



Core new business

Normalised operating profit

Normalised headline earnings

+16%

+19%

+30%

to R9 303m

to R4 059m

to R2 829m

+10% to R9 705m incl. DH take-on of new closed schemes and gross revenue for the Vitality Group





#### WHY

#### HOW

#### **WHAT**

Make people healthier and enhance and protect their lives





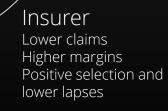


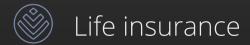




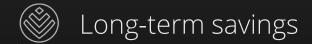


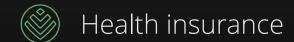
burden













# The 2018 Ambition | best insurer in the world and a powerful force for social good





### Observations for the period



**1** Performance

Group performance exceeded expectation, enabling it to track strongly toward its stated 2018 Ambition. Normalised operating profit grew 19%, normalised headline earnings grew 30%, while new business grew 16%

2 Operating model

Results were ahead of the stated growth methodology and capital plan, with operating profit growth exceeding CPI + 10% and return on capital exceeding risk free + 10%. The Financial Leverage Ratio (FLR) remained below the 28% guidance at 26.5% while free cash increased to R2.5bn

Business performance

Established businesses achieved a combined growth in operating profit of 15%. The emerging businesses are all profitable and larger in scale and potential than expected with a combined growth rate of 151%. New developments are all on target for launch and within budget

4 Vitality Shared-Value Insurance Considerable and continued investment took place through the Global Vitality Network, ensuring repeatability and scalability across adjacencies and new geographies – there are now over 7m Vitality members in 19 countries with engagement strong across all markets



## Impact

Core new business

Operating profit

Return on capital

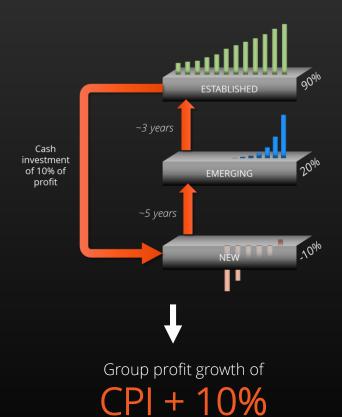
Cash generated

Embedded value

### Operating model

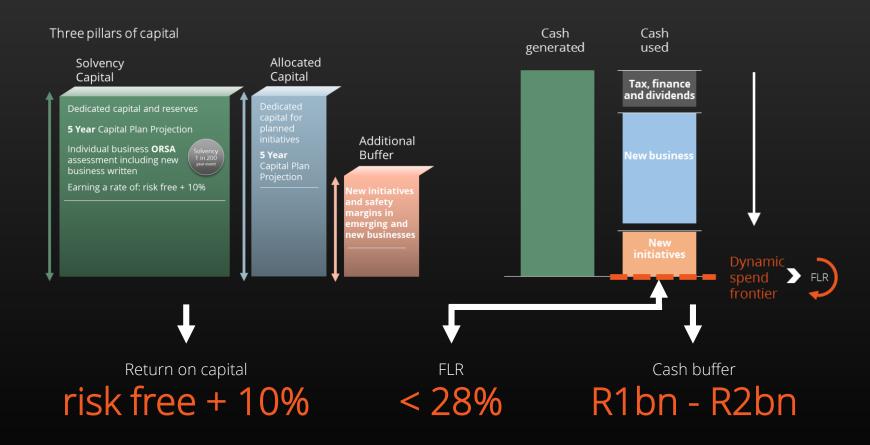


Growth methodology



Capital management

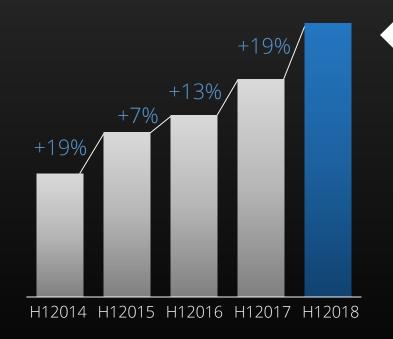
nt Cash management



## Strong operating profit growth







	Rm	6 months to 31 Dec 2017	6 months to 31 Dec 2016	% change
shed	<b>Oiscovery</b> Health	1 332	1 188	+12%
	S Discovery Life	1 839	1 768	+4%
	S Discovery Invest	419	326	+29%
Established	<b>⊗</b> Discovery <b>Vitality</b>	57	33	+73%
ESI	Street 19 Siscovery	82 <sup>1</sup>	71 <sup>1</sup>	+15%
	Vitality HEALTH INSURANCE	355	142	+150%
	Vitality LIFE INSURANCE	261	258	+1%
BU	S Discovery Insure	29	(30)	+197%
Emerging	Vitality GROUP	1	(91)	+101%
ΕΠ	中国平安 PING AN HEALTH	36	(9)	+500%
Ne	Bank, Vitality Invest, W commercial insurance, umbrella funds and the GVN	(352)	(244)	+44%
	Group	4 059	3 412	+19%

+15%

+151%

> +151%

> 8% of profits

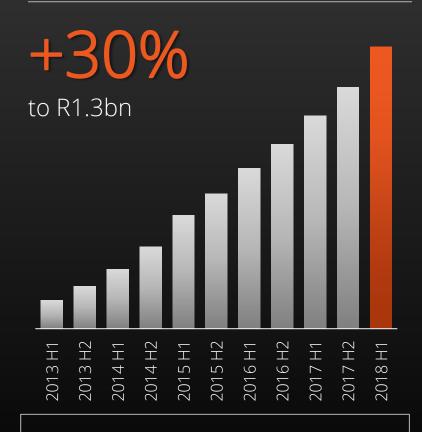
## Emerging businesses experienced rapid growth



Discovery Insure gross premium income

Ping An Health written premium

Vitality Group integrated insurance premiums



+62% to R3.8bn H1 2016 H1 2017 H1 2018

+45% to R1.9bn

H1 2016 H1 2017 H1 2018

Fastest growing short-term insurer

Fastest growing health insurer in China

12 integrated insurance markets

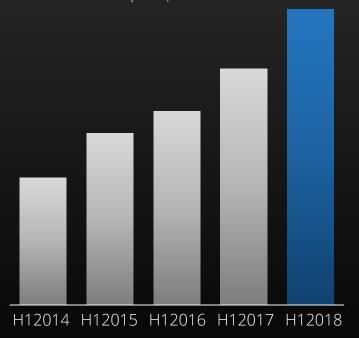
## Robust core new business growth





#### to R9 303m

+10% to R9 705m incl. DH take-on of new closed schemes and gross revenue for the Vitality Group



	Rm	6 months to 31 Dec 2017	6 months to 31 Dec 2016	% change
pa	<b>O</b> Discovery Health	3 324 <sup>1</sup>	3 030 <sup>1</sup>	+10%
	<b>O</b> Discovery	1 121	1 053	+6%
Established	<b>O</b> Discovery Invest	1 220	1 278	-5%
Está	Vitality HEALTH INSURANCE	522	443	+18%
	Vitality LIFE INSURANCE	557	581	-4%
80	Discovery     Insure	495	406	+22%
Emerging	<b>Vitality</b> GROUP	123 <sup>2</sup>	92 <sup>2</sup>	+34%
	中国平安 PING AN HEALTH	1 986	1 169	+70%

<sup>&</sup>lt;sup>1</sup> Excludes new scheme take-ons

<sup>&</sup>lt;sup>2</sup> Vitality Group fee income from insurance partners

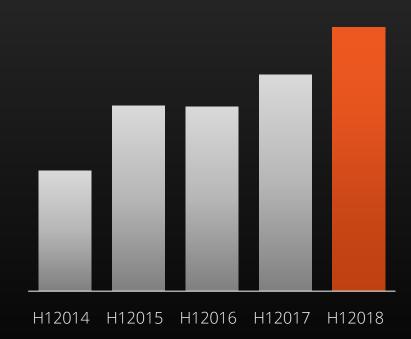
## Strong new business growth from emerging businesses



Discovery Insure new business API

+22%

to R495m



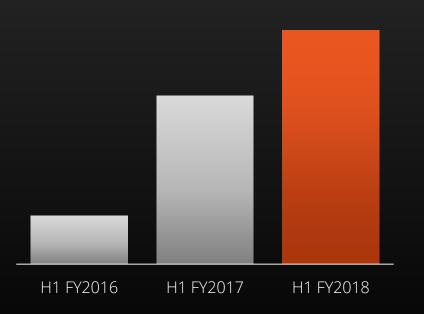
Ping An Health new business API



Vitality Group fee income from insurance partners

+34%

to R123m\*



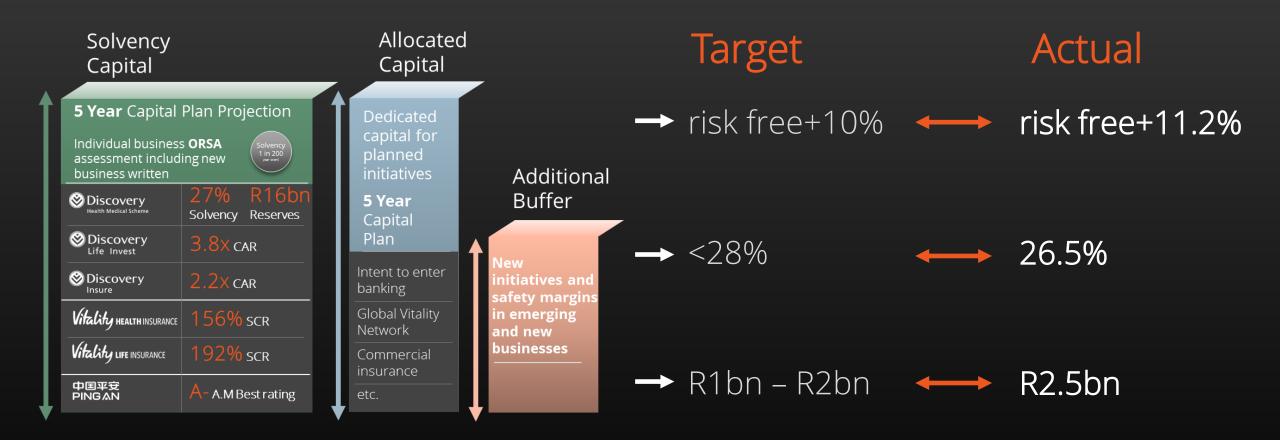
## Performance exceeded growth engine targets





## Tracking in line with capital management philosophy





<sup>\*</sup>Annualised ROE for the six-months based on normalised headline earnings

<sup>\*\*</sup>Risk-free is calculated as the Group's weighted average risk free across the geographies it operates in

# Reconciliation of reported profit to normalised headline earnings



Rm	6 months ended Dec 2017	6 months ended Dec 2016	% change	
Profit from operations	3 859	3 249	19	
Other (incl. finance costs)	( 325)	(233)		Includes gearing effect
Profit before tax	3 534	3 016	17	of loss-making businesses turning
Income tax expense	(837)	(947)		profitable and a higher effective tax rate in the prior year
Other adjustments	52	(46)		prior year
Headline earnings	2 749	2 023	36	UK branding costs
Rebranding and business acquisition expenses	-	84	ļ	carried within businesses
Other	80	77		
Normalised headline earnings	2 829	2 184	30	

Normalised headline earnings per share (diluted): 438.3c (+29%)

## Dividend policy framework





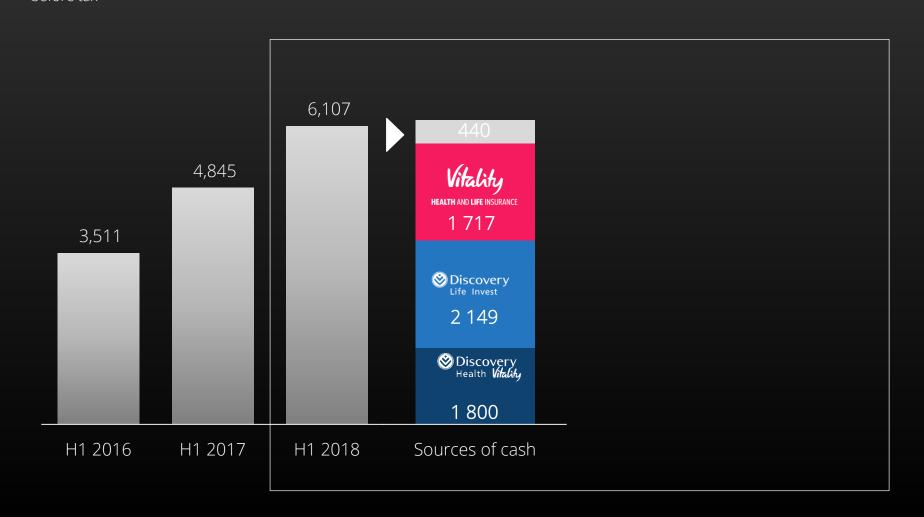
Dividend declaration of: 101cps (+15%)

