



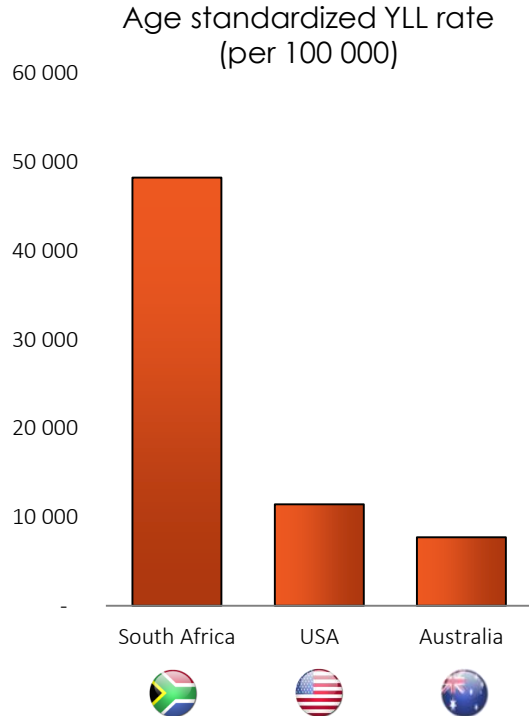
# Thriving through shared-value

**Andrew Rayner**

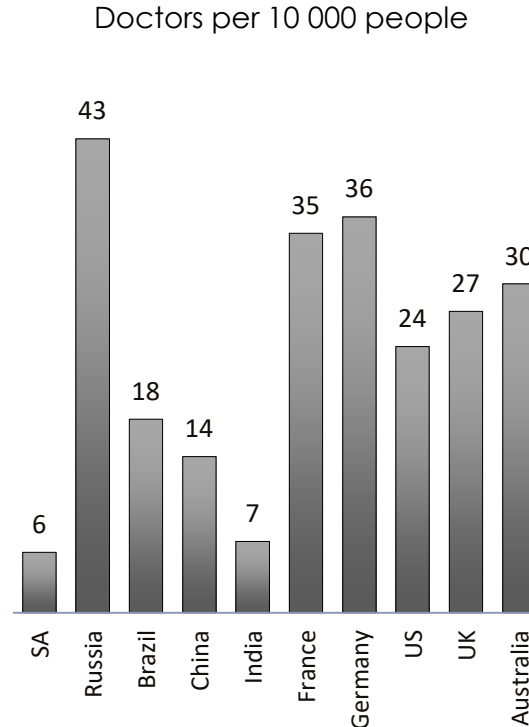
**Discovery Limited**

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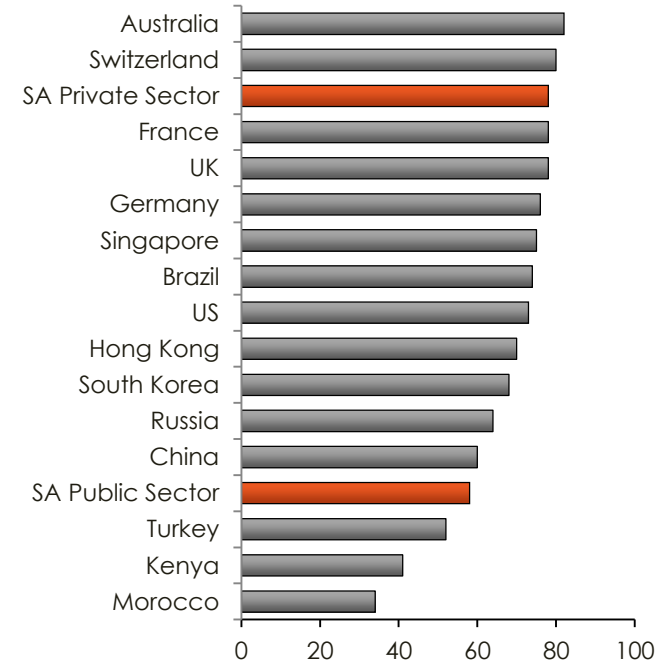
## High burden of disease



