

Actuaries, through the crystal ball!



19th Global Conference of Actuaries

30th - 31st January, 2018 | Mumbai, India

SCOR
The Art & Science of Risk

Jiong DU
Chief Pricing Actuary



Development of Health Insurance Market in China & How Technology Is Shaping The Future

Jan 30 15:05 C6

Summary on the topic:

A discussion on how can technology help the fast growing health insurance market in China, how can it be used to address the current issues and to be applied to risk management to achieve a sustainable, healthy growth.

Agenda



The Eco-system of the Health Insurance Market

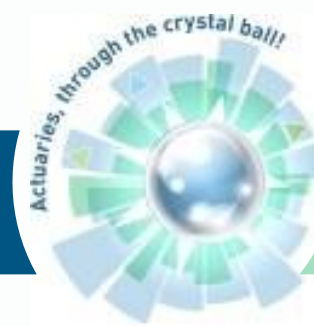
Current Status of the Traditional Health Insurance

Technology - How can it help



The Eco-System of Health Insurance

Increasing Health Expenditure Vs Affordability

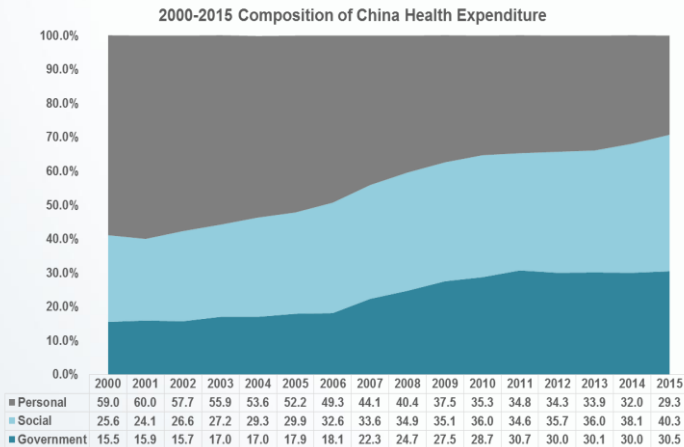
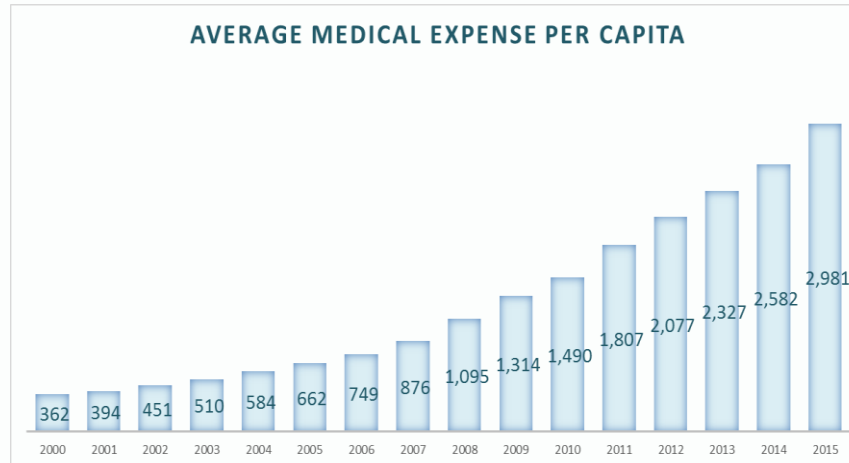
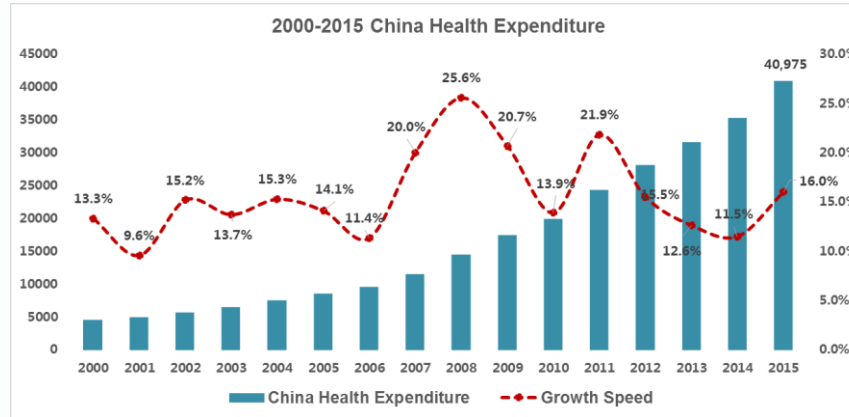


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Medical expense is heavy for low-income earners.



The Eco-System of Health Insurance

Imbalanced Supply and Demand



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IDEAL

Minor Condition



Medium Condition



Major illness



Tier 1 Hospital

Tier 2 Hospital

Tier 3 Hospital

Community Hospitals

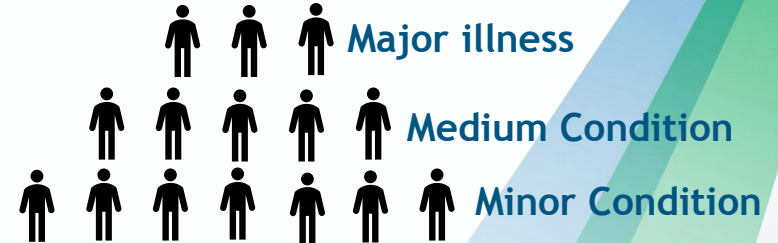
County Hospitals
District Hospitals

Provide high quality medical and health services.
Carry high educations and research projects.

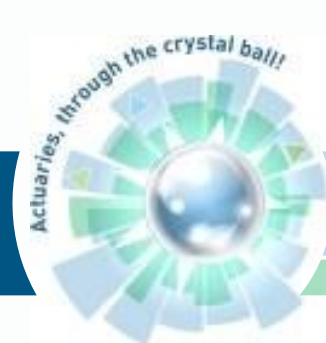
6, 473

6, 709

Above the regional hospitals.
1,787 (773 3A)



