Improving health and reducing the cost of health care through lifestyle interventions
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FOREWORD

“Vitality is hugely powerful at a member level; an important influencer of policy on health care at the macro level; and a disruptor of traditional insurance markets”
When we started Discovery in 1992, it was guided by a clear and profound core purpose – to make people healthier and to enhance and protect their lives – underpinned by the simple belief that the complexity of the South African health care environment provided a powerful and relevant incubator for innovation. The country’s high and quadruple disease burden, its undersupply of doctors, and our desire to build an inclusive, community-rated health insurance system demanded a new model for addressing health care challenges.

Rather than addressing curative, supply-side constraints, this paradigm shift called for an innovative solution on the demand side of health care consumption.

Vitality was the answer. Launched in 1997, Vitality pioneered the use of incentives and ‘nudges’ to address those poor lifestyle choices that kill more than 50% of people globally.

Integrated with health and subsequently life insurance, this innovative program addressed the inefficiency of global insurance systems, which may mitigate the financial impact of sickness and mortality risk, but fail to address the poor lifestyle choices underlying these risks. Vitality shaped a new category of health and life insurance products – integrated with wellness – which gave rise to better health and value for customers, superior actuarial dynamics for the insurer, and a healthier society.

Today, Vitality is a world-leading wellness program with more than 6.8 million members globally. Evidence for the efficacy of the program – in terms of improved clinical outcomes, reduced health care costs, increased productivity at work, and improved mortality rates – has been profiled in leading academic journals. In terms of market recognition, the program has gained international recognition in leading publications such as The New York Times, The Economist, and Harvard Business Review, with global insurers (AIA (Asia), Prudential (UK), Humana (US), and PingAn (China)) partnering with Discovery to deploy the Vitality capability into their markets.

And Vitality’s relevance is increasing. Given the overwhelming evidence that diseases of lifestyle are fundamental to mortality and sickness, and can be controlled, there is a growing global policy movement towards wellness.

At the core of health care reform, is the ability to influence behavior and improve people’s health, reducing mortality risk and lowering health care costs. As we gain a deeper understanding of the impact of healthy lifestyle choices, Vitality is uniquely positioned to drive the wellness revolution.

Extrapolating the impacts of Vitality engagement outside of Discovery’s global Vitality family could have staggering outcomes for the broader population – from a social and health, as well as economic perspective.

The strategic imperatives for Vitality are, therefore, clear. The first is to evolve the science of Vitality, by continuing to develop the clinical efficacy of the program, using the latest thinking on behavioral economics to drive healthier lifestyles. This includes deepening its integration mechanisms into health and life insurance to lower claims rates, drive better risk selection and client retention, and take advantage of advances in technology that will lead to more personalized approaches to health promotion and disease prevention. Second, is to lead and participate in a global movement centered on the power of prevention, influencing debate, and policy reform.

When we designed Vitality, we couldn’t have foreseen its future relevance and impact. Investment in Vitality today stems from our deep belief and experience that Vitality is hugely powerful at a member level; an important influencer of policy around health care at the macro level; and a disruptor of traditional insurance markets for the shared value of all stakeholders.
“The program was designed with many applications drawn from the expanding field of behavioral economics, including the use of incentives and rewards”
The global spread of non-communicable diseases (NCDs) such as cardiovascular illnesses, diabetes, and some cancers is largely attributable to lifestyle behaviors that promote poor health: unhealthy diet, physical inactivity, tobacco abuse, increased sedentary behavior, and the excessive use of alcohol. Increasing urbanization and globalization have been blamed for these poor lifestyle choices though people living in rural areas and those from higher socio-economic echelons have also not been spared.

Governments recognize the enormous threat posed by NCDs, both in terms of health and costs, as does the private sector, where chronic diseases of lifestyle impose a considerable cost burden.

In South Africa, in 2008, hypertension, hyperlipidemia, and diabetes mellitus type 2, together with ischemic heart disease, accounted for 19% of total health care cost in the private sector. Increasingly, therefore, health care funders here have been looking to improve the health of their members and to prevent or delay avoidable lifestyle-related diseases through health promotion programs.

Vitality, launched in South Africa in 1997, is the largest, oldest, and most comprehensive incentive-based health promotion program in the country, and has been exported to numerous countries facing similar health profiles and costs.

