



# The State of Nutrition in South Africa

Independent research conducted by Eat Well Live Well, a Tiger Brands nutrition initiative



Becky Opdyke

# To eat well is to live well

**Tiger Brands conducted extensive independent research during the national lockdown. It resulted in a consumer nutrition report that provides a cross section of our health, wellness and wellbeing as a nation. This resulting research report illustrates the findings and makes professional-endorsed suggestions about how to address these challenges in an affordable and accessible manner, writes Becky Opdyke, Tiger Brands' Chief Marketing Officer.**

Across South Africa, this year has demanded that we pay even more attention to food security, especially as it impacts so many cross sections of society. It has brought to our attention how the lack of food security also has a devastating impact on securing the other 16 Sustainable Development Goals (SDGs), as outlined by the United Nations. In essence, similar to Maslow's hierarchy of needs, food security is an essential interlinking cornerstone to fulfilling the other SDGs. And yet, so much food continues to go to waste across the supply chain, when it could be redirected to the hungry.

At the same time, many South Africans overindulge in processed foods and calorie-dense snacks that might be more affordable but are packed with sugar, salt and carry the risk of toppling our already over-burdened public healthcare sector.

The global pandemic and resulting strict national lockdown has put our eating habits and behaviours under the magnifying glass. It has shown us how eating and snacking are driven by emotional cues and how we use food to self-soothe. But it has also shown how food can create a powerful sense of community, bring us comfort and draw us together in times of need.

During lockdown, Tiger Brands conducted independent consumer research across a broad section of South Africans who were representative of the nation. It helped us understand where we stood at the starting line pre-Covid-19 and allowed us to better understand how various stressors impact our eating habits, food choices and lifestyles – and how these, in turn, affect our health, wellness and wellbeing as a people. Our findings were further supplemented with insights from professional dieticians and nutritionists.

The research confirmed that how and what we eat is determined by numerous socio-economic predictors, such as Living Standards Measure (LSM), employment status, where we live, as well as food affordability and accessibility. Many of these factors were impacted by the economic repercussions of the lockdown.

Our findings also showed that many respondents find nutrition information from numerous informal and unverified sources – including online (59%), via social media (44%) and through family and friends (34%). Many also struggle to understand food nutrition labels, which further contributes to nutrition knowledge gaps. This highlights the need for simple and accurate food nutrition labels that carry straightforward guidelines relating to the healthfulness of the product on the front of food packaging.

Indeed, all of these factors contribute towards the fact that the average South African has a Body Mass Index (BMI) of 35.1 – significantly higher than the global average of 24.7. This classifies the average South African as class 2 obese, according to the World Health Organisation (WHO).

Our research found that South Africans also tend to eat far too few fresh fruits, vegetables and legumes and do not drink enough clean water. Instead, our time-constrained lifestyles, and tastebuds, often see us over compensate by eating ready-made meals and processed foods and ingredients. And to top it all off, many of us don't exercise and move enough to burn off those additional calories.

The lockdown has illustrated that immediate interventions need to be undertaken by various public sector departments, the food and beverage industry, as well as consumers in order to lead healthy and full lives. This report aims to forge a path forward by highlighting South Africans' dietary and lifestyle shortcomings, while making practical suggestions, that are endorsed by professionals, about how to address these in an affordable, accessible and sustainable manner. Because when we eat well, we live well.



Becky Opdyke



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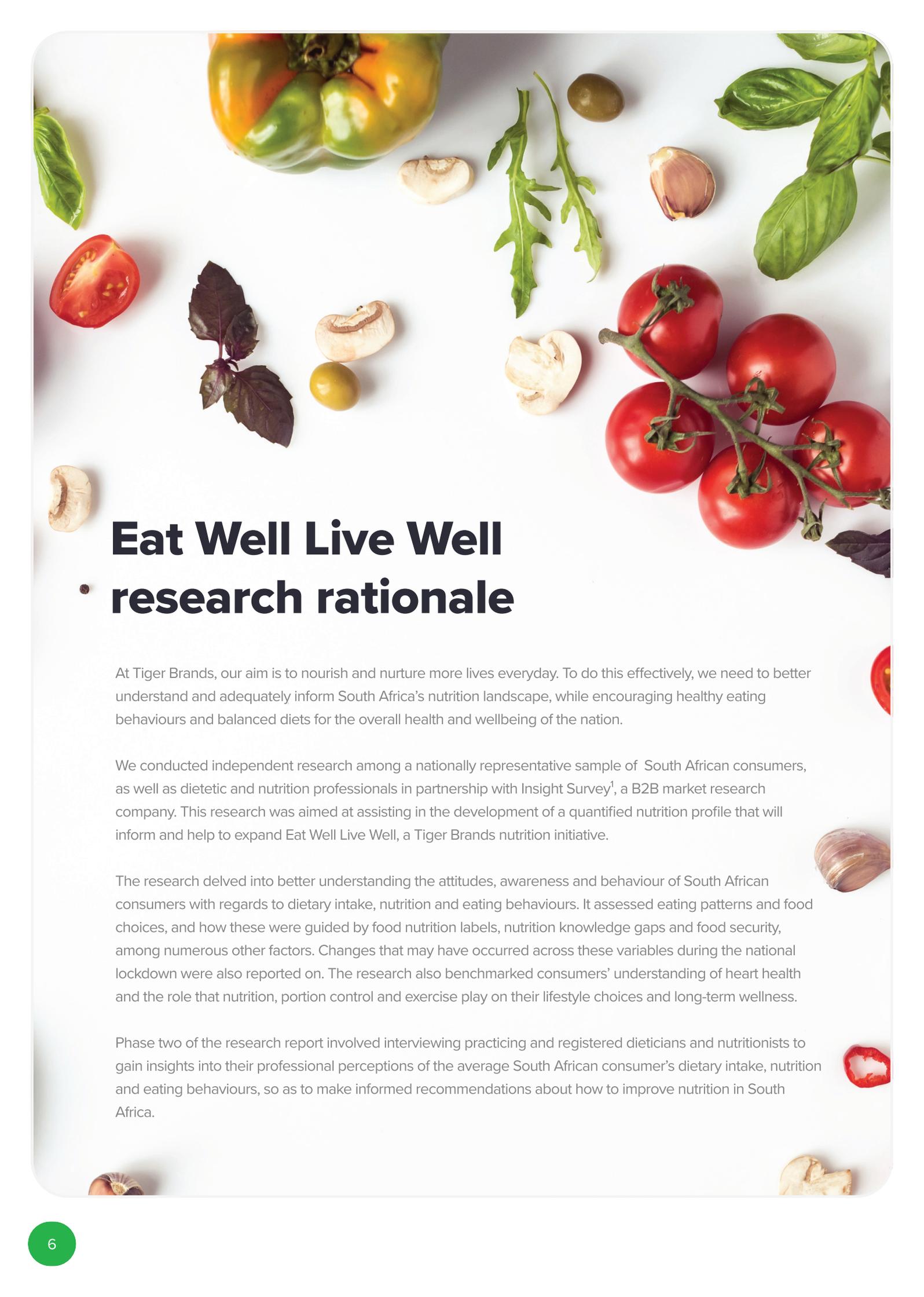
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# Eat Well Live Well

## • research rationale

At Tiger Brands, our aim is to nourish and nurture more lives everyday. To do this effectively, we need to better understand and adequately inform South Africa's nutrition landscape, while encouraging healthy eating behaviours and balanced diets for the overall health and wellbeing of the nation.

We conducted independent research among a nationally representative sample of South African consumers, as well as dietetic and nutrition professionals in partnership with Insight Survey<sup>1</sup>, a B2B market research company. This research was aimed at assisting in the development of a quantified nutrition profile that will inform and help to expand Eat Well Live Well, a Tiger Brands nutrition initiative.

The research delved into better understanding the attitudes, awareness and behaviour of South African consumers with regards to dietary intake, nutrition and eating behaviours. It assessed eating patterns and food choices, and how these were guided by food nutrition labels, nutrition knowledge gaps and food security, among numerous other factors. Changes that may have occurred across these variables during the national lockdown were also reported on. The research also benchmarked consumers' understanding of heart health and the role that nutrition, portion control and exercise play on their lifestyle choices and long-term wellness.

Phase two of the research report involved interviewing practicing and registered dieticians and nutritionists to gain insights into their professional perceptions of the average South African consumer's dietary intake, nutrition and eating behaviours, so as to make informed recommendations about how to improve nutrition in South Africa.



# Research methodology

The research methodology included conducting online surveys among South African consumers to obtain their feedback, as well as telephonic interviews with nutrition professionals in South Africa, namely registered dietitians and nutritionists, to obtain their feedback and recommendations.

In terms of the online consumer surveys, 501 online surveys were conducted among a sample of South African consumers that was nationally representative in terms of gender, race and geography. These consumer respondents were required to fall within the LSM 4-10 range and be over the age of 18 years.

In terms of the telephonic interviews with nutrition professionals, 50 telephonic interviews were conducted with currently practicing and registered dietitians and nutritionists currently working in the South African public and/or private sector, in order to obtain their in-depth feedback and recommendations.

