



Obesity is South Africa's new HIV epidemic

World Obesity Day is on 4 March 2024, and our nation needs to pay attention. As with the HIV epidemic in the 1990s, we are facing a calamitous threat to the health of the population that has been ignored for too long. Weight-related diseases have eclipsed tuberculosis (TB) and HIV as leading causes of morbidity and mortality. Over two-thirds of South African (SA) women are overweight or are living with obesity.^[1] For example, type 2 diabetes, stroke and heart disease, conditions all directly linked to the disease of obesity, account for three of the top four causes of death nationally and incur massive health system costs.^[2,3] Moreover, excess weight gain has deleterious effects far beyond cardiovascular disease risk, with evidence strongly linking it to poor pregnancy outcomes, cancer, liver and kidney disease, mental illness, and sleep disorders.^[4,5]

As with HIV in the early 2000s, tools to prevent and treat obesity are available, but too often are being ignored or obfuscated through government inaction, industry interests, and societal inertia. Also, as with HIV, SA has waited too long to convert effective interventions into effective public health strategy. Instead, we remain trapped in a cycle of apathy while blaming and stigmatising those affected.

The medical establishment has not always been an ally in combating the obesity health emergency.^[6] A poor understanding of the physiology of the disease, the endocrinological complexity of fat tissue, and the contribution of diet and exercise to weight gain has led healthcare providers to preach the common refrain of 'eat less and move more'. This serves to further perpetuate shame and stigma for those with the disease, even as it is now well understood to be ineffective alone for most of those affected.^[7] Unsuitable weight loss advice contributes to confusion and anxiety for individuals with obesity, and in turn allows a *diet, exercise and supplement industrial complex* to thrive with minimal regulation.^[8]

But it is not too late for SA to implement an effective response to this established disease crisis. There are two important next steps. First, to apply the lessons from the HIV epidemic to reduce obesity-related stigma and facilitate widespread access to novel anti-obesity therapies using a public health approach; and second, to establish robust advocacy efforts that ensure that structural determinants of the disease, including food supply and the built environment, promote, rather than undermine, health.

Much as combination therapy was a game changer for the HIV response, modern obesity medicine has demonstrated that novel medications and/or surgery are critical elements to achieve sustained weight loss and improved health outcomes.^[9] For example, new classes of medications, such as the glucagon-like peptide (GLP)-1 receptor agonists, effectively control the disease, improve glycaemic control and reduce cardiovascular events, but are currently prohibitively expensive, prone to massive repeated supply shortages, and unavailable from state clinics and most medical aids.^[9,10] SA is uniquely positioned to build upon the success of HIV and TB programmes to change this situation, by including simplification of access alongside generic manufacture at scale to facilitate price reduction. Notably, these interventions do not conflict with lifestyle recommendations, with recent evidence suggesting greater efficacy when these drugs are used in combination with lifestyle changes.^[11] The Standard Treatment Guidelines and Essential Medicines List currently contains no approach to the disease of obesity, and medication and surgical approaches were removed from the 2023 National Obesity Strategy, which barely mentions treatment, apparently owing to cost.^[12]

Obesity science is also teaching us how biomedical interventions are unlikely to be sufficient to tackle this epidemic alone. The obesogenic environment – structural societal conditions including both our food system and our built environment – is an important driver of the rise in obesity levels in the past 40 years in SA and elsewhere.^[13-15] For example, the introduction of ubiquitous, cheap, highly and ultra-processed food and sugar-sweetened beverages, offered in slick venues and spaza shops accompanied by marketing campaigns often aimed at children, alongside a built environment that hinders sufficient physical activity, are major driving forces.^[13,14,16] Focusing on our food supply, facilitating access to a diversity of affordable fresh, healthy, unprocessed food and the means to prepare it, and ensuring that the public is aware of the dangers of highly processed and ultra-processed food, is a necessary step.^[17] It is highly unlikely that these systematic changes will be possible without firm government and regulatory intervention. Profit margins on heavily processed goods are far higher than on their less packaged counterparts, and powerfully resourced industries oppose such action, including opposition to even the most tentative steps around regulating sugary drinks and, more recently, promotion of food labelling.^[12,18-20] One chilling difference from HIV is that the viral vector did not have a massive unregulated marketing machine behind it. Distressingly, there has been little sign of urgency on the part of government to take up the issue of food advertising, quality and affordability, and some of these industries clearly have the ear of senior officials, as in other countries.^[18]

Debates on where to focus resources, programming, and attention on the prevention or treatment of clinical obesity are also reminiscent of the early HIV epidemic. Then, many prevention advocates regarded people with HIV as sad casualties of failed prevention programmes, too expensive and complex to treat. The language 'medicalising a social problem' has similarly started to creep into the discourse about obesity and its management, occasionally with a moral touch of 'they brought it on themselves'.^[7] Allowing this language to persist would be a dreadful mistake. To destigmatise obesity, and effectively combat the obesity epidemic, it will be important to maximise the use of all prevention and treatment strategies simultaneously. The activist and medical communities were critical in advocating for the introduction of antiretroviral drugs and provision of healthcare that allowed individuals with HIV to live healthy, productive lives. We think that we have a moral imperative to advocate just as vigorously for individuals with obesity (Table 1).

