

Empowering healthy food and beverage choices in the workplace

A Tugendhaft^{1,2} and KJ Hofman^{1,2}

¹ School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa

² PRICELESS-SA, MRC/Wits Rural Public, Health and Health Transitions Research Unit, School of Public Health, University of the Witwatersrand, Johannesburg, South Africa

Correspondence: Prof. Karen J Hofman, School of Public Health, Office 231, 2nd floor, Wits Education Campus, 27 St Andrews Road, Parktown, Johannesburg, South Africa, 2193. e-mail: Karen.Hofman@wits.ac.za

ABSTRACT

The prevalence of obesity in South Africa has risen alongside the growth in consumption of sugar sweetened beverages (SSBs). This escalation in obesity places the population at greater risk for non-communicable diseases, and is increasing employee absenteeism and turnover and decreasing productivity in the workplace. Research shows that reducing SSBs will significantly impact the prevalence of obesity and its related diseases. Fiscal and legislative levers are one way of addressing SSB consumption and obesity. Worksite interventions are a complementary nudge to create healthier social norms for eating.

Keywords: obesity, non-communicable diseases, sugar sweetened beverages, worksite interventions, South Africa

BACKGROUND

Obesity in South Africa has grown over the last 30 years and the country is now considered the most obese in sub-Saharan Africa. Over half of the country's adults are now overweight and obese with 42% of women and 13% of men obese.¹

As a heavier nation, we are at increased risk for non-communicable diseases (NCDs), including cardiovascular disease, type 2 diabetes and cancer, which together account for 27% of all deaths in the country,² almost equating to the mortality from HIV/AIDS and TB. Obesity is also associated with joint problems, arthritis and back pain.³

NCDs shorten our life spans and affect the quality of our lives from stroke, blindness, amputations and kidney failure, among others. These deaths and disabilities place a major financial strain on individuals, families and employers. In South Africa, even moderate obesity is associated with an 11% increase in healthcare costs, and severe obesity with a 23% increase.⁴ Obesity and its associated diseases and ailments are impacting the workplace negatively by increasing turnover, absenteeism and worker compensation claims, and decreasing productivity.⁵ In 2012 it was estimated that premature employee deaths related to cardiovascular disease resulted in losses of R15 billion and 132 million workdays per annum in South Africa. In addition, over R20 billion is lost due to absenteeism and lower productivity due to illness and disability.⁶ Obese employees are costing their companies 50% more in paid time off work than their non-obese colleagues.⁷ Beyond these costs to companies, there are additional negative consequences for employees, including obesity discrimination in the workplace. This can manifest in reduced salary offerings and decreased likelihood of selecting

an obese candidate, particularly for women.⁸ Furthermore, life insurance companies are increasing their premiums for obese clients, which may impact on both employers and employees of group insurance schemes.⁹

OBESITY AND SUGAR SWEETENED BEVERAGES

One major component of weight gain is excess sugar consumption. The escalating obesity in South Africa has occurred in conjunction with urbanisation and increase in sales of sugar sweetened beverages (SSBs) and high caloric energy dense foods.¹⁰ While SSBs are not the only reason for an increase in adiposity, they have a high sugar content and no nutritional value nor any impact on satiety.¹¹ Drinking just one SSB a day increases the likelihood of being overweight by 27% for adults and by 55% for children.¹² This is not surprising, considering that one 330 ml serving of a carbonated sweetened drink contains an average of eight teaspoons of sugar and the same size fruit juice contains an average of nine teaspoons of sugar. In some cases, simply consuming more sugar places individuals at greater risk for NCDs, even in the absence of weight gain.

The Minister of Health, Dr Aaron Motsoaledi, has mentioned the need for regulation for foods high in sugar in order to address obesity and its related diseases. One such regulation may include a tax on SSBs, as has already been implemented in other countries.¹³⁻¹⁶ The South African National Strategic Plan for the Prevention and Control of Non-Communicable Diseases 2013-2017 lists taxes on foods high in sugar as one potential "best buy" for addressing diet and obesity.²