The program was designed with many applications drawn from the expanding field of behavioral economics, including the use of incentives and rewards. Engagement with the program is growing and there is compelling evidence that this translates into better health and cost outcomes.
The true benefits of wellness and preventive care are well-documented and sustained well-being behavior is known, only realized in the future. While the long-term benefits of wellness and preventive care are well-documented and known, sustained wellness behavior is difficult to achieve. A lack of information on the true benefits and impact of prevention approaches, over-optimism on the part of individuals about their abilities to maintain their health status, and short-term approaches to future risks of today’s unhealthy behaviors are all factors leading to an under-consumption of preventive care.

The solution lies in nudging individuals with appropriate and appealing reasons to adopt and maintain positive health behaviors. For Vitality, understanding human behavior is important in how we design incentives to encourage long-term healthy behavior.

A PARADOX exists in how people view the value of health care with its immediate results, and wellness where the value of preventive measures is only realized in the future. The role of behavioral economics is important in how we design incentives to encourage long-term healthy behavior.

The Vitality Institute
The Vitality Institute is an action-oriented global research organization working to strengthen the evidence base about what works and what doesn’t work in health promotion and disease prevention. We are uniting leaders in both the public and private sectors to transform this evidence into action and create a healthier society.

The Institute was founded in 2013 by Discovery as part of its commitment to health promotion and wellbeing programs that advance social good.

In terms of research and development, The Vitality Institute has:
• Forged an alliance with the University of Pennsylvania’s Center of Excellence in Behavioral Economics in an effort to find new approaches to improving health behaviors and reducing chronic disease risks
• Published research in the South African Medical Journal on the associations of tobacco use, obesity, and alcohol use with health care expenditure and chronic disease
• Published editorial in the South African Medical Journal – co-authored by David Sweanor and Derek Yach – on the future of tobacco control in South Africa, highlighting implications for global policies. The Lancet published an article by Derek Yach on the WHO Framework Convention on Tobacco Control. These findings have direct implications in the US where tobacco control remains a major concern.

Between now and 2030, there is estimated to be a

17%
increase in deaths caused by chronic conditions
– World Health Organization

The cost of disease burden is likely to increase by

50%
by 2030 in developing countries
– World Health Organization

4 main risk factors – physical inactivity, unhealthy diet, smoking, and excessive alcohol intake – account for

60%
of all deaths worldwide
– World Health Organization

Vitality addresses both simple behaviors such as completing a health risk assessment or once-off immunizations and certain complex behaviors such as physical activity and healthy eating. The program is being modified to address other key health challenges like sustainable weight control, smoking cessation, and managing chronic diseases. Engagement with Vitality is being expanded – particularly in environments such as schools and workplaces through the use of behavioral economics.

The Vitality Institute’s Commission on Health Promotion and the Prevention of Chronic Diseases in Working Age Americans
Through The Vitality Institute’s Commission on Health Promotion and the Prevention of Chronic Diseases in Working Age Americans, a group of experts from across health, science, and economic disciplines have looked at what drives the burden of disease and associated costs.

The Commission is working to close the gaps in evidence and place the power of prevention at the center of health policies and actions in the US. The Institute’s focus is on preventing major non-communicable diseases – cancer, diabetes, cardiovascular and chronic respiratory diseases, musculoskeletal disorders, and mental illness.

Its research aims to identify multi-stakeholder solutions that address these issues in bold and transformative ways; solutions which will be disseminated globally to international markets like the UK, South Africa, and China.
“Obesity and smoking place substantial strain on health care expenditure, and the prevalence of chronic diseases linked to these unhealthy lifestyle habits will keep rising.”
Vitality membership is a prerequisite for the HealthyFood benefit. Everyone enrolled in Vitality is automatically eligible for the benefit and will receive a 10% discount on HealthyFood items upon activation. Members can increase their cash back up to 15% once they find out their Vitality Age online, and up to 25% once they complete a Vitality Health Check at a preferred supplier.

Today’s unhealthy diets, laden with refined carbohydrates, saturated and trans-fats and loaded with salt, are appealing to the human palate. In addition, calorie for calorie, they are considerably cheaper than nutritionally rich diets including foods such as fruit, vegetables, and dairy.

Equally important is the price differential between healthy and unhealthy foods which has widened considerably, and many researchers believe that this price disparity has contributed substantially to the global obesity epidemic.

