



The Vitality
ObeCity
Index 2017

Foreword

The obesity epidemic is a global challenge that is on the rise and, as a nation, we have one of the highest rates worldwide – half of South African adults are overweight or obese. The **Vitality ObeCity Index 2017** analysed data from Vitality members living in six cities across South Africa and **while there are some positive trends, we still have a lot to do to combat obesity.**

This increase in the number of obese South Africans is not without consequence. It means that more people are now at increased risk of heart disease, type 2 diabetes, certain cancers and premature death. Our data shows that being obese **increases healthcare costs by as much as R4 400 per person per year.**

It's no surprise that we find ourselves in this situation as our eating habits have changed for the worse in recent decades. In fact, statistics show that **South Africans now spend more money on beer than on vegetables and fruit combined.** We are increasingly foregoing whole, fresh foods in favour of energy-dense processed foods and sugary soft drinks. This is compounded by the fact that we're exercising less with more sedentary lifestyles.

At Vitality, we prioritise good nutrition as part of healthy living. Our core purpose is to make people healthier and through our Shared Value Insurance Model, we deliver on this. Vitality provides incentives to shift lifestyle behaviours, which improve health outcomes and lower healthcare costs.

As members become healthier, the savings that emerge are **channelled back into incentives to stimulate further behaviour change** – fuelling a virtuous cycle of health improvement and value creation.

Our research has shown a reduction in Body Mass Index (BMI) and healthcare costs as **more healthy foods are purchased** instead of unhealthy foods.

The Vitality ObeCity Index challenges us all – as individuals, parents, teachers, retailers, restaurant owners, industry and policymakers – to actively contribute to a society where the healthy choice becomes the easy choice.

The message is clear – **we need to move more and consciously choose foods that will nourish our bodies** so that we can live healthier and more productive lives.

Dr Craig Nossel, Head of Vitality Wellness

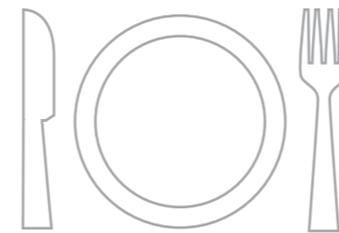
Contents

The big picture	04
The world is getting fatter, faster	05
The riskiest risk factors worldwide	07
The impact of obesity	09
Insights from RAND Europe	11
How we got our results	13
How South African cities rank	15
What is making us fatter?	21
Buy better	23
Cook more often	27
Eat healthier	33
What's in your pantry?	37
The bottom line	39
Acknowledgements	40





We have a big
FAT
problem



The big picture

We have a problem ...

Right now, more than 2.1 billion people (nearly 30% of the global population) are overweight or obese. That's two and a half times the number of undernourished people globally. And it's only getting worse. If the growth rate in the prevalence of obesity continues on its current trajectory, almost half of the world's adult population will be overweight or obese by 2030.

That's where the **Vitality ObeCity Index** comes in.

It's more important than ever to make people and communities aware of the implications of being overweight – and to provide them with the information they need to manage and improve their weight status. The impact obesity has on individuals, healthcare systems and the economy makes it imperative to look at the drivers behind the growing problem, as well as the different initiatives and regulations that can be implemented to encourage people to make healthy choices.

The Vitality ObeCity Index presents the latest data and insights on the weight status and food purchasing behaviour of nearly half a million Vitality members, in a bid to empower, encourage and motivate people to become healthier. It's our way of identifying the main issues we are facing in South Africa, so that we can begin to build a healthier nation.

Starting right now.

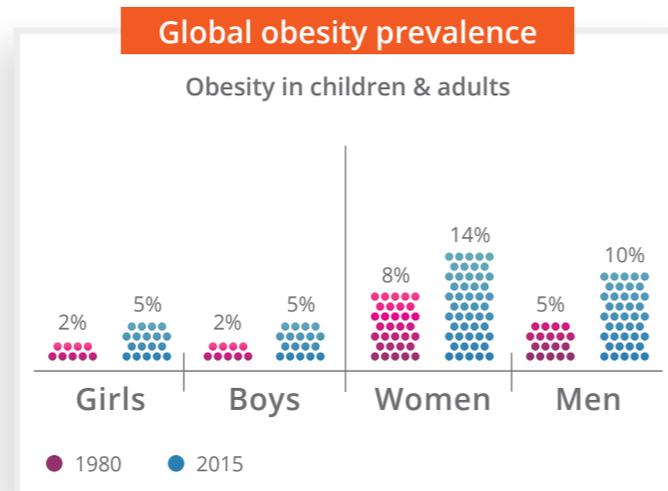
The world is getting fatter, faster

What is happening in the world?

Obesity and overweight are a growing problem in nearly every country worldwide. In fact, over the past 10 to 20 years, the global disease burden has shifted from malnutrition and communicable diseases towards non-communicable or lifestyle diseases – now most of the world's population live in countries where being overweight and obese kills more people than being underweight.



Globally, **604 million** adults and **108 million** children are obese.



Obesity in children

In children and adolescents, the problem seems to be getting bigger, faster – in many countries, the rate of increase in childhood obesity has been greater than that of adult obesity. The prevalence is up in both boys and girls, from developed and developing countries alike.

What is happening in South Africa?

