

# How South Africa can beat its sugar-fuelled diabetes epidemic

November 28 2016, by Sundeep Ruder

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Four times as many people have Type II diabetes today as 36 years ago, [according to the World Health Organisation](#). In 1980, 108 million people were diagnosed with diabetes worldwide. By 2014, the figure was 422 million.

In South Africa, [7% of adults aged 21 to 79](#) – 3.85 million people – have [diabetes](#). A large proportion of these remain undiagnosed.

The global prevalence of adult diabetes has nearly doubled – and is rising more rapidly in middle- and low-income countries. Globally, about 1.5 million people died as a direct result of diabetes in 2012.

Diabetes is a major cause of blindness, kidney failure, heart attacks, stroke and lower limb amputation. Stringent glucose control has reduced some small-vessel complications such as blindness and kidney failure. The residual risk of large-vessel complications such as heart attacks and stroke remains high.

## Cause and effect

Excessive calorie consumption and sedentary lifestyles are the main contributors to the development of diabetes. Some people with a genetic predisposition to the disease are considered high risk, but it is largely preventable.

As South Africans become more urbanised, exposure to high-caloric, processed foods has increased, and rates of diabetes with it.

Being able to buy processed "food-like" products is often seen as a mark of personal and material success. Little attention is paid to having a healthy diet. Intense [advertising](#) campaigns by the beverage and "[food product](#)" industries exacerbate the problem.

An [abundance of evidence](#) links the intake of beverages high in sugar – like soft drinks and energy drinks – to a [high risk](#) of developing diabetes and obesity.

The average South African is unaware that a can of a cool drink typically [contains nearly 10 teaspoons of sugar](#). The World Health Organisation [recommends](#) that people not consume more than 12 teaspoons of added sugar per day. Keeping the daily intake under six teaspoons has further health benefits.

Lifestyles have become more sedentary and work environments are not conducive to physical activity. Patients often quote crime, road safety concerns and poorly maintained parks and recreational areas as reasons for not exercising outdoors.

The South African government has taken a great interest in non-communicable diseases. But its focus is on tuberculosis and HIV, which have individual budget allocations. Diabetes is under the general non-communicable diseases [budget](#). Non-governmental organisations receive little to no funding for diabetes education, prevention or supplies.

## **The challenges with treatment**

The health system offers comprehensive services for [diabetes care](#) and prevention. But these are not universally implemented, possibly due to

lack of funds or maladministration.

As a result, the quality of treatment is poor. Drug shortages are common in the public sector. Newer therapies with fewer side effects have yet to make it into this sector.

A further problem is the high cost of treatments in both the private and public sectors. The health care system covers 50% to 80% of the cost.

Self-management education is limited and the role of diabetic nurse educators is underplayed. There are no specialised services for vulnerable population groups.

## **Modifying the present to change the future**

The complexities of the epidemic require a multipronged response.

Those diagnosed with diabetes need nothing short of the best available health care. That includes patient education to improve their lifestyle: eating well, exercising and not smoking or drinking.

Screening rates need to be increased to detect the undiagnosed. [Multiple studies](#) show that early detection and treatment can offer a normal quality of life by reducing complications and death. Screening for complications such as diabetic eye disease should be done regularly.

The government also needs to review the dietary guidelines in line with emerging evidence that previous guidelines were manipulated by industry. In the developed world, several countries have introduced low-carb diets based on new [evidence](#). South Africa is yet to catch up.

Secondly, healthcare facilities have to be improved and medical practitioners provided with the resources they need to provide the

correct assessments and treatment.

Great strides have been made in developing new treatments. Two drugs, [liraglutide](#) and [empagliflozin](#), have shown life-saving benefits of reduced cardiovascular risk and a favourable side-effect profile. Other drugs from these classes (Incretins and SGLT2 inhibitors) help manage diabetes effectively but have yet to show cardiovascular benefit. These newer agents also reduce weight and lower the risk of hypoglycemia as a side effect.

New oral agents such as DPP 4 inhibitors combined with existing treatments such as metformin allow for minimal to no risk of hypoglycemia. This makes them ideal for prescription by nurses at primary health clinics as first and second line treatments.

Insulin technology has evolved too, which may help patients achieve diabetic targets. Newer insulins require less frequent injections and monitoring and lower the risk of low blood glucose.

The [Society for Endocrinology, Metabolism and Diabetes of South Africa](#) is set to release new evidence-based treatment guidelines early in 2017.

These will guide health practitioners, inform patients and be a useful tool to teach medical undergraduate and postgraduate students. The guidelines will contain individualised approaches to treat the diverse diabetic population and allow for evolution in treatments.

Currently, we are engaged in an industrialised version of medical practice that focuses on treatment. While this is life-saving and essential, anyone experienced in the field of diabetes understands the [benefit of preventing](#) the epidemic altogether.

The structural [urban environment challenges](#) require government action. Also, better funding and specialist training in the field of diabetes are needed. Centres of excellence in diabetes with an emphasis on research and promotion of local scientists and diabetes nurse educators are essential.

Issues of food and agriculture also demand attention. Farming techniques to produce real food at cheaper costs must be developed. The promotion and protection of current farmers and development of skilled new farmers should be part of the preventative health discussion.

Advocacy groups such as the [Healthy Living Alliance](#) are emerging. Civil rights associations are also getting involved in the conversation. These, together with public health entities such as [Priceless SA](#), require support and [funding](#).

The imminent sugar tax is a step in the right direction towards reducing consumption of sugar-sweetened beverages.

The tax revenue could be used to improve [health care facilities](#) and the stock and distribution of [diabetes drugs](#). It could also be directed to organisations working to improve the country's diabetes landscape.

Prevention and early treatment of diabetes will result in enormous [economic benefits](#). These include not just the savings on the costs of treatment, complications and disability, but also the economic growth generated by a healthy working population.

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