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## Reinventing CI – An Asian Case Study

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15 May 2018

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## Technological Impact



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Source: Fotolia

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## CI Today

The long and winding road

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“... protection insurance is the financial doctor ... when your physical health goes you have financial protection ... to give you money when you need it most.”

*Dr. Marius Barnard*  
*Creator of Critical Illness Insurance*

1983 - Crusader Life sells first product

Covers: Heart Attack, Cancer,  
Stroke and CABG

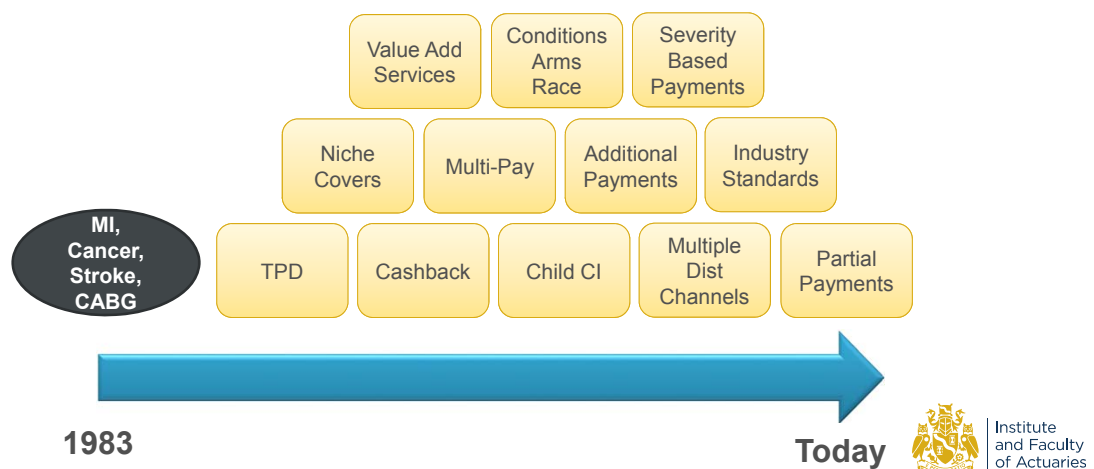


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Source: By Eric Koch / Anefo (Nationaal Archief) via Wikimedia Commons

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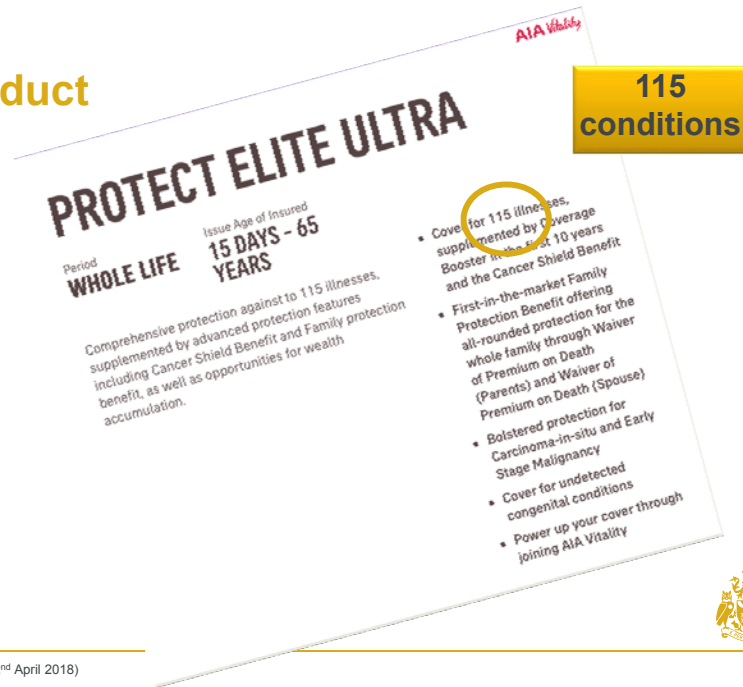
## What has happened since?



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## Example Product



**PROTECT ELITE ULTRA**

Period **WHOLE LIFE** Issue Age of Insured **15 DAYS - 65 YEARS**

Comprehensive protection against to 115 illnesses, supplemented by advanced protection features including Cancer Shield Benefit and Family protection benefit, as well as opportunities for wealth accumulation.