Central to the fight against obesity and consequent chronic disease is finding ways to reduce the price of nutritionally rich and healthy foods, prompting Congress in the US to commission a study examining the impact of discounts on purchases of healthy foods.

In South Africa, the impact of food prices on purchasing and eating behavior was acknowledged as early as 2009 when Discovery Vitality launched its HealthyFood benefit to members of its Vitality program. The HealthyFood benefit offers Vitality members a cash rebate of between 10% and 25% on purchases of an extensive array of healthy foods. These foods were available through a leading national...
supermarket chain; a benefit that was extended to a second food retailer two years later.

Professor Roland Sturm, a senior economist at the RAND Corporation in the US, recognized this benefit as unique in both scope and scale. He and other researchers at RAND, in collaboration with Discovery Vitality, were given a grant by the US National Institute for Health in 2010 to study the impact of Discovery Vitality’s HealthyFood benefit. This led to several studies published in prestigious academic journals. Professor Sturm believes the HealthyFood benefit will answer many of the questions that US Congress is now attempting to answer.

**Eating better for less**

The first study, ‘Eating Better for Less’, published in the *American Journal of Health Behavior*, compared the diets of members of Vitality who activated the HealthyFood benefit with those who had not. It found that overall, the rebate had a significant impact on the self-reported consumption of healthy foods while consumption of unhealthy foods declined. The higher the rebate, the more healthy foods were reportedly eaten.

The study showed that compared to those that did not sign up for the HealthyFood benefit, shoppers who earned a 25% rebate on healthy foods:

- Increased their daily fruit and vegetable intake by 21%
- Decreased their high sugar foods by 29%
- Consumed 27% fewer fried foods
- Decreased their intake of high sodium foods by 24%
- Decreased their consumption of processed meat and fast foods by 15% and 17% respectively.

The effects of a 10% rebate were generally more than half of the effects of the 25% rebate and the price effect showed up immediately and did not change with time, meaning that there wasn’t a novelty effect.

**A cash-back rebate program**

A second study on the HealthyFood benefit, ‘A Cash-Back Rebate Program for Healthy Food Purchases in South Africa’ published in the *American Journal of Preventive Medicine*, compared actual food purchases between Vitality members who had not activated the HealthyFood benefit and those members who were receiving the 10% and 25% rebate.

The results showed that the 10% rebate was associated with:

- A 6% increase in the ratio of expenditure on healthy foods to total food expenditure
- A 5.7% increase in the ratio of expenditure on fruits and vegetables to total food expenditure
- A 5.6% decrease in the ratio of expenditure on less-desirable foods to total food expenditure.

The 25% rebate was associated with:

- A 9.3% increase in expenditure on healthy foods
- A 8.5% increase in expenditure on fruits/vegetables, and
- A 7.2% decrease in expenditure on less-desirable foods.

Price effects remained stable over time.

These studies provide compelling evidence that the Vitality HealthyFood benefit encourages people to buy and eat healthily.
The impact of lifestyle on health care costs

Obesity and smoking place substantial strain on health care expenditure. The prevalence of chronic diseases linked to these unhealthy lifestyle habits will keep rising unless there are active counter measures.

This was the conclusion of a collaborative study done by the RAND Corporation of the US and Discovery Vitality.

Data for this study was gathered from 74,504 adult Vitality members who completed an online risk assessment in 2010.

The study found that compared with adults in the normal or overweight range, severely obese individuals used 23% more (or R4 400) per year on medical care (this was higher among older people), and moderately obese adults used 11% (R2 596 annually) more on medical services, which is similar to current or past smokers. In this study, being overweight and consuming excessive alcohol had no major impact on costs.

This was the first South African study to provide data on the relationships between the levels of overweight and obesity, smoking, and excessive alcohol intake, with that of medical expenditure. It showed large differences in expenditure by degree of obesity.

Through an understanding of how lifestyle risk factors like obesity and smoking contribute to poor health, health promotion programs can be more efficiently targeted thus making prevention efforts more cost-effective.

Healthier by pre-commitment

While many people on the HealthyFood program responded well to cash rebates, some individuals had difficulty sticking to their resolution to buy healthier food. When there was a generous cash incentive offered, larger discounts were not economically feasible and may well have the unintended consequence of giving a bigger reward to the people who are doing well, and not necessarily motivating the underperformers.