REALITY



Non-SHI providers



VS

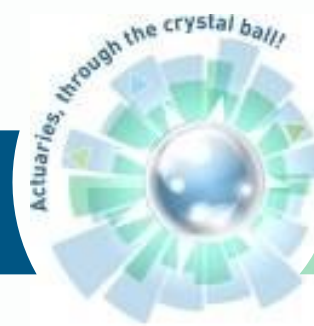


SHI providers



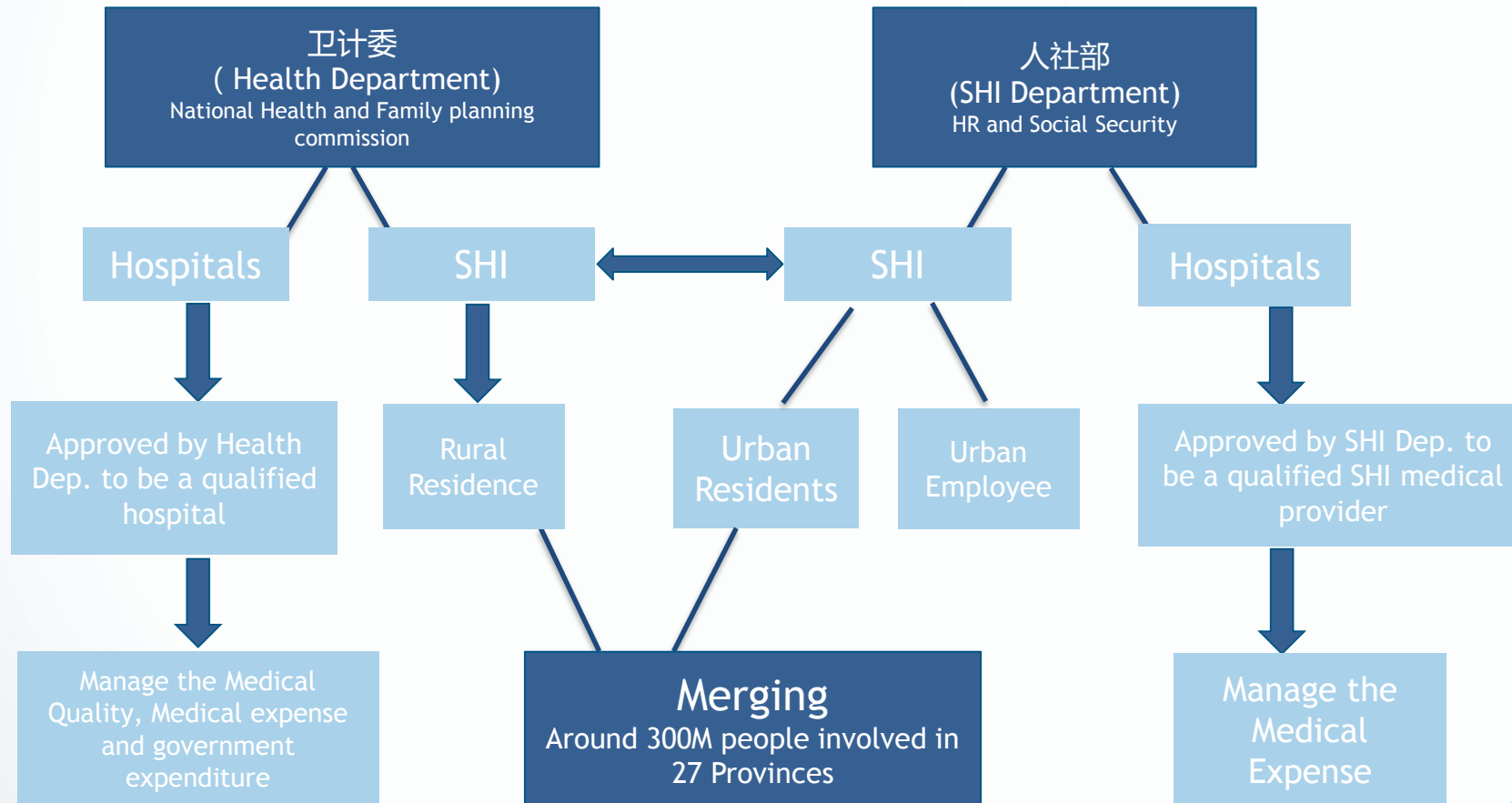
The Eco-System of Health Insurance

Health System Management



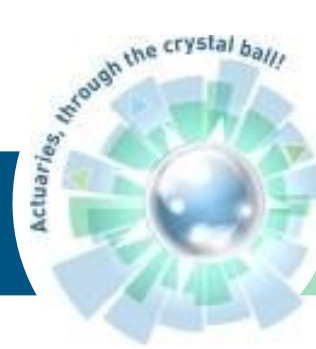
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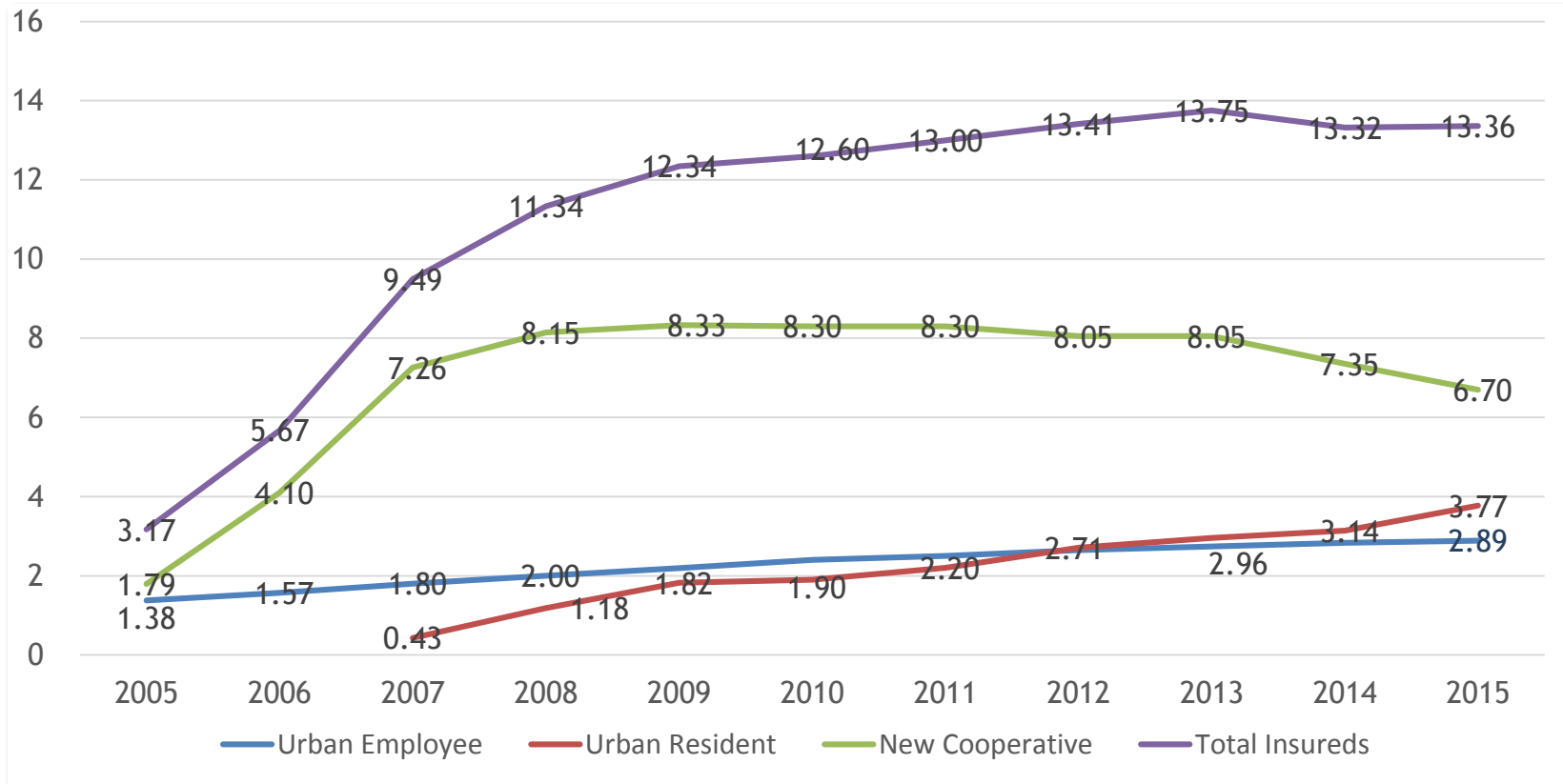
The Eco-System of Health Insurance

