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IMPROVING THE NUTRITIONAL QUALITY OF SOLD AND PROVIDED FOODS IN GHANAIAN SCHOOLS: PRIORITY RECOMMENDATIONS FOR POLICYMAKERS AND KEY STAKEHOLDERS

ABOUT THE BRIEF:

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This Policy Brief is developed by the Measurement, Evaluation, Accountability and Leadership Support for Non-Communicable Disease Prevention (MEALS4NCDs) Project to convey to Ghanaian policymakers and school food environment stakeholders, priority recommendations for improving the nutritional quality of foods that are purchased, served or sold in publically funded Ghanaian schools.

TARGET USERS:

This policy brief is intended for a broad range of stakeholders:

- *Policymakers:* Ministries of Health, Food and Agriculture, Education, Local Government and Rural Development, Gender, Children and Social Protection, and their agencies.
- *School Food Environment Stakeholders*: The School Feeding Programme, School heads and administrators, Parent Teacher Associations, School Health Education Programme Officers
  International Organisations / United Nations Agencies: UNICEF, WHO, WFP, FAO
- *Civil Society Organisations, Local and International Non-Governmental Organisations:* Ghana NCD Alliance, Child Rights International Ghana, Partnership for Child Development (PCD)
  Academia and Public Health Nutrition Professionals: Universities, Schools of Public Health in Ghana, Research Institutions

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PURPOSE

This policy brief outlines key gaps in existing food provision policies and programmes applicable to Ghanaian public sector basic schools (PSBS) and highlights priority actions for improving the nutritional quality of foods and beverages provided or sold in these settings.

BACKGROUND

What is at stake

Childhood obesity is on a rapid rise globally. The rate of rise in low- and middle-income countries (LMICs) is staggering, making it one of the most serious public health challenges. Itself a non-communicable disease (NCD), obesity among children is particularly concerning because it is likely to persist into adulthood and is associated with an increased risk of other NCDs such as hypertension, diabetes, and cancer, as well as psychological effects, disability, and premature death.[1] In Africa, the number of overweight or obese children has nearly doubled from 5.4 million in 1990 to 10.6 million in 2014.[1] In these settings (including Ghana), the issue of growing childhood obesity is compounded by the persisting problem of undernutrition, posing a double challenge for these countries. While there is limited data on the national prevalence of overweight and obesity among school-aged children in Ghana, a 2004 Accra-based study reported an overall obesity prevalence of 3.4% (2.8% in male; 7% in female; 1.1% in public schools and 9.6% in private schools).[2] A decade later, another Accra-based study[3] determined the prevalence of obesity among children in primary schools to be 10.9% with significantly higher prevalence in girls (15.0%) than in boys (7.2%). A 2017

study reported that 17% of Ghanaian children were overweight or obese [4] In 2020, another study reported the prevalence of overweight and obesity among children under 19 years to be 19%.[5] Urgent policies and programs that address malnutrition are therefore needed to curb this epidemic.

While several factors (including increasing urbanization and sedentary lifestyles) have been implicated in the rise in adult and childhood obesity, one of the key contributory factors is the shift in food systems, and environments characterized by an increase in the consumption of energy-dense, nutrient-poor foods, foods high in saturated fats, sodium, and added sugars. The food environments to which an individual is exposed to, defined as "the interface that mediates one's food acquisition and consumption within the wider food system" is an important driver of dietary behavior and obesity.[6] It comprises two main domains – an external domain shaped by factors often outside of an individual's control, such as availability, prices, vendor and product properties, and marketing and regulation; and a personal domain that is more within an individual's control, shaped by factors such as accessibility, affordability, convenience, and desirability.[6] Although these two domains interact with each other to shape a person's food choices and behavior, policies and programs targeted at modifying the external food environment are likely to be more impactful than those targeted at the personal food environment.

