

Critical Illness trends

Society of Actuaries in Ireland
21 January 2016

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Agenda

- Consumer research:
 - Swiss Re European Insurance Report 2015
- Critical illness – a brief history
- Medical advances / future-proofing
- Illness trends
- Product development
- Horizon scanning

European Insurance Report

3rd Swiss Re European Insurance Report

- 2010, 2012, 2015

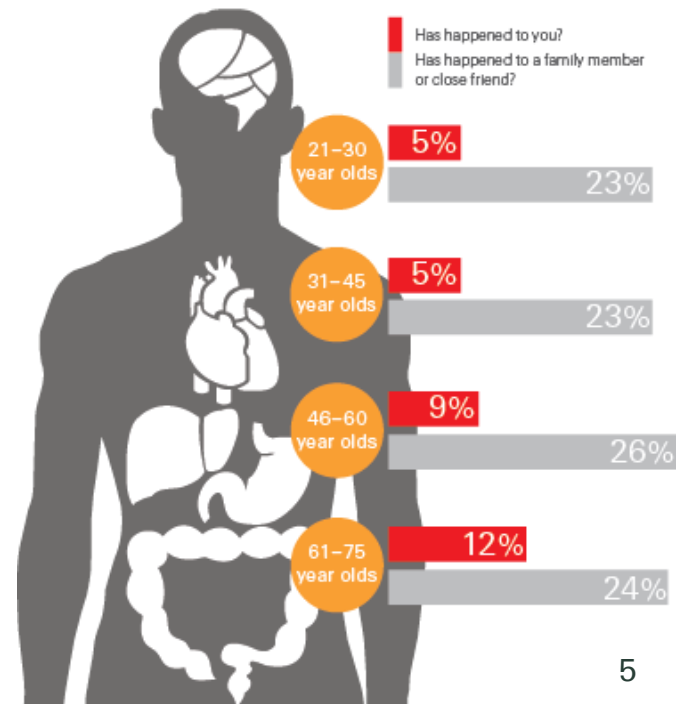


European Insurance Report 2015

- Focus on health and disability
- Over 13,000 consumers, or potential consumers
- Online survey with 40 questions (and sub questions)
- 3 regions
 - Continental Europe – 10 countries
 - Middle East – 1 country
 - United Kingdom & Ireland
- Ages 21 to 75, with a slight weighting at older ages to better represent this group

Health care advances*

Have you or a member of your family or close friend contracted a serious illness?



Who is responsible?

- In 2012 clear belief that the state would be less responsible to cover certain health and social costs in 10 years (increased individual responsibility)
- Yet in 2015 it is clear the "current" individual responsibility is no different to the then "current" individual responsibility of 2012
- However who should be responsible in 10 years time (2015 survey) shows an almost identical understanding of the lack of sustainability of the state to continue in the same way, so there is still a clear belief as to the future decrease of state support,
- Yet this concern also seems to "roll forward" in that the decrease will be some time in the future, yet the answer "today", be that today in 2012, 2015 or likely in the future seems to continue expecting continued levels of state support

Who is responsible?

Irish respondents

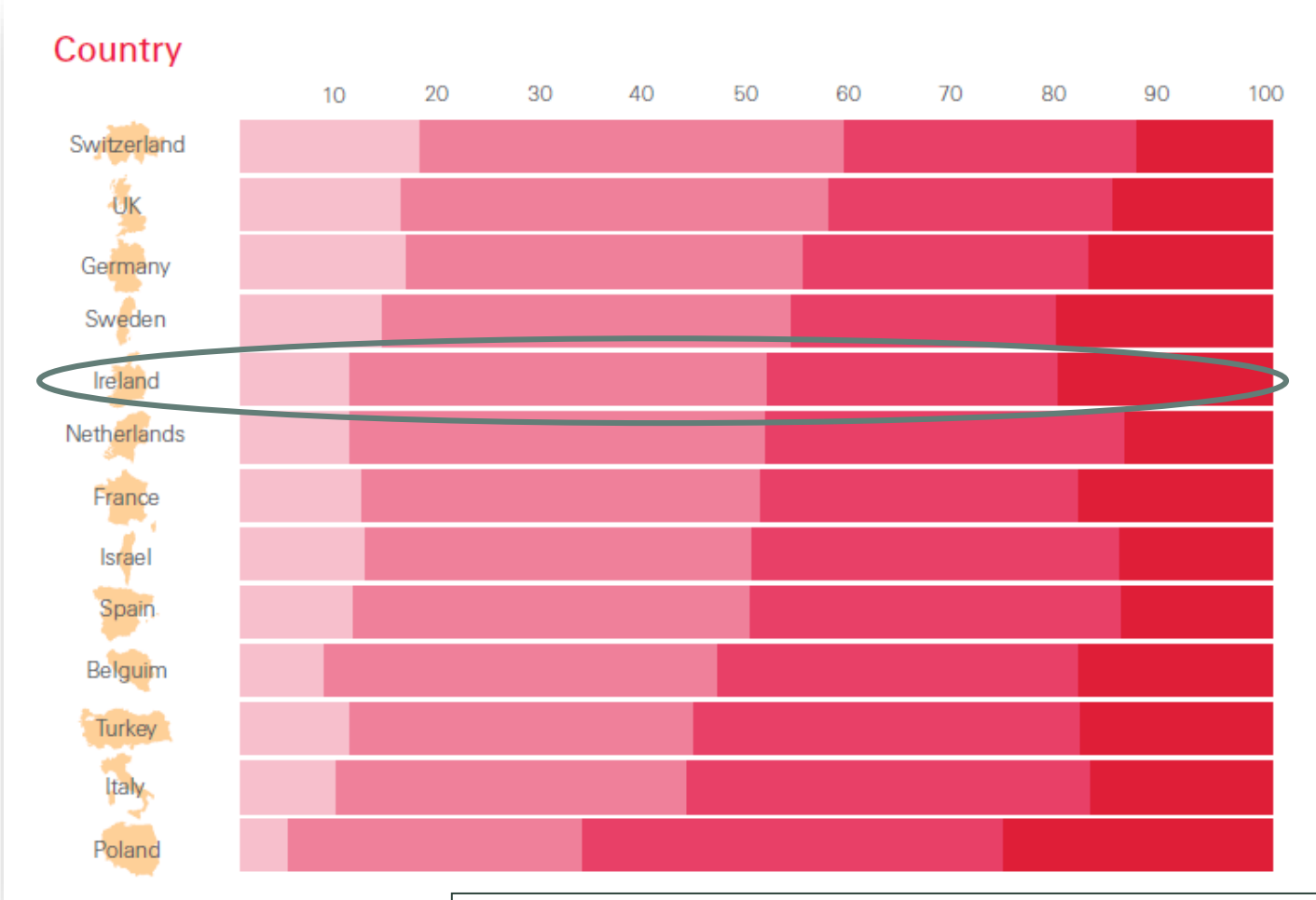
Disability income	Currently %	In 10 years %
Government	63	42
Employer	19	9
Self	14	41
Don't know	4	8

Convalescence/ rehabilitation	Currently %	In 10 years %
Government	73	41
Employer	4	3
Self	17	46
Don't know	7	11

General medical care	Currently %	In 10 years %
Government	66	40
Employer	6	4
Self	26	49
Don't know	1	7

Non-emergency hospital care	Currently %	In 10 years %
Government	38	26
Employer	6	4
Self	52	61
Don't know	4	9

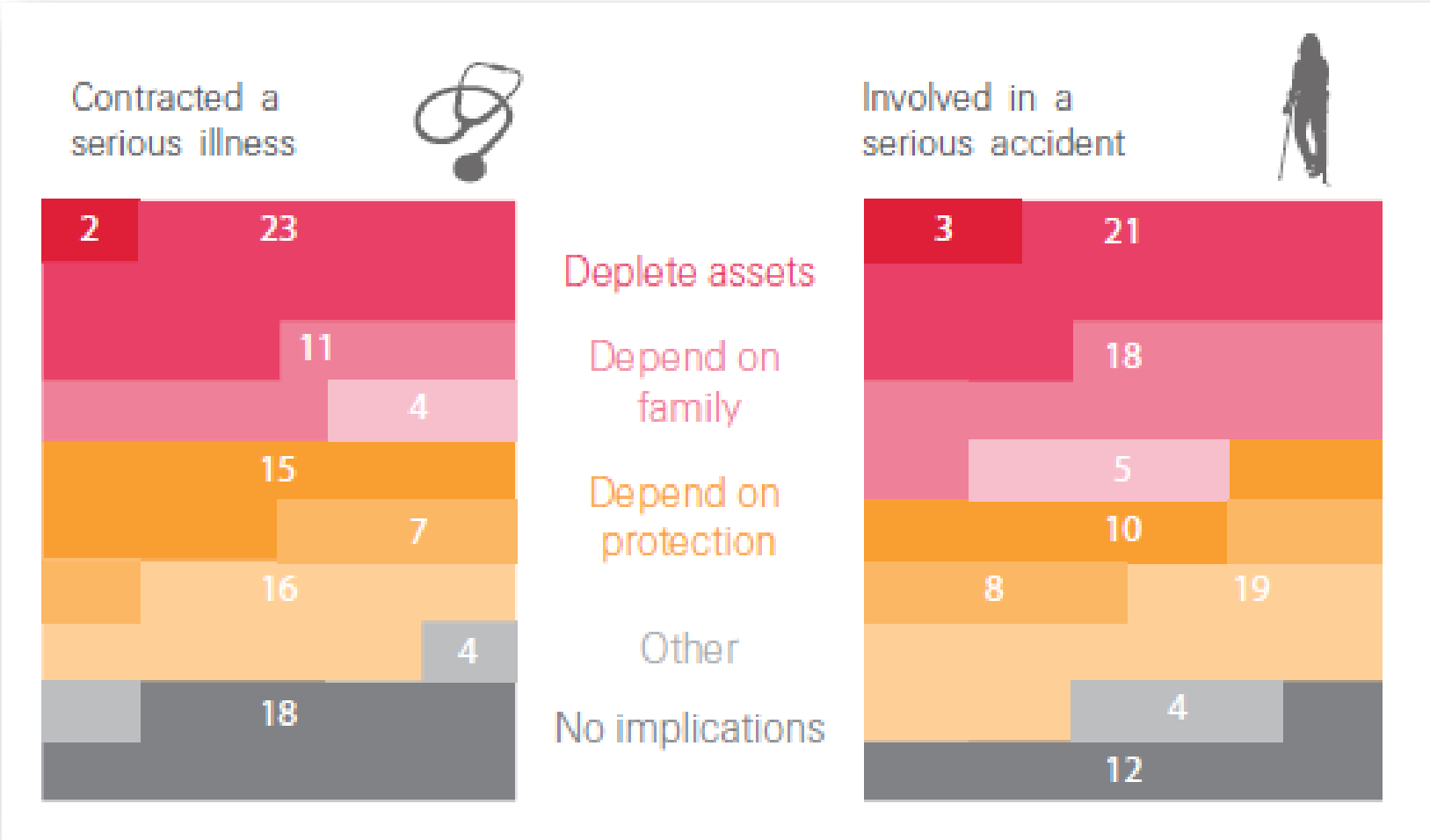
How vulnerable do you feel?



