

Urgency for South Africa to prioritise cardiovascular disease management



Over the past few decades, the burden of high blood pressure has shifted from high-income to low-income and middle-income countries, including sub-Saharan Africa.¹ Raised blood pressure is accompanied by rising obesity trends, with 68% of South African women and 31% of men being overweight or obese.² In South Africa, the age-standardised death rates for non-communicable diseases (NCDs) are now higher than those of HIV/AIDS and tuberculosis combined,^{3,4} with cardiovascular disease being the leading category of NCDs.

Despite this reality, South Africa faces a balancing act. As the country with the highest burden of HIV/AIDS, most health-care spending remains directed towards antiretroviral treatment, with limited finances available for NCDs, especially in primary health care. South Africa has therefore implemented an ambitious strategic plan to decrease premature mortality from NCDs by 25% by 2020.⁵ Population-based strategies to prevent NCDs are progressive and include legislation for the reduction of sodium in processed foods, taxation of sugar-sweetened beverages and alcohol, and continued tightening of anti-tobacco regulations.

The crucial point, however, is individual-level strategies within the primary health-care sector where the detection, treatment, and control of cardiovascular disease risk factors should take place. In *The Lancet Global Health*, Sanjay Basu and colleagues⁶ present a timely analysis on the implications of scaling up treatment of cardiovascular disease in South Africa. They base their analyses on risk factor statistics and treatment levels reported in the national 2012 SANHANES study, applying these data to create a demographically representative simulated population using the most recent census data (ie, 2011) and population projections. Unsurprisingly, they find cardiovascular risk factors to be common and disproportionate among socioeconomically disadvantaged populations and emphasise that targeting antihypertensive and statin treatment might need to be prioritised over blood glucose therapies. Importantly, Basu and colleagues emphasise that disadvantaged populations could disproportionately

benefit from assertive treatment, as embodied by two alternative treatment guidelines: the WHO's package of essential non-communicable disease interventions (PEN) and South Africa's Primary Care 101 (SA PC 101) guidelines. A multicentre study⁷ on primary care in South Africa, including 18 856 consultations, showed that primary care is dominated by NCDs, with hypertension being the leading reason to attend primary care as well as the most common diagnosis. HIV ranked third. Furthermore, the vast majority of patients were seen by nurses.⁷ The importance of scaling up not only treatment of hypertension and dyslipidaemia⁶ but also training of nurses on the correct measurement and aggressive management of NCDs seems paramount. By investing in active detection, prevention, and control of cardiovascular diseases, large-scale health-care expenses on hospitalisations could be averted.

In their simulated population, Basu and colleagues⁶ evaluate possible treatment recommendations as per the WHO PEN and SA PC 101 guidelines. They show that with current treatment levels, South Africans experience a burden of 40 DALYs (95% CI 29.5–52.0) per 1000 people per year, but if the SA PC 101 guidelines were implemented, these DALYs would lower to 32.5 (24.4–44.8), thereby saving almost US\$25 000 per DALY averted.⁶ The simulation, however, is based on the SANHANES treatment and control rates for hypertension of 71.4% and 70.6%, respectively, which differ substantially from other reports from SANHANES (22.4% and 8.9%, respectively)⁸ and the South African Demographic and Health Survey 2016 (control of 9.2% in women and 5.5% in men).² Notwithstanding this discrepancy, Basu and colleagues show that the cost-effectiveness of blood pressure and lipid therapies become more pronounced at lower levels of baseline treatment.

To conclude, more aggressive approaches are required to manage NCDs in South Africa and other developing countries. These include scaling up treatment of hypertension and dyslipidaemia and empowering nurses by effective training on NCD management. The 2018 European Hypertension Guidelines⁹ reiterate these

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actions as new concepts. The guidelines firstly suggest aggressive treatment of hypertension—namely the preferred use of a single-pill, two-drug combination therapy for the initial treatment of most people with hypertension. This should substantially improve blood pressure control. The guidelines also recognise the key role of nurses in the long-term management of hypertension.

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