



THE ROAD TO A  
**healthier**  
SOUTH AFRICA  
2018

# Foreword

Today, in South Africa and across the globe, we face many health challenges. While some of these challenges are beyond the control of individuals, groups or even governments, many of them are, in fact, well within our ability to change for the better. Although the debate is ongoing as to where the responsibility for our health lies, what remains very clear is that we as individuals are able to play an essential role in ensuring we live longer, healthier and happier lives.

There are two key behaviours that are causing significant morbidity and mortality: **how we drive, and how active we are**. More than 1.25 million people die as a result of road crashes every year – that's 3 425 people a day – while more than 5 million deaths could be avoided annually if everyone exercised regularly.

But looking at statistics isn't going to change our environment or our behaviour. We need to start by **understanding human behaviour** a lot better in order to create an environment that's more conducive to **healthier lifestyles**. Over the past few years, we have seen some encouraging shifts that can help facilitate these positive outcomes.

Whether we place it in our cars to monitor how we drive, or wear it on our wrists to track our physical activity, **technology is reshaping the way we move**.

And by combining these tracking devices with big data, we are better able to understand human behaviours at a more granular level.

# Contents

Three keys things worth highlighting:

01 Big data

02 Behavioural economics

03 Technology

In this report, we have combined **data analytics, clinical knowledge and behavioural insights** to provide unique views of South Africans' physical activity and driving habits. We hope that these insights will help to mobilise individuals, groups and policymakers to create a healthier, safer and more active country.

– Dr Craig Nossel  
Head of Vitality Wellness





## The big picture

We are getting lazier and more reckless the world over with an increase in both sedentary behaviour and poor driving.

Insufficient physical activity is a key risk factor for non-communicable diseases and is one of the leading risk factors for death worldwide. Globally, 1 in 4 adults are not active enough and 10% of people die from causes due to a lack of physical activity. Around **half of South African adults live sedentary lifestyles** – more than **double the global average** of 23% – making us one of the most inactive countries in the world, below Colombia, Saudi Arabia, Kuwait and Malaysia.

When it comes to driving, every year the lives of more than 1.25 million people are cut short as a result of road traffic accidents. Between 20 and 50 million people suffer non-fatal injuries, with many incurring a disability as a result. South African roads are among the **most dangerous in the world**, with a **road death toll of 22.5 per 100 000 people**. These deaths have a significant impact on the South African economy, with an estimated cost of over **3.4% of the GDP**.

That's where the *Road to a Healthier SA* report comes in: combining insights from the *Fittest City Index* and the *Drive Well Index*.

### The report methodology

This analysis is made up of cross-sectional data from the past three years (2016, 2017, 2018) of Vitality members living in 6 main metropolitan areas: Bloemfontein, Cape Town, Durban, Johannesburg, Port Elizabeth and Pretoria. The data is adjusted based on the relative population size of each city, and is focused on behaviours linked to physical activity and driving. The physical activity data drawn on in the *Fittest City Index* includes gym workouts, steps tracked and outdoor activities completed. The driving data in the *Drive Well Index* considers ABC events (acceleration, breaking, cornering), phone usage, speeding and night driving.

# A note from Dr David Jankelow

Physical inactivity has become a global epidemic. Worldwide, a significant number of individuals are not exercising enough, as recommended by the *American College of Sports Medicine (ACSM)*. Just as concerning is the trends analysis of this data, which shows that inactivity has not improved since 2001. Multiple studies highlight that insufficient physical activity is a key risk factor for non-communicable diseases (NCDs), with cardiovascular disease, cancer and diabetes; and this is hugely problematic.

In addition to being important in disease prevention, movement is also key to healing. Years ago, cardiac patients were kept immobile for an extended period, but today we know that getting these patients active is probably the most important thing we can do. The same goes for ICU patients.

The need for innovation that motivates people of all ages and abilities to be active every day, has never been greater. Fortunately, technologies are proving to be disruptors in exercise enablement and healthcare improvement – mobile phone applications, wearables, social media, sociodemographics and feedback on key health metrics are all transforming why, when and how much we move. This combination of big data and technology has the potential to transform the physical activity landscape.

Exercise is a surprisingly simple antidote to the global tsunami of lifestyle-related illnesses. It may in fact be more important than medicines when it comes to preventing and sustaining good health. I strongly believe in the prescription of physical activity and encourage all South Africans to get moving – even small steps will have a big impact on health outcomes.

**Cardiologist**

**President-elect of the South African Heart Association**

## 5 reasons to move more

01

### It's good for your heart

According to a study published in *Clinical Epidemiology*, replacing just half an hour of sitting per day with low-intensity exercise, such as walking, can **reduce your risk of premature death** as a result of cardiovascular disease by 24%.

02

### It's good for your brain

Studies have shown the physiological benefits of physical activity include **improving quality of sleep, boosting mood and memory, reducing stress, anxiety and depression and lowering the risk of developing Alzheimer's disease**. A study in *JAMA Psychiatry* showed higher levels of fitness in midlife lower your risk of depression by 16%.

03

### It's good for your overall quality of life

Exercise reduces high blood pressure and lowers bad cholesterol levels. Physical activity also helps to **reduce your risk of developing colon and breast cancer**. Moderately and highly active people have a 20 – 45% lower risk of all-cause cancer mortality as shown in a recent meta-analysis published in *Circulation*.

04

### It's good for your metabolism

In addition to the **weight-control benefits**, exercise also improves insulin sensitivity and lowers your risk of developing Type 2 diabetes and metabolic syndrome. A study in *Diabetes Care* showed physical activity together with weight loss can lower a person's Type 2 diabetes risk by up to 58% in high-risk populations.

05

### It's good for your muscles, joints and bones

Physical activity strengthens muscles, boosts bone density and reduces the risk of disability and injury as you get older. A natural part of ageing is the loss of muscle mass, which can be offset through exercise. A meta-analysis in *Medicine & Science in Sports & Exercise* found resistance training in men (50 – 83 years) increased their lean body mass by around 1kg.

