



ENDLINE EVALUATION REPORT

MAY 2022



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Abbreviations and acronyms

CAPHA	Coalition of Actors for Public Health Advocacy
CRM	Community Readiness Model
CSO	Civil Society Organisation
DAC	Development Assistance Committee
DFC	Drivers of Food Choice
ECR	Early Career Researcher
FERN	Food Environment Research Network
FGD	Focus Group Discussion
FSS	Food Systems Summit
GAR	Greater Accra Region
HD4HL	Healthier Diets for Healthy Lives
IDRC	International Development Research Centre
INFORMAS	International Network for Food and Obesity NCDs Research Monitoring and Action Support
KII	Key Informant Interview
PI	Principal Investigator
MEALS4NCDs	Measurement, Evaluation, Accountability, and Leadership Support for NCDs prevention
MOH	Ministry of Health
NCDs	Non-Communicable Diseases
NGO	Non-Government Organisation
SSB	Sugar-Sweetened Beverages
TACLED	Dietary Transitions in African Cities
TOR	Terms of Reference
WHO	World Health Organization
WP	Work Package

1.0 Executive summary

1.1 Summary of objectives/methods

This endline evaluation was intended to assess the progress, outputs, outcomes, and impacts of the MEALS4NCDs project in Ghana. It has addressed the following evaluation criteria: inclusiveness and gender responsiveness, relevance, efficiency, effectiveness, impact, sustainability, lessons learned, recommendations and accountability. It was completed in April and May 2022 using a combination of evidence synthesis and primary data collection (qualitative) methods:

- Desk review of project documents
- Key informant interviews
- Focus Group Discussion

1.2 Key findings

The MEALS4NCDs project was developed in direct response to national priorities and evidence gaps identified in previous studies. It has produced robust and generalisable evidence to support policy actions towards healthier food environments for children and adolescents in Ghana.

The project adopted standardised frameworks, indicators and tools to assess food promotion, food provision and community readiness. This approach may be replicated in other countries, increasing the international relevance of the findings.

The project has generated impact in the following ways:

Through its commitment to capacity building, this project has developed a regional (African) network for food environment researchers who are well-positioned to influence and support policy actions towards healthier food environments for children and adolescents in Ghana and beyond.

Stakeholder engagement throughout the project has led to interdisciplinary partnerships and cross-sectoral collaborations between academic, government, UN agencies, NGOs and CSOs.

Africa Food Environment Research Network (FERN) has provided a platform for food environment researchers to come together, share knowledge, and develop partnerships and collaborations. The MEALS4NCDs team is now globally renowned for innovative research and leadership in the field of food environments. FERN will be supported to continue beyond the MEALS4NCDs project.

A government-led project was launched by the Minister of Health in February 2022: Healthier Diets for Healthy Lives (HD4HL). It aims to build evidence and mobilize multi-stakeholder actions towards a policy bundle for healthier and more equitable consumer food environments. This new project was funded by IDRC as a direct result of the success and credibility of the MEALS4NCDs project.

An advocacy proposal has been developed using evidence from this project. It will be used by partner organisations to generate awareness and support for food environment policies and counter likely opposition from the private sector.

Longer-term health and social impacts depend on the commitment of government and other key stakeholders to develop and implement policies to create healthier food environments for children, and ensuring that schools and communities support those actions.

Further engagement at community level would help to increase public awareness, support and demand for healthier food environments.

1.3 Key recommendations

The following recommendations may be considered possible ways to optimise the longer-term benefits and impacts of this impressive project, and to develop additional research projects relating to children's food environments in Ghana.

1. Explore non-academic ways to disseminate study findings including social media, film, radio or podcasts. Involving students and Early Career Researchers (ECRs) in science communication and public engagement would help to engage a younger audience and further strengthen research capacity.
2. Provide lay summaries, key messages and/or training sessions for advocacy organisations to facilitate the development of evidence-based awareness campaigns that are appropriate for the target audience (including children, adolescents and parents).
3. Maximise opportunities for disaggregated analysis to explore differences between population groups and between/within districts of the Greater Accra Region (GAR).
4. Advocate for food environment monitoring systems to be scaled up and embedded at national level. High quality data will be essential to prioritize actions, monitor progress and evaluate effectiveness.
5. Further research to explore the needs and perspectives of vulnerable and marginalised groups. The Nutrition Equity Framework¹ may be used to develop food environment policies and interventions that are equity-sensitive and responsive.
6. Further research and engagement with school/education stakeholders to identify appropriate interventions to improve food provision in schools (using WP2 findings when available) and opportunities to link with the school curriculum.
7. Consider ways to involve community representatives (especially adolescents) in the HD4HL project, to ensure that beneficiaries' voices are heard by policy makers, and ideally have direct input into policy development. Thus, further increasing accountability.
8. Explore innovative and complementary approaches for cross-sectoral collaboration to develop leadership and system-level changes in food environments. An example is the Africa Food Fellowship² (Wageningen University & Research) in Kenya and Rwanda.
9. Seek additional opportunities for global engagement, dissemination and impact. An example is the Coalition of Action on Healthy Diets from Sustainable Food Systems for Children and All (HDSFS)³ in which Ghana is a strategic partner and 'frontrunner'.

¹ Nisbett N, Harris J, Backholer K, Baker P, Jernigan VBB, Friel S (2022). Holding no-one back: The Nutrition Equity Framework in theory and practice, *Global Food Security*, 32: 100605. DOI: 10.1016/j.gfs.2021.100605.

² [African Food Fellowship | Leadership Programme on Food Systems on the continent](#)

³ [The Coalition of Action on Healthy Diets from Sustainable Food Systems for Children & All - Food Systems Summit Community](#)

2.1 Background and context



Ghana, like many other countries in Africa, is experiencing a rapid and alarming increase in obesity and nutrition-related non-communicable diseases (NCDs). WHO data suggests that NCDs including cancer, cardiovascular disease, chronic respiratory diseases, and diabetes account for 43% of all deaths in Ghana⁴. Poor diets, **overweight and obesity** are among the most common risk factors for NCDs, and they are known to track **from childhood/adolescence into adulthood**.

National surveys in Ghana showed that the prevalence of overweight and obesity among women of reproductive age increased from 10% in 1993 to 40% in 2014^{5,6}. In 2016, a systematic review pooled data from 43 studies (n=48,966) and found that 43% of Ghanaian adults were overweight (25.4%) or obese (17.1%), with significantly higher rates among women (27.8% overweight, 21.9% obese) and adults in urban areas (27.2% overweight, 20.6% obese)⁷. A cross-sectional survey in two urban areas of Ghana found that **17% of school children (9-15 years) were overweight (12.4%) or obese (4.6%)**; girls were twice as likely to be overweight or obese compared to boys⁸. These figures are now several years out of date and the current rates are likely to be even higher.



The rapid increase in obesity and NCDs has been partly attributed to environmental factors, such as the dietary **shift from traditional diets towards highly processed foods** with low nutritional value (known as the 'nutrition transition'), which tends to occur in tandem with urbanization. Ghanaian households report frequent consumption of foods **high in calories, sugar, saturated fat and salt**⁶ all of which are known to contribute to NCDs. Simultaneously, evidence from local studies has revealed widespread and **misleading marketing** of unhealthy foods and sugar-sweetened beverages in both private and public-sector settings^{9,10}.



It has long been recognized that the physical and social environments – in which we live, work, and eat – are critical determinants of health. This includes **the food environment (FE)**, which has been defined as “the interface where people interact with the wider food system to acquire and consume foods”¹¹. **Actions focused on creating healthy food environments are urgently needed in Ghana**, to improve the availability, affordability and diversity of healthy foods, and to limit the availability and promotion of unhealthy foods. A recent benchmarking study highlighted priority actions, such as restricting the promotion/marketing of unhealthy foods in schools



⁴ World Health Organization - Noncommunicable Diseases (NCD) Country Profiles, 2018.

⁵ Ghana Statistical Service - GSS and Macro International. Ghana Demographic and Health Survey 1993. Calverton, MD: GSS and Macro International (1994).

⁶ Ghana Statistical Service (GSS) GHSG and ICF International. Ghana Demographic and Health Survey. (2014). Rockville, MD: GSS, GHS, and ICF International (2015).

⁷ Ofori-Asenso R, Agyeman AA, Laar A, Boateng D. Overweight and obesity epidemic in Ghana—a systematic review and meta-analysis. BMC Public Health. (2016) 16:1239. Doi: 10.1186/s12889-016-3901-4.

⁸ Aryeetey R, Lartey A, Marquis GS, Nti H, Colecraft E, Brown P. Prevalence and predictors of overweight and obesity among school-aged children in urban Ghana. BMC Obesity 2017; 4(1): 38.

⁹ Green MA, Pradeilles R, Laar A, Osei-Kwasi H, Bricas N, Coleman N, 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.

¹⁰ Amevinya GS, Quarpong W, Laar A. Commercial food advertising on the campus of Ghana's largest University. World Nutr. (2020) 11:57–73. Doi: 10.26596/wn.202011257-73.

¹¹ Turner C, Aggarwal A, Walls H, Herforth A, Drewnowski A et al. Concepts and critical perspectives for food environment research: A global framework with implications for action in low- and middle-income countries. Global Food Security 2018, 18: 93-101. Doi: 10.1016/j.gfs.2018.08.003.

and the media, and identified opportunities for researchers and civil society work together for policy implementation¹².

2.2 Introduction to MEALS4NCDs

The Measurement, Evaluation, Accountability, and Leadership Support for NCDs prevention (**MEALS4NCDs**) project aims to measure and support public sector actions that create healthy food marketing, retail and provision environments for children and adolescents in Ghana, to prevent



obesity and nutrition-related NCDs. The study hypothesis is that “providing measurement, evaluation, accountability, and leadership support to governments and other stakeholders will facilitate the introduction of comprehensive and strong policy measures that serve to regulate the promotion of unhealthy foods or the implementation of clear, consistent food environment policies in schools and other child-serving settings”¹³.

The project is led by the School of Public Health, University of Ghana in collaboration with other institutions: University of Health and Allied Sciences, Ghana Health Service, African Population and Health Research Center, French National Research Institute for Sustainable Development, University of Amsterdam Academic Medical Center, Sciensano Research Institute, and University of Toronto. The project received funding from the International Development Research Centre (IDRC) Food, Environment and Health Program (CAD 521,300.00). The project duration was 36 months from March 2019 to March 2022.