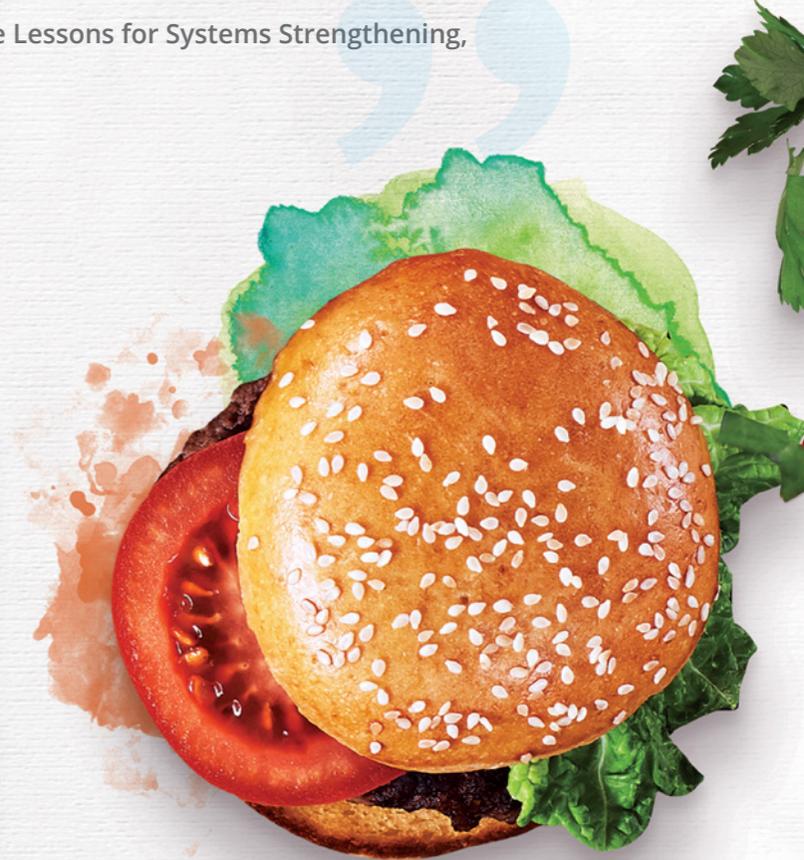
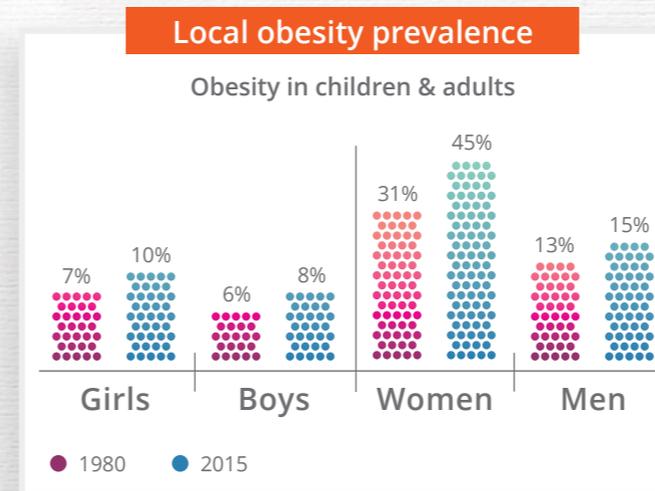
Obesity in South Africa is increasing faster than the global average. National surveys paint a disturbing picture, with the number of overweight and obese men and women increasing since the last national survey four years ago.

If the situation in South Africa is allowed to continue, the obesity epidemic will sink South Africa's healthcare system.

- Prof Karen Hofman, Director: Priority Cost Effective Lessons for Systems Strengthening, University of the Witwatersrand

It's worse in women (and in South Africa)

In general, obesity was found to be more prevalent in women than in men of all age groups. In sub-Saharan Africa in 2013, the highest prevalence of obesity was recorded in South African women, at 42%.



The riskiest risk factors worldwide

4.5 MILLION

deaths (7.1% of deaths from any cause)



29 MILLION

years lived with disability

Factors affecting mortality

Research has found that **dietary risk factors and physical inactivity** are responsible for the majority of global disease – nearly **double the number of deaths caused by tobacco** and **four times the number caused by abuse of alcohol and drugs**.

In 2016, *The Lancet* published a pooled analysis of trends in adult Body Mass Index in 200 countries from 1975 to 2014. By 2014, the number had shown more than a six-fold increase to over half a billion people. And it is a bad situation, a slow-motion disaster. Population-wide increases in body weight are the warning signal that big trouble is on its way. It takes time, but trouble eventually arrives as a wave of lifestyle-related chronic diseases.

- Dr Margaret Chan, Director-General, World Health Organization

Common infectious diseases have declined dramatically, globally. The world is becoming a healthier place, infectious-disease wise. However, the frightening exception is the majority of non-communicable diseases which are on the rapid rise.

- Prof Evan Blecher, Senior Economist, Health Policy Centre, University of Illinois

Risk factors



Dietary risk factors and physical inactivity



Hypertension



Tobacco smoking (including second-hand smoke)



Diabetes



High BMI



Alcohol and drug use

Global deaths



11 674 880



10 455 860



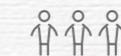
7 131 380



5 612 450



4 525 100



3 257 200

Source: Global Burden of Disease Study, 2016

The impact of obesity



Health impact

The impact of obesity on individual health, globally, is significant.

4.5 million people die each year as a result of being overweight or obese – more than the worldwide deaths linked to being underweight.

Health concerns linked to obesity:

Type 2 diabetes

Cardiovascular disease (heart disease and stroke)

Certain cancers (breast and colon)

Reproductive health issues (infertility and higher risk of miscarriage)

Increased strain on bones, muscles and joints

Emotional distress and depression

Low quality of life

Respiratory problems (sleep apnoea and asthma)



Economic impact

In addition to health concerns, obesity impacts the global economy.

R16.4 trillion is lost each year – roughly equivalent to the global impact from smoking or armed violence, war and terrorism. The economic impact of obesity in South Africa is **R701 billion** each year.

Costs to the economy linked to obesity:

Decreased productivity – costing South Africa around **R109 billion** each year

Increased absenteeism – costing South Africa around **R47 billion** each year

Increased medical spend – out-of-pocket healthcare costs of **R124 billion** each year globally

Slowed career growth – globally, overweight women are predicted to earn **11%** less than women of healthy weight

Everyday expenses – costing an extra **R31 billion** globally linked to fuel, electricity and other expenses by obese people



Weighing in

Insights from Christian van Stolk (Vice President) and Marco Hafner (Senior Economist) of RAND Europe

Obesity is one of the main societal challenges of our time. Not only is rising obesity associated with poorer health outcomes over time, but it is also associated with poor socio-economic outcomes and lower productivity in the workplace. The costs of obesity to the healthcare system, society and businesses are significant – and are projected to keep rising in the near future.

The prevalence of obesity is increasing globally. A recent Organisation of Economic Cooperation and Development (OECD) update reported that more than one in two adults and one in six children are overweight in OECD countries. Obesity levels are projected to increase in most of those countries until at least 2030.