### HOW MUCH SHOULD YOU MOVE?

When it comes to activity, the *American College of Sports Medicine* recommends one of the following:



**Moderate-intensity exercise** for 30 to 60 minutes per day, at least five times a week (for a minimum of 150 minutes per week).



**High-intensity exercise** for 20 to 60 minutes per day, at least three times a week (for a minimum of 75 minutes per week).



**A combination of moderate- and high-intensity exercise**, to reach the same approximate weekly amounts.



**Strength and flexibility**, exercising each major muscle group two to three days a week.



**Neuromotor exercises** (such as balance and agility), two to three days a week, especially in older adults.

# A note from Prof Sebastian van As

Every year, we treat nearly 10 000 children at the Red Cross Children's Hospital in Cape Town. Around one tenth of these are road-related child injuries. Road accident injuries are of the most tragic, yet avoidable, surgeries we perform. In fact, the largest contributor to unnatural deaths among children is motor vehicle accidents.

The carnage on South African roads is well known to us all. The *Road Traffic Management Corporation* reports that, over 2016, a total of 14 071 people died on SA's roads, a figure 9% up from 2015. This is the highest annual road death toll since 2007 – when 14 920 people died. Easter road fatalities spiked by 51% between 2016 and 2017. In 2015 alone, road traffic crashes cost our economy R178 billion.

I could cite many such stats, however they all boil down to this chilling fact: almost 90% of accidents are caused by bad driving – simple. We can't control the behaviour of other road-users, but we can choose our own behaviour. This is where we must start if we want a safer, healthier South Africa.

Programmes that incentivise better driving behaviour are one way to reduce road accidents. I know that rewarding better driving really works. In 2014, Discovery partnered with ChildSafe to launch the Safe Travel to School programme in the Western Cape. We used Discovery Insure's DQ-Track system to measure behaviour in drivers who transport school children. Rewarding them for better driving saw their driving improve dramatically. By leveraging Vitality Drive's technology, we saved children's lives and continue to do so.

If we make people aware of the risks that are inherent in how they drive and incentivise them to improve, we can make a significant difference to keeping all drivers, passengers, pedestrians and society as a whole, alive and safe. One person at a time, one driving decision at a time, we can make our nation's roads safer.

**Head of the Trauma Unit**  
Red Cross War Memorial Children's Hospital

## 6-point check to driving well

### 01 Accelerate smoothly

Acceleration wastes fuel and **increases your risk of having an accident**. If an object – such as a phone or tablet – slides backwards on the seat, then you may be accelerating too harshly.

### 02 Brake with control

Braking should be done **gradually**, allowing time to react to anything that may obstruct your path. A top tip is to leave **three seconds of driving space between you and the car ahead**.

### 03 Corner calmly

Aim to achieve the appropriate turning speed before entering the corner, as you don't know what could be around the bend. Cornering shouldn't cause you to move too much in your seat.

### 04 Drive within the speed limit

The speed at which you travel should be appropriate for the area or road conditions and no faster than the speed limit. **Always reduce your speed in wet weather** so that you don't lose control of your car.

### 05 Avoid cellphone use

Research shows that drivers who use a cellphone while driving are **eight times more likely** to have a crash than those who don't. **Texting reduces your reaction time by 35%**.

### 06 Avoid night driving

The likelihood of having a car accident at night is **seven times higher** than it is during the day, due to decreased visibility, your ability to stay focused and an increased number of impaired drivers on the road. Always reduce your speed and increase your following distance at night.

#### DID YOU KNOW?



Driving between 11pm and 4:30am is **7 times** more dangerous than driving at other times of the day.



A single instance of cellphone usage represents an average of **52 seconds** of distracted driving. At 60km/h, that's equivalent to driving 'blind' for one kilometre.



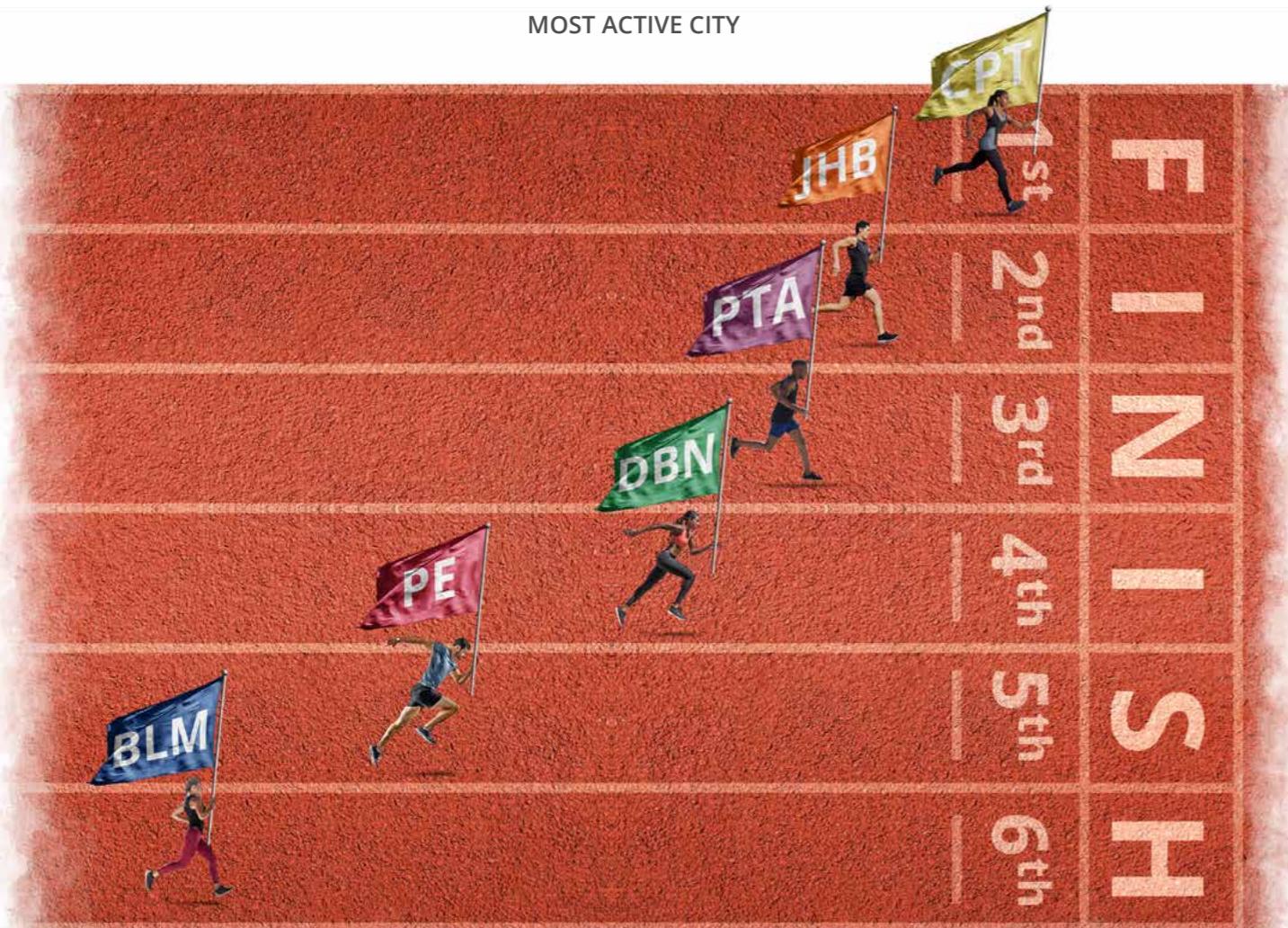
The **worst 20%** of drivers use their phones for an average of **3 minutes per trip**.