The **objectives of the MEALS4NCDs** project (as stated in the grant proposal) were to:

1. Describe the nature and extent of unhealthy foods and non-alcoholic beverage promotion on television, in stores, and in and around schools.
2. Describe the nutrition standards or guidelines that are in place to implement specific policies or programmes within public sector basic schools in the Greater Accra Region of Ghana.
3. Evaluate the nutritional quality of foods and beverages sold or provided in child-serving institutions.
4. Assess community stakeholders’ readiness to accept, and capacity to implement interventions to improve children’s food environments in the Greater Accra Region of Ghana.

An additional objective was included in the protocol paper and draft report:

5. Build regional capacity on food environment research and engage with stakeholders with a potential to influence policy.

To investigate these objectives, **the project adapted approaches developed by** the International Network for Food and Obesity NCDs Research Monitoring and Action Support (**INFORMAS**): a global network of public-interest organisations and researchers that aims to monitor, benchmark, and support public and private sector actions to increase healthy food environments and reduce obesity and NCDs and their related inequalities¹⁴.



¹² Laar, A., Barnes, A., Aryeetey, R., Tandoh, A., Bash, K., et al. (2020b). 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. Doi: 10.1016/J.FOODPOL.2020.101907.

¹³ Laar A, Kelly B, Holdsworth M, Quarpong W, Aryeetey R, et al. (2021). Providing Measurement, Evaluation, Accountability, and Leadership Support (MEALS) for Non-communicable Diseases Prevention in Ghana: Project Implementation Protocol. *Front. Nutr.* 8:644320. Doi: 10.3389/fnut.2021.644320.

¹⁴ About INFORMAS. <https://www.informas.org/about-informas/>

Two INFORMAS modules were integrated into the study design: Food Promotion and Food Provision.

WORK PACKAGES

The MEALS4NCDs project has three work packages



Food promotion (WP1): This work package aimed to assess the frequency of marketing of unhealthy foods and non-alcoholic beverages to children, the persuasive power of techniques used in promotional communications and the healthiness of promoted food products (objective 1).



Food provision (WP2): This work package aimed to describe the nutrition policies or programmes within public basic schools in the Greater Accra Region of Ghana, the standards or guidelines that are in place to implement them (objective 2) and to evaluate the nutritional quality of the foods and beverages sold or provided in these settings (objective 3).



Community readiness (WP3): This work package aimed to assess the readiness of the community (defined as geographic community and interest community) to accept and implement interventions to improve children's food environment in the Greater Accra Region of Ghana (objective 4).

THE EVALUATION

2.3 Purpose and objectives



This endline evaluation was intended to assess the progress, outputs, outcomes, and impacts of the MEALS4NCDs project in Ghana. It determines the extent to which the project has achieved its objectives, and thus provided the evidence and outputs needed to develop relevant and culturally acceptable food environment policies and interventions.

The evaluation covers the entire project duration (from March 2019 to March 2022). In terms of geographic coverage, it includes the progress and activities in six districts of the Greater Accra Region, as well as the global engagements and capacity building.

The objectives of the evaluation (as specified in the TOR) are:

1. To assess the relevance, effectiveness, and efficiency of the project, the sustainability of the results, and the degree of satisfaction of the beneficiaries.
2. To assess the extent to which the project outputs have been achieved, taking into account the indicators given in the project document.
3. To evaluate the level of contribution of the outputs towards the achievement of the expected project objectives, goal and impact.
4. To examine what (also how, and why) has contributed to the achievement of the project outcomes or otherwise.
5. Identify what the key factors of success were and how these be replicated or scaled up elsewhere.
6. To evaluate the appropriateness of the strategies and approaches used for implementing the project.

7. To identify major external factors that influenced (positively or negatively) the implementation of the project and evaluate their implication on future interventions.
8. To highlight lessons learned from the project and make recommendations for future strategies.

2.4 Evaluation criteria

The following evaluation criteria/questions (as specified in the TOR) have been addressed during the endline evaluation:



Inclusiveness and gender responsiveness: Did the program adhere to diversity in all its implementation phases?



Relevance: Are the project outcomes consistent with national food environment priorities, and or with other international priorities (e.g. the World Health Assembly Resolutions such as WHA63.14; or the World Health Organization Best-buys for combating NCDs?)



Efficiency: To what extent was value-for-money considerations taken into account.



Effectiveness: To what extent were the objectives achieved? What were the major factors influencing the achievement or non-achievement of the objectives?



Impact: What are the positive and negative contributions of the project findings to the populace or the country's food environment agenda (direct and indirect)? What has happened – programmatically – as a result of the project? What difference has the project made to beneficiaries? Have outcomes been achieved? And if so, to what extent have outcomes been achieved? What was the contribution (positive or negative) of the COVID-19 situation to the attainment of the project objective? Or to what extent did the project manage the difficulties of the challenges posed by the COVID-19 situation.



Sustainability: National ownership of the results and the potential for project-supported interventions to continue to deliver benefits for an extended period after completion. Assess the project's role in influencing wider policy at national and international levels.



Lessons learned: The evaluation will also document the innovations and lessons learned from the project. This includes analysis of what has worked and what has not as well as observations related to the project design, management and operations.



Recommendations: Considering the progress made thus far, what could be future steps for government and development partners to promote effective development cooperation? What could be further improved if the University of Ghana, the collaborators, or other interested stakeholders wish to implement a similar project in the near future?






Accountability: To what extent was accountability towards the donor and the beneficiaries of the program taken into account?

The evaluation matrix ([Annex 1](#)) draws on OECD/DAC evaluation criteria¹⁵ and the MEALS4NCDs evaluation criteria/questions above. Additional questions were added by the evaluation consultant and agreed by the project team. The evaluation matrix also provides details of how the evaluation criteria/questions were addressed, including indicators, data collection methods, data sources, data analysis and triangulation.

¹⁵ DAC CRITERIA FOR EVALUATING DEVELOPMENT ASSISTANCE [49756382.pdf \(oecd.org\)](https://www.oecd.org/dac/49756382.pdf)

3.1 Methods

This endline evaluation used a mixed methods approach, including evidence synthesis and primary data collection (qualitative) methods:

-  **Desk review of project documents** including project proposal, draft report and briefs. The bibliography of secondary sources ([Annex 2](#)) shows the full list of documents included.
-  **Key informant interviews (KIIs)** with project investigators, project advisory board and other key stakeholders.
-  **Focus Group Discussion (FGD)** with ECRs and supported graduate students involved with the MEALS4NCDs project.





Project datasets were not available to the consultant and therefore it was not possible to conduct secondary data analysis for this evaluation. Summary data presented in the project documents were used to assess the effectiveness of the project and answer the evaluation questions.

The evaluation was completed in April and May 2022. The Gantt chart ([Annex 3](#)) was agreed with the project team during the inception phase and has been completed as planned.

3.2 Sampling and recruitment

A list of stakeholders was provided by the project team. Key informants were purposively selected from three stakeholder categories (3-5 each): Project Investigators, Project Advisory Board and Key Stakeholders (Table 1). The selection process was collaborative (with project PI and core team) and progressive (asking each interviewee to recommend other key stakeholders). The FGD with ECRs and students was convened by the Monitoring and Evaluation Specialist (himself an ECR). The KIIs and FGDs were conducted online by Dr Heather Ohly in April and May 2022. A total of 12 stakeholders participated (57% of those invited). Informed consent was obtained from all participants in advance ([Annex 4](#)).

Table 1. Sampling frame and summary of participants

	Stakeholder categories (n):				
	Project Investigators	Project Advisory Board	Key Stakeholders	Early Career Researchers	Supported Graduate Students
	11	13	8	6	4
	Data collection methods/sample size:				
	KIIs	KIIs	KIIs	FGD	
	3-5	3-5	3-5	1 FGD with up to 5 students	
	Number of stakeholders invited:				
	6	5	5	5	
	Number of participants:				
	4	0	3	5	

3.3 Data collection and analysis



Qualitative data (primary): A topic guide for the KIIs and FGD was developed using the evaluation criteria/questions and evaluation matrix (Annex 5). The questions were designed to elucidate rich information about the extent to which the MEALS4NCDs project was inclusive, relevant, efficient, effective, impactful, sustainable and accountable. The topic guide was modified for each KII/FGD, which were conducted using a semi-structured approach. Recordings were used to make detailed notes using subheadings from the evaluation matrix (similar to content analysis using pre-defined categories or themes). The evaluation team consisted of one researcher (Dr Heather Ohly) so it was not possible to undertake duplicate analysis, as would be expected with a larger research team and more time/resources.

Desk review (secondary): Data extraction templates were developed using subheadings from the evaluation matrix. These templates were populated with relevant findings from the desk review including data sources for traceability.



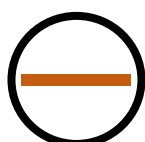
Triangulation of data sources: Primary and secondary data were synthesized using the structured framework provided by the evaluation matrix. This information was used to develop the evaluation findings, lessons learned and recommendations.

3.4 Strengths and limitations



This endline evaluation was conducted by **an independent research consultant** with experience of evaluating multi-sectoral nutrition interventions/programmes in diverse locations and settings. **The DAC criteria for evaluating development assistance were integrated** with the evaluation criteria provided by the project team, thereby adding another level of independence and rigour. This evaluation seeks to add value to project outcomes/impacts by recommending ways to leverage and sustain longer-term benefits and impacts.

The evaluation was conducted remotely (in the UK) due to time/resource limitations. Therefore, the evaluation consultant did not have the opportunity to visit Ghana or speak to project stakeholders face-to-face. It was not possible to include any school or community stakeholders; **contact details were not provided and connecting with them remotely may have been difficult**. Therefore, primary



data was mostly obtained from stakeholders directly involved in the project (Table 1). Two other limitations are explained above: it was **not possible to conduct secondary data** analysis because the project datasets were not available; it was not possible to undertake independent coding/analysis of qualitative data because the evaluation was conducted by one researcher.

The following Annexes are referred to above:

[Annex 2](#): Bibliography of secondary sources

[Annex 3](#): Gantt chart

[Annex 4](#): Consent form

[Annex 5](#): Topic guides used for KIIs and FGD



4.0 Findings

The findings of this evaluation are presented in sections corresponding to the evaluation criteria: inclusiveness and gender responsiveness, relevance, efficiency, effectiveness, impact, sustainability and accountability. *Stakeholder views and comments are presented in purple to substantiate each section, with illustrative quotes in italics (attributed to stakeholder category).*

4.1 Inclusiveness and Gender responsiveness

This section considers the extent to which the project considered diversity, inclusiveness and gender responsiveness in all its activities.