PRICELESS SA RESEARCH ON 20% TAX ON SSBs

The PRICELESS SA (Priority Cost Effective Lesson for System Strengthening, South Africa) programme at the University of the Witwatersrand School of Public Health is focused on “best buys” for health. One area of research is the economic and health impact of legislative and fiscal policies to improve nutrition in South Africa. In August 2014, PRICELESS published a paper in PLOS ONE entitled *The potential impact of a 20% tax on sugar-sweetened beverages on obesity in South African adults: A mathematical model*.¹⁷ The South African Declaration on the Prevention and Control of NCDs commits to “reducing by 10% the percentage of people who are obese and/or overweight by 2020”. A 20% SSB tax would contribute towards achieving this target by 25%, with the number of obese adults decreasing by 220 000 over three years.¹⁷

OBESITY AND WORKSITE INTERVENTIONS

Another “best buy” identified in the South African NCD Strategic Plan is worksite interventions.² Due to the fact that employees spend approximately 60% of their waking hours at the workplace, worksite programmes to address obesity could have a significant impact on the adult population and, by extension, on their families.

Employee wellness programmes (EWPs) have been in existence in South Africa since the 1980s after being instituted by the Chamber of Mines, and have grown over the last three decades.⁵ They are now a component of most large businesses but in many small businesses (fewer than 1000 employees) they do not exist. Many of the EWPs incorporate annual body mass index (BMI) and blood sugar screening as well as some type of weight management and nutrition counselling. EWPs that are proactive and focus on prevention provide a greater return on investment. This is realised through decreased absenteeism, healthier and more productive employees, and lower staff turnover.⁵ EWPs accompanied by broader worksite interventions can foster a health conscious work environment.

Food and beverage choices are shaped by availability, price and marketing, as well as awareness of the impact of the products. The workplace is a setting in which all these factors can relatively easily be addressed. Examples of specific measures that could complement a potential SSB tax to reduce SSB consumption and encourage healthy lifestyles within the workplace are listed in Box 1.

In addition, the soda industry has some healthy alternatives available which have the potential to replace SSBs, and which are being marketed more heavily in Europe and North America than in South Africa. The freedom to consume sugar in excess will lead to an increase in lifestyle diseases accompanied by higher turnover and absenteeism in the workplace as well an increase

BOX 1. EXAMPLES OF WORKSITE INTERVENTIONS TO REDUCE SSB CONSUMPTION

1. Provide nutritional information about food and beverages in vending machines and worksite cafeterias.
2. Ensure the availability of healthier and affordable options in vending machines and worksite cafeterias.
3. Provide incentives to encourage healthy food and beverage choices at worksite cafeterias (e.g. two for the price of one).
4. Ensure that safe drinking water is available and served at meetings and events.

in healthcare spending, supported by the South African taxpayer.

It is the responsibility of the government to protect the health of its population through regulations that nudge people to make healthier and more sustainable choices. One of these is an SSB tax which has the potential to prevent obesity-related diseases as one component of a multifaceted strategy. Worksite interventions are a further nudge to create healthier

On-site Occupational Health X-rays



ON-SITE OCCUPATIONAL HEALTH X-RAYS



Level 5 BBBEE contributing company

For mobile services please contact
Adri Martin: 083 627 3111/083 310 5523
Margot Ferreira: 083 237 0923.
Witbank office: 013 656 5426
Durban office: 083 310 5523
Richards Bay office: 035 797 3780
Fax: 086 618 1988
e-mail: a3@yebo.co.za / margot@osohxrays.co.za
www.osohxrays.co.za

Regions: Gauteng, Mpumalanga, Cape Town, Eastern & Western Cape, Free State, KwaZulu-Natal, Northern Province and neighbouring countries

**For all your mobile chest X-ray requirements.
All our X-rays are digital.**

social norms around diet and eating patterns. Considering that a large proportion of the day is spent at work and that eating is controlled more by the environment than the individual,¹⁸ the workplace is a crucial setting for obesity- prevention strategies. If designed appropriately, worksite interventions have the potential to contribute significantly to developing an enabling environment for behaviour change, and to creating a society that endorses healthy food and beverage choices.

FUNDING SUPPORT

PRICELESS SA is funded by the South Africa Medical Research Council; grant fund number D1305910-01. This research project on SSB taxes was funded by the IDRC - International Development Research Centre, Canada; grant fund number PROP020911E.

CONFLICT OF INTEREST

The authors declare no conflict of interest in the work published here.