# Executive summary

In a developing country such as South Africa, how and what we eat is often shaped by various socioeconomic predictors such as Living Standards Measure (LSM), employment status, food affordability, as well as food security and the availability of land to grow our own food. These variables also influence our food choices, dietary preferences, portion sizes, clean water intake, exercise and sleep regimens.

The General Household Survey<sup>2</sup> conducted by Statistics South Africa revealed that 6.8 million people experienced hunger and 10.4 million people had inadequate access to food in 2017. At the same time, South Africa is undergoing a nutrition transition. We're taking in more energy through fast foods, sugar-sweetened beverages and processed foods; while healthy foods – such as fruits, vegetables, legumes and nuts – are consumed below the recommended daily intake.

Choosing healthier foods is complicated by price, since they can cost up to 60% more than unhealthy options. And despite often knowing better, many respondents often sacrifice the nutritional value of food in favour of taste and value for money, which were rated most highly (9 or 10 out of 10), respectively by the largest proportion of respondents (55% and 54% respectively), in terms of the importance of factors considered in food choices. While health and health/disease concerns were next in line in terms of the percentages who rated it a 9 or 10 out of 10, this was followed by price and shelf-life before nutritional value. As a result of an amalgamation of factors, the population suffers from a coexistence of undernutrition (especially in children), over nutrition as well as micronutrient deficiencies.

South Africa's average Body Mass Index (BMI) is 35.1, which is significantly higher than the recommended World Health Organisation (WHO) BMI norm of 18.5–24.9 as an indicator of normal weight. Sixty-four per cent of the sample had a BMI of 25.0 or higher, which classifies them as overweight or higher. The LSM 4-5 group had a significantly higher average BMI of 40.9, relative to other LSM groups, which also places them in the class 3 obesity category and at risk of developing a range of related medical conditions that will place further stress on an already over-burdened public healthcare system.

The dietetic and nutrition professionals who were surveyed perceived there to be a significant gap in consumer understanding of the link between food's nutritional value and its impact on overall health and the risk of diseases. Their professional perception was that consumers have insufficient access to comprehensive, formal health information and easy-to-understand, accurate nutrition education.

Only a third of respondents obtained nutrition information from healthcare professionals. The largest number of respondents find their nutrition information online, from food nutrition labels, social media, general nutrition websites tied with family and friends, followed by healthcare professionals, and food company websites respectively. The least utilised sources of nutrition information, in order of the percentage of respondents who indicated that they make use of these channels to obtain nutrition information, include: magazines, health organisation websites, newspapers, blogs, celebrity and influencer endorsements, opinion leaders and traditional healers respectively. A relatively high percentage of consumers rely on informal and potentially unverified sources of nutrition information. This information might be fragmented and inconsistent, while



running the risk of being misinterpreted if it is not understood within its intended context.

An interesting finding was that the second highest percentage (56%) of respondents indicated that they use food labelling, which is encouraging, however, the potential lack of understanding food nutrition labels may negate this.

As with much else in 2020, more than four fifths of respondents indicated that their food consumption and behaviour had changed during the national lockdown – whether it was good or bad.

With the fridge and pantry close at hand, snacking became a ‘lockdown pastime’. Just over half of participants in our research ate more in general and consumed more snacks and treats. While just over half of overweight respondents (55%) gained weight during this time, although in a positive turn of events 45% of respondents claim to have become more health conscious in terms of nutrition during the national lockdown.

Overall, our research found that respondents who were generally healthier in other aspects of their lives were more likely to transfer those positive behaviours to their food choices and eating habits. Those who exercise three or more times a week, for example, were more likely to be health conscious in other aspects of their diet and lifestyle too. Consumers within this group placed higher importance on the following factors, respectively, when choosing foods, relative to the importance placed by the overall average consumer: nutritional value (7.7), weight management (7.4), food nutrition labelling (7.0), exercise plan (6.9), and health logos (6.8).

“**Respondents who were generally healthier in other aspects of their lives were more likely to transfer those positive behaviours to their food choices and eating habits.**”



# A way forward

Numerous interdependent factors contribute towards balanced diets and lifestyles that promote good health and overall wellness. Education, food security and participation between the public and private sectors will drive culturally appropriate and socioeconomically sensitive change across South Africa's food and nutrition landscape.

## Following food guidelines

South Africans need to be more aware of suggested dietary guidelines and how the food they eat impacts their overall health and long-term wellbeing. They need to eat a variety of foods across a number of food groups in line with serving sizes according to South African dietary recommendations. They also need to use foods with high-salt and high-sugar content more sparingly, especially as a high intake of both may cause various diseases or exacerbate medical conditions.

## Education is key

South Africans need to be educated about how to lead healthy and balanced lifestyles through science-based nutrition education that guides their eating behaviour. Consumers need to be made more mindful of their relationship with food and its impact on their health and the risk of various non-communicable diseases.

Educating expectant parents at a community level will help to instil a lifelong understanding of the long-term importance of wellness that will be passed onto their children. To encourage a healthier nation, education also needs to be rolled out at school level and via various media and information channels throughout consumers' lives.

South Africa-specific research, similar to this consumer nutrition report, is essential to provide insights into the country's nutrition landscape and provide dietary guidelines going forward.

Eat Well Live Well, a Tiger Brands nutrition initiative, aims to make simple, easy-to-use nutrition information easily available for consumers to access online and use with confidence.



## Food nutrition labels and health logos

Standardised, accurate and simple food nutrition labels that highlight food nutrient content will benefit the consumer. Nutrition facts need to be presented in a legible manner with colour-coded explanations and easy-to-understand symbols and diagrams that also explain portion sizes. Furthermore, consumers need to be better educated on the reading of food nutrition labels.

As an example, the Eat Well Live Well stamp of approval on certain qualifying Tiger Brands' products offers practical nutritional guidelines to support consumer understanding in line with a nutritious balanced diet. Similarly, endorsed health and wellness logos can be exceptionally useful and practical tools to guide consumer food choices. Consumers should be made more aware of what these health and wellness logos endorse when they make food choices.

## Incentivise healthy foods

Incentivising healthy and wholesome foods, across a variety of food groups, and increasing their availability and affordability would promote more healthy diets.

## Food security

If the public sector enables communities to grow their own food in empty public spaces this may promote food security and greater access to balanced diets comprised of fresh ingredients.

Similarly, the private sector may leverage their CSI initiatives to help educate consumers about how to reduce food waste. Consumers also need to be educated about expiration dates, so as to clarify any misconceptions about when food is no longer fit for human consumption.

A secondary food market with significantly reduced prices should be established for 'ugly produce' that does not meet retailer appearance standards and is often discarded. This food, which is edible and only has a few small cosmetic defects, can be processed and repurposed to help meet food security across the country.

## Chapter 1

# The BMI mirror of perception

**Our consumer nutrition report raises concerns about South Africa's BMI scores and reveals unusual trends across certain contributing factors.**

South Africans love their food. That's no secret. It is part of our cultural heritage and integral to our national identity. Food plays a powerful role in our everyday lives, our celebrations, sporting events and how we share the spirit of *ubuntu*. Food has the power to both unite us as a nation and be a force for celebrating our diversity.

Our consumer nutrition report reveals that South Africans need to be more mindful of their relationship with food and its impact on their health. The country's mean Body Mass Index (BMI) of 35.1 is significantly higher than the global 2016 average of 24.7, according to the World Health Organisation (WHO). BMI measures an adults' body fat based on height and weight ( $\text{kg}/\text{m}^2$ ) and is an indicator of overall health.

Close to two thirds of respondents had a BMI higher than the recommended norm of 18.5–24.9. The research suggests that the average South African is not just overweight but classified as class 1 obese or higher, according to World Health Organisation (WHO) guidelines. Additionally, according to a recent Lancet article, our South African children are also at risk with 15% of children younger than five being overweight and 16.7% of young females in the age group 15–19 years being overweight<sup>3</sup>. This should alarm us because of the numerous medical conditions that result from being overweight or obese, as well as the increased pressure this places on our already overburdened public healthcare system.

In a developing country such as South Africa, BMI tells a nuanced story beyond merely our attitudes towards food, health and nutrition, and how these may manifest through our behaviours. How and what we eat is



**The research suggests that the average South African is not just overweight, but classified as class 1 obese or higher.**



often shaped by various socioeconomic predictors, such as Living Standards Measure (LSM), employment status and affordability. These also influence our food choices and dietary preferences, portion control, clean water intake, exercise and sleep regimens.

The report illustrates how finances could be one of the primary driving forces behind food choices and dietary preferences. While there was no distinction as to the reason why respondents chose various dietary preferences, plant-based diets were more prevalent among lower-income groups. The lowest surveyed LSM group (4-5) claimed the highest number of vegans (13%) and vegetarians (26%), while there were fewer in the higher LSM groups. Similarly, vegans (17%) and vegetarians (23%) were most prevalent among the unemployed.