Women were well represented in the project team, making up more than half (59%) of the internal stakeholders (Table 2). The project team was also **geographically diverse**, including members from Ghana, Ethiopia, Australia, Canada, France and the UK. This reflected deliberate efforts to promote diversity and **gender representation at all levels of the project team**. It is unclear whether this diversity approach included people of non-binary genders.



Stakeholders felt that the project had benefitted from a wide range of perspectives and expertise as a result of its diversity.

Table 2. Gender balance among project stakeholders

Stakeholder group	Men	Women	Total
Project Investigators	8	3	11
Project Advisory Board	4	9	13
Key Stakeholders	2	6	8
Early Career Researchers	2	4	6
Supported Graduate Students	2	4	6
Totals	18	26	44



The various meetings and events organised during the project were attended by a diverse range of participants. For example, the Food Systems Summit (FSS) Dialogue held in May 2021 was attended by 82 participants (**62% women**) who were identified through widespread publicity and purposive outreach. They included representatives from different sectors, stakeholder groups and regions of Africa. This diversity contributed to overall adherence with the FSS principles of engagement.

With regards to inclusiveness at the beneficiary level, the project did not specifically assess the needs and perspectives of vulnerable and marginalised groups such as extreme poor households, ethnic minorities, migrants/refugees, disabled children; or gender differences in terms of how boys and girls experience food environments. These minority groups may have different needs and perspectives in relation to food access, affordability, exposure to marketing etc. This may be an area for further research (using mixed methods) to inform the development of food environment interventions that are sensitive and responsive to different groups of people living in Ghana.

Stakeholders emphasized that the priority for this project was to generate regionally representative findings for policy makers (see next section on relevance 4.2). However, the study sample included diverse communities across



six districts of GAR and therefore data could be disaggregated by socio-economic characteristics in subsequent analyses.

An ECR referred to recent analysis of food advertising data, which included comparisons by socio-economic status (manuscript currently under review). Another ECR explained that she had intended to interview children that do not attend school. However, they are hard to reach and she discovered that many are from migrant families and do not speak the local common language (or English). Therefore, this aspect of qualitative research was not possible during this project.

Project Investigators including the PI acknowledged that diversity and inclusion were not dealt with sufficiently in this project. They emphasised that attention towards vulnerable and marginalised groups of children will be an important priority for future studies. The HD4HL project will engage with a broader range of stakeholders from all parts of Ghana to inform national policy developments (further details in 4.5).



“When policies are developed, they are not developed for one group of people, they are developed for everybody – poor or rich, vulnerable or otherwise. It is important for evidence that we create to take their experiences into consideration so that policies are useful for them.” (Project Investigator)

“If we have not addressed this challenge, it is something we need to look at in closer detail.” (Project Investigator)

4.2 Relevance

This section considers the extent to which the project is consistent with (or appropriate to) the priorities identified in the target population – children aged 17 years or younger in Ghana. This includes the extent to which the project objectives and activities were evidence-based, and their compatibility with national and regional priorities.

The MEALS4NCDs project was conceived in the context of increasing rates of obesity and NCDs in Ghana, coupled with evidence on the extent of food advertisements targeting children (promoting unhealthy items) and the influence of food environments on children’s diets and health outcomes. This rationale has been clearly and consistently articulated throughout the project documentation (and is summarised in section 2.1).



“Targeting young people seems to be the best way forward. Preventing the younger generation from getting into the same problems. They also influence their parents ... providing information to the older generation, who may not be well educated.” (Project Investigator)

The project builds on the foundation of previous research in Ghana, which highlighted national priorities and research gaps. Several members of the MEALS4NCDs team worked together on two previous studies exploring dietary transitions and food environments in Ghanaian cities (known as TACLED and DFC)¹⁶. They also conducted a benchmarking assessment of government action to improve the healthiness of food environments (using the INFORMAS Food-EPI module), which concluded that restricting unhealthy food marketing in children’s settings and in the media was the highest priority ‘policy action’ in Ghana¹². Other priorities included support for nationally relevant research; leadership, monitoring and evaluation.

¹⁶ [Related Projects – MEALS4NCDs Project](#)





*“The evidence we had at that time was not sufficient to motivate policy action, and so we put our heads together, introduced more stakeholders and spoke to funders.”
(Project Investigator)*

The MEALS4NCDs project was developed in direct response to these priorities (as the project name indicates). It sought to provide context-appropriate evidence to support policy actions towards healthier food environments for children and adolescents in Ghana, as well as building the supporting structures of leadership and accountability through stakeholder engagement and capacity building.



The funder (IDRC) explained how the project proposal was closely aligned their priorities for food systems research in the region:



“We were really focused on research with a very clear pathway to policy influence and impacts. It was important to have very credible researchers, who understood the context, had strong connections with the policy making space, and who could design rigorous studies that would meet that need for influencing policy.”

The project activities within each work package were based on two established and systematic approaches: INFORMAS (WP1 and WP2) and CRM (WP3). The decision to adopt standardised frameworks, indicators and tools will strengthen data consistency and transparency. It provides a benchmark from which to monitor change/progress over time in Ghana, and enables comparisons with other countries that may choose to adopt similar approaches. These attributes are likely to increase the relevance of (and interest in) project findings – nationally and internationally.



ECRs referred to the scale and representativeness of the project as factors that would potentially increase its relevance to policy makers and other stakeholders. The scope of assessment of food environments was broad (including TV and in/around schools) and data were collected from districts representing the whole GAR. A project investigator explained that some previous studies were criticised for focusing on lower-income communities. It was therefore anticipated that a larger study with generalisable findings would have a bigger impact on policy makers.



“Sometimes to convince policy makers, you need to help them see things in their lives as well, and that can sometimes precipitate them to do something about it, if it affects them as well.” (Project Investigator)

The project is also relevant and responsive to international priorities, such as the World Health Assembly recommendations on marketing of food and non-alcoholic beverages to children, which provide a framework for developing and strengthening policies to restrict the marketing of food and beverages high in fats, sugar and salt¹⁷. The project team understood the complexity and challenges associated with implementing such policies, and the need to provide robust and context-specific evidence to support policymakers.

A major strength of the MEALS4NCDs project was adopting a long-term vision and approach to addressing the complex problem of unhealthy food environments; recognizing the importance of understanding the problem and engaging with stakeholders to develop evidence-based, acceptable and sustainable solutions.



¹⁷ World Health Organization. Marketing of food and non-alcoholic beverages to children. Sixty-Third World Health Assembly (No. Resolution WHA63. 14). Geneva: World Health Organization (2010).



“The project is innovative in terms of directly being used to influence policy.” (Project Investigator)

“The overriding motivation was to generate evidence that can be put into use in terms of advocacy and developing policy.” (Project Investigator)

4.3 Efficiency

This section considers the economic efficiency of the project and perceived value for money.

The overall project budget was CAD 521,300 (equivalent to USD 408,933 in May 2022). The budget summary dated June 2019 shows that planned expenditure was USD 393,947. The majority of costs were allocated to research (53.2%) and training (12.9%). An update on actual expenditure was not provided for the purposes of this endline evaluation, but Professor Laar confirmed that **the project was delivered on budget as planned.**



During the COVID-19 pandemic, less money was needed for international travel (such as conference attendance). With permission from the funder (IDRC), this money was reallocated to support additional fieldwork costs and publication fees (article processing charges). **The University of Ghana also provided some additional funding to support these costs** (amount not disclosed).

Stakeholders described the project as excellent value for money. They credited Professor Laar for efficient and creative project management, which enabled the team to complete and even scale-up some of the project activities – during and despite the pandemic.



“I’m amazed that they [we] managed to deliver even more work than was promised at the beginning.” (Project Investigator)

The project funder (IDRC) agreed. Consequently, they have invested in the HD4HL project (further details in 4.5). Professor Amos Laar was keen to express his appreciation for the ongoing funding and support provided by IDRC.



“Sometimes you have the ideas, but if you don’t have the financial support to put your ideas into action, your ideas remain dreams.”

4.4 Effectiveness



This section considers the extent to which the project objectives were achieved, and what factors contributed to the achievement (or non-achievement) of objectives.

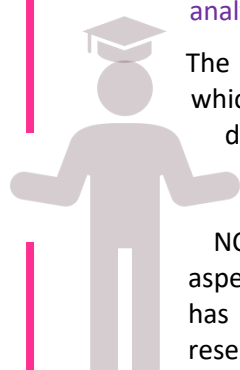
Table 3 (pages 15-16) summarizes the work completed under each Work Package (1-3), including objectives (1-4), sub-objectives, studies (1-8), summary of activities and key findings, and comments on the extent to which the objectives were achieved. This summary is based on the information available at the time of the desk review completed in April 2022.

Most of the **data collection activities** outlined in the protocol paper¹³ **were completed**, and **targets were met** in relation to the number of TV channels (n=3), districts (n=6) and schools/zones (n=200) assessed. Likewise, **most of the ‘study outcome indicators’ listed in the protocol paper have been reported.** However, **the findings presented** in the draft report, policy briefs and other project documents **are concise, key findings only.** It was not possible to access the raw datasets during this evaluation. **Further analysis and in-depth findings will be published in due course.**

Table 3 highlights some current data gaps and opportunities to explore some of the variations in **children’s** food environments. For WP1, this could include comparisons between TV channels; in-depth analysis of promotional strategies

used to target children and parents across different food product categories; more detailed GIS analysis/mapping of food and SSB advertisements around schools (such as geographically weighted regression) etc. For WP2, findings are awaited on the nutritional quality of foods and beverages sold or provided in schools; qualitative insights from food service providers (such as barriers to implementing school food policies and programmes) would help to engage stakeholders and identify solutions. For WP3, qualitative insights are similarly lacking and needed to promote greater community awareness and readiness.

Stakeholders confirmed that some aspects of this work are underway. Data collection activities have all been completed but data analysis is ongoing. Hence, some of the findings were not available in time to be considered in this endline evaluation. For example, the analysis of nutritional quality of foods and beverages sold or provided in schools was delayed because the team decided to use two additional classification systems, including the Ghana food-based dietary guidelines which have recently been published. Some of the qualitative analysis is nearing completion (such as interviews with parents, caterers and headteachers). The qualitative data from CRM interviews will also be analysed to provide deeper insights on community readiness (WP3).



