



THE SCIENCE OF VITALITY

CONTENTS

LIVE
LIFE
WITH
VITALITY



Pg 07
Pg 08
Pg 10
Pg 14
Pg 15
Pg 16
Pg 17
Pg 19
Pg 20
Pg 21
Pg 22
Pg 33
Pg 36
Pg 38
Pg 39
Pg 42
Pg 44
Pg 45
Pg 46
Pg 48
Pg 50
Pg 51
Pg 52



Discovery Ambassadors 2022

VITALITY



Vitality is a behaviour-change platform, which guides and incentivises people towards better health, driving and financial behaviour. Vitality combines insights from **behavioural economics with insights from clinical science, driving, as well as personal financial management**. In understanding the correlations between behaviour and outcomes, we have designed the platform to address those areas that have the **biggest potential to change risk outcomes** over the long term. The model applies behavioural design principles in creating interventions that provide members with pathways to reduce personal risk, and incentivises them to improve behaviour through three programmes – **Vitality Health, Vitality Drive and Vitality Money**.

The ***Science of Vitality*** journal explains this evidence-based approach that **encourages and rewards members for exercising more, driving better and spending responsibly**. The journal also details how the Vitality environment creates **a happier and healthier society** for the long term, and why this effective approach has resulted in **partnerships with some of the leading insurers** around the world. Vitality easily integrates into insurance and financial services, creating shared value for individuals, society, business and partners. Today, **Vitality is available in 36 markets covering more than 20 million members**.

FOREWORD

ADRIAN GORE

Globally, there has been a fundamental shift in business. Companies are expected to align their goals with societal benefits and to put purpose, rather than profit, at the centre of their business model. Interestingly, this has always been the basis of the Vitality model.



ADRIAN GORE | FOUNDER

I must explain how Vitality was born. Discovery Limited is a global, integrated financial services organisation. It was founded almost three decades ago with a core purpose of making people healthier and enhancing and protecting their lives. We enable this core purpose through our globally recognised Shared-value Insurance model, which is underpinned by our behaviour-change platform, Vitality.

When Vitality launched in 1997, we did something profound. Faced with a high and complex disease burden, too few doctors, and community-rated insurance, Discovery recognised the need to intervene on the demand side of healthcare by prioritising prevention. By incentivising Discovery Health Medical Scheme members to engage in healthier behaviours such as going to the gym and making healthy food choices, they would stay healthier and essentially live longer.

WHY IS THIS MODEL DISRUPTIVE?

The insurance industry has a unique role in building more resilient communities. Apart from government, insurance is the only entity that can tangibly monetise improved health outcomes. However, most insurance models fail to account for the change in insurance risk, from pre-existing conditions to human behaviour.

In contrast, the Vitality Shared-value Insurance model focuses on behavioural components that decrease risk, offers clients a range of personal pathways to help reduce their personal risks, and rewards them in the process.

This creates a virtuous cycle, because as our clients engage in Vitality and improve their behaviours, our business benefits and society thrives. This is the model that we have scaled around the world, through partnerships with leading insurers. Vitality is now in 36 markets, reaching more than 20 million lives.

Today, Vitality has evolved into three programmes: Vitality Health, Vitality Drive and Vitality Money, with hundreds of partners who help us reward members. Vitality has launched bespoke programmes for doctors and employees, and for kids, teens and those older than 65.

The programme touches all aspects of life once you are engaged - with the ultimate goal of making millions of people around the world healthier, wealthier and safer.

The *Science of Vitality* Journal explains how this model works - for you, for society and for us as a purpose-led, shared-value business.

EXECUTIVE SUMMARY

DINESH GOVENDER

I am astounded by the impact of Vitality in the 25 years of the programme's existence. Whether it is in a fight against a pandemic or our ongoing efforts to tackle non-communicable diseases, to financial wellbeing and more, Vitality is life-changing for those who engage with it.



Vitality is a behaviour-change programme that finds its apex in technology.

This is backed by an enormous amount of data and science. With this in mind, we have created *The Science of Vitality Journal* to show simply and clearly how the programme manifests in tangible change for the better.

Because Vitality is built on the insight that much of the nature of risk is behavioural, enabling behaviour change can reduce the risks our members are exposed to. We know that our most engaged members (Diamond Vitality status members) are likely to **live longer**, are more likely to **exercise often** and **eat healthier foods**, with resultant **better mental wellbeing** and those all-important health **screening** outcomes. So too, for our Money and Drive programmes, which also address fundamental societal issues. Using goal-setting, incentives and other behavioural economics tools, we have created positive change in society. Vitality is a powerful tool for us all.

The simple science behind Vitality is to encourage ongoing behaviour change. Vitality does this by offering people a combination of knowledge, access to wellness partners (for example, fitness clubs and devices) and financial incentives that increase proportionally as members engage with the programme.

Our aim is to protect not only our members, but also the broader population in South Africa and people around the world. We have consolidated both independent and internal research that validates the programme's positive impact. *The Science of Vitality Journal* explains the "why" and "how" we make people healthier. I hope it informs and encourages each of you who read this to make a positive difference in your own life and to those around you.

INTRODUCING VITALITY



WHAT SETS VITALITY APART: SHARED VALUE

The concept of shared value is described by Professor Michael E Porter of Harvard Business School and Mark Kramer, co-founder and a managing director of FSG, in their influential 2011 Harvard Business Review article, [Creating shared value](#).

Shared-value practices offer companies new ways to innovate, compete and create a sustainable business environment - at scale - and address significant social and environmental challenges.



Vitality is Discovery's demonstration of the shared-value model

We are building a new category of financial services, based on our Shared-value Insurance model.

The Vitality Shared-value Insurance model is the engine that enables our core purpose. It is built on the Vitality behaviour-change platform, and guides and incentivises people to engage in better health, driving and financial behaviour.

First applied in South Africa and the United Kingdom by Discovery's insurance companies, Vitality's behaviour-change platform includes a network of the largest insurance companies, representing more than

35% of the global personal protection market.

A distinguishing feature of Vitality is the use of incentives and lifestyle rewards to encourage people to make healthier choices a habit. This results in a positive shift in behaviours that are linked to better health. An increase in these healthy behaviours produces benefits for both insurers and society.

A shift to a new way of insurance globally

Discovery seeks to lead a global transformation of financial services, enabled by our Shared-value Insurance model.

On the strength of this model, we build brilliant businesses that grow organically and have the potential to transform the industries in which we operate. Our shared-value approach is scalable, repeatable and globally relevant. It is the foundation of each business, creating a compelling value proposition for clients, competitive advantages for our business, a powerful platform for clients and strong behaviour change for society, with long-term value creation.

The insurance industry has an opportunity to align its business interests with behaviours that lower health, driving and financial risks.

Insurance companies are increasingly recognising their ability to put a monetary value on people's health and positive health behaviour. Many insurers are committing to take on the social responsibility of making people healthier.

The results of Discovery's Shared-value Insurance model

Shared-value insurance is more than simply offering financial protection against disease or pricing insurance cover based on an existing condition. It helps people become healthier and rewards improved health achieved through exercise, better nutrition and other healthy lifestyle choices. Shared-value insurance makes insurance more affordable, and the premiums are under the control of the client.

Insurers on the Vitality platform have seen a considerable change to their businesses in the form of greater returns, increased sales, a healthy and engaged client base, and a visible social impact from positive behaviour change.

The Vitality model has been incentivising behaviour change among its members for 25 years.

Studies on Vitality have proven it can help significantly improve health outcomes and lower insurance costs.

By incentivising behaviour changes that lead to better health, Vitality can generate economic value to fund the incentives that drive better behaviour.

WHAT SETS VITALITY APART: **BEHAVIOURAL ECONOMICS**

What is behavioural economics?

Behavioural economics is a sub-discipline of economics that incorporates psychology in the study of how people make decisions.

The power of behavioural economics

The concept of behavioural economics is best explained by Nobel Prize-winning Richard Thaler, Professor of Behavioural Science and Economics at the University of Chicago.

Behavioural economics explains how and why people behave the way they do in the real world. It has shown that people do not always make “rational” or “optimal” decisions, even if they have the information and the tools available to do so.

How Vitality applies behavioural economics principles

Vitality applies behavioural economic principles in innovative ways to encourage members to be healthy, drive safely and manage their money well. Anchoring the design of the Vitality programme on behavioural economics principles allows us to realise shared value.



We make thousands of decisions daily.

HERE'S HOW WE NUDGE YOU TO MAKE BETTER CHOICES.

The Vitality programme uses scientifically proven interventions informed by behavioural economics to encourage people to follow healthy behaviours. These techniques have led to improved health behaviours and engagement in the programme.



Behavioural economics teaches us that people are biologically unable to process all the information available to them to make decisions that are in their long-term best interest.

Instead, we rely on heuristics – mental shortcuts or “rules of thumb” – to make quick decisions, which are often not optimal.

By investigating the role of psychological factors in the way humans make judgements and decisions, behavioural economics has also come up with interventions that reduce the effect of biases to improve behaviour and outcomes.

It is human nature to prefer staying in our current situation rather than starting a new behaviour that takes time and energy. But behavioural interventions that are meaningful and made at the right time can inspire people to get started and practise new behaviours. As their new behaviours are continually rewarded, they are further motivated to stay on track to form new, healthier habits.

Vitality understands the power of timely incentives.

We've had notable success with our Vitality Active Rewards programme, which shows that short-term incentives are a powerful driver of behaviour change.

Behavioural economics

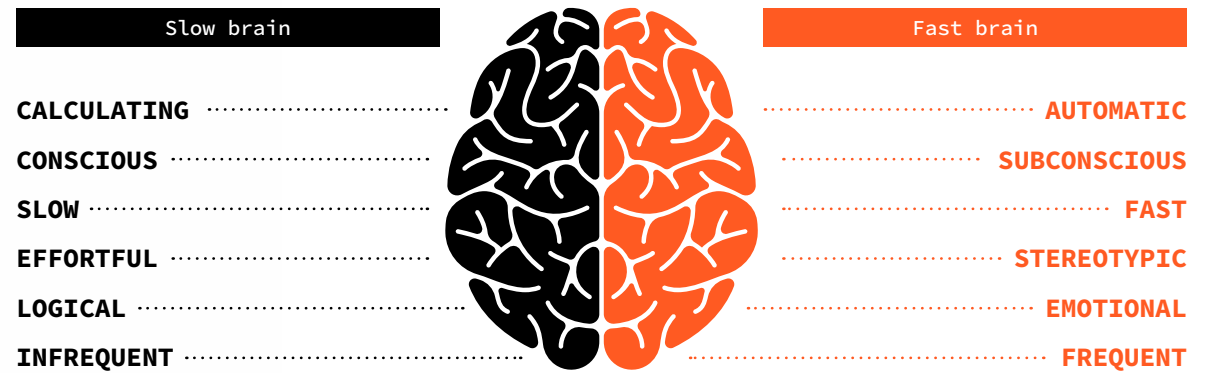
95%

of decisions
are made
subconsciously.

Humans are subject to cognitive biases, which are errors in thinking that then lead to judgements or decisions that deviate from what is considered "rational".



We favour our "fast" brain...



... which results in decision biases



Let's take a look at how global society is doing:

Global megatrends tell us that in health, non-communicable diseases or diseases of lifestyle claim the lives of 41 million people each year (WHO, 2021a). Additionally, 1.3 million people die each year because of road-traffic crashes (WHO, 2021b). Financially, global retirement savings are low and debt levels are rising.

To improve overall wellness holistically, we must consider what compromises health, wealth and safety.

How Vitality changes the world

Vitality improves health and driving behaviour, and encourages responsible spending

ABOUT OUR CORE PURPOSE

Our business model and strategy (how and what we do) is purpose-led and designed to enable the delivery of our core purpose (why we do it).

WHY

Our core purpose

To make people healthier and enhance and protect their lives.

HOW

What sets us apart

The engine for enabling our core purpose is our Shared-value Insurance model, which is built on the Vitality behaviour-change platform.

WHAT

What we do

Shared-value insurance creates a virtuous cycle, which shares material benefits with clients, who sees greater health and financial rewards, the insurer as the business, and society, which benefits from lowered healthcare costs and a healthier, more productive workforce.



VITALITY HEALTH



VITALITY DRIVE



VITALITY MONEY



VITALITY HEALTH

HOW THE VITALITY HEALTH PROGRAMME WORKS

Vitality is a dynamic and science-based behaviour-change programme that combines data analytics with rewards and incentives to help people make healthier choices.