Swiss Re European Insurance Report, 2015

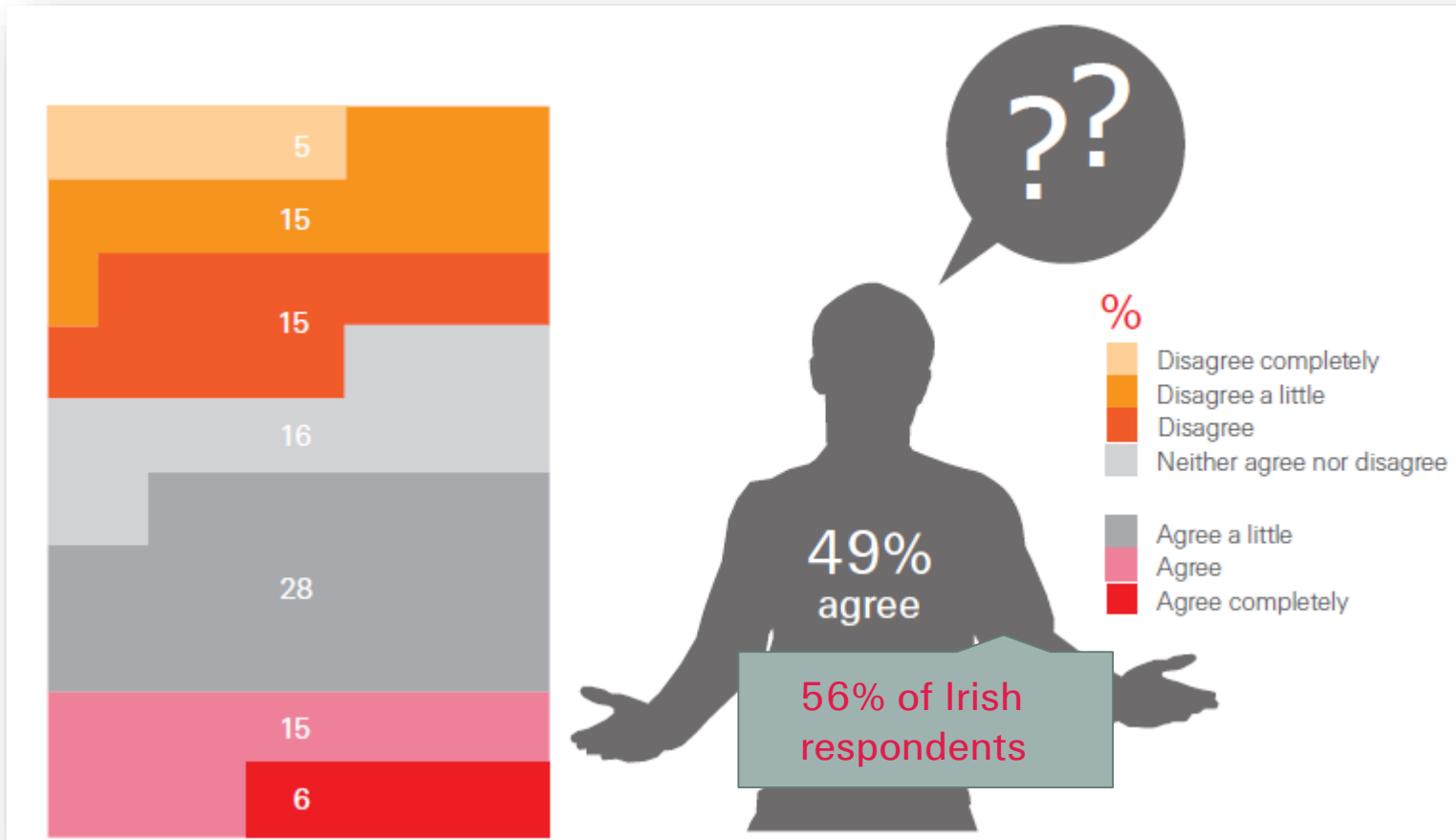


How did you pay for any financial implications your health event may have had?



Complexity as a barrier : Are complex products a reason consumers do not buy insurance?

- Do you find the details of financial products hard to understand?



Clear difference in brand importance for insurance products as consumers age, but not for other products

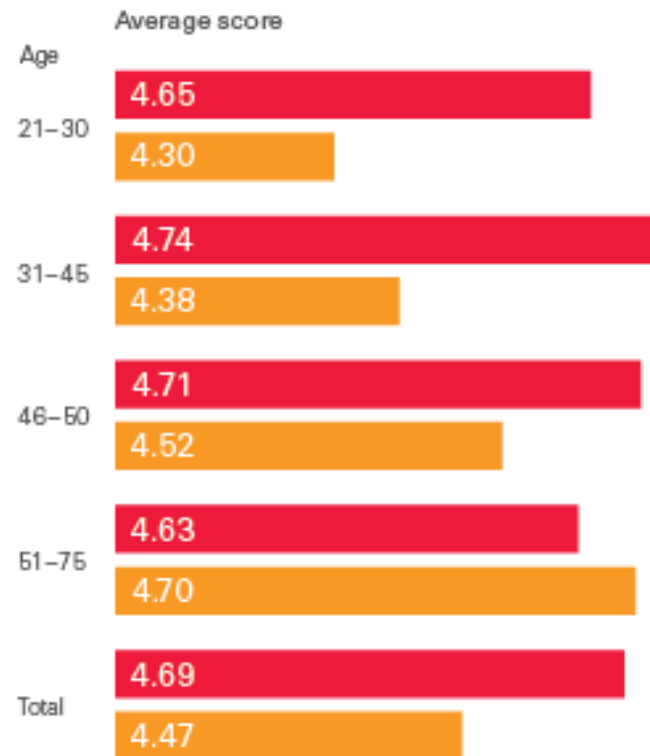
How important is it that you buy a particular brand?