LSM group 4-5 had the highest average BMI of 40.9, which places them in the class 3 obesity category – the highest according to the BMI ranking. Similarly, vegans and vegetarians also had a higher BMI in terms of dietary preferences. Both of these groups ate significantly higher amounts of oils and fat spreads, as well as legumes when compared to the average respondent.

Interestingly enough, the results were also telling across occupations, with students having the lowest national BMI score of 29.1, while part-time employees had the highest score of 45.6.

Working from home and a disruption of normal work routines during the national lockdown didn't do the nation any favours either. Just over half of overweight respondents (55%) reported gaining weight during this time. This is unsurprising: gyms were closed, public exercise was prohibited, and many of us comfort ate to overcome stress.

Our findings call for an urgent national intervention into our eating choices, behaviours and habits – while keeping in mind that socioeconomic determinants will worsen as a result of the financial impact of the global Covid-19 pandemic.

South Africans require greater accessibility to affordable, nutritious foods to reduce BMI scores, improve overall wellbeing and create a healthy nation.



### Key findings

The average South African is not just overweight but classified as class 1 obese or higher. This places them at greater risk of numerous medical conditions and has the potential to further strain an already overburdened public healthcare system.

# Why your BMI is important

According to the WHO, close to three million people die around the world each year due to health complications from being overweight.

A BMI score expresses the relationship between an adult's height and weight – it is not a suitable gauge for children or the elderly. While BMI does not take into consideration age, gender or ethnicity and can be thrown off by pregnancy or high muscle mass, it is one possible indicator, among others, of general health.

A higher than normal BMI illustrates a propensity to develop a range of medical conditions, such as type 2 diabetes, heart disease, high cholesterol, hypertension, several types of cancer, as well as sleep apnoea among others.

BMI also highlights health complications that may result from being underweight, such as osteoporosis, anaemia and the risk of malnutrition.

Ask to have your BMI checked during your next doctor's visit or work it out using an online BMI calculator or with this calculation.

**Your weight (in kilograms)  
divided by your height  
(in metres) squared:**

 Your  
Weight (kg)

Divided

 Your  
Height (m)<sup>2</sup>

## Comparing South Africa to the world

Individuals should maintain a BMI in the range of 18.5–24.9, which is considered to be Normal Weight according to WHO international guidelines.

### Body Mass Index (BMI\*) according to the World Health Organisation

\*As a score of kg/m<sup>2</sup>

BMI < 18.5 (Underweight)

BMI 18.5–24.9 (Normal Weight) → Average global BMI: 24.7

BMI 25.0–29.9 (Overweight)

BMI 30.0–34.9 (Class 1 Obesity)

BMI 35.0–39.9 (Class 2 Obesity) → Average South African BMI: 35.1

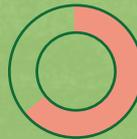
BMI > 40 (Class 3 Obesity)



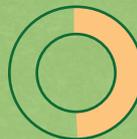
## Our findings



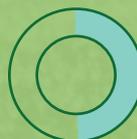
**35.1:** Average respondent's BMI (Class 1 obese or higher)



**64%** of respondents had a BMI > 25 (classified as overweight or higher)



**48%** of people with a BMI > 25 rated 'Value for Money' as very important in their food choices



**49%** gained weight, while 51% ate more snacks and treats during lockdown

## Chapter 2

# The disconnect between nutrition and health

**South African dietitians and nutritionists recommended that extensive, easy-to-understand and accurate nutrition education, coupled with affordable and accessible healthy foods can help to tackle our poor national nutrition profile.**

Despite knowing better, respondents often sacrifice nutrition in the moment. When perusing shopping aisles, sitting down to a restaurant meal or ordering take out, we place more importance on taste and price than nutritional value.

Our consumer nutrition report showed that when making food choices, the following factors were rated most highly (9 or 10 out of 10): taste (55%); value for money (54%); overall health (50%) and health/disease concerns (48%). This was followed by price (46%) and shelf-life (41%), with the nutritional value of food coming in last with only 39% of respondents stating that it significantly affects what they eat. And in the following months, as we begin to feel the pinch of the pandemic-fuelled economic recession, food prices may become the primary selling point.

All the professionals surveyed agreed that there's a significant gap in consumers' understanding of the link between food's nutritional value and its impact on overall health and the risk of diseases. They suggested that the average consumer doesn't have enough access to comprehensive health information from reliable sources. The dietitians and nutritionists rated consumers' access to adequate nutrition very lowly, at 3.6 out of 10, with 0 being 'not at all adequate' and 10 being 'completely adequate'.

The surveyed dietitians and nutritionists rated weight management, heart health and portion control respectively as the most important nutrition-related health concerns in the country; while consumers were considerably less worried with these health concerns, they placed more importance on heart health than the professionals.

Less than half of respondents were aware of Guideline Daily Amounts (47%) and Health Logos (43%). While grocery shopping, only 29% of consumers considered health logos a very important determining factor when choosing what to buy.

The findings revealed that many consumers referred to potentially unreliable and inconsistent sources of nutrition information. Indeed, more than half (59%) of respondents received information online, 56% read

food nutrition labels, while 44% referred to social media, and 34% consulted family and friends.

A significantly higher proportion of LSM 4-5 consumers obtained nutrition information from informal sources, which could lead to potentially inaccurate or unreliable information. Only a third of all respondents obtained information from healthcare professionals. This signifies a possible gap in access to official evidence-based nutrition channels and their prominence and accessibility among consumers.

To help shape a healthier nation, close to a third of dietitians and nutritionists recommended school-level and science-based nutrition education to guide eating behaviour. To improve the accuracy, quality and accessibility of information, just over a fifth suggested that more simplified fact-based health guidelines be made public, and 18% suggested that they be made available through the most widely-used social media platforms. Other professionals suggested developing an information hub, through an app or website, with more South Africa-specific research required, coupled with insights into the psychology of eating behaviour.

Nutrition education is not the sole solution, however, which is why dietitians and nutritionists also recommended that healthy foods should be more affordable and accessible.



### Key findings

There's a gap in consumers' understanding of the link between food's nutritional value and its impact on overall health and the risk of diseases, partially due to insufficient access to comprehensive health information from reliable sources. The nutritional value of food is seldom a priority when making food choices.

### HEALTHY LIFESTYLES NEED TO BE TAUGHT

**19%**

of respondents say they do not have access to easy-to-understand nutrition information.

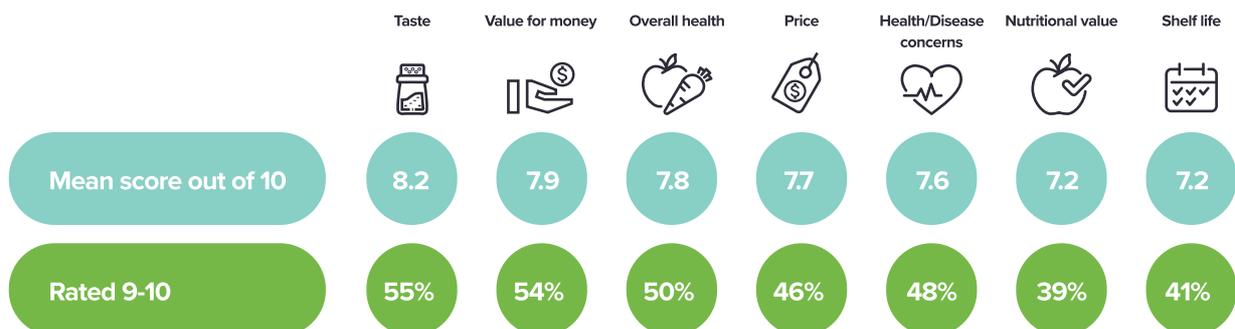
**Less than 50%**

of respondents were aware of Guideline Daily Amounts (47%), Health Logos (43%) and Portion Control (38%).

**66%**

of professionals considered portion control as very important (rated 9 or 10 out of 10) in comparison to 24% of consumers who considered it very important.

### CONSUMERS RANKED THE FOLLOWING FACTORS AS MOST IMPORTANT WHEN CHOOSING FOOD:



## Chapter 3

# Food guidelines are hit and miss

**The Revised Food-Based Dietary Guidelines for South Africa offers the best science-based dietary recommendations to help South Africans maintain a balanced diet.**

The Revised Food-Based Dietary Guidelines for South Africa (FBDG-SA 2013)<sup>4</sup>, published in 2013 by the South African Journal of Clinical Nutrition, aims to educate South Africans to positively change their eating behaviours, optimise their health, minimise the development of non-communicable diseases, while being cognisant of food insecurity and undernutrition. These were the findings of our consumer nutrition report.

### 1 Enjoy a variety of foods

Dietary variety across different food groups, alongside a variety of food preparation methods, is essential for optimal health. Respondents do not meet the guideline to eat a variety of foods across different food groups during each meal – they consume an average of 2.5 food groups per day, which is insufficient.