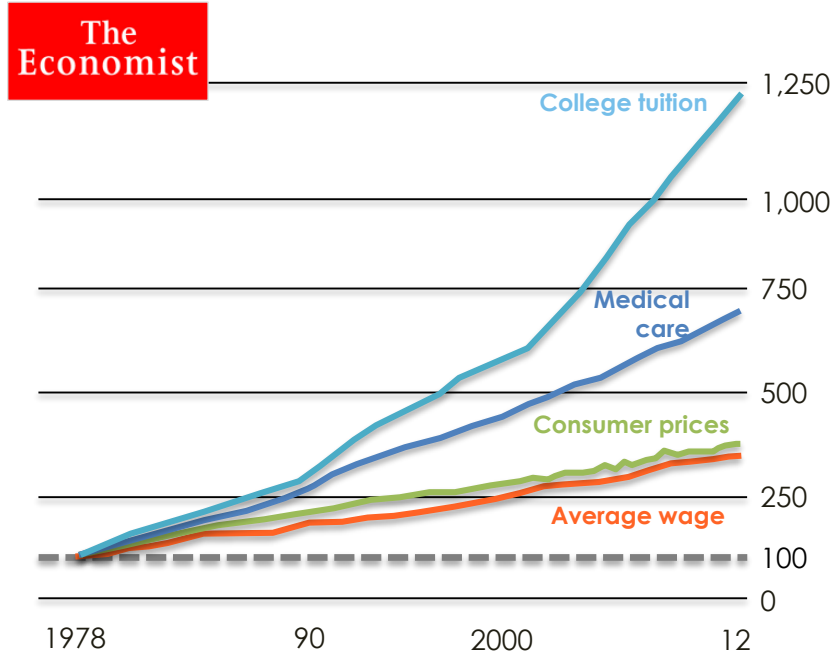
## Shortage of doctors



## Ranking of health care systems

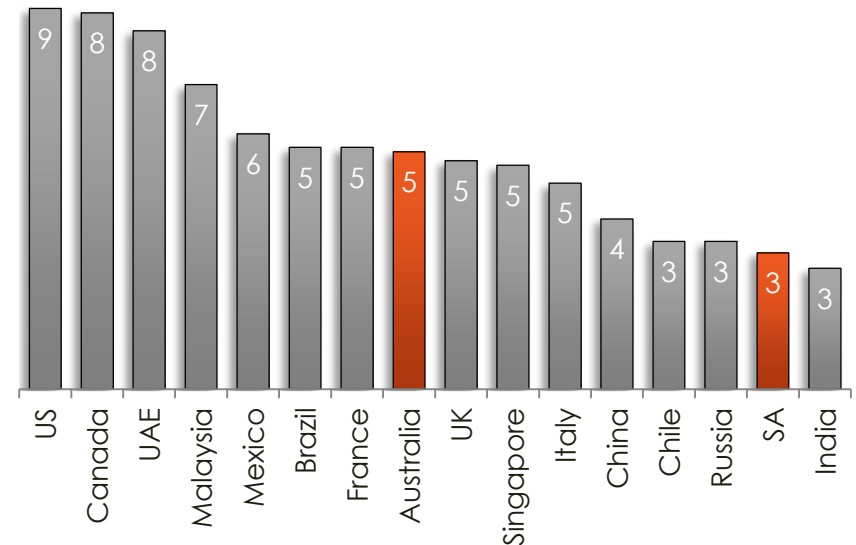


## Medical inflation outstrips wage inflation

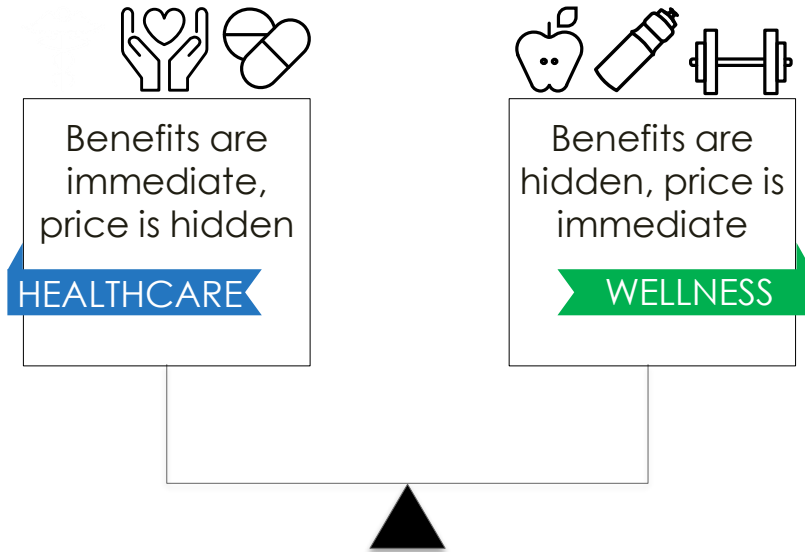


## Consistent across all countries

Health care cost inflation above CPI, %

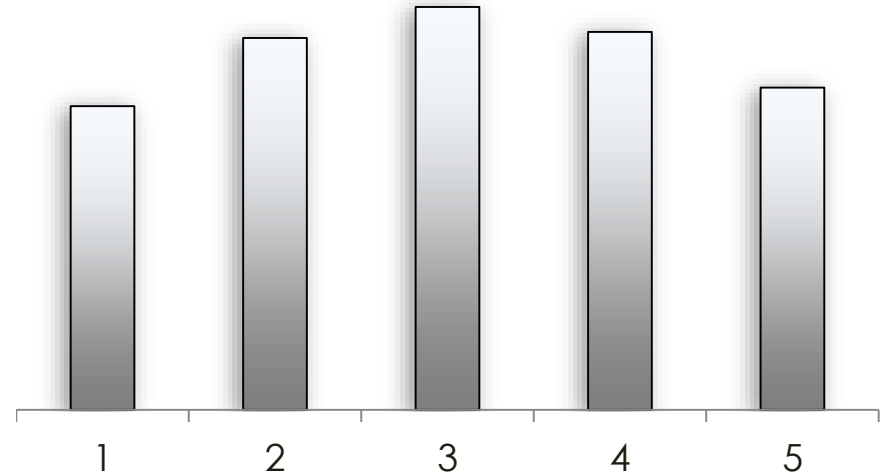


## Hyperbolic discounting



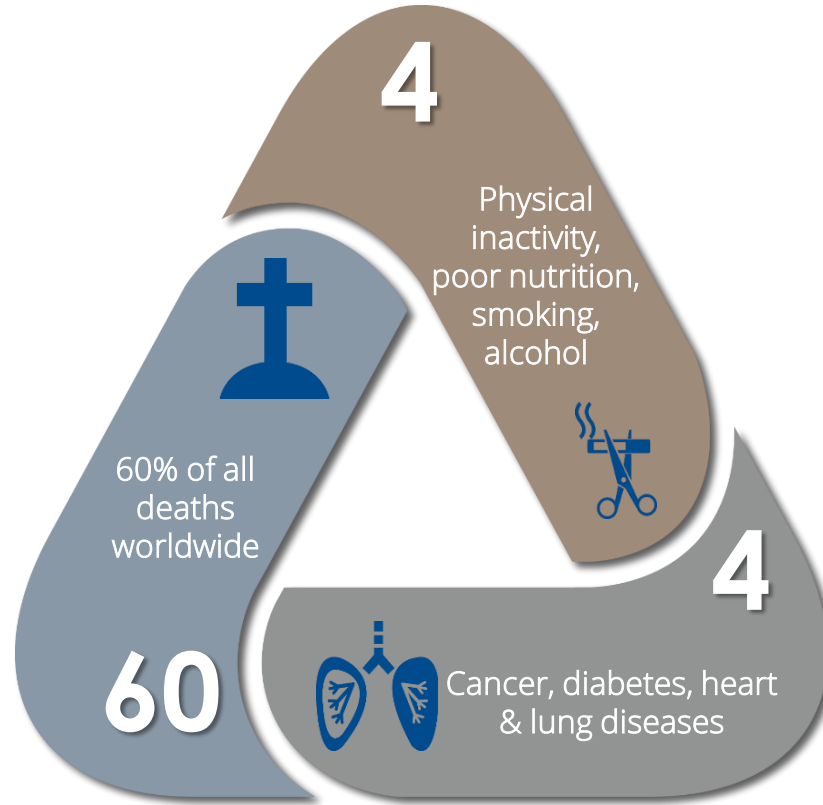
## Over-optimism

% of members rating their health "good"



Number of chronic conditions

# The nature of risk is behavioural



Oxford Health Alliance 4-4-60 model

## PURPOSE

Make people healthier and enhance and protect their lives



## VALUES

1. Great people
2. Liberating the best in our people
3. Intellectual leadership
4. Innovation and optimism
5. Business astuteness and prudence
6. Dazzle clients
7. Drive, tenacity and urgency
8. Integrity, honesty and fairness