Of the different food environments that children are exposed to (such as the home and community), the school food environment is perhaps one of the most ideal environments for interventions to improve child and adolescent dietary behaviors. This is because children spend most of their waking hours in school, and at least one main meal is consumed within the school setting. School food policies and programs that promote or are supportive of healthy eating have the potential to impart appropriate dietary behaviors in children, and this can be carried on into adulthood. They also have the potential to compensate for any sub-optimal dietary practices at home or in other food environments. At the same time, unhealthy school food environments can have a negative impact on children's eating behaviors and put them at risk for malnutrition.

Nature of Ghanaian school food environments

There is increasing evidence suggesting that Ghanaian school food environments may be not be supportive of healthy eating behaviors. A cross-sectional study of 5 basic schools in the Ga-East municipality investigated purchasing behaviors of children during mid-morning break time and identified sugar-sweetened beverages (SSBs), pastries, and confectionery as some of the most commonly purchased foods. These foods were purchased from different sources, including school canteens, school stores, private stores, and 'table-top' vendors, with the proportion of vendors being higher in public schools compared to private schools.[7] The study revealed that about 53% of food vendors located within the school compounds sold relatively healthier food options, indicating the availability of both healthy and unhealthy foods. An impact evaluation study[8] of the Ghana School Feeding Programme (GSFP) highlighted a dependence on sold and competitive foods even in schools where the programme has been implemented. The study showed confectionery and SSBs to be among the most commonly sold foods. An investigation of 1-week dietary behaviors of about 4000 children participating in this study revealed that at least once during the 1-week period, about 40% of them took money to school (an indication of purchasing of foods and beverages from independent vendors) and another 60% reported returning home during the lunch break for food in response to lack of free meals or irregular free meal provision. Only a few children reported bringing food from home at least once during the 1-week period and this was higher for children from urban settings. Importantly, this study showed that receipt of a free school meal was inversely associated with bringing money to school and going back home for lunch.[8]

An investigation of snack choices of adolescents in public and private junior high schools revealed a tendency to go for imported packaged snacks and SSBs.[9] This study showed the presence of more independent vendors (majority of whom sold snacks) in public schools compared to private schools. The most available snacks were SSBs while fruits were the least available in the schools surveyed. In addition, children from public schools reportedly consumed higher amounts of overall energy, protein, fats, and sodium, but lower amounts of important micronutrients such as iron and zinc than their private school counterparts. Another interesting finding from this study was the positive association between the availability of snacks and their frequency of consumption.[9] The studies presented show not only the availability of unhealthy foods but also, disparities in their availability and consumption that may likely widen existing disparities in the nutritional outcomes of Ghanaian children.

Potential impacts of school food and nutrition policies/programmes: promising evidence from other countries

There is a wealth of data that support the impact of school food and nutrition policies/ programmes on several outcomes, including increasing access to healthy foods and beverages, limiting the availability of unhealthy foods and beverages, and improving immediate nutritional intakes and dietary behaviors. These interventions have also been shown to have longer-term impacts on adiposity and overall health, school attendance, academic performance, and reducing inequalities. Fundamental to the success of these interventions are factors such as collaboration between government, nutrition experts, parents, school and local authorities, and catering staff; coordination across government departments such as health and education; sufficient allocation of funds; legislation to ensure a balanced application and implementation; implementation guidance and support; research and evaluation; and most importantly, a decentralized approach that focuses on local and context-specific solutions.

Free or government-subsidized school foods and beverages

Provision of free or subsidized school meals either as breakfast, lunch, or both is the most long-established and widespread implemented food provision policy or programme. The United States (US) National School Lunch Program (NSLP) for example has been in existence for over half a century and has been shown to provide school lunches of higher nutritional quality compared to lunches obtained from other sources such as those purchased from home, especially for children from low-income settings.[10] Relative to beneficiaries of the NSLP, non-participating eligible children have been found to consume significantly higher amounts of fat, sodium, and added sugars, and lower amounts of fruit.[10] Similarly, findings from a study on Japanese school children showed the potential of a school lunch programme in improving protein, vegetable, and micronutrient intakes of children from low-income settings.[11] School food programmes in India[12] and Canada[13] have also been associated with improvements in the quality and quantity of foods consumed as well as the nutritional status of children, particularly those from low-income and socially disadvantaged households.