- Cover for 115 illnesses, supplemented by Coverage Booster in the first 10 years and the Cancer Shield Benefit
- First-in-the-market Family Protection Benefit offering the all-rounded protection for the whole family through Waiver of Premium on Death (Parents) and Waiver of Premium on Death (Spouse)
- Bolstered protection for Carcinoma-in-situ and Early Stage Malignancy
- Cover for undetected congenital conditions
- Power up your cover through joining AIA Vitality

**115 conditions**

Source: <http://www.aia.com.hk> (accessed 22<sup>nd</sup> April 2018)



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## Too Complex for the Consumer??

Severity  
Based CI

Additional  
Payments



Multi-Pay

Partial  
Payments

**More than 100 condition definitions**



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Source: Fotolia

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## The Mission

Should you choose to accept it

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## Partnership

PartnerRe



FWD



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## The Basic Idea

### Traditional



Pays out when you  
fulfill certain medical  
conditions



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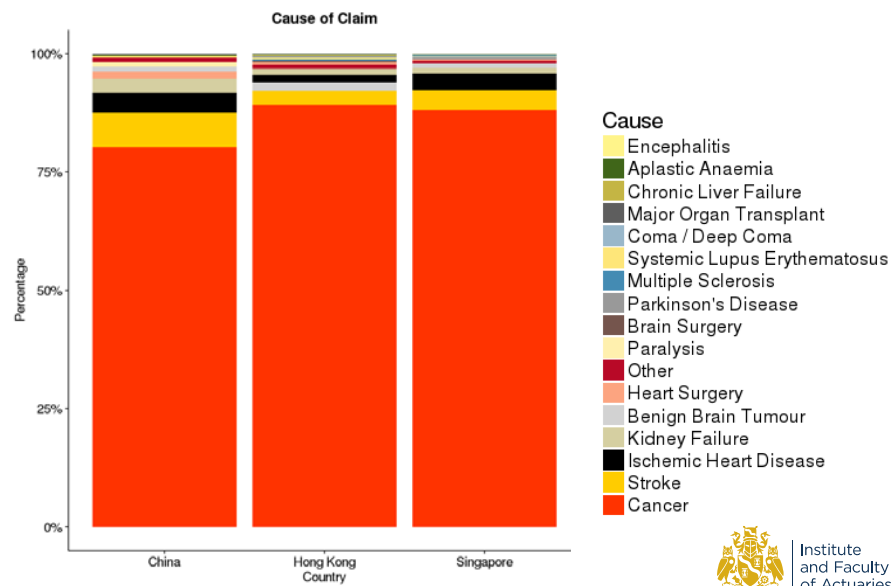
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## Designing the Product

Rome wasn't built in a day

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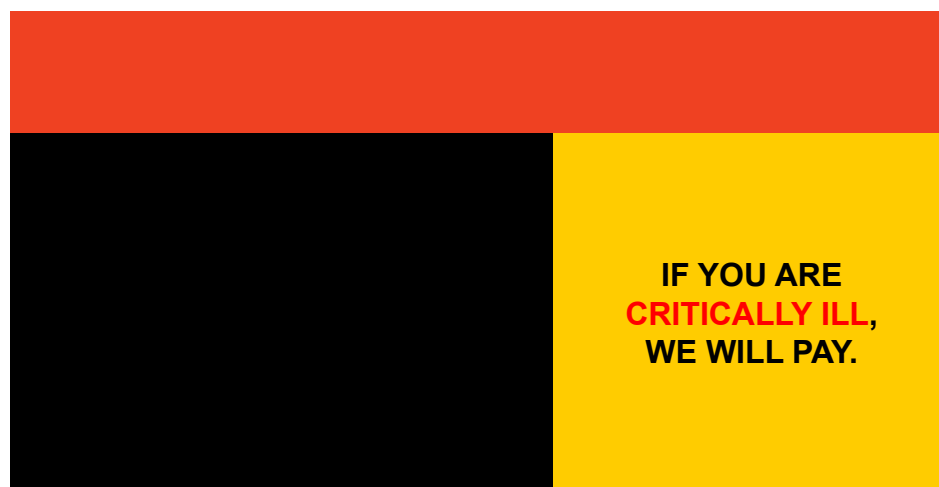
## Causes of CI



Source: GenRe Dread Disease Survey 2008-2012

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## Our Approach



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## Advantages – from the customers' perspectives

### 1 Beyond the List

- Coverage is **no longer restricted by the arbitrary list** set by the Insurance company
- Covers “any Illnesses” is an attractive proposition

### 2 Future proof

- Answers their concerns that nowadays there seems to be **new diseases popping up** every so often