Associated factors

There are significant associations between levels of obesity and socio-economic impacts, especially among women. In about half of the eight countries for which data are available, less educated women are two to three times more likely to be overweight than those with a higher level of education. Our own work focusing on health and wellbeing in the workplace shows relationships between lack of sleep, earning less and the likelihood of being obese. As such, obesity levels are more prevalent in certain groups and are also associated with worse social outcomes. The risk for society is that rising obesity levels contribute to social inequalities going forward.

There are wider societal costs. Obesity is one of the biggest drivers of preventable chronic diseases and healthcare costs. In the United States, estimates for these costs range from R2 trillion to nearly R2.9 trillion per year. At the same time, obese adults spend 42% more on direct healthcare than adults of a healthy weight. In 2007, the direct cost of obesity to the United Kingdom National Health Service (NHS) was R41.7 billion,

Obesity is one of the biggest drivers of preventable chronic diseases and healthcare costs.

and the cost of being overweight (but not obese) was R34.4 billion. A recent update, using the 2007 data but projecting forward, showed that the cost of people being overweight and obese is R92.4 billion – a figure that could double by 2050 based on current trends. The wider costs to society (including those from unemployment, early retirement and welfare) were estimated to be R210 billion in 2007.

A heavy burden on business

Obesity also has impacts in the workplace and is a significant driver of productivity loss. Estimates from the United States put this productivity loss at approximately R58.6 billion annually for sickness absence, while sub-optimal health due to obesity cost employers R6 899 per obese worker per year.

Our workplace surveys confirm the extent of the issue. The 2014 Discovery Healthy Company Index survey showed that 41% of South African employees surveyed could be classified as obese, with 54% not getting enough physical activity and 49% having poor nutrition. The Britain’s Healthiest Workplace survey of 2017 showed slightly better numbers, with 36% not getting enough physical activity and 46% at risk for poor nutrition. Our survey across Asia shows lower levels of obesity but a population catching up quickly with the West, with high numbers (>60%) at risk for poor nutrition and low physical activity.

The power of programmes

Tackling obesity requires more regular exercise and improved nutrition. Evidence generally suggests that some programmes aimed at obese populations can be remarkably cost-effective by reducing the impact of obesity. Some studies report a five- to six-fold return on the original investment. However, there are challenges around the sustainability of these programmes, and more evidence needs to be collected. There is a worldwide obesity epidemic and it seems obvious that individuals, societies and employers will need to do significantly more to mitigate the impact of obesity.

There is a strong business case to undertake action and use evidence-based programmes, given the associated costs outlined above. Some of these programmes should also be targeted at those most at risk of obesity: the poorer populations, who often struggle to access health programmes. Finally, changing the behaviour of children may be key in terms of disrupting the long-term projections on the prevalence of obesity.

The cost of people being overweight and obese in the UK is R92.4 billion – a figure that could double by 2050 based on current trends.



How we got our results

How was weight status calculated?

We used two measurements for nearly half a million adult members over the age of 18:

01

BMI is an index of weight-for-height to classify overweight and obesity in adults. It is defined as weight in kilograms divided by the square of height in metres (kg/m²). BMI provides the most useful population-level measure of overweight and obesity as it is the same for both sexes and for all ages.

02

Waist circumference (WC) is an estimate of abdominal fat. WHO and International Diabetes Federation suggest that a WC above 94cm for men and 80cm for women increases the risk of metabolic complications.

Combining BMI with waist circumference (abdominal obesity) measurements helps further classify and define health risks associated with obesity.

How was food purchasing determined?

Food purchasing ratings were based on Vitality data from:

01

Food purchasing score relates to the ratio of healthy to healthy-plus-unhealthy products purchased at Pick n Pay and Woolworths through the HealthyFood benefit. The higher the score, the healthier the basket of food. Purchases were analysed together with the nutritional content of South African products through the George Institute's Food and Beverage database.

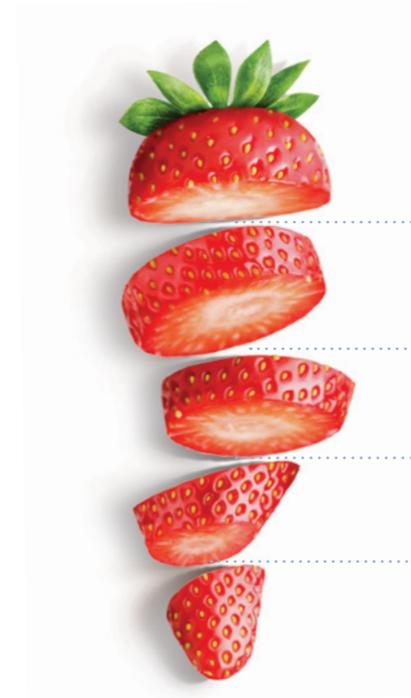
02

Average number of fruit and vegetable portions purchased per member.

03

Average number of teaspoons of sugar and salt purchased per member – determined by taking into account purchases of salt and sugar, as well as purchases of high-salt foods, sugary snacks and drinks.

What were the holistic considerations?



Weight status

Food purchasing score

Fruit and vegetable portions purchased

Teaspoons of sugar and salt purchased

In these cities:



How South African cities rank

Results from the 2017 Vitality ObeCity Index show that while some cities are marginally 'healthier' than others with respect to weight status and food purchasing behaviour, there is still room for improvement in every city and we have a long way to go to reach a healthy weight status as a nation. South Africans in general consume insufficient portions of vegetables and fruit and too much sugar and salt.



Weight status

Cape Town scores best with 53.5% of Capetonians having a normal weight status.

Johannesburg and Durban came in at second and third with 52.0% and 51.8%, respectively.