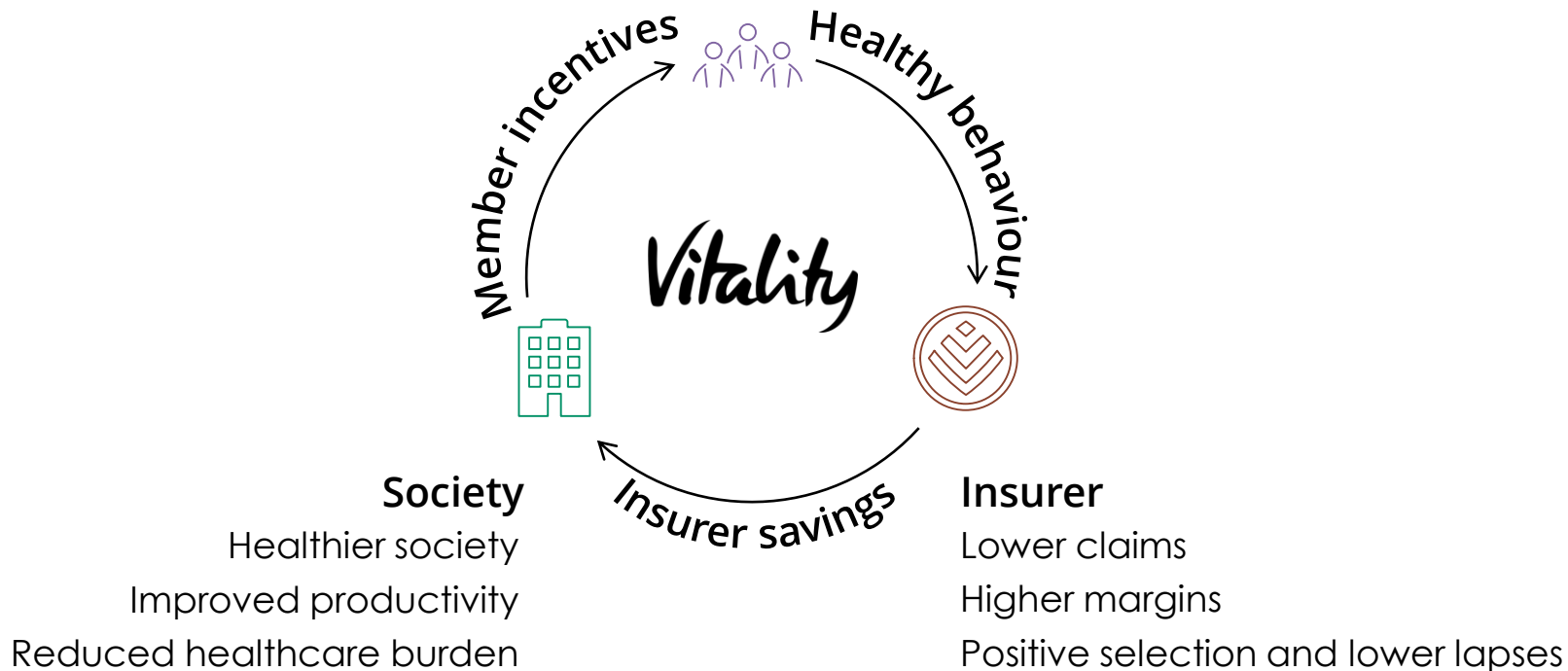
## 1992 AMBITION

Best health insurer in South Africa

# Shared-Value

## Members

Improved health, better value through improved price and benefits



# Success led to the development of the Vitality Status



Natural Selection  
Financial Services Forum  
21-22 May 2018 • Hilton Sydney



Receive points for doing healthy activities

Get a Vitality status

Unlocks discounts based on your status

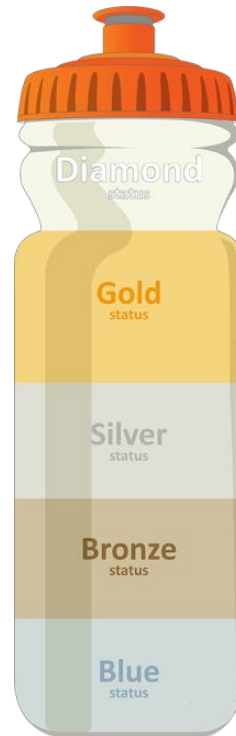
Going for a health screening



Going to gym



Not smoking



Diamond  
35%

Gold  
30%

Silver  
25%

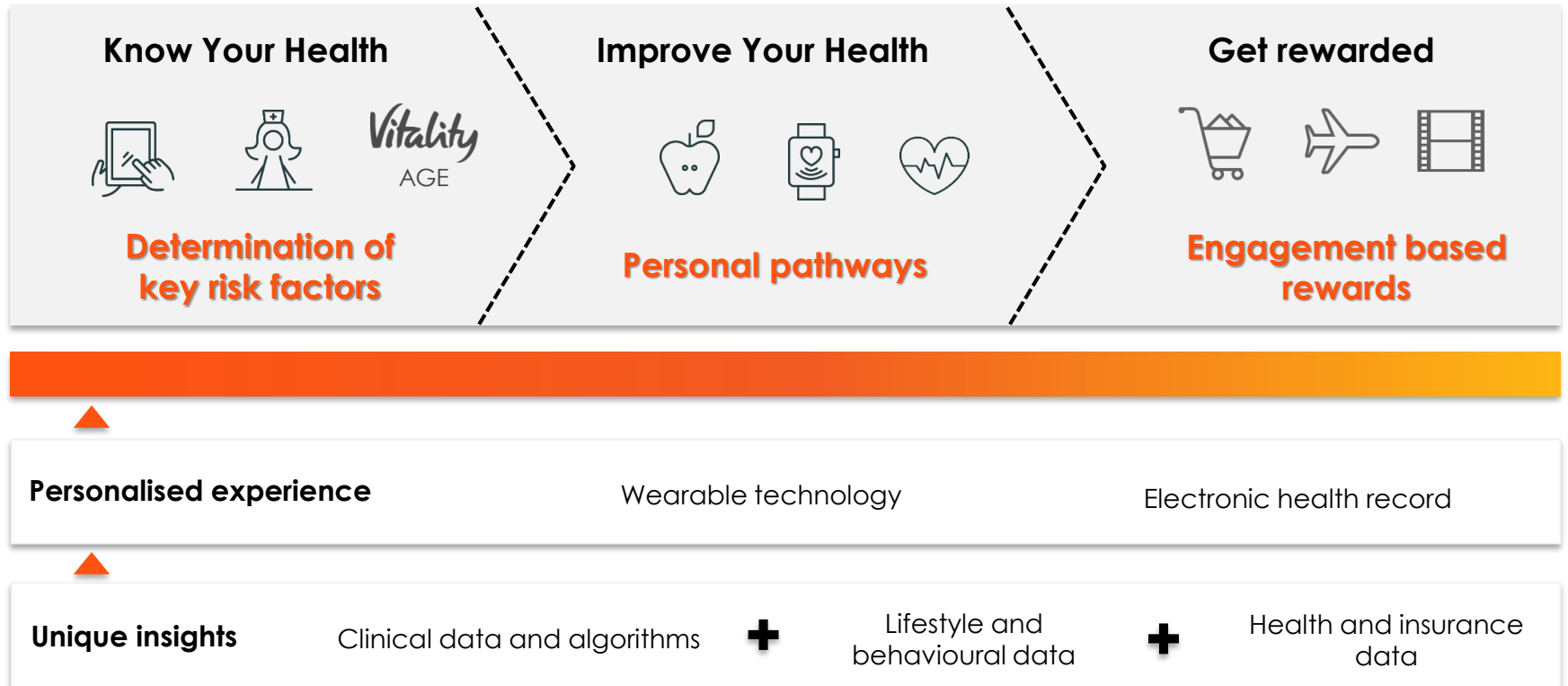
Bronze  
20%

Blue  
15%

Example: Flights







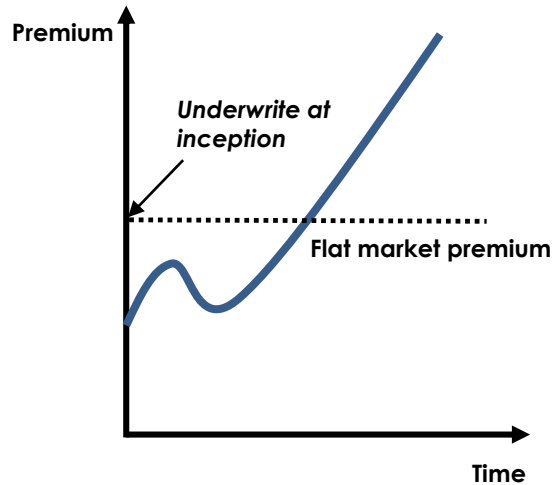
# Discovery Life's dynamic pricing model