LET'S LOOK AT OUR HEALTH



Physical inactivity

Globally, **1 in 4 adults** do not meet the global recommended levels of physical activity.

Source: WHO, 2020

More than **1 in 3 South Africans** are not active enough.

Source: WHO, 2016

Physical inactivity is associated with **5 million deaths** each year worldwide.

Source: WHO, 2020



Smoking

23% of the global population uses tobacco.

Source: WHO, 2019 (2020 projection)

In South Africa, **30% of men and 6% of women** smoke daily.

Source: NDoH *et al.*, 2019

Globally, **tobacco kills more than 8 million people each year** – up to half of its users.

Source: WHO, 2021c



Poor nutrition

Ultra-processed foods and drinks, shown to negatively affect health, contribute to **more than 50%** of energy intake in some countries.

Source: Vandevijvere *et al.*, 2019

South Africans eat **twice as much sugar and salt**, and **half as many fruit and vegetables** than recommended, increasing the risk for being overweight, obesity and lifestyle diseases.

Source: Schneider *et al.*, 2007; Temple & Steyn, 2013; Wentzel-Viljoen *et al.*, 2013

Globally, **1 in 5 deaths** are associated with a poor diet.

Source: Afshin *et al.*, 2019



Alcohol abuse

18% of people worldwide drink heavily on occasion.

Source: WHO, 2018a

In South Africa, **5% of women and 28% of men** report risky drinking.

Source: NDoH *et al.*, 2019

Worldwide, **3 million deaths** every year result from the harmful use of alcohol (5% of all deaths).

Source: WHO, 2018b

MENTAL HEALTH DISORDERS AND POOR SLEEP ARE ADDING TO THE CHALLENGE



Worldwide, **more than 1 billion people** are affected by mental and addictive disorders – around 16% of the world's population.

Source: Rehm & Shield, 2019

30% of South Africans experience a mental disorder at some point in their lives.

Source: Herman *et al.*, 2009

There is a link between mental and physical health: poor mental health is a risk factor for chronic conditions, while living with a chronic condition increases the risk for developing poor mental health – for example, depression is associated with an **18% increased risk of type 2 diabetes**.

Source: NIMH, 2021; Graham *et al.*, 2020



One in three adults suffers from poor sleep.

Source: NHS, 2021

Chronically not getting enough sleep has been linked to increased mortality and several health conditions including diabetes, hypertension, cardiovascular diseases and obesity, and it may lead to long-term mood disorders like depression and anxiety.

Source: Itani *et al.*, 2017

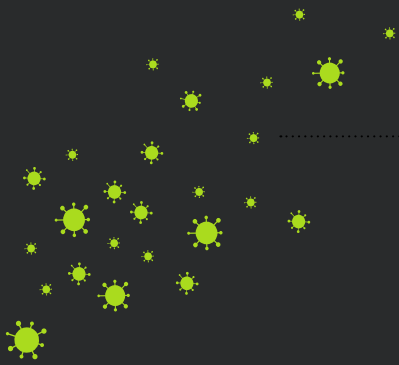


THE COVID-19 PANDEMIC

WORSENERD MENTAL HEALTH GLOBALLY

It is estimated that major depressive disorders increased by 28% and anxiety disorders increased by 26% due to the COVID-19 pandemic.

Source: Santomauro *et al.*, 2021



THE COVID-19 PANDEMIC HIGHLIGHTED THE SIGNIFICANCE OF BEHAVIOURAL RISK

The relevance of our core purpose as a business – making people healthier, and enhancing and protecting their lives – was heightened during the COVID-19 pandemic, as we saw that behaviour was central to reducing the spread of the disease.

Research shows the importance of promoting and supporting healthy lifestyle behaviours to reduce the risk of severe disease from COVID-19, reinforcing the importance of Vitality engagement in the fight against COVID-19.

OBESITY

is a risk factor for hospitalisation, ventilation and death due to COVID-19.

The increased risk of death from COVID-19 ranges from 8% for people with obesity class 1, to **61% FOR THOSE WITH SEVERE OBESITY**, compared to those with a healthy weight.

Source: Kompaniyets *et al.*, 2021

In addition, **CERTAIN MEDICAL CONDITIONS, SUCH AS DIABETES AND HEART CONDITIONS**, increase the risk of severe illness from COVID-19.

Source: CDC, 2021a

THE GOOD

NEWS

YOU CAN CHANGE YOUR BEHAVIOUR AND, IN DOING SO, REDUCE YOUR RISK.



KNOW YOUR HEALTH

Members are incentivised with Vitality points to know their health by taking part in online health assessments, and biometric and preventive screening performed by healthcare professionals.

1 IN 2

ADULTS WITH DIABETES

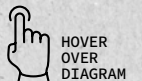
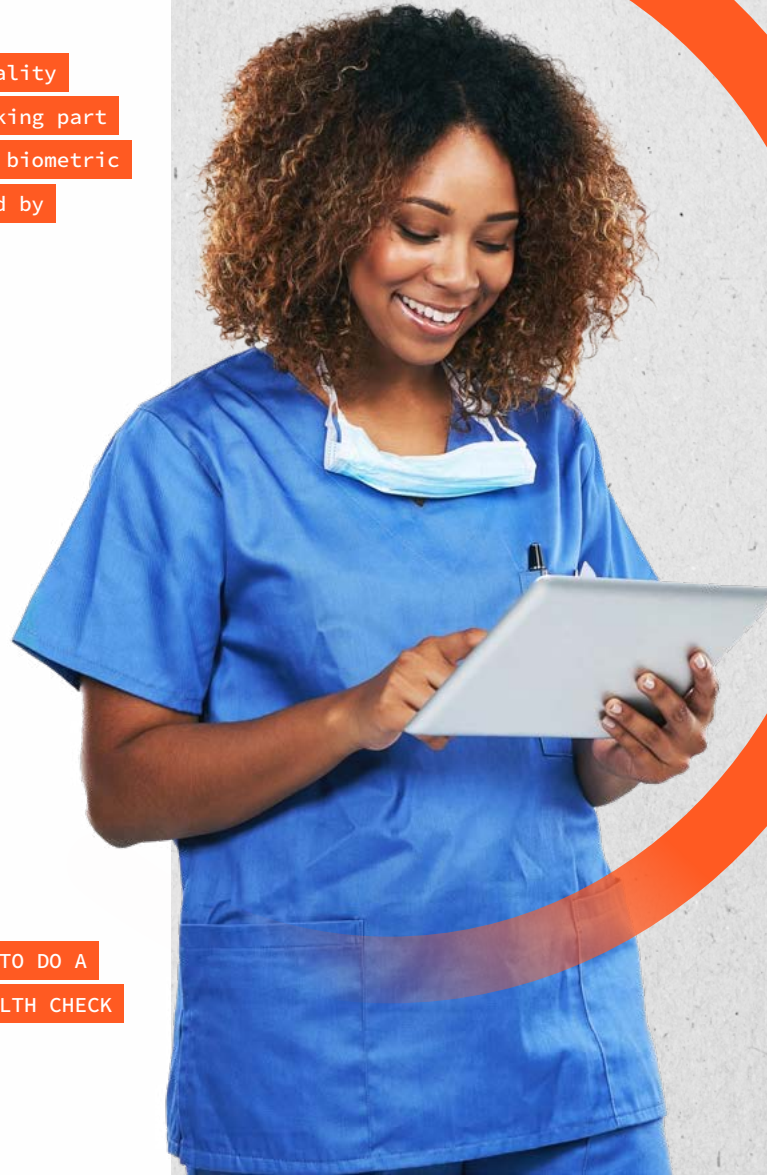
DON'T KNOW IT

Source: IDF, 2021

ENGAGED VITALITY MEMBERS ARE

10X

MORE LIKELY TO DO A VITALITY HEALTH CHECK



IMPROVE YOUR HEALTH

VITALITY INTERVENTIONS FOCUS ON FOUR KEY AREAS

Physical activity



Using the science of health behaviour change, we get members to **move more**.

Nutrition



Using education, incentives and nudges, Vitality helps members **buy, cook and eat** healthier.

Mental wellbeing



The Vitality mental wellbeing programme uses assessments to determine the overall state of members' mental wellbeing and rewards them for taking proactive steps to **understand, improve and maintain** their mental wellbeing.

Smoking cessation



Vitality supports members who want to **quit smoking**, with discounted access to the world's leading smoking cessation programmes.

Physical activity

We get you moving

MEMBERS CAN EXERCISE IN A WAY THAT SUITS THEM – AND SAVE – WHEN THEY GET ACTIVE

Vitality members can earn Vitality fitness points for achieving exercise goals and get rewarded. Earning Vitality fitness points through regular physical activity motivates members to stay active, which has significant health benefits. Members can earn points through workouts at our fitness partners or by tracking their activity using a Vitality-linked fitness device.

Vitality as a behaviour-change platform champions physical activity by removing barriers (such as cost, access to devices and lack of motivation) to get people into gyms, exercising outdoors and in groups, ultimately helping people to improve health outcomes.



39.1

MILLION

FITNESS GOALS ACHIEVED

since January 2016 to December 2021

THE PROTECTIVE EFFECTS OF VITALITY ENGAGEMENT ON LIFESTYLE DISEASES

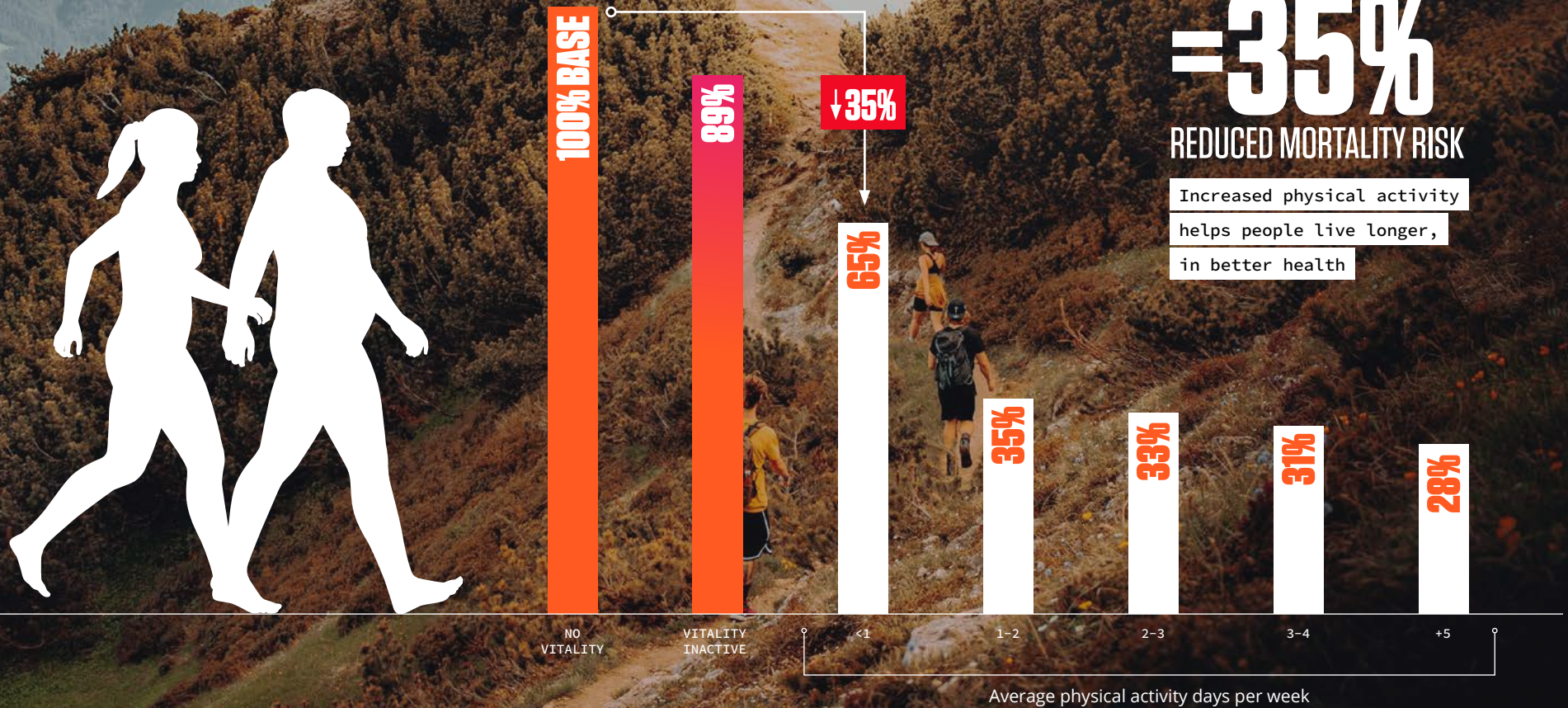
Increased physical activity is positively correlated with reduced mortality risk

