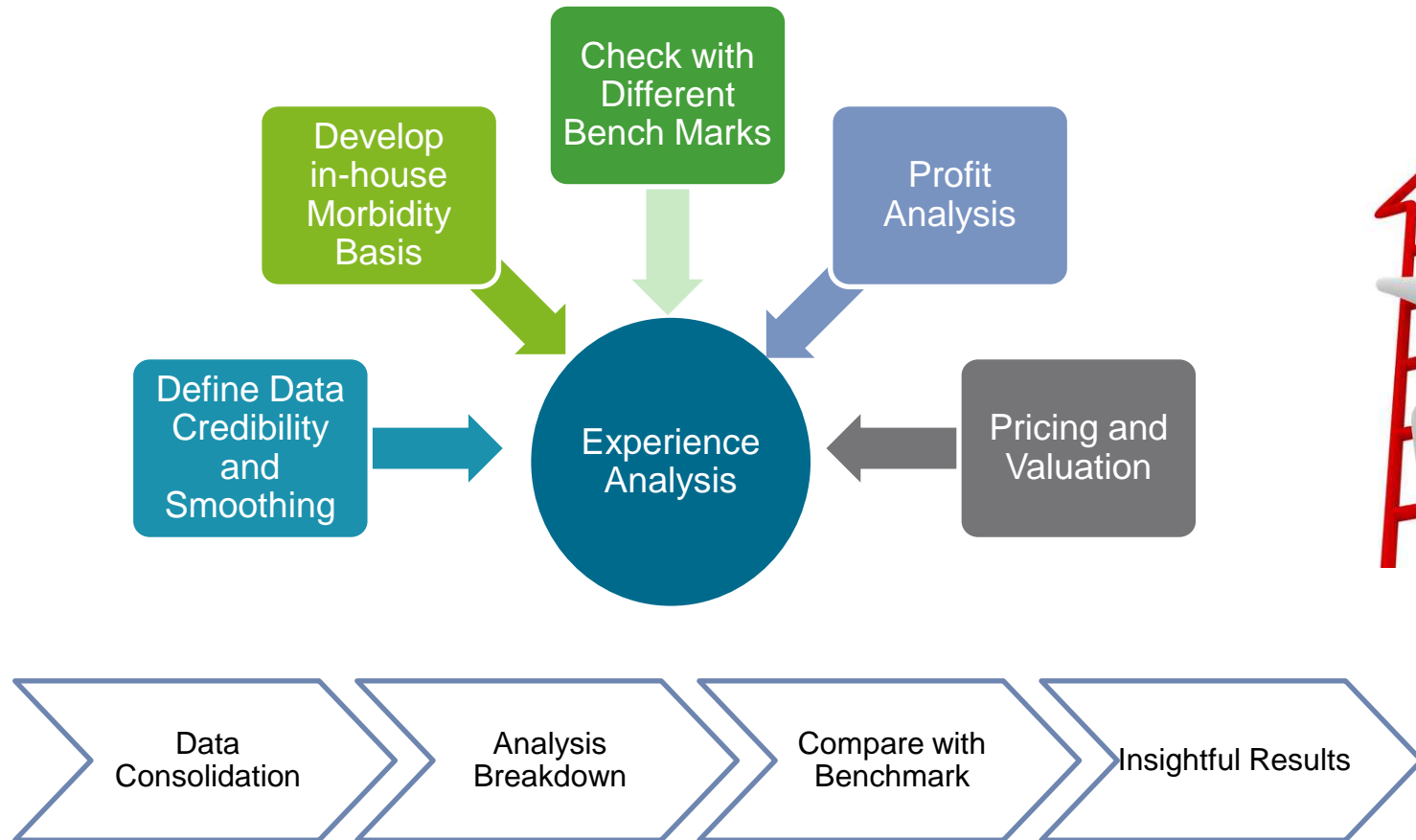
## Experience Analysis Support from Reinsurers

Every Primary Insurer will have the following questions in mind....