### 2 Make starchy foods part of most meals

Whether it's Jungle Oats for breakfast, Tastic Rice for lunch and a dinner of Ace maize meal – South Africans love their starches and carbohydrates. Respondents appear to have relatively adequate amounts, as the average respondent eats starches an average of 1.8 times daily, with a median serving size of 2 slices per 1 serving of bread and 1 fistful per 1 serving of starches. Only 2% of respondents did not consume them in the previous week.

### 3 Eat dry beans, split peas, lentils and soya regularly

Legumes are one of the least consumed food groups in South Africa, with an average daily consumption of 0.8, where 1 serving is 1/2 a cup, while the weekly recommendation is four servings of nuts, legumes and seeds, according to the American Heart Association, as quoted in FBDG-SA 2013. Twenty-six per cent of respondents did not consume legumes in the previous week.

### 4 Eat plenty of vegetables and fruit every day

A wide variety of different coloured vegetables and fruit should be eaten daily. The recommended daily intake is at least one serving of cruciferous vegetables (cabbage, broccoli), dark-green leafy vegetables (spinach, lettuce), red and orange vegetables (carrots and peppers); and at least two servings of different fruits (apple, banana, orange, berries). The WHO recommendation<sup>5</sup> suggests that adults eat five portions of vegetables and fruits daily, with vegetables making up the majority of these portions. Respondents eat vegetables an average of 1.4 times per day. More than half of respondents (54%) ate less than 3 servings of vegetables daily, which does not meet recommendations. Three per cent of respondents did not eat vegetables in the previous week. Furthermore, respondents eat fruit an average of 1.5 times daily. Six per cent of respondents did not eat fruit in the previous week.

5

## Have milk, maas or yoghurt every day

Dairy – in the form of milk, maas or yoghurt – is eaten an average of 1.6 times daily, where 1 milk or maas serving is equivalent to 1 cup and 1 serving of yoghurt is 1/2 a cup. This doesn't meet the daily guideline of 3 dairy servings, according to Milk SA<sup>6</sup>. Three per cent of respondents did not consume dairy in the last week.

6

## Fish, chicken, lean meat or eggs can be eaten daily

Perhaps our *shisa nyama* culture ensures respondents eat relatively high levels of protein – an average of 1.6 times a day with a median serving size of 2, as per the research findings. Only 1% of respondents did not eat protein sources during the previous week – which also accounts for non-meat eaters in the sample.

7

## Drink lots of clean, safe water

Our research found that the average respondent consumes an average of 2.8 drinks per day, across a number of beverages which were not differentiated – from water, tea and coffee to juices, sugar-sweetened drinks, and alcohol. While the recommended daily water requirement is 2–3.7 litres per adult, water consumption is often displaced by other beverages. Readily available access to quality drinking water might be one of the determinants in this category. Consumers also often fail to realise that they might consume more than their recommended daily sugar consumption through beverages, let alone food.

8

## Use fats sparingly: Choose vegetable oils, rather than hard fats

Our research findings show that the average respondent consumes 1.4 servings of oils and fat spreads. The dietary guidelines suggest choosing plant-based oils over hard fats. It's recommended to replace animal and plant sources of saturated fatty acids with polyunsaturated fatty acids and monounsaturated fatty acids. Nuts – a healthy source of natural fats – are not eaten frequently enough, with a third of respondents having not eaten them in the previous week. Unsalted seeds and nuts – such as almonds, Brazil nuts, macadamias, cashews, sunflower seeds, pumpkin seeds – are recommended over salted peanuts.

9

## Use sugar and foods and drinks high in sugar, sparingly

While there was insufficient data to determine the average daily sugar consumption of respondents, professionals felt that the dietary recommendations were not met. According to FBDG-SA 2013, consumers were advised to use sugar sparingly, particularly due to its links to diabetes, obesity and dental cavities. Respondents should be cautious of the excessive drinking of sugar-sweetened beverages and consumption of a low-fat diet, where decreased fat in processed foods is often replaced with added sugar.

10

## Use salt and food high in salt, sparingly

Our findings show that salt is used significantly more than the recommended serving suggestions, when preparing four food categories. The WHO recommends that adults eat no more than 5g of salt daily.

**CONCLUSION:** When asked if respondents have adequate nutrition according to official dietary guidelines, 6% of dieticians and nutritionists responded 'not at all', 20% remained neutral, while 2% somewhat agreed. They suggested that this may be improved through widely accessible easy-to-understand information, school-level and community education, formal online information in the form of an app or website, and simpler food nutrition labels.

# The Eat Well Live Well healthy eating recommendations



## Starches (aim for 3–4 portions in a day)

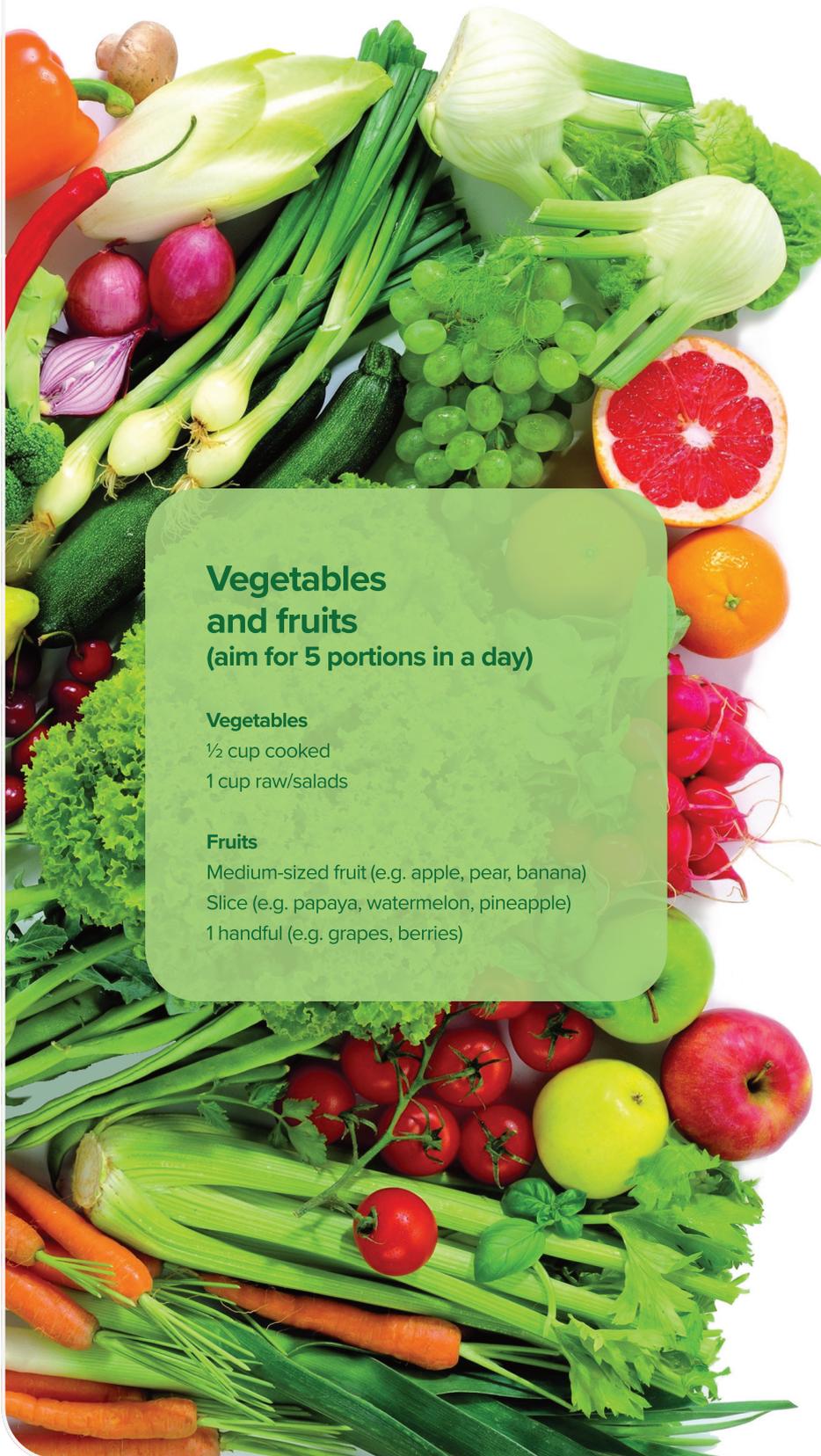
- Cold breakfast cereal (1 cup)
- Hot breakfast oats/porridge (1 cup)
- Whole wheat brown bread (2 slices)
- Cooked rice (fistful)
- Cooked maize meal (fistful)
- Cooked pasta (2 handfuls)
- Cooked potatoes (fistful)

## Protein (aim for 2–3 portions in a day)

- Chicken or meat (palm size)
- Beans, peas and lentils (fistful)
- Eggs (2 eggs)
- Fish (whole hand)
- Milk (1 cup: 200ml)
- Yoghurt or mass (½ cup: 100ml)
- Cheese (matchbox size)

