Overview

The majority of underweight and overweight South Africans seem to be unaware that they are in danger, in the longer term, of ill health (Shisana et al. 2014). They tend to misperceive their body size and they lack an understanding of the term ‘normal/healthy body size’ (Mchiza et al. 2015; Shisana et al. 2014). Underweight and overweight/obese individuals who are not aware of their body size tend to delay seeking health interventions to adjust their body size, and are at higher risk of ill health (Lemon et al. 2009). One of the health policy implications of individuals who present with irreversible health problems such as chronic non-communicable diseases (NCDs) and who also seek health interventions late in the development of a chronic disease, is that they put a significant financial strain on the well-being and economy of the country, apart from the adverse effects the disease exacts on their quality of life (Nikolic et al. 2011). Moreover, the projected costs of care for major NCDs (diabetes and cardiovascular diseases) are reported to be beyond the coping capacities of individuals, households, families, the business sector and the South African health system (Kengne et al. 2013). Thus, these chronic diseases contribute to the high death and disability prevalence in the country, as well as incurring significant economic costs.

We therefore recommend that the South African Department of Health (DoH) endorses the necessary strategies directed at (i) educating South Africans on how to correctly identify their body size; (ii) increasing awareness of a normal/healthy body size; (iii) advocating the importance of adopting a healthy body size; and

While the prevalence of underweight (BMI < 18.5 kg/m²) remains steady in South Africa, the prevalence of overweight and obesity (BMI ≥ 25 kg/m²) is on the rise. Social and cultural beliefs seem to be driving these nutritional status disorders, which remain in need of attention.
(iv) restricting the use of the current terminology (i.e. ‘lose or gain weight’) in South African health messages. This terminology appears to have the potential to harm individuals by increasing the stigma attached to being thin or fat, and also increases pressures to engage in unsafe weight-control behaviours.

Background and context

While the condition of being underweight remains a problem among younger South Africans, the number of overweight and obese individuals is increasing across the lifespan in the country (Puoane et al. 2002; Shisana et al. 2014). The majority of underweight and overweight South Africans are unable to correctly identify their own body size – that is, their body mass index (BMI).1

The majority of underweight and overweight South Africans also misunderstand or misinterpret the term ‘normal/healthy BMI’. In fact, Shisana et al. (2014) have shown that only a relative minority of males and females (9.6% and 14.2%, respectively) understand the term ‘normal/healthy BMI’ (i.e. BMI = 18.5–24.9 kg m²). Mchiza et al. (2015) further showed that 93.4% of underweight (thin) South Africans tend to overestimate their BMI (i.e. they thought they were fatter), while 64.1% and 83.1% of overweight and obese South Africans, respectively, tend to underestimate their BMI (i.e. they thought they were thinner). Data regarding BMI distortion among South Africans are shown in Figure 1.

Figure 1 also provides information regarding South Africans’ dissatisfaction with their BMI/body weight: about half of those who were underweight or obese (58.6% and 51.7%, respectively) were dissatisfied with their BMI/body weight. This could be due to the social and cultural norms of body size in the country, which seem to increase the stigma attached to being thin or fat (Mchiza et al. 2011; Walker et al. 1991). This stigma is thought to make individuals vulnerable to engaging in unsafe weight-control behaviours (Visser et al. 2014; Walker et al. 1991).

In light of these data, the DoH needs to acknowledge the effects that social and cultural norms of body size have on the development of underweight, overweight and obesity in the country. The recommendations in this policy brief should be considered and implemented within the context of current interventions in addressing overweight and obesity in the country.

Stigma attached to being thin or fat in South Africa

In a multi-ethnic country such as South Africa, the stigma attached to being thin or fat is often understood in terms of societal norms. These norms are shown to either emphasise or discourage thinness or excess weight. In fact, substantiated localised South African evidence has suggested that black, poorer and rural South Africans accentuate fatness and regard it

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1 To calculate BMI, divide the body weight (in kilograms) by the square of the body height (in metres). A normal/healthy BMI lies within the range 18.5–24.9 kg m².