## Cash management supports the growth methodology



## R6.1bn

Cash generated by the Group before tax

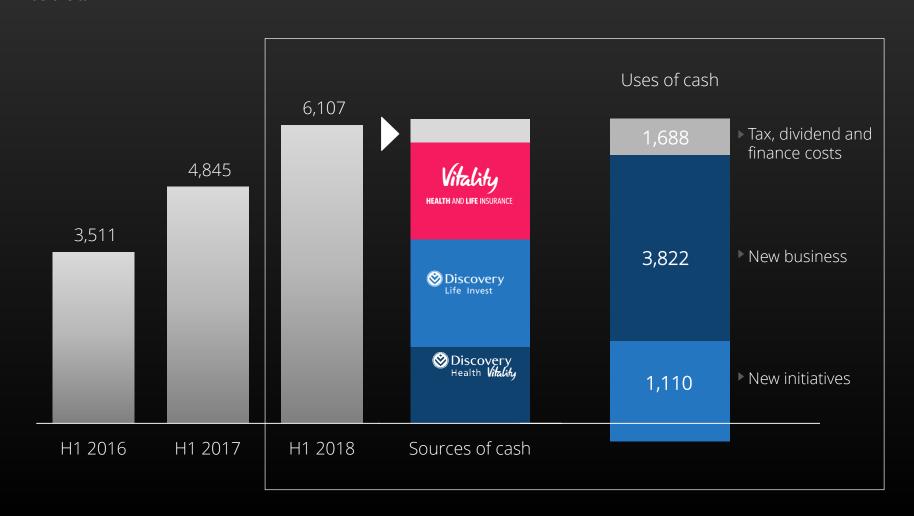


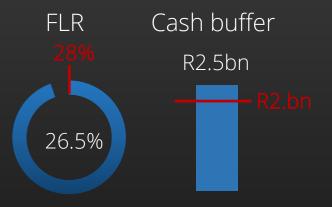
## Cash management supports the growth methodology



## R6.1bn

Cash generated by the Group before tax





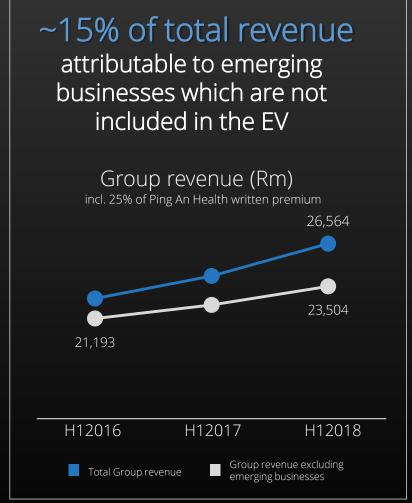
### Return on embedded value (EV)



+13%

Annualised growth in EV





## Significant progress towards achieving 2018 Ambition







## Foundation

People Values Brand Business model

## Scale and sophistication of the Global Vitality Network



 $19_{\text{countries}} > 7m$  Vitality members



>R500m allocated to developing a single global Vitality platform

Sumitomo Life first market to run fully on the platform



+200 000 members each month

**40m+** life years of mortality and morbidity data

In every minute

1 000 activities tracked



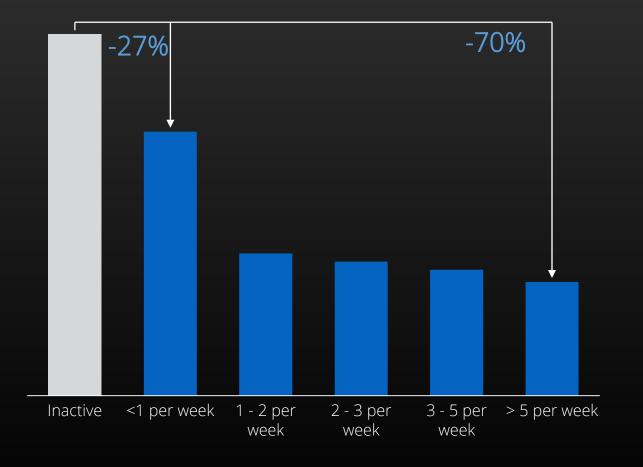
50 biometric readings

## Addressing physical inactivity as a first priority



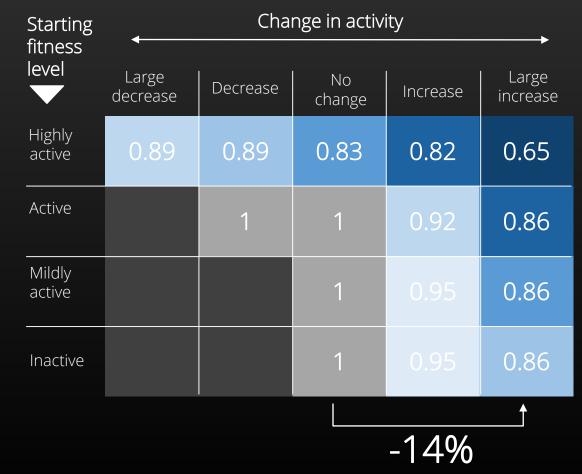
#### Significant correlations to mortality

Mortality experience by physical activity band (Indexed)



#### Causal impact on healthcare claims

Morbidity healthcare claims (Generalised linear model results : five-year in-hospital costs)



# Two years since the launch of Vitality Active Rewards with Apple Watch



**1** Get Apple Watch



Members get the Apple Watch for a once-off activation fee

2 Achieve your exercise goal



Personalised

Dynamic

Any exercise





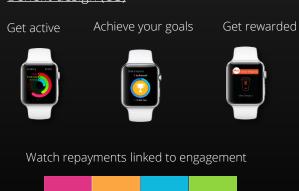
3 Get Rewarded

Weekly rewards



Vitality Active Rewards with Apple Watch

Benefit design (US)



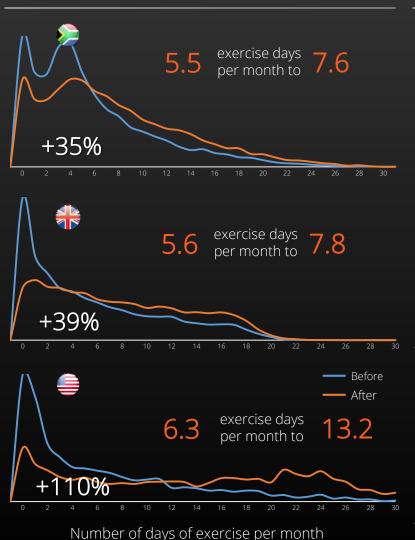
## Significant engagement and behaviour change

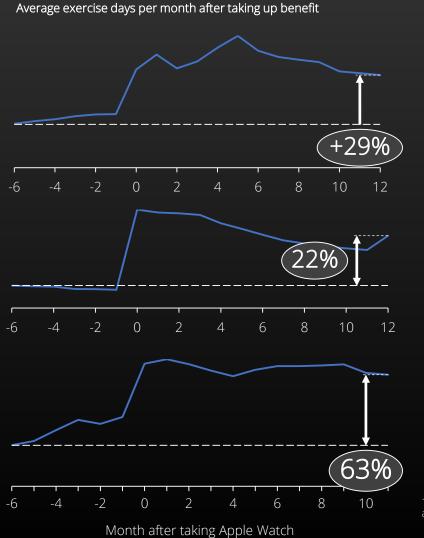


35% - 110% more active

22%-63% more active in the long run

Impact seen across all risks





BMI Band	<b>&gt;</b>	<b>4 7 8</b>	<b>=</b>
Low	+28%	+29%	+90%
At risk	+25%	+25%	+51%
High	+34%	+20%	+74%

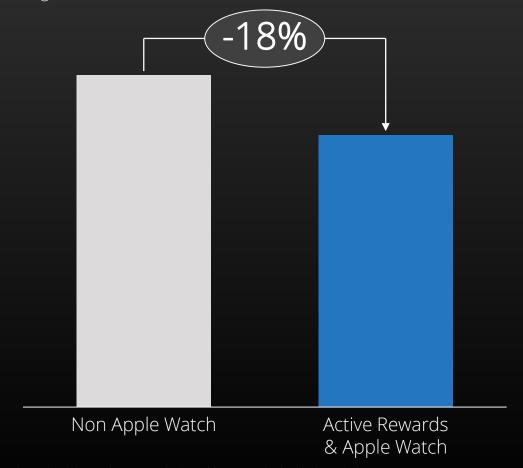
1 Low Risk (BMI between 18.5 and 24.9), At Risk (BMI between 25 and 29.9), High Risk (BMI >= 30 or BMI < 18.5)

### Creating shared value 💝

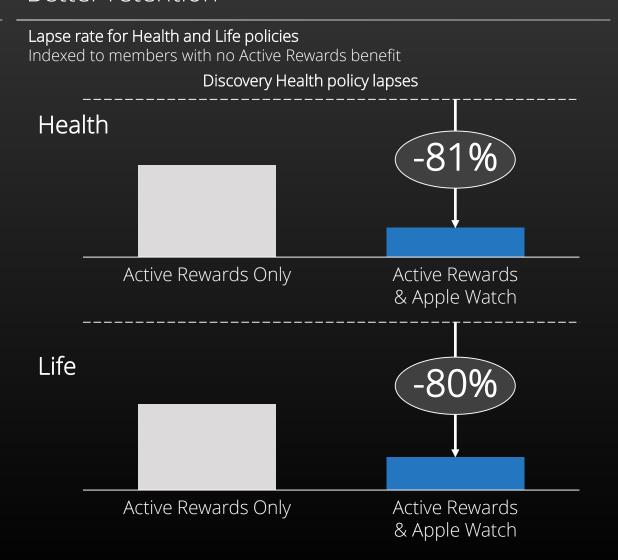


#### Hospital and chronic costs

Per life per month healthcare costs<sup>1</sup> of Apple Watch members vs other members over Sep'16-Sep'17 Percentage



#### Better retention

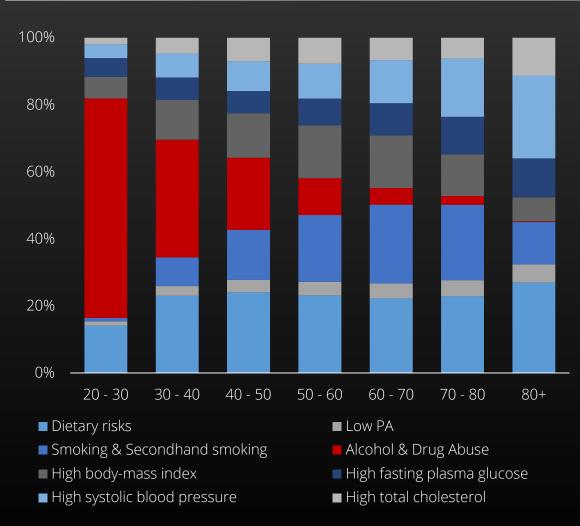


<sup>1</sup> In-hospital and chronic claim costs, risk-adjusted for age, gender, health plan and chronic status. Excludes pregnancy, trauma and certain dental procedures.