# Enjoy a variety of foods each day!

8 glasses of water a day



## Vegetables and fruits (aim for 5 portions in a day)

### Vegetables

½ cup cooked  
1 cup raw/salads

### Fruits

Medium-sized fruit (e.g. apple, pear, banana)  
Slice (e.g. papaya, watermelon, pineapple)  
1 handful (e.g. grapes, berries)



## Good quality fats, nuts and seeds (use sparingly)

1 tablespoon  
sunflower/olive/canola oil  
1 tablespoon soft margarine  
1 tablespoon oil containing  
condiments/salad dressing  
Nuts (handful)  
Peanut butter (1 heaped  
tablespoon)  
Seeds (handful)



## Breakfast plate



## Portion size hand tool

A handful



A palm



A fist





## Lunch plate



## Dinner plate

### Breakfast

Wholewheat brown bread  
1 egg  
Lettuce and tomato  
1 medium banana  
1 glass of milk

### Lunch

Potatoes  
Grilled hake  
Mixed salad  
½ cup yoghurt

### Dinner

Wholegrain brown rice  
Chicken  
Green beans  
Carrots  
1 glass of water

## Chapter 4



# (DON'T) pass the salt

**While sugar, justifiably, has a bad rap, a savoury tooth might be equally dangerous to health, as excessive salt intake leads to numerous medical conditions that many might be unaware of.**

South Africans love *flava* – some steak and chops spice here, an extra dollop of butter on the mielie pap, and a second serving of *melktert* when no one is looking. We are very generous when it comes to spicing up our meals and adding local flavour to various foods – but we need to be cautious about overdoing it.

There's no doubt that our culture, heritage, traditions and religion play an integral role in our cooking style and the fusion of flavours that find their way onto our dinner table. Our research shows that the Western Cape used more salt and spices, instead of gravy, of all the provinces, when cooking starches and carbohydrates. It's testament to the fact that as a nation we often cook from our 'cultural' recipe books.

Close to 80% of respondents reach for the salt when preparing starches or carbohydrates. Salt use was also significantly higher in the preparation of other food groups: protein (64%), vegetables (55%), legumes (51%). In each of these cases, salt was the ingredient that was used by the highest numbers of respondents when preparing food, and was used more frequently than spices and pepper. The use of spices – which frequently also contain salt – was also significantly higher among all food groups, except fruit. We observed varying uses of salt between races, with a significantly higher proportion of white respondents indicating that they had used salt when preparing vegetables (77%) and legumes (72%).

Our research shows that younger age groups (up to the age of 49) and lower LSM groups (4-5) are much more likely to use flavouring or additives with high salt content – such as stock, gravy, ready-made cook-in sauce and condiments – in their cooking, rather than making their sauces from scratch. Regardless of whether it's a sign of our times, for the sake of convenience or a result of our changing lifestyles, excessive salt intake could have negative short- and long-term impacts on our health.

But it's not just the salt that we add to our food, while cooking or eating, that we need to keep in mind. The mineral is found in many foods in its natural form, sodium. While it is essential for muscle and nerve function, and to maintain the body's fluid balance; it is often added, in excess of recommended guidelines, to foods as a flavour-enhancer. Snacks, treats, ready-to-eat meals, processed foods and sauces are the biggest high-sodium culprits.

The professionals surveyed in our consumer nutrition report felt that respondents do not use salt and foods with high-salt content as sparingly as they should, especially as a high salt intake may cause various

diseases or exacerbate medical conditions. Without precise reported quantities of salt use, it's hard to determine consumers' actual daily salt usage, however the research suggests that it is likely to be higher than recommended guidelines.

Indeed, when asked 'What would you recommend in terms of improving food nutrition labelling for consumers in South Africa?' a common response was that food nutrition labels need to be simplified with clear indicators of foods that have high sugar, fat and salt content. They equally felt that certain confusing terms needed to be simply explained, such as that sodium is salt. This is especially important as there are a large number of South Africans who are second-language English speakers.

The WHO also indicates that reducing salt intake is one of the most cost-effective ways that countries can improve population health outcomes, as it lowers the risk of hypertension, heart disease and stroke, among other medical conditions.

While many food manufacturers are increasingly reformulating their recipes to reduce the salt content of their products, consumers should equally read food nutrition labels and choose low-sodium alternatives to maintain a healthier lifestyle.



### Key findings

The professionals felt that South Africans do not use salt and foods with high-salt content as sparingly as they should, especially as a high salt intake may cause various diseases or exacerbate medical conditions.

## Misconceptions about salt intake

### Foods that are high in salt taste salty

Despite having high salt content, some foods don't taste very salty because other additives, such as sugars, might mask the taste of salt. This is why it's important to always read food nutrition labels.

### Salt added during cooking is the main source of salt intake

Globally, around 80% of salt consumption derives from processed foods.

### When you sweat a lot, especially on a hot day, you need to eat more salt

Only a small amount of salt is lost through sweat. There's no need to eat more salt, although it's important to drink sufficient water.

### Food lacks flavour without salt

Once you minimise your salt intake, your taste buds will readjust and you're more likely to become aware of a broader range of flavours.

### Reducing salt is bad for your health

While salt is an important mineral, it's almost impossible to eat too little salt, as it is found naturally in many foods.

### Short-term effects of excessive salt intake

Water retention → Results in swelling (especially in the hands and feet) and feeling bloated → The kidneys are trying to maintain the sodium-water ratio in your body

Temporary increase in blood pressure → More blood volume flowing through blood vessels and arteries

Excessive thirst → The body is trying to rectify its sodium-water ratio



Hypernatremia → In rare cases, the body's sodium levels rise above safe levels, when its sodium-water ratio is not corrected → Water leaches out of cells into bloodstream → May result in confusion, restlessness, seizures, sleeping difficulties, coma and possibly death

### Long-term effects of excessive salt intake

High blood pressure (hypertension) → Reducing salt intake lowers the systolic and diastolic blood pressure (the top and bottom readings on a blood pressure monitor)

Increases risk of stomach cancer → By causing ulcers or inflammation of the stomach lining

Increases risk of heart disease → Stiffening of blood vessels and arteries accompanies high blood pressure

<https://www.who.int/news-room/fact-sheets/detail/salt-reduction>

## How excessive salt intake affects your health

According to the WHO, a person's sensitivity to salt is determined by age, genetics, hormones and their weight. Excessive salt intake, especially over a prolonged period of time, may have numerous short- and long-term effects on your health and wellbeing.



### The WHO's guidelines for salt intake

**Actual average** adult consumes: 9–12 grams of salt per day.

**Recommended guideline:** 5 grams/daily or 1 teaspoon.

### What to do if you've eaten too much salt:

Drink water to balance your body's sodium-water ratio, eat potassium-rich foods (raw fruits and vegetables), eat less salt in succeeding meals.

### PERCENTAGE OF RESPONDENTS WHO USED SALT WHEN PREPARING THE FOLLOWING FOOD GROUPS:

Starches/Carbohydrates



79%

Protein



64%

Legumes



51%

Vegetables



55%

Fruits



14%

Four out of five consumers used salt when preparing starches.





**“An estimated 2.5 million deaths could be prevented each year if global salt consumption were reduced to the recommended level.”**

– World Health Organisation

## Chapter 5



# The impact of lockdown: The good, the bad, and the balance

**Lockdown changed many things – how we worked, travelled, stayed active, lived, and especially how and what we ate. It revealed what we’ve always known, that we often eat our way through our emotions to help self-soothe our way through the tricky parts of life, when things get a little too overwhelming.**

There were many things we might not have been prepared for when midnight struck on 27 March 2020, one of them was that our homes would be transformed overnight into our work places, gyms, restaurants and spaces for virtual social gatherings. There was no longer a clear delineation between the work and home space. This means that many of our challenges made themselves at home within our personal spaces – and there was nowhere for us to run from them.

Some of us saw lockdown as a challenge, especially at first, to embrace new habits and ways of engaging with the world, but in the end, each of us had to carve a new strategy to best tackle this new way of being and doing. Some of these changes were very positive and might become lifelong lifestyle readjustments, while we’re still trying to shake off others.

There was an enforced transition to preparing food at home – we didn’t have much choice – trying out new recipes and using fresh ingredients. In fact, two thirds of respondents resorted to cooking and preparing food themselves more frequently rather than picking up ready-to-go meals, and 56% used fresh ingredients more often.

In a positive turn of events, 45% of respondents reported to have become more health conscious in terms of their nutrition. Sixty-nine per cent claimed to have eaten less fast food, though this could also be partially attributed to the fact that restaurants and fast food chains were closed for the first part of lockdown, until they reopened on 01 June.

More than half (58%) of those who exercise frequently, three times or more a week, became more health conscious in terms of nutrition. And a significantly lower percentage (38%) of those with a normal

body weight gained weight, in comparison to the overall average of 49%.

However, with the fridge and pantry close at hand, snacking became somewhat of a 'lockdown pastime' or coping mechanism. Just over half (51%) of respondents reported to eating more in general, as well as consuming more snacks and treats. This was coupled with 46% exercising less during the lockdown, with gyms and public spaces, such as parks, being closed and exercising times being restricted from 6 to 9am.