Another promising food provision intervention is the provision of fresh fruit and vegetables (FV). This has been implemented in a few countries, including the US, United Kingdom (UK), Poland, and Norway. In the US, the Fresh Food and Vegetable Program (FFVP), a nationwide programme which provides fresh fruits and vegetables to deprived elementary school children at no cost has been shown to increase FV consumption among programme beneficiaries compared to non-beneficiaries.[14] An evaluation of this intervention in Polish schools also showed an increase in fruit consumption by 30g/day over a 3-year implementation period.[15] These evaluations, as well as evaluations of similar programs in other countries also show an impact on children's knowledge on the benefits of FV consumption[15] and a reduction in the consumption of unhealthy snacks.[16,17]

Food-based and/or nutrient-based standards and guidelines for provided meals

Application of food- and/or nutrient-based standards to school food policies and programmes via restriction of specific foods or setting of nutrient-level targets for foods has been associated with increased intakes of fruits and vegetables and decreased intakes of sodium, total and saturated fats.[18] Notable of provided food/beverage standards is the UK school meal standards, which specifies mandatory and recommended food-based and nutrient-based standards for foods and beverages provided in all primary and secondary schools. These standards have been in place for over 20 years, with modifications over time to improve access to healthy foods. They limit the availability of unhealthy foods, that is, foods high in fats, sugar, or salt such as confectionery and soft drinks and include a nutrient framework that specifies age- and sex-specific nutrient and energy requirements. Evidence from periodic evaluations conducted since the introduction of these standards show improvements in the provision of healthy options and clear benefits for children's nutritional intake. Of note, these evaluations revealed that standards or guidelines that are not mandatory are insufficient to bring about desired changes.[19]
Nutrition standards have also been shown to have an impact on reducing disparities in the quantity and quality of foods provided to children. In the US for example, the application of new standards to the NSLP in 2012 successfully eliminated disparities in the consumption of SSBs, FVs, non-fat milks, and whole grains.[20]

Policies and nutrition standards/guidelines for sold or competitive foods and beverages

Promising strategies that have been employed to reduce the availability or improve the 'healthiness' of competitive foods include specifying standards for nutrients and/or portion sizes and restricting the sale of specific products.[18] An assessment of the impact of legislation for nutrition standards for competitive foods/beverages revealed that regulation of these foods was associated with a decreased availability and consumption of non-compliant items, particularly SSBs, chips, and candy, and a contrasting increase in school meal program participation.[21] A systematic review[22] of cross-sectional studies on the impact of competitive food/beverage state and school policies found that generally, these policies were associated with a reduction in competitive food and beverage availability and consumption. Some of the studies included in this review indicated an impact on a reduction in body mass index and other weight outcomes. A more recent systematic review and meta-analysis of school food environment policies showed that competitive food/beverage standards were associated with a reduced intake of SSBs and unhealthy snacks.[18]

Restriction of unhealthy food and beverage marketing within and around schools

In Africa, studies assessing the extent of outdoor food advertising around schools report high rates – from Uganda where over 80% of advertised foods featured unhealthy food products[23] to Ghana and Kenya where assessments of outdoor food advertising identified SSBs as the most widespread food/beverage advertised or sold.[24,25] There is mounting evidence that marketing (including advertising) of unhealthy foods and beverages can increase dietary intake and preference for energy-dense, nutrient-poor foods and beverages.[26] In response, the World Health Assembly endorsed Resolution 63.14 to encourage member states to implement recommendations on marketing of foods and non-alcoholic beverages to children.[27] Although recognized as a serious problem, the WHO NCD Monitor in 2020 reported that only eight African countries have implemented the WHO recommendation on marketing restrictions to children.[28] In countries that have implemented child-directed marketing restrictions, available evidence suggests that these restrictions can be effective in decreasing exposure to and purchase of unhealthy foods.[29]

GENERATING THE EVIDENCE FOR POLICY RECOMMENDATIONS IN THE GHANAIAN CONTEXT

Key research questions

The component of the MEALS4NCDs Project from which this Brief derives its evidence, reviewed existing Ghana government food provision policies and programmes in PSBS. We aimed broadly to answer three key research questions:

1. Are there any food provision policies and programs applicable to PSBS in Ghana?
2. Are there any nutritional standards and guidelines applied to existing food provision policies and programs applicable to PSBS in Ghana, and how comprehensive are these standards and guidelines?
3. What is the nutritional quality of the foods/beverages sold or provided to children in PSBS?