It was for this reason that Vitality, together with the renowned behavioral economist Dan Ariely from Duke University, and with Janet Schwartz and David Mochon from Tulane University, tested whether another behavioral intervention, pre-commitment, could motivate more people to buy more healthy food and stick with their decision.

Pre-commitment is premised on the understanding that individuals have the intention to engage in healthy activity but often succumb to temptation and impulsive behavior, meaning they have problems with self-control.

For this study, households registered with the HealthyFood benefit were invited to pre-commit to a 5% increase in healthy food items purchased, relative to their own historical baseline, for a period of six months. Households that met their goal in a given month kept their monthly cash-back bonus but failure meant giving up that bonus for that month. In other words, the program offered the threat of a negative consequence without any positive incentive, aside from the opportunity to exercise better self-control when shopping.

Six and a half thousand households were invited to participate in the study; a third of the sample was randomly assigned to a control group and two thirds to the intervention arm. Six hundred and thirty two households chose to pre-commit.

Thus there were three groups: pre-committers, non-committers (declined to commit), and the control group.

The study found that the pre-committed group bought a significantly higher percentage of healthy items during the six-month commitment period relative to the control group, increasing the healthy items in their monthly food basket by an average of 3.52 percentage points. This increase was as a result of a decrease in both the percentage of neutral items and the percentage of unhealthy items purchased. Non-committed households behaved no differently than control households.

However, in any given month only one third of the committed households met their goal, so while Vitality members responded to commitment devices without additional incentives and improved their health behavior, the study raised important questions about how much improvement people are willing to commit to before the option feels too risky. A much higher goal may have led to lower rates of pre-commitment.

Given that self-control challenges are annoyingly persistent, the optimal design and longevity of commitment devices presents another exciting avenue for further research.

More than 320 000 families are registered on the HealthyFood Benefit

Since its launch in 2009, the HealthyFood Benefit has fast become one of the most used benefits

Every 3 seconds a Vitality member buys a HealthyFood item
Healthy companies = healthy employees

“When the Vitality Age increased to nine or 10 years older, absenteeism rates increased to three times those of healthier employees”
Recent evidence suggests that worksite health promotion can achieve a positive return-on-investment (ROI) of approximately $3 saved in medical and absenteeism-related costs for every $1 invested.

There is a compelling reason for promoting workplace wellness: current projections suggest that chronic diseases will be responsible for 388 million deaths globally in the next 10 years yet 36 million of these could potentially be prevented.

Key to improving workplace wellness is company leadership. Research conducted by Discovery Vitality, in collaboration with several universities in South Africa and in the US, showed that senior management’s involvement in, and promotion of, activities, policies, and practices that encouraged a healthy workplace were essential in the adoption and success of workplace health initiatives.

Senior managers exerted a strong influence on all aspects of organizational functioning and by supporting workplace health promotion, employees were assured that management understood the importance of healthy staff and were prepared to devote considerable time and resources to identifying and addressing priority health issues.

However, the findings also showed that it might not be sufficient for leaders to simply voice their support for workplace health promotion: employees needed more than policies and strategies – they wanted the actual provision of wellness programs as tangible evidence of leadership commitment. It was essential, the research showed, for leaders to demonstrate their commitment to employee health by ensuring that the policies and strategies they had given voice to were acted upon.

HEALTHY COMPANIES = HEALTHY EMPLOYEES

Globally, the workplace is recognized as an important setting for initiating health promotion programs that not only improve the health of workers but also lower organizational costs.

The workplace in South Africa

This has been a neglected arena for health promotion yet like other transitioning economies the country is experiencing a burgeoning epidemic of non-communicable chronic diseases.

In 2010 Discovery Vitality launched the Discovery Healthy Company Index to assess workplace wellness in South Africa. The overall aim is to promote the workplace as a fruitful setting for health improvement and to recognize those organizations that were adopting best health practices.

Given that South Africa does not have national standards or a regulatory body to provide guidelines or requirements for health promotion programs, employers are under no obligation to provide wellness programs other than those required by occupational health and safety legislation.

To be acknowledged as a healthy company, an organization would have to provide programs and facilities supporting good health, demonstrate leadership commitment to the cause, and allow a survey that gathered data on employees’ health status.