It seems, however, that bad habits beget more bad habits, as over two thirds of those who reported that they don't exercise regularly claimed to have eaten snacks and treats more often during lockdown. Similarly, 39% of the same group of respondents said they have become less health conscious in terms of nutrition – a significantly higher proportion than the overall average of 21%.

As the lockdown begins to ease, only time will tell whether old habits die hard or the new ones that have been forged out of necessity become routine, such as preparing food from home more frequently and using fresh ingredients in cooking. Replacing highly processed snacks and treats with fresh alternatives – such as vegetable sticks, salads, fruits, nuts and seeds coupled with water – go a long way to maintaining a balanced lifestyle that prioritises overall wellbeing. Incorporating regular exercise or physical activity into your daily routine in an easy and achievable way – as recommended by Professor Ross Tucker in the next section – will improve physical health and mental health too. Regardless, one thing remains certain – health, wellness and longevity are at the forefront of everyone's minds, more so than they have been in previous decades. We can only hope that this global wake-up call will inspire a long-term transition towards healthfulness.



### Key findings

More than four fifths of respondents indicated that their food consumption and behaviour had changed during the lockdown – whether good or bad. As the lockdown eases, time will tell whether old habits die hard or the new ones that have been forged out of necessity become routine.

### THE GOOD

**Two thirds** of respondents cooked food for themselves more often than they did before lockdown

**69%** ate less fast food

**45%** became more health conscious

**56%** used more fresh ingredients in their cooking

### THE BAD

**Two fifths** of respondents ate bigger portions and just over half (51%) ate more in general

**49%** gained weight

**51%** ate more snacks and treats

# How exercise can be empowering

**Q&A with Professor Ross Tucker, consulting sports-scientist at Virgin Active South Africa.**



This year, many of us realised the long-term importance of exercise and physical activity beyond merely the physical benefits. Exercise also promotes emotional wellbeing and mental resilience, encourages routine and drives a sense of community.

## **Q Tell us about the misconception that exercise has to be hard.**

**A** People have this misconception that you have to be professional and very structured about exercise. They make the mistake of trying to be too disciplined about exercise, when they should be having fun. You don't need to be too prescriptive. Include ball sports for play, turn exercise into a game and have fun rather than making exercise an army drill camp-type chore.

You need to get as excited about exercising, as you do about going out with your friends. Turn it into a similarly pleasurable experience that you undertake with your friends or tribe. If you have fun, you'll want to do more of it.

## **Q How can you rig the 'exercise' game, so you always win?**

**A** Starting an exercise routine is the biggest challenge, which is why so few people successfully convert their good intentions into action, beyond the end of January each year.

The solution is to rig the game, so that you always win it. Do this by setting small, realistic goals that are achievable. Despite good intentions, if you're unfit, running five kilometres from the get go will be beyond you. You're simply setting yourself up to fail because it's too difficult. This will crush your motivation and it is unlikely that you will want to do it again.

Start by walking around the block. Once you do that successfully, congratulate yourself. Then set yourself a slightly more ambitious challenge that you know you'll successfully achieve, so that you always win.

Be patient with your commitment. Don't become demoralised within the first six weeks if the changes you expected don't happen as quickly. Give it at least two months because as you get fitter, your ability to exercise gets greater. By creating positive experiences from exercise you'll breed success, which will drive interest and commitment.



## Q How can exercise promote mental wellbeing?

A The Lancet Psychiatry journal conducted an analysis of 1.2 million people that found that people who exercise regularly are significantly less likely to be affected by depression, anxiety and other mental health disorders. While it's difficult to infer cause and effect – as people who are less anxious and not depressed do exercise more – depression remains one of the leading causes of disability worldwide.

Psychologists encourage setting aside time to be outdoors or in a fitness club doing some sort of physical activity that demands focus. It's a release from your routine and distracts you from being constantly immersed in your anxieties. While for some people exercise offers the opportunity to escape, get away for an hour a day and not think about life; others specifically use exercise to think about life in a different context and from a wholly divergent perspective. The best part of it all, is that exercise is all things to all people. It is a platform that allows you to do whatever you want with it.

Besides the immediate benefit of exercise from the rush of endorphins and adrenaline; the medium- and long-term benefits include feeling better about yourself, becoming more fit, connecting with others, and potentially learning a new skill – all of which can have very positive impacts on one's mental and emotional wellbeing.

## Q How can we maintain a healthy workplace?

A In 2018, the American Journal of Public Health found that excessive sitting (for more than eight hours a day) increases the risk of premature death and some chronic diseases by 10–20%.

Try something different during your daily office routine. Stand as much as you can to break up your sitting routine and alleviate postural stressors by either conducting standing meetings or using a standing desk. Otherwise, try sitting on a pezzi ball, those big inflatable gym balls, instead of a chair, as this forces you into the correct posture without slouching.

Walk five minutes of every 25 minutes you sit, whether it's using the stairs instead of the lift, taking a quick walk outside your office building or walking to lunch, if safety permits, and eating standing.

## Q How can community drive commitment?

A By including a sense of community in your exercise routine – whether it be through fitness clubs and community health centres or regular meet ups with friends – you can drive long-term commitment in a fun and engaging manner that drives positive behaviour.

Younger generations are often satisfied to train alone and find a sense of community and purpose by sharing their fitness goals and achievements with online communities, such as Instagram, Facebook, Twitter and WhatsApp groups. They share what they've eaten and their exercise targets in return for online interaction. Digital technologies – such as Strava, Google Fit, Samsung Health and Garmin Connect – also enable a sense of community, as do collective activities such as Park Run and Run Walk For Life.

Creating opportunities for shared exercise, with friends, family and colleagues, gives us a sense of purpose and motivation. It incentivises us to exercise and encourages us to hold ourselves accountable. People naturally gravitate towards affirmation and so group exercise often encourages positive reinforcement.

## Chapter 6

# How your gut affects your health

**The last decade has seen much scientific research and many technological advancements to better understand the gut microbiome, how it affects physical and mental health and the propensity to certain diseases.**

The trillions of bacteria, viruses and fungi (or so-called microbiota) that live in the human gastrointestinal tract (GIT) make up the gut microbiome. These microorganisms, or microbes, play a vital role in regulating our health, from our metabolic rate and immune function to our mental health and emotions. However, if they are out of balance or if there are too many 'bad' microbes, they may cause weight gain and disease.

Our gut microbiome is affected by a number of internal and external factors throughout our lives. It begins to develop from our earliest days, starting with the microbial load we were exposed to from our mothers during birth and from breast milk. Later, our age, stress levels, immediate environment, as well as what and how we eat, and the medication or supplements we ingest affect the diversity of our microbiome and our gut health.

The microbiota in our gut aid our body with nutrient and mineral absorption, as well as the synthesis of enzymes, vitamins and amino acids. An imbalance in our gut microbiome may result in a number of gastrointestinal conditions, such as irritable bowel syndrome (IBS) and inflammatory bowel disease (IBD). Research has suggested that it could also cause numerous diseases, such as autoimmune disorders, cancer, Crohn's disease, obesity, type 2 diabetes, and the genetic predisposition to develop allergic diseases.

While we are still learning more about the intricacies of the immense gut microbiome, research is emerging about how it may affect our brain health, impact our moods, emotions and even psychological disorders. The microbiome has also been found to influence the way in which our brains process information received from our senses. Some studies suggest that an imbalance in the gastrointestinal tract may impact conditions such as autism spectrum disorder, depression, anxiety and chronic pain.

Eating probiotics and prebiotics – whether in their natural form in food or as a supplement – may promote a healthy and balanced gut microbiome.



## HOW TO RESTORE A HEALTHY GUT MICROBIOME



### Stress less

Chronic levels of stress have a negative effect on your entire body, including your gut microbiome as well as your mental health.



### Sleep more

Insufficient and interrupted sleep can disrupt your gut microbiome, which may in turn further affect your sleep patterns.



### Savour your food

Savouring your meals and taking the time to chew your food properly will assist the digestive process, maintain a healthy gut and help with the absorption of nutrients, while reducing digestive discomfort.



### Drink enough water

Drinking sufficient amounts of water each day helps to balance the beneficial bacteria that is needed to keep your gut healthy and functioning optimally. Water also helps to maintain the intestine's mucosal lining.



### Food intolerances

If you experience regular bloating, abdominal pain or cramping, an upset stomach and acid reflux, it might be due to an intolerance to certain foods. Once you've identified the problem, eliminating these foods may help to balance your intestinal digestive processes.

## HOW TO MAINTAIN A HEALTHY GUT MICROBIOME

### Eat probiotic-rich fermented foods

Fermented foods – such as sauerkraut, kimchi, home-pickled vegetables (without sugar), unsweetened kombucha, unsweetened yoghurt, kefir, miso and tempeh – contain live cultures, or so-called probiotics, which can help to promote gut health. Alternatively, probiotic supplements can help too.