Coverage of SHI



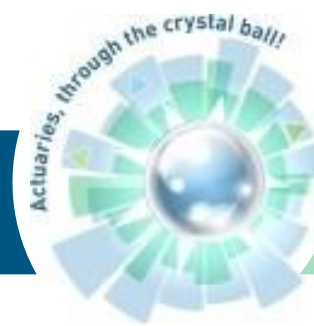
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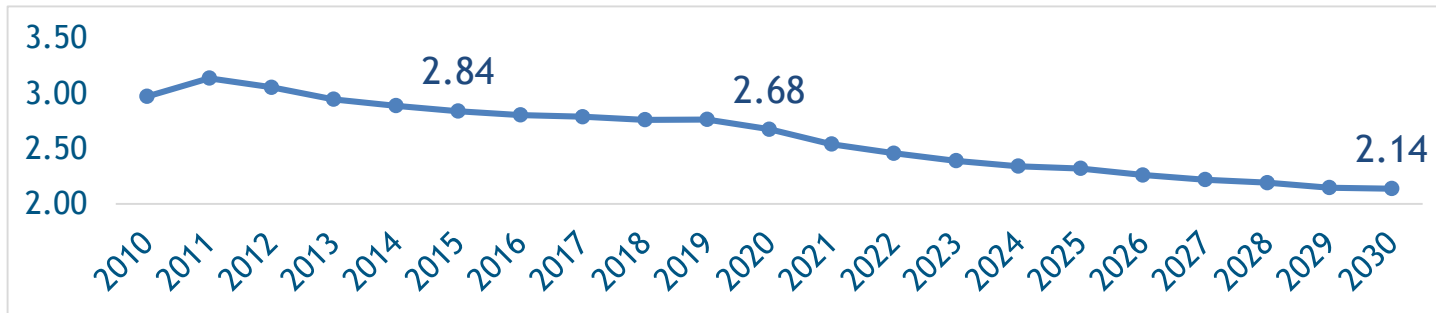
The Eco-System of Health Insurance

Coverage of SHI

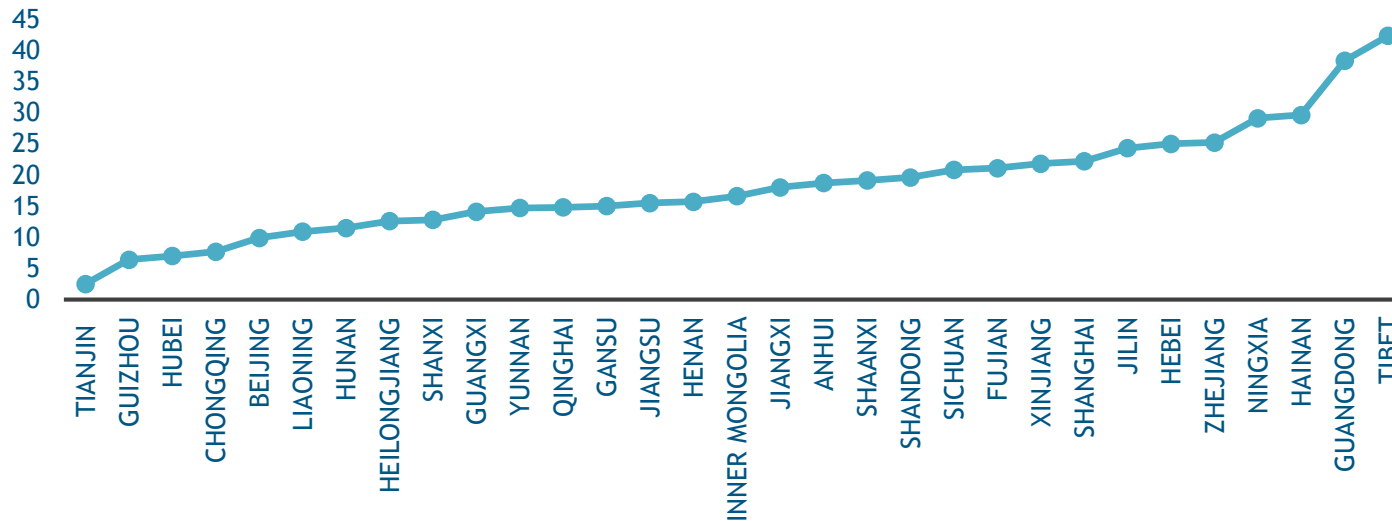


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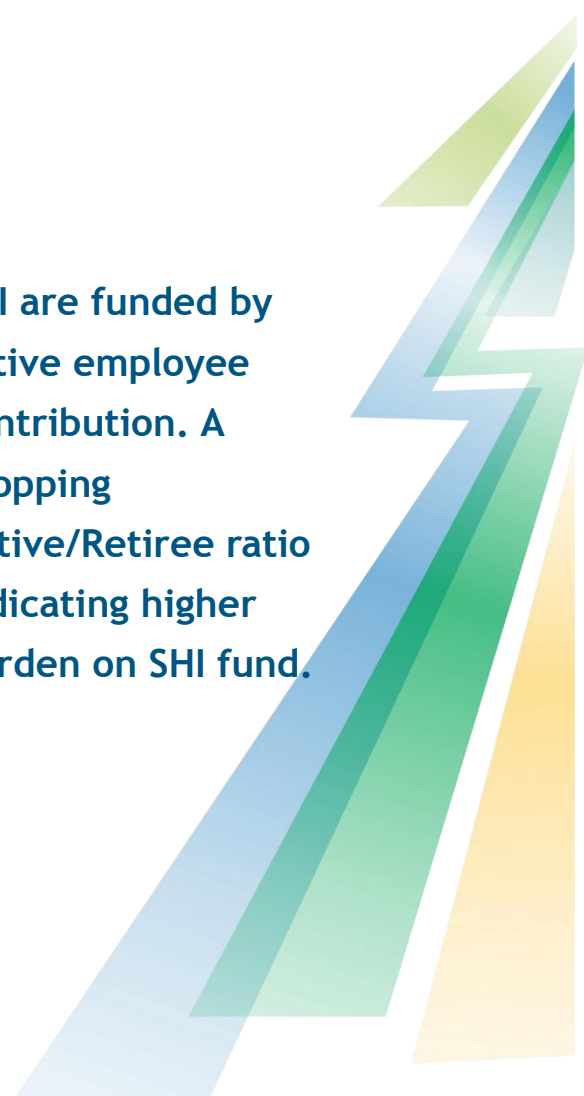
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Months of Sustainable by Province
Urban worker SHI



SHI are funded by active employee contribution. A dropping Active/Retiree ratio indicating higher burden on SHI fund.





3 Catalogues

- Medicine catalogue
- Treatment catalogue
- Medical facilities catalogue
- Exclude experimental drugs/ treatment/ facilities.....