# How South African cities rank

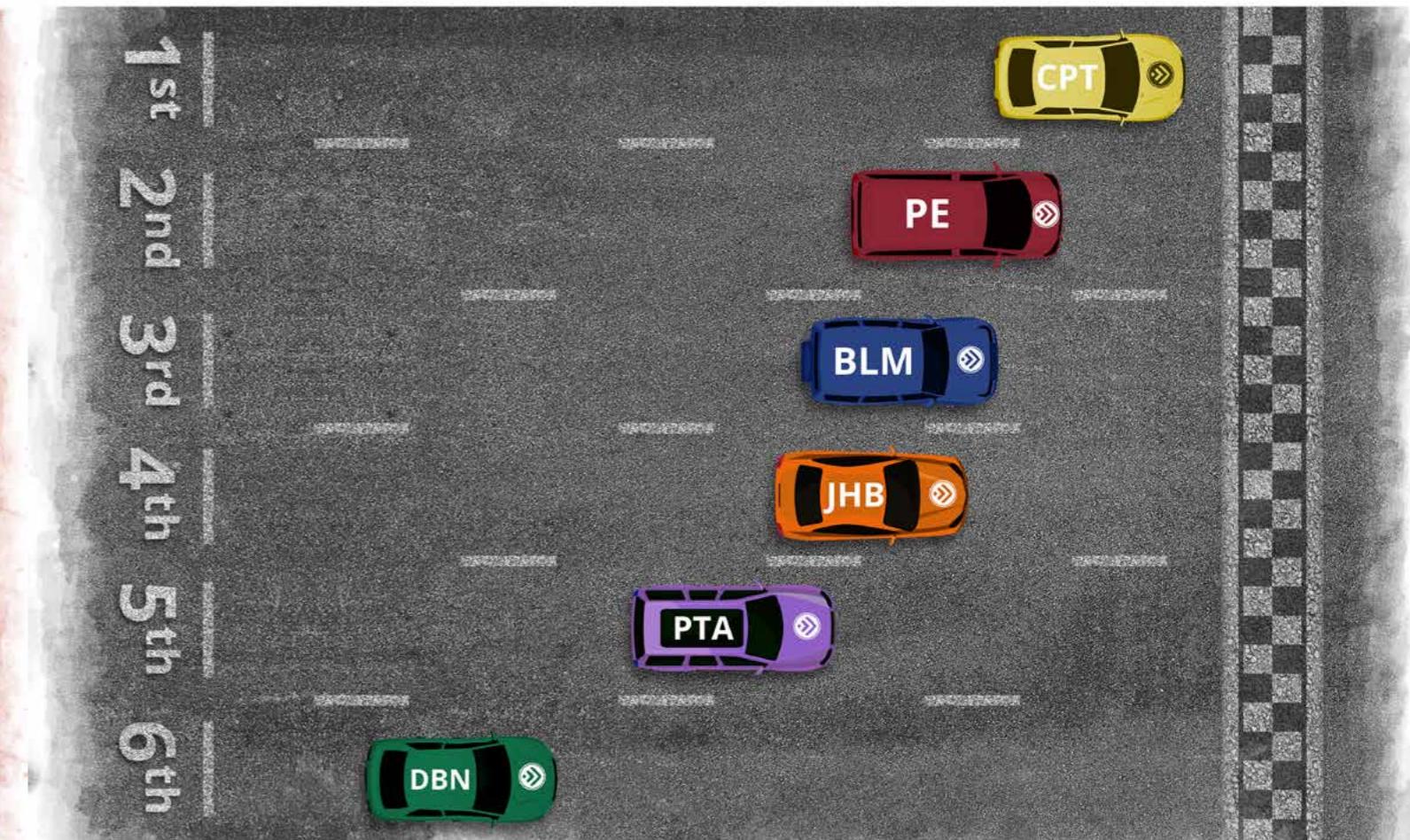
Cape Town is leading the way in both physical activity and driving and is ranked first across driving behaviour that is 11% worse than the winning city, Cape Town. In the physical activity

all SA cities. When it comes to better driving, Durban fares the worst nationally – with ranking, Bloemfontein is at the back of the pack – a staggering 35% behind Cape Town's lead.