Scale 1–7
1 Not important at all
7 Extremely important

■ All products
■ Insurance products



Males are more likely to select brand rather than read through policy wording

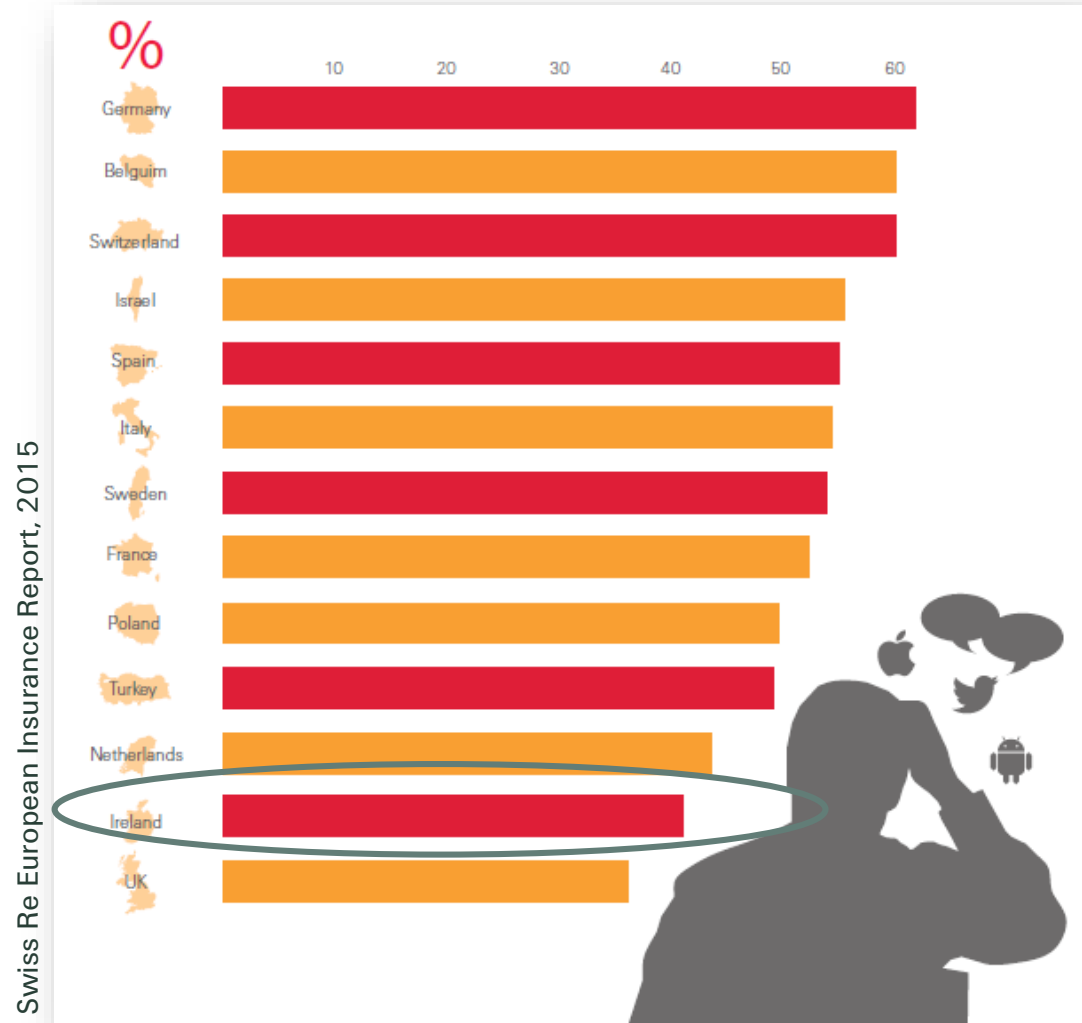


Source: European Insurance Report 2016, Swiss Re

Distribution channel as a barrier

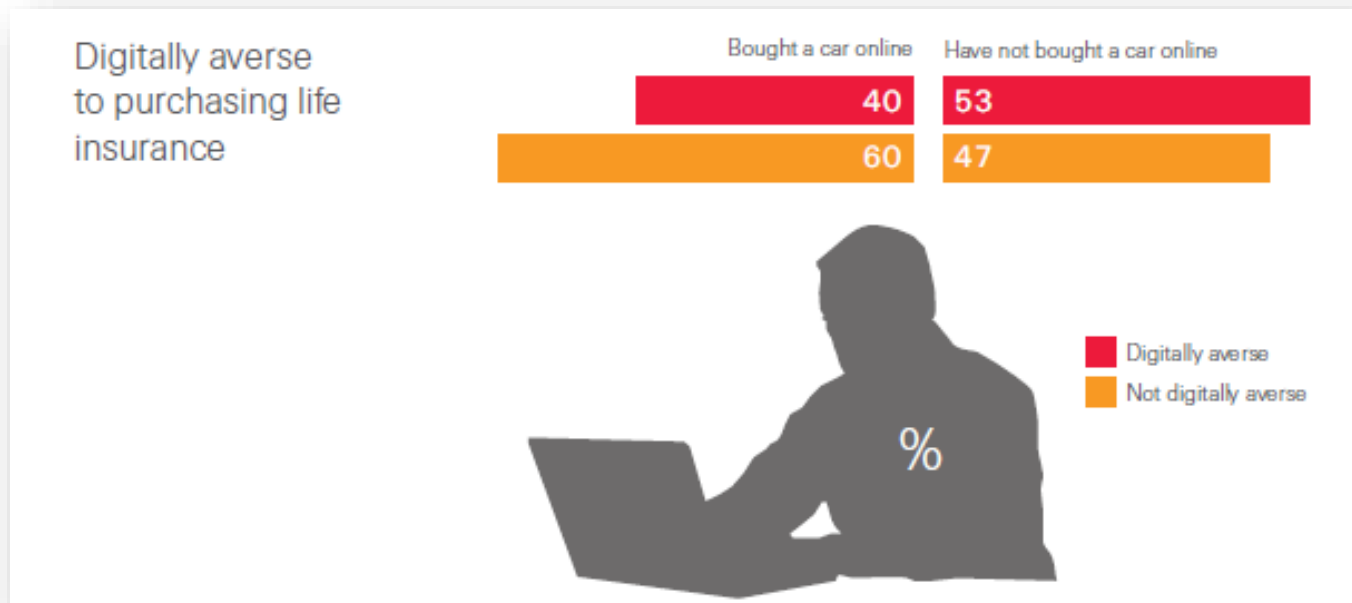
- Digital aversion in general, as a % of consumers, is different for different countries
- UK and Ireland least digitally adverse

Adverse to purchasing insurance digitally



Distribution channel as a barrier

- Different digital behaviour or previous experiences materially changes risk aversion to buying insurance



Swiss Re European Insurance Report, 2015

Willingness to share data (UK)

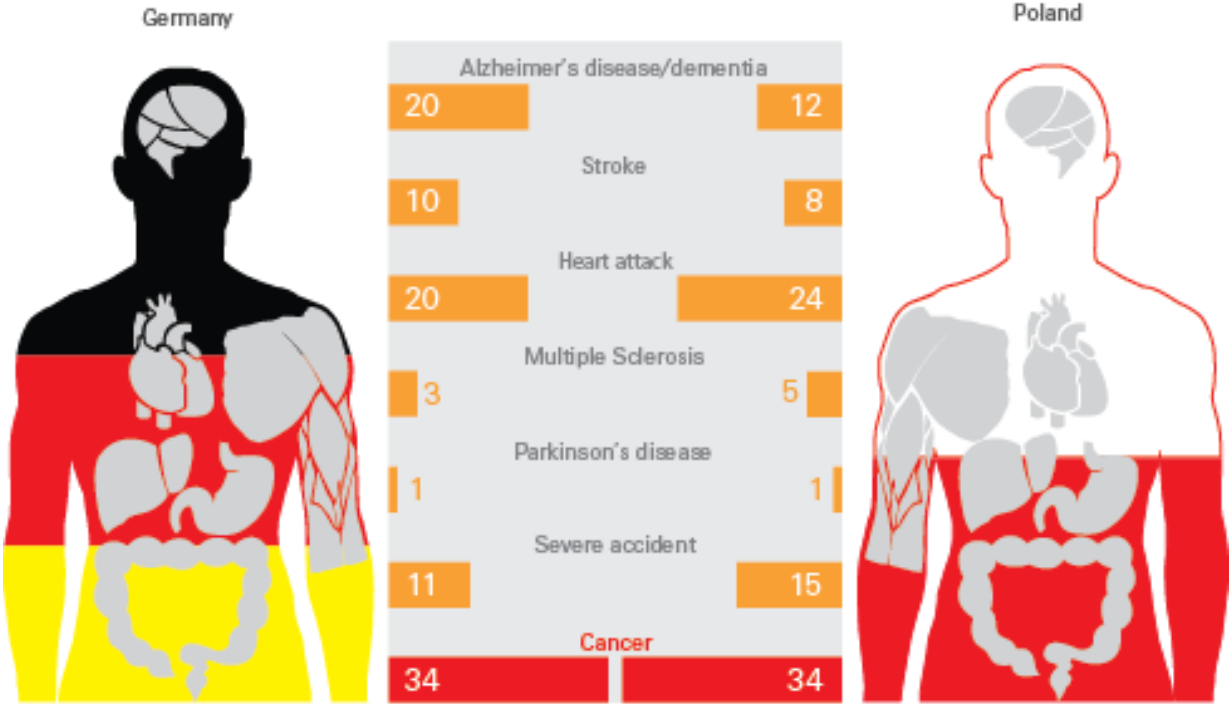


Source: European Insurance Report 2015, Swiss Re

Health concerns

Top 3 concerns

Over the course of a lifetime, a substantial proportion of people may suffer a severe health event. These are the conditions causing the most concern.