It is past time for our government and medical community to develop a laser-like focus on responding to the disease of obesity. Doing this will require policy, legislation, programming, and funding actions that will both facilitate access to innovative medical tools for obesity and deliver these in an environment that promotes healthy food choices and active lifestyles accessible to all. SA's HIV programme is often held up as *the* global model, thanks to decades of health activism, community engagement and science-based policy, along with government resources and commitment. Our established obesity epidemic now demands the same energy, commitment and focus from all of us.

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Table 1. Proposed approaches to address the obesity epidemic in SA

Adopt strategies to address food supply healthfulness, affordability, advertising and labelling

- Strengthen front-of-package warning label legislation
- Increase sugar-sweetened beverage tax to meet WHO recommendation (20%)
- Assess additional ‘sin tax’ approaches to fast food and all foods with a front-of-package label (e.g. ‘polluters pay’ approaches), and ensure that these benefit the ‘harmed’ population
- Regulate importation of ultra-processed foods further into the SA market
- Limit direct-to-consumer advertising by Big Food to youth
- Ban sale of ultra-processed or highly processed foods/sugary drinks at schools
- Subsidise production and distribution of healthy and unprocessed foods
- Address ‘food deserts’ through thoughtful policy and incentives

Advance a public health approach to weight management

- Establish national obesity indicators and regularly assess progress, including monitoring and responding to food deserts where unprocessed food is unavailable and/or unaffordable
- Ensure that school food programmes are prioritised within education budgets, and healthy
- Establish primary care models of integrated holistic cardiometabolic healthcare
- Engage communities in design of primary care models of obesity care
- Establish a national research programme to address SA’s questions, priorities, and data gaps pertaining to the obesity crisis, that includes establishing better biomarkers and risk predictors beyond the BMI

Promote accessibility and affordability of clinical interventions to support weight management

- Propose and regularly update evidence-based guidelines for obesity management
- Specify an appropriate mix of medical and surgical interventions for public/private sectors in guidelines (prescribed minimum benefits)
- Include appropriate AOMs in the national formulary
- Promote generic manufacture of AOMs at scale
- Simplify AOM access requirements

Address the built environment to promote increased levels of physical activity

- Improve security and safety in communities to enable physical activity
- Propose city planning guidelines to ensure adequate safe public parks and spaces to promote physical activity for leisure and commuting
- Increase school-based physical activity programming
- Promote employer-based physical activity standards and/or incentives, including subsidised gym membership, equipment, bicycles

Intervene for stigma reduction, community awareness and health professional education

- Address cultural norms around ‘normal’ weight and body/health perceptions that may incentivise/disincentivise weight interventions, through education and advertising campaigns/public service announcements
- Support civil society initiatives that educate communities regarding food choices, stigma reduction
- Mandate healthcare provider continuing health professional curricula for obesity stigma reduction
- Regulate Big Food’s involvement and influences on health professionals’ attitudes to healthy lifestyles by banning contributions to conferences, research funding, educational activities

SA = South Africa; WHO = World Health Organization; BMI = body mass index; AOMs = anti-obesity medications.