### 3 Straightforward & intuitive

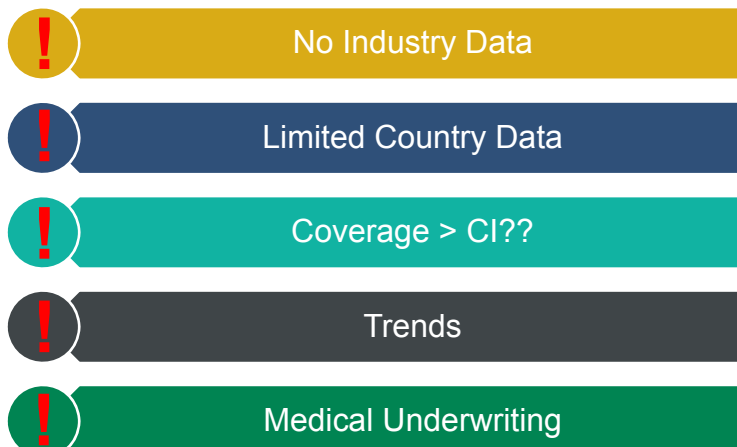
- Claim criteria is **easy to understand**
- Customers feel the product has ‘**high transparency**’ and hence ‘**more certainty**’ about what they are getting



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## Pricing Challenges



*I need to see a doctor*



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## Challenges

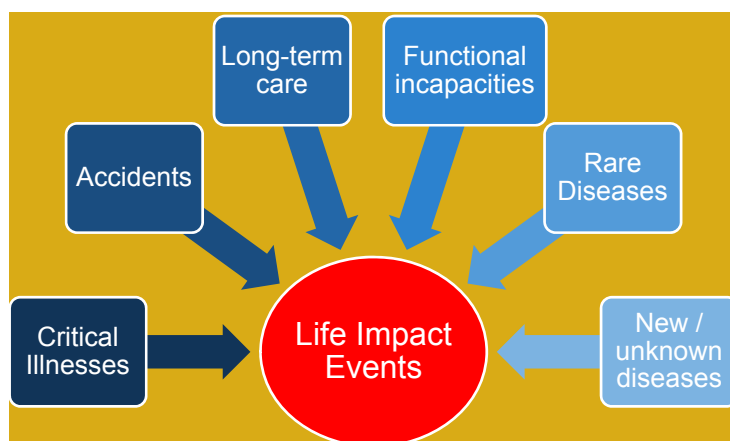
What is life without challenge?

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## List of demands – Easier said than done!



- Avoidance of excessive complexity
- Alignment of criteria to consumer needs
- Claims criteria - Easy to understand
- Decoupling from medical progress



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## Another CI product? – Main product features

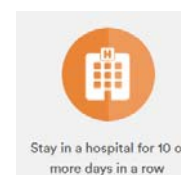
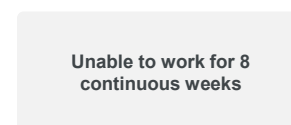
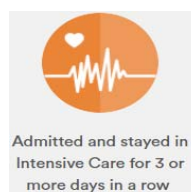
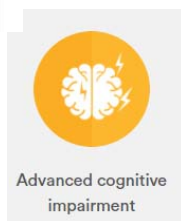
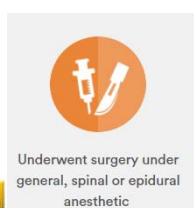
	Critical Illness		Life Impact
Insured event	Only specified diseases/surgeries	↔	Life impact events
Scope of cover	40-60+		Any critical disease
Claim criteria	40-60+ precise criteria (definitions)		Few selected definitions
Exclusions	Few systematic + 40-60+ specified in each definition		Only a few systematic ones
Impact of medical progress on pricing	Earlier diagnosis More claims		Uncertain, but likely attenuated
Comprehensible Agent/Consumer	Low		High



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## Claim criteria



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## How to objectify cognitive decline?

MINI-MENTAL STATE EXAMINATION (MMSE)		
Maximum score	Patient's score	Ask the patient, "Please ... (tell me) ..."
5	_____	<b>Orientation</b> What is the day, date, month, year, and season? Where are we: city, county, state, floor of hospital/clinic?
3	_____	<b>Registration</b> Repeat the names of 3 common objects that I say.
5	_____	<b>Attention and Calculation</b> Either subtract serial 7's from 100 or spell backwards the word "World."
3	_____	<b>Recall</b> Repeat the 3 names learned in "registration."
2	_____	<b>Language</b> Name a pencil and a watch. Repeat "No and's, if's, or but's."
1	_____	Follow this 3 step request: "Take a paper in your right hand, fold it in half, and put it on the floor."
3	_____	Read and follow this request: "Close your eyes." Write any sentence. Copy this figure:
1	_____	
1	_____	
1	_____	
30	_____	<b>Patient's total score</b>

