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HOW READY IS THE EDUCATION COMMUNITY TO ADDRESS MARKETING AND AVAILABILITY OF UNHEALTHY FOODS AND DRINKS IN AND AROUND BASIC SCHOOLS IN GREATER ACCRA REGION?

ABOUT THE BRIEF:

Policy Brief No 3: February 2022

This Research Brief is developed by the Measurement, Evaluation, Accountability and Leadership Support for Non-Communicable Disease Prevention (MEALS4NCDs) Project to convey research evidence and associated recommendations to key stakeholders in the education community (operationally defined both over geographic space - geographic community, and according to stakeholders of interest - interest community), and policymakers in Ghana. The brief seeks to propose actions (interventions and policies) to improve the healthiness of Ghanaian school food environments, thereby promoting healthier diets for children and adolescents.

TARGET USERS:

- *Policy makers:* 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 derives from the MEALS4NCDs Project assessment of the readiness of school/education stakeholders to accept and implement actions to improve the healthiness of food environments in and around Public Sector Basic Schools in Ghana. The brief further highlights priority actions to help address the marketing and availability of unhealthy foods in and around schools.

BACKGROUND

Like many low- and middle-income countries, Ghana is experiencing increased rates of obesity and other diet-related non-communicable diseases, such as type 2 diabetes and cardiovascular disease. . This is precipitated in part by shifts in diets and dietary practices, away from traditional diets based on consumption of beans and legumes, staple grains (including cereals, grains, and tubers), fruits, and vegetables. The dietary shifts are typically towards highly processed foods that have gone through multiple industrial processes to alter nutrient composition, taste, shelf life, and appearance (Monteiro et al., 2019). These types of foods tend to be energy-dense and nutrient-poor (Kushitor, 2021; Rousham et al., 2020). These changes are occurring predominantly in urban and peri-urban areas, although they

are also increasing in rural areas as well (Blake et al., 2021; Ofori-Asenso et al., 2016; Popkin, Adair, & Ng, 2012; Reardon et al., 2021).

Food environments are the social, economic, cultural, and political contexts in which people make food choices (Turner et al., 2019). Recently, more attention has been paid to the influence of local food environments on consumption behaviour of populations; particularly environments in and around schools, as these environments shape the diets of youth (Fernandes et al., 2017; Turner et al., 2019). Emerging evidence shows a need to improve school food environments in Ghana for children to promote consumption of diets that are safe and result in good health (Ogum-Alangea et al., 2018; 2020; Laar et al., 2020). Ghanaian children enrolled in Public Basic Schools spend about 40 hours per week in school for 40 weeks each year. In the Ghanaian context, Public Basic Schools refer to non-residential government-funded educational institutions that provide education at the levels of kindergarten, primary and junior high for children aged 4 to 15 years (Ghana Education Service, 2019). These pupils are a captive audience for food and beverage companies who can aggressively target them with their advertisements and commercials promoting unhealthy food and beverages (Bragg et al., 2017; Tsrach and Laar, 2020), and we know unhealthy food advertising is widespread in Ghana (Green et al., 2020).

Involving communities to solve problems at national and local levels is recognised as a critical component for programme sustainability and effectiveness; this is especially important for promoting healthier eating among children (Pradeilles et al., 2019). In Ghana, key stakeholders who play a leading role in improving food environments for school-going children include those at the national level, such as officials from the Ministry of Education, Ministry of Health, Ministry of Gender, Children, and Social Protection, and their agencies/programmes (e.g. the Ghana Education Service, Ghana Health Service, School Health and Education Programme (SHEP), and the Ghana School Feeding Programme). Other key stakeholder groups include local community members (e.g., traditional leaders, opinion leaders, clergy), school staff including school heads and teachers, parents, and pupils (Laar et al., 2021).