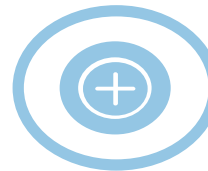
Location

- Lower reimbursement ratio for non-local treatment



Providers scope

- Qualified medical providers
- Excluding private hospitals

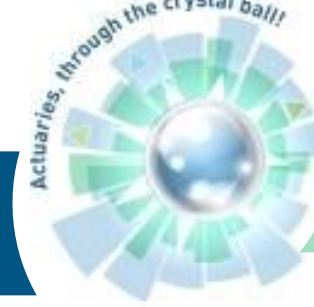


Disease scope

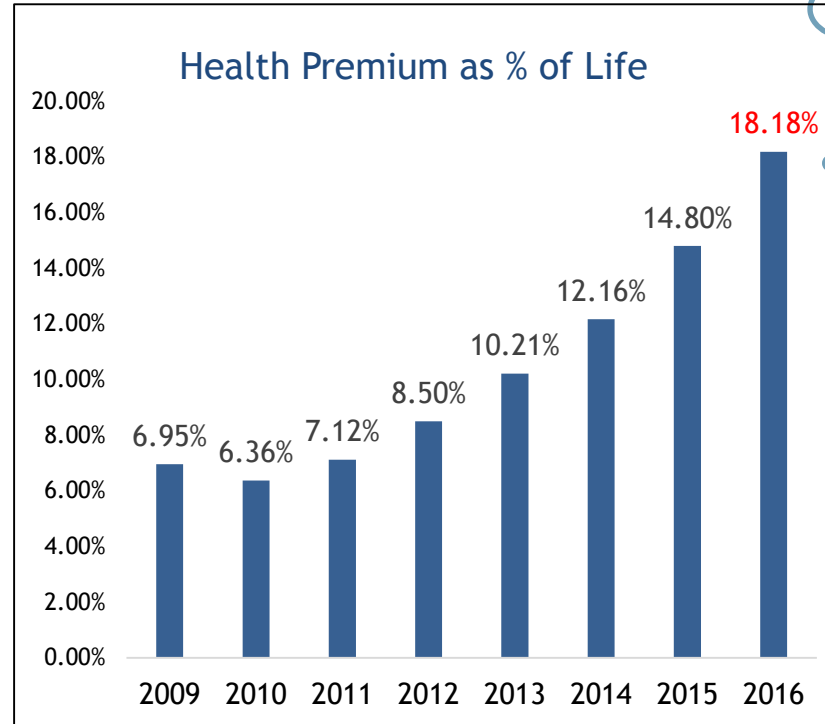
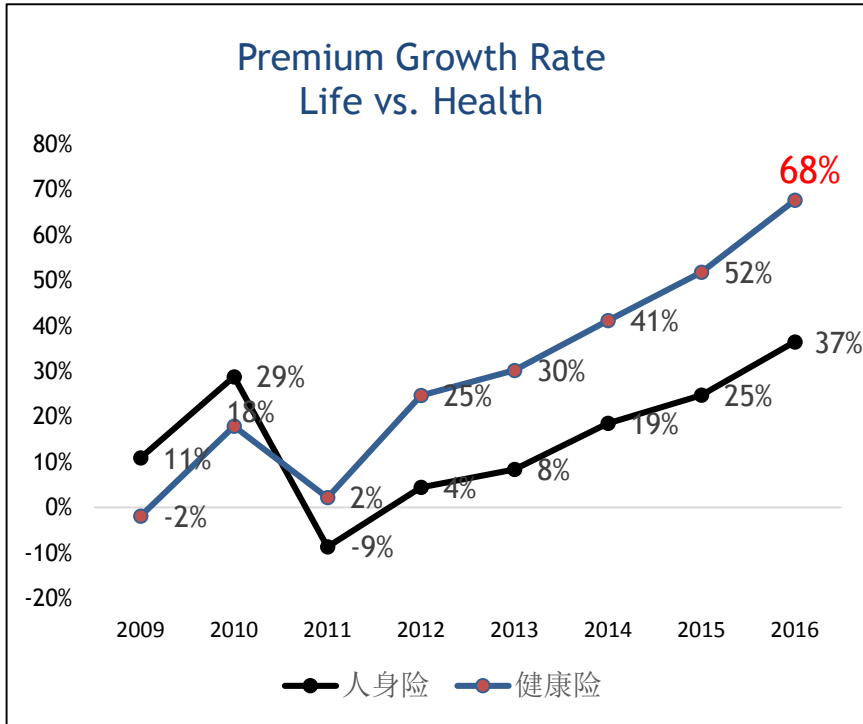
- Only cover part of diseases for OP
- Exclude accidental medical treatments for few cities

- SHIP covers 50% - 60% of the Medical Expenditure
- Private hospital/VIP ward, are excluded from SHIP

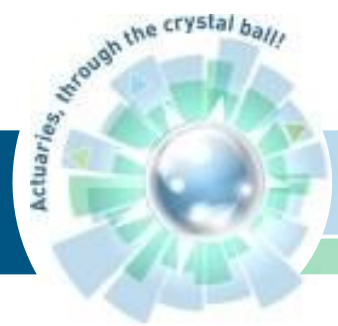




Life: 2.22 trillion CNY
 Health: 404 billion CNY
 Medical: 120 billion CNY



*Individual Life: including life/annuity/saving product/health/PA



From 2009 to 2011, a series of new government policies stimulated the prosperity of high end medical insurance market in China.

- At end of 2010, the Congress issued a paper to encourage and guide private investment into medical facilities.
- In 2011, the newly amended "Catalogue for the Guidance of Foreign Investment Industries" removed the medical industry from the restricted list.

Before 2005

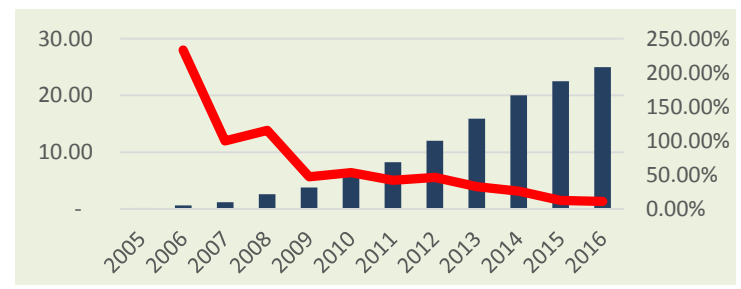
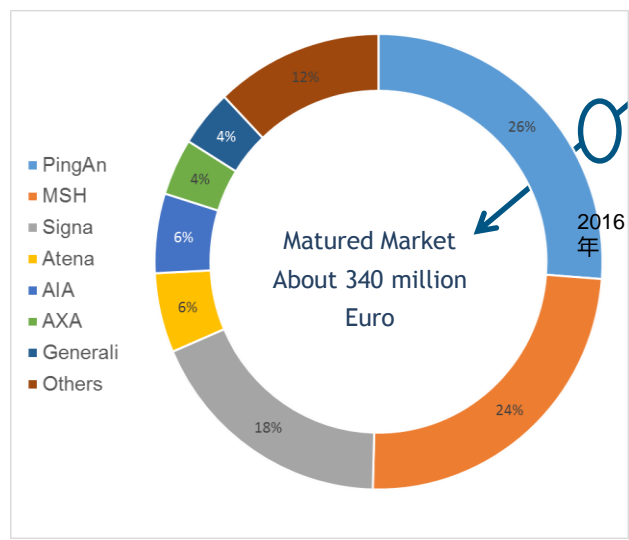
- Mostly foreign insurer, serving expats.
- A few offshore policies, small cap.

From 2005 to 2012

- HEM insurance started to be sold in China.
- From 2010, PingAn, TaiPing, AXA, Cigna etc., started entering HEM market and the capacity boomed.
- The majority of the clients are groups in tier 1 cities

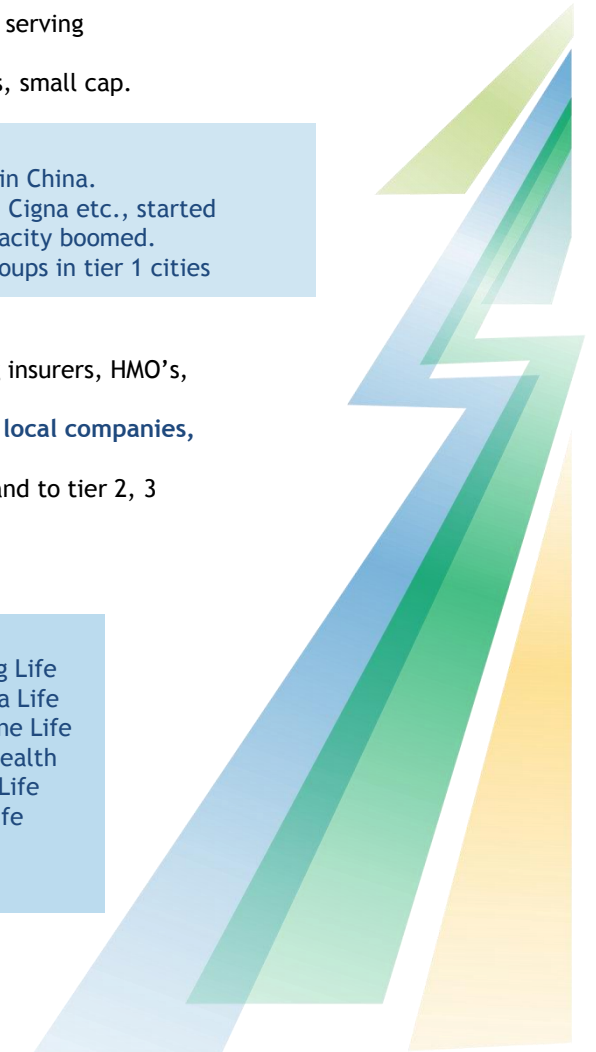
After 2012

- Increase in the number of participating parties, including insurers, HMO's, TPA's, competition started to get fierce.
- Clients shifted from foreigners to core management of local companies, private business owners and other business men.
- Clients shifted from groups in tier 1 cities to individuals and to tier 2, 3 cities