AUTHORSHIP

Both authors contributed to the conceptualisation, drafting and editing of this manuscript and have approved final text.

REFERENCES

1. Ng M, Fleming T, Robinson M, Thomson B, Graetz N, Margono C, et al. Global, regional, and national prevalence of overweight and obesity in children and adults during 1980-2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet*. 2014; 384(9945):766-781.
2. National Department of Health. Strategic Plan for the Prevention and Control of Non-Communicable Diseases 2013-17. Pretoria, South Africa: NDOH; 2013.
3. Bartlett S. Role of Body Weight in Osteoarthritis 2012. Available at: <http://www.hopkinsarthritis.org/patient-corner/disease-management/role-of-body-weight-in-osteoarthritis/> (accessed 2 Sep 2014).
4. Sturm R, An R, Maroba J, Patel D. The effects of obesity, smoking, and excessive alcohol intake on healthcare expenditure in a comprehensive medical scheme. *S Afr Med J*. 2013; 103(11):840-844.
5. Sieberhagen C, Pienaar J, Els C. Management of employee wellness in South Africa: Employer, service provider and union perspectives. *SA Journal of Human Resource Management*. 2011; 9(1): DOI: 10.4102/sajhrm.v9i1.305.
6. Regenesys Business School. Scary corporate wellness statistics. 16 Jul 2012. Available at: <http://regenesys.co.za/2012/07/scary-corporate-wellness-statistics/> (accessed 1 Sep 2014).
7. Van Nuys K, Globe D, Ng-Mak D, Cheung H, Sullivan J, Goldman D. The Association Between Employee Obesity and Employer Costs: Evidence From a Panel of U.S. Employers. *Am J Health Promot*. 2014; 28(5):277-285.
8. O'Brien K, Latner J, Ebneter D, Hunter J. Obesity discrimination: the role of physical appearance, personal ideology, and anti-fat prejudice. *Int J Obes*. 2012; 37:455-460.
9. Altrisk. Obesity a growing concern for insurers 31 August 2012. Available at: <http://www.fanews.co.za/article/life-insurance/9/general/1202/obesity-a-growing-concern-for-insurers/12466> (accessed 29 August 2014).
10. Igumbor EU, Sanders D, Puoane TR, Tsolekile L, Schwarz C, Purdy C, et al. "Big food," the consumer food environment, health, and the policy response in South Africa. *PLoS Medicine*. 2012; 9(7):e1001253.
11. Hu FB, Malik VS. Sugar-sweetened beverages and risk of obesity and type 2 diabetes: epidemiologic evidence. *Physiol Behav*. 2010; 100(1):47-54.
12. Morenga LT, Mallard S, Mann J. Dietary sugars and body weight: systematic review and meta-analyses of randomised controlled trials and cohort studies. *Br Med J*. 2012; Jan 15 (2013): 346:e7492.
13. Cheney C. Battling the Couch Potatoes: Hungary Introduces 'Fat Tax' 1 Sept 2011. Available at: <http://www.spiegel.de/international/europe/battling-the-couch-potatoes-hungary-introduces-fat-tax-a-783862.html> (accessed 22 Jun 2014).
14. Spiegel Online International. French 'Cola Tax' Approved: Paris Vows to Fight Deficit and Obesity 29 Dec 2011. Available at: <http://www.spiegel.de/international/europe/french-cola-tax-approved-paris-vows-to-fight-deficit-and-obesity-a-806194.html> (accessed 22 Jun 2014).
15. UNESDA. Why discriminatory taxes don't work. Brussels: UNESDA; 2010.
16. Mhurchu CN, Eyles H, Schilling C, Yang Q, Kaye-Blake W, Genç M, et al. Food Prices and Consumer Demand: Differences across Income Levels and Ethnic Groups. *PLoS One*. 2013; DOI 10.1371/journal.pone.0075934.
17. Manyema M, Veerman LJ, Chola L, Tugendhaft A, Sartorius B, Labadarios D, et al. The potential impact of a 20% tax on sugar-sweetened beverages on obesity in South African adults: A mathematical model. *PLoS One*. 2014; 9(8):e105287.
18. Cohen D, Farley TA. Eating as an Automatic Behavior. *Preventing Chronic Disease*. 2008; 5(1): A23.