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- National Department of Health, Statistics South Africa, South African Medical Research Council, and ICF. South Africa Demographic and Health Survey 2016: Key findings. Pretoria, South Africa, and Rockville, Md, USA: NDoH, Stats SA, SAMRC, and ICF; 2018. <https://www.dhsprogram.com/pubs/pdf/SR248/SR248.pdf> (accessed 19 February 2024).
- Boachie MK, Tshela E, Immurana M, Kohli-Lynch C, Hofman KJ. Estimating the healthcare cost of overweight and obesity in South Africa. *Glob Health Action* 2022;15(1):2045092. <https://doi.org/10.1080/16549716.2022.2045092>
- Statistics South Africa. Mortality and causes of death in South Africa: Findings from death notification, 2018. Statistical release P0309.3. Pretoria: Stats SA, 2021. <http://www.statssa.gov.za/publications/P03093/P030932018.pdf> (accessed 19 February 2024).
- Dai H, Alsalhe TA, Chalghaf N, Ricco M, Bragazzi NL, Wu J. The global burden of disease attributable to high body mass index in 195 countries and territories, 1990-2017: An analysis of the Global Burden of Disease Study. *PLoS Med* 2020;17(7):e1003198. <https://doi.org/10.1371/journal.pmed.1003198>
- Larsson SC, Burgess S. Causal role of high body mass index in multiple chronic diseases: A systematic review and meta-analysis of Mendelian randomisation studies. *BMC Med* 2021;19(1):320. <https://doi.org/10.1186/s12916-021-02188-x>
- Cummings DE, Rubino F. Obesity: What's in a word? *Lancet Diabetes Endocrinol* 2021;9(7):408-409. [https://doi.org/10.1016/S2213-8587\(21\)00122-4](https://doi.org/10.1016/S2213-8587(21)00122-4)
- Rubino F, Puhl RM, Cummings DE, et al. Joint international consensus statement for ending stigma of obesity. *Nat Med* 2020;26(4):485-497. <https://doi.org/10.1038/s41591-020-0803-x>
- Batterham RL. Switching the focus from weight to health: Canada's adult obesity practice guideline set a new standard for obesity management. *EclinicalMedicine* 2020;31:100636. <https://doi.org/10.1016/j.eclinm.2020.100636>
- Perdomo CM, Cohen RV, Sumithran P, Clement K, Fruhbeck G. Contemporary medical, device, and surgical therapies for obesity in adults. *Lancet* 2023;401(10382):1116-1130. [https://doi.org/10.1016/S0140-6736\(22\)02403-5](https://doi.org/10.1016/S0140-6736(22)02403-5)
- Levi J, Wang J, Venter F, Hill A. Estimated minimum prices and lowest available national prices for antiobesity medications: Improving affordability and access to treatment. *Obesity (Silver Spring)* 2023;31(5):1270-1279. <https://doi.org/10.1002/oby.23725>
- Lundgren JR, Janus C, Jensen SBK, et al. Healthy weight loss maintenance with exercise, liraglutide, or both combined. *N Engl J Med* 2021;384(18):1719-1730. <https://doi.org/10.1056/NEJMoa2028198>
- National Department of Health, South Africa. Strategy for the prevention and management of obesity in South Africa, 2023-2028. Pretoria: NDoH, 2023. https://www.health.gov.za/wp-content/uploads/2023/05/Obesity-Strategy-2023-2028_Final_Approved.pdf (accessed 19 February 2024).
- Dicken SJ, Batterham RL. Ultra-processed food: A global problem requiring a global solution. *Lancet Diabetes Endocrinol* 2022;10(10):691-694. [https://doi.org/10.1016/S2213-8587\(22\)00248-0](https://doi.org/10.1016/S2213-8587(22)00248-0)
- Swinburn BA, Sacks G, Hall KD, et al. The global obesity pandemic: Shaped by global drivers and local environments. *Lancet* 2011;378(9793):804-814. [https://doi.org/10.1016/S0140-6736\(11\)60813-1](https://doi.org/10.1016/S0140-6736(11)60813-1)
- Eisenberg MJ, Atallah R, Grandi SM, Windle SB, Berry EM. Legislative approaches to tackling the obesity epidemic. *CMAJ* 2011;183(13):1496-1500. <https://doi.org/10.1503/cmaj.101522>
- He Z GB, Yaya S, Cheng Z, Zhou Y. Perceived neighborhood safety and exercise behavior among community dwellers in Gauteng, South Africa. *Medicine (Baltimore)* 2020;99(51):e23552. <https://doi.org/10.1097/MD.00000000000023552>
- Vermeulen H. A balanced food basket approach to monitor food affordability in South Africa. PhD thesis. Pretoria: University of Pretoria, 2020. https://www.repository.up.ac.za/bitstream/handle/2263/73175/Vermeulen_Balanced_2020.pdf?sequence=1 (accessed 19 February 2024).
- Mulrenan C, Jenner K, Knai C. Tackling the obesity epidemic. *BMJ* 2023;381:1072. <https://doi.org/10.1136/bmj.p1072>
- Delobelle P. Big tobacco, alcohol, and food and NCDs in LMICs: An inconvenient truth and call to action. Comment on 'Addressing NCDs: Challenges from industry market promotion and interferences'. *Int J Health Policy Manag* 2019;8(12):727-731. <https://doi.org/10.15171/ijhpm.2019.74>
- Du M, Tugendhaft A, Erze A, Hofman KJ. Sugar-sweetened beverage taxes: Industry response and tactics. *Yale J Biol Med* 2018;91(2):185-190.

S Afr Med J 2024;114(3):e1927. <https://doi.org/10.7196/SAMJ.2024.v114i3.1927>