There is a need for interventions to improve food environments in and around schools. Due to time and resource limitations, such interventions must be designed and implemented efficiently and in a developmentally and culturally appropriate manner. The readiness of community stakeholders to address the issue at hand – specifically capacity, interest, and resources – is crucial to success of these interventions.

GENERATING EVIDENCE FOR POLICY AND PRACTICE

Key research questions

The Community Readiness Model (CRM) is a tool for systematically defining preparedness of the community to take action(s) to address a particular issue. The concept of community readiness outlines an approach to increase a community's readiness to participate in a behaviour change intervention. education/school. The CRM applies a stage-based behaviour change model to the community level. The 9 stages of readiness defined by the model are: 1. No awareness, 2. Denial/Resistance, 3. Vague Awareness, 4. Pre-Planning, 5. Preparation, 6. Initiation, 7. Stabilisation, 8. Expansion/Confirmation, 9. Community Ownership (Oetting et al., 2014).

In a study implemented by the MEALS4NCDs project, CRM assessment was implemented to gauge the readiness and capacity of the stakeholders to improve food environments in and around Public Basic Schools of Greater Accra. Further, the assessment, determined the barriers and facilitators that influence implementation of interventions.

We aimed to understand the following research question: How ready is the education community to address marketing and availability of unhealthy foods and drinks in and around Basic Schools in Greater Accra Region?

The specific objectives were:

- To determine the stage of readiness of the school/education community to address the marketing and availability of unhealthy foods and drinks in and around public basic schools in the Greater Accra Region, and
- To gain qualitative insights into community factors that could affect the implementation of interventions targeting unhealthy food and beverage marketing and availability.

Research approach

The CRM tool applied in this project adapted an existing protocol, building on the previous use of CRM in deprived communities in Ghana (Plested et al., 2006; Pradeilles et al., 2019). The CRM serves as a theoretical framework for understanding and improving community readiness for interventions. The CRM tool consists of 36 open-ended questions addressing five readiness dimensions: community knowledge of efforts, leadership, community climate, community knowledge of the issue, and resources (Plested et al., 2006).

Study setting and ‘community’ scope

In this study, “*the community*” was operationally defined both over geographic space (geographic community) and according to stakeholders of interest (interest community). Geographically, the focus was on urban communities in the Greater Accra Region of Ghana. The interest community comprised individuals and key informants from both within and outside the geographic community, known to wield influence and/or play a leadership role in promoting healthy food environments. Unhealthy food environments were defined as situations that promote the consumption of unhealthy food items such as processed meats (e.g., tinned sausages, luncheon meats, corned beef); sugar and sweet spreads (e.g., Nutella, jams); cakes and sweets (e.g., toffees); carbonated and sweetened beverages (e.g., “fizzy” drinks, asaana, sobolo); savoury snacks (e.g., meat pies, pastries); fried foods (e.g., puff-puffs, plantain chips); and condiments high in sugar or salt (e.g., ketchup, salad cream), as well as foods that are not safe to eat because it is unhygienic or contaminated. Key informants were purposively selected to represent diverse sectors/programmes, including health, agriculture, education, and social protection. Other key informants interviewed included regulatory and local government agencies, non-governmental organisations, and UN Agencies; school management, parent-teacher Associations, and youth/student group leaders. In total, 18 key informants were interviewed between March and August 2021.