### Eat fibre-rich prebiotic foods

High-fibre rich foods such as fruits, vegetables, whole grains and legumes contain prebiotic fibres which create an environment for the gut bacteria to thrive. This promotes their further growth and aids good gut health. Plant-based diets are more beneficial to the gut microbiome for this reason, but so is a diverse diet that comprises various food groups. Prebiotic-rich foods include: apples, artichokes, asparagus, leeks, barley, bananas, oats, flaxseeds, seaweed, garlic and onions.

### Cut down on sugar and artificial sweeteners

These result in insulin spikes and encourage the growth of unhealthy gut bacteria.

### Avoid excessive use of antibiotics

Antibiotics kill off the good and the bad gut bacteria, which is why it's important to encourage a balanced gut microbiome by eating probiotics and prebiotics, particularly during and after a dose of antibiotics.

“**Respondents rated gut health as 6.3 out of 10 in terms of importance, with 31% claiming that it is very important.**”

## Chapter 7

# Food labels: The fine print

**While some swear by food nutrition labels, others ignore them. For many, they can be confusing and inaccurate. This offers an opportunity for the food industry to step up to the plate.**

It's one thing having nutrition guidelines at your fingertips and another understanding what they mean and why they are important to your health. Perhaps what is even more challenging in South Africa is educating consumers to buy healthy and nutritious foods, especially when money is tight and there's a big family to feed. This is where poverty impacts decision-making.

Sixty-nine per cent of respondents look at food nutrition labels when deciding what food to buy. There were encouraging trends among various demographics, who use food nutrition labels as guidelines when buying food, that were above the overall average: 86% of part-time employees; 88% of LSM 4-5; and 89% of vegetarians and vegans.

The surveyed dietitians and nutritionists rated the accuracy of food nutrition labels as 5.9/10 and the ease of understanding them as 4.2/10. When asked, "What could be done to improve nutrition among South Africans?" these professionals recommended that consumers need to be educated on reading food nutrition labels (42%). They also suggested that food labelling needs to be more understandable (34%), should make use of diagrams, symbols and colours (24%), and needs to be simplified (18%).

Respondents who were healthier in other aspects of their lives were more likely to transfer those positive behaviours to their food choices and eating habits. Those that exercise three or more times a week, were more likely to be health conscious in other aspects of their lifestyles. They also ranked higher than the overall average in terms of choosing foods, according to the following criteria and in the following order of importance: nutritional value, weight management, food nutrition labelling, exercise plan, and health logos.

Much needs to be done to educate consumers in terms of leading healthy lifestyles – from school level and throughout their lives – as not enough importance is placed on nutritional factors or food nutrition labels when it comes to food choices. The food industry can help to make this nutrition information more accessible to the public.

As per professionals' recommendations, this might be done by better aligning the mandatory nutrition information on the pack with simple, illustrated or colour-coded explanations and symbols that are big enough to read and explain portion sizes. Other recommendations include clearer definitions of ingredients (that sodium is salt) and easy-to-understand summarised information.

The Eat Well Live Well stamp of approval on certain qualifying Tiger Brands' products, alongside Be Nutrient Wise – Guideline Daily Amount (GDA) information offer nutritional guidelines to support consumer

understanding of balanced diets. This is the ideal starting point to ensuring a healthy life.



### Key findings

The dieticians and nutritionists surveyed recommended that while consumers need to be educated on the reading of food nutrition labels; food labelling needs to be simplified, easier to understand and should make use of diagrams, symbols and colour-coded explanations that are big enough to read and explain portion sizes.

## Beyond food labels: health and wellness logos

There's no denying that we are busier than ever. Between work, there's kids' homework, grocery shopping, cooking and cleaning, squeezing in a workout and downtime. Before doing it all again tomorrow.

Time is of the essence. While they're walking down the supermarket aisle, with a child hanging on either arm asking for new toys, consumers want to grab-and-go. It's become somewhat of an automatic reflex. They're more likely to grab a product they know, or have used before – even though it might not be as healthy for them – than the risk of trying a new product or brand.

While our research showed that certain consumers might not have the inclination to read food nutrition labels, for whatever reason, others simply might not have the time. Others still, might be unaware of the importance of recommended daily nutritional guidelines or that savoury processed foods might be packed with sugar, even though they taste salty.

This is where health and wellness logos are useful and practical tools to guide consumer food choices, when there isn't enough time to read and understand the impact of every ingredient and additive – and its percentage – on their long-term health.

Forty-three per cent of respondents are aware of health and wellness logos. Encouragingly, there was relatively high awareness of the Discovery Vitality (82%), CANSA (77%), Heart Foundation (76%), and Tiger Brands' Eat Well Live Well (60%) logos.

As an example, the Eat Well Live Well stamp of approval on certain qualifying Tiger Brands' products can help consumers make better food choices. Each Eat Well Live Well product has an easy-to-understand Guideline Daily Amount (GDA) table on the packaging. This illustrates, at a glance, whether the product is high in nutrients that consumers need more of in their diets, such as fibre and vitamins, or if it is low in a nutrient that they should try to cut down on, such as salt and sugar.

Despite being aware of various health and wellness logos, consumers do not necessarily use these to influence their food choices – again it's often a case of taste taking pole position when it comes to what goes into the shopping basket.

The challenge remains: food nutrition labels and health logos need to help drive consumer food choices, alongside a healthy dose of common sense, rather than allowing palates and food cravings to do the steering.



### Key findings

While health and wellness logos can be exceptionally useful and practical tools to guide consumers' food choices, despite being aware of certain health and wellness logos, consumers do not necessarily use them to influence their food choices.

## Chapter 8

# The difference between source and sauce



**Fake news is prevalent in the age of social media, where opinions are bandied about as fact without being backed up by evidence-based research and celebrity influencers hold more clout among consumers than trained dieticians and nutritionists. Professionals recommend that science-backed nutrition information be shared on platforms that are easily accessible to consumers, alongside the development of a formal information hub with South Africa-specific research to assist them in advising consumers.**

Urban myths about health, wellness and medicinal cures or preventative measures may have their roots in well-intentioned advice that suffers from a severe case of broken telephone and culturally-infused personal adaptations as it is anecdotally relayed from one person to the next. And in today's viral culture, the more reaction it gets online, the tastier the sauce.

This is particularly true of South Africa, as the largest number of respondents (59%) find their nutrition information online. This is followed by food nutrition labels (56%) and social media (44%). General nutrition websites are tied in fourth place alongside family and friends (34%), as used by the greatest numbers of respondents. Only a third of respondents obtain nutrition information from healthcare professionals, while 31% consult food company websites.

This is worrying as most consumers appear not to consult formal evidence-based sources of information first and foremost, but rather predominantly rely on what are informal and potentially unverified and unreliable sources. Furthermore, this kind of information might be fragmented and inconsistent, while running the risk of being misinterpreted if it is not understood within a proper context and in light of the research findings. These findings were further magnified among the LSM 4-5 consumer group, where a significantly higher proportion of respondents indicated that they use social media (60%), celebrity influencers (18%) and opinion leaders (16%) to obtain nutrition information. This may result in this group using potentially inaccurate information when compared to other LSM groups, which is of concern as they are also most likely to struggle with malnutrition and inaccessibility to a balanced and diverse diet that consists of nutritionally adequate foods.

Of similar concern among younger age groups is that online sources might also be saturated with promotional or advertorial content that promotes certain food products in a favourable light without considering their health implications and nutritional value. This makes younger age groups – without the capacity to discern sponsored content or paid-for advertorials from editorial – particularly susceptible to misinformation about the importance of balanced diets.

While it is encouraging that over half of respondents use food nutrition labels to obtain nutrition information, as outlined in chapter 7, many reported not to understand these and found them to be confusing and inaccurate. The shortcomings of South African food nutrition labels have also been raised by professionals.

The fact that consumers turn to these informal information channels could signify an overall gap in terms of official scientific and medical channels, as well as their prominence and accessibility among the public. There is, therefore, an urgent need to develop and promote reliable information sources and channels among consumers, as one way to help improve the nation’s overall health.

Professionals echoed this sentiment. Overall, they rated consumer access to nutrition information as 4.4 out of 10, education about nutrition as 3.6, and understanding of nutrition as 3.3 – with 0 being ‘not at all adequate’ and 10 being ‘completely adequate’.

When asked what additional information they would find valuable to enable their professional services, there were requests for the development of an information hub (12%) – whether it be online or in the form of a smartphone app – more South Africa-specific research (10%), as well as additional information regarding the psychology of eating behaviour (8%).