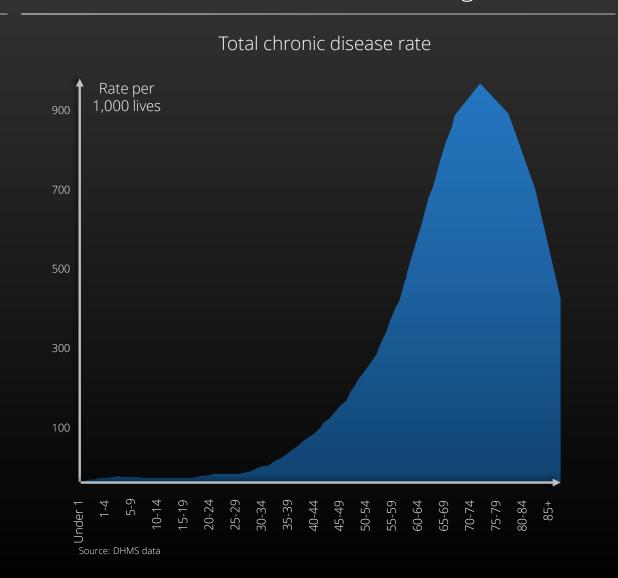
### Increased disease burden at older ages



#### Risk factors vary by age

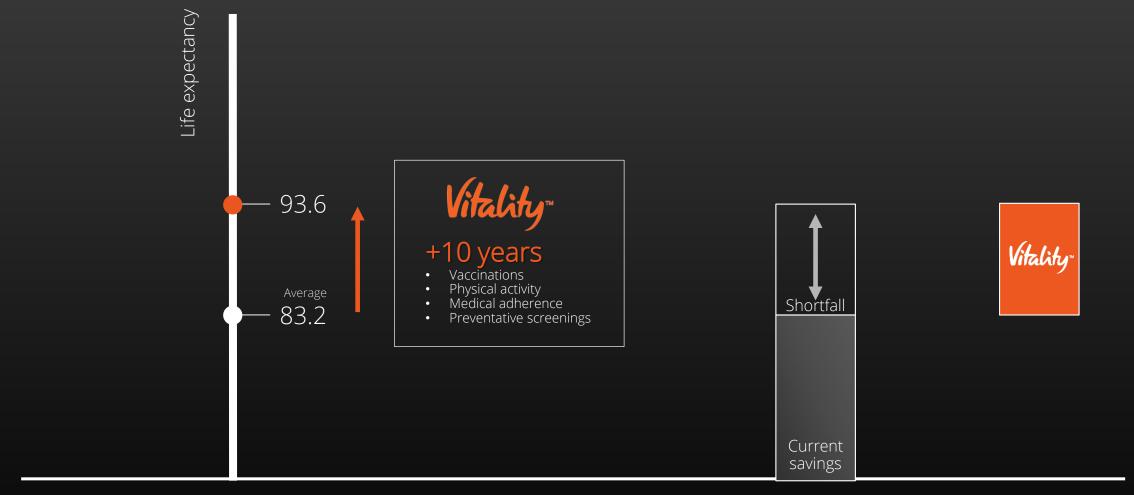


#### Increased disease burden at older ages



## Manifestation in retirement planning





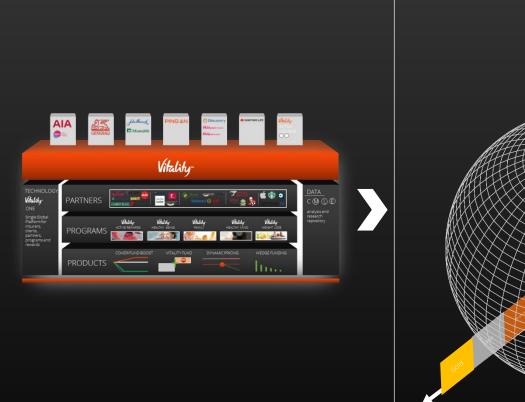
Current Age: 50 Retirement Age: 65

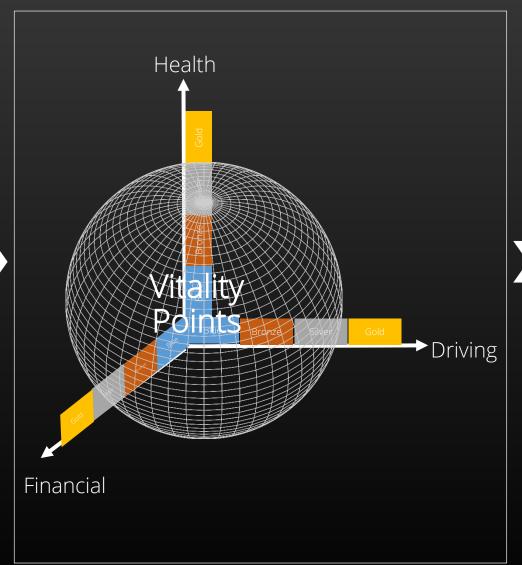
Retirement savings

Vitality boost for healthy behaviour

## Transitioning to a single behavioural chassis



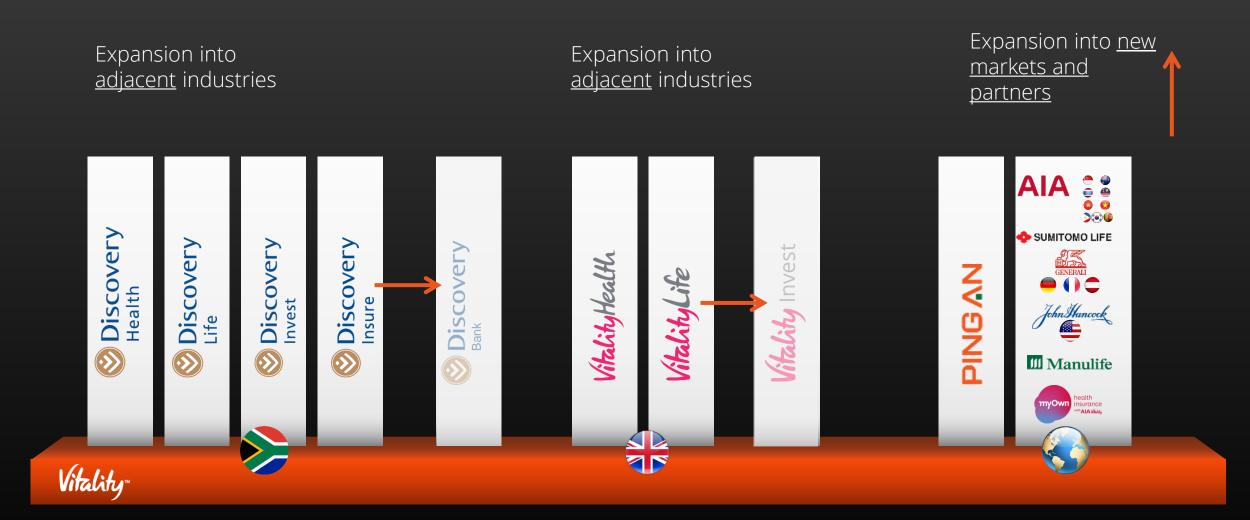






## Vitality Shared-Value globalisation







## Businesses

S Discovery



中国平安 PING AN



**Oiscovery** 



VitalityHealth

VitalityLife

Discovery Bank
Vitality Invest
Commercial insurance
Umbrella funds

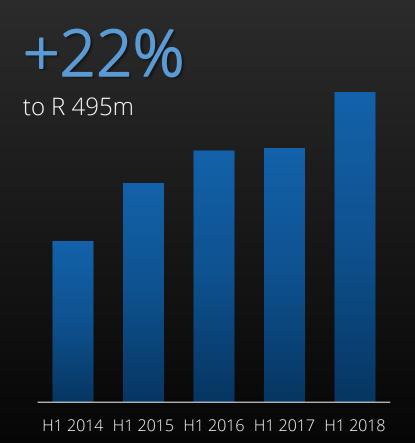
Emerging

Established

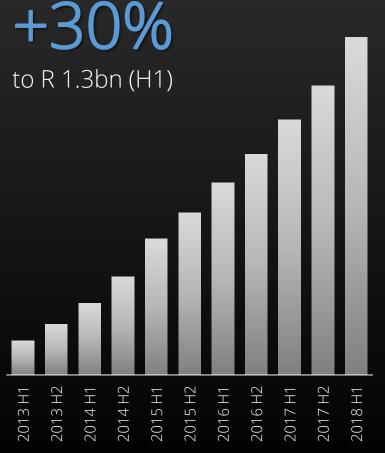
New



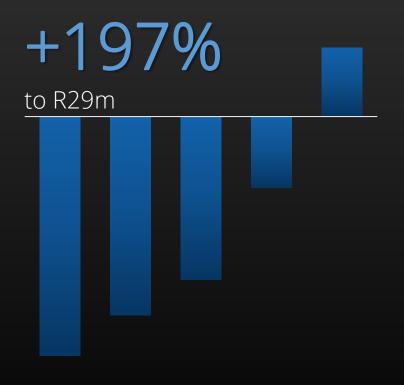
New business



Gross Written Premium



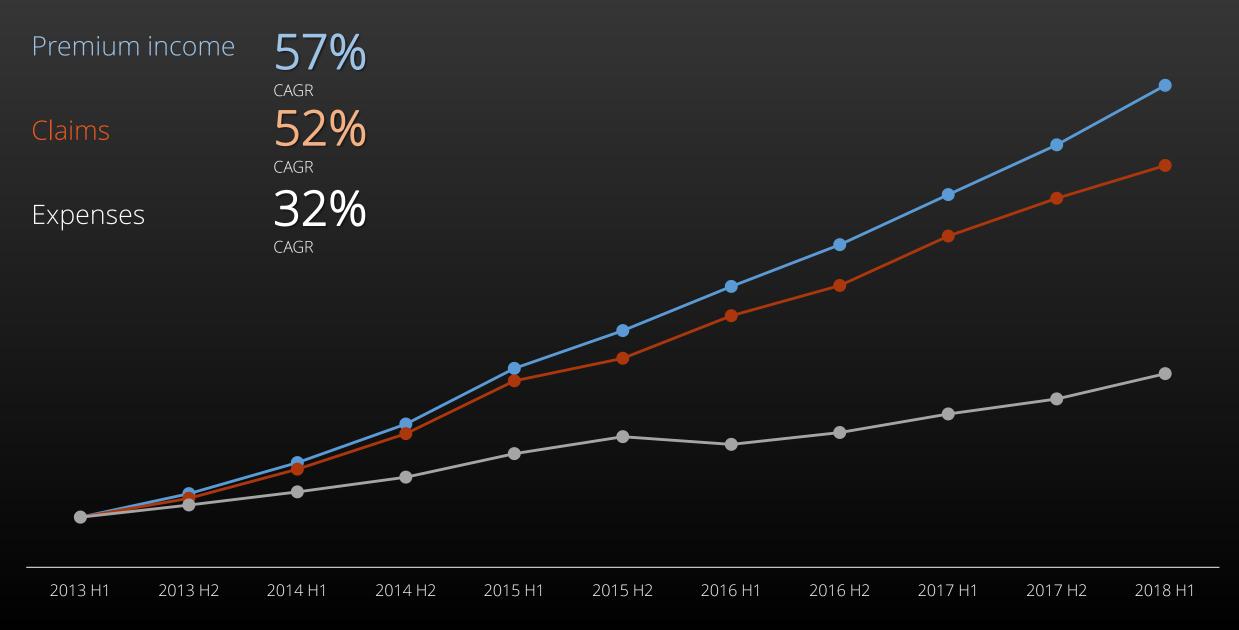
Operating result



H1 2014 H1 2015 H1 2016 H1 2017 H1 2018

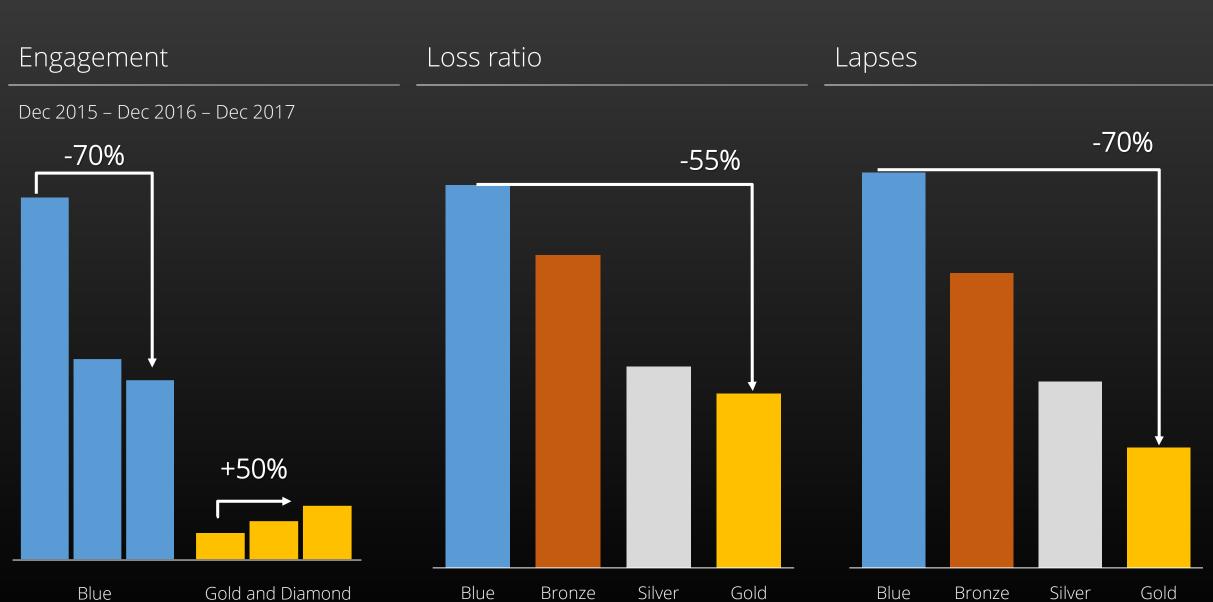
## Drivers of the operating result





## Vitality model for Discovery Insure





## Dynamics manifesting in a strong insurance book

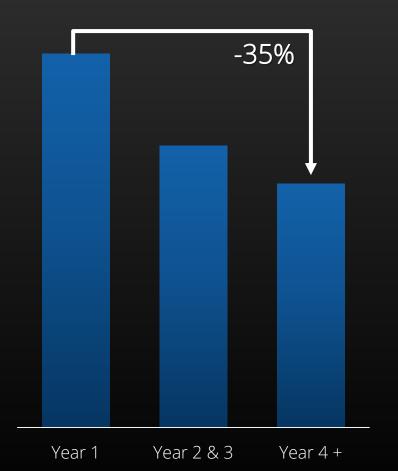


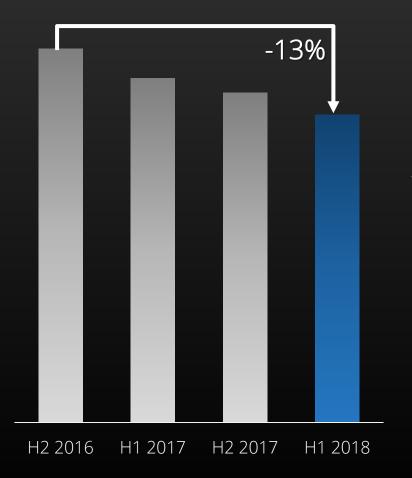
Claims ratio by cohort duration

Claims ratio over time

Profit from existing book (Rm)