- MSH
- TaiPing Life
- HengDa Life
- Sunshine Life
- PICC Health
- BoHai Life
- LiAn Life
- BOCI
-

■ 高端医疗保费 (亿元) 红色线 增长率



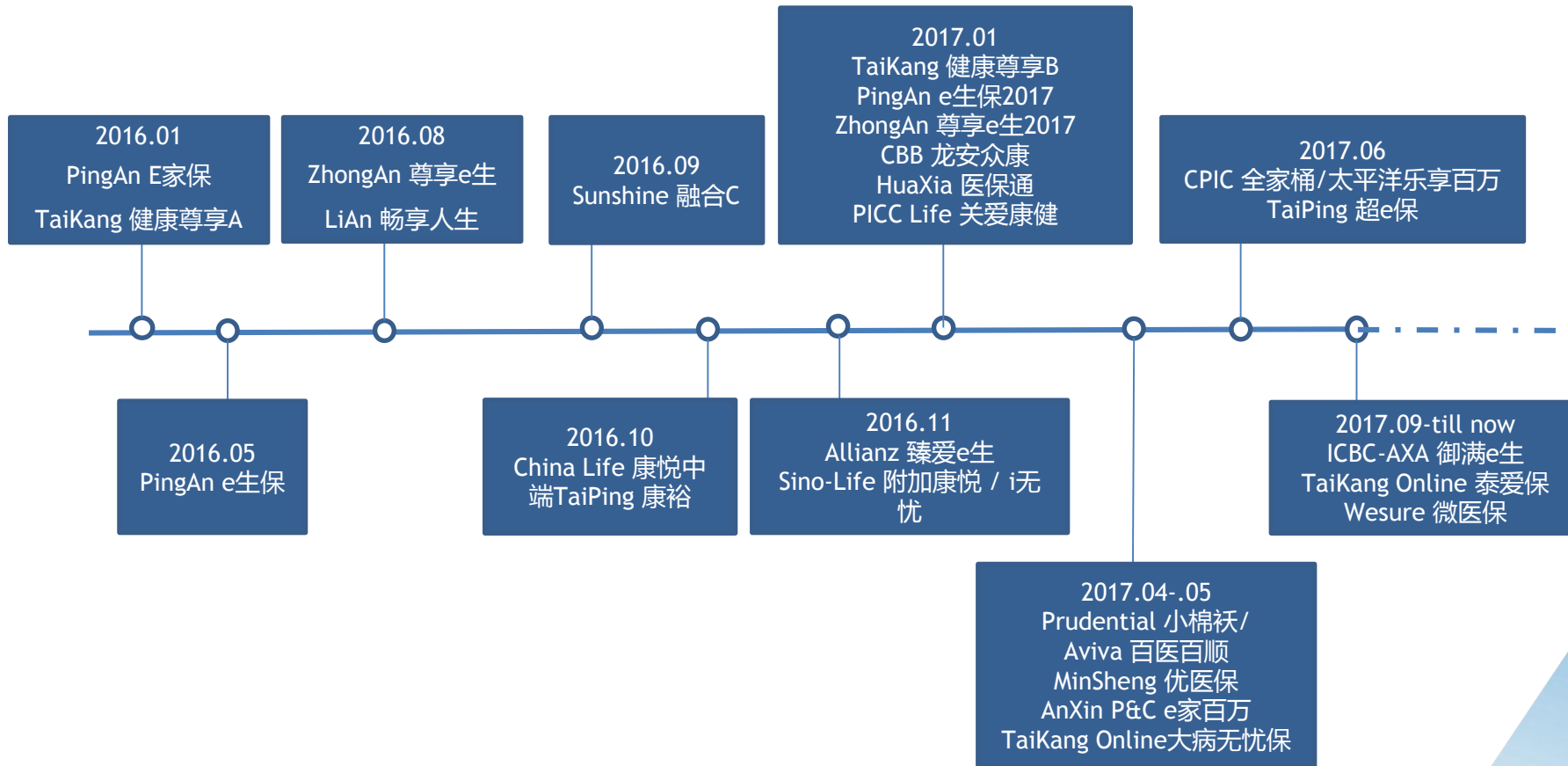
Current Status

Journey of Mid End Medical

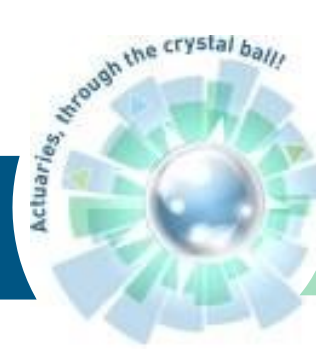


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- A medical product targeting mass market;
- Inpatient cover only, with deductible and relatively cheap premium



Distribution (Traditional)

- Higher distribution cost cuts into already thin margin
- No alignment of interest between distribution and risk carrier
- Long turnaround time, lack of post-event service resulting loss of good customers

Product

- Easy to be copied, leading to no real differentiation among different risk carriers
- Lack of pricing discipline
- Lack of negotiation power with the medical service providers

Operation and System

- Ancient Life or Non-Life system failed to address the need of Health Insurance
- Extremely low efficiency, lack of automation, resulting burden on claims processor

Data

- Low dimension data capture resulting lack of insight to support risk management/product innovation
- Lack of minimum data standard across the industry (ICD code, Surgical, Drug)





Distribution - New Players - Game Changers

Evolving tech players changing the land scape

Zhong An Insurance

WeSure

Ant-Finance



Selling insurance on the back of mass data
- targeted marketing
- risk differentiation / or not
- pre-selection replacing UW

On-line portals

Smaller start-ups focusing on content driven / scenario based selling

Providing end to end service (from policy admin to claim management)