NO VITALITY TO ONE PHYSICAL ACTIVITY DAY PER WEEK

=35%

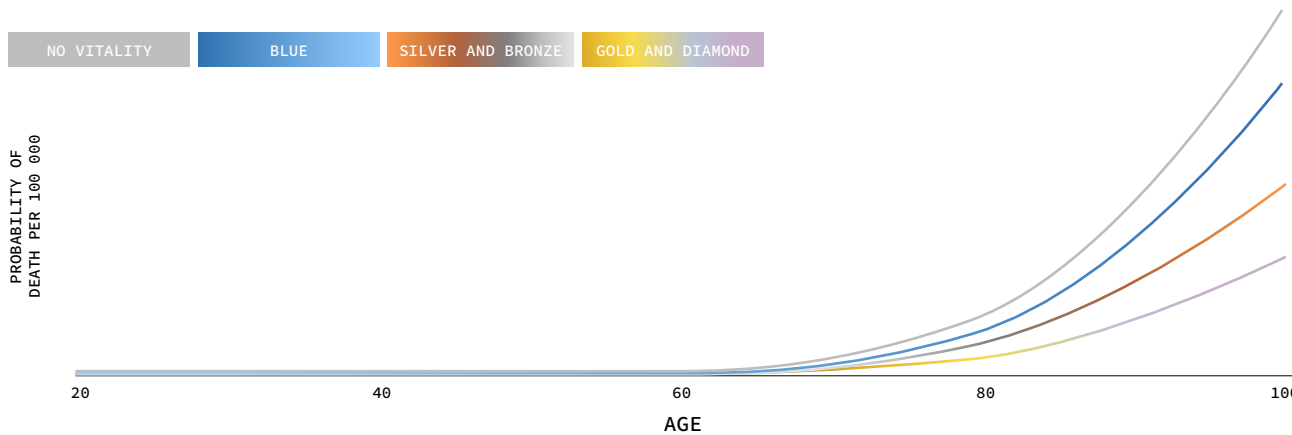
REDUCED MORTALITY RISK

Increased physical activity helps people live longer, in better health

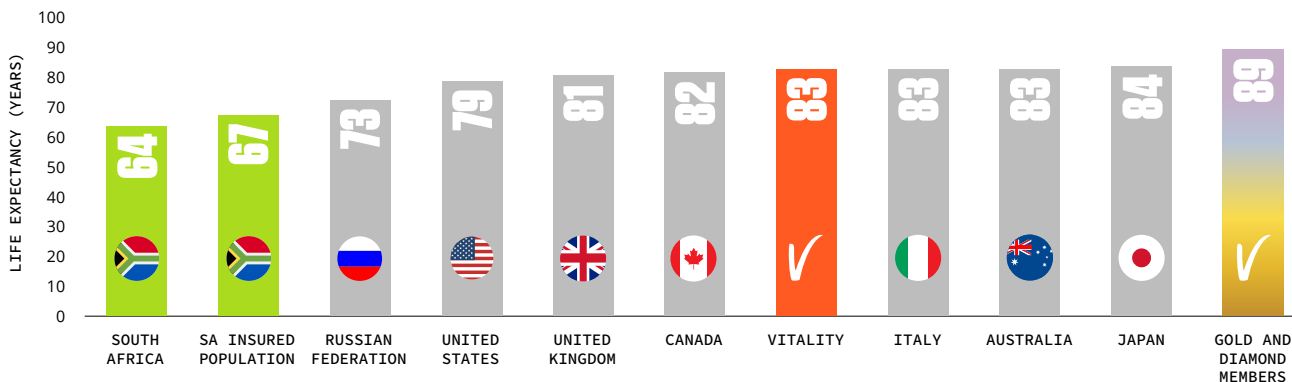


THE BENEFITS OF VITALITY ENGAGEMENT – HEALTHY AGEING

Across all ages, **Gold and Diamond Vitality members have been shown to have lower mortality risk and higher longevity than other Vitality status members.** This reduction in mortality risk is very noticeable among older people, where more deaths are due to natural causes that can be linked to lifestyle behaviours. This improvement in mortality is linked to a drop in the number of deaths among members who have improved their Vitality statuses.



The lower mortality risk for Gold and Diamond members as a result of their healthier lifestyle and behaviour leads to a significant increase in their life expectancies. A typical 40-year-old **Gold or Diamond member has a life expectancy of 89 years, compared with 67 years for the insured population in South Africa.**



The overall impact of Vitality on mortality rates is significant. By making people healthier, we have achieved the following:

1,407,116
LIFE-YEARS GAINED,
BASED ON ADJUSTMENT
IN LIFE EXPECTANCY



AN AVERAGE
REDUCTION IN
MORTALITY OF 13%
ACROSS ALL STATUSES



LIFESPAN VS HEALTHSPAN

Vitality's pioneering HealthyFutures algorithm calculates the number of years individuals can expect to live in good health

Vitality's research quantifies the widening gap

between **lifespan** (life expectancy) and **healthspan** (the number of years lived in good health)

globally, reflecting a diminishing quality of life in later years.

- Research shows that the number of years people are spending in ill health is increasing, primarily due to the rising prevalence of chronic diseases, driven by unhealthy lifestyles.
- Experts call for focus on healthspan, the quality of life, alongside lifespan, the quantity of life, citing significant economic and social benefits.
- The research demonstrates that a few, simple changes to lifestyle behaviours can have an enormous impact on healthspan and quality of life.

About the study

The research highlights an average 15% increase since 1990 in the number of years that people will spend in ill health over their lifetimes, from



which equates to approximately 18% of the average lifespan.

This outcome follows population health strategies that prioritise treatment over prevention, and greater sophistication of healthcare treatments and technologies that allows people to live for longer with disease.

Economic and social benefits

Extending healthy life years will deliver significant economic and social benefits. Currently, the world spends \$8.5 trillion or 10% of GDP on healthcare delivery, with only 5% going towards prevention services. Reducing the disease burden by just 10% through more preventive policies and individual-level behaviour change could **prevent up to 93 million healthy years** of life being lost globally each year.

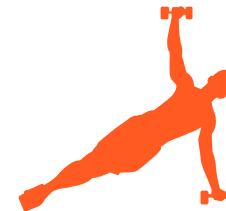
Results of the study

To create greater awareness and accountability at an individual level, the new algorithm, developed by Vitality in collaboration with RAND Europe, provides individuals with a personalised view of their lifespan and healthspan, as well as bespoke recommendations for improving these measures.

These recommendations consider age, sex, health status, and current lifestyle choices to ensure that the prescribed actions are suitable and will have the greatest possible impact on health.

Result:

The model shows that even modest behaviour change can materially reduce health risk over time



For example, an average 30-year-old man could **INCREASE HIS HEALTHSPAN BY 1.5 YEARS** JUST BY INTRODUCING 20 MINUTES OF VIGOROUS EXERCISE A DAY.

If he improved his diet too, he could **INCREASE HIS HEALTHSPAN BY A TOTAL OF 2.5 YEARS.**




If he became the healthiest version of himself (by improving his risk factors to their best levels), he would add **nearly**

SIX YEARS TO HIS HEALTHSPAN.

THE PROTECTIVE EFFECTS OF VITALITY ENGAGEMENT ON INFECTIOUS DISEASES SUCH AS COVID-19

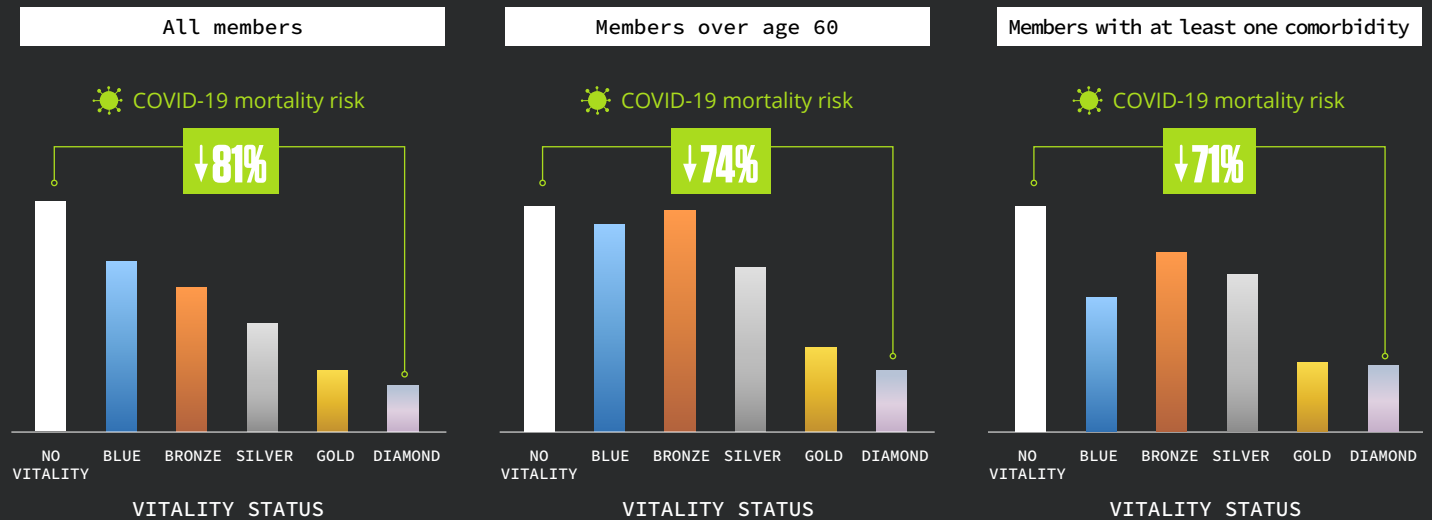
The COVID-19 pandemic has highlighted the relevance of Vitality. Vitality members showed a higher resilience to severe illness and death from COVID-19.

Discovery Life data in 2021 shows that our most engaged members (Diamond members) – who are more likely to exercise often, eat healthier foods and have better health-screening outcomes – have an

81% LOWER RISK OF DEATH FROM COVID-19 

than those who are not engaged.

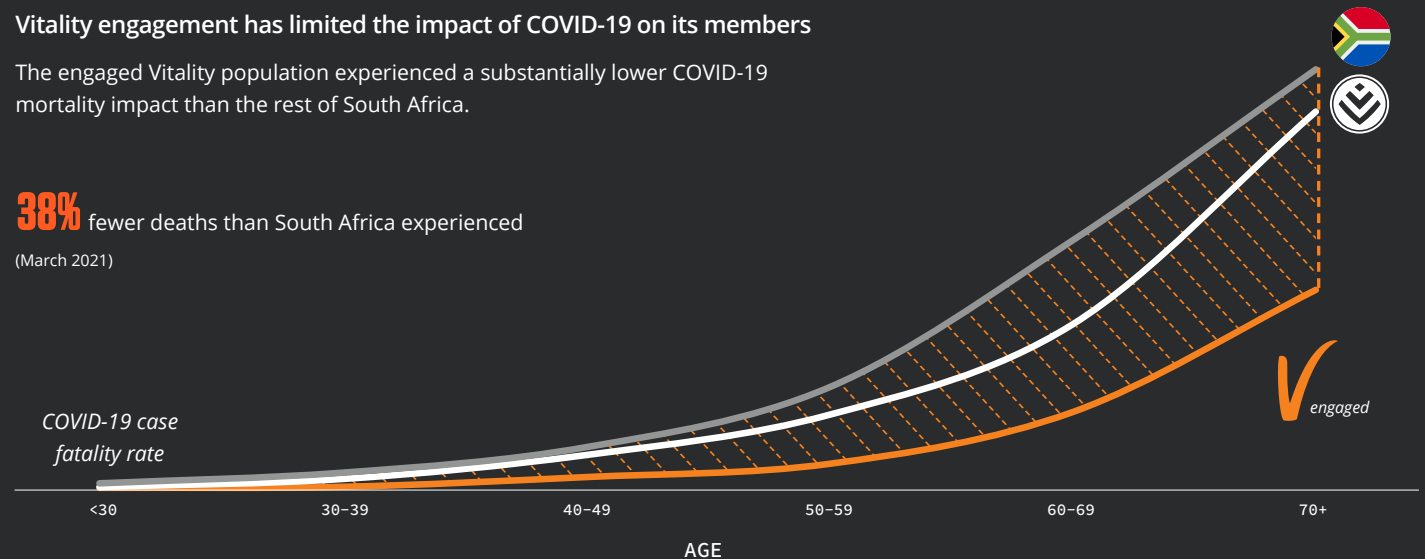
Vitality engagement reduces COVID-19 mortality risk



Vitality engagement has limited the impact of COVID-19 on its members

The engaged Vitality population experienced a substantially lower COVID-19 mortality impact than the rest of South Africa.