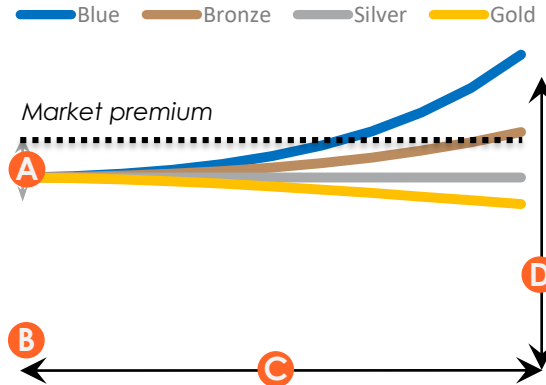
Traditional underwriting is vulnerable

Dynamic pricing premium profiles

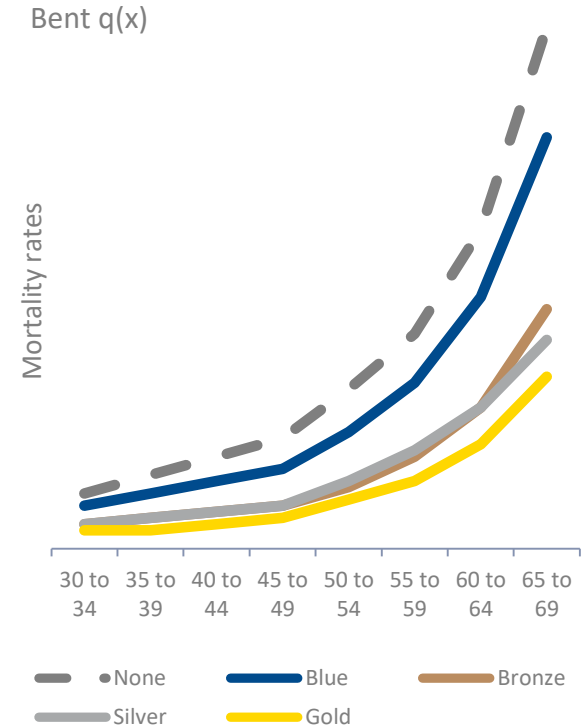
Codified mortality curves



- Static underwriting
- Premiums do not match risk
- Transactional relationship with the customer



- A Competitive price points**  
Large initial discounts to market prices
- B Selection**  
Attract healthier lives
- C Behaviour change**  
Rewards to motivate behaviour change
- D Positive selective lapses**  
Better matching of price to risk