Average book duration: 23 months





For the 6 months:

Existing Book Premium R1.1bn

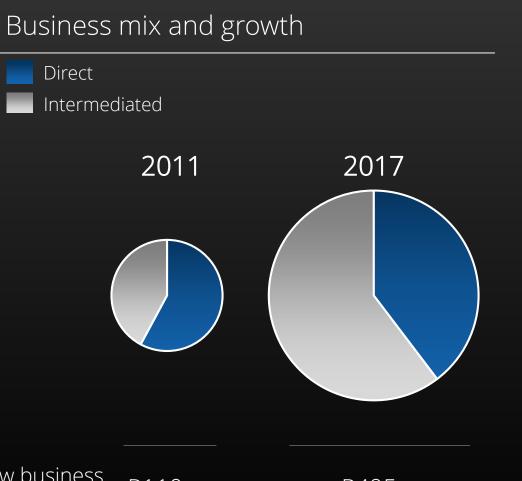
Existing Book Profit

Excl. Associates

R99m

## Direct and intermediated business offer similar value to clients



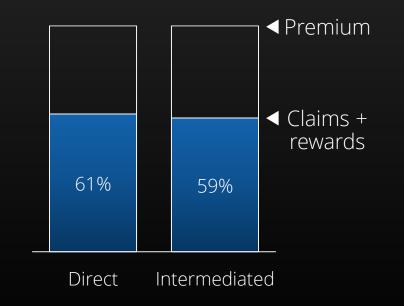


Value of new business

Intermediated business has

higher VNB

But provide the same value to customer per unit of premium paid





#### Network

PARTNERS



**GYM & DEVICES** 











**ACTIVE REWARDS** 

## Vitality"

**GROCERS** 

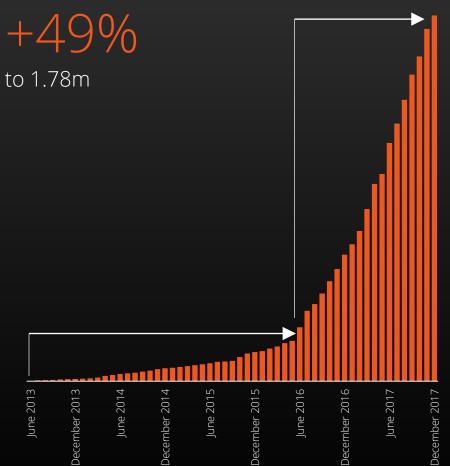
Cold Storage



TRAVEL

**Expedia** 

#### Membership





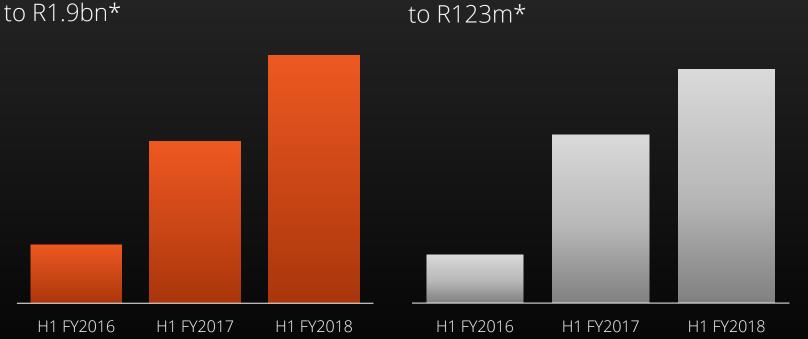
Vitality integrated API

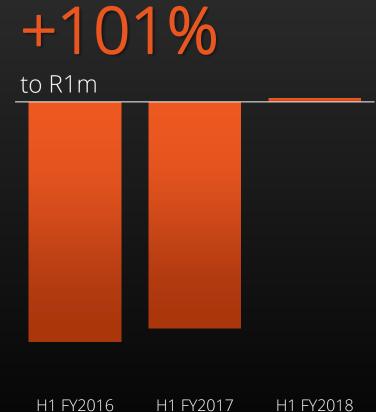
+45%

Fee income from insurance partners

Operating result

to R123m\*

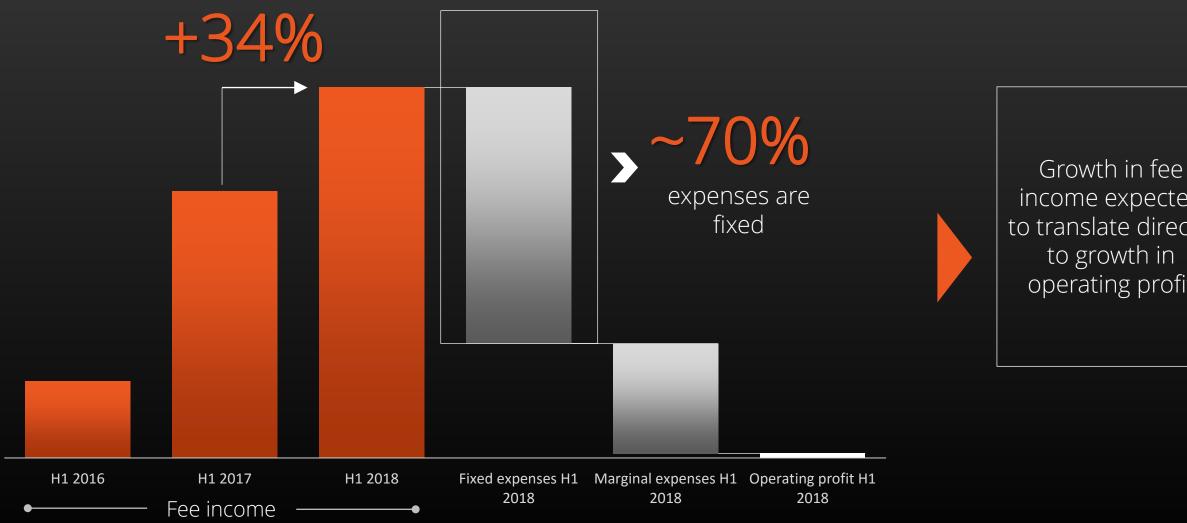




\*Excludes US corporate business

#### Gearing of profit

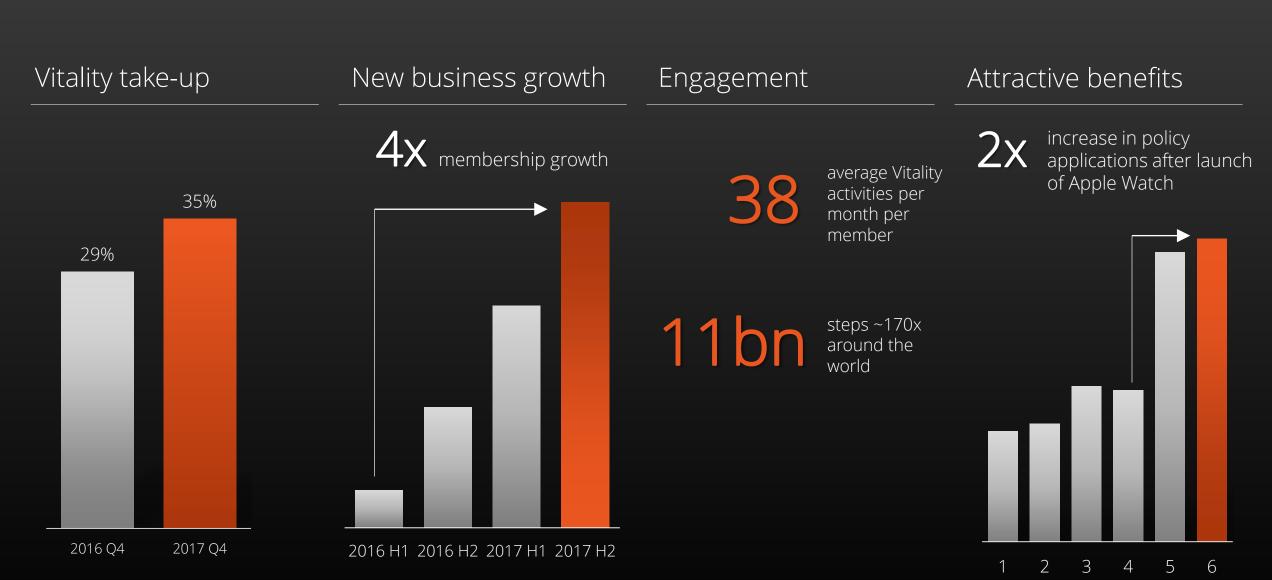




income expected to translate directly to growth in operating profit

#### Use case: Market A

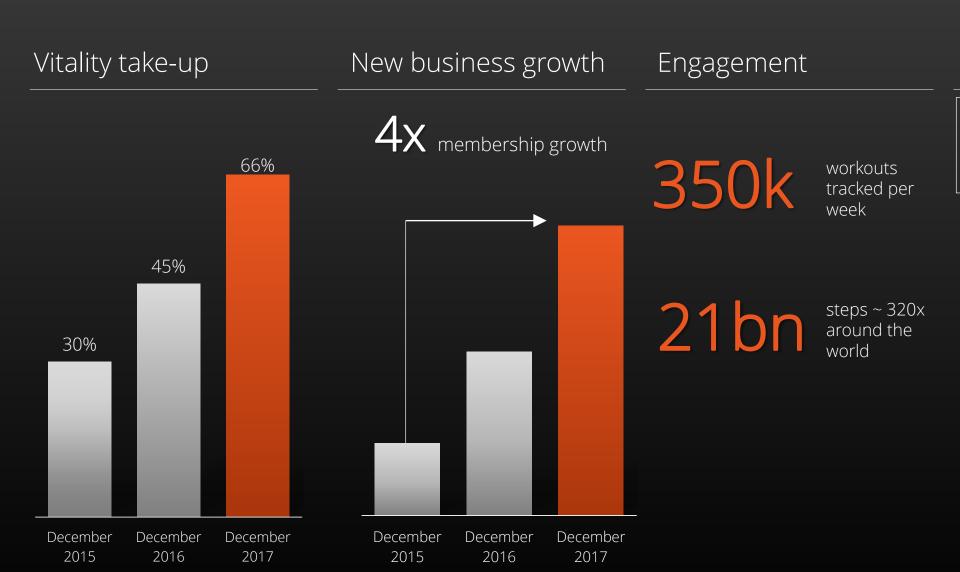




Month

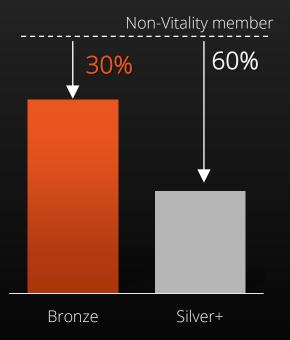
#### Use case: Market B





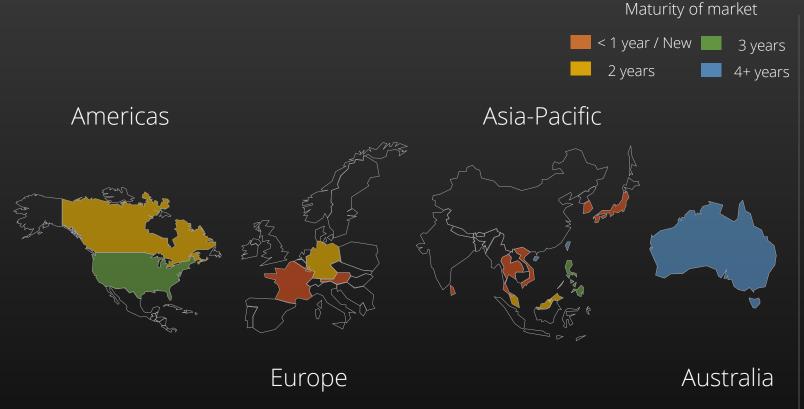
# Reduced lapses and improved profitability