38% fewer deaths than South Africa experienced
(March 2021)



Vitality Active Rewards

The **Vitality Active Rewards** programme is a smartphone application designed to incentivise members to increase their physical activity by setting weekly personal goals.

Members can achieve their goal through a range of Vitality-backed physical activities, which are both discounted and incentivised. These include using partner gyms, taking part in social running programmes such as parkrun or completing in organised endurance events. Members can also use wearable activity-tracking devices when doing physical activities of their choice.

Those who achieve their weekly goal qualify for a range of rewards – Netflix vouchers, smoothie and coffee vouchers, in-store and online shopping vouchers, flights and holidays.



9

MILLION

VITALITY ACTIVE REWARDS

FITNESS PLAYS EARNED

IN 2021

VITALITY ACTIVE REWARDS WITH APPLE WATCH IMPROVES PHYSICAL ACTIVITY BY 34%

The results of a global study on Vitality Active Rewards by leading independent research institute RAND Europe showed that “incentivising physical activity can lead to increased activity levels”

This was particularly true for people who were assessed as being unhealthy.

About the study

This ground-breaking behaviour-change study analysed physical activity in over 400,000 people from three countries – the United Kingdom, United States and South Africa – measuring the impact of loss-aversion as an incentive – in this case, having to pay for their Apple Watch via Vitality Active Rewards.

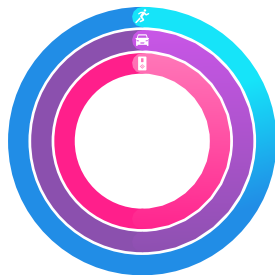
So, members could get an Apple Watch with Vitality for a small upfront fee, then pay nothing more if they stayed active and tracked their activity to earn Vitality points. Completing Vitality Active Rewards goals could **reduce their Apple Watch payments to zero** (by reducing a portion of the payment each week).

Results of the study

By setting goals and avoiding the financial loss of having to pay more for their Apple Watch, people with Vitality Active Rewards became **34% more active** than before (the equivalent of an extra 4.8 days' physical activity in a month) – and they stayed active over time.

How did we apply behavioural economics?

Pre-commitment (goals) + Nudge theory (positive reinforcement using rewards) + Loss aversion (avoiding having to pay for their watch)



34% MORE ACTIVE
and 4.8 days more
fitness days a month



**VITALITY
ACTIVE
REWARDS**
MORE THAN
DOUBLES
PHYSICAL ACTIVITY

A study published in the *British Journal of Sports Medicine* reported that the frequency of physical activity among members who had been on the Vitality Active Rewards programme for one year or longer **more than doubled** (from an average of 5 to 11 events a month) when compared with the same period before the launch of Vitality Active Rewards.

FITNESS DEVICES IMPROVE ACTIVITY

Fitness devices helped people stay fit during the COVID-19 pandemic – and will change the way we work out in future

About the study

Research from Wits Sport and Health (WiSH) at the University of the Witwatersrand and Discovery Vitality shows that when we couldn't exercise at gyms and in groups, **fitness devices and online workouts** helped keep us active.

And, if people are going to stay fit and active in the future, a device could be the “digital coach” that nudges them to keep going.

Wits' Prof Jon Patricios and Vitality Wellness clinicians Dr Mosima Mabunda and Dr Deepak Patel analysed physical activity data linked to Vitality.

Vitality members' workout data showed trends in exercise patterns during the various stages of lockdown during the pandemic.

Devices in lockdowns

Lockdowns had a big impact on physical activity levels. There was a 49% decrease in physical activity points logged during the 'hard' lockdown. The forced closure of gyms significantly affected exercise.

But, Vitality members with a history of regular exercise, as well as those who used smart heart-rate-measuring devices, were more likely to continue exercising during these restricted circumstances.

Device workouts seemed to be the most effective way to encourage exercise during lockdown. Most people who exercised in gyms and tracked other workouts on devices before COVID-19 continued logging their workouts on devices when gyms were closed. Interestingly, a small proportion of those who preferred workouts in a gym only, before COVID-19, also recorded workouts on their devices when gyms were closed.

Devices are the future of fitness

Vitality data shows us that in April 2019, 44% of physical activity points were earned by heart-rate workouts and 28% by attending gym.



A YEAR LATER, OVER

60%

of members were earning points from workouts tracked on their devices and 18% from gym.

Results of the study

Creating access to fitness devices could encourage more physical activity

The number of members using online and device-tracked workouts together increased during lockdowns.

This tells us that there may have been synergy between these workout options. People were using their heart-rate device to measure their online workouts. In this way, our engaged Vitality members continued to make their weekly fitness goals – and earn rewards for them, too.

Result: To keep people active, we need new interventions, including the use of **wearable devices** and **online workouts** that are an intrinsic part of the Vitality programme.



WHY WE SHOULD NEVER LOCK DOWN EXERCISE AGAIN

The protective effect of exercise against negative COVID-19 outcomes

About the study

Discovery Vitality, Wits Sport and Health (WiSH) at the University of the Witwatersrand (Wits), and the University of Western Ontario, Canada conducted research on the exercise habits of adult South Africans in the two years before lockdown was imposed, and correlated these against COVID-19 outcomes.

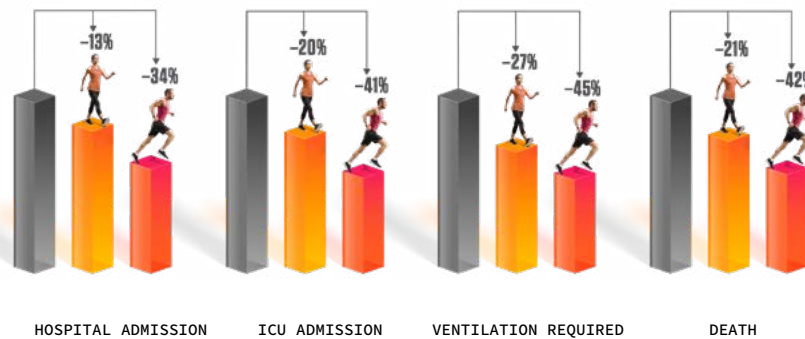
The research was published in the *British Journal of Sports Medicine* and is the first to examine adverse outcomes in a large cohort of COVID-19-positive patients using recorded physical activity data.

The study included physical activity data that was directly measured from 65,361 adult Vitality members with a COVID-19 diagnosis from 19 March 2020 to 30 June 2021. These members were also on a Discovery Health medical plan.

The members were categorised into groups by activity level: low engagers (less than 60 minutes a week), moderate engagers (60 to 149 minutes a week) and high engagers (150 minutes or more a week). Their physical activity levels were then linked to the risk of hospitalisation, admission to the intensive-care unit (ICU), the need for ventilation, and death due to COVID-19.

Findings

Exercise protects against severe COVID-19 outcomes



RISK COMPARED TO LOW ENGAGERS

LOW ENGAGERS: <60 min of moderate-intensity physical activity per week.

MODERATE ENGAGERS: 60-149 min of moderate-intensity physical activity per week.

HIGH ENGAGERS: ≥150 min of moderate-intensity physical activity per week.

The study also revealed that while being older, male, or having a diagnosis of hypertension or type 2 diabetes increases the likelihood of poor COVID-19 outcomes, exercising at moderate and high levels compared to low levels of exercise may have an even more significant effect in individuals with chronic conditions.

Results of the study

Lockdowns imposed by government during the pandemic, while understandably aimed at limiting the pressure that large increases in COVID-19 cases have on healthcare systems, have had the unintended consequence of significantly decreasing exercise levels.

This study shows that, as a means of improving COVID-19 outcomes, regular exercise in healthy people and those with chronic medical conditions should be encouraged at all times. More importantly,

exercise should be facilitated, not restricted, during a pandemic.

VITALITY ACTIVE REWARDS FOR DOCTORS



KEEPING OUR DOCTORS HEALTHY, TOO

Vitality Active Rewards for Doctors is a customised incentive-based programme that uses the science of Vitality and behaviour change to encourage doctors to engage in Vitality and improve their physical fitness and overall health.

This programme is part of the Discovery Doctor Resilience Suite, which has a range of wellness resources aimed at supporting doctors' personal wellness and resilience. All the resources, including Vitality Active Rewards for Doctors, are free for registered doctors in South Africa.

For more information on the Discovery
Doctor Resilience suite, visit:

Since the start of the programme:

We have seen high and increasing levels of take-up and engagement across a broad range of doctors.

The programme has grown to include both public- and private-sector doctors. To date, approximately 5,700 doctors have joined the programme, including almost half of all doctors in private practice.

Doctors outperform the Vitality member base, with the latest data showing that they are:

- **16.7%** more engaged than the Vitality base
- **12.3%** more physically active than the Vitality base

Highly engaged doctors on the programme are:

- **108.3%** more engaged than the Vitality base
- **64.5%** more physically active than the Vitality base

These results are especially significant when we consider the positive effects of physical activity on reducing the risk of co-morbid diseases like COVID-19. The programme has played a role in supporting and protecting doctors in South Africa at a time when their resources have been most needed.

Doctors' engagement with Vitality Active Rewards for Doctors also has a positive effect on their patients.

When doctors are engaged and physically active, their patients are more likely to do the same. Patients of highly engaged doctors are:

- **8.1%** more engaged than those of non-engaged doctors
- **4.2%** more physically active than those of non-engaged doctors

A white paper measuring the impact on doctors of joining Vitality Active Rewards for Doctors showed that:



Doctors exercise, on average, **15%** more frequently after starting the programme, with a **12%** increase in the proportion of high-intensity workout sessions.



Their achievement of goals set increased from **29% to 35%** after the most recent launch of the programme.

Very significantly, the white paper showed that the impact of Vitality Active Rewards for Doctors is greatest on doctors living with chronic conditions. They stand to gain the greatest health benefits from increasing their physical activity and engaging in other healthy lifestyle behaviours.

Doctors with significant or complex chronic conditions, on average, increased their exercise frequency by 17%.



Other significant findings of the white paper include:

- The activity levels of patients increase after they visit a doctor who is engaged in the programme. An **11%** increase in the proportion of high-intensity workouts is seen in the six months after the patient's visit to the doctor.
- Doctors who have completed a Vitality Health Check have a **9%** higher proportion of patients who complete the Vitality Health Check in the six months after the patient's visit to the doctor than doctors who have not completed a Vitality Health Check.

Nutrition

We nudge you to eat healthier

530 **MILLION**
HEALTHYFOOD ITEMS
BOUGHT BY MEMBERS
since January 2015 to December 2021

Vitality's nutrition strategy aims to decrease the prevalence of lifestyle diseases and their associated long-term complications by influencing behaviour related to food choices and eating patterns.

To comprehensively address nutrition, Vitality focuses on three key areas – namely, to encourage and incentivise members to buy better, cook more often, and to eat healthier.

We select partners who share our values, offer a significant selection of healthier options, and are willing to work with us on the journey of positive behaviour change.



BUY BETTER

The HealthyFood benefit helps people to buy healthy food at the shops and rewards them for it.



COOK MORE OFTEN

The HealthyFood Studio teaches people cooking skills to empower them to cook at home using healthy ingredients and recipes.