MOST ACTIVE CITY

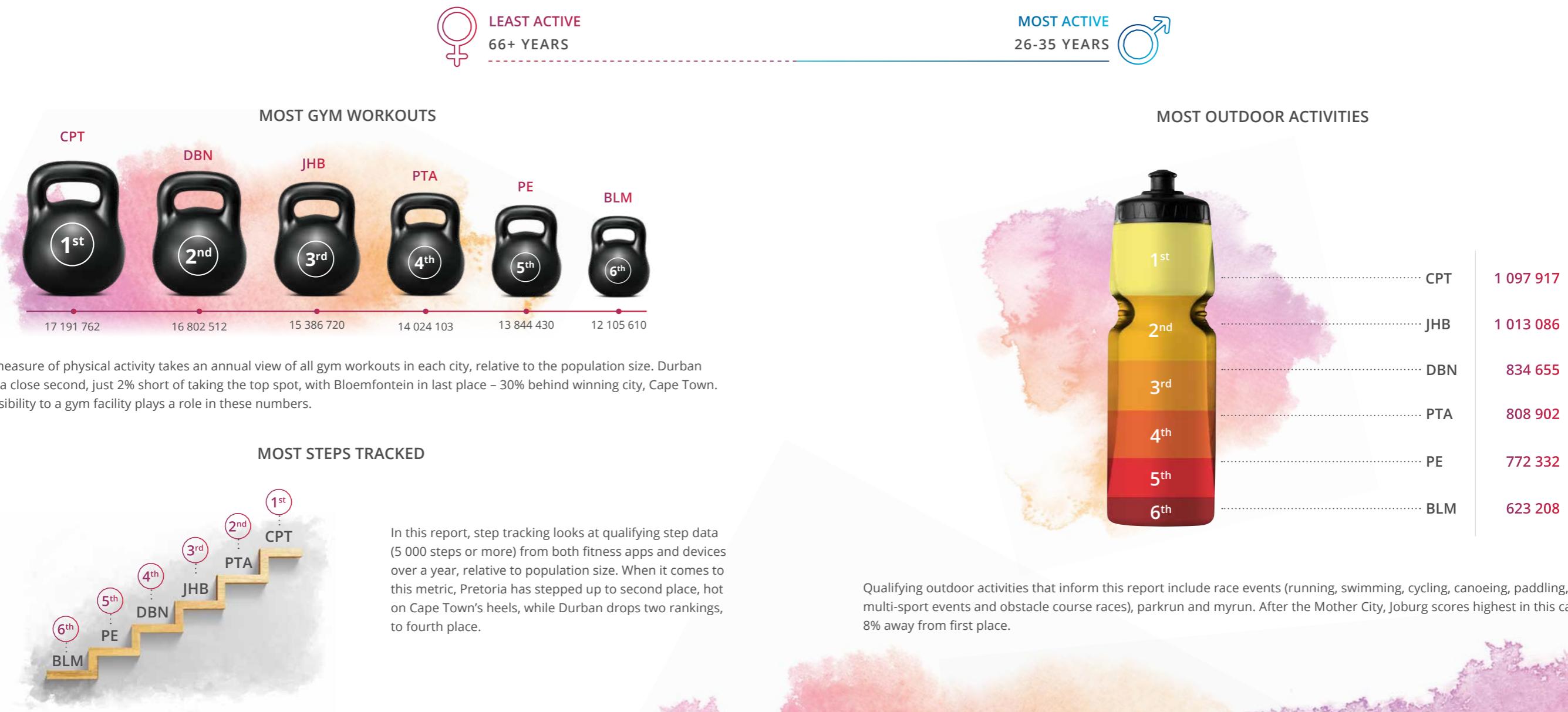


BEST DRIVING CITY



# How we're moving

Cape Town takes first place in the overall physical activity ranking, made up of various components of exercise, including gym workouts, steps tracked and number of outdoor activities. Bloemfontein needs to step it up – placing last in all three metrics.



# How we're driving

In first place on our roads is Cape Town – who are in pole position in the overall driving behaviour ranking. Needing a jump start is Durban – who place last in ranking overall.

## THE ABCs OF DRIVING

This 12-month measure of driving behaviour considers the ABCs of driving, with poor driving behaviour associated with harsh acceleration, harsh braking and harsh cornering. Bloemfontein places first, for the third year in a row, with the lowest number of harsh ABC events, while Durban are in their rear-view mirror – coming in last.



## PHONE USAGE

This metric considers distracted driving through phone usage – one of the biggest risks on South African roads. Cape Town has the least exposure to this risk compared to all other cities – placing first in this category. On the other end of the spectrum is Bloemfontein, with drivers in this city using their cellphones 11% more than Cape Town, placing them at the greatest risk of accidents caused by distracted driving.

## NIGHT DRIVING



Across our metropolitan cities, there is similarly poor behaviour with night driving. Overtaking Durban in this metric is Joburg – with drivers in this city driving the least during the dangerous hours of the night. In last place is Bloemfontein – with just 5% between the winning and losing city.

# Behavioural economics: the science of motivation

What makes one person go to gym – and keep going – while another gives up and stays home? And why do some people continue to drive distracted by cellphones, knowing how risky it is to do so? It all comes down to **behavioural economics**, or the subtle art of understanding and affecting how people make decisions and take action.

Behavioural economist Dan Ariely has spent many years studying the motivations behind the choices we make in a wide range of areas, from health and wellness to financial success. And, in his opinion, it often boils down to the right kind of rewards.

When trying to develop healthy habits, we should focus on rewarding the behaviour instead of the outcome.

– Dan Ariely

Professor of Psychology and Behavioural Economics, Duke University

Going behind the scenes with behavioural economist, Dan Ariely.

If you want people to live healthier lifestyles you need to reward them for making healthier choices every day, as opposed to only rewarding them for achieving an ultimate big-picture goal. Both Discovery Vitality and the Discovery Insure app use the principles of behavioural economics to ensure members' success, offering them tangible rewards for making the right decisions. Whether it's a smoothie voucher for going to gym or a fuel voucher for driving more responsibly, these rewards motivate members to make wiser, healthier choices – and ultimately, to live healthier lives.

Q

How does behavioural economics play a role in getting people more active?

