

Weighing up the costs of treating lifestyle diseases in South Africa

Economic growth, accompanied by a fall in infectious diseases over the past two decades, has changed the profile of the biggest [threats](#) to the health of people living in low and middle-income countries.



Salty and fatty foods are driving up obesity. Shutterstock

At the turn of the century, the greatest threats were posed by [infectious diseases](#) like diarrhoea, pneumonia, tuberculosis, and HIV. Today, the biggest threats are posed by so-called [“diseases of lifestyle”](#). These include diabetes (high blood sugar), hypertension (high blood pressure), and hypercholesterolaemia (high cholesterol), which have been slowly and quietly rising around the world.

While diabetes, hypertension and [hypercholesterolaemia](#) often don't cause symptoms, they have debilitating and deathly consequences which can include heart attacks, angina, heart failure, amputation, stroke, kidney disease, and blindness. These are now the most common causes of death and disability in many low and middle-income countries. But unlike many infectious diseases, there's no course of antibiotics to treat them.

Obesity and lack of activity contribute to the rise of diabetes, hypertension, and hypercholesterolaemia. These are driven, in turn, by lifestyle changes, often biased towards foods that are convenient (sugary and fatty) and jobs that require less physical activity.

Strong policies are desperately needed to alter the environment to promote physical activity and prevent obesity. But there's also a need to treat people who already have diabetes, hypertension, and hypercholesterolaemia– which are largely without symptoms – to try to prevent their consequences.

Unfortunately, [access to care](#) for people with these conditions is poor in many low and middle-income countries. South Africa is no exception. In our [research](#) we set out to establish who suffers from these conditions, who has access to care and what the consequences would be if the access to care didn't change. We also wanted to establish what the cost savings would be for the South African government if access to care improved.

After analysing our findings in relation to these questions, we concluded that South Africa should invest in care for treating diabetes, hypertension, and hypercholesterolaemia. This will, in the long run, save the country a lot of money.

Managing risks versus treating the diseases

As far as deathly and debilitating consequences are concerned, we found that poorer black men were at high risk and they had the worst access to care.

Overall, only 50.4% of people in the study community with hypertension were treated to acceptable levels. Just under 9% were treated adequately for diabetes and less than 1% for high cholesterol.

We estimated that if access to care continued at current levels, premature deaths due to cardiovascular conditions would be around 40 per 1000 people annually. Although HIV still causes the greatest percentage of premature deaths in South Africa, diabetes, stroke, and heart attacks are all in the top 10 causes, with diabetes rapidly rising through the ranks. More of these deaths would occur among those who are poor, black and male. There is also substantial risk for blindness and kidney disease.

We further estimated that the cost of treating all of these deathly and disabling consequences of diabetes, hypertension, and hypercholesterolaemia would be \$34.2 billion a year. That's roughly 10% of South Africa's GDP in 2017.

We also found that if access to care for diabetes, hypertension, and hypercholesterolaemia was improved to levels seen in the UK or Germany, deaths and disability would be reduced. The benefits would also be seen among people who currently lack access to care, such as poor, black men.

If people are sceptical of South Africa's ability to achieve access to care at the same level as the UK or Germany, it may be reassuring to note that [Cuba](#) has managed to achieve these levels of access to care.

In addition to determining the costs of treating consequences of diabetes, hypertension, and hypercholesterolaemia, we calculated what it would cost to treat these conditions by improving access to care and implementing locally appropriate guidelines. We used two guidelines for our estimates: the World Health Organisation's (WHO) [Package of Non-Communicable Disease Interventions](#), and the locally developed [South Africa Primary Care 101 Guidelines](#).

We found that it was cheaper to improve access to – and treat these conditions – using either guideline than to stick with current levels of access and care and suffer the consequent diseases. In fact, implementing the WHO guidelines would save around US\$125,000 per 1000 people and US\$185,000 with South Africa's guidelines. The local guidelines are more cost effective. They are also more equitable, with better improvements in treatment and reduction of risk in black people, men, and those who are poorer.

What needs to be done

Even though we have shown that rolling out the guidelines would save costs in the longer term, there still needs to be substantial investment in building programmes for treatment in the short term. And there needs to be monitoring and evaluation to ensure the guidelines are correctly implemented.

The balance is tipped in favour of widescale implementation of the guidelines because they are likely to lead to the well-being of individual patients. This would include reductions in death and disability, and improved equity, quality of life and accompanying cost savings.

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