Vitality members have roughly higher margin than non-Vitality members



#### Increasing expansion into new markets and partners







Japanese insurance market

World's 2nd largest life insurance market

152m Policies inforce

\$316bn Gross written premiums



Sumitomo Life

Market rank Policies In- force

4th 8m

In-force ANP

\$22.9bn

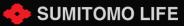
# GENERALI

Launched Austria October 2017

Launched DVAG – Germany's largest IFA network which has 30,000 full-time sales representatives servicing 6m clients

#### AIA

Launched Vitality Active in South Korea December 2017



Launching Q3 2018

#### itality"

ACTIVE hannover re

New market by Q3 2018

Strong pipeline

#### Ping An Health ecosystem



Expertise **Products** Distribution Insurer **1.4m+** life 中国平安 insurance sales PINGAN agents 1.4bn people LIFE AGENTS 2000+ outlets across China 中国平安 11 branches PINGAN Group Discovery
Vitality 中国平安 cover >100m HEALTH people PINGAN **DISTRIBUTION** Individual **HEALTH** 41 branches Online 中国平安 across China PINGAN **ANNUITY** 140k Insurance & P&C AGENTS Agents 430m+ ONLINE internet users **310m+** app 平安 健康 PINGAN WeChat users Support of Ping An Group health assets

Ping An Group is the largest insurance company and 39<sup>th</sup> largest company in the world

DATA

**TECHNOLOGIES** 

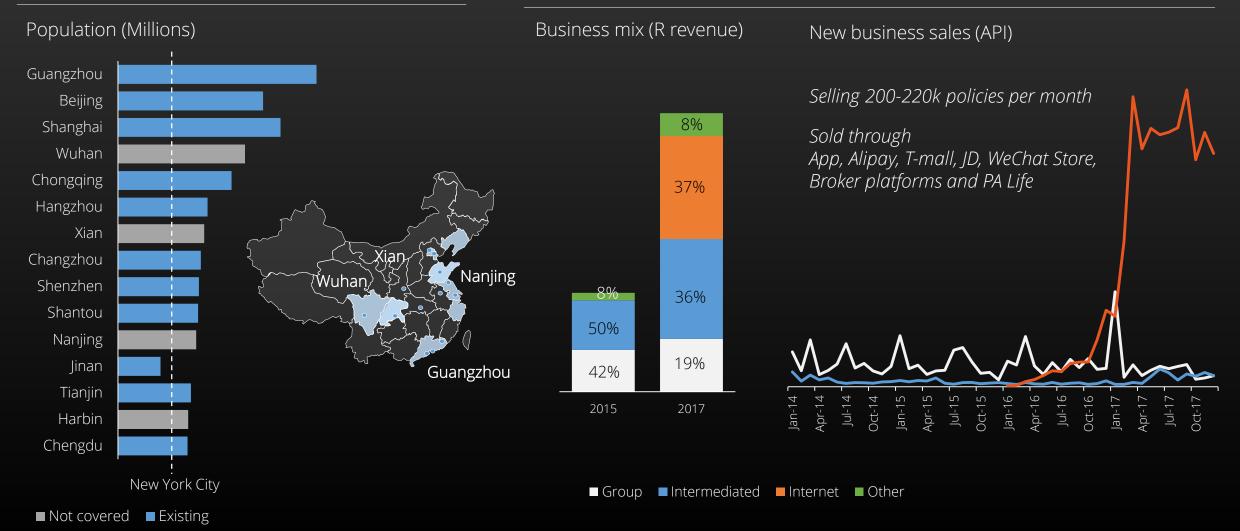
Health Records, AI, Cloud etc.

#### Ping An Health continues to extend reach



Branch network covers most of largest cities and continues expanding

Moving online with explosive growth

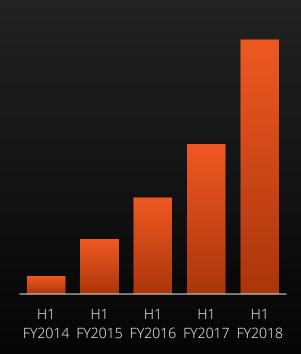


# 中国平安 PINGAN

New business

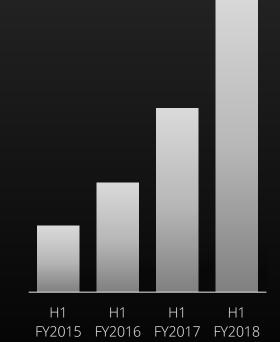
+70%

to R2bn



Written premium

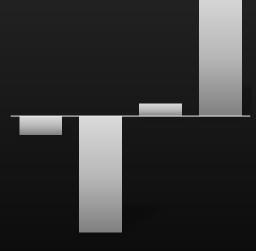




Ping An Health operating profit



to R244m



H1 H1 H1 H1 FY2015 FY2016 FY2017 FY2018

Discovery's operating profit

## +500%

to R36m



After central costs



# Businesses

S Discovery



中国平安 PING AN



**Oiscovery** 



VitalityHealth

VitalityLife

Discovery Bank
Vitality Invest
Commercial insurance
Umbrella funds

Emerging

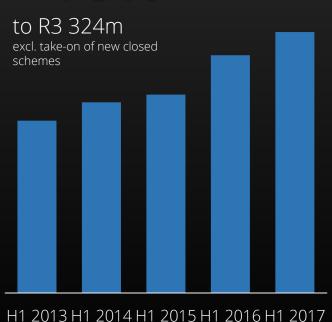
Established

New



#### New business

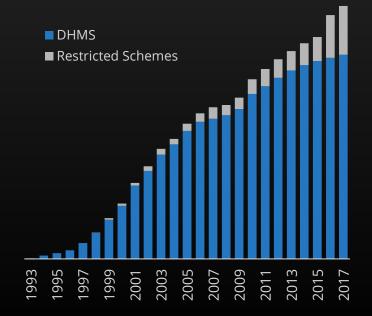




#### Membership

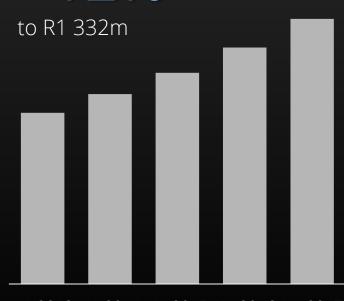


#### lives



#### Operating profit





H1 2013 H1 2014 H1 2015 H1 2016 H1 2017

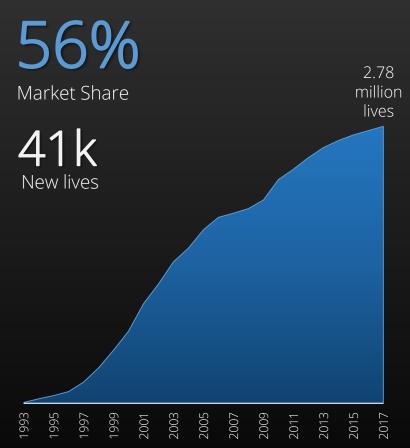
# Discovery Health Medical Scheme continues to deliver strong and consistent growth dynamics and financial performance



Growth

Stability

Security



94% No movement

3% Upgrade

3% Downgrade

5% Annualised lapse rate

27.45%

Solvency

R16.3bn

Reserves

R2.45bn

Net surplus





#### The healthcare trilemma





COST

MEMBER

DISEASE BURDEN

 $\approx$ 

TREATMENT

 $\approx$ 

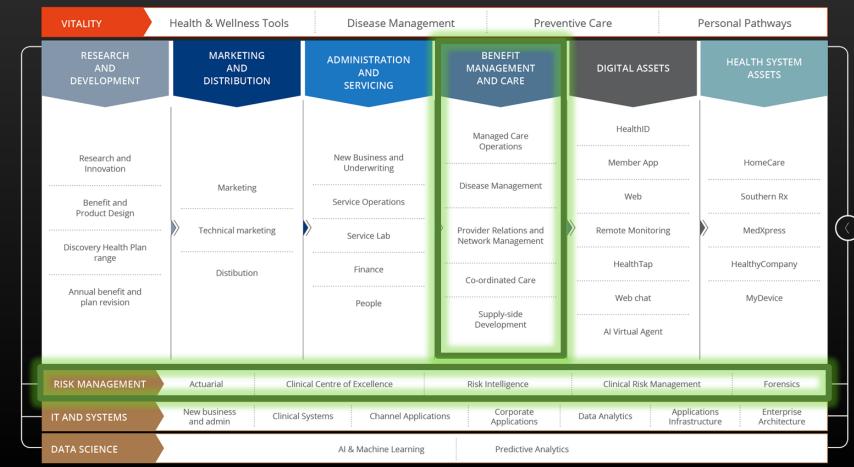
COST

MEMBER

DISEASE BURDEN TREATMENT

7.9% contribution increase (DHMS)

16% cheaper than market



#### Impact of managed care initiatives



#### KidneyCare programme

100% of dialysis centres and patients enrolled Detailed monitoring of key dialysis metrics

Detailed reporting and feedback

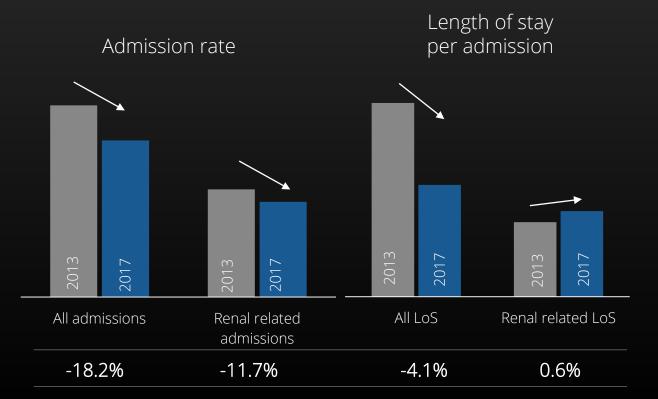
#### DiabetesCare programme

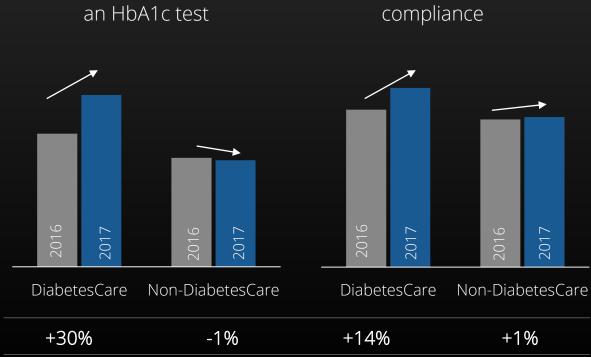
% diabetics who have had



Enrollment unlocks additional risk benefits Access to high quality coordinated care

% diabetics with medication





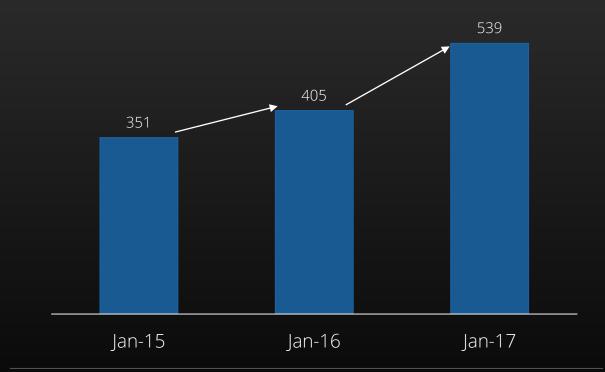
#### Record fraud savings and recoveries in 2017



Network analysis

#### Significant fraud savings

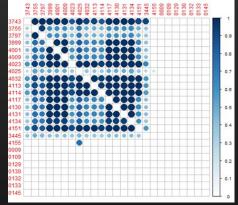
Fraud savings and recoveries in 2017 (Rm)

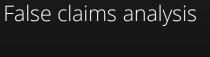


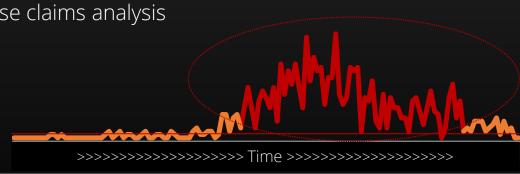
# in savings and recoveries

#### Sophisticated fraud analytics and tools









213 Monthly fraud probes 24m claims lines processed 2 500 Informa<sup>™</sup> reports COST TREATMENT

#### Extensive provider networks



Network	Geographic	Presence	Reach
GPs	SOTEMAN.  SOTEMAN  SO	>5 700 practices	87% of total GP visits within the Discovery Health network
Specialists	SOTISTINA SEATING  SEATING  S	>6 400 specialists	89% of total specialist visits within the Discovery Health network
Hospitals	SOTS MANA  MARKE  MANA  AND	>670 facilities	94% in-hospital coverage ratio