When we think about physical activity, like running, it just seems like it's really going to be miserable and painful and unpleasant and so on. And therefore we don't engage in it. But there are two facts to this. The first is that once we're in the task, things change. We think less about the misery and we are able to enjoy the activity. The second is that, over time, the unpleasant aspect of the activity becomes less while the enjoyable aspect increases. The goal is to get people to take the first step of their fitness journey and incentivise them for doing so.

Q

And in a driving environment? How can these principles be applied to encourage safer driving?

When it comes to driving, it is not about morality. Texting and driving, speeding, etc. do not get corrected because of a simple cost-benefit analysis. The threat of punishment only seems to work well when enforcement is nearly certain. So given that it is hard to catch people, the carrot versus stick analogy is almost always more successful. A programme like Vitality Drive encourages members to drive safer with real-time feedback on key metrics of driving performance, and then rewards them when they drive better. This is a great carrot.

Q

What are some of the most insightful nudge experiments in the physical activity space?

We've done quite a few experiments through the *Centre for Advanced Hindsight*, especially around exercise. I've looked at different strategies to motivate people to stick to their health goals by offering various incentives. These included social accountability (sharing progress on Facebook), a points system (depending on behaviour they could win or lose money) and app control (smartphone apps were blocked). Results showed that loss aversion was an effective means of motivating participants (via losing points compared to gaining them), as was the app control

experiments. The social accountability aspect was more effective when participants shared their progress with larger audiences (like their entire Facebook community versus a limited group).

Q

What role does technology play in the field of behavioural economics?

One of the main lessons in behavioural economics is that the environment matters, and technology is an amazing way to become part of a person's environment. If people know something, for example they know they should eat better, exercise more, take their medication on time or drive safely, but are not able to change their environment, the odds are that these lessons will not change their behaviour. But if people can take their phone with them and this could be a reminder and act as a decision or nudge tool at the moment of temptation, the odds of improving behaviours are much, much higher. This is why in general I am a big fan of technology as it helps to shape people's environments.

Q

Where immediate gratification and short-term incentives don't seem to work, what additional reward structures could be successful?

One of the wonderful aspects of human nature is that we draw motivation from a wide range of aspects. Think about something like running a marathon – on the surface it looks like running a marathon is a miserable activity where people are suffering, but in reality people get tremendous satisfaction. Although not much momentary satisfaction, they get another form of satisfaction. Running marathons, climbing mountains, writing books and starting new businesses – they all show that we have this capacity to draw on a wide range of types of motivations, and in recent years we've been trying to add to these motivations. Things like pride, identity, ownership and a sense of progress add to the mix of the motivation equation in order to get people to behave in a way that would ultimately be good for them.

# Technology: reshaping the way we move

## In the fitness space

How we get active is being influenced by these technological trends.

### 01 Wearable technology

It's no surprise that wearable tech has claimed a top-three spot on the *American College of Sports Medicine's* list of global fitness trends for the past three years. Be it a heart rate monitor, step counter or an **Apple Watch**, fitness devices are making their mark on more and more wrists every day. **Wearable technology has given people unprecedented control over their personal health and fitness.**

### 02 Social media fitspiration

There's nothing new about exercising in a group to boost individual motivation. But thanks to social media, there are so many new ways to interact with people while getting active. From online fitness communities and social challenges on Facebook to training advice from a host of self-made fitness gurus on Instagram and YouTube, **social media has facilitated a whole new way to get – and stay – motivated and connected.**

### 03 Immersive fitness

Where would you like to train today? Perhaps a cycle in the Tour de France. Or how about a jog along a secluded mountain path? Many exercise studios, fitness consoles and apps now promise to take your training to the next level with the help of virtual reality routes, surround sound, wrap-around studio screens and integrated displays. It even has a name: **exertainment**. But it isn't just about keeping you entertained; ZWIFT, for example, encourages competition by displaying a leaderboard with every rider's real-time stats during sessions.

### 04 Health and fitness apps

From step counters and heart rate monitors to exercise journals and workout guides, there's an app for every aspect of fitness. According to a 2015 study published in the *Journal of Medical Internet Research*, **exercise apps encourage people to become significantly more active.**

Team Dimension Data for Qhubeka is the first African cycling team to compete in the Tour de France – and we couldn't have done it without technology. In addition to on-bike devices, every rider completes a daily mobile questionnaire that records a host of wellness parameters, including sleep patterns, mood, energy levels and injuries.

This allows us to track each rider's progress more effectively.

**- Dr Carol Austin**

**Head of Performance Support, Team Dimension Data**



## On the road

Getting from A to B is becoming easier every year, thanks to these technological innovations.

### 01 Self-driving cars

Why drive your car when it can drive you? According to Tesla founder Elon Musk, **self-driving cars will be as commonplace as elevators** within the next 10 years. And this doesn't seem like much of a stretch when you consider the fact that Waymo – Google's self-driving car subsidiary – has already logged more than 12 million autonomously driven kilometres on public roads.

### 02 Ride-hailing services

Ride-hailing apps such as Uber, Lyft and Taxify haven't just transformed commuters' lives; **they have altered the urban landscape**, reducing congestion and even affecting car ownership figures. According to a recent study by Lyft, nearly 250 000 of their ride-sharing passengers have sold their private car or decided not to replace the one they have.

### DID YOU KNOW?



**15 million**

Uber trips are completed every day

### 03 Communicative cars

Thanks to 4G LTE connectivity, **cars are gradually becoming WiFi hotspots** that allow passengers to stream music, watch videos and use the internet. Several manufacturers are already equipping their cars with this functionality, including General Motors, Audi, Chrysler and Ford. The cars themselves will also be able to "talk" to each other while on the road, **reporting on traffic and weather conditions and anticipating potential accidents.**

### 04 Super safety systems

Technology is making cars **safers** and easier to navigate than ever before – and it's only the beginning. From blind spot warnings and automatic emergency braking to lane-departure warnings and lane centring assist, many new cars now come with a host of active safety systems that bridge the gap between human-driven cars and their autonomous counterparts. **Augmented reality** will also turn the windshield into an interactive display that features real-time dashboard vitals (speed, fuel use, etc.) and safety conditions.