The 71 companies who complied with all criteria represented a broad cross-section of industries and their employees showed an overall 50% compliance rate with the worksite wellness programs offered. The Discovery Healthy Company Index provided insights into current workplace practices and information on the health status of employees. It provided useful data to support employers’ efforts and may have encouraged greater employer adoption of onsite health promotion.

The Index is repeated every two years.
The UK workforce

In 2013 PruHealth, Discovery’s joint-venture partner in the UK, launched ‘Britain’s Healthiest Company’ to ascertain the burden of disease in the British workplace and the prevalence of lifestyle risk factors like smoking, poor diet, and lack of exercise.

The index is a partnership between PruHealth, RAND Europe, and the University of Cambridge. RAND Europe is an independent not-for-profit research institute whose mission is to help improve policy and decision-making through research and analysis. It is part of the global RAND Corporation, known for delivering high-quality and objective research and analysis for over 60 years. RAND Europe has an established relationship with the University of Cambridge and together they run a joint center for research into public health, the Cambridge Center for Health Services Research. Rand Europe and the University of Cambridge are undertaking and producing the research and analysis for Britain’s Healthiest Company.

This index was particularly relevant in the UK environment, where absenteeism is costing the economy more than £15 billion annually. The initiative also sought to understand how effective current workplace policies, facilities, and interventions were in engaging employees in their health and wellbeing, to benchmark the performance of participating companies, and expand the financial case for investing in employee health and wellbeing.

When comparing healthy employees with their unhealthy colleagues the survey revealed that unhealthy employees were 53% more likely to suffer from ‘presenteeism’ (working while sick and therefore less productively) and that employees with a Vitality Age four to five years older than their real age had absenteeism rates that were double those of their healthier colleagues. When that Vitality Age increased to nine or 10 years older, absenteeism rates increased to three times those of healthier employees. The cost of lost productivity was 32% lower for employees who were in good health compared to all other employees. Company leadership that engaged in the wellbeing of their staff impacted significantly on employees’ health and wellness; those who failed to promote workplace health policies were 25% less likely to have a healthy staff.

The 2012 Discovery Healthy Company Index revealed that of the employees surveyed:

- 50% have five or more risk factors outside healthy range
- 53% did not have their annual preventive health checks
- 43% were at an unhealthy weight (high body mass index or BMI)
- 34% had poor nutrition
- 68% did not meet recommended physical activity guidelines
- 92% had a Vitality Age higher than their actual age

A survey of 9 559 employees from 38 companies established that:

- 86% of British workers had an average *Vitality Age older than their real age (4.1 years)
- More than 1 in 5 employees was more than eight years older than their chronological age
- Nearly 1/3 of employees had three or more risk factors relating to poor lifestyle choices
- The biggest contributing factors for a higher Vitality Age were a lack of physical activity and being overweight

*Vitality Age

Vitality Age is a medically and actuarially interactive tool designed to measure risk-related age. It presents an individual’s health risk as years ‘lost’ or ‘gained’, relative to chronological age, because of unhealthy or healthy practices. Risk factors that impact Vitality Age include body mass index (BMI), smoking, physical activity, alcohol intake, dietary behavior, and more (see chapter 4).

PHOTOGRAPHY: SHUTTERSTOCK/CORBIS
“Experts examined research priorities, policy implications, and drivers of consumer behaviors that would enable sustainable food choices globally”
A green diet

Sustainable diets are those with low environmental impact that contribute to food and nutrition security and to a healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, are culturally acceptable and accessible, economically fair and affordable, nutritionally adequate, safe and healthy, while optimizing natural and human resources.

Safe, nutritious, and consistent food supplies for human consumption are placing significant strain on land, water, air, and other natural resources which puts the sustainability of that supply at risk. A better understanding of the food-environment synergies and trade-offs associated with the food system would help to reduce this strain, helping experts to develop dietary recommendations based on environmental as well as nutritional considerations.

But identifying and quantifying those synergies and trade-offs – and acting on them – is a challenge. Last year (2013), The Institute of Medicine’s (IOM’s) Food Forum and Roundtable on Environmental Health Sciences, Research, and Medicine in the US convened a workshop to explore the relationship between human health and the environment. Attended by scientists, medical, agricultural, and nutritional experts, the workshop also considered the role of food pricing and how environmental sustainability could be incorporated into dietary guidelines. They also examined research priorities, policy implications, and drivers of consumer behaviors that would enable sustainable food choices globally.