Source: European Insurance Report 2015, Swiss Re

UK & Ireland CI – a brief history

Dread Disease Cover

Living insurance

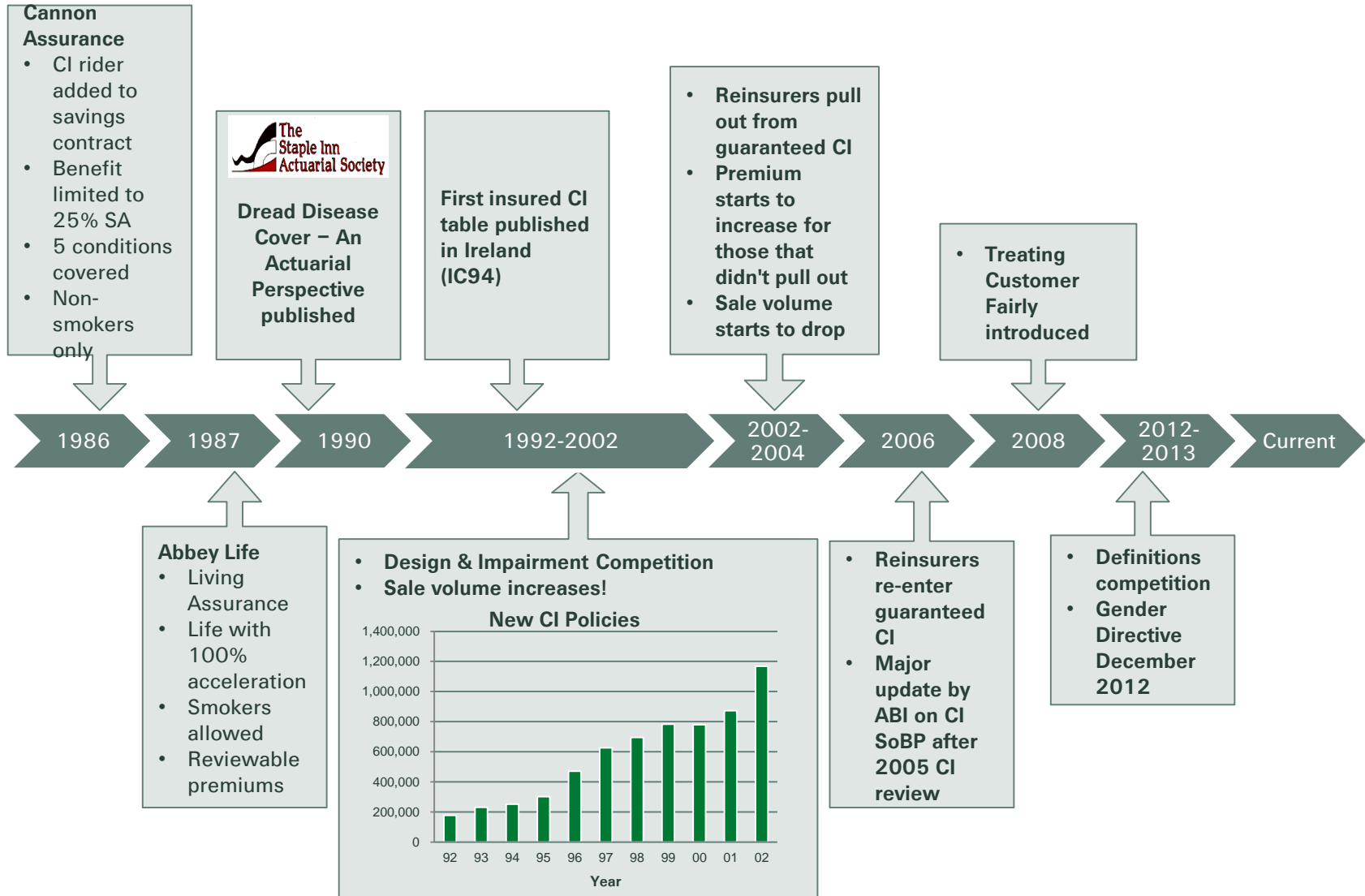
Critical illness cover

Serious illness cover

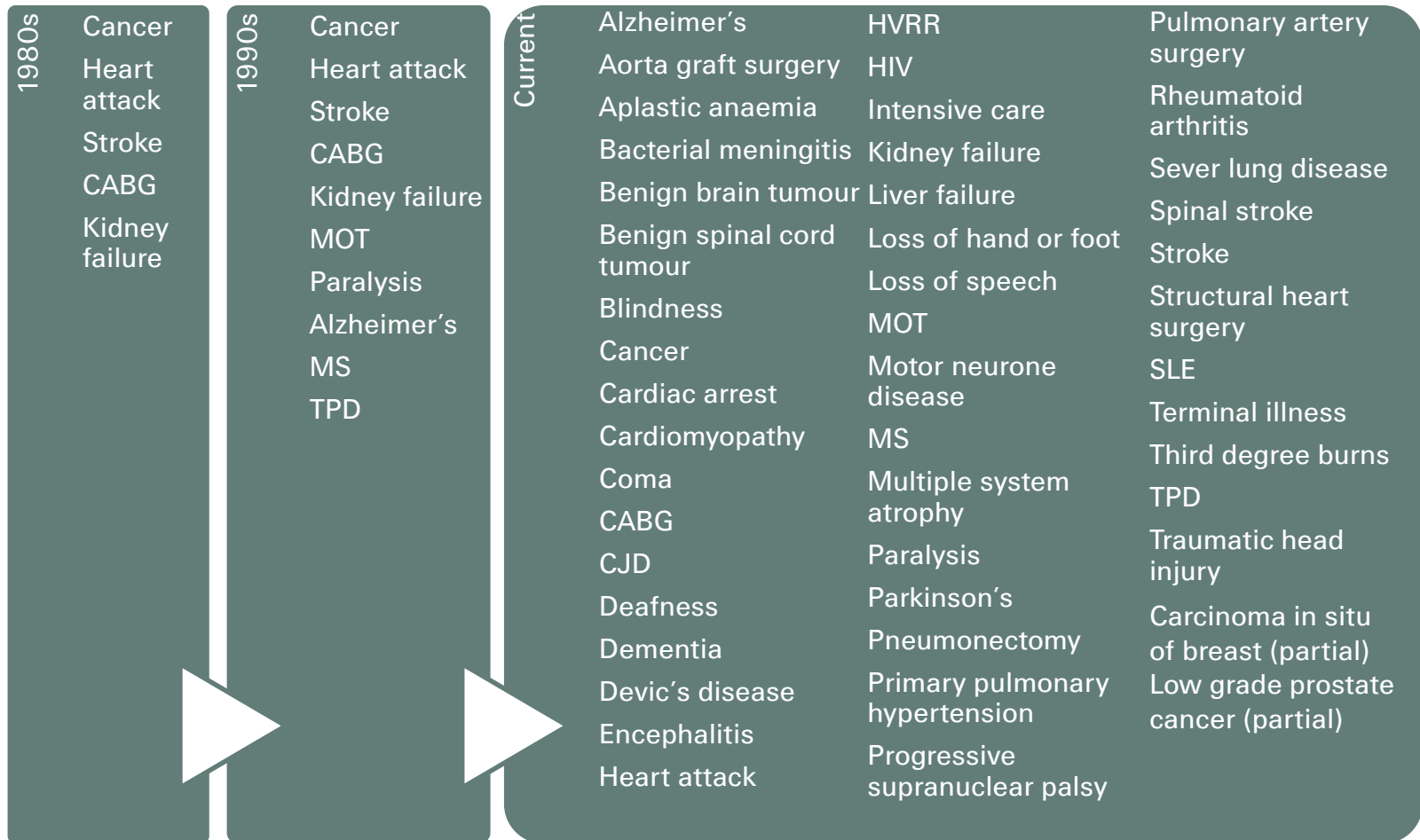
Specified illness cover

Trauma cover

Critical illness market developments

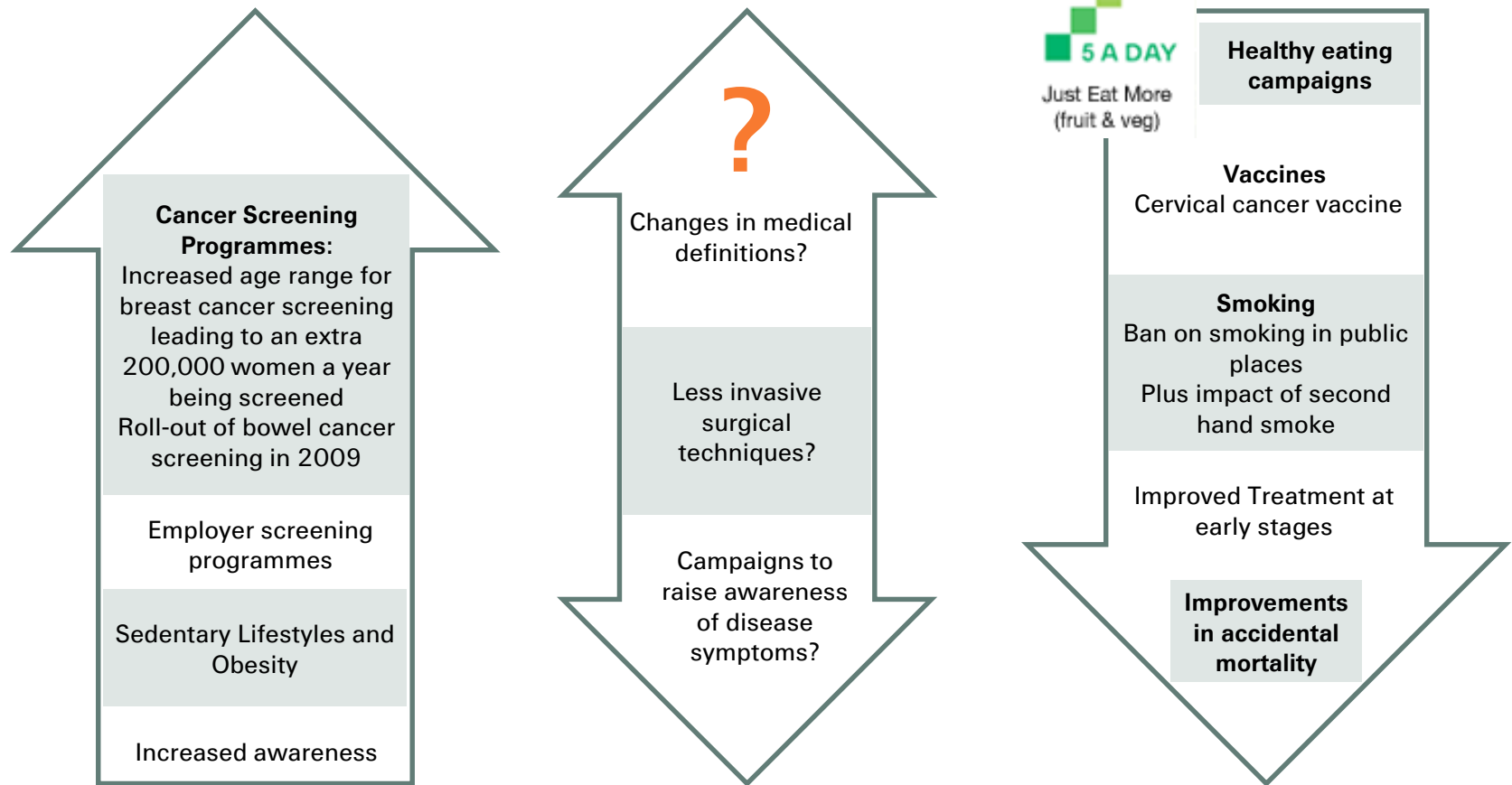


Conditions covered over the years



Medical advances and future-proofing

Impact of medical advances on CI: Counteracting measures



$$CI \text{ Incidence} = f \{ \text{Illness detection, health, lifestyle, illness definition} \}$$