Traditional players setting up on-line subsidiaries

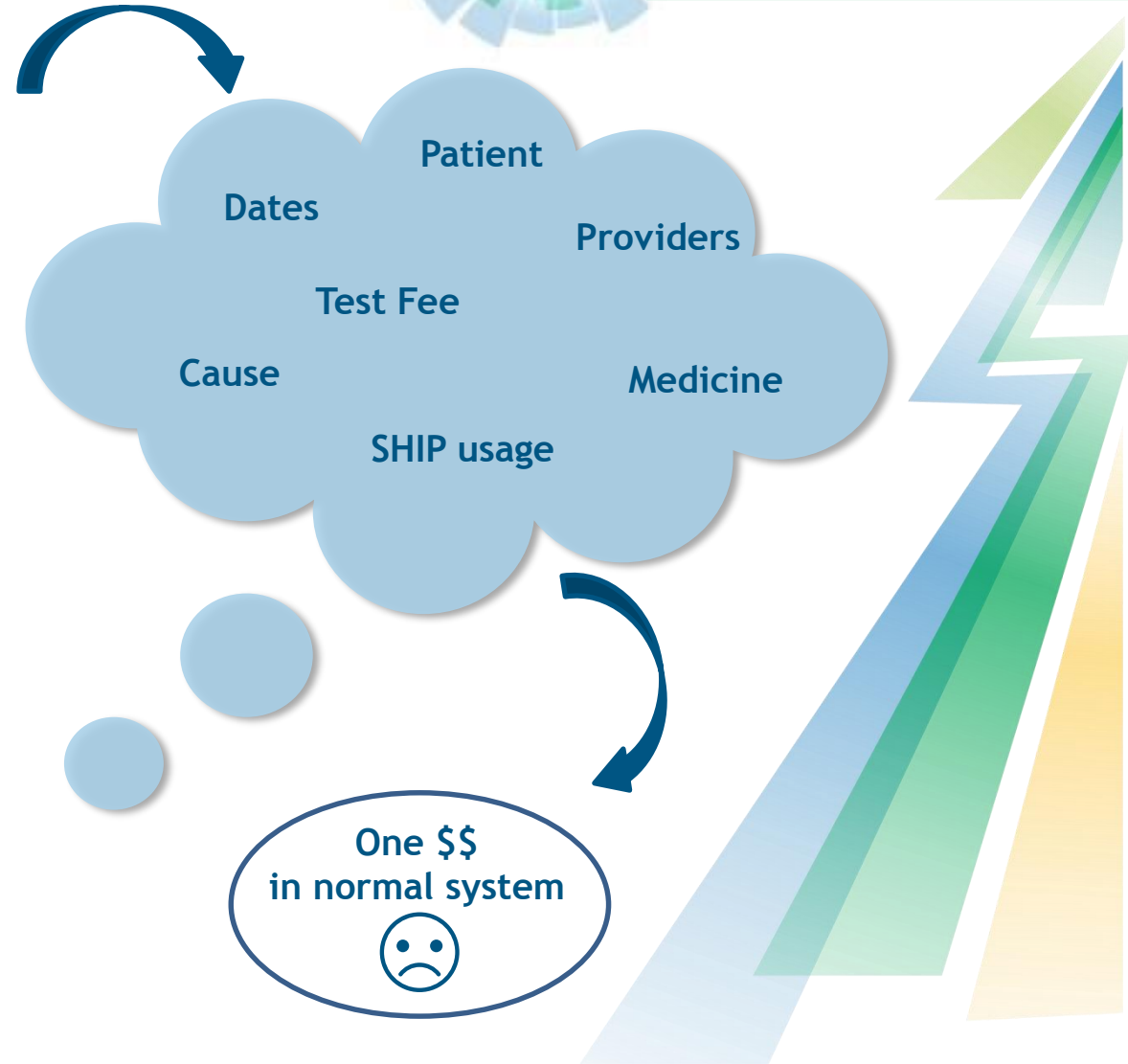
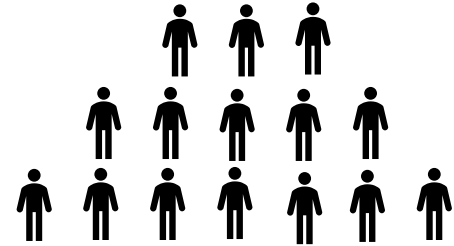
Taikang On-Line

Taiping Technology



How can technology help?

The Evolving EcoSystem - Where does the Journey Start?



Current status: Manual input

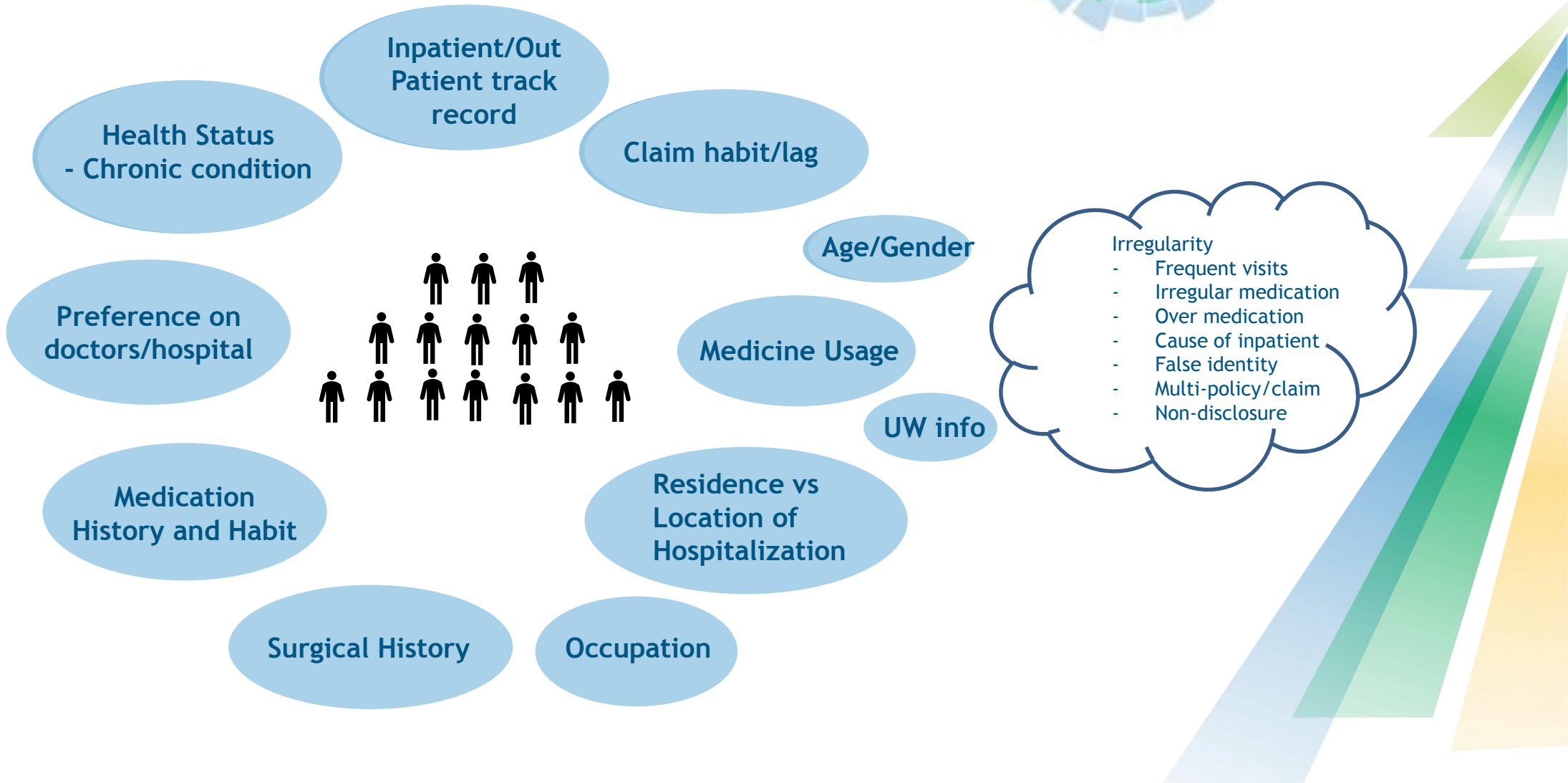
- Average input time: 3 - 5 min per invoice
- Labor cost
- Management issues
- Capacity

Emerging Technology:

- AI driven auto recognition
- Automatic data segregation - minimum human interaction
- Fast, minimizing errors, maximizing data dimension