Source: <https://clinicalgate.com/dementia/>

### Mini-Mental State Examination (MMSE)

- No specialized equipment or training
- Takes 15 minutes
- Severity and progression

Score	Interpretation
24 - 30	"Normal" range
20 - 23	Mild cognitive impairment or possible early-stage/mild Alzheimer's disease
10 - 19	Middle-stage/moderate Alzheimer's disease
0 - 9	Late-stage/severe Alzheimer's disease



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## Surgery ≠ Surgery

- Dilemma of Critical Illness
- Challenges
  - What is covered?
  - Future trends ?
- Trend to "scarless surgery"
  - Endoscopic surgery
  - Keyhole surgery
  - Minimal invasive
  - e.g. Endoscopic coronary artery bypass grafting



Source: <http://mmcts.org/tutorial/621>



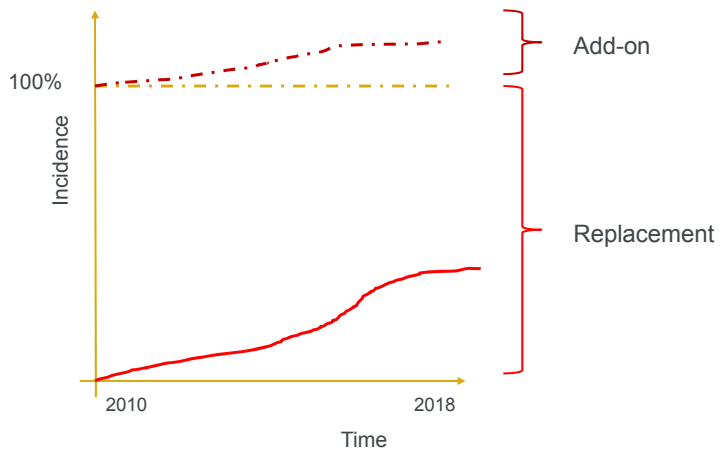
Underwent surgery under  
general, spinal or epidural  
anesthetic



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## Bypass surgeries – evolution vs incidence



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## Challenges in Underwriting

### Critical Illness

**Data situation:** Good – decades of experience

**Underwriting:** Medical, Medical, Medical

**UW-Manual:** Comprehensive but rigid

**Multimorbidity:** Only few overlaps

**Family history:** Prominent importance

### Life Impact

**Data situation:** no experience so far

**Underwriting:** Medical + Health Care System

**UW-Manual:** Not existing – CI? IP?

**Multimorbidity:** Additive feature – older applicants

**Family history:** Clearly reduced



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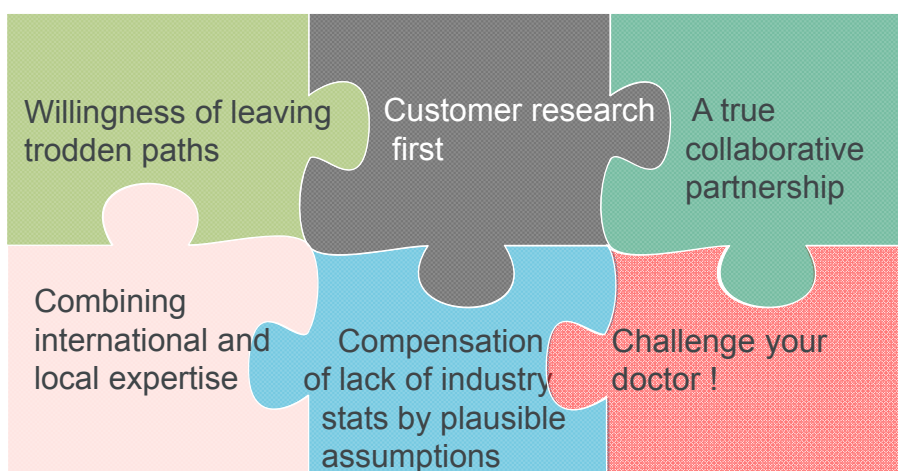


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## Conclusions

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## Putting the pieces of the puzzle together



Source: <http://alexschadenberg.blogspot.ch/>



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## Reinventing CI – An Asian Case Study



- Illness unrelated
- Not another CI modification
- Applicable in markets other than Asia



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## Questions

## Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

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