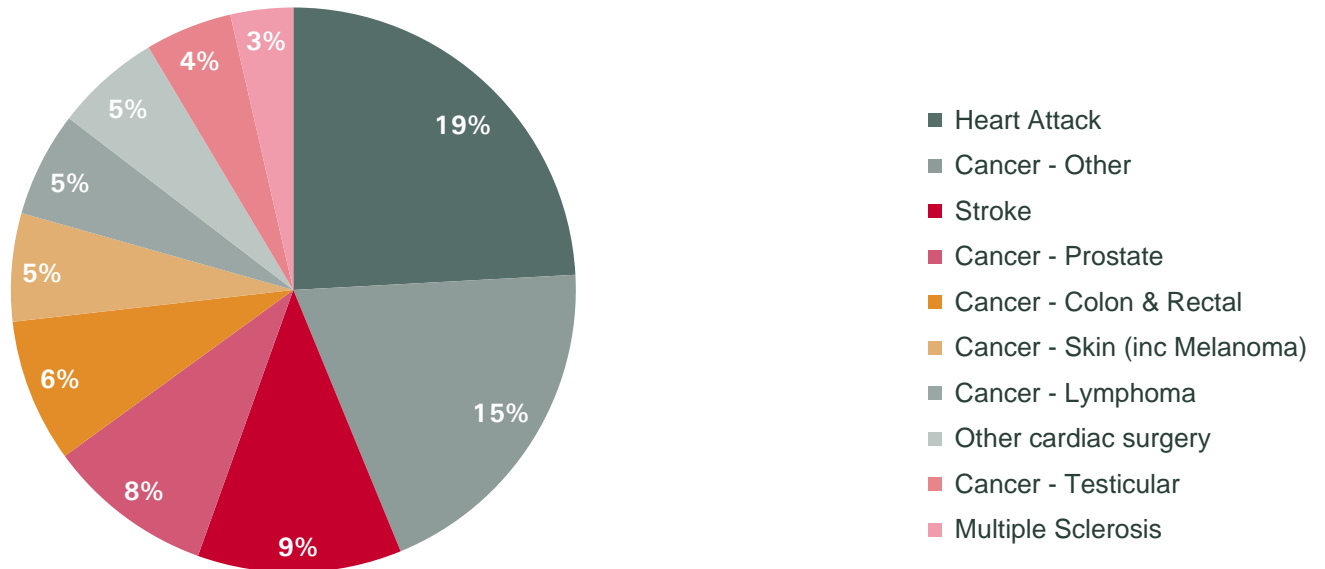
Future proofing of illness definitions

Illness	Future proofing in ABI Definition	Implications
Cancer	Exclusion of <ul style="list-style-type: none"> • pre-malignant, non invasive and in-situ cancers • borderline malignancy or low malignant potential • low grade prostate cancers (Gleason score of 7 or above or clinical classification of T2bNOM0) • low severity chronic lymphocytic leukaemia (below Binet Stage A) • non-melanoma skin cancers that are not invasive 	<p>The exclusions remove very low severity cancers that may become very prevalent due to screening and ones that are not considered severe enough to warrant a full payout.</p> <p>In-situ cancers are primarily applicable to breast cancer.</p>
Heart Attack	<ul style="list-style-type: none"> • Specification of required levels of rise in cardiac enzymes (Troponin T > 0.2 ng/ml, AccuTnl > 0.5 ng/ml) • Exclusion of acute coronary syndromes or angina without myocardial infarction 	<p>The Troponin T limits have been revised to be more appropriate for high sensitivity troponin tests.</p> <p>Many companies have removed troponin limits from their definition; expect an increase in heart attack claims paid in the short term.</p>

Illness trends

Males

Top 10 Causes of Claims - Males

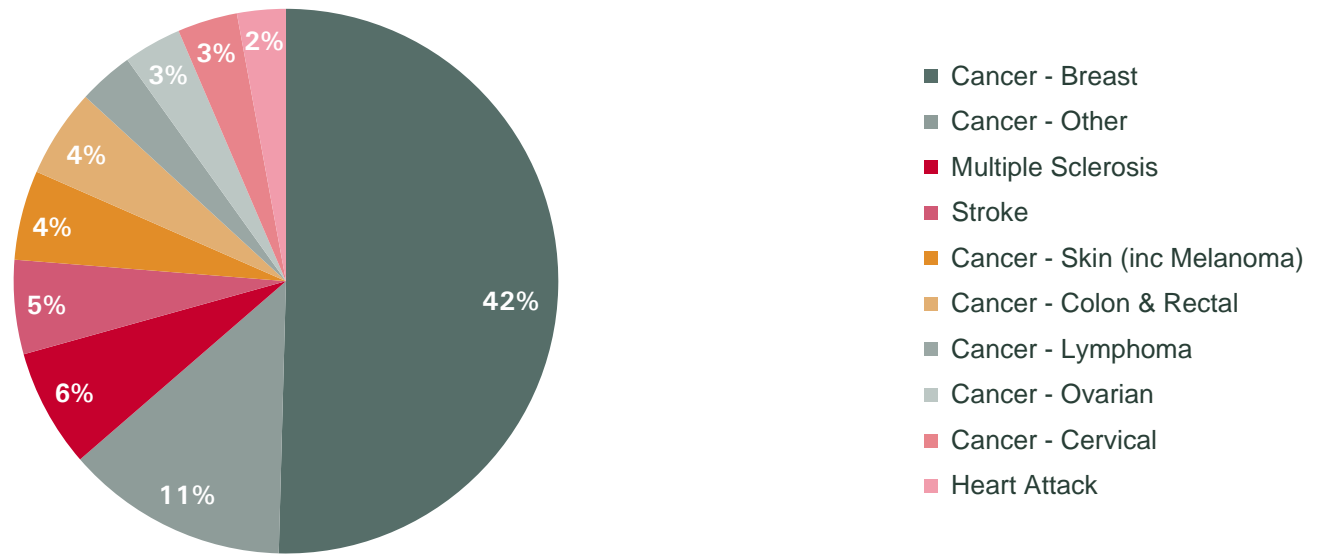


Source: Claims Watch

- Heart attack and Cancer most significant drivers
- Prostate Cancer more of a feature in older ages
- Testicular cancer and melanoma impacting younger ages

Females

Top 10 Causes of Claims - Females



Source: Claims Watch

- Breast Cancer a key driver for female claims
- Melanoma and cervical cancer relatively high – a feature of the younger age profile

Illness trends

- We review illness trends biennially:
 - using General Practice Research Database (GPRD) and Hospital Episode Statistics (HES),
 - trends calculated over a 10 year period by illness, age, gender, socio-economic group
- Deep dive into cancer in 2015
 - A Swiss Re cross-functional team analysed potential changes in incidence rates over the next 20 years
 - Results based on external data and research, sense checked against a survey of external experts

Expert panel

Diagnosis rates in 2035 as % of diagnosis rates now								
	Lung	Breast	CRC	Prostate	Brain	Leukaemia	Skin	Pancreatic
Expert 1	↓	↓↑	↓↑	↓↑	Questionnaire not answered			
Expert 2	↔	↔	↓	↓↑	↔	↓	↔	↔
Expert 3	M ↓ F ↑	Invasive ↓ In-situ ↑	↓	Questionnaire not answered	↔	↔	↑	Questionnaire not answered
Expert 4	↓	↑	↑	↑	↑	↓	↑	↑
Expert 5	↑	↑	↑	Questionnaire not answered				

 Increase
  Decrease
  Stable

Illness specific trends

Illness	Key Drivers	Expectation
Breast Cancer	<ul style="list-style-type: none"> • Alcohol, smoking • Genetic • Hormone Replacement Therapy • Obesity 	Slight deterioration
Brain Cancer	<ul style="list-style-type: none"> • Medical radiation • Family history / Genetics 	Stable
Leukaemia	<ul style="list-style-type: none"> • Smoking • Radiation • Chemical exposure (benzene) • Various other factors 	Slight improvement
Lung Cancer	<ul style="list-style-type: none"> • Smoking • Radon gas • Diet & obesity • Genetic 	Slight improvement

Illness specific trends

Illness	Key Drivers	Expectation
Colorectal Cancer	<ul style="list-style-type: none"> • Obesity • Diet (Red & processed meat) • Physical activity • Alcohol, smoking 	Moderate improvement
Pancreatic Cancer	<ul style="list-style-type: none"> • Smoking • Obesity • Diet (Processed meat) 	Moderate improvement
Prostate Cancer	<ul style="list-style-type: none"> • Genetic • Endogenous hormones • PSA testing* • Obesity 	Moderate improvement
Skin Cancer	<ul style="list-style-type: none"> • UVA and UVB exposure (sun / sunbeds) • Family history 	Moderate improvement