KEY FINDINGS

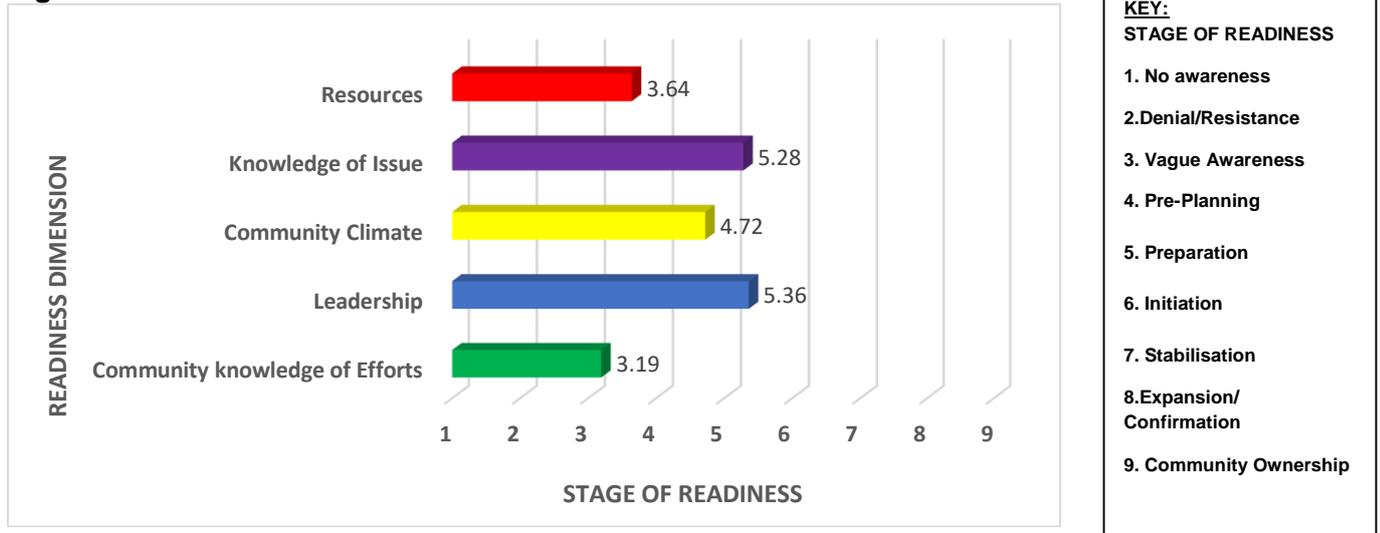
The following section presents the numerical representations of readiness within the Greater Accra Region. These scores were generated from analysing the perspectives of the key informants interviewed. The table below gives the scores for each dimension of readiness of the community in Greater Accra to address the marketing and availability of unhealthy food and drinks in and around Basic Schools.

Table 1: Mean readiness scores per dimension for participants (n=18)

Community Readiness Dimension	Readiness Score	Community Readiness Stage for Greater Accra Region
Community Knowledge of Efforts — <i>How much does the community know about the current programmes and activities?</i>	3.19 ± 2.45	Vague awareness - A few community members have heard about local efforts to address the marketing and availability of unhealthy foods in and around schools but know little about them .
Leadership — <i>What is leadership’s attitude towards addressing the issue?</i>	5.36 ± 1.60	Preparation - Leadership is actively supportive of continuing and improving current efforts and in developing new efforts to address the marketing and availability of unhealthy food and drinks in and around schools.

Community Climate — <i>What is the community's attitude towards addressing the issue?</i>	4.72 ± 1.47	Pre-planning - Community members acknowledge that the marketing and availability of unhealthy foods is a concern in and around schools and that something must be done to address it.
Community Knowledge of the Issue — <i>How much does the community know about the issue?</i>	5.28 ± 0.99	Preparation - Community members are knowledgeable about the marketing and availability of unhealthy food and drinks in and around school and its consequences on children.
Resources — <i>What are the resources that are being used or could be used to address the issue?</i>	3.64 ± 0.87	Vague awareness - There are limited resources (such as funding) identified that could be used for further efforts to address the issue.
Overall Community Readiness Score	4.44 ± 0.98	Pre-Planning - While efforts are ongoing to address the marketing and availability of unhealthy food and drinks in and around schools, there is a clear recognition among <i>community members</i> that more needs to be done to address the issue adequately.