IN DELICATE BALANCE

Greater understanding of the relationship between what we eat and how it impacts our environment is needed to protect our natural resources and encourage healthier living.

10 billion
is the estimated size of the global population by 2050

900 million
people worldwide are hungry; 2 billion have micronutrient deficiencies, and 1.5 billion are overweight or obese

— Burlingame and Dernini, 2012

A green diet
Sustainable diets are those with low environmental impact that contribute to food and nutrition security and to a healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, are culturally acceptable and accessible, economically fair and affordable, nutritionally adequate, safe and healthy, while optimizing natural and human resources.
It’s not only our own health that is affected by the food we choose to eat, the health of the planet is also at stake. termed our “food footprint,” there are various factors that contribute to the impact our food has on the earth, how low on the food chain the food is, how much energy is used in its production, whether it’s organically grown or not, and how far it needs to travel to reach you. By understanding what goes into food production and consumption, we can be more aware of the link between food and environment is sustainability and make better (as well as healthier) choices.

12-24 billion pounds
of whole landed fish are needed to meet US population needs as per dietary recommendations – National Oceanic and Atmospheric Association (NOAA)

Portion sizes are 2-5 times bigger than they were 20 years ago

85% of the seafood consumed in the US is imported – NOAA

30-40% of food purchased in the US goes to waste

59% of calories produced globally are delivered to people as food; 36% are used as animal feed

16,000 varieties of rice used to be grown in Thailand; today only 37 varieties can be identified – Burlingame

123kg of meat is consumed by Americans per capita per year

Meat has a significantly greater environmental impact via greenhouse gas (GHG) emissions than other food groups but emissions from transportation and energy production are far higher. However, there is no doubt that reducing animal protein content in the diet will reduce GHG emissions, land use, and other environmental impacts. Meat accounts for 44% of US land used for food production. A 75% reduction in meat consumption would cut land use by 27%, water use by 31%, and GHG emissions by 46%, according to Emily Cassidy from the University of Minnesota. The land use implications of changing diets are complex and need more intensive study, particularly regarding ethical synergies and dilemmas.

Biodiversity plays a central role in food sustainability. The loss of agricultural biodiversity impacts micronutrient availability, even in countries where the quantity of food is sufficient and dietary energy supplies are adequate or more than adequate, micronutrient malnutrition remains a high-risk problem. Current global food supplies rely on very few crops to provide nutrients and dietary energy.

There are not enough fish in the sea. Current dietary recommendations for fish consumption may exceed US domestic fish production and overall global production does not meet global needs. Total global fish landings are estimated to be around 148 million metric tons per year but climate change is expected to shrink fish supplies by an additional 25%.

Food waste and loss is extremely high in many parts of the world. These losses represent a huge number of resources, including natural and human resources used to produce the food. Food is also wasted through overconsumption.

Dietary guidelines need revision, particularly if sustainability is to be included and more work should be directed toward how to communicate good choices within these guidelines. Efforts to market foods of minimal nutritional value currently far outweigh the promotion of wholesome food consumption.

Economic incentives can influence healthy food choices. Taxing unhealthy foods (processed) and discounting healthy foods can encourage consumers to shop differently.

Vitality’s HealthyFood Benefit in South Africa showed an increase of 5.7 - 8.5% in fruit and vegetable purchases and a decrease in purchases of processed sugary and fatty foods of 5.6 - 7.2% (Sturm et al, 2013). Studies by Vitality and the RAND Corporation found that a rebate was associated with a significantly greater intake of healthy foods. Compared to people who received no rebate, a 25% rebate on healthy foods was associated with an increase in daily fruit/vegetable intake by 21%.

Global collaboration is essential. No single country can do it alone, says Dr Derek Yach, senior vice president of The Vitality Group.
Towards a healthier nation

“The average South African child spends a large portion of the day sitting down, mostly due to the amount of time devoted to TV and mobile and computer technology”
Making cities fitter

In an effort to encourage greater levels of physical activity among South Africans, Discovery Vitality created the Vitality Fittest City Index – an initiative designed to increase awareness of the health benefits of exercise and to create an environment that encourages exercise. By comparing the fitness facilities in six major South African areas – Johannesburg, Ekurhuleni (East Rand), Tshwane (Pretoria), Cape Town, eThekwini (Durban), and Nelson Mandela Bay (Port Elizabeth) – and the fitness levels of their residents, the Vitality Fittest City Index hoped to generate healthy competition among these metropoles as a motivation for behavioral change.