# Vitality Active Rewards – the world's best behavioural change programme

From social media to Skype chats and self-driving cars, technology may be well known for reducing our need to move, but it can also **motivate people to be more physically active**. Take the Vitality Active Rewards (VAR) programme, a smartphone-based app that is designed to encourage Vitality members to increase their activity levels. **How? By setting weekly personalised physical activity goals – and then rewarding users for achieving them.** Users who achieve their weekly goal qualify for a range of rewards: from smoothies and coffees to gym subscription subsidies and discounts on flights, running shoes and fitness tracking devices.

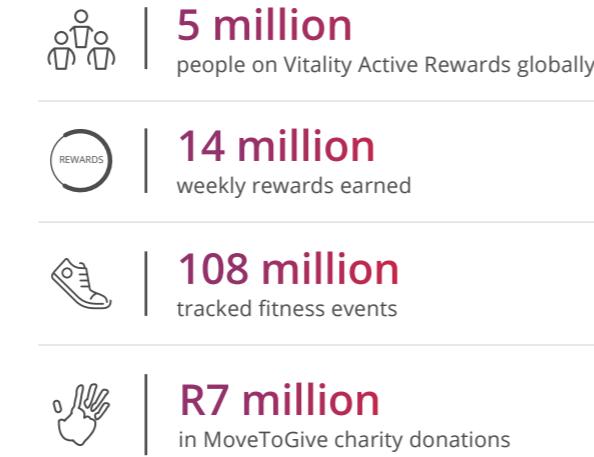


Members on the programme have been shown to increase their frequency of physical activity by 24% and when exercising, tend to exercise at a higher intensity. Those who obtained an Apple Watch as part of the programme are 35% more active than members who did not get the Apple Watch.

In addition, since the launch of Vitality Active Rewards, we have seen a 41% reduction in the number of harsh driving events for drivers that earn Vitality Active Rewards for driving well each week.

A review in the *British Journal of Sports Medicine* confirms that the VAR programme is having a desired impact on physical activity behaviours – this is particularly true for older adult members who have lifestyle-related chronic diseases.

## THE RESULTS



Discovery's core purpose is to make people healthier, and enhance and protect their lives. Vitality supports this by encouraging and rewarding healthier behaviour. And Vitality Active Rewards is our most personalised, real-time and effective weapon against poor health.

**- Dinesh Govender  
Chief Executive Officer, Discovery Vitality**

# We run the park – over half a million South Africans getting active

Paul Sinton-Hewitt launched the first parkrun in 2004 in Bushy Park, London. Just seven years later in South Africa, our very own **Bruce Fordyne** launched parkrun. With only 26 runners at the start of the 5km route in Delta Park, Johannesburg, parkrun has grown to an impressive registered **900 000 parkrunners**, with 50 000 people participating in over 158 events across the country every week.

A 2015 qualitative study by the *University of Loughborough* found that runners attending a parkrun for the first time were typically **motivated for weight loss or an improvement in their physical fitness**. After their first parkrun, runners were motivated to return in order to beat their personal best, reach a certain number of runs to join a milestone club, meet new people and be outdoors.

In order to promote physical activity, it is important to develop initiatives that are **accessible to a broad range of people** in the community but cost is often a barrier for many people, especially to people living in South Africa. As **parkrun is a free and timed event**, this opens the possibilities to a lot more communities of all ages and fitness levels to get active.

## RUNNING THE NUMBERS

	<b>19 850</b> The number of parkrun events held in SA to date
	<b>158</b> The number of national locations
	<b>454 years</b> The total time run to date
	<b>29 million kms</b> The total distance run to date

Our parkrun aim is to create a healthier and happier country – one community at a time. I did my first parkrun in 2011 in London and I said to the global parkrun founder Paul Sinton-Hewitt "I've got to take this to South Africa". That same year, we opened our first parkrun venue in Delta Park, Johannesburg.

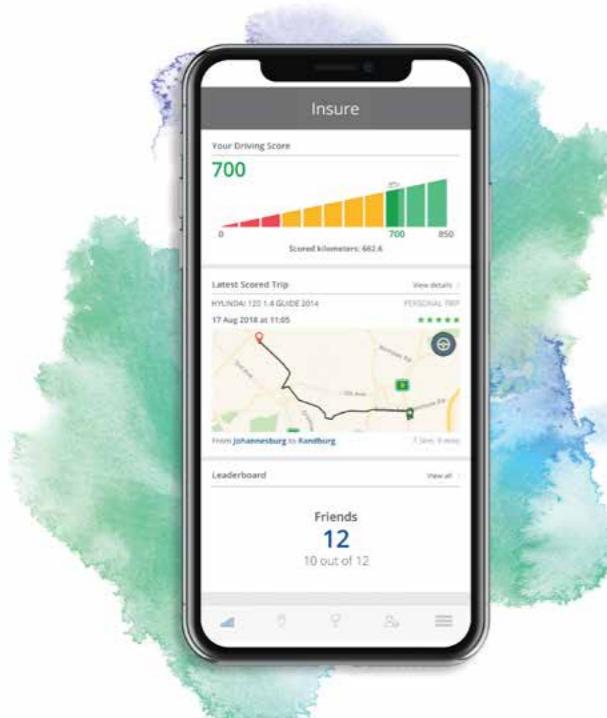
**- Bruce Fordyne  
CEO, parkrun SA**

# Vitality Drive: driving the drivers

The unique behavioural change programme that rewards you for driving well.

Vitality Drive uses DQ-Track, the latest motor vehicle telematics technology, to collect information about driving behaviours including acceleration, braking, cornering, speed, night driving, distance driven and cellphone use. Actuarial algorithms are applied to the driving data to develop a **scientific measure of driver behaviour, known as your Driver Performance Score (DPS)**.