The fifth project objective relates to capacity building and stakeholder engagement, both of which were important and successful components of this project. Nine students and ECRs were directly involved in the project team. They have a range of backgrounds and interests including public health, nutrition, food systems, implementation science, bioethics – all of which are relevant to addressing unhealthy food environments, obesity and NCDs. In addition, 37 research assistants received training and supported various aspects of fieldwork and data collection during the project. Therefore, this project has contributed to developing the next generation of food environment researchers in Ghana and beyond.



Students and ECRs reported a range of training and development opportunities during the project, including new research skills/methods, data collection and analysis, manuscript writing, computer literacy, organising and presenting at conferences, and networking with other researchers. They described how the MEALS4NCDs project had contributed to their career progression. Some of them are continuing with further studies and employment on subsequent projects at the University of Ghana. Another has become a lecturer, and attributed her successful job interview to the experience gained in this project. They are clearly motivated and ambitious.



“I am the least qualified of all of them, but this project offered me a seat at the table. When they were discussing, I was able to make input. I felt I was part of something. So that really triggered my interest in obesity [and food marketing to children].” (ECR)

“This project opened doors for me in terms of opportunities and exposure.” (ECR)

“It’s not just the degrees they are getting, but their motivation to venture into this space. We see them as food environment experts in the near future.” (Project Investigator)

Stakeholder engagement events were held throughout the project (Table 4). These events brought together national and international stakeholders to disseminate research findings, share perspectives and discuss priorities in relation to food environments in Ghana. They have been instrumental to the development of interdisciplinary partnerships and cross-sectoral collaborations between academia, government, UN agencies, NGOs and CSOs. Stakeholder engagement will continue through these partnerships and collaborations, contributing to the project’s impact (4.5) and sustainability (4.6).



Stakeholders (including this senior academic) described how they had benefitted from the project by developing new research interests, partnerships and collaborations:



"[This project] was a rich experience from my own experience because my work is not in this field, but it has given me an important new platform to work with these partners in the future." (Project Investigator)

Table 4. Overview of stakeholder engagement events

Name of event	Date	# Participants
MEALS4NCDs Project Launch and Workshops	August 2019	Project team
National Multi-Stakeholder Nutrition Forum and Ghana's first National Nutrition Conference	January 2020	100
Africa Food Environment Research Network (FERN) 2020	November 2020	160/day
UN Food Systems Summit Dialogues	May 2021	82
Developing a Food Policy Package for Healthier diets in Ghana: A Consultative Meeting	September 2021	62
Africa Food Environment Research Network (FERN) 2021	November 2021	100/day

A project investigator explained how the academic system in Ghana values stakeholder/community engagement and 'making a difference' is essential for career progression. This value system has facilitated the development of partnerships and collaborations over a longer period of time – not constrained by the boundaries of project funding. Going forward, it will enable Professor Laar and other academic co-investigators to contribute to high level consultations and continue to provide leadership, even after the official responsibility and ownership have transferred to government ministers and policy makers.



The COVID-19 pandemic presented some major challenges during the project – mainly disruptions to fieldwork during periods of lockdown, restrictions and schools closures. However, the project team responded by adopting a flexible approach, rearranging data collection activities and adopting some virtual approaches. When face-to-face activities were possible, researchers were provided with PPE and training so that they felt confident to interact with study participants.

ECRs highlighted some specific effects of the pandemic on their data collection activities. When restrictions were in force, it was not possible to conduct face-to-face interviews and some interviews were conducted by phone instead. They encountered some challenges with poor internet connection and coordinating interviews, which lengthened the data collection period. However, they felt they had managed to collect rich qualitative data despite these challenges. At other times, it was possible to conduct interviews in person but everyone present had to wear a face mask.



"The masks could have two effects. People who are really shy might feel more comfortable talking with a mask on their face, but also hard for the interviewer and respondents to read facial expressions ... potential limitation of project activities (with children and adults) having the mask as a barrier." (ECR)

ECRs noticed that some members of the public were reluctant to interact with them, even in outdoor spaces when they wore face masks and PPE. This led to lower than expected response rates, such as for customer surveys outside supermarkets. They adapted by recruiting more supermarkets to reach the required number of respondents.



Another adaptation during the pandemic was delivering the FERN meetings online, instead of as in-person meetings as originally planned. This created additional work for the organising team, but also an opportunity for a wider range of participants to join. The meetings were free of charge, which increased accessibility for many researchers in the region – especially students and ECRs. Over 600 emails were sent to engage/invite researchers whose work was related to food environments. The creation of this online forum and efforts to increase participation have undoubtedly contributed to the success and impact of FERN (see 4.5).

Factors that contributed to the success of the project included:

- Strong leadership and project management
- Good working relationships with INFORMAS and IDRC
- Organisational support from the University of Ghana
- Hard work, motivation and commitment from the entire project team



“Amos is an extremely innovative and creative leader ... An amazing ability to overcome problems ... Finding solutions without becoming overwhelmed.” (Project Investigator)

“Fantastic leadership by Amos ... Great!” (Project Investigator)

Table 3. Summary of work completed and comments on effectiveness

Work Package 1: Food promotion				
Objectives	Sub-objectives	Studies (as reported)	Summary of activities and key findings	Comments on effectiveness i.e. extent objectives achieved
Objective 1: Describe the nature and extent of unhealthy foods and non-alcoholic beverage promotion on television, in stores, and in and around schools.	Describe the nature and extent of unhealthy foods promotion on television, in stores, and in and around schools.	Study 1: Assessing the nature and extent of unhealthy foods and non-alcoholic beverage promotion on television.	Number of TV channels selected = 3 Number of advertisements = 4,480 Number of food adverts = 999 (23%) Food adverts featured: • unhealthy foods = 58% • healthy foods = 26% • sugar-sweetened beverages = 26% • promotional characters = 37%	Lack of detailed analysis such as comparisons between channels, times of day, promotional strategies by food categories, direct targeting of children and parents etc.
	Assess the frequency and level of exposure of children to unhealthy foods.	Study 2: Mapping of outdoor food advertising and outlets within and around selected basic schools in the Greater Accra Region.	Number of districts selected = 6 Number of school zones assessed = 200 Number of advertisements = 5,887 Number of food adverts = 2,473 (42%) Median advertisements per school = 14 Food adverts located at food outlets = 78%	Hotspot maps show density of outdoor food advertisements and food outlets around schools. Some repetition of findings under study 2 and study 3.
	Estimate the prevalence of unhealthy food advertisement within school zones.	Study 3: Assessing the healthiness of outdoor food advertising within and around public sector basic schools.	Food adverts (n=2,473) featured: • unhealthy foods = 70% • healthy foods = 12% • ultra-processed foods = 69% • sugar-sweetened beverages = 32% • promotional characters = 14%	Thesis abstract (Zuweru Zankawah) presents similar data for 15 basic schools in one district. Lack of detailed analysis such as comparisons between districts. Thesis abstract (Gideon Senyo Amevinya) presents similar data from the University of Ghana, Legon campus.
		Study 4: How healthy are modern food retail outlets? Availability of healthy and discretionary ultra-processed foods in food retail outlets of selected districts in the Greater Accra Region.	Number of districts selected = 6 Number of supermarkets assessed = 67 Availability as % shelf area occupied: • unhealthy foods = 85% • refined grains/products = 30% • sugar-sweetened beverages = 20% Ratio of unhealthy-to-healthy foods ranged from 2.5 to 6.7.	No data on in-store promotional strategies or customer shopping experience (unclear if assessed as per protocol). Thesis abstract (Akosua Pokua Adjei) presents similar data for nine supermarkets.



Work Package 2: Food provision				
Objectives	Sub-objectives	Studies (as reported)	Summary of activities and key findings	Comments on effectiveness i.e. extent objectives achieved
Objective 2: Describe the nutrition standards or guidelines that are in place to implement specific policies or programmes within public sector basic schools in the Greater Accra Region of Ghana.	Describe the nutrition standards or guidelines that are in place to implement specific policies or programmes within public sector basic schools.	Study 5: Analysis of Food Provisioning Policies and Programmes in Ghanaian public sector basic schools (PSBS).	Two relevant policies/programmes identified and quality assessed: <ul style="list-style-type: none"> Ghana School Feeding Policy Ghana School Feeding Programme Quality of policies/programmes: <ul style="list-style-type: none"> No applied nutrient or food-based standards No guidelines for promotion and advertisement of foods and beverages in schools Low scores across all indicators Key findings from interviews with school food vendors (n=660) and caterers (n=129). Number of districts selected = 6 Number of school zones assessed = 200 NO FINDINGS AVAILABLE	INFORMAS components I and II clearly described. Lack of detailed analysis of interviews with food service providers (school food vendors and caterers) such as barriers and facilitators to implementing school food policies and programmes. Thesis abstract (Maxwell Bisala Konlan) presents similar findings for the University of Ghana canteens.
Objective 3: Evaluate the nutritional quality of foods and beverages sold or provided in child-serving institutions.	Determine the nutritional quality of foods provided or sold in child-serving institutions (focus on primary schools).	Study 6: The nutritional quality of foods and beverages sold or provided in child-serving institutions.		
Work Package 3: Community readiness				
Objectives	Sub-objectives	Studies (as reported)	Summary of activities and key findings	Comments on effectiveness i.e. extent objectives achieved
Objective 4: Assess community stakeholders' readiness to accept, and capacity to implement interventions to improve children's food environments in the Greater Accra Region of Ghana.	Assess the readiness of, and capacity of the studied community/stakeholders, as well as barriers and facilitators to implement food environment improvement interventions.	Study 7: Network Mapping of Stakeholders in Food Promotion and Provisioning among children in schools in Ghana. Study 8: The readiness of Ghanaian community to implement changes to improve children's food environments in the Greater Accra Region.	Relevant stakeholders identified and interviewed = 19. Government stakeholders were found to be the most influential. Community Readiness Mapping (CRM) key informants interviewed = 18. Overall readiness score = 4 (out of 9). GAR is at pre-planning stage and more needs to be done to address the issue of marketing and availability of unhealthy foods in and around schools.	Report presents two network maps showing key stakeholders and connections between them. Mean readiness scores indicate vague awareness among community members and limited resources to address the issue. Findings are clearly linked to recommendations. Lack of detailed findings on in-depth viewpoints, barriers and facilitators.

4.5 Impact

This section considers the contribution of the project to **improving children's food environments** in Ghana. This includes an assessment of direct impacts (attributable to project activities) and potential longer-term impacts (not yet observed or evidenced). This section also presents a visualisation of the MEALS4NCDs project's **impact journey** or pathway to impact – an attempt to differentiate project activities, outputs, outcomes and impacts¹⁸.