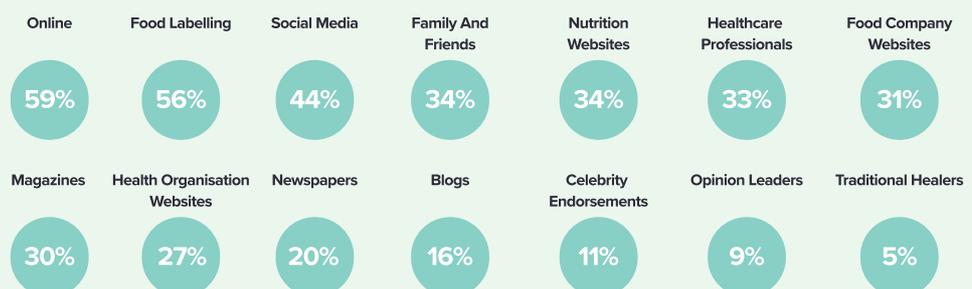
The greatest proportion of professionals (30%) indicated that nutrition education should be provided at school level, where children of a young age can be educated regarding nutrition with science-based information that guides their behaviour. To help address accessibility and the understanding of nutrition information, just over a fifth of professionals (22%) suggested that more scientific-based nutrition information be made public, with 18% stating that it should be made available through social media. Educating expectant parents at community level will also help to instil a life-long understanding of the long-term importance of nutrition and wellness that will be passed onto their children to encourage a healthier nation.



### Key findings

Most consumers predominantly rely on informal and potentially unverified and unreliable sources. A South Africa-specific information hub, alongside local research and information regarding the psychology of eating behaviour would assist professionals in better advising consumers.

### CHANNELS USED BY CONSUMERS TO OBTAIN INFORMATION





## Chapter 9



Arthur Ramoroka

# The future of food and good nutrition

**As the world population races towards 10 billion by 2050, people will hopefully become more health conscious and environmentally focused. I predict that the future of food will be more plant-based and locally sourced, writes Arthur Ramoroka, Nutritionist at Tiger Brands.**

South Africa is undergoing a nutrition transition. The country's nutrition landscape shows an increase in energy intake in recent years, through fast foods, sugar-sweetened beverages and highly-processed foods, while the consumption of healthy foods, such as fruits, vegetables and legumes are below recommended daily intake. As a nation, we suffer from the coexistence of undernutrition (especially in children), over nutrition as well as micronutrient deficiencies.

The modern food system is partly to blame for replacing local, traditional, nutritious foods with highly processed foods that are low in fibre and oftentimes high in sugar, sodium and unhealthy fats. All of which

place our nation at a greater risk of developing non-communicable diseases such as type 2 diabetes, hypertension and heart disease.

But so is poverty. Close to 7 million South Africans go to bed hungry every day, despite numerous efforts to meet food security as one of the essential Sustainable Development Goals, as outlined by the United Nations (UN). While other South Africans simply cannot afford a diverse, nutrient-dense diet. According to the South African Health Review<sup>7</sup>, healthier food options generally cost between 10-60% more than unhealthy options within the retail environment.

We need a paradigm shift that enables effective food systems to achieve food and nutrition security, especially as the United Nations estimates that the world population will reach 10 billion people by 2050. Future diets will also be shaped by environmental concerns.

Planetary diets – that prioritise a variety of high-quality plant-based foods and low amounts of animal-based foods, refined grains, added sugars and unhealthy fats – are also culturally appropriate and economically viable. While many countries have yet to revise their dietary guidelines to include this approach, we've already seen increasing consumer demand for plant-based meat alternatives that are guilt-free.

The United Nations' Climate Change and Land report<sup>8</sup> found that an estimated 23% of greenhouse gas emissions come from agriculture, livestock and the land and forests needed to raise them. Incorporating just one meat-free day into our weekly diet can also drastically decrease our water footprint and environmental impact. Plant-based burgers require between 75 and 99% less water; 93 and 95% less land; and generate 87 to 90% fewer emissions than beef burgers, according to research conducted by the United Nations Environment Assembly<sup>9</sup>.

But planetary diets are not just good for the planet, they're better for humans too. Plant-based meat alternatives contain low cholesterol, are lower in saturated fats, have high amounts of fibre and are not filled with antibiotics and hormones. The UN's Sustainable Healthy Diets Guiding Principles<sup>10</sup> have shown that cutting down on red meat helps to counter high cholesterol, cardiovascular disease, cancers, type 2 diabetes, obesity, as well as a number of other non-communicable disease.

And sourcing seasonal and local foods will also become a priority, as it reduces our environmental footprint, has the capacity to boost South Africa's agricultural sector and encourage economic development. Furthermore, an increased demand for locally grown foods will allow more smallholder farmers to be incorporated into the formal food supply chain, as is the case with Tiger Brands' Agriculture Aggregator Model.

I sincerely hope that the global pandemic will also have positive long-term effects on our diets and eating behaviours, as consumers become more aware of their health and nutrition needs, and seek out foods that boost their immune systems and healthy bodily functions, in an attempt to take control of their overall wellbeing.

## Chapter 10



Mary-Jane Morifi

# Access, supply and availability: Balancing tummy full and tummy fed

**South Africa offers a unique landscape in terms of food access, supply and availability, which equally requires strategic and culturally-sensitive approaches and solutions, writes Mary-Jane Morifi, Chief Corporate Affairs Officer at Tiger Brands.**

The reality is that South Africa is neither food secure at a household nor at a national level. This according to the General Household Survey conducted by Statistics South Africa which reveals that 6.8 million people experienced hunger and 10.4 million people had inadequate access to food in 2017. One of government's primary challenges – alongside that of the food industry and various food NGOs – is to ensure that South Africans have access to affordable, healthy foods. Food security is one of the first steps toward meeting our other national challenges.

There are three aspects to consider when we talk about food security or nutrition security. Firstly, whether there is availability of food. Secondly, whether people have access to nutritious food that forms part of a balanced diet which incorporates numerous food groups to meet daily requirements for a healthy body and mind. And finally, food affordability and whether people have the money to buy food or the ability to grow their own.

Of the approximate 14.2 million learners in South Africa, some nine million learners are fed by the National School Nutrition Programme each school day<sup>11</sup>. We also need to acknowledge various other Government income support projects and grant programmes, which put much-needed money into the hands of those who need to feed their families.

If Government gives communities access to empty public spaces that would otherwise attract illegal dumping, this might increase their capacity to grow food where limited land is available. In this way, these spaces may be transformed into community-led food gardens for herbs, fruit and vegetables. The same could be done across public school, church and community grounds, as well as on the periphery of public sport grounds. This is also likely to enable a sense of community cooperation, promote skills development and enable people to eat more balanced diets that consist of readily available fresh produce to supplement government grants and feeding schemes.

As a nation, we can equally play our individual part in helping to address hunger by reducing food waste and loss, which is experienced throughout the food value chain between farm and fork – from farmers and manufacturers across logistics to retailers and consumers. Overall per capita food loss in sub-Saharan Africa is 120–170kg/year, according to estimates from the United Nations' Food and Agriculture Organisation (FAO)<sup>12</sup>. While the average South African consumer throws away between six and 11kg of food each year, the findings go on to say.

Indeed, around a third of food in South Africa – particularly fresh produce such as fruit, vegetables and herbs – are lost, wasted or not consumed each year. As consumers, we often waste food due to overly generous portion sizes that we cannot finish or because we cook far more than we can eat before it goes off. We also often buy more fresh produce than we can consume in a given time and leave it in our fridge or pantry until it spoils.

A critical role for all players within the food industry should be to align their CSI initiatives to educate consumers about how to prevent food waste. Similarly, food manufacturers alongside government regulators should realign consumer perceptions around expiration dates.

Food that has not sold or been eaten before its 'sell by' date is often discarded due to the misconception that it is no longer fit for human consumption. Consumers need to be re-educated that the 'sell by' date is merely a guideline for retailers and differs from the 'best before' date. Food collection charities can help to meet the nutritional needs of the vulnerable people in our population, while simultaneously reducing waste by collecting and redistributing food that is nearing its 'sell by' date.

Another pertinent global issue that needs to be addressed at retail and consumer level is that of so-called 'ugly produce' – that does not meet retailer appearance standards because it is misshapen or contains small cosmetic defects – and therefore never makes it to retail shelves or is not bought by consumers. As a result, despite being edible, this food is often discarded by retailers even though there is nothing wrong with its taste or freshness. South Africa requires a secondary food market where ugly produce is sold to consumers or the hospitality industry at significantly reduced prices, as a way to help address hunger and food waste. Similarly, this food can be repurposed, as is the case with Tiger Brands' partnership with Food Forward SA, a food redistribution organisation that makes jam out of 'ugly produce' and surplus food to be distributed to the vulnerable in our society.

Despite a lack of culturally-appropriate and socio-economically sensitive nutrition education – from households to primary school level and across one's lifespan – numerous opportunities to enable a healthy food environment lie at the intersection of the public and private sectors.

Education about healthy cooking combinations that maximise nutrient intake are also essential, particularly among lower income groups. While a staple food source such as mielie meal might satiate hunger, it needs to be combined with fibrous foods, such as raw or cooked vegetables and protein, in order to enhance the nutritional value of the meal to constitute a balanced diet.

If Government incentivises healthy foods and helps to increase their availability and affordability, we could anticipate an increase in the overall health of the population. While the food industry should forge long-term partnerships with retailers to promote and prioritise healthy food choices, through their marketing and consumer education efforts.

All of these solutions require equal effort and cooperation from various players across the public and private sectors, as well as from consumers, so that South Africans are adequately fed and not merely satiated.

# End notes



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