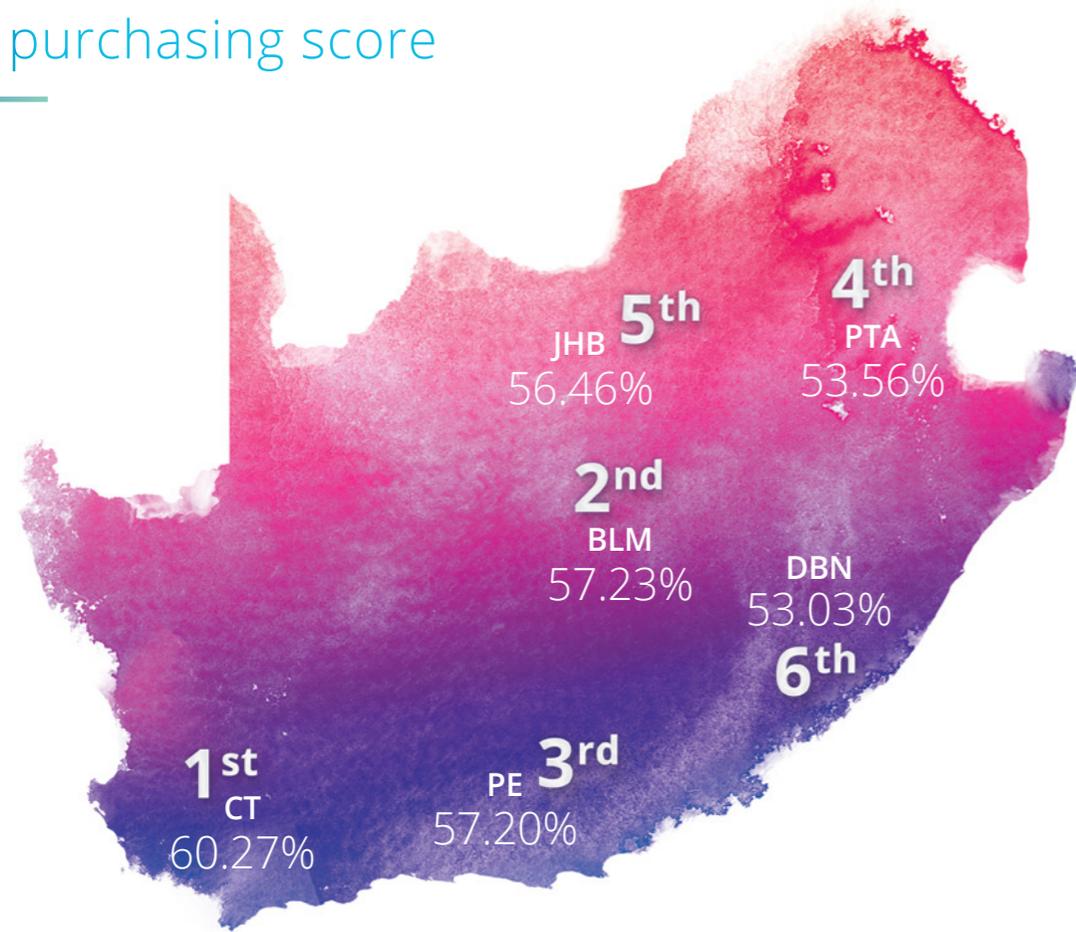
Port Elizabeth and Bloemfontein have the worst weight status, with 48.8% of residents having a healthy weight status in both cities.

Percentage refers to residents in that city with a healthy weight status.

With regard to changes since 2014, **Cape Town is the most improved city**, with an increase of 7% in healthy weight status, while **Port Elizabeth is the least improved city** with only a 4% shift in weight status.

In the past three years, from 2014 to 2017, Vitality members improved their weight status by 5.5%.

Food purchasing score



Cape Town Vitality members have the highest average score of 60.3%, followed by Bloemfontein in second and Port Elizabeth in third place.

When looking at progress made since 2014, all cities improved their food purchasing score with Bloemfontein having the most improvement (6.9%) and Port Elizabeth with the least improvement (4.0%).

Percentage refers to the average food purchasing score of residents in that city.

Vitality members within the normal weight range are associated with the healthiest average food purchasing score, showing a positive relationship between food purchasing score and weight status.

Vitality members had an overall improvement in their food purchasing score by 5.2%.

Fruit and vegetables

Cape Town purchased the most portions of fruit and vegetables compared to other cities, followed by Johannesburg and Bloemfontein. Port Elizabeth and Durban purchased the least portions of fruit and vegetables. Durban purchased 34% less fruit and vegetables compared to Cape Town, the winning city.

We see a positive relationship between weight status and fruit and vegetable purchasing.



Inflation for fruit and vegetables was 18.9% for the period March 2015 – 2016 compared to inflation of 9.8% for an average basket of produce.

What we should be eating ...
5 servings (400g)



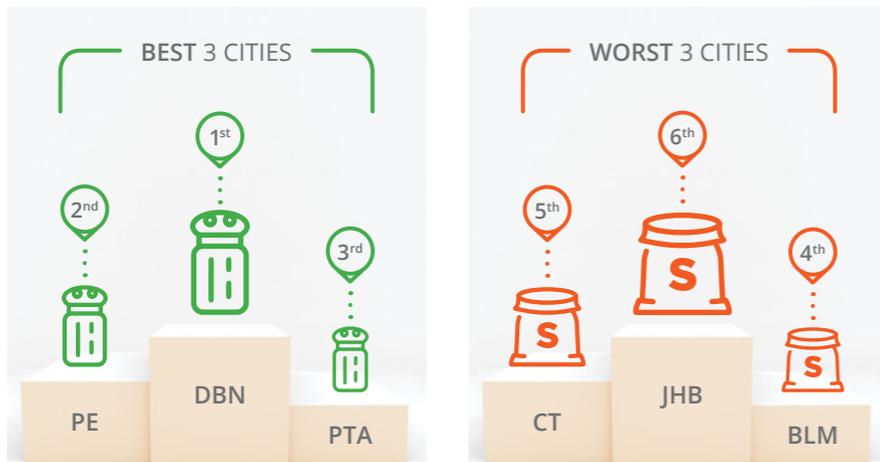
What we actually eat ...
3 servings (230g)



Salt

Durban purchased the least amount of salt compared to other cities, with second and third place being held by Port Elizabeth and Pretoria, respectively. Johannesburg and Cape Town purchased the most amount of salt.

