

Viewpoint

Addressing the double-burden of malnutrition among children and adolescents in sub-Saharan Africa

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Most undernourished people in Africa are in the sub-Saharan region, and hunger has been on the rise since 2014. The number of undernourished people is especially critical in the Eastern and Middle subregions, reaching 27% and 29% of the total population, respectively, as of 2019.¹ Undernutrition and micronutrient deficiencies, however, are not the only nutrition concerns; in 2016, 24% of all overweight children under five in the world were also from Africa,¹ with rates increasing among adolescents and young women.² The state of malnutrition in sub-Saharan Africa exemplifies the double burden of malnutrition, with a high prevalence of undernutrition and increasing obesity. Both conditions contribute to diet-related non-communicable diseases (NCDs).² At this rate, it is unlikely that the sub-Saharan Africa region will achieve the Sustainable Development Goals of ending hunger and all forms of malnutrition by 2030.³

NCD Child, a global multi-stakeholder coalition focused on the prevention and management of NCDs in children, is concerned with the rising rates of all forms of malnutrition during childhood and its consequences in sub-Saharan Africa. The aim of this viewpoint is to present calls to action that over 50 stakeholders made across 24 countries in sub-Saharan Africa at a youth-focused regional workshop convened by NCD Child, the South Africa NCD Alliance, and the Ghana NCD Alliance for the United Nations Food Systems Summit. The theme of this workshop was the double burden of malnutrition in sub-Saharan Africa, with considerable attention given to meaningful youth participation in addressing this burden.

EFFECTIVE STRATEGIES

Interventions and strategies to address the double burden of malnutrition need to occur early in childhood and adolescence to prevent adverse health outcomes of poor nutrition later in life.⁴ Participants in the workshop underscored the need for national and local information campaigns to make younger generations aware of the influence of the Big Food Industry and the components of a healthy diet. Some initiatives, such as the WHO Best Buys and school food programs, can serve as double-duty actions, potentially reduc-

ing the burden of overweight, obesity, and undernutrition (wasting, stunting and micronutrient deficiencies).⁵

WHO BEST BUYS

A recent publication of the WHO Best Buys provided a systematic review of NCD prevention and control, with a specific focus on their implications for the sub-Saharan Africa region.⁶ Best Buys, though highly cost-effective, have not been routinely implemented since their introduction ten years ago, nor evaluated in terms of their impact in the African region.⁶ However, the potential benefits of the Best Buys are clear; they address several of the commercial and social determinants of health and, if properly implemented, provide the benefit of increased funding available for NCD prevention and control. Thus, the WHO Best Buys for unhealthy diets, specifically: mass media campaigns for diet, the replacement of trans fat with polyunsaturated fat, and the reduction of salt intake,⁶ should be promoted within sub-Saharan Africa as cost-effective approaches to address poor nutrition. Proper implementation of these Best Buys will cost less than \$0.40 USD per person in the sub-Saharan Africa region.⁷ Offering consumers improved food quality at a low cost will support improved food choices. Moreover, the WHO Best Buys are an effective strategy to address some of the risk behaviors contributing to malnutrition and prevent other NCDs in sub-Saharan Africa.⁸

SCHOOL HEALTH AND NUTRITION PROGRAMS

School-based interventions in low- and middle-income countries have successfully prevented iron deficiency and malnutrition over the past 20 years.⁵ Further, health-promoting schools provide consistent and accurate messages about healthy eating and physical activity and ways to implement these behaviours throughout the time children spend on school grounds (including before- and after-school).⁸ The National School Nutrition Programme (NSNP) in South Africa, for example, addresses diet-related ill-health among learners by regulating the quality of food provided to children in schools.⁹ In addition to feeding 9.1 million children in South Africa thus far, the NSNP has

been crucial in improving learners' punctuality, concentration and absenteeism.¹⁰ However, some stakeholders have argued that the NSNP has become a feeding program rather than a nutritional program; while a feeding program ensures food availability to learners at the required quantities and frequency, only a nutritional program ensures quality nutrition. Providing a nutritional program to children during school not only ensures that they receive at least one healthy meal per day but also models healthy eating to students so that they are more inclined to make similar choices if they can access and afford them throughout the life course.

CALLS TO ACTION

To mitigate the surge of the double burden of malnutrition in sub-Saharan Africa, many sectors and stakeholders will need to be engaged, as was done at the regional workshop on which this perspective was developed. The participation of representatives from local and global non-governmental organizations, science and academia, major corporations and government institutions across agriculture, environment, education, communications, finance, health care and nutrition sectors stimulated dialogue and nuanced recommendations.