The draft project report documents outcomes/impact under three main headings:

1. Academic outcomes
2. Policy and practice outcomes
3. Advocacy, health and social impacts

Academic outcomes include **training provided to students and ECRs** (and 37 research assistants) and publications arising from the project (including several **papers already published in peer-reviewed journals** and **16 planned manuscripts**). These might also be described as project activities (**capacity building**) and outputs (publications). Regardless of the terminology used, they have contributed to **strengthening regional research capacity and developing new partnerships and collaborations**.



The evidence generated by the project has been (and will be) used to develop further research on children's food environments. The new HD4HL project is described below (see policy and practice outcomes) because it will directly contribute to policy development. Another proposal was recently submitted for a project called **Generation H**, which seeks to implement the WHO 'best buys' for prevention of NCDs with continued focus on adolescents in Ghana and Kenya.

Partnerships developed during the project **will enable other researchers in Africa to develop food environment research** using similar approaches. For example, researchers in Kenya and Nigeria have

¹⁸ [What is Impact? | Impact Toolkit \(ucd.ie\)](#)

benefited from training and resources from the MEALS4NCDs project. Data collection protocols and other resources are freely available to download from the project website.



"This project has laid the groundwork so that other countries/researchers can adapt this approach to their own context, to create a regional movement to fight against NCDs." (ECR)

"This project is the first of its kind ... I can't think of any across the whole of Africa, as far as I know, that has specifically looked at this topic ... It's a regional beacon in the sense that it can serve as an example and inspire work in other countries in the region." (Key Stakeholder)

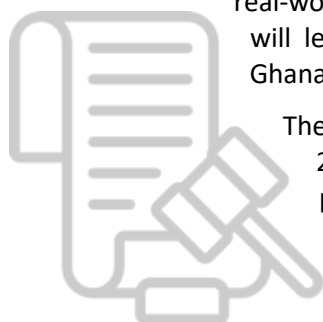
An outcome of the project with clear impacts and benefits was the formation of the **Africa Food Environment Research Network (FERN)**, which has provided a platform for connecting researchers, networking, capacity building, disseminating research findings and developing research priorities.¹⁹ The first two FERN meetings (2020 and 2021) attracted participants from around the world, which demonstrates the international reach and significance of the MEALS4NCDs project and the extent of its impact on food environment research. The University of Ghana has committed to supporting FERN to continue, with the next meeting to be held in November 2022.



"It's the only platform really that's visible, I think, regardless of the fact it's in Africa. What's discussed is relevant to many contexts and I don't think there is another platform with training and ... using and developing other methods." (Project Investigator)

"The introduction or birth of FERN as part of the MEALS4NCDs project has been one of the most successful components of the project". (Project Investigator)

Policy and practice outcomes include three policy briefs (outputs), a consultative meeting for policy bundle development and a new policy bundle project. These outcomes are being used to generate real-world impacts by influencing national policy development, which it is anticipated will lead to interventions to create healthier food environments for children in Ghana.



The consultative meeting was held in Accra, in September 2021, to explore the possibility of developing a food policy bundle for healthier diets in Ghana. It was convened by the Ministry of Health (MOH) and supported by the MEALS4NCDs project and the Coalition of Actors for Public Health Advocacy (CAPHA). A total of 62 stakeholders attended from academia, government institutions, UN agencies and CSOs. Preliminary findings and recommendations from the MEALS4NCDs project (and two other local food environment projects: DFC/TACLED) were presented, and directly informed subsequent discussions about policy options and priorities. At the end of the consultative meeting, Professor Laar and the MEALS4NCDs team were invited to produce a concept note as the next step towards creating a policy bundle.



¹⁹ Laar AK, Addo P, Aryeetey R, Agyemang C, Zotor F, et al. (2022) Perspective: Food Environment Research Priorities for Africa: Lessons from the Africa Food Environment Research Network, *Advances in Nutrition*, nmac019. Doi: 10.1093/advances/nmac019.

This concept note led to a new project, **Healthier Diets for Healthy Lives: Developing evidence and action toward a double-duty food-based policy bundle to assure healthier diets in Ghana (HD4HL)**. This project was launched by the Health Minister of Ghana in February 2022. It aims build evidence and mobilize multi-stakeholder actions toward a policy bundle for healthier and more equitable consumer food environments, hence providing the bridge from academic outcomes to policy and practice impacts. A Multi-Stakeholder Technical Team (M3T) has been assembled by MOH, which includes several members of the MEALS4NCDs team. The HD4HL project represents a step change from academic research to government-led, policy-focused research (Figure 1). It was funded by IDRC as a direct result of the success and credibility of the MEALS4NCDs project.



“It was crucial for us to support this new project because it really builds on the work they have already done ... I see a stronger pathway to sustainability for this project than other one-off projects we have supported ... It speaks volumes of our confidence in the team and the work they are doing ... We typically don’t have a phase two, very rare to have follow-up funding ... This is one of the exceptions because we see it’s tremendous potential.” (IDRC)

Other stakeholders expressed pride in the project’s achievements and potential to generate longer-term policy impacts.



“We have built the foundations, which are now being used, such as working together with government to reduce the availability of SSB within the system.” (Project Investigator)

“As a young academic, I attended meeting where you would have policy makers and academics each other’s throats talking about policy makers not making use of evidence that academics are generating; policy makers saying that when you design your research you don’t even consult us. Within the space of ten years, I think we have been successful now that we are able to set at the same table with policy makers and design studies and implement them and get the results uptake for policy making.” (Project Investigator)

“[HD4HL] will get the policy makers more engaged because now they have some skin in the game.” (Key Stakeholder)

Figure 1. Progression from academic research to government-led, policy-focused research



Health and social impacts refer to potential longer-term impacts such as **reduced consumption of unhealthy foods** and beverages, availability and affordability of healthy diets, and ultimately lower prevalence of obesity and NCDs in children and adolescents in Ghana. **These future impacts depend**

on the commitment of stakeholders to develop and implement policies to create healthier food environments for children, and ensuring that schools and communities support those actions.



“The project is already making waves. We hope the data generated from this project will go on to inform more policies and in future we will see these policies being implemented to improve food environments.” (ECR)

“If we do not see impact in the community, the research has not been successful.” (Project Investigator)

Advocacy is an outcome of the project, and is likely to be an important determinant of longer-term health and social impacts. The role of advocacy was one of three core themes discussed at the Food Systems Summit (FSS) Dialogue, convened by the MEALS4NCDs project in May 2021. Findings and recommendations included: **advocating for strong regulation and transparency of food environments** (ensuring that policies are linked to the nutritional needs of the population); **advocating for legislation and standards to control the markets and promote healthy lifestyle changes** related to food consumption patterns; the importance of **consumer driven advocacy** to increase demand for sustainable, healthy and safe diets.



The MEALS4NCDs project has **provided evidence that is now being used by various advocacy organisations**, including Ghana NCD Alliance, Ghana Public Health Association, Vision for Alternative Development (VALD), the Institute of Leadership and Development (INSLA), Ghana Academy of Nutrition and Dietetic (GAND) and the Coalition of Actors for Public Health Advocacy (CAPHA). This coalition has developed an **advocacy proposal** with the following aims: to identify a realistic legal pathway to enact SSB tax in Ghana; to collate evidence to support advocacy and counter opposition from the private sector; to strengthen the advocacy capacity of coalition members; to implement communication and media advocacy in support of SSB tax in Ghana.

Stakeholders described the relationship between research and advocacy and how they interact to produce impact in projects like this:



“Researchers, professors, doctors have an interest in research. Beautiful research has been done and then shelved. Mostly it is for their interests, to gain promotions and stuff. That’s why I have been a proponent of attaching the advocacy component in research – you do the research work, get the papers out, but do not forget the advocacy – because policy makers need the evidence to be able to formulate the policies to run the economy.” (Key Stakeholder)

“We have argued that advocacy is advocacy if it is evidence-based.” (Project Investigator)

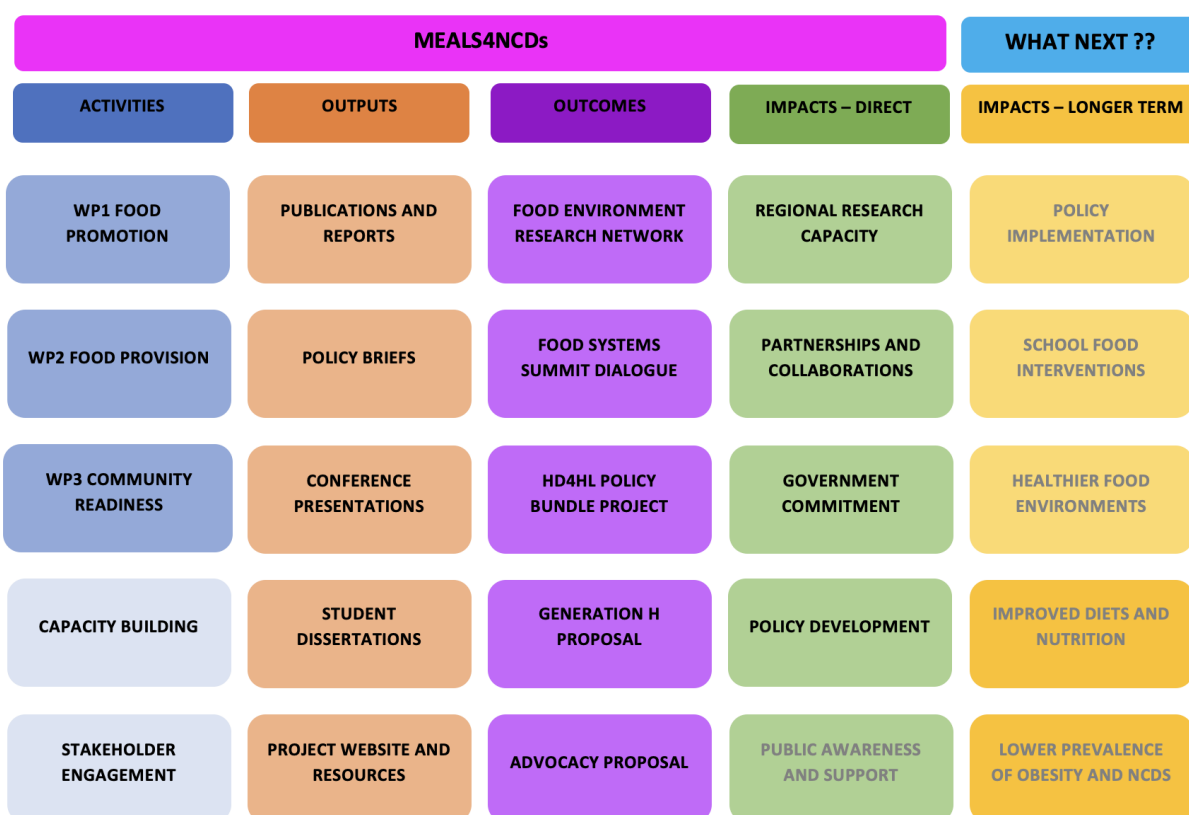
This evaluation finds that the MEALS4NCDs project was designed to generate impact by developing context-appropriate evidence to support public sector actions and policies, to create healthier food environments for children and adolescents in Ghana, to prevent obesity and nutrition-related NCDs. The project represents an important step in a much longer journey to address a complex problem. Its anticipated impacts will extend beyond the lifetime of the project. Therefore, it may be useful to differentiate between project activities, outputs (or products), outcomes (how the products have been used), direct impacts (attributable to project activities) and potential longer-term impacts (not yet observed or evidenced).