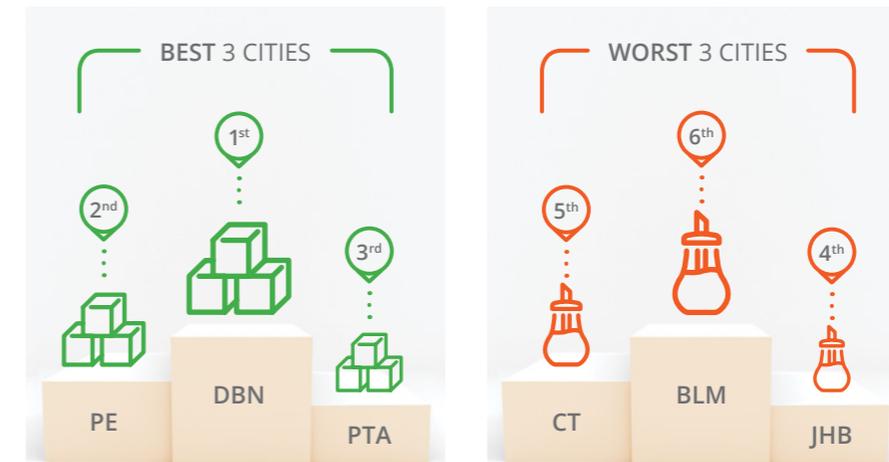
Durban purchased just over a quarter less salt, than Johannesburg, the city with the highest amount of salt purchased.



Sugar

Durban had the lowest average number of teaspoons of sugar purchased compared to other cities, followed by Port Elizabeth and Pretoria, with Cape Town and Bloemfontein purchasing the most amount of sugar.

Bloemfontein purchased 40% more sugar than Durban, the winning city.



What we should be eating ...

The maximum amount of salt we should have per day

• 5g (1 teaspoon)

What we are actually eating ...

The amount of salt a typical South African has per day

• 11g (2 teaspoons)

What we should be eating ...

The maximum amount of sugar we should have per day

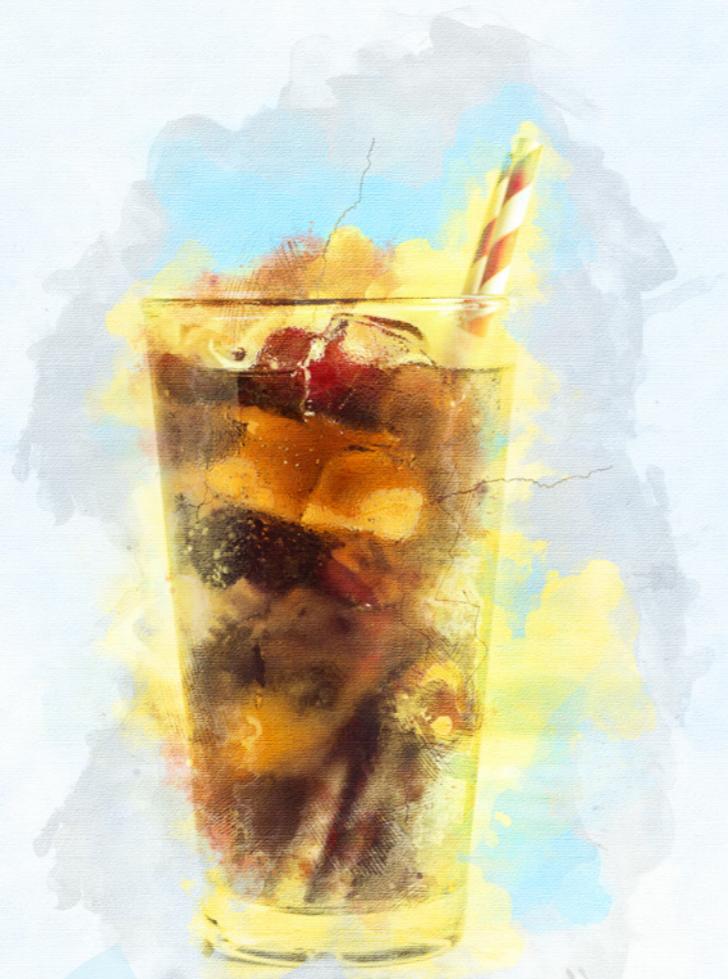
• 50g (12 teaspoons)

What we are actually eating ...

The amount of sugar a typical South African has per day

• 100g (24 teaspoons)





I am not only sad but alarmed because of my medical training. I know the consequences of obesity – it turns into more kidney disease, more heart problems, more diabetes. The costs are going to be very high. In the next decade many countries are not going to be able to afford their health costs and this definitely includes South Africa.

- Dr Aaron Motsoaledi, Minister of Health, South Africa

What is making us fatter?

obesogenic environment

/ə-,bē-sə-'je-nik | in-'vī-rə(n)-mənt
(noun)

an environment that is not conducive to weight loss and in fact promotes weight gain

We live in an obesogenic environment, which is characterised by a multitude of social, behavioural and environmental factors, all of which play a role in creating the weight-gain crisis of our time.

Clearly, obesity is a multifactorial puzzle to solve.

Our current food environment sets us up for failure: there is too much food, it is too easily available and it is mainly unhealthy. We are surrounded by an abundance of cheap, convenient and tasty foods, from fast food menus to processed snack foods.

In recent decades food companies have shifted their focus to **mass produced ultra-processed foods with a long shelf-life**, such as potato chips, sweets, chocolates and sugary drinks. On a daily basis we are exposed to hundreds of advertisements promoting junk foods and hardly any healthy foods.

The impact of the foods that are available for us to buy, who cooks our food and what we eat is worth exploring in more detail.



Buy better



Cook more often



Eat healthier



Why do we buy what we buy?

Insights from behavioural economics have shed light on several factors that could help us better understand food choices.

We all have problems of self-control when choosing food – either because we prefer immediate gratification, or because we are influenced by factors such as hunger. Ordering groceries online may improve the healthiness of our food choices.

We place more weight on “default options” – another idiosyncrasy of consumers is that we are much more likely to choose the default option, even when the costs of switching to an alternative are low or even zero. Making the default option more healthy, such as a salad instead of chips, may increase the likelihood that we will choose healthier foods.

Food decisions are often based more on emotion than rational thought – impulsive behaviour, such as choosing less healthy foods over healthier foods, may result from how the food is presented, the presence of stress or other demands on our processing ability. Drawing attention to more healthy foods, by making them more accessible or displaying them more prominently, might mitigate the effects of a distracting environment.

External cues can have a major effect on the food selected and the amount consumed – noise levels, lighting and distractions, as well as the size and shape of foods and food containers, affect how much we buy and eat.

“People sometimes know what the right thing to do is, but they’re not able to act on that. If we want people to behave better, what we need to do is not provide them with more information, but instead help them change their environment.”

- Prof Dan Ariely, Psychology and Behavioural Economics, Duke University



The power of our environment

Can our environment affect how and what we eat? Clever but simple changes to the spaces around you can have an effect on your eating, shopping and food ordering, thereby allowing you to stay slim without even thinking.