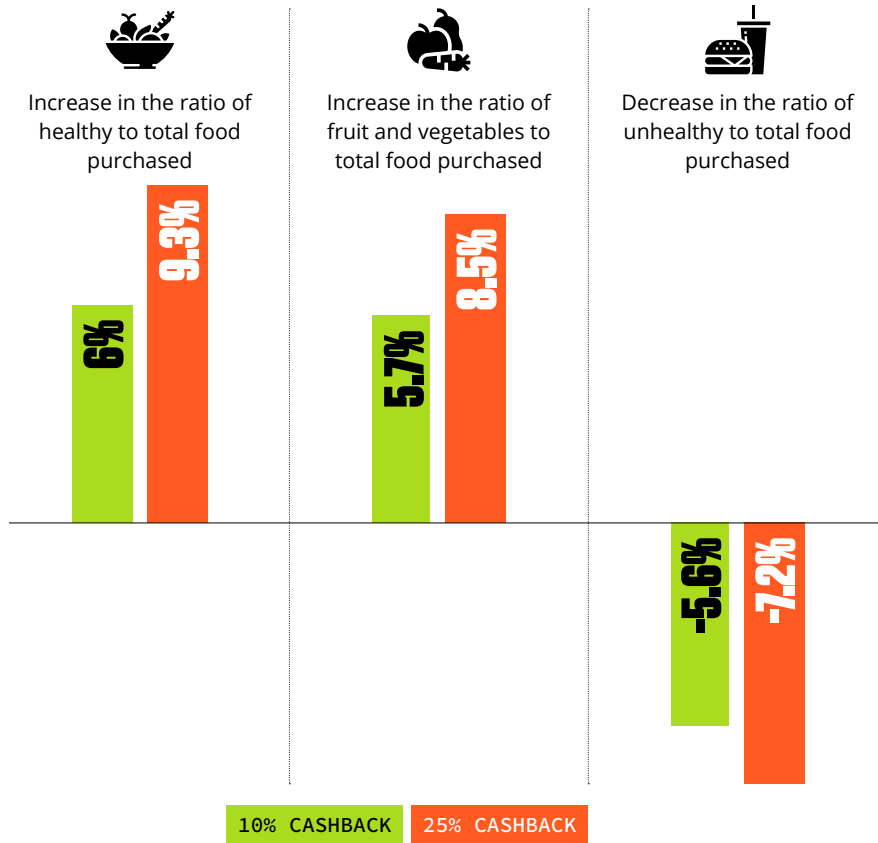
EAT HEALTHIER

The HealthyDining benefit rewards members for choosing healthier options when they are eating out or looking for a convenient meal or meal kit.



OUR DATA SHOWS INCENTIVES IMPROVE MEMBER FOOD CHOICES

A study published in the *American Journal of Preventive Medicine*, using data from the Vitality HealthyFood benefit that included about 170,000 Vitality households, showed that an incentive and the size of the incentive positively shifted members' food purchases:



A study published in the *American Journal of Health Behavior*, using data from about 350,000 Vitality members, showed that when members received a discount (10% to 25% cashback) and earned Vitality points for buying healthy items through the Vitality HealthyFood benefit, they changed their behaviour.

MEMBERS REPORTED THAT THEY:

- consumed up to **0.64 MORE** daily servings of fruits and vegetables.
- were up to **THREE TIMES MORE** likely to eat three or more daily wholegrain servings.
- were up to **65% LESS** likely to regularly eat foods high in sugar.
- were up to **74% LESS** likely to regularly eat foods high in salt.
- were up to **74% LESS** likely to regularly eat fried foods.
- were up to **67% LESS** likely to regularly eat processed meats.
- were up to **72% LESS** likely to regularly eat fast food.



SUPPORTING MEMBERS DURING LOCKDOWN:

THE IMPACT OF A DOUBLE-CASHBACK CAMPAIGN

Vitality implemented a HealthyFood benefit double-cashback campaign in 2020 during the COVID-19 lockdown in South Africa to help members eat healthily while staying at home. While COVID-19 restrictions had a negative impact on diets globally, on average, **Vitality members purchased 6.2% more healthy foods** during the lockdown period than in the previous year.

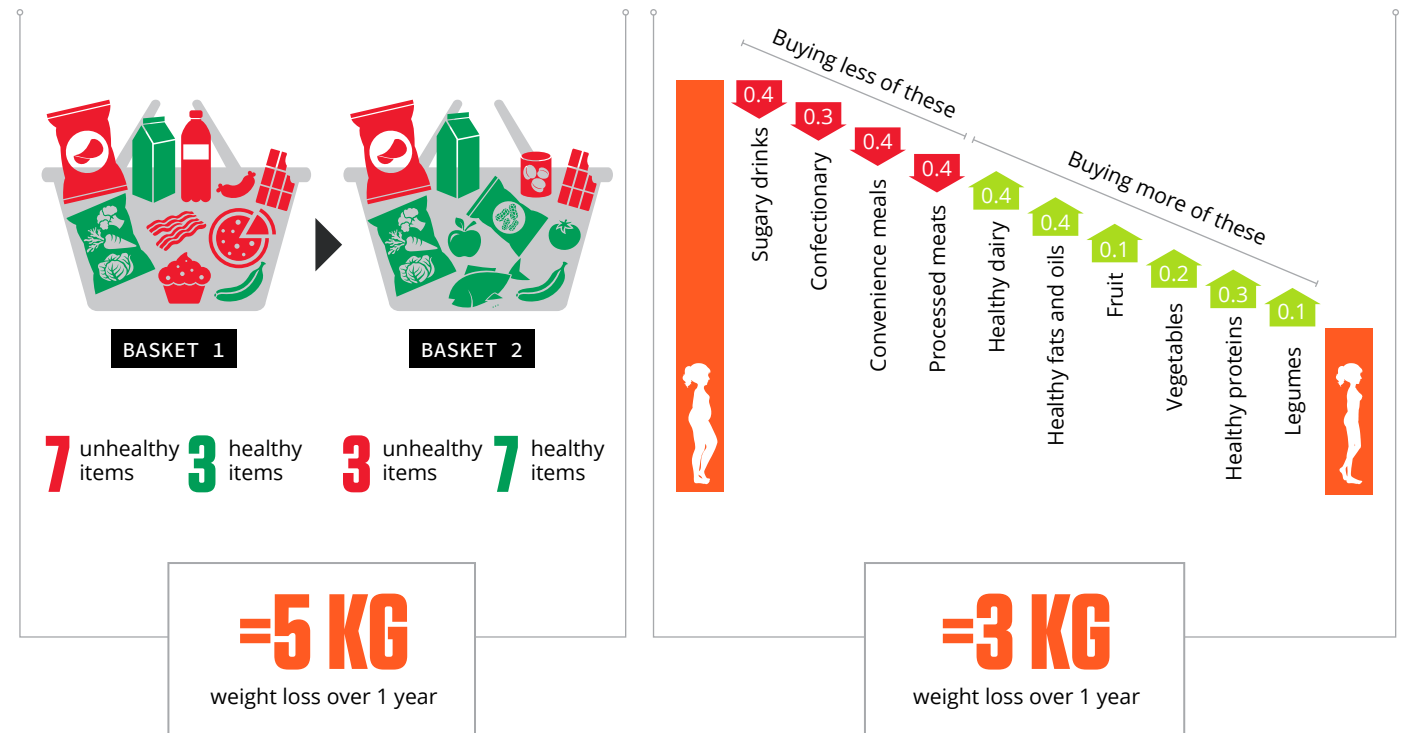
[READ MORE >](#)

SMALL CHANGES = SIGNIFICANT RESULTS OVER TIME

Research from Discovery's Data Science Lab has shown the significant impact that small lifestyle changes can have:

- A healthier shopping basket is associated with a **R900** reduction in health claims per year and a 4.2% reduction in weight.
- For people with type 2 diabetes, one extra workout a week and spending R2,000 less a year on refined starches, sugary drinks and sweets is linked to a **7.2% reduction in health claims**.

ANALYSING MEMBER DATA TO DETERMINE THE LINKS BETWEEN PURCHASES OF CERTAIN FOODS WITH CHANGES IN WEIGHT FOUND:



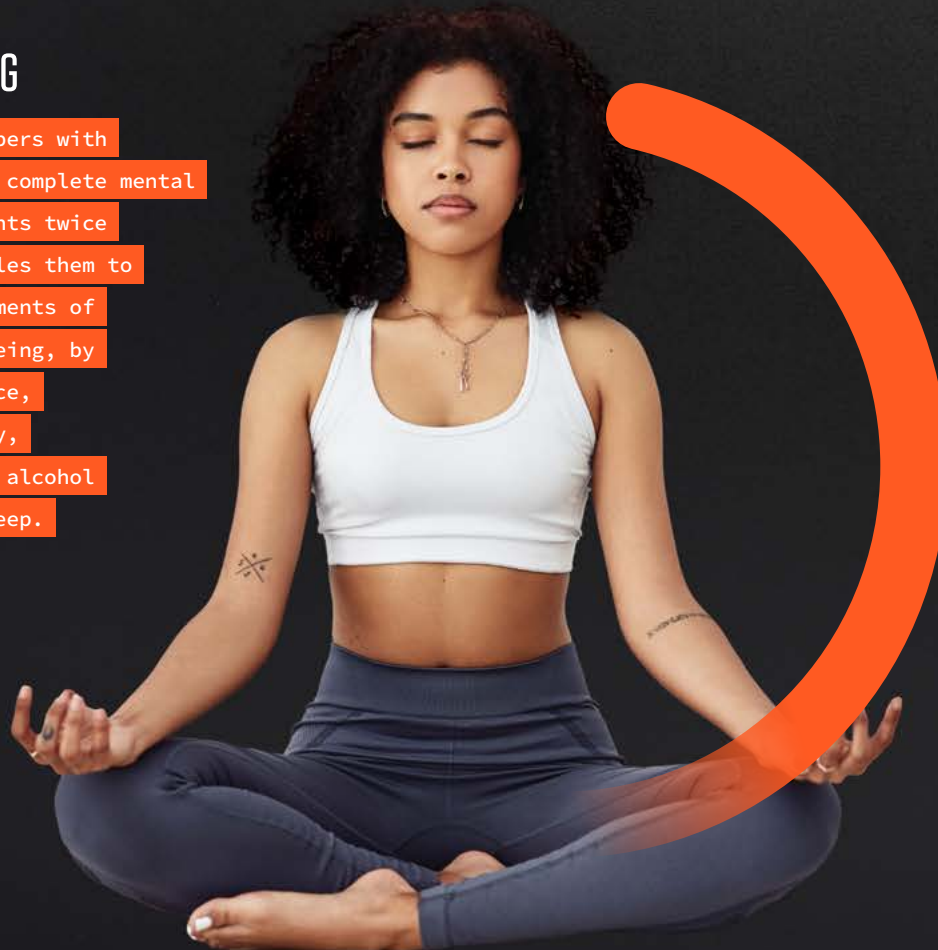
* Weight changes are from increasing/decreasing foods by 1 item per week over 12 months

Mental wellbeing

The Vitality Mental Wellbeing programme helps members gain a more detailed view of their overall state of mental wellbeing and rewards them for taking proactive steps to understand, improve and maintain their mental wellbeing

UNDERSTANDING MENTAL WELLBEING

We incentivise members with Vitality points to complete mental wellbeing assessments twice yearly, which enables them to understand key elements of their mental wellbeing, by measuring resilience, depression, anxiety, overall wellbeing, alcohol consumption and sleep.



IMPROVING MENTAL WELLBEING

After completing the mental wellbeing assessments, members activate the mental wellbeing module in the Vitality Active Rewards platform and get rewarded for tracking their mindful minutes and sleep goals using partner apps.

Mindfulness teaches us to focus our attention on the present and become more mindful and accepting of current emotional experiences, thereby leading to a greater sense of emotional balance and wellbeing. Mindfulness programmes have been shown to improve multiple negative dimensions of psychological stress, including anxiety, depression and chronic pain.

The importance of **sleep** has received considerable attention in recent years. We now know that sleep is not simply “downtime” during which the brain and body rests. Inadequate sleep leads to more than just sleepiness during the day. Not getting enough sleep leads to difficulties with cognitive processing, and has a bidirectional relationship with mental disorders such as depression. It is further associated with obesity, high blood pressure, heart disease, and overall mortality.



PHYSICAL ACTIVITY AND THE PREVENTION OF DEPRESSION

The results of a longitudinal study on physical activity and the prevention of depression

This is a first of its kind study in the developing world. Lead author Dr Seranne Motilal as well as Dr Mosima Mabunda from Discovery Vitality made key findings, together with Dr Martin Stepanek (Vitality UK), statistician Mike Greyling, Dr Karestan Koenen (Harvard T. H. Chan School of Public Health and Massachusetts General Hospital) and Dr Dan Stein (University of Cape Town). They found that

moderate amounts of physical activity leads to the prevention of depression.

About the study

To date, few studies of the relation between physical activity and depression have been done outside high-income countries, including the United States of America, United Kingdom and Europe. Little is known about whether protective factors, such as physical activity, will operate similarly in developing countries like South Africa, especially across varying age ranges and sexes.

With limited access to treatment, prevention is vital in countries like these. Physical activity is one promising candidate, as there is growing evidence that physical activity is associated with the reduced risk of onset and the symptoms of depression.



More than **264 MILLION PEOPLE** globally experience depression.