Figure 1: Mean scores of readiness measured for each CRM dimension



RECOMMENDATIONS FOR GHANA'S SCHOOL AND EDUCATION COMMUNITY

This CRM assessment found that in the Greater Accra Region, there is a high level of awareness about the issue of marketing and availability of unhealthy food and drinks in and around schools. However, level of awareness of efforts to address the problem was assessed as “vague awareness”. The schools in proximity to the residences of community members had a high level of active leadership in improvement of food environments for children.

However, for an intervention to reach maximum impact, each dimension in the CRM needs to be at an equal stage of readiness. We recommend that:

- More effort should be put into:
 - a. improving community knowledge of existing local efforts before new interventions are implemented, and
 - b. securing resources (e.g., funding) to support efforts.
- Efforts should focus on addressing the concerns of the education community regarding food environment barriers that might be present as well as misinformation about the potential impacts of various food environment interventions (e.g., concerns about what alternative livelihoods could support owners of local shops selling unhealthy foods and drinks to children).
- Information dissemination about local efforts to improve community food environments should be undertaken using influential figures such as religious leaders, political figures, community health workers, and local celebrities, as well as popular media platforms such as television, radio, and social media to convey simple but understandable messages about the links between unhealthy food environments and poor diets.

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ABOUT THE MEALS4NCDs PROJECT