#### Providing affordable healthcare for members



Savings through Vitality and managed care

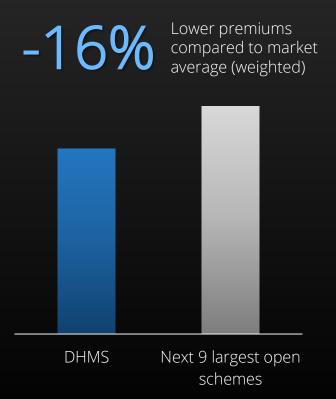




Competitive contributions for members

DHMS weighted average contribution increase

7.9% For 2018



Value for money

Value generated for every R1 paid to Discovery Health

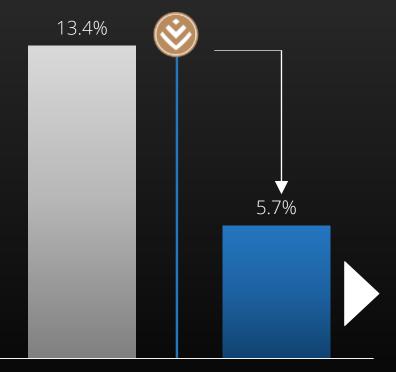


\*Unaudited results

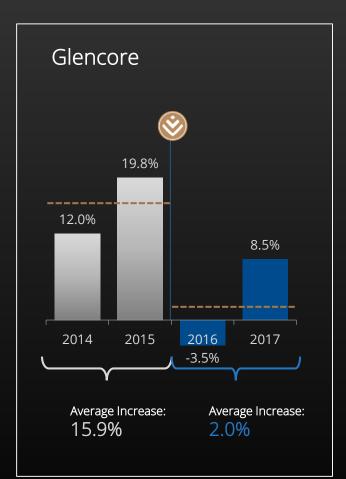
# Impact of the Discovery Health system on restricted schemes claims inflation

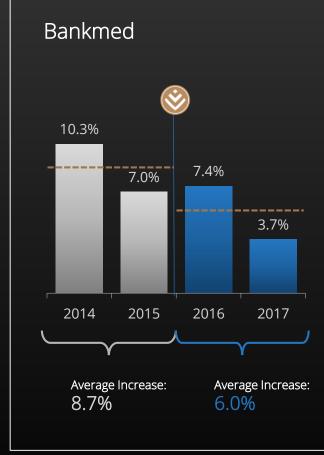


Weighted claims inflation for schemes pre and post Discovery Health administration



Pre Discovery Health Post Discovery Health

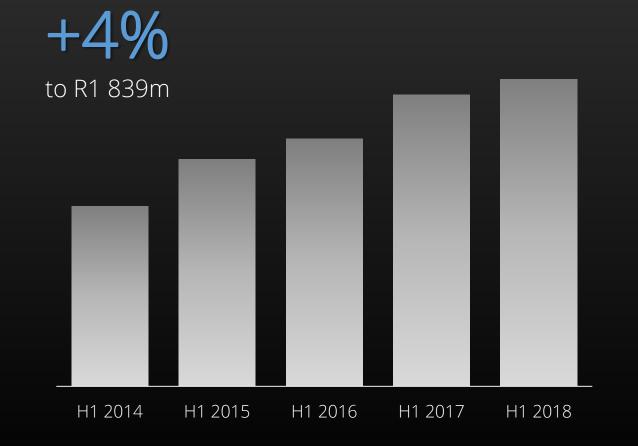






New business

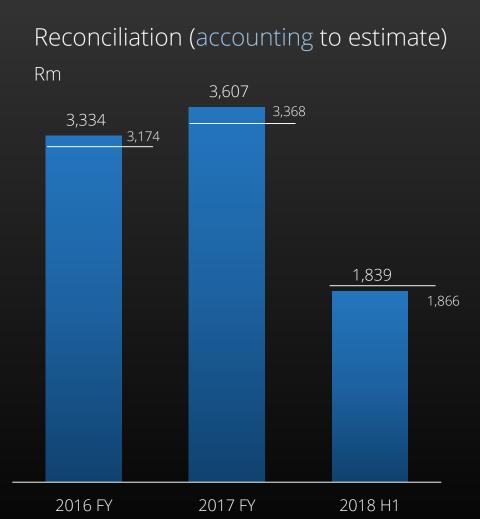
to R1 121m H1 2014 H1 2015 H1 2016 H1 2017 H1 2018 Operating profit



#### Derivation of profit





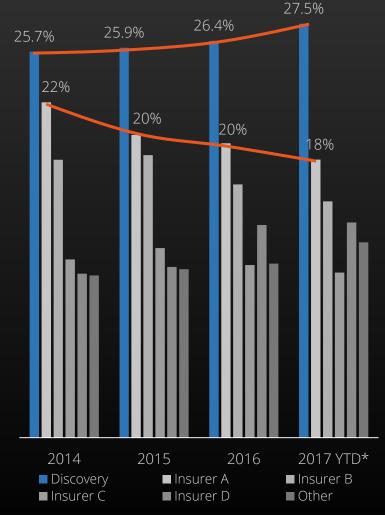


<sup>\*</sup> Gross of COC and Tax

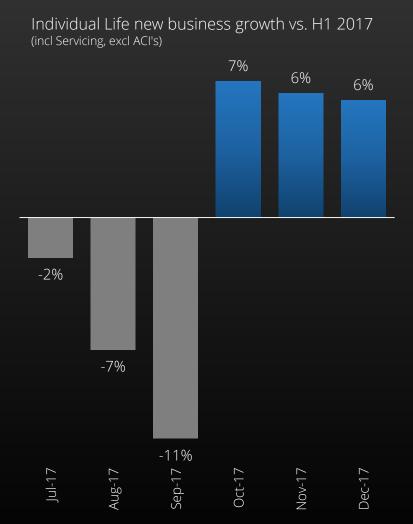
#### New business dynamics remain strong



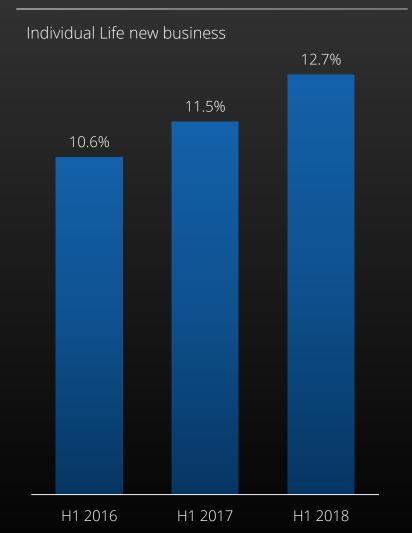
#### Growth in market share



#### Acceleration in Q2 post launch



#### Increasing VNB margin



Source: NMG Report \*Sep 2017

#### Positive experience variances for half year



Experience variances over time

Variances in H1 2018 (Rm)

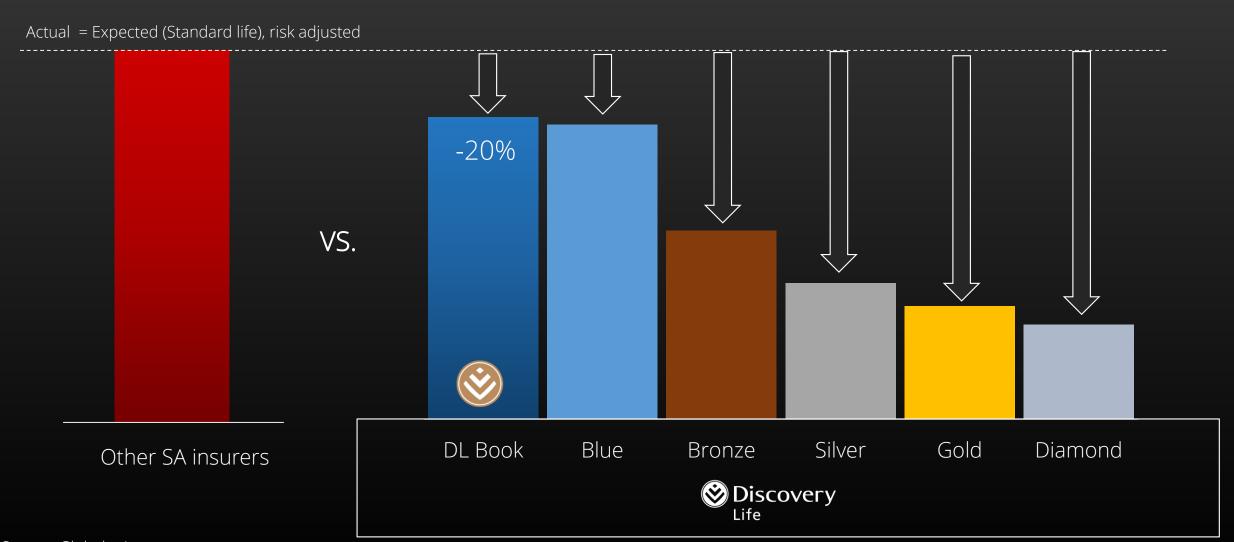
Trend in policy alterations



#### Reinsurer validation of the model



Actual experience vs. Standard life q(x)

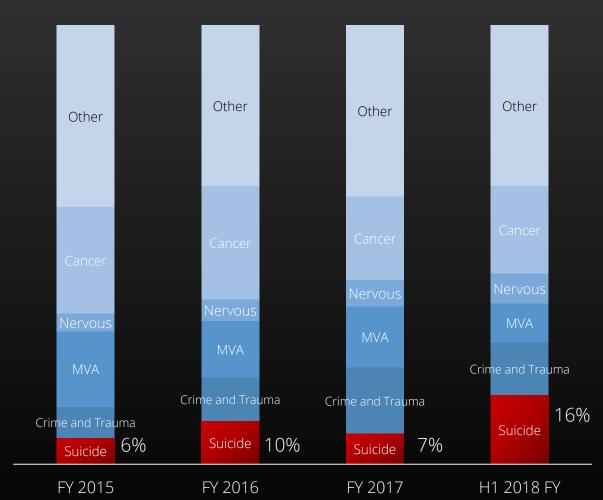


Source: Global reinsurer

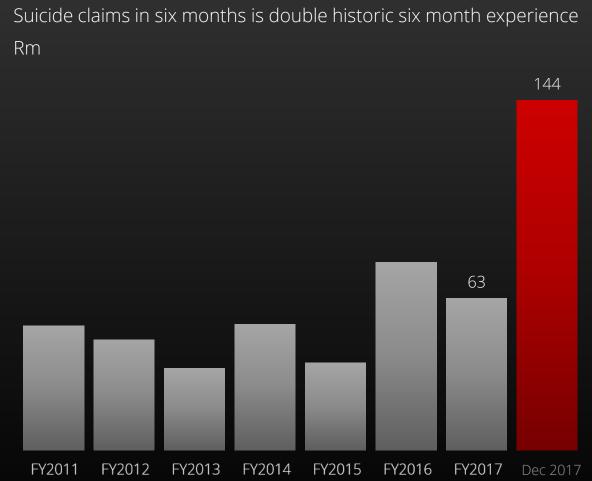
#### Claims volatility from non-natural deaths



Suicide as percentage of death claims



#### Small number of large policies



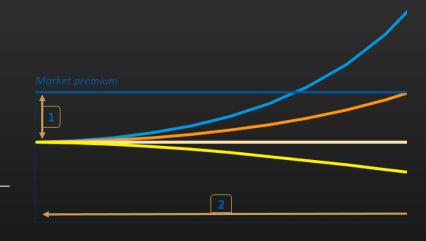
#### Dynamic pricing leads to dynamic mortality expectations



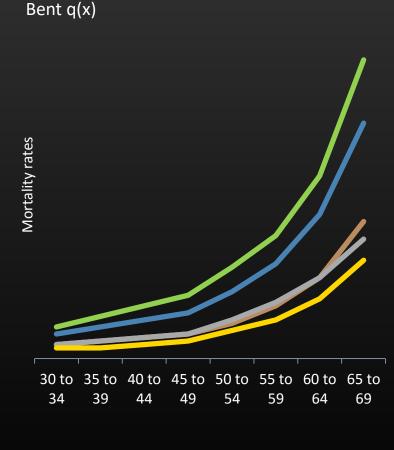


Bronze

#### Dynamic pricing



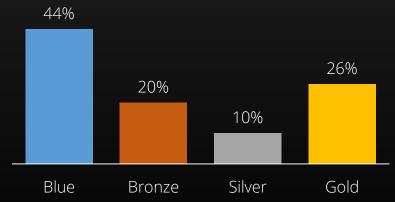
Expectations of mortality



None Blue Bronze Silver Gold

By sum assured

Blue



Silver

Gold

R2.5bn in premium discounts and PayBacks in the last six months

- Significant upfront premium discounts including Vitality
- 2 Dynamic pricing and behaviour change
- Regular PayBacks based on status