In South Africa, the lifetime prevalence of depression is



9.8%

Additionally, depression has been significantly **ASSOCIATED WITH COMORBIDITIES, PREMATURE MORTALITY AND A FINANCIAL COST TO SOCIETY.**

Results of the study

Data was collected from Discovery Vitality and Discovery Health Medical Scheme. This included the health and physical activity data of about 49 000 people in South Africa, from 2013 to 2015. These were members of Vitality for at least three years and had not been diagnosed with depression previously.

The main findings were that

THERE WAS A STRONG RELATIONSHIP BETWEEN ENGAGING IN PHYSICAL ACTIVITY AND REDUCED INCIDENCE OF DEPRESSION IN WOMEN.

This was achievable even with a small increase in physical activity.

For example, increasing steps from 5,000 one day in a week (equal to 50 Vitality physical activity points) to 10,000 steps or a gym visit one day in a week (equal to 100 Vitality physical activity points) can significantly reduce depression incidence in females.

The study shows that

INCREASING PHYSICAL ACTIVITY FROM LOW TO MODERATE OR FROM LOW TO HIGH COULD PREVENT 19.3% AND 16.3% OF CASES OF DEPRESSION IN WOMEN RESPECTIVELY.



There were no significant results around the impact of physical activity in men, likely due to the small sample of men with depression. This could possibly highlight the lower awareness of depression in men. However, other studies have found that physical activity in all people is beneficial in preventing mental illness.

Smoking cessation

Helping create healthier habits

Smoking is one of the biggest public health threats the world has ever faced, according to the World Health Organization. Globally, smoking kills more than 8 million people each year (WHO, 2021c) and over 80% of lung cancer deaths are related to smoking (CDC, 2021b). In light of COVID-19, smoking is associated with increased severity of disease and death in hospitalised patients.

Also, the economic costs of smoking are substantial, particularly with regard to healthcare costs, with estimates that the global economy loses US\$ 1.4 trillion each year (WHO, 2021d). For these reasons,

the evidence for the benefits of smoking cessation is overwhelming.

SMOKING KILLS

UP TO HALF
OF ITS USERS

Source: WHO, 2021c

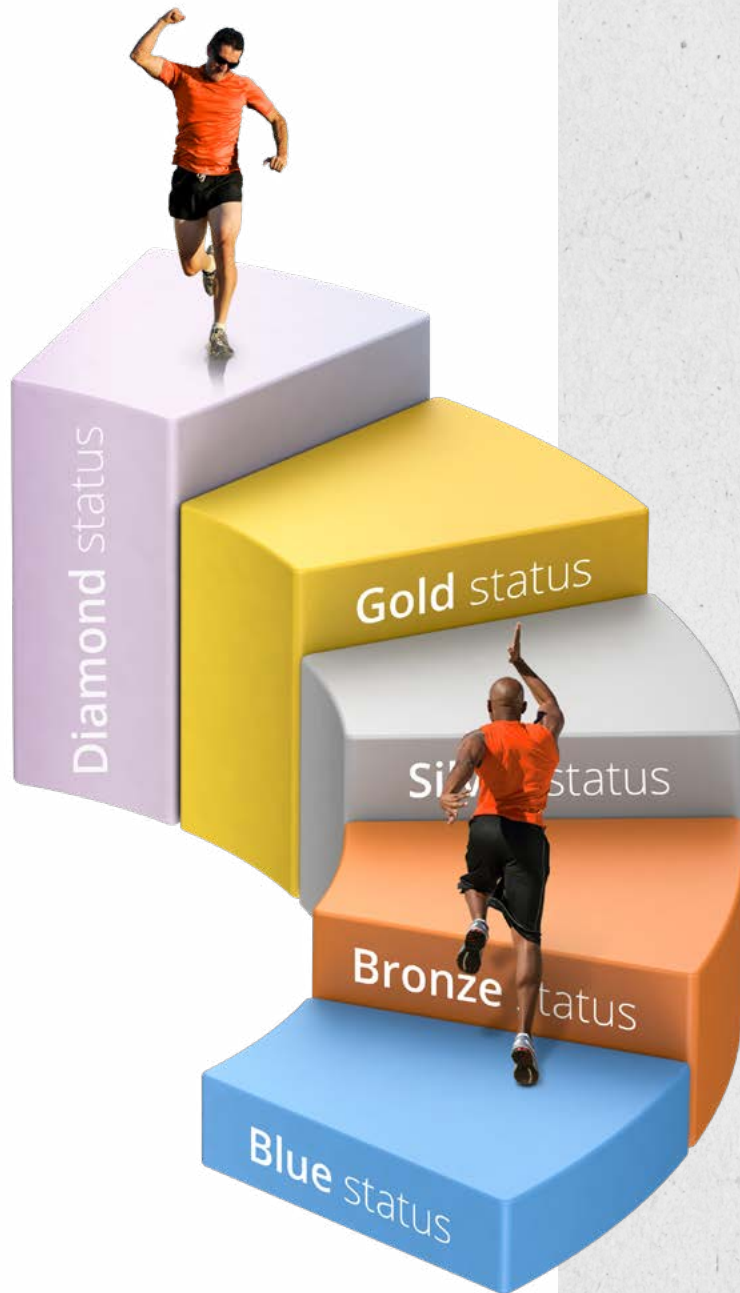


Vitality supports members who want to quit smoking with discounted access to a range of smoking cessation programmes.

Quit Genius, a leading digital, effective behaviour-change programme is provided to Vitality members at a discount. Through a combination of personalised coaching and advanced tracking tools, Quit Genius has proven efficacy and is endorsed by the World Health Organization.

Additional offerings include:

GoSmokeFree, a fully supported stop smoking programme plus Allen Carr's Easyway to Stop Smoking programme.



GET REWARDED

HOW WE NUDGE PEOPLE TO DO BETTER

VITALITY STATUS



Vitality points accumulate each year to give a member their Vitality status – a measure for engaging in healthy behaviours. Points are allocated to the key behaviours that improve health.

Members start their Vitality journey on Blue Vitality status. Each time they do healthy activities, like going for a health check, buying healthy food or getting physically active, they earn Vitality points and improve their status.

The highest status is Diamond. The higher their status, the more discounts they get on a range of goods and services.

Each year Vitality points reset to zero. This means members need to keep earning points to stay on the same status, or improve their status, each year. This motivates members to get and stay healthy, year after year.

VITALITY UNDERSTANDS THE POWER OF TIMELY INCENTIVES

We've had notable success with our Vitality Active Rewards programme, which shows that short-term incentives are a powerful driver of behaviour change.

Through our network of Vitality partners, we offer incentives to members for taking part in activities that promote health.



DISCOVERY MILES

the currency worth more than cash

Discovery Miles is Discovery's rewards currency, which members can earn by getting healthier, driving well, and spending responsibly.

Vitality members are incentivised with Miles when they action key health, drive and spending behaviours in their day-to-day lives. For example, completing one exercise, driving or money goal in a week earns a play on the Vitality Active Rewards gameboard. When a member plays the gameboard, they get a randomised number of Discovery Miles. The more goals earned, the more Miles add up.

Miles are valuable because Vitality members get to spend them across a comprehensive network of partners, where Miles are worth more than the South African rand in all our partner stores. This attractive ecosystem of partners motivates members to engage in behaviours that earn them Miles, so that they can benefit from spending their Miles in our reward partner network – or monetise them in the Discovery Bank app.



VITALITY – ADDING HEALTH AND LONGEVITY TO YOUR LIFE

By encouraging the awareness and adoption of healthy lifestyles, the Vitality programme has been successful in improving the long-term health of Vitality members.

**LOWER HEALTHCARE CLAIMS + REDUCED MORTALITY
= HEALTHY AGEING**



VITALITY DRIVE

Every year, around the world, approximately 1.35 million lives are cut short as a result of road accidents and between 20 and 50 million people suffer from non-fatal injuries, many resulting in disability (WHO, 2021b).

At Vitality, we know that no matter how safe a car is or how good the weather, road conditions, traffic signs and regulations, drivers may still be prone to human error and poor judgement. This leads to poor driving behaviour and increases the likelihood of causing an accident.

Since its launch in 2011, Discovery Insure has shown incredible success in applying a behavioural-based insurance model to the motor insurance industry – ultimately reducing accidents and saving lives. Shared value is enabled by Vitality Drive, an incentive-based driver behaviour programme that rewards clients for driving well.

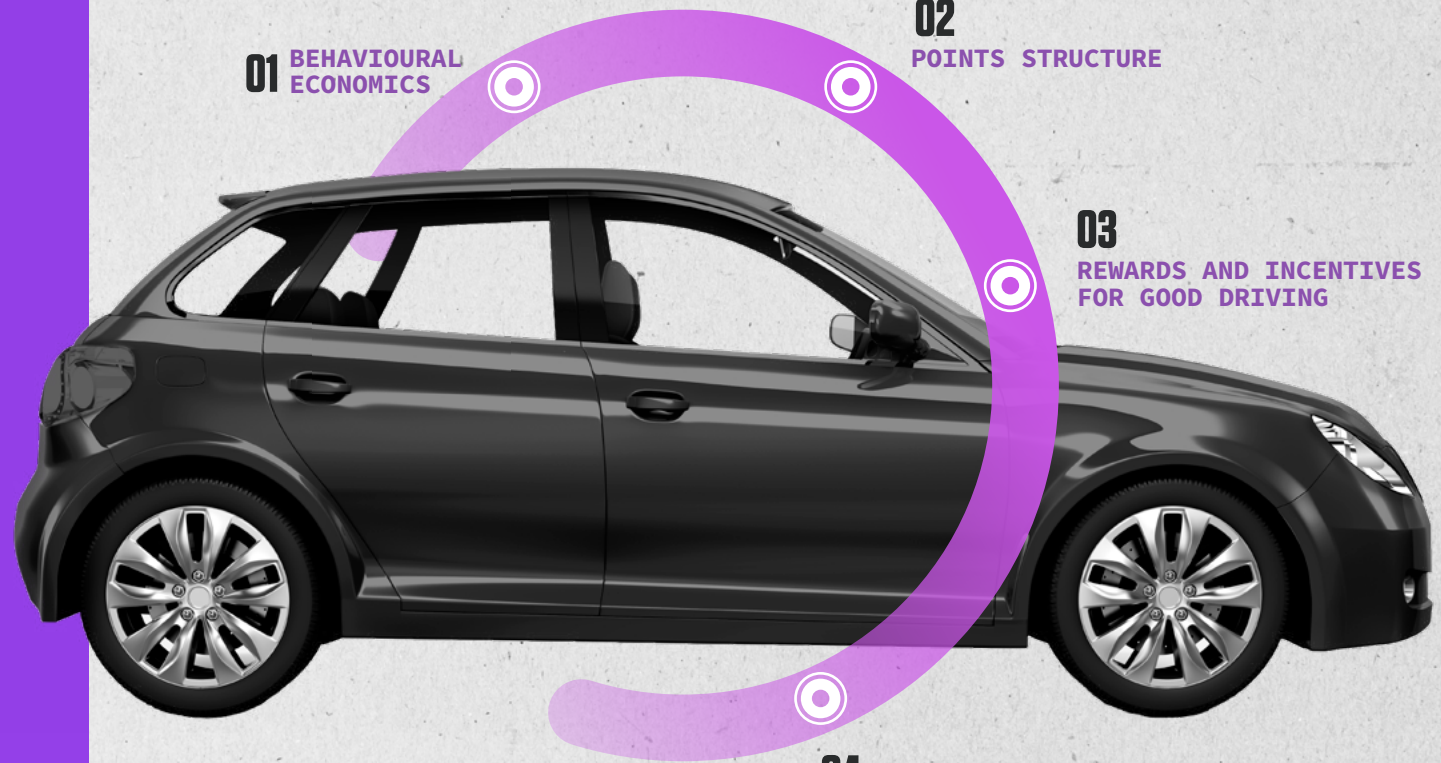
VITALITY DRIVE IS BASED ON FOUR KEY CONCEPTS:

01 BEHAVIOURAL ECONOMICS

02 POINTS STRUCTURE

03 REWARDS AND INCENTIVES FOR GOOD DRIVING

04 STATE-OF-THE-ART TECHNOLOGY



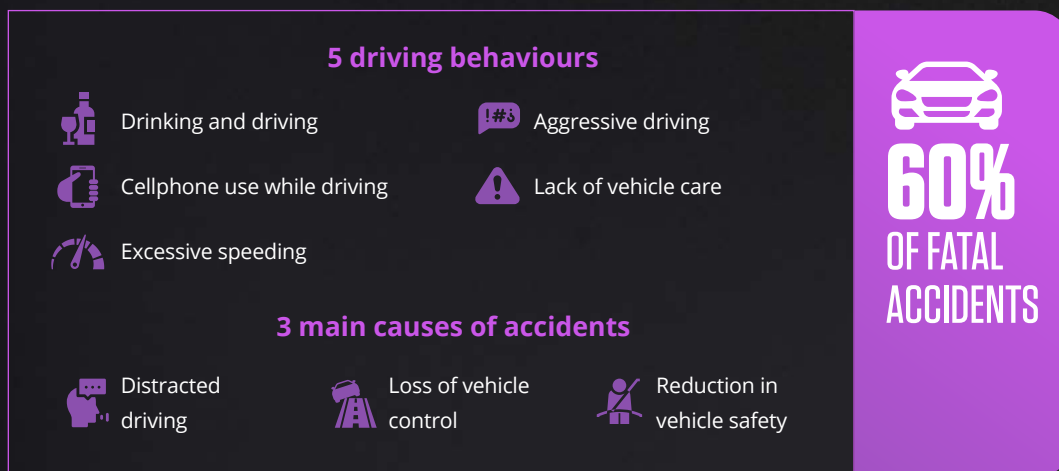
THREE TRENDS

underpin the ever-increasing relevance of our Shared-value Insurance model

01 | THE NATURE OF RISK IS BEHAVIOURAL

Driver behaviour, how a person drives their car, is the main cause of accidents and motor vehicle fatalities, irrespective of the safety of their car and the effect of the environment.