Research methods

We adapted a 2-component step-wise framework developed by INFORMAS for monitoring foods and beverages provided or sold in publicly funded institutions.[30] Components I and II are summarized in figures 1 & 2.

Figure 1: Component I (Identification, description, and appraisal of existing policies/programmes)

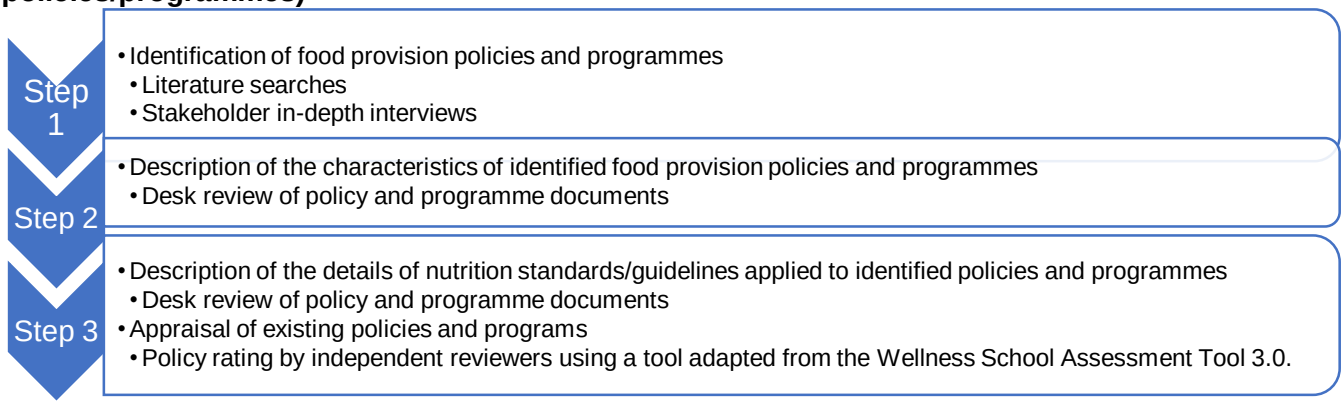
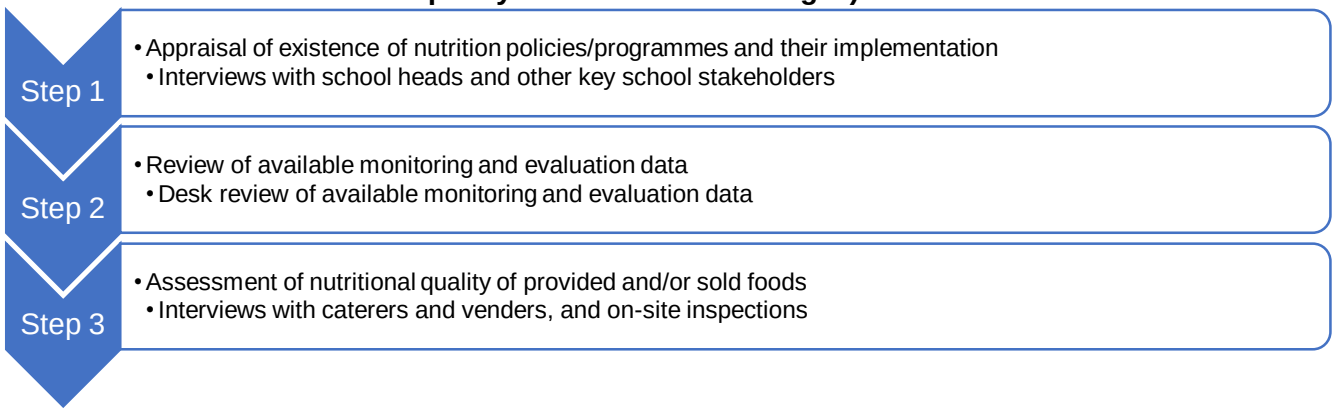