#### Vitality status driving extraordinary engagement

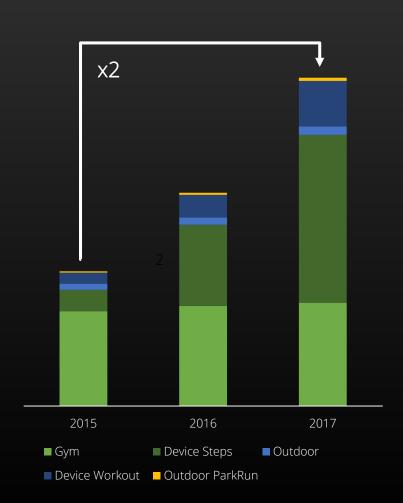


#### Actuarial refinement

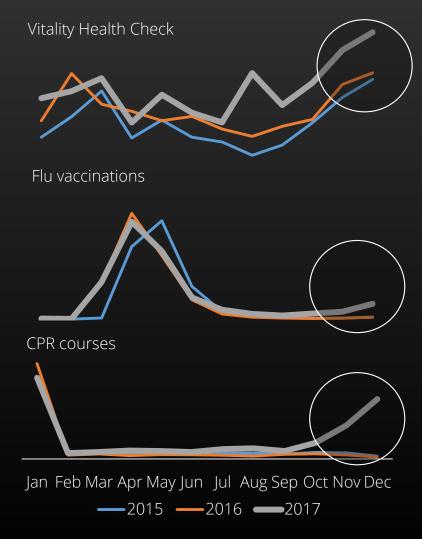
#### 10% Unverifiable, lower weighting 23% 5% 8% Exercise Focus on intensity vs. quantity CRF and HR verified activities, support increased use of devices and steps Screening Shift focus to outcomes vs. participation and focus on verifiable 2016 2017

#### Proliferation of wearables

Physical activity days per life policy



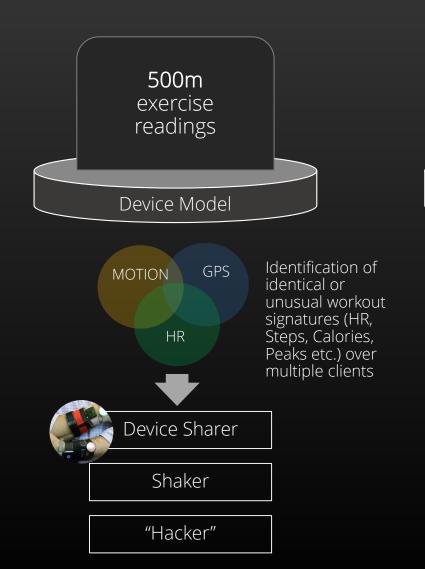
End of year points rush

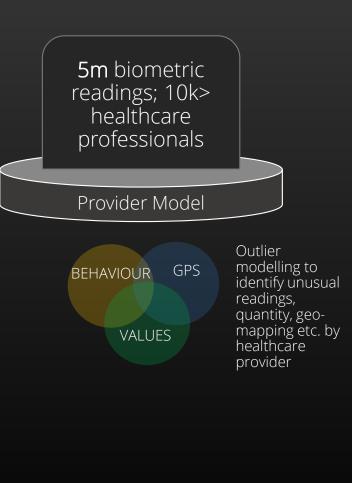


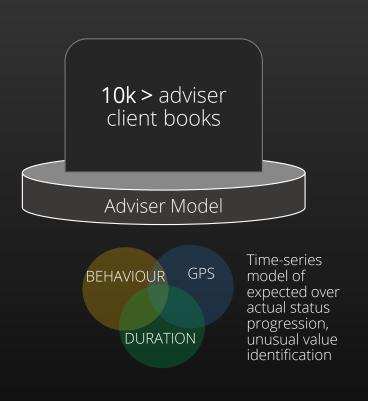
#### Fraud detection models and machine learning



99.2% of clients truthful but 3 000 Discovery Life Gold clients confirmed fraudulent Gold







#### Robustness of the negative reserve



#### DL profit estimate



1 Revenue x VNB margin\*

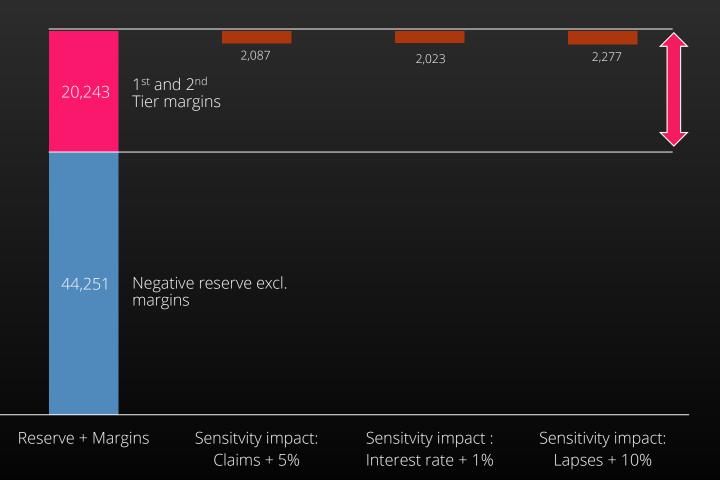


2 Experience variances



3 Discount rate x Negative reserve

Negative reserve robust despite sensitivities in assumptions (Rm)



\* Gross of COC and Tax





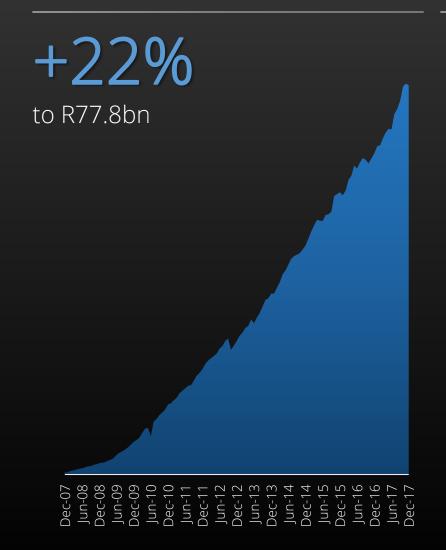
#### Drivers of operating performance

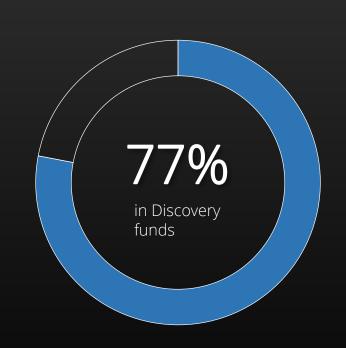


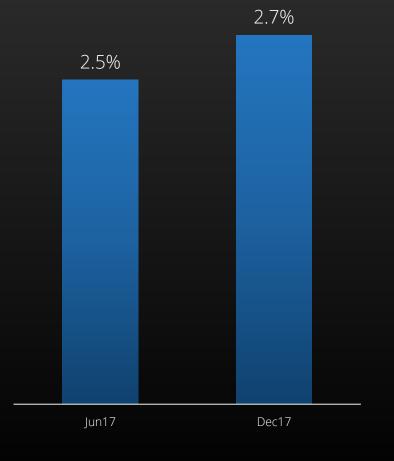
Assets under management

Business mix

VNB margin







#### Brilliant fund performance



Discovery Invest ranked 4th in PlexCrown ratings (Up from 12th)

Fund	Fund Size	1 Year Return	Sector Quartile	3 Year Return (Annualised)	Sector Quartile	5 Year Return (Annualised)	Sector Quartile
Discovery Balanced Fund	R22bn	11.3%	2	8.1%	1	11.5%	1
Discovery Equity Fund	R2bn	13.9%	2	9.1%	1	6.1%	4
Discovery Flexible Property Fund	R3bn	16.3%	2	11.2%	2	13.5%	2
Discovery Moderate Balanced Fund	R0.9bn	11.3%	1	8%	1	11.4%	1
Discovery Cautious Balanced Fund	R1.6bn	10.2%	1	7.5%	1	9.0%	1



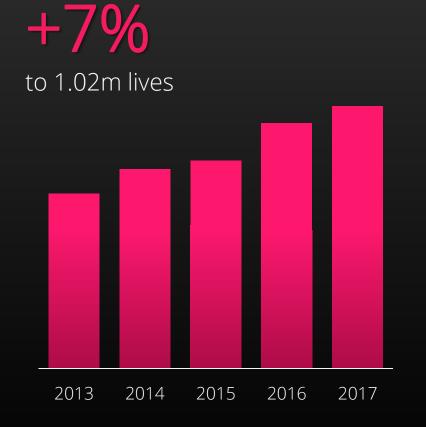
New business

Operating profit

Lives covered



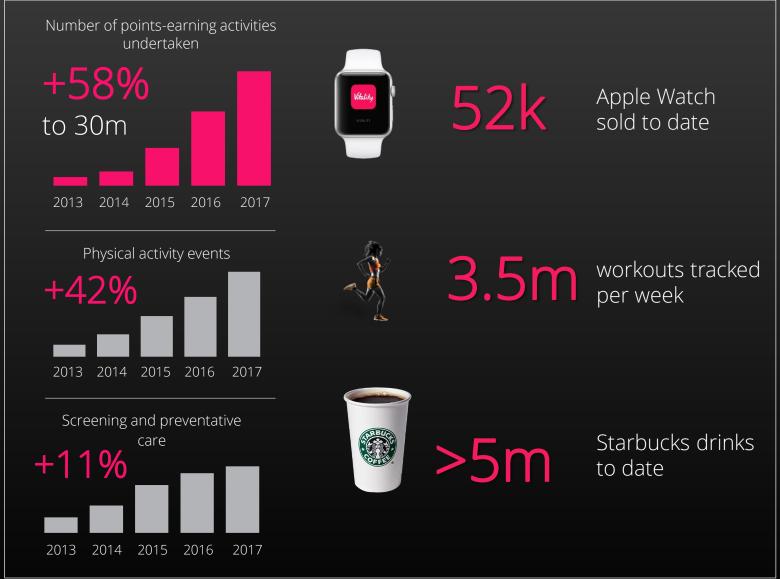




#### Exceptional engagement











#### Vitality brand competes on its own terms



#### Antagonist

#### Stanley

Creates brand tension with charming irreverence for healthy living messaging

#### I think I'll just stay here actually







#### Inspirational

#### Vitality ambassadors

Bring fame and credibility as the inspiring embodiment of healthy living



Jessica Ennis-Hill



Jonny Wilkinson



Maro Itoje



Ellie Simmonds



loe Root

#### Visible

#### Sporting strategy

Believe in the power of sport to help inspire people to live a healthy life. Partner with leading teams and events to spread the Vitality message



















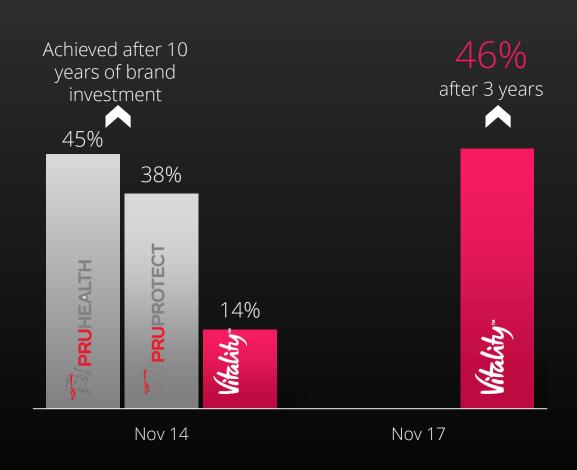


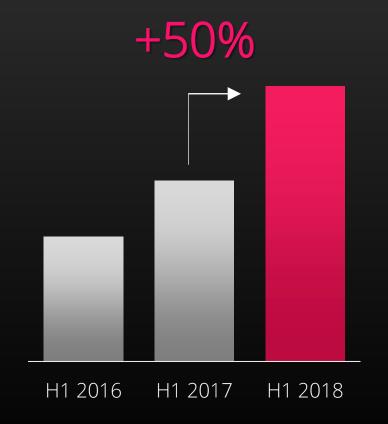
#### Brand strategy yields powerful presence