We have seen that **five behaviours** lead to the **three key causes** of accidents, which make up **60% of all motor fatalities**.



02 | AN INCREASINGLY TECHNOLOGY-ENABLED WORLD

Vehicle telematics includes collecting driving information and transmitting and processing the information for various purposes. The evolution of telematics in the areas of driver behaviour and vehicle safety allows insurers to gather rich client insights and provide better benefits and services to their clients. Telematics-enabled technology has helped us understand the forces that act on a vehicle, such as acceleration, braking and cornering, and how the driver's unique driving style affects the vehicle.

03 | SOCIAL RESPONSIBILITY

Part of the shared-value model is the benefit for society as a whole. Road accident fatalities have a significant impact on the South African economy, with an estimated cost of 3.4% of GDP (Verster & Fourie, 2018).

Road accidents and fatalities cause economic losses to people, their families and nations as a whole due to the cost of treatment and loss of jobs or income of those affected. It is clear that safe driving should not just be limited to our clients. Therefore, we use intelligent technology to keep others safe on the road, too.

HOW TO CREATE A NATION OF GREAT DRIVERS

We realised that drivers need a tool or mechanism that would effectively encourage them to improve their driving behaviour and to maintain this improvement over time

THE FOUR CONCEPTS UNDERLYING THE VITALITY DRIVE PROGRAMME



BEHAVIOURAL ECONOMICS

The Vitality Drive programme is designed around the concepts and science of behavioural economics, which demonstrate that people can improve their driving by understanding how they drive, by having the tools to help them improve, and by having the appropriate incentives to drive better. We use a number of concepts from behavioural economics in Vitality Drive.



POINTS STRUCTURE

Our clients improve their driving through three key metrics: driving behaviour, knowledge and awareness, and vehicle safety. By completing these activities, clients can earn up to 1,600 Vitality Drive points a month. Monthly Vitality Drive points translate to a Vitality Drive status. The more points clients earn, the higher their Vitality Drive status and the more rewards they get.



REWARDS

Vitality Drive uses powerful rewards to encourage sustained engagement and improved driving. Short-term rewards include weekly Active Rewards such as coffees, smoothies and shopping vouchers, as well as up to 50% of fuel spend cash back every month.

Driving well also translates to status-based rewards where the higher the client's Vitality Drive status, the greater their discounts on tyres and vehicle maintenance and long-term rewards through lower premiums, and even 0% renewal increases for our best drivers.



STATE-OF-THE-ART TELEMATICS TECHNOLOGY

Vitality Drive uses the latest telematics technology to collect information about our clients' driving behaviours. By combining the data from the technology and our insights from behavioural economics, we can apply actuarial algorithms to the driving data to develop a scientific measure of driving behaviour. This is translated to a Vitality Drive status that provides clients with an objective and easy way to understand how well they drive and how they can improve.

THE RESULTS: SHARED VALUE IN ACTION

The Vitality Drive programme has enabled behavioural change. In the last ten years, we have seen that by using incentives, our clients have become better drivers – with a lower road fatality rate than other South Africans, as well as fewer and less severe accidents.

This leads to claims savings and improved loss ratios for us as the insurer – but safer roads for ALL South Africans.

THE RESULT: EXCEPTIONAL VALUE FOR CLIENTS IN 10 YEARS

Road traffic fatality rate of



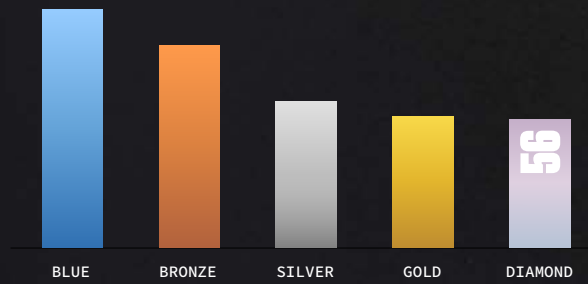
Compared to South African
road traffic fatality rate of





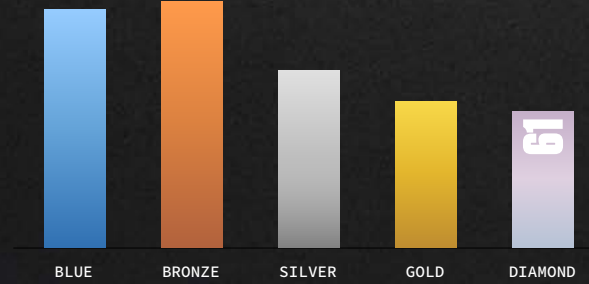
Better drivers have less severe accidents

Relative average car accident claim by Vitality Drive status



Better drivers have fewer accidents

Relative number of car accident claims by Vitality Drive status



THE MORE PEOPLE THAT DRIVE WELL, THE BETTER THE RESULTS

Based on our data analytics and actuarial dynamics, we found that if all South Africans were on Gold or Diamond Vitality Drive status,

we could achieve an up to 90% reduction in the number and cost of road accidents.

In addition, this would result in significant financial and healthcare cost savings and societal benefits.



VITALITY MONEY

Studies show that South Africans have poor financial habits. Almost 78% of South African household income is spent on debt (SARB & Stats SA, 2019), 10% of individuals earning more than R1 million a year find it difficult to make ends meet (Experian, 2020), and 50% of people in South Africa between 55 and 65 years still have outstanding balances on their mortgages (Internal Discovery analysis).

As a result, only 6% of South Africans can retire comfortably (National Treasury, 2014).

A shared-value model in banking provides an effective platform to initiate the change clients need to make to improve their financial health. By providing incentives for individuals to make better financial decisions, a shared-value model in banking can generate **higher savings levels, lower risk of default and increase wealth and financial resilience** for society as a whole.



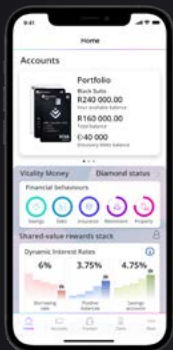
THERE ARE **THREE MAJOR TRENDS** THAT IMPACT FINANCIAL SERVICES AND BANKING

01 | NATURE OF RISK

Traditional banks segment and price clients on their socio-economic status, however, the nature of risk in banking is as much behavioural as it is socio-economic. This results in clients who manage their money well often paying more to borrow purely based on their socio-economic segment and subsidising higher-risk clients.

We have identified **five financial behaviours** which, if they are not managed well, make up **80%** of the reasons people do not meet their financial responsibilities.

These behaviours require clients to:



Spend less than they earn



Have enough emergency funds



Pay off their property



Invest for the long term



Have essential insurance in place



02 | TECHNOLOGY

The banking industry has evolved towards digital banking and payment solutions.

In a 24/7/365 world, branches are a legacy and COVID-19 has further put pressure on banks that have been slow to innovate and digitise their solutions. Similar to the impact of wearable devices on healthy behaviour, mobile banking apps can be powerful tools to measure key financial metrics and behaviours, and that nudge clients to change their behaviour so that they manage their money better.



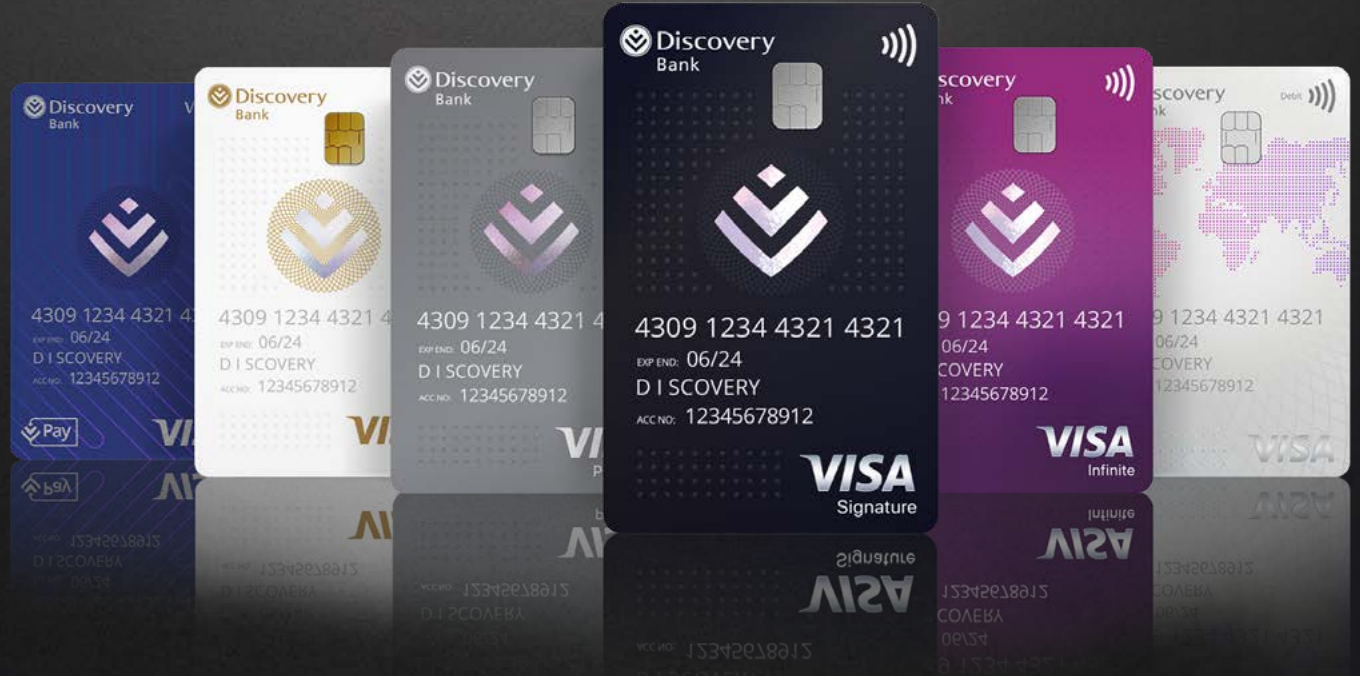
03 | SOCIAL RESPONSIBILITY

Studies show that South Africans have poor financial habits. High rates of debt and low savings have contributed to a breakdown of trust between banks and society.

Only one third of millennials trust the banks they are with. Reducing major debt and creating a savings culture in South Africa are major socio-economic challenges facing both individuals and society and these are both aspects that banks can help with. As millions of people face hardship due to COVID-19, a social purpose is now a must-have rather than a nice-to-have for all businesses. Companies with high environmental, social, and corporate governance (ESG) are proving more resilient in this crisis, with the focus of stakeholder capitalism shifting to issues of societal protection (for example, payment holidays for clients or working from home). This shift in focus translates into significant new accountability measures for the corporate sector, both during the pandemic and in years to come.

A shared-value banking model considers individual financial behaviours to understand how financially healthy clients are.

HOW VITALITY MONEY WORKS



Vitality Money uses behavioural science and research that shows how changing five good behaviours (spending less than you earn, having enough emergency funds, paying off property, investing for the long term and having essential insurance in place) can improve overall financial health.