Figure 2 presents the evaluation consultant’s view of the project’s impact journey based on her understanding developed during this endline evaluation. It is intended as an operational aid, which may be adapted and modified by the project team.

Figure 2. Impact journey (see following page)



4.6 Sustainability



This section considers the extent to which the project's impacts and benefits are likely to continue beyond the duration of the project (i.e. after March 2022) and what factors will be important to promote this continuation.

The MEALS4NCDs project has laid the foundations for change by generating policy-relevant and context-appropriate evidence, strengthening research capacity and developing partnerships and collaborations. The project team and stakeholders are committed to working towards longer-term, sustainable impacts and benefits, as articulated in the project report (page 14):

Although the project was executed within a three-year period, the overreaching goal of the project – to measure and support public and private sector actions that create healthy food environments – holds requirement for sustained actions beyond the life of the project and beyond the work packages indicated.

The next phase of work will include ongoing stakeholder engagement (such as through FERN and HD4HL) **and further research with national and international partners** (such as Generation H) as described in previous sections. The outcomes and impacts of this project demonstrate potential to leverage longer-term impacts (as depicted in Figure 2). This evaluation has identified the following factors that may help to promote and sustain these longer-term impacts.

Further engagement at community level to increase public awareness, support and demand for healthier food environments. The CRM assessments (stage of readiness scores) indicated that community stakeholders have limited awareness and engagement with efforts to address the issues of marketing and availability of unhealthy foods and beverages in/around schools. The qualitative findings may provide additional insights.



Support and training for advocacy organisations to develop evidence-based awareness campaigns that are appropriate for the target audience.

Messaging must be clear and compelling to influence stakeholders in the face of likely opposition from the private sector (i.e. manufacturers of unhealthy foods and beverages).



Stakeholders recognised the need to get the community on board through education and advocacy. They felt that people would support policies and interventions to improve food environments if they understood the severity of the problem and the impact on children's health and wellbeing.



"We have a limit to engaging with government because the food industry will object and push them from a different direction ... We need to mobilise the community and public spirit, to ensure that the government does what is needed." (Key Stakeholder)

"It is down to us academics to teach people what unhealthy foods are doing to our bodies ... We need to bring other people on board ... civil society and others who want to see change." (Project Investigator)

Several stakeholders highlighted the role of the media to engage the general public and raise awareness of unhealthy food environments. They felt this could have been a stronger feature of this project, and certainly an important next step to maximise impact.



"I encouraged them to think about non-traditional ways of disseminating their results: make a video, get featured in podcasts, have a blog, whatever it is. Look for non-traditional, less scientific ways of getting your work out there ... This is such an important topic that affects everyone. Even the ordinary person would be interested in the results." (Key Stakeholder)

4.7 Accountability

This section considers the extent to which the project was answerable to (or met obligations to) the various stakeholders in the research process, such as participants, beneficiaries and funder.

Accountability is a core concept within the MEALS4NCDs project. Indeed, its name, purpose and hypothesis make reference to 'providing accountability' and 'building the support structures of accountability' through stakeholder engagement and capacity building.



The role of accountability in transforming food systems was discussed during the FSS Dialogue convened by the MEALS4NCDs project. Specifically, "the need for all food systems actors to be held accountable for the impact of their actions, as well as their commitment to achieving food system goals"²⁰. The key messages and discussion points included: the importance of **data sharing for transparency** and accountability; connections between advocacy and accountability (in relation to awareness and sensitization); the need for accountability across/among food systems stakeholders (public and private sector).

The overall accountability of the project was increased by adopting standardised approaches and methods to measure and evaluate food environments. The INFORMAS modules, frameworks and indicators were designed **to strengthen accountability by providing consistent systems for monitoring food environments and facilitating comparisons**^{21,22}. Likewise, the CRM approach

²⁰ The MEALS4NCDs project (2021). Independent Food Systems Dialogue Report [draft] May 2021.

²¹ Kelly, B., King, L., Baur, L., Rayner, M., Lobstein, T., et al. (2013). Monitoring food and non-alcoholic beverage promotions to children. *Obesity Reviews*, 14: 59-69. Doi: 10.1111/obr.12076.

²² L'Abbé, M., Schermel, A., Minaker, L., Kelly, B., Lee, A., Vandevijvere, S., et al. (2013). Monitoring foods and beverages provided and sold in public sector settings. *Obesity Reviews*, 14: 96-107. Doi: 10.1111/obr.12079.

systematically defines community readiness to address an issue (using 9 stages of readiness and 5 dimensions of readiness). While these methods may lack depth and nuance, they are replicable, transparent and scalable – ideal for influencing policy makers. Therefore, the data generated by this project may be used to hold government and other stakeholders to account in terms of future actions, progress and comparisons (such as implementation of school food standards, or reduction of SBB provided in schools). This kind of data will also be useful for **developing clear messaging to engage a wider range of stakeholders**, as discussed in the previous section on advocacy (4.6). The issues identified around community-level advocacy and inclusion of vulnerable and marginalised groups are also relevant to considerations of accountability to potential beneficiaries across society.



The Accountability Pact was recently developed as a mechanism for “strengthening food systems monitoring for accountability through generating evidence, translating evidence, and advocating for applying evidence in food systems transformation”²³. **Several members of the MEALS4NCDs team have signed up to The Accountability Pact.** The underpinning accountability framework (Figure 3) is evident in terms of how the project defined its objectives, identified targets for action, developed monitoring systems, and communicated findings to decision-makers.

Other aspects of accountability in research include **adherence to appropriate standards for robust data management and ethical integrity**. This was not assessed in this endline evaluation because the necessary documents were not provided. However, project received ethical approval from the Ethics Review Committee of the Humanities, University of Ghana (Approval # ECH 152-18-19) and the Ghana Health Service Ethical Review Committee (Approval # GHS-ERC 005-06-19).¹³

Accountability to the project funder (IDRC) was highlighted in the section of this report on efficiency (4.3) to the extent that the project was delivered on budget and on time.

Figure 3. Accountability framework for food systems – or food environments – monitoring (source: The Accountability Pact)



²³ [Home | The Accountability Pact](#)



5.0 Conclusions and recommendations

5.1 Key findings and lessons learned



The MEALS4NCDs project was developed in direct response to national priorities and evidence gaps identified in previous studies. It has produced robust and generalisable evidence to support policy actions towards healthier food environments for children and adolescents in Ghana.

The project adopted standardised frameworks, indicators and tools to assess food promotion, food provision and community readiness. This approach may be replicated in other countries, increasing the international relevance of the findings.



Women were well represented in the project team, making up more than half (59%) of the internal stakeholders.

The project was delivered on budget and it was considered excellent value for money by the funder and other stakeholders.



Data collection activities have all been completed. The project team adopted a flexible approach during the COVID-19 pandemic to ensure that the project achieved its objectives. This approach was underpinned by strong leadership and project management, organisational support and hard work from the entire project team.



Data analysis is ongoing, including the nutritional quality of foods and beverages sold or provided in schools (WP2). Further outputs and publications will be produced in the coming months.

Through its commitment to capacity building, this project has developed a regional (African) network for food environment researchers who are well-positioned to influence and support policy actions towards healthier food environments for children and adolescents in Ghana and beyond.



Stakeholder engagement throughout the project has led to interdisciplinary partnerships and cross-sectoral collaborations between academic, government, UN agencies, NGOs and CSOs.

Africa Food Environment Research Network (FERN) has provided a platform for food environment researchers to come together, share knowledge, and develop partnerships and collaborations. The MEALS4NCDs team is now globally renowned for innovative research and leadership in the field of food environments. FERN will be supported to continue beyond the MEALS4NCDs project.



A government-led project was launched by the Minister of Health in February 2022: Healthier Diets for Healthy Lives (HD4HL). It aims to build evidence and mobilize multi-stakeholder actions towards a policy bundle for healthier and more equitable consumer food environments. This new project was funded by IDRC as a direct result of the success and credibility of the MEALS4NCDs project.



An advocacy proposal has been developed using evidence from this project. It will be used by partner organisations to generate awareness and support for food environment policies and counter likely opposition from the private sector.

Longer-term health and social impacts depend on the commitment of government and other key stakeholders to develop and implement policies to create healthier food environments for children, and ensuring that schools and communities support those actions.





Further engagement at community level would help to increase public awareness, support and demand for healthier food environments.

5.2 Recommendations

The following recommendations may be considered possible ways to optimise the longer-term benefits and impacts of this impressive project, and to develop additional research projects relating to children's food environments in Ghana.



1. **Explore non-academic ways to disseminate study findings** including social media, film, radio or podcasts. Involving students and Early Career Researchers (ECRs) in science communication and public engagement would help to engage a younger audience and further strengthen research capacity.



2. **Provide** lay summaries, key messages and/or **training sessions for advocacy organisations** to facilitate the development of evidence-based awareness campaigns that are appropriate for the target audience (including children, adolescents and parents).



3. Maximise opportunities for disaggregated analysis to **explore differences between population groups** and between/within districts of the Greater Accra Region (GAR).



4. **Advocate for food environment monitoring systems** to be scaled up and embedded at **national level**. High quality data will be essential to prioritize actions, monitor progress and evaluate effectiveness.