Prompted brand awareness of Vitality

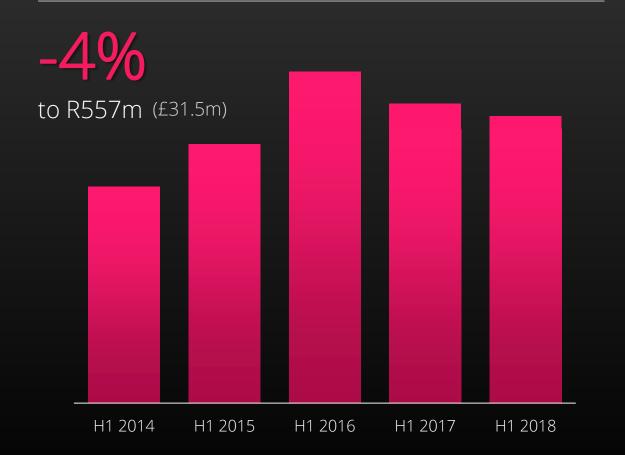
Leads generated through direct channels



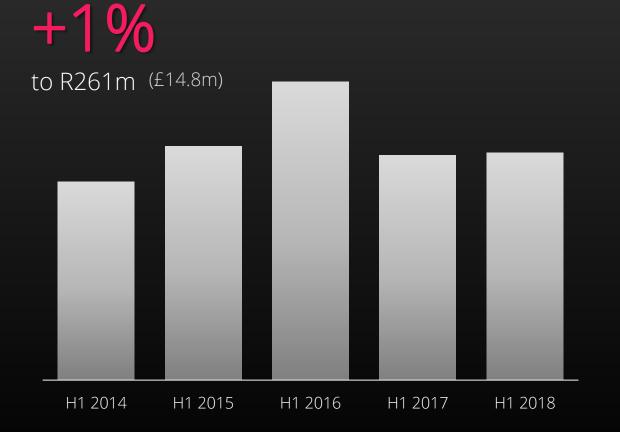


# Vitality LIFE INSURANCE

New business

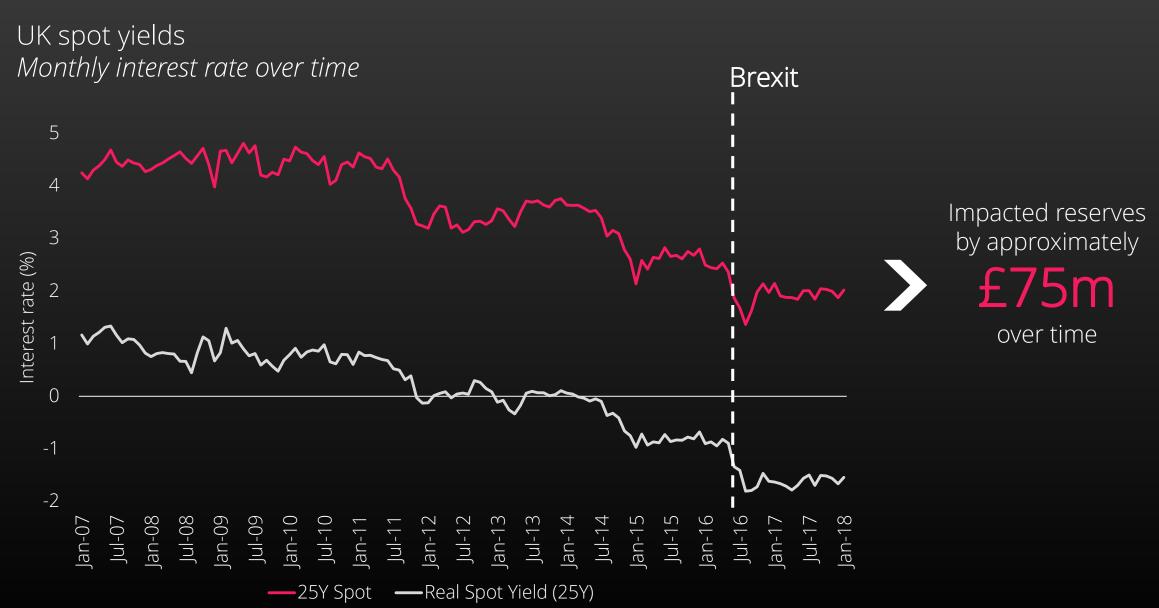


Operating profit



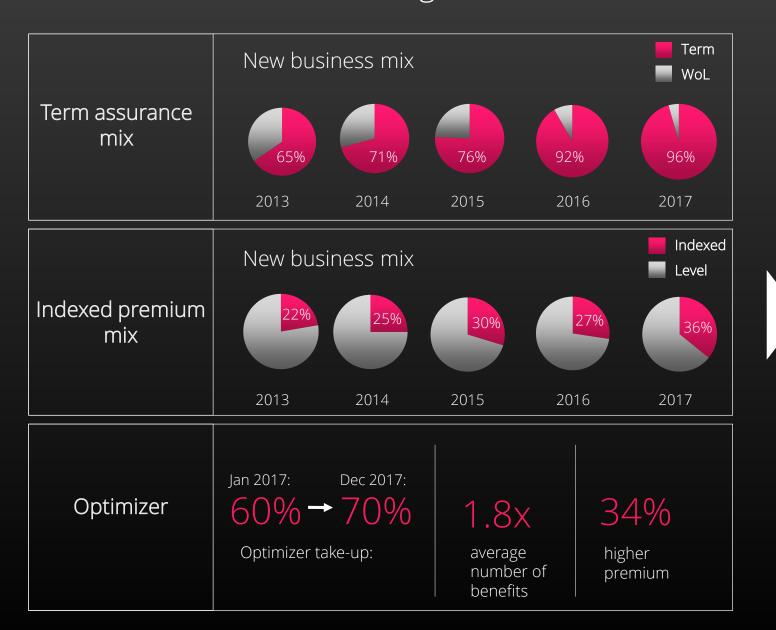
#### Interest rate environment

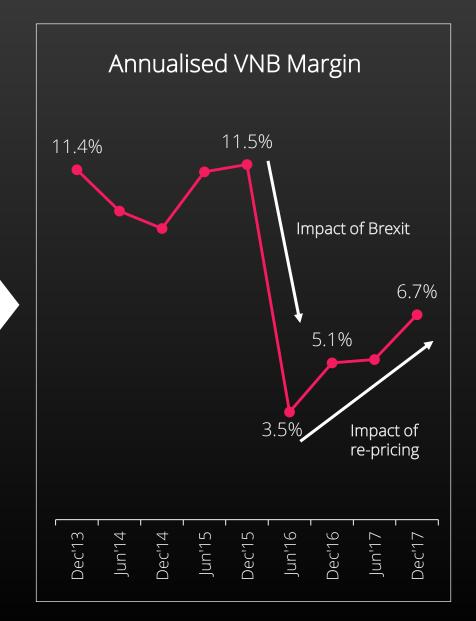




#### Business has been reconfigured for low interest rate environment



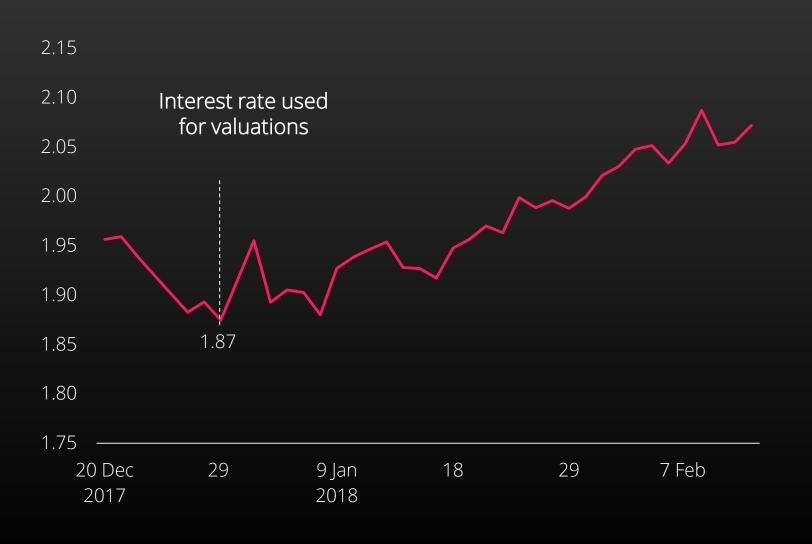




#### Upside as interest rates rise



UK 25y spot yield



### 1bps

increase in interest rate (at current levels)

 $\rightarrow$ 

+ £0.9m

Change in reserve

# Vitality HEALTH INSURANCE

New business

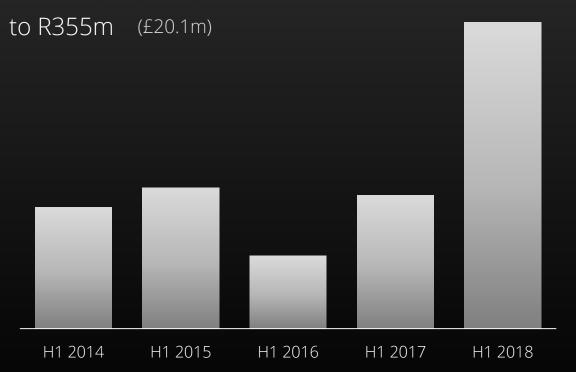
+18%

to R522m (£29.5m)



Operating profit

+150%

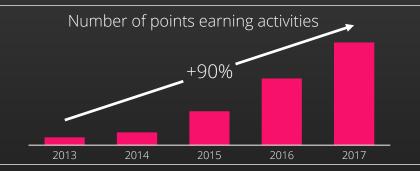


#### Strong operating performance driven by key factors



Vitality engagement

Member engagement continues to increase rapidly

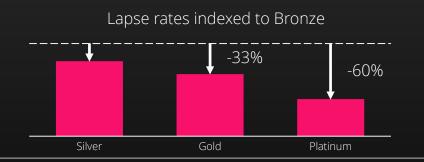


31 - 45% reduction in risk

reduction in risk factors

Selective retention

Value and retention propensity models used to improve effectiveness of renewal pricing



Contributes

45%

to loss ratio improvement

Tariff savings and risk management

TD

Tariff savings:

Care pathways:



~15%

improvement in cost per claim

#### Sophisticated machine learning applied in multiple contexts



# Unique data set 1 Demographic & health status (age, health conditions, postal code etc) 3 Health System interactions (hospital network, referrals etc)

2 Wellness behaviour

(exercise, nutrition, smoking, rewards etc)

> 100

behavioural & geospatial indices

> 100m

possible combinations of risk factors

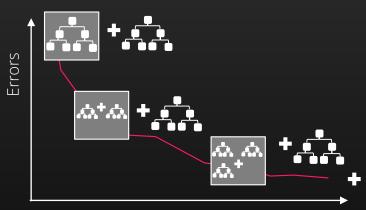
>2.75 TB

of data

#### Gradient boosting machines

Model

Learning algorithms that reduce prediction errors as they iterate



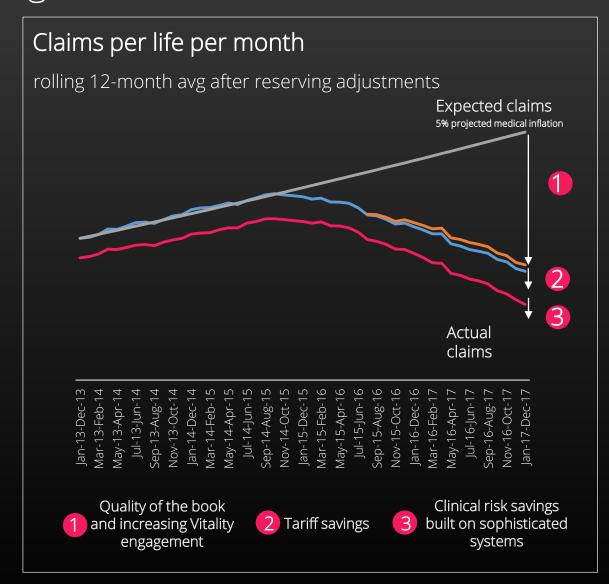
Algorithm iterations

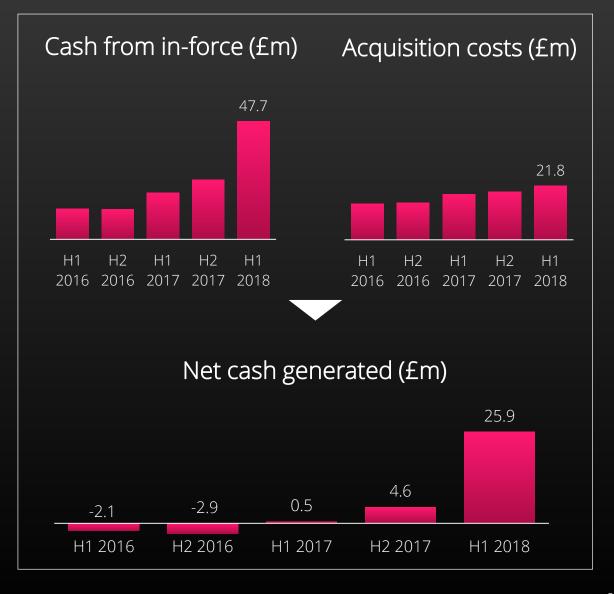
Uses

- new business and renewal pricing
- lapse propensity models
- sales and marketing
- engagement
- risk management
- fraud detection

# Significant improvement in risk profit and strong cash generation









# Businesses

S Discovery



中国平安 PINGAN



**Oiscovery**Life



VitalityHealth

VitalityLife

Discovery Bank
Vitality Invest
Commercial insurance
Umbrella funds

Emerging

Established

New

#### Observations for the period



Performance



+ 1 6 %

to R 9 303m

100 to 10 20 20 to the color of the colors

+19% to R 4 059m +30% to R 2 829m

Operating model



3 Business performance



4 Vitality Shared-Value Insurance