Discovery Bank uses these five behaviours to measure a client's financial health and award them a Vitality Money status – Blue, Bronze, Silver, Gold or Diamond. A higher Vitality Money status means clients manage their money well and have a lower risk of credit defaults (not making their debt repayments).

This allows us to measure a client's financial health based on their behaviour rather than their income level. An analysis of 300,000 Discovery Bank clients shows that clients on Gold and Diamond Vitality Money status:

Are **99%** less likely to be in arrears (behind on payments)

Have deposits more than **17 TIMES** the average

Spend over **4.5 TIMES** more than clients who are unengaged, across all income levels



Vitality Money unlocks benefits for all Discovery Bank clients based on how well they manage their money.

HOW CLIENTS GET REWARDED FOR MANAGING THEIR MONEY WELL WITH:

Lower interest rates on loans



Discovery Bank clients saved a total of R13 million in interest by managing their money well. They can reduce their interest rates by as much as 6.75% by managing their money well.

Higher interest rates on their savings



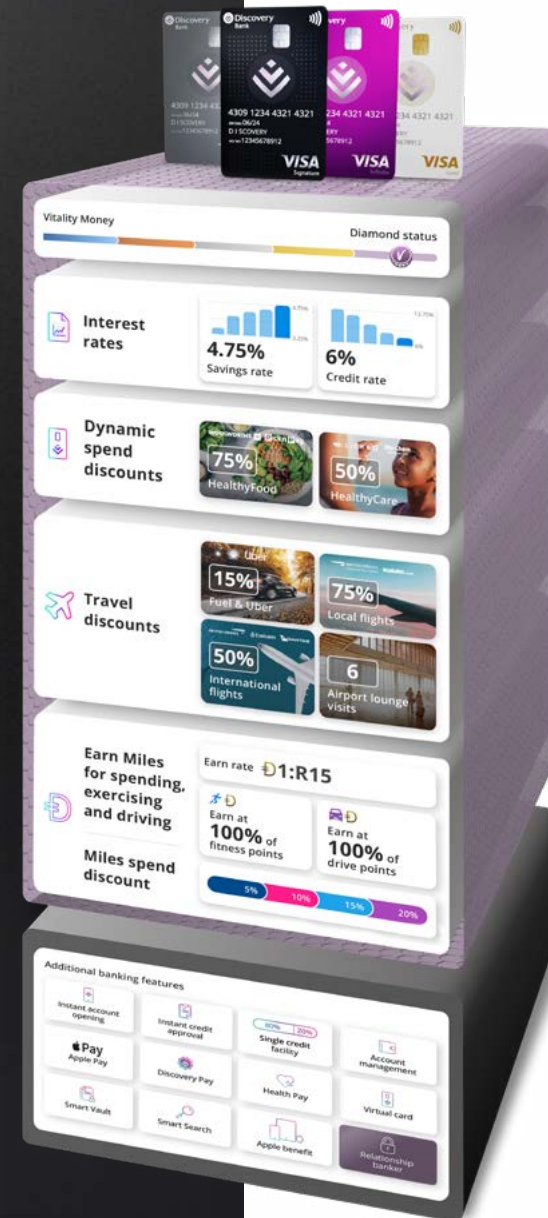
Clients who manage their money well usually save more, for a longer time. Discovery Bank rewards these clients with higher interest rates on demand and short-term deposits. They can get interest rates for on-demand savings of up to 4.75%, a rate that usually applies only to fixed deposits of 18 to 24 months with conventional banking models. Clients have benefited from a total of more than R15.5 million from higher interest rates on their savings.

Rewards for engagement



Engaged clients can earn multiples of their monthly fees back in rewards by using their accounts and managing their money well.

The result is a banking model that is better for clients, banks and society.





MORTALITY

Vitality has led to a **13%** reduction in mortality for members across all statuses.

PHYSICAL ACTIVITY

Vitality Active Rewards with Apple Watch improves physical activity by **34%**.

NUTRITION

Members purchase up to a **9.3%** higher ratio of healthy to total food after joining the Vitality HealthyFood benefit.

COVID-19

Diamond Vitality Health members have an **81%** lower risk of death from COVID-19 compared to non-members.



4 lifestyle behaviours

4 CHRONIC CONDITIONS

60% OF DEATHS



5 controllable behaviours

80% OF CREDIT DEFAULTS AND SHORTFALLS



5 driving behaviours

3 MAIN CAUSES OF ACCIDENTS

60% OF FATAL ACCIDENTS

VITALITY DRIVE

VITALITY HEALTH

THE HEART WITHIN DISCOVERY'S SHARED-VALUE INSURANCE MODEL

THAT REWARDS MEMBERS FOR POSITIVE BEHAVIOUR CHANGE



VITALITY MONEY

Gold and Diamond Vitality Money clients are **99%** less likely to be behind on payments, have **17 times** more deposits than average, and spend **4.5 times** more than those who are unengaged.



Diamond Vitality Drive clients have **44%** lower claims and **39%** fewer car accident claims compared to Blue status clients.



REFERENCES

- Afshin A., Sur, P, Fay, K, Cornaby, L, Ferrara, G, Salama, J, Mullany, E, Abate, K, Abbafati, C, Abebe, Z & Afarideh, M. 2019. Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*, 393(10184):1958-1972.
- Centers for Disease Control and Prevention (CDC). 2021a. COVID-19: People with certain medical conditions. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>
- Centers for Disease Control and Prevention (CDC). 2021b. What are the risk factors for lung cancer? https://www.cdc.gov/cancer/lung/basic_info/risk_factors.htm
- Experian. 2020. A look at the new normal: Experian quarter 1 2020 Client Default Index.
- Graham, E, Deschenes, S, Khalil, M, Danna, S, Filion, K & Schmitz, N. 2020. Measures of depression and risk of type 2 diabetes: a systematic review and meta-analysis. *Journal of affective disorders*, 265:224-232.
- Herman, A, Stein, D, Seedat, S, Heeringa, S, Moomal, H & Williams, D 2009. The South African Stress and Health (SASH) study: 12-month and lifetime prevalence of common mental disorders. *South African medical journal*, 99(5 Pt 2):339–344.
- International Diabetes Federation (IDF). 2021. IDF DIABETES ATLAS Tenth edition 2021. https://diabetesatlas.org/idfawp/resource-files/2021/07/IDF_Atlas_10th_Edition_2021.pdf
- International Transport Forum (ITF). 2019. Road safety annual report 2019: South Africa. <https://www.itf-oecd.org/sites/default/files/south-africa-road-safety.pdf>
- Itani, O, Jike, M, Watanabe, N & Kaneita, Y. 2017. Short sleep duration and health outcomes: a systematic review, meta-analysis, and meta-regression. *Sleep medicine*, 32:246-256.
- Kompaniyets, L, Goodman, A, Belay, B, Freedman, D, Sucusky, MS, Lange, SJ, Gundlapalli, AV, Boehmer, TK & Blanck, HM 2021. Body mass index and risk for COVID-19–related hospitalization, intensive care unit admission, invasive mechanical ventilation, and death—United States, March–December 2020. *Morbidity and mortality weekly report*, 70(10):355.
- National Department of Health (NDoH), Statistics South Africa (Stats SA), South African Medical Research Council (SAMRC) & ICF. 2019. South Africa demographic and health survey 2016. <https://www.statssa.gov.za/publications/Report%2003-00-09/Report%2003-00-092016.pdf>
- National Health Service (NHS). 2021. Why lack of sleep is bad for your health. <https://www.nhs.uk/live-well/sleep-and-tiredness/why-lack-of-sleep-is-bad-for-your-health/>
- National Institute of Mental Health (NIMH). 2021. Chronic illness and mental health: recognizing and treating depression. <https://www.nimh.nih.gov/health/publications/chronic-illness-mental-health>
- National Treasury. 2014. Press release: statement on the impact of the proposed retirement reforms. http://www.treasury.gov.za/comm_media/press/2014/2014070901%20-%20Statement%20on%20the%20Impact%20of%20the%20Proposed%20Retirement%20Reforms.pdf
- Rehm, J & Shield, KD. 2019. Global burden of disease and the impact of mental and addictive disorders. *Current psychiatry reports*, 21(2):1-7.
- Santomauro, DF, Herrera, AMM, Shadid, J, Zheng, P, Ashbaugh, C, Pigott, DM, Abbafati, C, Adolph, C, Amlag, JO, Aravkin, AY & Bang-Jensen, BL. 2021. Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *The Lancet*, 398(10312):1700-1712.
- Schneider, M, Norman, R, Steyn, N & Bradshaw, D. 2007. Estimating the burden of disease attributable to low fruit and vegetable intake in South Africa in 2000. *South African medical journal*, 97(8):717-723.
- South African Reserve Bank (SARB) & Statistics South Africa (Stats SA). 2019. South African market insights: South Africa's credit market analysis, 2019. *Trading Economics*.
- Temple, NJ & Steyn, NP 2013. Sugar and health: a food-based dietary guideline for South Africa. *South African journal of clinical nutrition*, 26:S100-S104.
- Vandevijvere, S, Jaacks, LM, Monteiro, CA, Moubarac, JC, Girling-Butcher, M, Lee, AC, Pan, A, Bentham, J & Swinburn, B. 2019. Global trends in ultraprocessed food and drink product sales and their association with adult body mass index trajectories. *Obesity reviews*, 20:10-19.
- Verster T. & Fourie, E. 2018. The good, the bad and the ugly of South African fatal road accidents. *South African journal of science*, 114(7-8):63-69.
- Wentzel-Viljoen, E, Steyn, K, Ketterer, E & Charlton, KE. 2013. "Use salt and foods high in salt sparingly": a food-based dietary guideline for South Africa. *South African journal of clinical nutrition*, 26:S105-S113.
- World Health Organization (WHO). 2016. Prevalence of insufficient physical activity among adults aged 18+ years. [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/prevalence-of-insufficient-physical-activity-among-adults-aged-18-years-\(age-standardized-estimate\)-\(-\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/prevalence-of-insufficient-physical-activity-among-adults-aged-18-years-(age-standardized-estimate)-(-))
- World Health Organization (WHO). 2018a. Global status report on alcohol and health 2018. <https://www.who.int/publications/i/item/9789241565639>
- World Health Organization (WHO). 2018b. Alcohol. <https://www.who.int/news-room/fact-sheets/detail/alcohol>
- World Health Organization (WHO). 2019. WHO global report on trends in prevalence of tobacco use 2000-2025, third edition. <https://www.who.int/publications/i/item/who-global-report-on-trends-in-prevalence-of-tobacco-use-2000-2025-third-edition>
- World Health Organization (WHO). 2020. Physical activity. <https://www.who.int/news-room/fact-sheets/detail/physical-activity>
- World Health Organization (WHO). 2021a. Noncommunicable diseases. <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>
- World Health Organization (WHO). 2021b. Road traffic injuries. <https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries>
- World Health Organization (WHO). 2021c. Tobacco. <https://www.who.int/news-room/fact-sheets/detail/tobacco>
- World Health Organization (WHO). 2021d. US\$ 1.4 trillion lost every year to tobacco use: new tobacco tax manual shows ways to save lives, money and build back better after COVID-19. <https://www.who.int/news/item/12-04-2021-1.4-trillion-lost-every-year-to-tobacco-use-new-tobacco-tax-manual-shows-ways-to-save-money-and-build-back-better-after-covid-19>



ACKNOWLEDGEMENTS

Dinesh Govender | CEO, VITALITY SOUTH AFRICA

Dr Mosima Mabunda | HEAD OF WELLNESS, VITALITY

Celeste Williams | HEAD OF MARKETING, VITALITY

Katie Lu | SENIOR MARKETING MANAGER, VITALITY

Belinda Kahler | WELLNESS CONSULTANT, VITALITY

Shanthini Naïdoo | SENIOR CONTENT MANAGER, VITALITY

Yashtil Moodley | HEAD OF HEALTH AND VITALITY TECHNICAL MARKETING

Sandra Lehmann | CHIEF ACTUARY, VITALITY

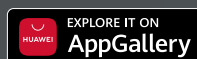
Kobus Bekker | HEAD OF ANALYTICS, DISCOVERY LIFE

Dr Maurice Goodman | CHIEF MEDICAL OFFICER, DISCOVERY HEALTH

Andre Nepgen | HEAD OF GLOBAL VITALITY NETWORK

Akash Dowra | HEAD OF CLIENT INSIGHTS, DISCOVERY BANK

Karishma Parbhoo | ACTUARIAL ANALYST, DISCOVERY INSURE



discovery.co.za

Discovery Vitality (Pty) Ltd. Discovery Bank. Auth FSP. Limits, T&Cs apply