Data for the Index was collated from reliable, publically available resources and research. Using this information, members of an advisory board comprising experts in public health, physical activity, urban planning, and environmental studies created an algorithm to determine the country’s fittest city.

AND THE WINNER WAS …

Cape Town, which had the highest number of fitness facilities including sports clubs, gyms, and recreational parks, was ranked as the Fittest City. Its public transport system, including a commuter belt bus service and designated cycle lanes, also contributed significantly to the fact that the city had the lowest car dependency of all cities surveyed.

HOW THE OTHERS RANKED

The citizens of Nelson Mandela Bay were active more often than most – participating in five or more days of moderate-intensity activity of at least 30 minutes each day – which pushed it into second place. Though it was fourth-ranked, eThekwini received special mention for the significant strides it has made in improving pedestrian and cyclist facilities along its beachfront and coastline. Walkers, joggers, and cyclists make daily use of eThekwini’s seafront promenade – a paved walkway linking a long stretch of coastline north to south. Water sports like kayaking, windsurfing, paddleskiing, snorkeling, and jetskiing are actively encouraged at Vetch’s pier, an artificial reef teeming with marine life.

The City of Johannesburg was praised for its adoption of a mass rapid transit railway linking the capital city of Tshwane with Johannesburg and the country’s busiest airport, OR Tambo International. The city’s Rea Vaya Bus Rapid Transit System was singled out for its variety of dedicated bus routes.

TOWARDS A HEALTHIER NATION

Non-communicable diseases (NCDs) kill 35 million people globally every year, placing a significant and growing burden on health care systems and economies. Declining rates of exercise and obesity are major contributing factors.

The overall results

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Better than national average ● Equal to national average ○ Worse than national average ●
Getting kids moving  

South African children don’t move enough and they eat too much sugar and fast food. This is contributing to the country’s growing obesity problem and researchers warn that as a result, this generation of children may have a shorter life expectancy than their parents.

To determine the extent of the problem, Vitality’s Healthy Active Kids South Africa Report Card 2014 reviewed the physical activity levels and nutritional status of South African children and youth, using published peer-reviewed literature, post-graduate theses and dissertations, and ‘grey’ literature from, for example, government reports within the last five years. Report Cards were also compiled in 2007 and 2010.

WHAT WE FOUND

Sugar intake is steadily increasing. Children and adolescents typically consume between 50g and 100g of sugar a day, with sweetened cold drinks contributing significantly. Children are also eating more fast food.

Up to 65% of South Africans buy fast food each month with more than two thirds of adolescents eating fast food at least three times a week.

The average South African child spends a large portion of the day sitting down, mostly due to the amount of time they devote to television and mobile and computer technology. Roughly 50% of children do not meet the recommendations for healthy exercise.

What is of particular concern is that the prevalence of obesity and overweight in adolescent boys has doubled and inactivity has risen measurably over a six-year period (2002-2008). Children’s exercise and eating patterns have either stayed the same or worsened in the last four years and there appears to be no improvement in decreasing fast food consumption.

It is time to engage parents and to mobilize communities towards better health for our children.

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**The scorecard**

| Overall physical activity levels | D |
| Organized sports participation | C |
| Government policies | B |
| Screen time and sedentary behavior | F |
| Overweight | D (down from C) |
| Sugar intake | D (down from C) |
| Fast food consumption | F |
| Overall score | D (down from C) |

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**Between 2007 - 2011 the number of South Africans purchasing fast food in a single month went up from 57% to 65%**

– Survey with large annual samples

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**Children aged 10 - 19 spent just over six hours per day in the classroom, doing homework, attending courses, and on education-related travel**

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**Children aged 10 - 19 spent on average just less than two hours per day socializing and 67 minutes listening to the radio**

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**Children aged 10 - 17 watched an average of nearly three hours a day of television**

– Survey of Time Use 2010

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**2 in 3 learners purchased sugar-sweetened beverages at least twice a week**

– Vitality Healthy Active Kids Report Card 2014
Our collaborators
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