Governments and policy-makers will need to protect citizens from the Big Food industry, and the Ministry of Education and the Food and Drug Authority must be consulted on the implementation and evaluation of the WHO Best Buys. School authority figures are also key stakeholders in developing health-promoting schools that are free from Big Food industry manipulations and provide nutritional programs rather than feeding programs to their students. Policies to reduce food industry engagement in school-based health education programs will also be needed so that children and young people know the risk factors and consequences of NCDs, and are motivated to opt for healthy foods.

Locally-led programs supporting diverse "champions" of food systems change must be established so that communities across the region feel a sense of ownership of these programmes for context-specific strategies to be implemented. Existing local capacities must be supported and consulted to generate food systems change. Young people can be involved in the campaign to address the double burden of malnutrition by researching the impact of these programs, influencing mass media campaigns, and providing insight on what might expand the investment in Best Buys that are currently overlooked. Though youth voices and actions will be critical for NCD prevention in countries where risk behaviours are rising, it is equally critical that there is

collaboration across generations, sectors and stakeholders to ensure a multi-pronged approach that does not unjustly burden one group with the responsibility for NCD prevention.

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The authors' contributions to this paper were as follows: ANG, MH, MYF, CN, GLM, and LMM provided resources and contributed to the original draft; ANG had primary responsibility for final content; ZAB provided supervision; and all authors: have read and approved the final manuscript.

COMPETING INTERESTS

The authors completed the Unified Competing Interest form at <https://www.icmje.org/disclosure-of-interest/> (available upon request from the corresponding author), and declare no conflicts of interest.

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REFERENCES

1. FAO, IFAD, UNICEF, WFP, WHO. *The State of Food Security and Nutrition in the World (SOFI)*. Food and Agriculture Organization of the United Nations; 2020. [doi:10.4060/ca9692en](https://doi.org/10.4060/ca9692en)
2. Onyango AW, Jean-Baptiste J, Samburu B, Mahlangu TLM. Regional Overview on the Double Burden of Malnutrition and Examples of Program and Policy Responses: African Region. *Ann Nutr Metab*. 2019;75(2):127-130. [doi:10.1159/000503671](https://doi.org/10.1159/000503671)
3. Development Initiatives. *Global Nutrition Report: Shining a Light to Spur Action on Nutrition*. Global Nutrition Report; 2018. Accessed June 8, 2022. <https://globalnutritionreport.org/reports/global-nutrition-report-2018/>
4. World Health Organization. Food and nutrition policy for schools: a tool for the development of school nutrition programmes in the European Region. World Health Organization iris. Published 2006. Accessed June 8, 2022. <https://apps.who.int/iris/handle/10665/107797>
5. World Health Organization. Double-duty actions for nutrition: policy brief. World Health Organization. Published May 17, 2017. Accessed June 8, 2022. <https://www.who.int/publications/i/item/WHO-NMH-NHD-17.2>
6. Allen LN, Pullar J, Wickramasinghe KK, et al. Evaluation of research on interventions aligned to WHO 'Best Buys' for NCDs in low-income and lower-middle-income countries: a systematic review from 1990 to 2015. *BMJ Glob Health*. 2018;3(1):e000535. [doi:10.1136/bmjgh-2017-000535](https://doi.org/10.1136/bmjgh-2017-000535)
7. World Health Organization. Scaling up action against non-communicable diseases: How much will it cost? World Health Organization iris. Published 2011. Accessed June 8, 2022. <https://apps.who.int/iris/handle/10665/44706>
8. Centers for Disease Control and Prevention. Comprehensive Framework for Addressing the School Nutrition Environment and Services. Centers for Disease Control and Prevention. Published 2019. Accessed June 8, 2022. <https://www.cdc.gov/healthyschools/nutrition/schoolnutrition.htm>
9. Ndinda C, Hongoro C. *Analysis of NCD Prevention Policies in Africa (ANPPA)- A Case Study of South Africa*. IDRC; 2017. Accessed June 8, 2022. <http://hdl.handle.net/10625/57552>
10. Graham L, Hochfeld T, Stuart L, Van Gent M. Evaluation study of the National School Nutrition Programme and the Tiger Brands Foundation in-school breakfast feeding programme in the Lady Frere and Qumbu districts of the Eastern Cape. *International Household Survey Network*. Published online 2015. Accessed June 8, 2022. <https://catalog.ihsn.org/index.php/citations/64668>