What is making us fat?

Where food is placed in supermarkets is important; food placed at eye level is easier to spot and buy. The concept of “first seen, first eaten” also applies to your shopping. You are three times more likely to buy the first food you see in your grocer than the fifth.

You’ve heard that you shouldn’t go shopping when you’re hungry because you’ll buy more food. In fact, when we are hungry, we buy the same amount of food, but we buy foods that are convenient enough to eat right away and that will stop our cravings. For example, we don’t choose the cauliflower, but instead we opt for the crackers, chips, sweets and chocolate.

Added to this, prices of foods, particularly ultra-processed, kilojoule-dense but nutrient-poor foods, have been going down for decades, making it harder to say no to them.

Two South African retailers that have acknowledged the role that they play in healthier eating are leading the way in encouraging better shopping behaviours – Pick n Pay and Woolworths.

“Our latest initiative at Pick n Pay in providing customers with healthy products is the launch of a brand within our private label portfolio called Live Well. As a company we have pro-active sugar and salt reduction policies, over and above the requirements of the existing salt regulations. Contrary to popular belief, removing salt and sugar from products does not necessarily reduce flavour, but rather allows the natural flavour of the product to come through.”

- Leanne Kiezer, Dietitian, Pick n Pay

“If we are serious about the tsunami of lifestyle diseases engulfing the country we have to make changes. Health is not just a fad or a trend but an everyday part of people’s lives. We know that our customers want to live healthily. At Woolworths we were the first to clear our check-out aisles clean of tempting sweets and chocolates. This hasn’t been an easy journey, it took us two years from mid-2015 to tailor the spatial planning across our differently sized stores to achieve this.”

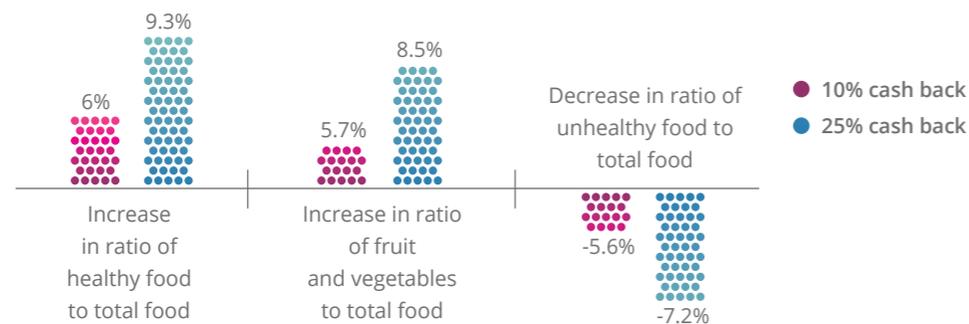
- Spencer Sonn, Managing Director of Foods, Woolworths



Incentivising healthier food choices

Changing what we buy when grocery shopping can be encouraged through incentives. The **Vitality HealthyFood benefit shows that when members received a discount and earned Vitality points for buying healthy items, they shifted their behaviour** and, depending on the discount, purchased more than 9% more healthy foods, 8.5% more fruits and vegetables and just over 7% less unhealthy foods.

The graph below shows that as the HealthyFood cash back increases, the ratio of healthy food to total food increases and the ratio of unhealthy food to total food decreases.



The cost of nutritionally preferable foods can motivate people to significantly improve their diet, and behaviour changes are proportional to price changes. When there is a large gap between people's actual eating behaviours and what nutritionists recommend, even a 25% price change closes that gap.

- Prof Roland Sturm, Senior Economist, RAND Corporation and Professor, Pardee RAND Graduate School

The link between marketing and obesity

Children and young adults are a key target demographic for food marketers.

Not because they're able to purchase food themselves (although many of them can), but because they **influence the purchasing decisions of their parents** – and because the youth of today are the adults of tomorrow.

Data from numerous studies clearly show that **food marketing to children is effective**, in that it **increases both preference for and consumption of the advertised foods**.

So, if one wanted to slow increasing childhood obesity, it stands to reason that **some restrictions on marketing food to children** might be justified.

Our food advertisements are influencing kids

A 2017 study published in the *British Journal of Nutrition* has taken a closer look at the advertising of food and soft drinks to South African children, and also how our local nutrient profiling model for restricting this advertising measures up.

Here's what they found ...



44% of the food ads used child actors
20% of them were aired during children's TV shows

Most frequently advertised foods:



52% foods high in fat, sugar, salt
14% unhealthy convenience meals
14% sugar-sweetened beverages

You can't tell people how to eat healthily if they're in an environment that doesn't support health preference learning.

Education is one thing, but if you're constantly being bombarded with unhealthy messaging it's really difficult.

- Dr Mariaan Wicks, Lecturer, North-West University's Centre of Excellence for Nutrition

Who is cooking our food?

It is increasingly uncommon for adults to prepare meals from scratch using raw ingredients, and more and more people rely on convenience meals and fast foods. This equates to a significant number of people eating diets that are likely to cause weight gain, and filling up on high-salt foods, refined carbohydrates, highly processed, sweetened products and the fattiest cuts of meat, which can lead to deficiencies in essential nutrients and subsequent long-term health damage.

Fast food operators are moving towards a larger variety of drinks (mostly sugar-laden) to boost sales, while drive-through outlets are growing in popularity.

The big push is to persuade all food outlets to decrease the salt and sugar in their food, serve smaller portions and eventually change the culture of cheap and unhealthy food to cheaper, healthier food. The challenge is to get people to make healthier food choices when eating outside of the home, such as consuming more salads and vegetables.



The Vitality Eating Out survey

3 597

respondents participated in a Vitality survey to learn more about dining out behaviours

Do you see healthy eating as important?

96% say YES

When choosing **where to eat** members ranked the following as important:

1. Health and nutrition
2. Convenience
3. Price
4. Socially appealing

When choosing **what to eat** members ranked the following as important:

1. Taste
2. Health and nutrition
3. Practicality
4. Price

Top 3 **reasons** for eating out by survey participants

1. Enjoyment
2. A special occasion
3. A break from cooking

The top 5 favourite types of food to order for eating out



The results from this Vitality survey highlight the fact that we are often **over-optimistic and believe that we are healthier than we actually are**. The reality is that the **fast food trends paint a very different picture**, and we continue not to know what is in our foods when eating out. In addition, our environment doesn't make things easier – **unhealthy food is often more accessible, more affordable and marketed more prominently** than healthy food.