5. Further research to **explore the needs and perspectives of vulnerable and marginalised groups**. The Nutrition Equity Framework²⁴ may be used to develop food environment policies and interventions that are equity-sensitive and responsive.



6. Further research and **engagement with school/education stakeholders to identify appropriate interventions** to improve food provision in schools (using WP2 findings when available) and opportunities to link with the school curriculum.



7. Consider ways to involve **community representatives (especially adolescents)** in the HD4HL project, to ensure that beneficiaries' voices are heard by policy makers, and ideally have direct input into policy development. Thus further increasing accountability.



8. Explore innovative and complementary approaches for **cross-sectoral collaboration** to develop leadership and system-level changes in food environments. An example is the Africa Food Fellowship²⁵ (Wageningen University & Research) in Kenya and Rwanda.



9. Seek additional opportunities for **global engagement, dissemination and impact**. An example is the Coalition of Action on Healthy Diets from Sustainable Food Systems for Children and All (HDSFS)²⁶ in which Ghana is a strategic partner and 'frontrunner'.

²⁴ Nisbett N, Harris J, Backholer K, Baker P, Jernigan VBB, Friel S (2022). Holding no-one back: The Nutrition in theory and practice, Global Food Security, 32: 100605. DOI: 10.1016/j.gfs.2021.100605.

²⁵ [African Food Fellowship | Leadership Programme on Food Systems on the continent](#)

²⁶ [The Coalition of Action for Healthy Diets from Sustainable Food Systems for Children & All - Food Community](#)



6.0 Annexes

6.1 Annex 1: Evaluation matrix

Evaluation criteria and questions <i>(as specified in TOR; plus additional questions in red)</i>	Indicators/measures <i>(suggested by consultant and open to discussion with the project team)</i>	Data sources/data collection methods	Data analysis and triangulation
Inclusiveness and gender responsiveness: Did the program adhere to diversity in all its implementation phases? <i>To what extent has the project considered gendered differences in relation to food environments?</i> <i>Have the needs and perspectives of marginalized groups been considered throughout the project?</i>	Number of project stakeholders including ECRs and students (disaggregated by gender and age). Number of participants/delegates at MEALS4NCDs workshops, conferences and network events (disaggregated by gender and age). Stakeholder views and perceptions regarding diversity, equity, inclusiveness and gender responsiveness.	<u>Primary data:</u> Qualitative data to be collected during the endline evaluation; KIIs/FGDs with project stakeholders (refer to sampling frame in 3.3). <u>Secondary data:</u> Desk review of available documentary evidence including project proposal, draft report and briefs. Quantitative/qualitative data obtained from project databases or documents (if available).	Thematic analysis of qualitative data collected during the endline evaluation. Mapping of project activities and achievements against its objectives and anticipated outcomes. Secondary data disaggregated by gender and age. Triangulation of data using structured framework provided by the evaluation criteria and matrix.
Relevance: Are the project outcomes consistent with national food environment priorities, and or with other international priorities (e.g. the World Health Assembly Resolutions such as WHA63.14; or the World Health Organization Best-buys for combating NCDs)? <i>To what extent are the objectives of the project valid in the current context?</i> <i>Are the activities and outputs of the project consistent with the overall goal and objectives?</i>	Stakeholder views and perceptions regarding project relevance and consistency with international priorities and strategies. Stakeholder views and perceptions regarding project relevance in relation to the national context, including the COVID-19 pandemic and associated changes in health/education/food system priorities.		

Has the project been evidence-based in its approach?			
Efficiency: To what extent was value-for-money considerations taken into account? Has the project been implemented on time and on budget?	% under/overspend in the project budget. Stakeholder views and perceptions regarding value-for-money.		
Effectiveness: To what extent were the objectives achieved? What were the major factors influencing the achievement or non-achievement of the objectives? How effective were the project management and partnerships to ensure that objectives were achieved? What was the contribution (positive or negative) of the COVID-19 situation to the attainment of the project objectives? Or to what extent did the project manage the difficulties of the challenges posed by the COVID-19 situation?	Number of TV channels, food outlets and school zones assessed for promotion of unhealthy foods and non-alcoholic beverages (compared to WP1 targets). Number of schools assessed for food provisioning policies/programmes and nutritional quality of foods and beverages provided (compared to WP2 targets). Number of stakeholders or informants engaged in network mapping and community readiness mapping (compared to WP3 targets). Stakeholder views and perceptions regarding the effectiveness of project management and partnerships. Stakeholder views and perceptions regarding the impact of COVID-19 and adaptations to the project activities.		
Impact: What are the positive and negative contributions of the project findings to the populace or the	Number of policymakers, advocacy groups and other high-level stakeholders engaged during the project.		

<p>country's food environment agenda (direct and indirect)?</p> <p>What has happened programmatically as a result of the project?</p> <p>What difference has the project made to beneficiaries?</p> <p>Have outcomes been achieved? And if so, to what extent have outcomes been achieved?</p> <p><i>The following questions have been addressed under Effectiveness:</i></p> <p><i>What was the contribution (positive or negative) of the COVID-19 situation to the attainment of the project objectives? – moved to Effectiveness.</i></p> <p><i>Or to what extent did the project manage the difficulties of the challenges posed by the COVID-19 situation? – moved to Effectiveness.</i></p>	<p>Number of research outputs developed and disseminated (such as project briefs, policy briefs, advocacy briefs).</p> <p>Number of ECRs and students engaged in mentoring, training and capacity building activities (disaggregated by gender and age).</p> <p>Number of FERN Network meetings organised; number of delegates (disaggregated by gender and age).</p> <p>Number of food environment monitoring systems implemented and integrated into public health systems.</p> <p>Evidence of improvements in local food environments in Greater Accra Region.</p> <p>Evidence of changes to food environment strategies, policies or programmes in GAR and/or Ghana.</p> <p>Stakeholder views and perceptions regarding programmatic impacts at regional or community level.</p>		
<p>Sustainability:</p> <p>National ownership of the results and the potential for project-supported interventions to continue to deliver benefits for an extended period after completion.</p> <p>Assess the project's role in influencing wider policy at national and international levels.</p>	<p>Evidence of plans for ongoing research and advocacy work beyond the life of the project (such as future FERN meetings, grant applications, engagement with policy makers).</p> <p>Recommendations for the development and implementation interventions to improve the food environments if children in Ghana.</p> <p>Stakeholder views and perceptions regarding the potential of the project to generate longer-</p>		

<p>To what extent will the impacts of the project continue after the funding ends in March 2022?</p> <p>How has the COVID-19 pandemic potentially affected prospects for sustainability?</p> <p>Has environmental sustainability been considered in relation to improving food environments?</p>	<p>term actions and impacts to improve children's food environments.</p> <p>Stakeholder views and perceptions regarding the implementation of food environment monitoring systems and continued use after the project ends.</p>		
<p>Accountability:</p> <p>To what extent was accountability towards the donor and the beneficiaries of the program taken into account?</p> <p>Have equitable research partnerships been developed during the project?</p>	<p>Evidence of robust research management and accountability including ethical approval and conduct, secure data management systems, adequate reporting systems etc.</p> <p>Stakeholder views and perceptions regarding the involvement of local researchers, partners and communities throughout the research process.</p>		

6.2 Annex 2: Bibliography of secondary sources

The following documents were included in the desk review:

MEALS4NCDs documents

1. The MEALS4NCDs Project (2019). Measuring the healthiness of Ghanaian children's food environments to prevent obesity and non-communicable diseases. Project launch brochure – August 2019.
2. Laar A, Kelly B, Holdsworth M, Quarpong W, Aryeetey R, et al. (2021) Providing Measurement, Evaluation, Accountability, and Leadership Support (MEALS) for Non-communicable Diseases Prevention in Ghana: Project Implementation Protocol. *Frontiers in Nutrition*. 8:644320. Doi: 10.3389/fnut.2021.644320
3. The MEALS4NCDs Project (2022). STATE OF FOOD ENVIRONMENTS IN THE GREATER ACCRA REGION OF GHANA: An assessment and recommendations – MEALS4NCDs project.
4. The MEALS4NCDs Project (2022). Improving the nutritional quality of foods in Ghanaian schools: priority recommendations for policymakers and key stakeholders. Policy Brief. Accra, Ghana. Available at: <https://www.meals4ncds.org/en/>
5. The MEALS4NCDs Project (2022). Restricting the marketing of unhealthy food to Ghanaian children. Policy Brief. Accra, Ghana. Available at: <https://www.meals4ncds.org/en/>
6. The MEALS4NCDs Project (2022). How ready is the education community to implement actions to address marketing and availability of unhealthy foods and drinks in and around basic schools in Greater Accra Region? Policy Brief. Accra, Ghana. Available at: <https://www.meals4ncds.org/en/>
7. MEALS4NCDs Summary Budget

FERN documents

8. FERN Weblinks (Word document)
9. FERN 2020 Brochure November 2020. 1st Africa Food Environment Research Network Meeting. Theme: Connecting Food Environment Researchers across Africa.
10. Providing Measurements, Evaluation, Accountability, & Leadership Support (MEALS) for NCDs prevention: Lessons from Ghana. Presentation delivered by Professor Amos Laar at FERN 2020. Available at: <https://www.meals4ncds.org/en/fern-2020-presentations/>
11. FERN 2021 Brochure November 2021. 2nd Africa Food Environment Research Network Meeting. Theme: Leveraging Food Environment Research Network (FERN) to transform Africa's food systems.
12. Laar AK, Addo P, Aryeetey R, Agyemang C, Zotor F, et al. (2022) Perspective: Food Environment Research Priorities for Africa: Lessons from the Africa Food Environment Research Network, *Advances in Nutrition*, nmac019. Doi: 10.1093/advances/nmac019

FSS documents

13. Food Systems Summit Dialogue Weblinks (Word document)
14. Independent Food Systems Dialogue. Theme: Re-imagining Africa's food systems transformation through data, advocacy and leadership. Programme Brochure, 26 May 2021.
15. Food Systems Summit Dialogue – Official Feedback Form, 26 May 2021.

16. Diverse stakeholders at a UN Food Systems independent dialogue propose new and innovative ways to transform the African food systems. Available at: <https://www.meals4ncds.org/en/>
17. The MEALS4NCDs project (2021). Independent Food Systems Dialogue Report [draft] May 2021.