By using **powerful incentives**, Vitality Drive encourages clients to improve driving behaviour. Vitality Drive points-earning activities also help to enhance driving knowledge, awareness and vehicle safety. The better clients drive, the more Vitality Drive points they earn, which translates to more rewards for them. These rewards include 0% renewal premium increases for our best drivers, weekly



## THE RESULTS

**Over 90%**  
of car accidents are caused by  
driver behaviour

**15% improvement**  
within the first 30 days of joining  
the programme

Getting people to drive better is about far more than processing fewer claims. Insurers have a powerful social role to play. We can help create a healthier, safer society by incentivising good behaviour.

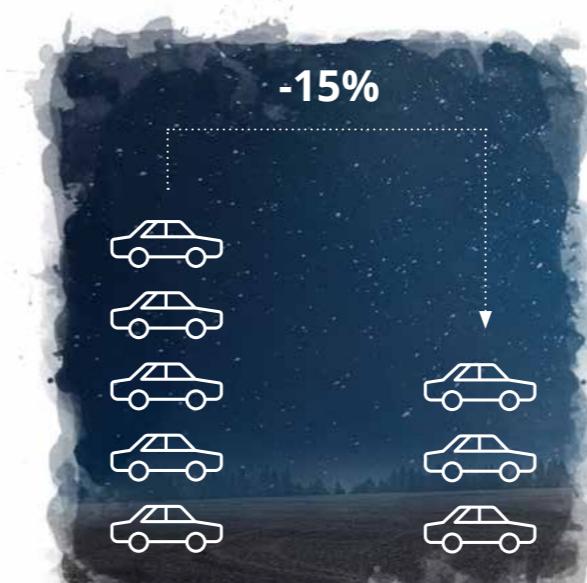
- Anton Ossip  
Chief Executive Officer, Discovery Insure

# Night driving: the Uber solution

Out of the driver's seat and into the passenger's seat for safer roads.

Night driving is **one of the riskiest driving behaviours on SA roads**. To reduce this behaviour, clients on the Vitality Drive programme are rewarded for seeking alternatives to night driving, with the most popular alternative being Uber – which is discounted by up to 25%.

Young drivers (under the age of 30) are the most at-risk population group on the roads. This case study demonstrates a 15% reduction in night driving among the full Vitality Drive base and a 17% reduction in the <30 year demographic.



Looking at Vitality Drive data over a 12-month period, there is a marked reduction of 15% in night driving before versus after activating the Uber benefit.

## TRACKING PROGRESS

**Up to 25% off**  
Uber trips every month

**31 – 40 years old**  
Group with the largest behavioural change

**17% reduction**  
seen in young drivers

I am confident that if you extended the Vitality Drive programme to every driver in the country, you'd have a noticeable and consistent reduction in accidents.

- Rory Byrne  
Former Chief Designer,  
Ferrari Formula One and Advisor to Discovery Insure

# Movers and shakers

How global initiatives are tracking and transforming urban sprawls into healthier cities.

## 01 Sparking change: the Global Active City programme

Launched by the Active Well-being Initiative (AWI) in 2017, the programme is designed to promote health and physical activity in cities around the world. How? By providing practical training modules, standards and supporting tools to enable city leaders to improve their population's health and wellbeing. The programme has been implemented in 10 pilot cities, including Liverpool (UK), Gaborone (Botswana) and Lausanne (Switzerland).

## 02 Connecting the city: Atlanta's BeltLine pathway

Atlanta is currently building a 35km-long paved recreational path around the entire city centre. While the full BeltLine will only be complete in 2030, its 3.6km Eastside Trail has already attracted well over a million people. The BeltLine will ultimately connect 45 neighbourhoods and provide easy, active access to 8km of parkland, and much of the trail consists of converted railway corridors. Likewise, Miami proposes to convert unused land under the elevated Metrorail into a 16km linear park, while Freshkills Park on Staten Island is under construction on what was once the world's biggest landfill.

## 03 Outdoor gyms: booming in SA

Eco-friendly and free, outdoor gyms are popping up all over South Africa and have changed the way that people can get active in their neighbourhoods. An outdoor gym is typically built in a public park, suitable for all ages. It consists of all-weather equipment that allows you to use your own body weight for your workout. These outdoor gym initiatives, supported by the City of Joburg and

City of Cape Town, have helped to foster healthier communities, stimulate job creation and build civic pride, with two of the most popular outdoor gyms in Dlamini, Soweto and Sea Point, Cape Town.

## 04 Urban planning ahead: Hamburg's dynamic new district

Hamburg prioritised physical activity right from the word go in the planning of a new district called Oberbillwerder. The district will house 20 000 people in 7 000 homes, with all cars stationed in communal neighbourhood garages to reduce unnecessary traffic. Built on marshland, the groundbreaking borough will feature many activity-boosting innovations, including the positioning of three schools, a swimming pool and up to 20 daycare centres around a green loop to allow for car-free access.

### DID YOU KNOW?



Living near a green space reduces the risk of stress by 30%.



A 20-minute walk can help with managing depression.



Stair use can result in up to a 20% reduction in all-cause mortality.



Marked bike lanes reduce vehicle-bike collisions by up to 50%.

# Driving change

Five cities are paving the way to safer, smarter transportation.

## 01 Getting data-driven in Chicago

Imagine streetlamps warning you of potholes ahead, or an app informing you that it's about to rain while you're walking home from work. Chicago's *Array of Things* could make this kind of innovation possible, thanks to a network of sensors that are being installed along the city's main streets. These sensors collect real-time data on the surrounding environment and public activity, which can ultimately be used by urban planners to understand the use of the city – and to improve and enhance that experience.

## 02 Paying for pollution in Madrid

When it comes to being environmentally friendly, not all cars are created equal. Madrid now expects drivers of less sustainable vehicles to pay higher parking fees. When someone parks in the city, they must punch their number plate into the meter, which then uses the city's database to identify the make and model of the car. If it's a gas-guzzler, the driver pays up to 20% more, while fuel-efficient cars get up to 20% off.