The #FastFood trend

It's also called "junk food". So why and how do so many South Africans want to buy so much of it? According to *Euromonitor International*, a global market research company with data on global consumer products and lifestyles, there is increasing demand for convenience causing the industry to grow.

R35.9 billion

Total fast food sales in 2016

11 023

Fast food outlets in 2016

10%

Year-on-year growth

What's trending fast?

1. Pizza had the strongest growth
2. Increased demand for healthier fast food options
3. Greater drinks variety to boost sales
4. More convenience through mobile apps and deliveries

Supersizing sales

We are now consuming **larger and larger** portion sizes



2 litre sugary drinks contain 216g of sugar = more than 51 teaspoons

20 years ago the cheeseburger was approximately 1 400 kj



Now it is possible to order a 3 500 kj burger

The rise of ultra-processed food

The increasing consumption of ultra-processed foods is cause for concern. Research found that over the past three decades, the household consumption of minimally processed foods has been steadily replaced by consumption of ultra-processed, ready-to-eat or ready-to-heat foods, resulting in more added sugar, more saturated fat, more sodium, less fibre and much higher energy density.

Another interesting find is that amplified household purchases of soft drinks, confectionery and biscuits have been accompanied by a reduction in household sugar purchases. In other words, **instead of purchasing sugar itself and using it to prepare desserts at home, people are consuming sugar in processed foods and drinks.**

As another example, processed meats that can be consumed with little or no preparation are replacing fresh meat purchased for preparation in the home. Likewise, **people are buying more bread, cakes and other ultra-processed wheat flour products instead of actual flour.**



Advantages of home-cooked meals

01 Healthier ingredients: Studies show that homemade meals typically contain more vegetables and less fat than any other meal. People who cook at home are almost certain to consume fewer kilojoules, more variety, adequate nutrients and fewer processed foods.

02 Healthier habits: Similarly, people who cook at home more often – five or six times a week – consume fewer kilojoules when they do dine out and visit fast food chains less often.

03 Healthier bodies: Researchers report that cooking more at home reduces the risk of obesity and type 2 diabetes.

04 Healthier portion sizes: Home-cooked meals allow for appropriate portion sizes, while restaurant portions are known to be unnecessarily large. This contributes to the overeating culture and the global obesity issue.

05 Healthier families: Teenagers whose families eat together frequently are less likely to use alcohol, drugs and cigarettes.

Tip: Eat at home at least five times a week.

This will help increase your fruit and vegetable intake, boost your longevity, lower your risk of getting type 2 diabetes, reduce your likelihood of being overweight and improve your overall cardiometabolic health.

People respond more positively to enjoyable experiences, so showing them that eating healthier doesn't mean deprivation or punishment is crucial. Learning to cook and understanding that healthy food can be enjoyable and delicious goes a long way to a sustainably healthy diet. Vitality's approach is to encourage people to fall in love with cooking healthily rather than using negative inducement.

– Candice Smith, Head of Nutrition Strategy, Vitality

Vitality HealthyFood Studio

A refreshing approach to nutrition

The HealthyFood Studio is the latest nutrition innovation from Discovery Vitality – a teaching and dining kitchen located in Johannesburg where interactive cooking classes are offered to both Vitality members and the general public.

The aim of the Studio is to help ignite a life-long love of healthy, appetising cooking by empowering people with knowledge about fresh, whole, nutritious foods and how to prepare quick meals.

The HealthyFood Studio is based on balanced eating principals which include prioritising variety in the diet, limiting refined starches, added sugar and processed foods, limiting intake of certain fats, and a moderate protein intake with an emphasis on whole plant foods.

A 2011 Canadian study showed that a higher degree of involvement in food-related activity, such as preparing meals at home using unprocessed ingredients, may be instrumental in the development and maintenance of healthy eating behaviours in children. The study also showed that teaching children how to prepare simple yet healthy meals could help in the development of a life skill that could be maintained into adulthood.

Through the HealthyFood Studio, Vitality hopes to address the potential barriers to eating healthily at home, including a lack of skills or experience with cooking nutritious ingredients and the time constraints we are challenged with in our busy lives.

At the HealthyFood Studio we want our dishes to be helpful to the busy cook; not too time-consuming, but easy to do and fun. Cooking shouldn't be intimidating, and believe me, that with a desire to cook ... everyone can do it!

– Dame Prue Leith, international chef and author



Are we what we eat?

It's not surprising that most people no longer know what to believe, or what to eat. The messages about what's good and bad, healthy and unhealthy, have swung from one extreme to another and left us hungry and confused.

You don't have to look hard to find a plethora of nutrition advice. From bestselling diet books, television ads and infomercials to top tip sections in lifestyle publications, the often contradictory guidance and changing "science" can be enough to make you give up on nutrition recommendations altogether.

A diet of minimally processed foods close to nature, predominantly plants, is decisively associated with health promotion and disease prevention.

- Dr David Katz, Yale-Griffin Prevention Research Centre

Nutrition experts have an important role to play – being better informed and equipped to assess the science and evidence, than we are.

Validity research confirms that choosing foods wisely can positively change your health outcomes.

Validity's whole food approach

The key to health and wellbeing goes beyond focusing on individual nutrients. It requires a lifelong commitment to an overall healthy lifestyle that includes sustainable and enjoyable eating habits, cooking skills and daily physical activity. The principles of healthy eating include opting for whole foods over processed foods and limiting non-nutritious, health-harming foods. These include those high in sugar, high in salt and unhealthy fats.

Validity's overarching nutrition principles include what to choose, what to limit and what to do:



Give preference to **wholegrains**



Eat plenty of **vegetables** and **fruit** every day, in a variety of colours



Eat **beans, split peas, lentils** and **chickpeas** regularly



Fish, seafood, chicken, lean meat or **eggs** can be eaten daily



Opt for unflavoured **milk** and **yoghurt** every day



Include healthy **fats** and **oils** in your diet every day



Control your **portion sizes**



Use **salt** and **salty foods** sparingly and restrict **sugary drinks** (including fruit juice) and foods high in sugar



Enjoy a variety of **less processed foods**



Plan your daily meals in advance



Guard against **adverts** and **promotions**, for unhealthy diets, foods and drinks



Focus on preparing your own food, learn to enjoy cooking and limit fast foods

HealthyFood results in healthier bottom lines

Research from Discovery's Data Science Lab shows that the healthier our members' shopping baskets are, the lower their BMI and healthcare costs. Having a higher food purchasing score is associated with up to **R2 500 lower health costs per year** and those who purchase healthy foods have a **10% lower BMI** compared to those who purchase unhealthy foods.