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**Figure 1:** Prevalence of BMI distortion* and dissatisfaction across BMI categories of South Africans aged 15 years and older

<table>
<thead>
<tr>
<th>BMI category</th>
<th>Overestimation (%)</th>
<th>Underestimation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>93.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Normal weight</td>
<td>56.9</td>
<td>20.5</td>
</tr>
<tr>
<td>Overweight</td>
<td>11.0</td>
<td>64.1</td>
</tr>
<tr>
<td>Obese</td>
<td>2.8</td>
<td>83.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BMI dissatisfaction</th>
<th>Overestimation (%)</th>
<th>Underestimation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>58.6</td>
<td>6.7</td>
</tr>
<tr>
<td>Normal weight</td>
<td>44.5</td>
<td>12.2</td>
</tr>
<tr>
<td>Overweight</td>
<td>23.2</td>
<td>28.7</td>
</tr>
<tr>
<td>Obese</td>
<td>12.3</td>
<td>51.7</td>
</tr>
</tbody>
</table>

Source: Mchiza et al. (2015)

*BMI distortion = Misinterpretation of BMI
as a symbol of beauty, autonomy, economic freedom, health and fertility (Mchiza et al. 2011). White, affluent and urban South Africans, on the other hand, seem to prefer thinness, and equate obesity with unattractiveness (Mchiza et al. 2011; Walker et al. 1991). This perception has been shown to have a major impact on the body image (BI) of South Africans (Mchiza et al. 2011; Walker et al. 1991). As such, individuals who view their BI as thin or fat tend to internalize these social stereotypes. As a result, they feel bad about their physical appearance and thus they develop negative BI.

**BI research in South Africa**

BI is defined as the way people view (perceive) their body size as well as the way they feel about it (Mchiza et al. 2011). BI research in South Africa emerged in the early 1990s. A study carried out by Walker et al. (1991) established that South African adolescent girls were concerned about their weight, desired to lose weight, and engaged in unsafe weight-control behaviours such as binge eating, fasting, vomiting and laxative use. Walker et al. (1991) also showed that because obesity was more prevalent in black girls, these girls reported a greater desire to lose weight; however, in comparison with their Indian and white counterparts, they seldom seriously attempted to lose weight.

The first national BI study on adults was conducted in 1999 by Puoane et al. (2002) as part of the South African Demographic and Health Survey. The study found that only 9.7% of men and 22.1% of women in the survey perceived themselves as being overweight when in fact 29.2% of male and 56.6% of female respondents were classified as overweight or obese as defined by their BMI. Moreover, while approximately 50–60% of women from each ethnic group were overweight or obese, black women were far less likely to view themselves as overweight (16%) compared to coloured women (34%) and white women (54%). In this research ethnicity differentiated BI.

Other studies measured BI perceptions in national samples of South African adolescents (Reddy et al. 2003; Reddy et al. 2010). The results showed that there had been an increase in the percentage of youth who were unhappy about their weight and were trying to lose or gain weight, from 45.8% in 2008 to 55.2% in 2011. In these studies the majority of boys perceived themselves as being overweight and reported wanting to gain weight, while girls perceived themselves as being overweight and reported wanting to lose weight. The studies also showed that black and coloured youth were more likely to perceive themselves as underweight, while white and Indian youth perceived themselves as overweight.

This research was followed by a series of other localised studies (Visser et al. 2014; Wittenberg 2011) that further emphasised culture, age, gender, geographic location and social class to be the major contributors to unrealistic BI perceptions. Mchiza et al. (2011) documented an association between family resemblance and BI stereotypes. This study showed that black families underestimated their body size to a greater extent, while white families overestimated it. When compared to families from other ethnic groups, black families regarded a larger body size as ideal, and also recognized it as a symbol of beauty and respect. In terms of family resemblance, mothers were shown to model these unhealthy body-size preferences to their pre-adolescent daughters.