**potentially different in Ireland, in particular due to prevalence of private medical insurance*

Illness specific trends

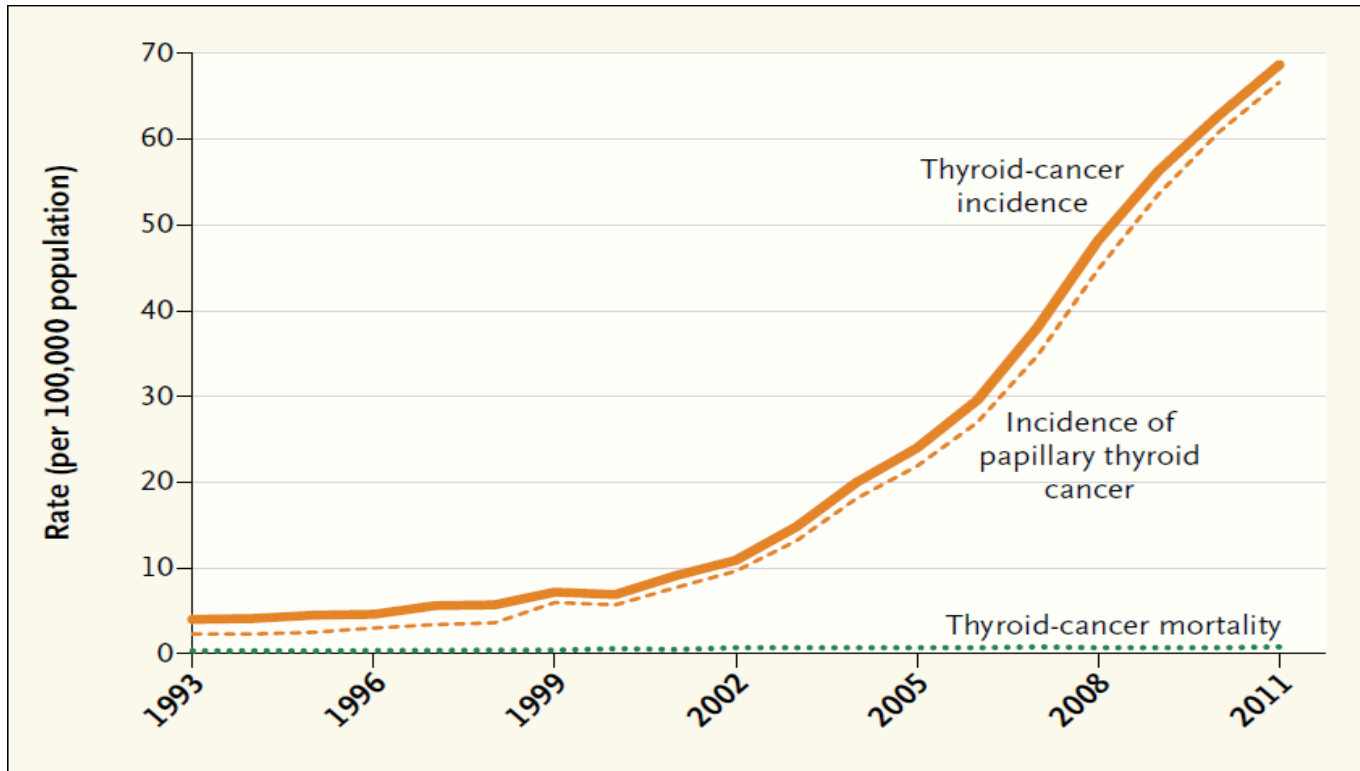
Illness	Key Drivers	Expectation
Heart Attack	<ul style="list-style-type: none">• High Sensitivity Troponins• Obesity• Government health check programmes• Statins	Slight improvement
Non CI Deaths	<ul style="list-style-type: none">• Mortality improvement• Smoking• Alcohol / Accidents	Slight improvement
Other illnesses	<ul style="list-style-type: none">• Stroke: Preventative treatments• MS: better diagnostics	Moderate improvement

Conclusions

- Slight deteriorating trend overall
- Males assumption benefiting from slight improving trend from heart attack and other cardiovascular diseases
- Female assumption dominated by deteriorating trend for breast cancer

Potential for over diagnosis

Thyroid cancer in South Korea

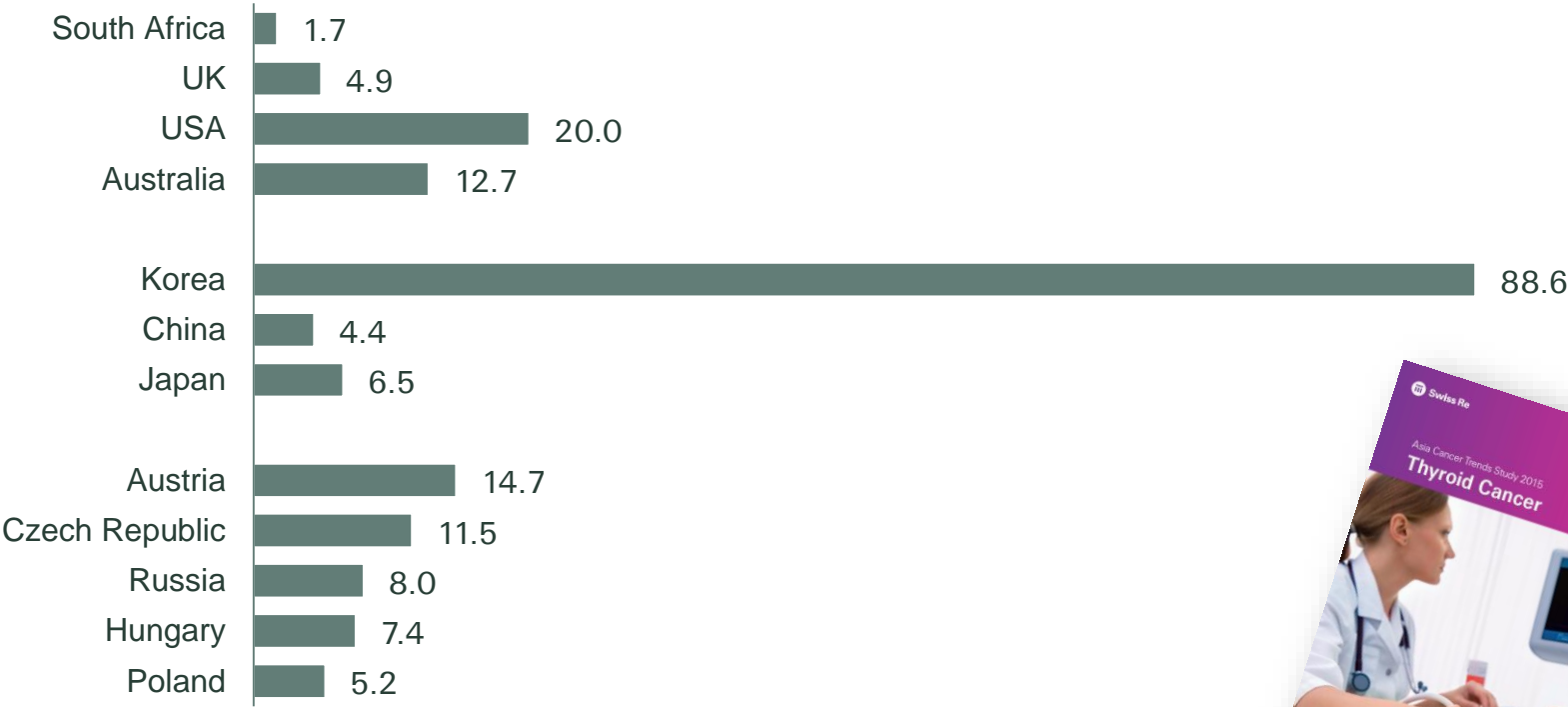


Thyroid-Cancer Incidence and Related Mortality in South Korea, 1993–2011.

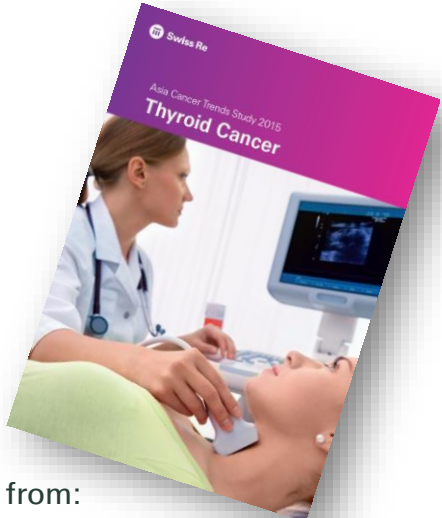
Data on incidence are from the Cancer Incidence Database, Korean Central Cancer Registry; data on mortality are from the Cause of Death Database, Statistics Korea. All data are age-adjusted to the South Korean standard population.