Maintaining a slightly lower BMI long-term because of one healthy habit (for example, more healthy meat and less processed meat) is in reality very significant. We can also expect the health benefits from different healthy eating habits to be cumulative.

- Gabriel Eksteen, Dietitian and Exercise Physiologist, Division of Nutrition, University of Cape Town

Data from the Vitality HealthyFood benefit shows that foods purchased have either a positive or negative effect on BMI:

Foods associated with an increase in BMI

-  Sugary drinks including fruit juices
-  Convenience meals and snacks high in salt
-  Convenience meals and snacks high in sugar
-  Processed meats such as sausages, bacon, cold meats and biltong
-  Spices, sauces, condiments high in salt or sugar

Foods associated with a decrease in BMI

-  Fruit and vegetables
-  Wholegrains
-  Nuts and seeds
-  Healthy protein such as skinless chicken, fish, eggs, tofu
-  Beans, lentils, chickpeas

A note from Prof Barry Popkin

I have been impressed with Vitality ever since its inception. Its vision of **promoting healthy eating and exercise** has made it a global leader in working with food retailers to create a unique method of supporting and subsidising healthy eating and activity.

The Vitality system has produced a set of data which shows that they can impact the weight as viewed through higher BMIs and waist circumferences through reduction of critical unhealthy foods – not by penalising individuals who purchase them but by **subsidising healthy eating with financial and other rewards**, which in turn leads to systematic reductions of unhealthy food and beverage consumption.

Taking this a step forward, the analysis underlying this report shows that by reducing the purchase of unhealthy confectionery and convenience meals and processed meats, **a half unit of BMI would be decreased** and reducing sugary drinks and salty snacks would produce a similar impact. Both changes were linked with replacement by healthier foods and healthier beverages.

These reductions in BMI were in both cases associated with lower healthcare costs per year. But more importantly, these create longer-term healthier eating trajectories which promise to have even greater effects, including helping to reduce risk of hypertension, diabetes and selected cancers in addition to the weight loss benefits.

Distinguished Professor of Nutrition
University of North Carolina

What's in your pantry?

With the significant number of people in South Africa affected by chronic diseases of lifestyle – directly linked to what we eat – it is more important than ever to be aware of the ingredients in food consumed. On average, **62% of all sugar consumed is found in confectionery, beverage and starchy foods** with the top two offenders in each of these categories being sugar (white and brown), chocolate, sugary soft drinks, 100% fruit juice, cereals and sweet biscuits. When it comes to salt, **starchy foods, processed meats and sauces, baking aids and dressings contribute to 65% of our total intake**. The main culprits here are bread (white and brown), crisps, biltong and droewors, cold meats, sauces and spices.



CONFECTIONERY



BEVERAGES



STARCHY FOODS

Top 3 food categories = **62%** of sugar purchases



STARCHY FOODS



PROCESSED MEAT



SAUCES AND DRESSINGS

Top 3 food categories = **65%** of salt purchases

The bottom line

There's no quick fix for the obesity epidemic, and **the responsibility lies with all stakeholders** – from individuals to industries. **A combination of our human nature** – our own fundamental limits of self-control and the unconscious way we are hard-wired to eat – **with the modern 'food jungle' environment** of large portion sizes, low prices and insidious food advertising, are all contributors to the **growing obesity concern in South Africa**. The exploration throughout the **2017 Vitality ObeCity Index** of what and how we buy food, who does the cooking of the food we eat and the types of food we consume are all important factors in determining **how best to combat obesity**.

Principles to apply to the philosophies of buying better, cooking more often and eating healthier:



Start early, and focus on preventing children from becoming overweight or obese. Few children are born obese, but once they become heavy, they are usually destined to be overweight adolescents and adults. It's easier to prevent weight gain than reverse it.



Focus on the interventions that are most cost-effective – the ones that 'pay for themselves' in terms of healthcare cost savings, such as setting strong nutritional standards for food and beverages sold in schools, or regulating the marketing of unhealthy foods to children.



Work with and encourage food companies to move towards healthier products, finding a mutually beneficial solution.



Implement laws and taxes that make healthy behaviours easier; health promotion levies and salt reduction regulations are a good start.

We know that an investment in nutrition and the management of obesity makes good business sense. There are great opportunities for innovation and partnerships that will benefit society and business.

- Dr Shrey Viranna, Chief Executive Officer, Discovery Vitality

We need to start right now. The environment where we work, live and socialise is changing – **largely for the worse from a health point of view**. This said, there have been **considerable efforts by various stakeholders to curb the obesity epidemic**. Strategies promoting health by retailers and marketers as well as incentive structures to reward healthier behaviours have gone a long way in helping to **make consumers more aware** of their day-to-day nutrition choices and **offer alternatives** to unhealthy foods.

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.

Acknowledgements

Expert commentary

Prof Barry Popkin

University of North Carolina

Bruce Neal

The George Institute for General Health, Australia

Christian van Stolk

RAND Europe, England

Elizabeth Dunford

The George Institute for Global Health, Australia

Gabriel Eksteen

Dietitian, exercise physiologist and lecturer,
University of Cape Town's Nutrition Division

Marco Hafner

RAND Europe, England

Discovery team

Brett Mill

Chief Actuary, Discovery Vitality

Dr Craig Nossel

Head, Vitality Wellness

Candice Smith

Head, Vitality Nutrition Strategy

Craig Andrews

Actuarial Analyst, Discovery Data Science Lab

Joel Maboreke

Data Scientist, Discovery Vitality

Leigh Crymble

Senior Marketing Manager, Discovery Vitality

Lindsay Hartmann

Senior Reputation Manager, Discovery Vitality

Simon Hendrie

Actuary, Discovery Data Science Lab

Terry Harris

Dietitian, Discovery Vitality