Figure 2: Component II (Appraisal of implementation of identified policies/programmes and assessment of the nutritional quality of foods and beverages)



KEY FINDINGS

Existing food provision policies and programmes specific to school foods and beverages

We identified some policies and programmes with a nutrition and/or health component, including the Ghana Education Service School Health and Education Programme and the National Child Health Policy and Strategy. However, only two were directly related to food provision in schools – the Ghana School Feeding Policy (hereinafter the Policy) and the Ghana School Feeding Programme (GSFP). Our review of the GSFP and policy documents identified that the program applies to selected publicly funded kindergarten and primary schools in deprived communities but no specific details were provided about the selection process or criteria. The policy and programme documents mentioned the availability of resources to support the implementation of the program, as well as a monitoring framework.

Although there seemed to be an indication of an applied nutrition standard to the program, the details of this were not stated.

Quality of identified food provision policies and programmes

The policy/programme rating exercise revealed gaps in the following key areas: application of nutrition standards to provided and sold foods; wellness promotion and food and beverage marketing; and implementation, accountability, monitoring and evaluation, and communication. In brief, there were no applied nutrient- or food-based standards, no guidelines for sold and competitive foods, and no guidelines for the promotion and advertisement of foods and beverages in schools. Overall, the program and policy documents lacked comprehensiveness – the degree to which policy items deemed important for inclusion in any school-based food and nutrition policy or programme are addressed, and strength – the use of strong language that strengthens the enforcement of the policy.

Implementation of food provision policies and programmes: key findings from interviews with food service providers

Our interaction with 660 school food vendors (SFV) and 129 caterers revealed the following:

- 70% of the SFV sell within school premises
- 79% of caterers and 59% of SFV received food certification from a regulatory body
- Only 19% of SFV were able to provide evidence of the certificate
- One in two caterers had been medically certified to sell food vs. 78%.
- One in four (27%) SFVs have never been visited by food inspectors from regulatory bodies to assess food hygiene and safety.
- most SFVs and caterers did not receive adequate training on food safety and hygiene issues, which translates to insufficient food safety and hygiene practices

RECOMMENDATIONS FOR POLICYMAKERS AND KEY STAKEHOLDERS

Policy recommendations

- Establish and apply strong and comprehensive food-based and/or nutrient-based standards to the Ghana School Feeding Policy and Programme to provide a robust way of ensuring the nutritional quality of meals and beverages
- Use language that is enforceable in policy documents and include sanctions for non-compliance
- Address food safety and food emergencies in the school food programme
- Implement policies for regulating sold foods and other competitive foods and beverages within reach to pupils
- Implement policies for regulating and restricting marketing of unhealthy food and beverage within and around schools

Implementation of policies and programmes

- Document standards and guidelines for the provision and sale of foods and make them available to school heads and other stakeholders
- Provide outlets for fresh drinking water and encourage the consumption of water as a replacement for SSBs
- Create an environment that encourages the consumption of healthy foods and adoption of healthy habits through the use of ‘nudges’
- Provide training to school heads, teachers, catering team, and other school stakeholders to model healthy behaviors

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ABOUT THE MEALS4NCDS PROJECT

The MEALS4NCDs Project is an IDRC-funded project led by the University of Ghana, with collaboration from seven other academic and research institutions across Ghana, Kenya, Netherlands, France and Belgium. It was implemented to provide Measurement, Evaluation, Accountability, and Leadership Support (MEALS) for NCDs prevention in Ghana and beyond. The Project currently focuses on measuring and supporting public sector actions that create healthy food marketing and food provisioning environments for children and adolescents in Ghana, to prevent obesity and other nutrition-related NCDs. It is delivered through three main work packages: a Food Promotion Module and a Food Provision Module developed by the International Network for Food and Obesity NCDs Research Monitoring and Action Support (INFORMAS), and a Community Readiness Model. This Brief was generated using findings from the Project's Food Provision Module.

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