Thyroid cancer rates – an international comparison

Thyroid cancer in females: age standardised incidence per 100,000



Source: Globocan



Download from:
www.swissre.com

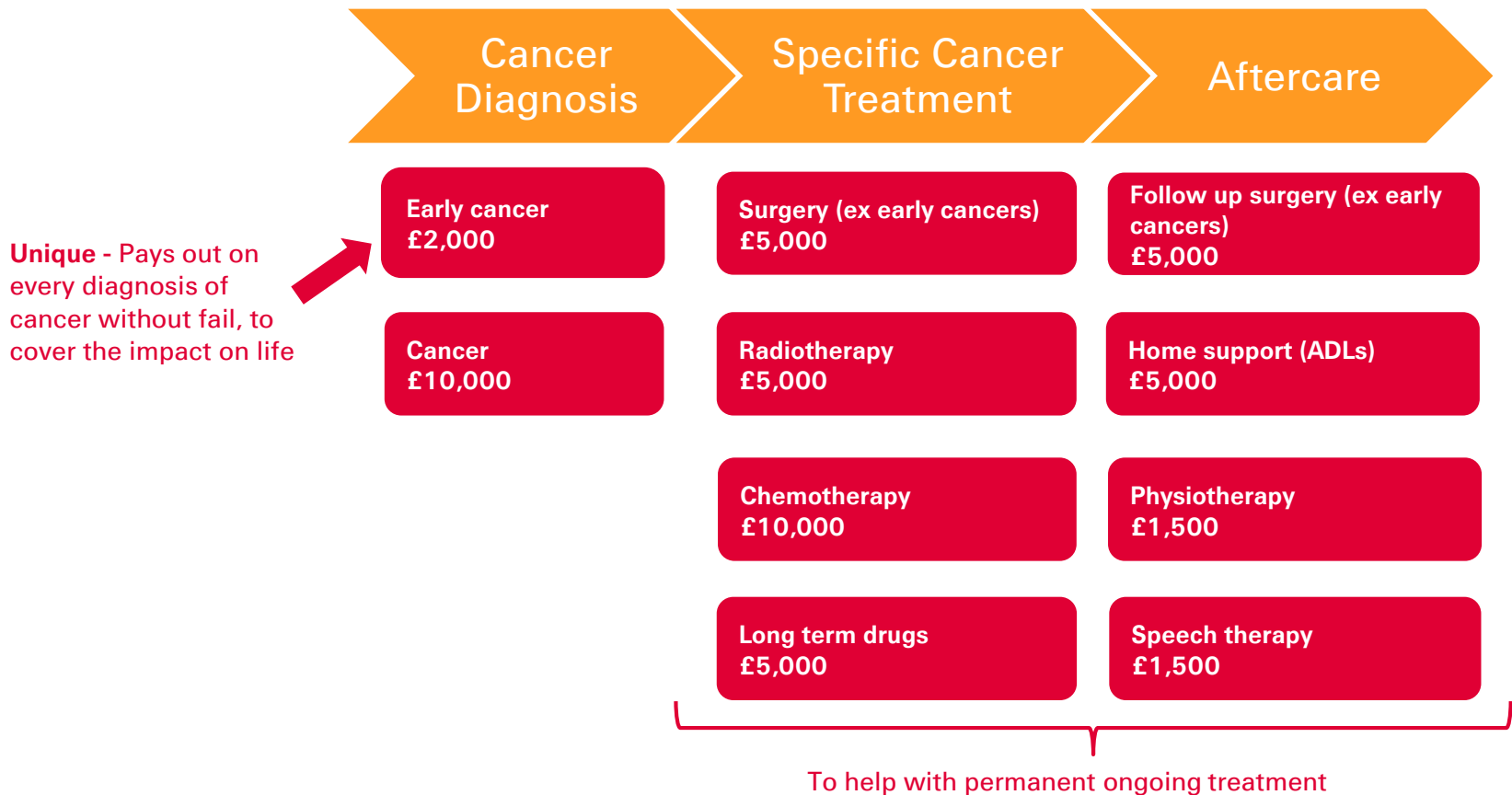
Product development

- Cancer Plan
- Supplementary Health Plan
- Severity Plan
- Accident & Illness Flexor

Cancer plan

Aims:

- To cover the cancer journey and not just pay on diagnosis
- To pay out in every instance of cancer
- For it to be significantly cheaper than stand alone CI



Cancer plan

Diagnosis only variation

Benefits:

- Simple product concept, pays on diagnosis only
- Pays out something in every instance of cancer
- Significantly cheaper than stand alone CI
- Options to vary tiering and levels of payout

One Product two levels of Payment

Payment upon diagnosis of Early Stage Cancer £5,000

These cancers are nearly always curable and often treated with removal. An example would be an early stage skin cancer which is removed as a routine outpatient appointment.

Payment upon diagnosis of malignant Cancer £25,000

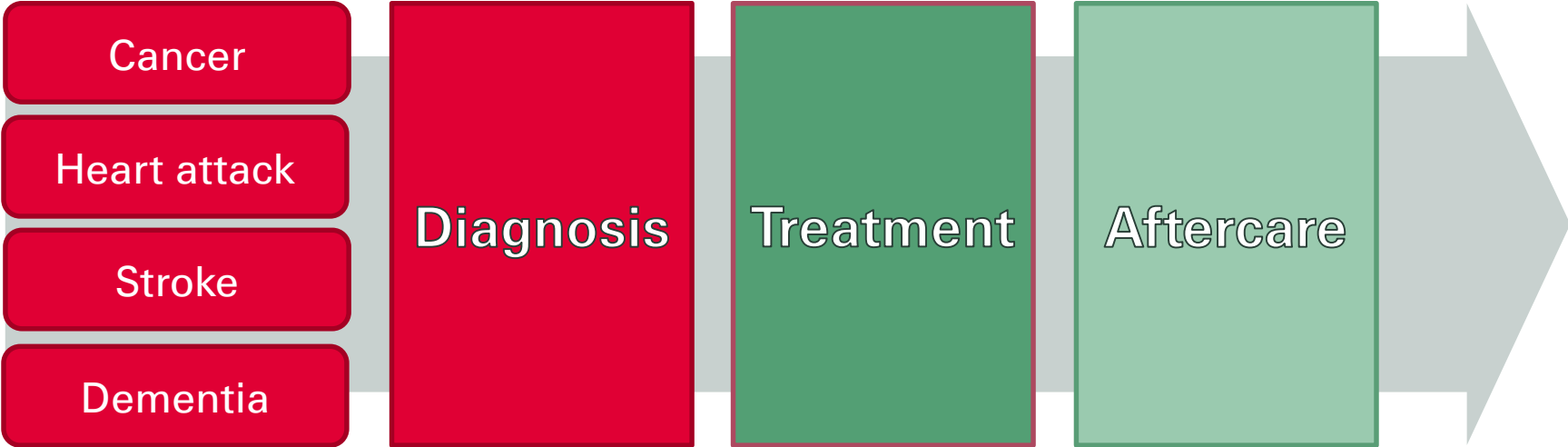
These cancers usually require more severe treatment such as radiotherapy or chemotherapy

Considerations:

- Simplicity vs ability to tailor cover

Supplementary Health Plan

▶ Providing financial support during patient's pathway to health



Severity Plan

Vitality Life

	Primary	Comprehensive
Number of conditions covered	102	166
Severity level A – 100% benefit	✓	✓
Severity level B – 75% benefit	✓	✓
Severity level C – 50% benefit	✓	✓
Severity level D – 25% benefit	✓	✓
Severity level E – 15% benefit	X	✓
Severity level F – 10% benefit	X	✓
Severity level G – 5% benefit	X	✓

Accident & Illness Flexor

Attracts younger generation

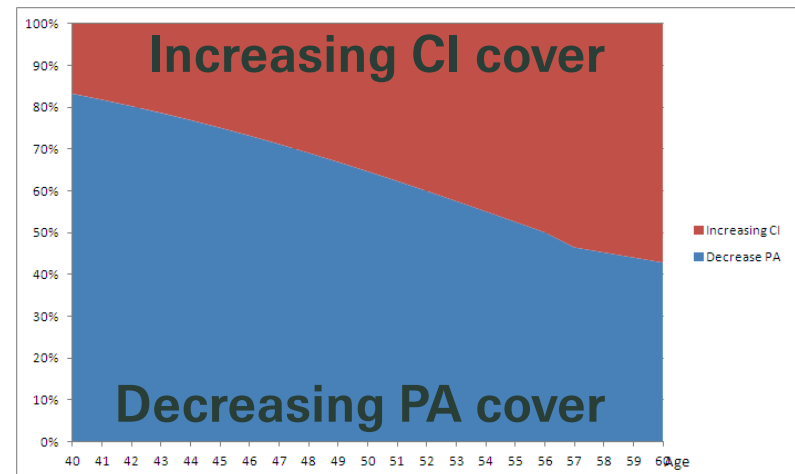
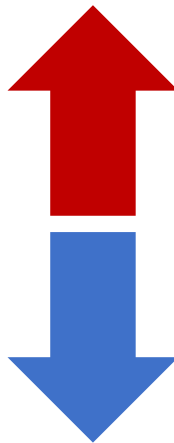
Accidental death risk is more appealing to the younger lives

Reduces anti-selection

Minimal underwriting – easy to sell

Adapts to changing need

The probability of having a CI increases with age and so will sum assured



Horizon scanning for new products

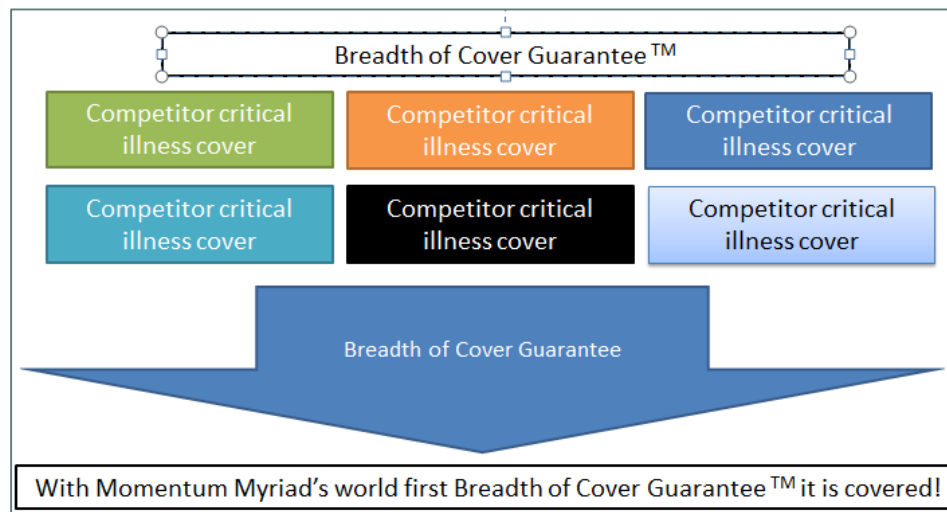
- Breadth of Cover Guarantee: South Africa
- Longevity Protector: South Africa
- Multi-generational plans: UK/Singapore
- Inheritable cancer cover: Hong Kong
- Multipay-bucket CI: Hong Kong