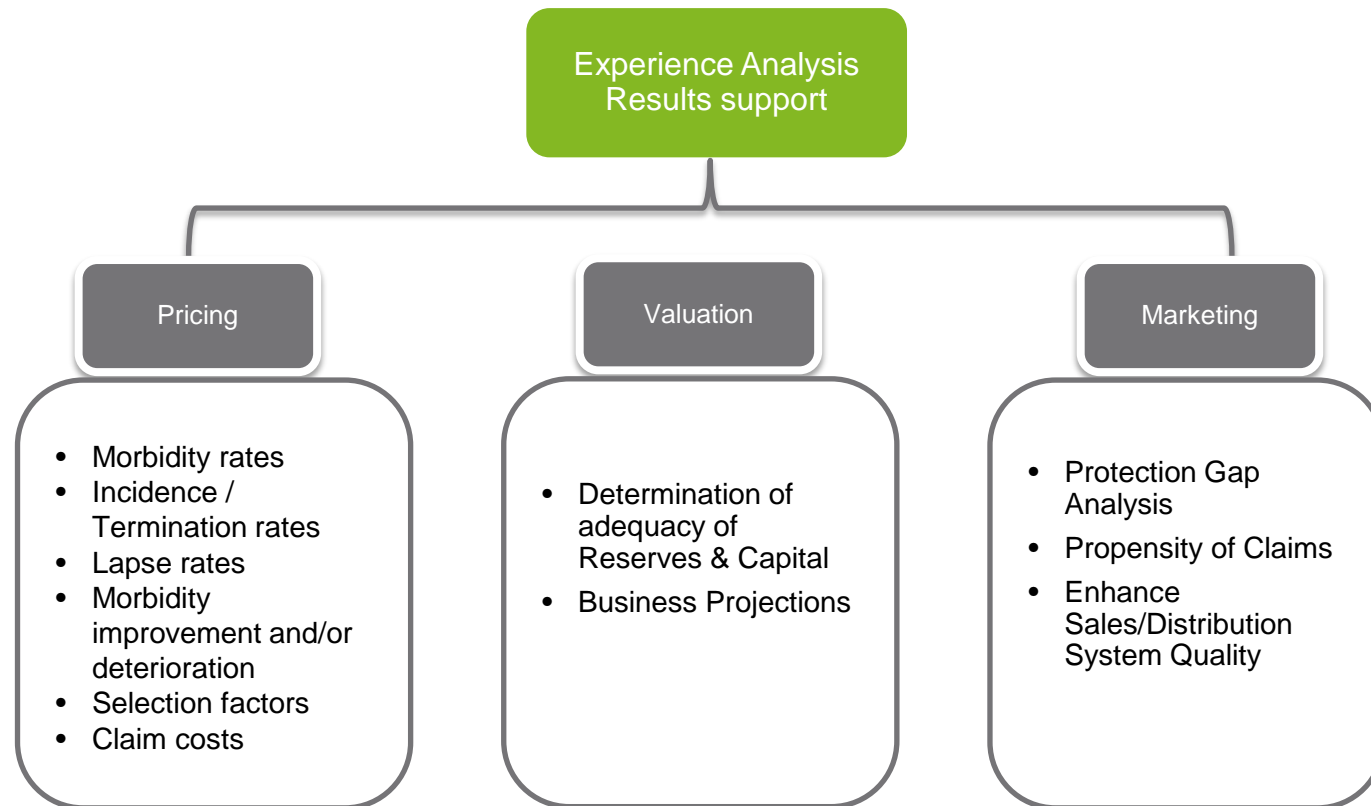
## Experience Analysis Support from Reinsurers

Reinsurers assist primary companies in developing or reviewing the Experience study initiatives



## Experience Analysis Support from Reinsurers

Experience Analysis Results support Primary Insurers in Pricing and Risk Management Controls



---

THANK YOU ALL

---

© 2015 SCOR Global Life SE.  
All Rights Reserved.

## **Private and Confidential**

This document is strictly private and confidential, and intended solely for the use of the entity to whom this addressed to.

It contains proprietary information to SCOR Global Life SE and should not be copied, distributed or reproduced in whole or in part, nor passed to any third party without the consent of SCOR Global Life SE.