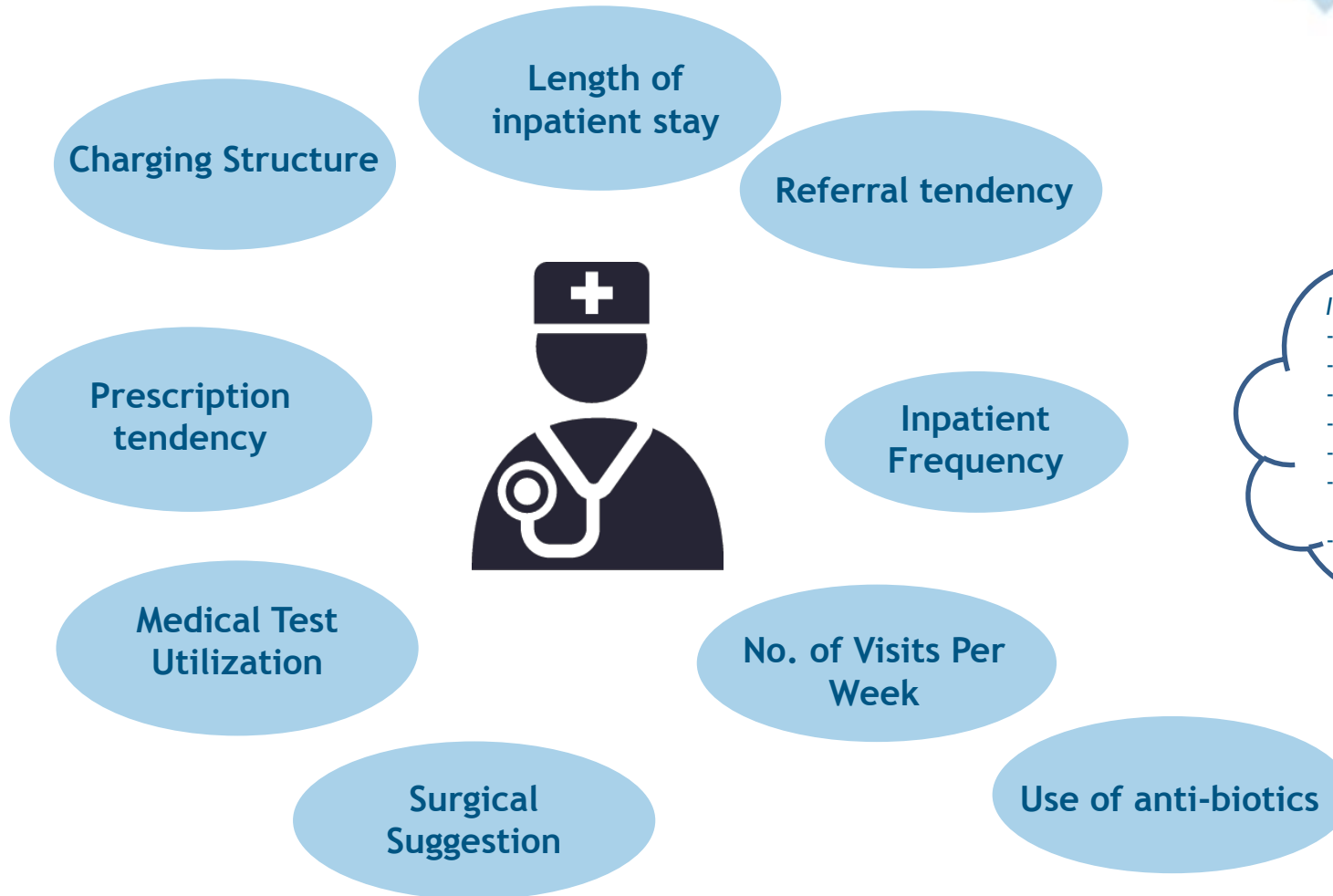
How can technology help?

A Multi-Dimensional Claims Database Lays the Foundation - Policyholder Propensity

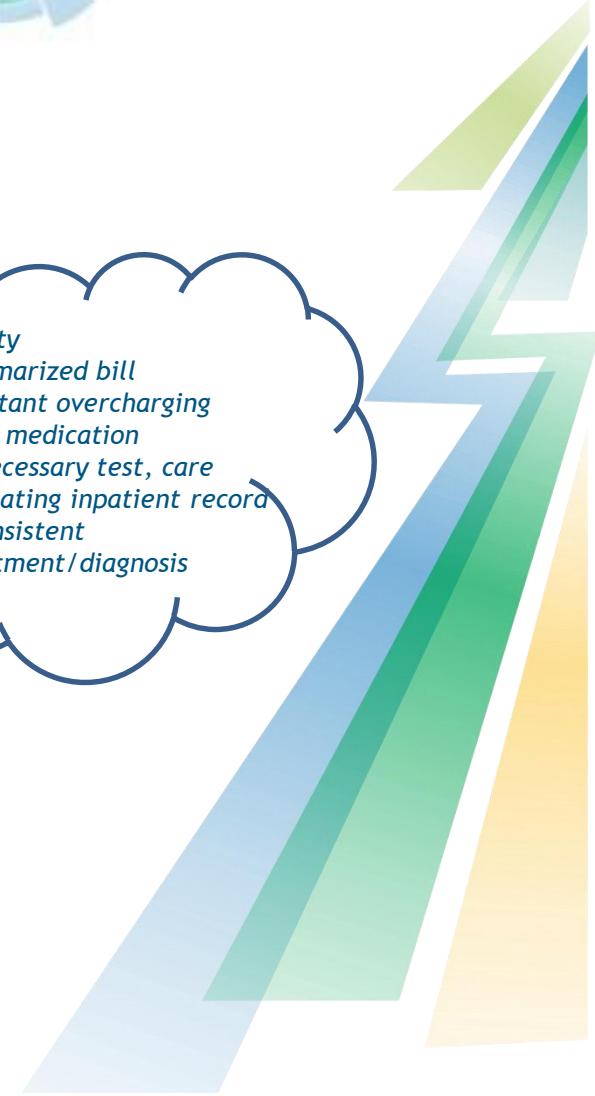


How can technology help?