Critical illness “Breadth of Cover Guarantee™”

Momentum Myriad South Africa



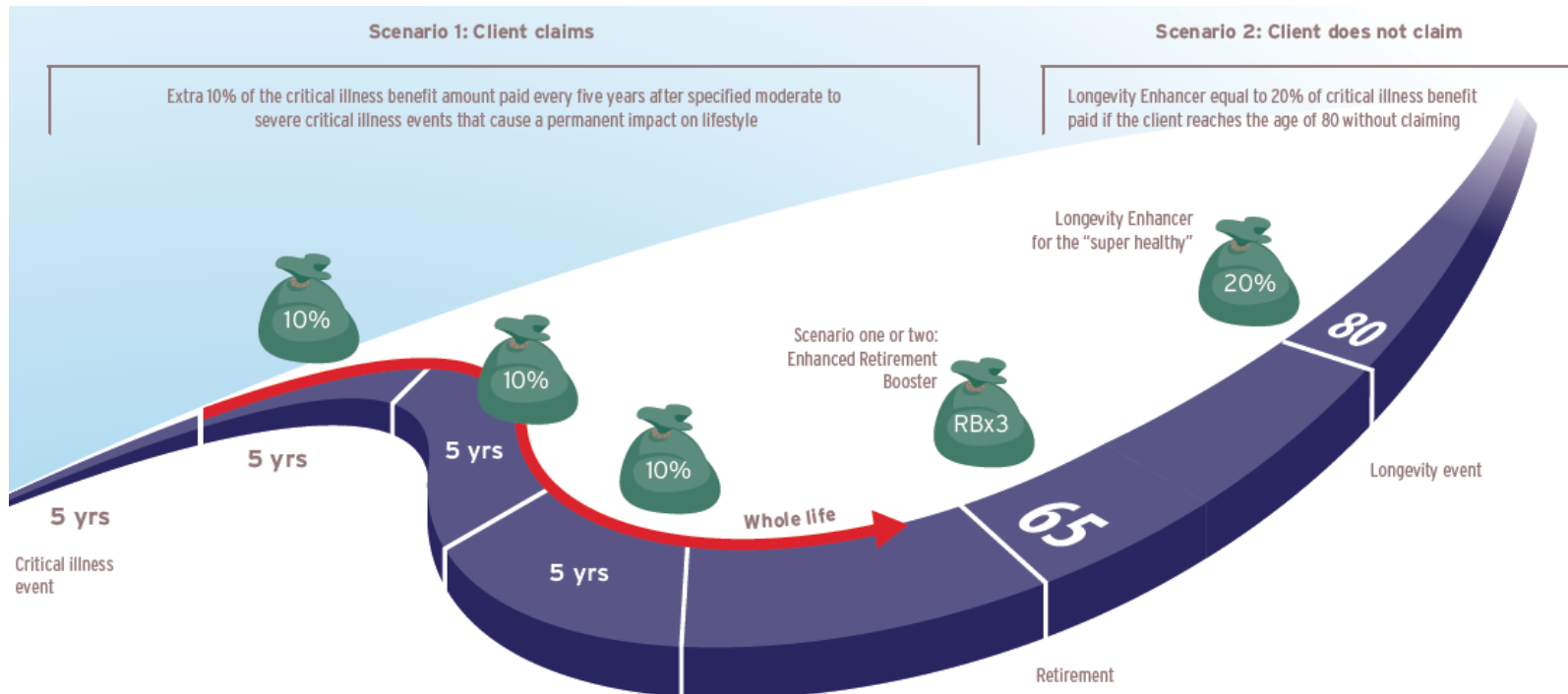
- Guarantee to match CI event timing and payout (severity) of all competitors actively selling the cover in the SA market
- Up to a maximum payout of 20% of the sum assured
- E.g. if the competitor covers an event at a 5% pay-out level, we will also make a 5% pay-out; but if the event is covered at say 50% under the competitor benefit, we will only make a maximum of 20% pay-out.



CI "Longevity Protector" Momentum Myriad South Africa



- The risk of outliving your capital...
- Additional booster for the **long-term survivors of CI** and for **people who don't claim** under a CI condition before age 80




Trend alert: multi-generational plans?

Singapore & UK examples

Wealth Accumulation

FAMILY3

A plan that benefits generations. A gift that spans lifetimes.



We understand that your family is most important to you. And you want to be able to contribute to their wellbeing, now and in the future.

With Family3, Great Eastern Life offers a solution that enables you to continue being a part of your loved ones' journey to a great life, for generations to come.


One plan, three generations of beneficiaries

Life insurance provides for the future of our loved ones by enabling us to leave a legacy of love. Family3 goes a step further with features that benefit you as well as your future generations.

This regular premium whole life plan has a premium payment period as short as 10 years, with benefits that can last for 3 generations. To illustrate, assume that you purchase this plan to cover the life of your child. While your child enjoys lifetime protection against death, terminal illness and presumptive total and permanent disability¹, you receive annual cash benefits. When your child turns 22, you can transfer the ownership of the policy to your child. Thereafter, the plan will continue to pay annual cash benefits to your child, and ultimately pay the projected death benefit to your grandchild.

You, your children and grandchildren – three generations of beneficiaries in one simple plan.

greateasternlife.com




WPA

wpa.org.uk

Across the generations

Multi-Family Healthcare Plan

Policy Summary | Effective from 1 July 2014

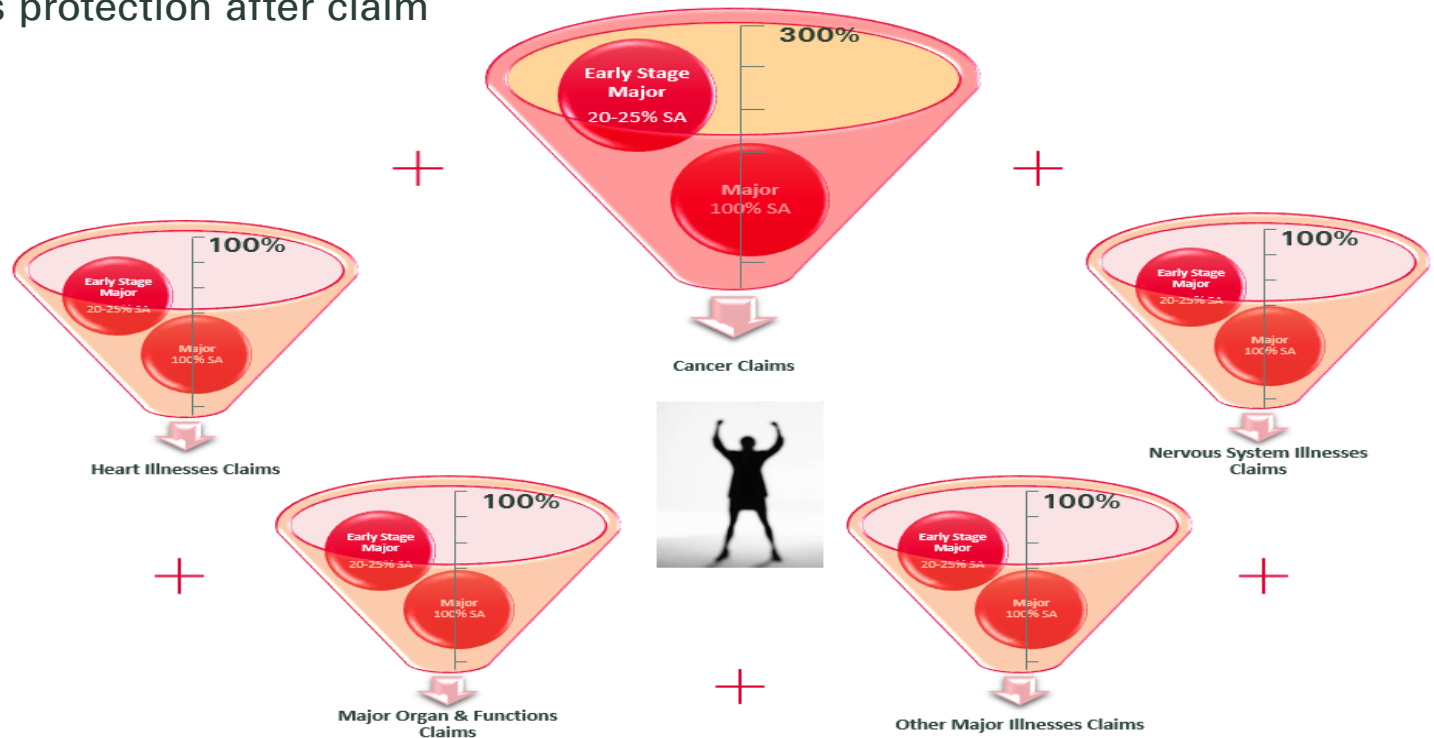
An inheritable solution for the “sandwich generation”



Multipay-Bucket CI Hong Kong

*PRU myhealth
crisis multi-care*

- Multiple claims
- Staged protection
- 300% cancer protection
- Continuous protection after claim



Questions?



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