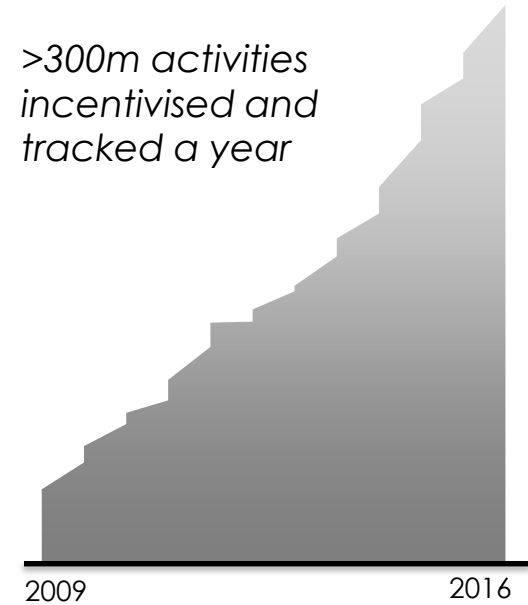


# Significant member engagement

## Exercise

**70,000 gym workouts**  
every day

**1 m wearable device activities tracked**  
every day



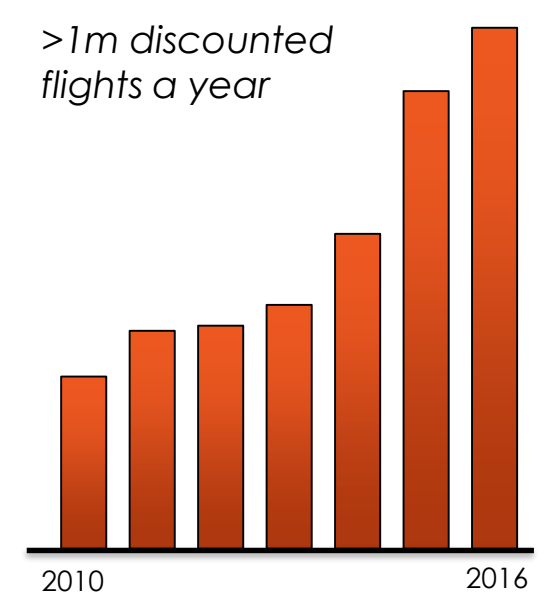
## HealthyFood spend

**35,000 HealthyFood baskets**  
purchased every day