Thesis abstracts

18. Healthiness of food sold by supermarkets around selected basic schools in Accra Metropolitan Assembly. Akosua Pokua Adjei, School of Public Health, University of Ghana.
19. Commercial food advertising at the University of Ghana, Legon campus. Gideon Senyo Amevinya, School of Public Health, University of Ghana.
20. Nutrition standards and nature of foods sold at the University of Ghana canteens. Maxwell Bisala Konlan, School of Public Health, University of Ghana.
21. Food retail environment and nutrition standards in selected basic schools within La Nkwantanang-Madina municipality of Ghana. Zuwera Zankawah, School of Public Health, University of Ghana.
22. Investigating Ghanaian Children's Interaction with Urban School Food Environments and Opportunities for Healthier Food Choices. PhD Candidate: Akua Tandoh.

Other documents

23. Stakeholder Contact Details (Word document)
24. Developing a food policy package for healthier diets in Ghana: A consultative meeting. Programme Brochure, 30 September 2021.
25. Developing a food policy package for healthier diets in Ghana: A consultative meeting. Post-meeting Report, 30 September 2021.

6.3 Annex 3: Gannt chart

Activities and deliverables	March 2022			April 2022				May 2022				June 2022	
	14/03	21/03	28/03	04/04	11/04	18/04	25/04	02/05	09/05	16/05	23/05	30/05	06/06
Delay to start of evaluation due to contracts													
Inception report													
Draft inception report and submit it for comment/review by the project team													
Final inception report													
Desk review and data collection													
Desk review of all available documentary evidence													
Key informant interviews (KIIs) with key stakeholders													
Focus Group Discussions (FGDs) with ECRs/students													
Review and analysis													
Presentation of preliminary findings to the project team													
Evaluation report													
Development of draft evaluation report													
Draft evaluation report to be reviewed by the project team (note: consultant away during this period)*													
Final evaluation report													
Evaluation briefs													
Develop two 2-page briefs containing key messages, main findings, conclusions and recommendations													

6.4 Annex 4: Consent form

Endline Evaluation of the MEALS4NCDs project Consent form

Version of form: Version 1 dated 13th April 2022
Title of project: Endline Evaluation of the MEALS4NCDs project
Name of researcher: Dr Heather Ohly

Introduction

Thank you for agreeing to participate in the endline evaluation of the Measurement, Evaluation, Accountability, and Leadership Support for NCDs prevention (MEALS4NCDs) project.

The objectives of the evaluation are:

1. To assess the relevance, effectiveness, and efficiency of the project, the sustainability of the results, and the degree of satisfaction of the beneficiaries.
2. To assess the extent to which the project outputs have been achieved, taking into account the indicators given in the project document.
3. To evaluate the level of contribution of the outputs towards the achievement of the expected project objectives, goal and impact.
4. To examine what (also how, and why) has contributed to the achievement of the project outcomes or otherwise.
5. Identify what the key factors of success were and how these be replicated or scaled up elsewhere.
6. To evaluate the appropriateness of the strategies and approaches used for implementing the project.
7. To identify major external factors that influenced (positively or negatively) the implementation of the project and evaluate their implication on future interventions.
8. To highlight lessons learned from the project and make recommendations for future strategies.

What is involved?

You have been asked to participate in a key informant interview with the evaluation consultant, Dr Heather Ohly. This interview will be online because Heather is based in the UK. We will arrange the interview at a convenient time for you, and it will last up to 45 minutes. During the interview, you will be asked some general questions about your involvement in the project and some specific questions relating to the objectives listed above. As a stakeholder in the project, your views and perspectives are valued and you are welcome to offer any insights or feedback during the interview.

What will happen to my data?

The meetings will be digitally recorded, so you should not agree to take part if you do not wish to be recorded. The digital audio files will be securely stored on the researcher's laptop, which is password protected. The researcher will make notes from the audio files, which will also be securely stored on the researcher's laptop. The information you provide will be used to compile the final evaluation report. This may include direct quotations, but you will not be named in the report.

What if I change my mind?

Your participation is voluntary and you will be free to withdraw from this study at any time before, during or after the interview.

Who can I contact with any questions?

Please feel free to ask any questions before you decide whether to participate.

Principal Investigator: Dr Amos Laar ALaar@ug.edu.gh

Evaluation consultant: Dr Heather Ohly ohlyheather@gmail.com

Statements of consent

I confirm that I have read and understood the above information, and I have had the opportunity to ask any questions.

I understand that taking part in this evaluation involves one interview lasting up to 45 minutes, and the interview will be recorded.

I understand that my participation is voluntary and I am free to withdraw at any time.

I understand that I may decline to answer any questions without giving a reason.

I agree to take part in the above study.

Participant name

Date

Signature

6.5 Annex 5: Topic guides used for KIIS and FGD

Introduction:

Welcome and thank you for joining this meeting. I'm Heather Ohly, a researcher from the UK. I am working with the University of Ghana on the endline evaluation of the MEALS4NCDs project. The purpose of this interview is to explore your views and perspectives as a member of the project's advisory board (refer to relevant category). I will be recording the meeting so that I can listen again later and make notes. Is that acceptable? Are you happy to proceed?

Name of participant (for KIIS): _____

General questions:

1. How did you first become involved with the MEALS4NCDs project?
2. How would you describe your role in the project?
3. Which of the three work packages were you involved with?

Relevance:

4. How relevant is the MEALS4NCDs project to the needs of children and adolescents in Ghana?
5. Why is it important to focus on children's food environments to prevent obesity and NCDs?
6. What is the international significance of the project?
7. What do you see as the most important outputs of the work you were involved with?
8. Has the COVID-19 pandemic altered the relevance of the project, in your view?

Efficiency:

9. Do you feel the project represents value-for-money in terms of its activities and outputs?

Effectiveness:

10. Do you think the project has achieved its objectives?
11. What factors have influenced the success of the project – positively or negatively?

12. What can you tell me about the partnerships developed during the project?
13. What structures exist to support these partnerships?
14. How did the COVID-19 pandemic affect the project – planned activities and data collection?
15. How did the project adapt during the COVID-19 pandemic?

Impact:

16. How will the project findings and outputs be used to influence changes in relation to children's food environments – at local, regional and national levels?
17. Have you observed any of these changes happening already?
18. Have you observed any unintended consequences of the project – positive or negative?
19. Has the project contributed to capacity building of young researchers in Ghana?

Sustainability:

20. What support is needed to ensure that any benefits from the MEALS4NCDs project will be long-lasting and sustainable?
21. Do you know if there are plans for further research, such as intervention development?
22. What do you see as the future role of Food Environment Research Network?
23. Will the monitoring systems developed during the project continue to be maintained and used?

Inclusiveness and gender responsiveness:

Different groups of people may have different experiences of food environments, such as targeted advertising or level of exposure to unhealthy foods.

24. Were gender differences considered during the planning and implementation of the project?
25. Were the needs of marginalised groups taken into account, such as low-income families, ethnic minorities or children with disabilities?

Introduction:

Welcome and thank you for joining this meeting. I'm Heather Ohly, a researcher from the UK. I am working with the University of Ghana on the endline evaluation of the MEALS4NCDs project. The purpose of this focus group discussion is to explore your views and perspectives as students and early career researchers working on the project. I will be recording the meeting so that I can listen again later and make notes. Is that acceptable? Are you happy to proceed?

List of participants (for FGD):

Name	Student role	ECR role

General questions:

26. Please could you take turns to introduce yourself and briefly describe your role in the project?

27. Which of the three work packages were you involved with?

Relevance:

28. How relevant is the MEALS4NCDs project to the needs of children and adolescents in Ghana?

29. Why is it important to focus on children's food environments to prevent obesity and NCDs?

30. What do you see as the most important outputs of the work you were involved with?

Effectiveness:

31. As students and early career researchers, what kind of training and support have you received during the MEALS4NCDs project?

32. Did you have the opportunity to participate in stakeholder engagement and dissemination events (such as FERN meetings, conferences etc.)?

33. How did the COVID-19 pandemic affect your planned fieldwork or training?

34. How did you adapt during the pandemic?

35. What do you hope to do in your future careers?

Impact:

36. What kind of impacts have you observed as a direct result of the project? What difference has it made?

37. What do you think are the potential longer-term impacts of the project?

38. How will the project findings and outputs be used to influence changes in relation to children's food environments – at local, regional and national levels?

Sustainability:

39. Have any of you been involved with the development of future research proposals or other developments arising from this project?

40. Will the monitoring systems developed during the project continue to be maintained and used?

Inclusiveness and gender responsiveness:

Different groups of people may have different experiences of food environments, such as targeted advertising or level of exposure to unhealthy foods.

41. Do any of your projects consider the needs of marginalised groups, such as low-income families, ethnic minorities or children with disabilities?

42. Is there potential for further analysis and disaggregation by socio-economic characteristics?

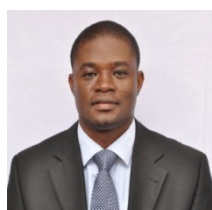
ACKNOWLEDGEMENTS

Commissioned by the MEALS4NCDs Project, this Evaluation Report was produced by **Dr Heather Ohly**. Heather is an independent research consultant with expertise in nutrition, food security and food systems.

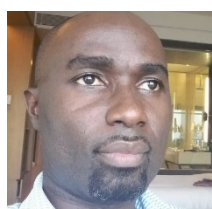
Project Investigators & Collaborating Institutions

This MEALS4NCDs project is a collaboration between 10 researchers from 7 academic and research institutions across Ghana, Kenya, Netherlands, France, Belgium, and Canada.

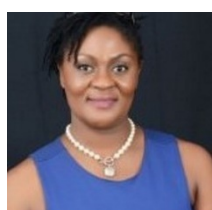
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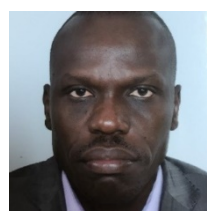
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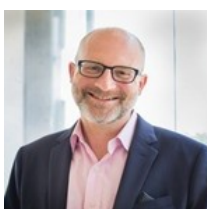
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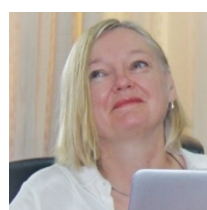
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International Development Research Centre
Centre de recherches pour le développement international

Canada

CONTACT INFORMATION

For further information about the Project, visit the project website:
www.meals4ncds.org or send direct enquiries about the MEALS4NCDs Project to:

Amos Laar, PhD.

Project Principal Investigator

MEALS4NCDs Project – providing Measurement Evaluation, Accountability and Leadership Support (MEALS) for NCDs prevention

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