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REFERENCES

- Blake, C. E., Frongillo, E. A., Warren, A. M., Constantinides, S. V., Rampalli, K. K., & Bhandari, S. (2021). Elaborating the science of food choice for rapidly changing food systems in low-and middle-income countries. *Global Food Security*, 28(September 2020), 100503. <https://doi.org/10.1016/j.gfs.2021.100503>
- Bragg, M. A., Hardoby, T., Pandit, N. G., Raji, Y. R., & Ogedegbe, G. (2017). A content analysis of outdoor non-alcoholic beverage advertisements in Ghana. *BMJ Open*, 7(5), 1–6. <https://doi.org/10.1136/bmjopen-2016-012313>
- Fernandes, M., Folsom, G., Aurino, E., & Gelli, A. (2017). A free lunch or a walk back home? The school food environment and dietary behaviours among children and adolescents in Ghana. *Food Security*, 9(5), 1073–1090. <https://doi.org/10.1007/s12571-017-0712-0>
- Ghana Education Service. (2019). Basic Education Curriculum. www.ges.gov.gh/?q=content%2Fbasic-education-curriculum-1
- Green MA, Pradeilles R, Laar A, et al. Investigating foods and beverages sold and advertised in deprived urban neighbourhoods in Ghana and Kenya: a cross-sectional study. *BMJ Open* 2020; 10: e035680.
- Kushitor SB. Food availability and food habits among Ghanaians: Tracking the dietary transition in Ghana. *Nutr Health*. 2021 Dec 21:2601060211066707. doi: 10.1177/02601060211066707. Epub ahead of print. PMID: 34933619
- Laar, A., Barnes, A., Aryeetey, R., Tandoh, A., Bash, K., Mensah, K., Zotor, F., Vandevijvere, S., & Holdsworth, M. (2020). Implementation of healthy food environment policies to prevent nutrition-related non-communicable diseases in Ghana: National experts' assessment of government action. *Food Policy*, 93, 101907.
- Laar, A., Kelly, B., Holdsworth, M., Quarpong, W., Aryeetey, R., Amevinya, G. S., Tandoh, A., Agyemang, C., Zotor, F., Laar, M. E., Mensah, K., Laryea, D., Asiki, G., Pradeilles, R., Sellen, D., L'Abbe, M. R., & Vandevijvere, S. (2021). Providing Measurement, Evaluation, Accountability, and Leadership Support (MEALS) for Non-communicable Diseases Prevention in Ghana: Project Implementation Protocol. *Frontiers in Nutrition*, 8(August), 1–15.
- Monteiro, C. A., Cannon, G., Levy, R. B., Moubarac, J. C., Louzada, M. L. C., Rauber, F., Khandpur, N., Cediel, G., Neri, D., Martinez-Steele, E., Baraldi, L. G., & Jaime, P. C. (2019). Ultra-processed foods: What they are and how to identify them. *Public Health Nutrition*, 22(5), 936–941. <https://doi.org/10.1017/S1368980018003762>
- Ofori-Asenso, R., Agyeman, A. A., Laar, A., & Boateng, D. (2016). Overweight and obesity epidemic in Ghana - A systematic review and meta-analysis. *BMC Public Health*, 16(1). <https://doi.org/10.1186/s12889-016-3901-4>
- Oetting E. R., Plested B. A., Edwards R. W., Thurman P. J., Kelly K. J., and Beauvais F (2014). Tri-Ethnic Center Community Readiness Handbook. 2nd edition.
- Ogum-Alangea, D., Aryeetey, R., Gray, H. L., Laar, A. K., & Adanu, R. (2020). Basic school pupils' food purchases during mid-morning break in urban Ghanaian schools. *PloS one*, 15(9), e0238308.
- Ogum Alangea, D., Aryeetey, R.N., Gray, H.L. et al. Dietary patterns and associated risk factors among school age children in urban Ghana. *BMC Nutr* 4, 22 (2018).
- Plested BA, Edwards RW, Jumper-Thurman P. Community readiness: a handbook for successful change. *Am J Community Psychol*. 2006;1–42. Available from: http://www.ndhealth.gov/injury/ND_Prevention_Tool_Kit/docs/Community_Readiness_Handbook.pdf
- Popkin, B. M., Adair, L., & Ng, S. W. (2012). NOW AND THEN: The Global Nutrition Transition: The Pandemic of Obesity in Developing Countries. *Nutrition Reviews*, 70(1), 3–21. <https://doi.org/10.1111/j.1753-4887.2011.00456.x.NOW>
- Pradeilles, R., Marr, C., Laar, A., Holdsworth, M., Zotor, F., Tandoh, A., Klomegah, S., Coleman, N., Bash, K., Green, M., & Griffiths, P. L. (2019). How ready are communities to implement actions to improve diets of adolescent girls and women in urban Ghana? *BMC Public Health*, 19(1), 1–14. <https://doi.org/10.1186/s12889-019-6989-5>
- Reardon, T., Tschirley, D., Liverpool-Tasie, L. S. O., Awokuse, T., Fanzo, J., Minten, B., ... Popkin, B. M. (2021). The processed food revolution in African food systems and the double burden of malnutrition. *Global Food Security*, 28, 100466. <https://doi.org/10.1016/j.gfs.2020.100466>
- Rousham, E. K., Pradeilles, R., Akparibo, R., Aryeetey, R., Bash, K., Booth, A., Muthuri, S. K., Osei-Kwasi, H., Marr, C. M., Norris, T., & Holdsworth, M. (2020). Dietary behaviours in the context of nutrition transition: a systematic review and meta-analyses in two African countries. *Public health nutrition*, 23(11), 1948–1964.

- Tsrah, P., & Laar, A. (2020). What is on sale? Healthiness of foods on promotional-flyers of Accra-Based Supermarkets. In *World Public Health Nutrition Congress 2020*. Brisbane, Australia.
- Turner, C., Aggarwal, A., Walls, H., Herforth, A., Drewnowski, A., Coates, J., Kalamatianou, S., & Kadiyala, S. (2018). Concepts and critical perspectives for food environment research: A global framework with implications for action in low- and middle-income countries. *Global Food Security*, 18, 93–101. <https://doi.org/10.1016/j.gfs.2018.08.003>.
- Turner, C., Kalamatianou, S., Drewnowski, A., Kulkarni, B., Kinra, S., & Kadiyala, S. (2019). Food Environment Research in Low- and Middle-Income Countries: A Systematic Scoping Review. *Advances in Nutrition*, 1–11. <https://doi.org/10.1093/advances/nmz031>.