## Discounted flights

**26 planes of members**  
at discounted prices a day

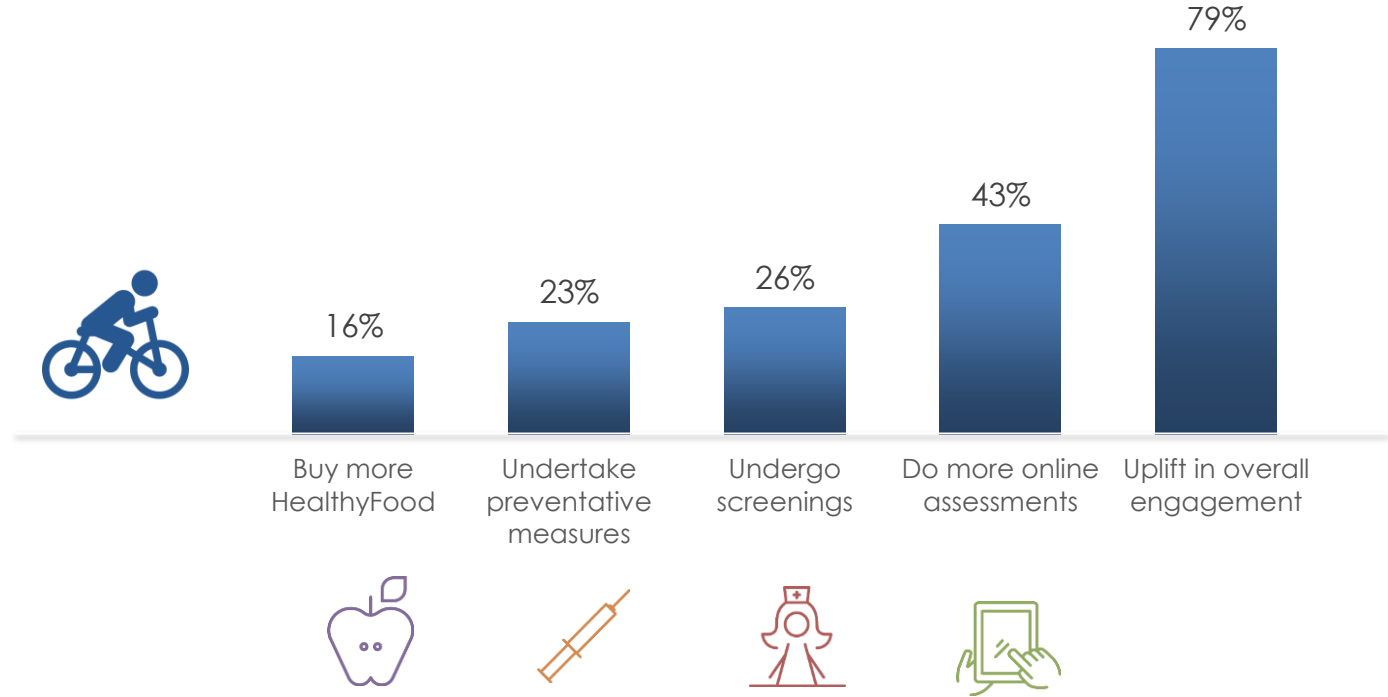


# Physical activity triggers a healthy lifestyle



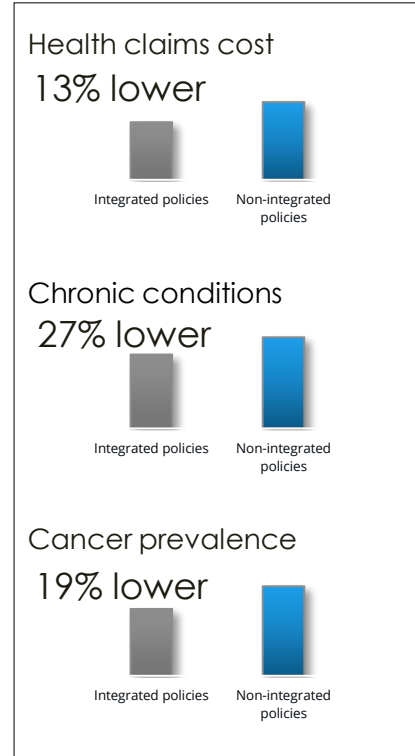
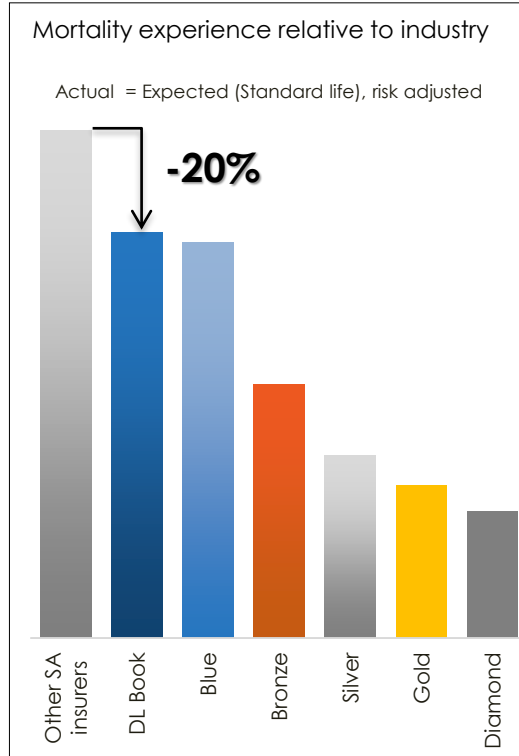
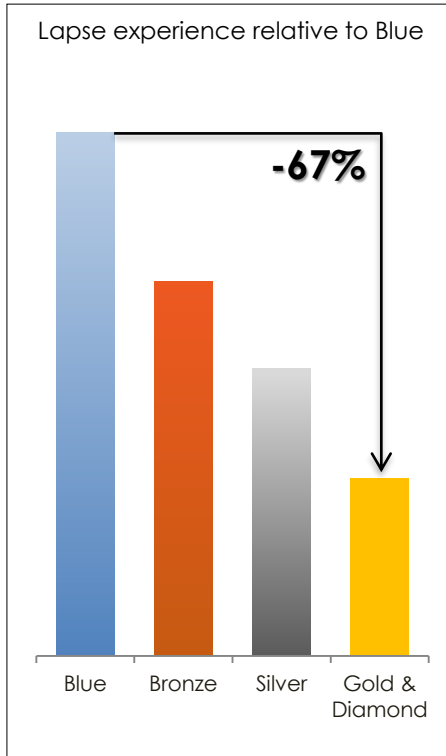
Improvement in health participation after becoming physically active