In 2011, the first South African National Health and Nutrition Examination Survey (SANHANES-1) shed additional light on the extent of BI stereotype problems in the country (Shisana et al. 2014). In this research, more than 60% of South Africans 15 years and older seemed to be happy about their current body-size status, with very few overweight or underweight people (12% and 10%, respectively) attempting to lose or gain weight. Interestingly, although over 85% of South Africans were cognisant of a fat and a thin body size, very few of them could identify a ‘normal/healthy body size’. In fact, only 18.2% of children, and 9.6% and 14.2% of adult males and females, respectively, were able to correctly identify a normal/healthy body size. According to ethnicity, black South Africans had the least ability to correctly identify a normal/healthy body size when compared with other ethnic groups.

Mchiza et al. (2015, forthcoming) investigated the relationships between BI, BMI, sociodemography and weight control in South Africa using the results of the SANHANES-1. The study showed that the majority of South Africans (84.5%) perceived their BMI incorrectly, and thus fewer of them (45%) were dissatisfied with their current BMI; hence, only 12% and 10% attempted to lose or gain weight, respectively (Mchiza et al. 2015). Both overweight and obese individuals tended to underestimate their body size, but because of increased desires to be thinner, obese individuals expressed this desire to a greater extent than overweight individuals. Among normal-weight and underweight participants who overestimated their body size, underweight individuals expressed the desire to be fatter to a greater extent than normal-weight individuals. While BMI seemed to be the main determinant of BI and desires to lose or gain weight in South Africa (Mchiza et al. 2015), social class, gender and race seemed to be the major modifiers of BMI (Mchiza et al. forthcoming). As such, promoting an appropriate perception of BMI is an important component of any intervention aimed at achieving a healthy BMI.
**Effects of underweight, overweight and obesity**

- The economic costs, direct and indirect, of the consequences of being underweight or overweight/obese in South Africa are high (Kengne et al. 2013) and require policy interventions directed at achieving normal BMIs as well as improvements in productivity and economic development.
- In South Africa those individuals who present with NCDs often do not bear the full costs of ill health associated with their weight problems, unless their insurance plan is cost-adjusted for their weight status and lifestyle practices. Instead, increased healthcare costs are borne by others, such as employers, those in the insurance risk pool and taxpayers, depending on the specific plan and other health insurance policies in the country (Kengne et al. 2013).
- More importantly, in South Africa the cost of early death of parents due to ill health as a consequence of being overweight or obese is carried over to the carers of orphans, thus increasing the personal and social burden of these carers, who are mostly young siblings and/or the elderly (Kengne et al. 2013).

**Recommendations**

The DoH needs to acknowledge the effects that sociodemography (i.e. social class, gender) and culture (e.g. race) have on the development of underweight, overweight and obesity in the country. In this regard, the following recommendations are proposed for implementation:

- The DoH needs to incorporate the sociocultural dimensions of obesity in the current Strategy for the Prevention and Control of Obesity in South Africa (DoH 2015).
- The DoH should initiate a communication programme that draws attention to problematic body-size stereotypes, with the intention of normalising healthy BMI and BI concepts among South Africans.
- The DoH should support strategies to dispel dangerous stereotypes related to South Africans’ BI perceptions.
- The DoH needs to endorse educational messages targeted at empowering South Africans on how to identify a healthy BMI and how to view their BMI correctly.
- The focus of health interventions needs to be changed from using the terminology of urging people to ‘lose or gain weight’! Instead, the emphasis should be on educating South Africans on the benefits of adopting a normal/healthy BMI.
- The DoH needs to support and fund the development of a marketing tool/strategy that endorses a healthy BMI in a functional, transdisciplinary, multi-stakeholder environment.

Despite some notable achievements, the nutritional status of South Africans of all ages, a population that continues to consume a diet of marginal dietary diversity, remains a serious concern. With regard to body-weight management, there is good reason to believe that implementing the recommendations in this policy brief would not only improve the personal well-being of the citizenry, but would also enhance the economy of the country by curtailing the costs and healthcare needs related to managing NCDs and their complications.

**References**


Mchiza ZJ, Parker W, Makoe M, Sewpaul R, Kupamupindi T & Labadorios D (Forthcoming) Gender, household income, education level and race are major modifiers for BI in South Africa: SANHANES-1. *Public Health Nutrition*


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