A Multi-Dimensional Claims Database Lays the Foundation - Provider Behavior

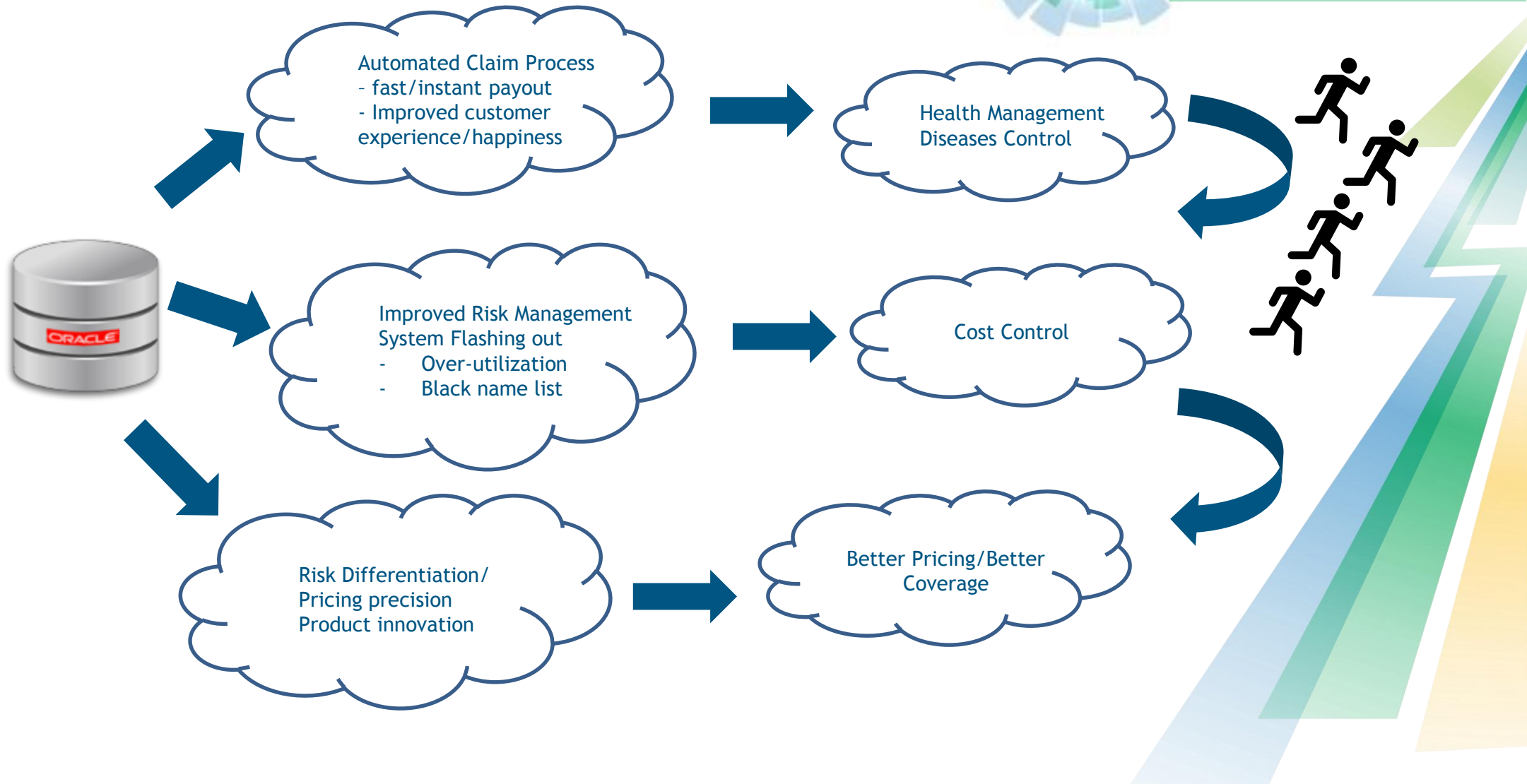


- Irregularity*
- Summarized bill
 - Constant overcharging
 - Over medication
 - Unnecessary test, care
 - Repeating inpatient record
 - Inconsistent treatment / diagnosis
 - ...



How can technology help?

The Eco-System of Health



How can technology help?

But what about our customers?



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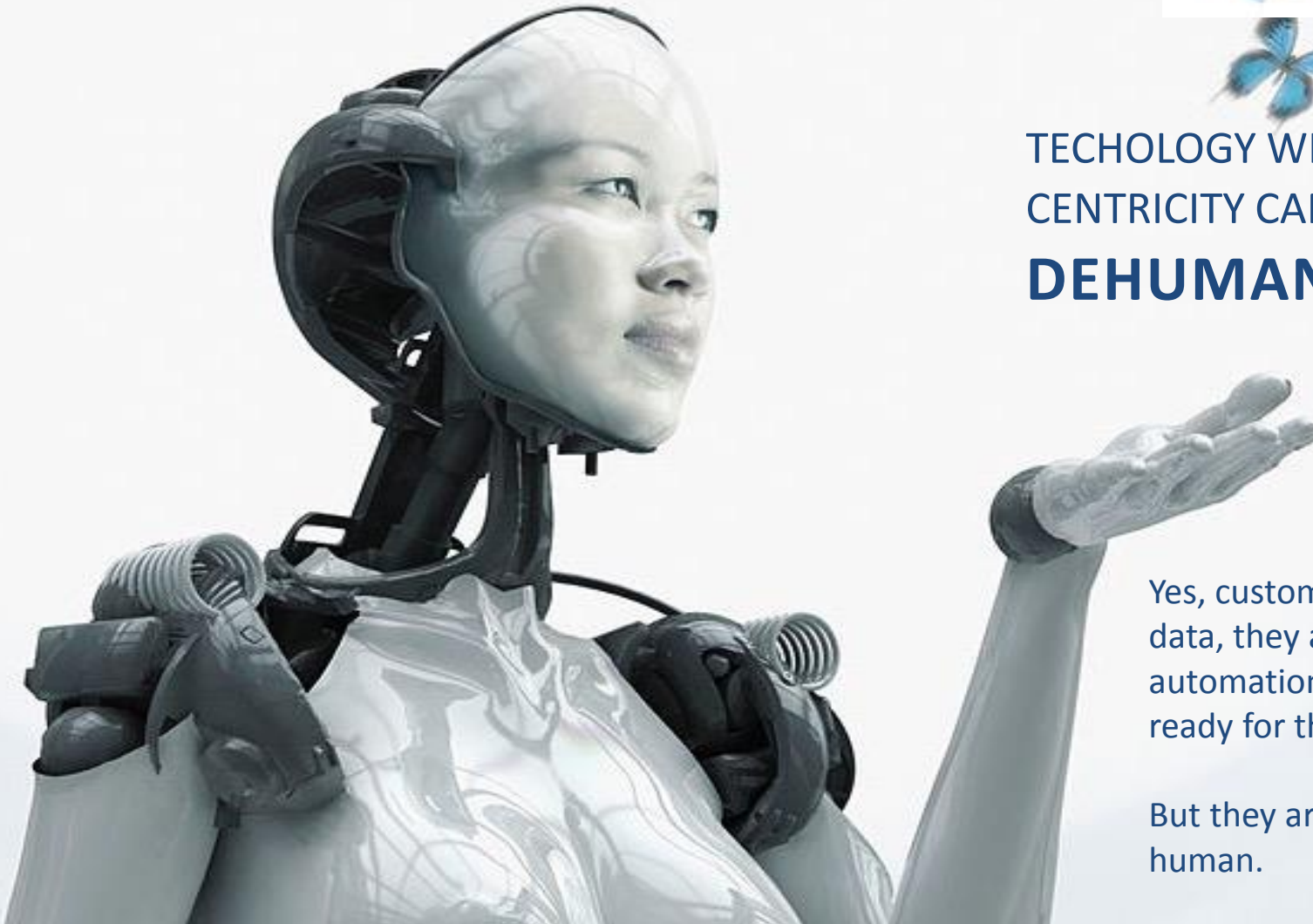
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TECHNOLOGY WITHOUT CUSTOMER -
CENTRICITY CAN BE
DEHUMANIZING...

Yes, customers are
data, they are ready for
automation, they are
ready for the robots.

But they are still
human.



How can technology help?

Technology presents an opportunity to better engage with our customers



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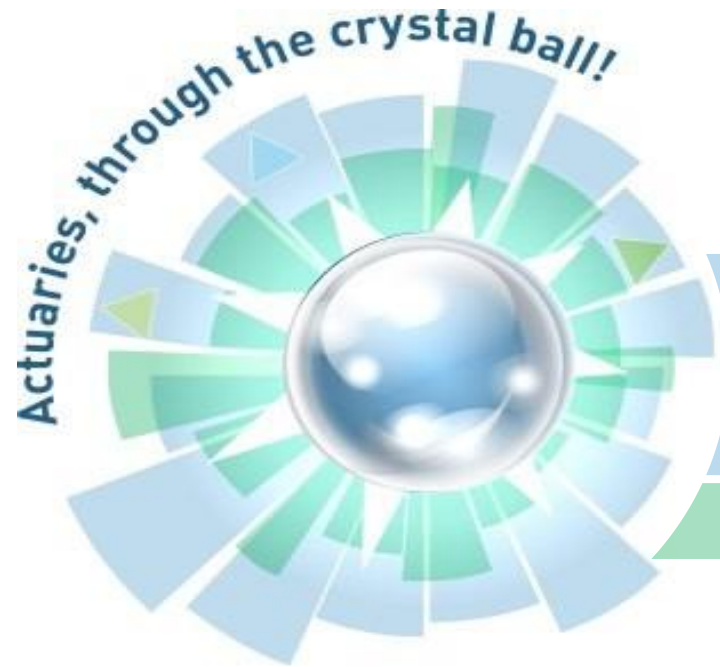
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Technology can not only improve the customer journey but also play a role in promoting our customers better health and wellbeing

Customer Efficiency and Positive Engagement:

- Shorten painful underwriting processes
- Eliminate invasive screening
- Ease claims processes
- Promote health and wellbeing
- Reward good behavior
- Enable the freedom to choose – answering the demands for design your own solution and dynamic pricing.





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Thank You

Jiong Du
Chief Pricing Actuary
Asia Pacific

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