Did not exercise





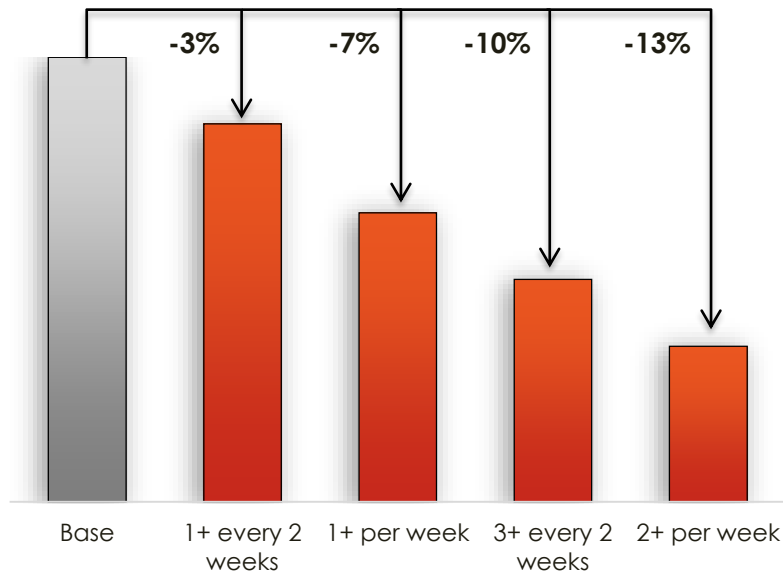
## Selection effect and behavioural change



VNB margin of an integrated policy is **3.2x** higher than that of non-integrated policy<sup>1</sup>

VNB per integrated policy is **13.6x** higher than that of a non-integrated policy<sup>2</sup>

Probability of hospital admissions per number of additional gym visits per week



Health outcomes independently verified

**Study 1: Non-chronic conditions**  
Risk-adjusted hospital costs for engaged Vitality members are 10% – 40% lower than non-engaged members for non-chronic conditions

**Study 2: Chronic conditions**  
Risk-adjusted hospital costs for engaged Vitality members are 10% – 30% lower than non-engaged members for chronic conditions

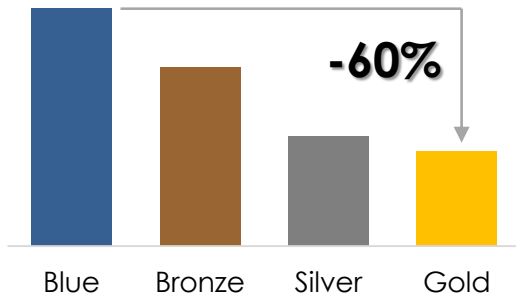
**Study 3: Longitudinal fitness study**  
Admission rates are 10% lower, length of stay in hospital 25% lower and hospital cost per patient 14% lower for highly engaged Vitality members relative to members not registered on Vitality

