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Western Cape’s under-fives carry a double burden of malnutrition: stunting and obesity

The Western Cape’s children under the age of five carry a double burden of malnutrition. While the levels of stunting are lower than in the rest of the country, it is still a concern. Obesity levels in the province represent a “very high public health concern”. These are two of the main findings of the recently released Western Cape Stunting Baseline Survey (WCSBS) report.

It was led by principal investigator, Emeritus Professor Marjanne Senekal, a University of Cape Town human nutrition expert.

Commissioned by the Western Cape Department of Health and co-funded by the DG Murray Trust, the survey investigated malnutrition and the risk factors for children under five. The survey is an important marker for the province, given that the World Health Organization/United Nations Children’s Fund aims to halve the global stunting prevalence in under-fives by 2030.

Stunting refers to the effects of chronic undernutrition and obesity. Both these forms of malnutrition increase a child’s risk for impaired physical and cognitive development, and increase the risk of non-communicable diseases such as metabolic syndrome, diabetes and heart disease, as well as mortality.

Working under a tight deadline period of six months (data was collected between 4 June and 22 October 2022), Senekal and her team used a very rigorous sampling structure: a sample of 1 214 under-fives that was representative of children living in the province’s formal, urban formal and rural towns, and across the income spectrum. The expert panel developed the questionnaire specifically for this study.

While the survey yielded a clear picture of current risks and the contributors to these, the good news is that the province’s stunting prevalence level of 17.5% is 5.4% lower than the 22.9% previously reported for under-five- year-olds in the Western Cape.

“This reflects a welcome declining trend over the past six years, even with the COVID-19 pandemic,” said Senekal. “However, the evidence of stunting was most prevalent in the very vulnerable under-two-year-olds (19.7%), representing a high public health concern which needs ongoing attention in the form of targeted interventions.

“With the prevalence of overweight in the WCSBS sample in the ‘very high public health concern’ category of around 15%, it should not be ignored.”

To sum up, the survey’s key findings were:

- Evidence of a double burden of malnutrition, namely stunting and overweight/obesity – a concern for the province.
- A stunting (chronic undernutrition) prevalence of 17.5% in the total WCSBS sample. Though viewed as ‘good news’, this represents a medium-level public health concern.
- An overweight/obesity prevalence of 15.1%. This represents a very high public health concern.
- Age-appropriate immunisation coverage for the Western Cape has improved substantially since the 2016 South African Demographic and Health Survey.
- Almost one in five of the sample had a birthweight below 2.5 kg (classified as “low birthweight infant”).
- Exclusive breastfeeding in infants younger than six months was only 18% (the target is 100%).
- Dietary diversity is poor, especially in older children; as is diet quality.
- Crisps and sweets were among the five most consumed foods across the age groups (data taken for the most recent 24 hours).
- Food security is an enduring concern.

In terms of undernutrition, a spread of risk factors coalesces to create conditions ripe for stunting. Significant predictors of stunting that were identified include incomplete immunisation status, low birthweight, food insecurity (“ran out of money to buy food in the past month”), low Wealth index (wealth status and assets), low Care index (care/caregiver capacity) and low WASH index (quality of water, sanitation and household hygiene).

The Care and WASH indices are indicators Senekal and her team developed to capture the complexity of environmental factors that influence an infant or young child’s growth and well-being.

The key risk factor for overweight across all the age groups was having an overweight/obese caregiver, who was most often the child’s mother (71%). Almost a quarter of the mothers (22.3%) were overweight, and 36.8% were obese.

“This result emphasises the importance of tackling the problem of obesity at all levels in our society,” said Senekal. “It is not just a question of genetics that is at stake here, but a lifestyle of inactivity and energy-dense food choices that is instilled in children from an early age.”

It was thus not surprising that “not ever having been breastfed” and “having had sugar in tea/coffee the previous day” were found to be predictors of overweight/obesity among the six-month to two-year-olds.

Drilling down into the survey’s dietary findings, Senekal said generally diets were poor, with limited food diversity, when considering what the child had consumed the previous day.

Daily diets lacked nutrient-rich foods such as eggs, meat, poultry or fish, fruit and vegetables. Most concerning, said Senekal, was that crisps and sweets featured in the top five foods consumed by children older than six months.

This is the breakdown per age group (in past 24 hours):

- One- to younger than two-year-olds: rice, sugar in tea/coffee and/or on porridge, crisps, sweets and yoghurt or amasi
- Two- to younger than three-year-olds: bread, crisps, sugar in tea/coffee and/or on porridge, plant oils, rice
- Three- to younger than four-year-olds: bread, crisps, plant oils, rice, sweets
- Four- to younger than five-year-olds: bread, crisps, sweets, plant oils, rice

“This reflects a western, energy-dense, obesogenic diet,” said Senekal.

The risks for stunting in children were also linked to mothers who smoked and/or used alcohol and/or used drugs during pregnancy (all three of these risk behaviours were found to be significant predictors of stunting).

“Smoking during pregnancy was prevalent in 25.2%, alcohol use in 14.4% and drug use in 2.8% of mothers,” said Senekal. Also of concern is that 14.6% of mothers were at risk of depression at the time of the study.

Coupled to these are the other predictors of stunting that were identified, including low birthweight, living in rural towns, and incomplete immunisation for the child’s age, even though age-appropriate immunisation coverage has improved substantially since the 2016 South African Demographic and Health Survey (Western Cape data), said Senekal.

Of concern is the low figure (18%) for exclusive breastfeeding in the younger-than-six-month-olds. This was attributed to low milk production, babies not wanting to take breast milk (20.2%) and ‘contrary’ advice from a health worker (14.3%).

Food security is also a major factor, with 41% of households reporting they had run out of food money in the month preceding the study, 9.4% reporting that a household member had gone hungry at least one to two days in the week preceding the study, and 5.5% reporting that a child in the household had gone hungry at least one to two days in the week preceding the study.

Senekal mentioned that a limitation of the survey is that it did not include assessments of two important childhood health intervention indicators, namely whether vitamin A supplementation was on track in the province and whether deworming medications were up to date.

Nevertheless, the survey – with rigorous sampling, that resulted in “one of the most representative studies of its kind” – is an important scientific contribution to insights in child nutrition-related health in the province, said Senekal.

“We spent countless hours on this study in the hope that the outcomes will make a major contribution to ensuring healthy growth and overall well-being of children in the Western Cape province and South Africa as a whole.”

Story by Helen Swingler, UCT News

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