## 03 Bus Rapid Transit system in Johannesburg

Rea Vaya offers fast, safe and affordable transport across Johannesburg, and is a project aimed at providing safer public transport, reducing congestion and improving the environment. A high-tech control room monitors the buses and routes, with real-time

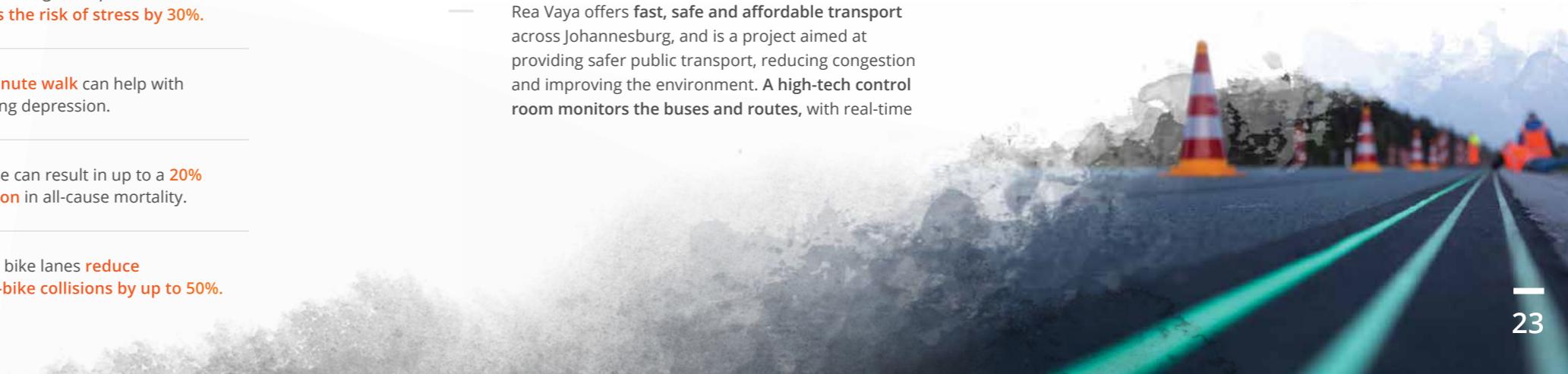
movement tracking and the ability for drivers to communicate with each other, ensuring that buses run on time.

## 04 Cutting congestion in London

About 15 years ago, London introduced a "congestion charge" for vehicles operating within the city centre, almost immediately reducing traffic by approximately 15%, resulting in an impressive reduction in CO<sub>2</sub> emissions over time. In addition to encouraging drivers to switch to public transport or even cycle to work, the system also discourages the use of energy-inefficient vehicles, which are expected to pay much more than their eco-friendly counterparts.

## 05 Lighting the way in the Netherlands

The Netherlands have piloted a highway project using glow-in-the-dark road paint, as a way of lighting up the roads in remote areas with poor lighting. This innovative idea uses solar-charged paint that is charged during the day and lights the road up at night. The glow-in-the-dark road markings act as a guideline for people driving once the sun has set.



# A note from our Discovery Vitality Ambassadors

With a grand total of six South African records and three world records and Wayde van Niekerk are role models when it comes to getting active. And time they spend on the roads travelling for race meets, they both appreciate

between them, Discovery Vitality Ambassadors Chad le Clos with their mutual-love for all things cars, and the amount of the importance of safer driving for a healthier society.

## Wayde van Niekerk

World and Olympic Record Holder (400m)

Ever since the 2016 Olympic Games in Rio de Janeiro, along with the Gold medal and world record that were part of that special time in my life, I have been asked about the role that **physical activity plays in my life**.

Right from early childhood, I remember sport being part of my everyday life. I have a massive, sporty family. I was fortunate to grow up with that **focus on an active and healthy lifestyle**, something which I'm very passionate about today.

Encouraging South Africans to live healthier lifestyles – **to get more active and to drive safer** – is what I aspire to do as an ambassador for Discovery Vitality. I have an intense passion for South Africa and, I believe, Vitality does too. If we can succeed in motivating and inspiring people to live a healthier and better lifestyle, our country will flourish.

I'm very proud to play a small part in the 2018 *Fittest City* and *Drive Well* reports – which give us as a society the necessary information to take action.



## Chad le Clos

Olympic, World and Commonwealth Games Champion

Being active and exercising is at the core of my world and something that's been an important part of my life from a very young age. Apart from my love of swimming and my competitiveness, I actually started swimming for an unlikely reason – to reduce my asthma symptoms. **That's the power of exercise!**

I'm incredibly proud to be a Discovery Vitality Ambassador, and am excited to be involved in the 2018 *Fittest City* and *Drive Well* reports. I love the concept of Vitality Active Rewards – **being rewarded for pushing yourself to achieve your goals**. Individual goals are so important – be it in exercise, driving or any aspect of your life. If you chase your goals and believe in yourself like I do every day, you'll see the results.

I always hope to inspire others to do great things, and now I'd like to encourage all South Africans to define their own personal health and wellness goals – and then break their own records!



# The final stretch

There's still a way to go to get South Africa healthier – both in terms of physical activity and on the roads – but great strides have been made in both spaces.

In order to create an environment that's more conducive to better health behaviours, we need to better understand human psychology – paired with new technology trends and big data insights – to create positive shifts that can lead to positive outcomes.

The 2018 *Fittest City* and *Drive Well* reports explore who and how we're exercising, access to exercise, how to drive well and what interventions support better driving – all important factors in determining how best to combat sedentary lifestyles and poor driving behaviour.

Although there is no quick fix for these driving societal risks, the responsibility lies with all stakeholders – from individuals to industries – to make people more aware of their day-to-day choices when it comes to getting more active and driving well.

We hope that these insights will help mobilise individuals, groups and policymakers to create a healthier, safer and more active country. We know that an investment in physical activity and better driving makes good business sense, and there are great opportunities for innovation and partnerships in Vitality that will benefit society as part of our Shared-Value Insurance model.

As is evident with the Discovery Vitality programme, better health has an economic impact on society: the healthier a nation, the healthier the economy. These shared value principles are what help to drive Vitality's commitment to finding new, innovative ways to continue promoting healthier living and better driving.

[Join us on the road to a healthier South Africa.](#)

# Acknowledgements

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