# Motor insurance : impact of the model is significant



## Loss ratio and lapse rates

Loss ratio by status

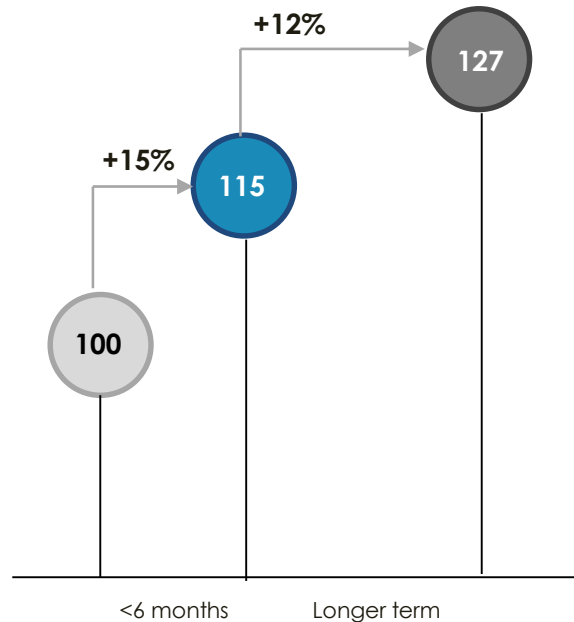


Lapse rates by driving behaviour



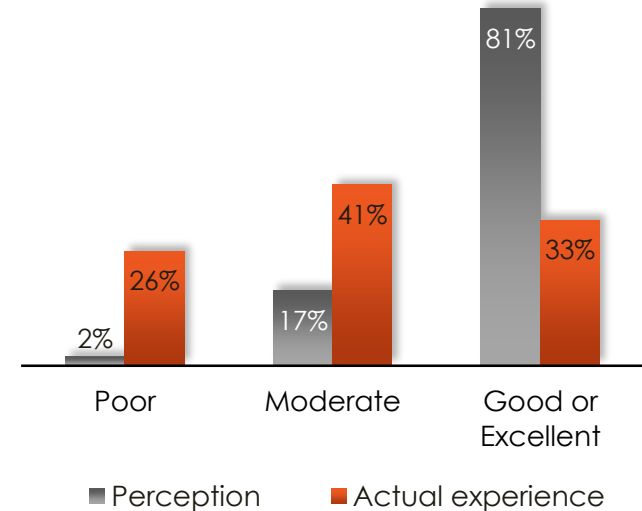
## Behaviour change

Driving score over time for Discovery Insure clients



>90% of accidents are as a result of poor driving behaviour

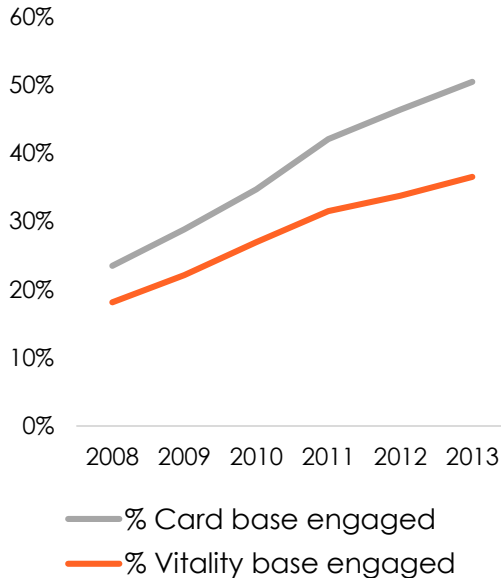
80% of people think they are good drivers, but only 30% are



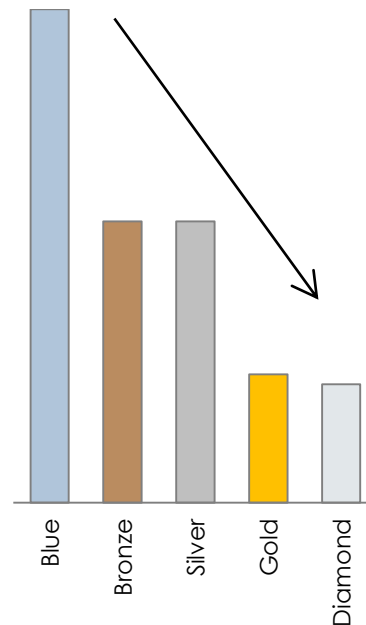
Members with Discovery Card are highly engaged in Vitality

Card profitability improves as engagement in Vitality increases

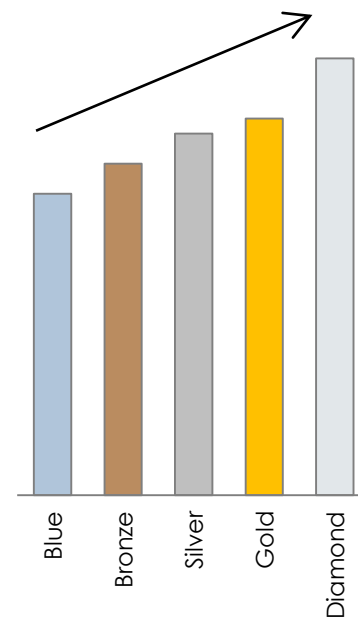
Percentage of members moderate – highly engaged in Vitality



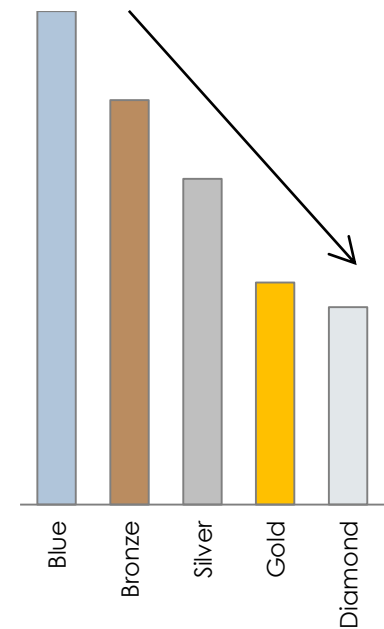
Defaults by Vitality Status



Spend by Vitality Status



Lapses by Vitality Status





# Science & business model codified for adjacencies



	Health insurance	Life insurance	Savings & investments	General insurance	Credit card	Corporate wellness
'Bent q(x)'	<p>Morbidity <math>q(x)</math></p>	<p>Mortality <math>q(x)</math></p>	<p>Longevity <math>p(x)</math> and lapse <math>q(x)</math></p>	<p>Accident <math>q(x)</math></p>	<p>Default <math>q(x)</math></p>	<p>Mortality &amp; morbidity <math>q(x)</math> Productivity <math>f(q(x))</math></p>
Model	<p>Incentivised wellness</p>	<p>Dynamic pricing</p>	<p>Health related investment enhancements</p>	<p>Incentivised driving behaviour</p>	<p>Incentivised behaviour</p>	<p>Guaranteed improvement in medical inflation, healthcare costs and Vitality Age</p>



# Thriving through shared-value

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