30TH SEPTEMBER 2021
10AM - 2PM

DEVELOPING A FOOD POLICY PACKAGE FOR HEALTHIER DIETS IN GHANA: A CONSULTATIVE MEETING

PROGRAMME BROCHURE

OBJECTIVES OF THE CONSULTATIVE MEETING

- Provide update on the DFC/TACLED & MEALS4NCDs Projects
- Provide update on the Ghana Food Based Dietary Guidelines (FBDGs) development & Food Composition Databases
- Offer stakeholders the opportunity to contribute to the food policy package for healthier diets initiative

CONVENERS/PARTNERS

MEETING PROGRAMME

TIME	TOPIC	FACILITATORS
	PART I	Dr. Kobby Mensah, UG
10:00 -10:10	Welcome, meeting overview & purpose	Dr. Emmanuel A. Odame, MOH Prof. Amos Laar, School of Public Health, UG Hon. Dr. Sebastian Sandaaree, CAPHA/ Parliamentary Select Committee on Health
	Introductions (via chat box)	All
10:10 - 10:20	Messages from partners	Prof. Kwasi Torpey, Dean, School of Pubic Health, UG Mrs. Delese Darko, Chief Executive Officer, FDA, Ghana Dr. Efua Commey, GHS/NCD Control Programme Mrs. Mary Mpereh, NDPC Ms. Paulina Addy, WIAD/ MoFA Dr. Joanna Ansong, WHO, Ghana Dr. Samuel Oti, IDRC
10:20-11:20	Updates from the DFC/TACLED/MEALS4NCDs Projects	Project Team
	Updates from the Ghana FBDGs MTTT	Prof. Richmond Aryeetey & Ms. Paulina Addy
	Updates/status of Ghana Food Composition Data Team	Dr. Godfred Egbi & Prof. Francis Zotor
	Discussion	All
11:20-11:30	Break	
	PART II	Dr. Kobby Mensah, UG
11:30-11:40	Introducing - Food policy package for healthier diets Initiative	Prof. Amos Laar, School of Public Health, UG
11:40-11:55	The WHO Nutrient Profiling Model for Africa	Dr. Hana Bekele, WHO
11:55-12:10	Developing a nutrient profiling model for categorising food and beverages in Ghana	Mrs. Zakia Abdul-Haq, University of Sheffield, UK
12:10-12:25	Developing a Fit-for-Purpose Nutrient Profiling Model to Underpin Food and Nutrition Policies: Experience from South Africa	Ms. Tamryn Frank, School of Public Health, University of the Western Cape, SA
12:25-12:40	Developing a Fit-for-Purpose Nutrient Profiling Model to Underpin Food and Nutrition Policies:	Mr. Herbert Smorenburg
12:40-12:50	Developing a Fit-for-Purpose Nutrient Profiling Model to Underpin Food and Nutrition Policies: Key considerations	Prof. Adam Drewnowski, School of Public Health, University of Washington, USA
12:50-13:50	Discussion and next steps	All
13:50	Closing	Dr. Emmanuel Odame

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CONVENERS/PARTNERS

PROJECT UPDATES

- THE MEALS4NCDs PROJECT - MEASURING THE HEALTHINESS OF GHANAIAN CHILDREN'S FOOD ENVIRONMENTS TO PREVENT OBESITY AND NON-COMMUNICABLE DISEASES
- THE DFC/TACLED PROJECTS - DIETARY TRANSITIONS IN AFRICAN CITIES: LEVERAGING EVIDENCE FOR INTERVENTIONS AND POLICY TO PREVENT DIET-RELATED NON-COMMUNICABLE DISEASES

MEALS4NCDs

Providing Measurement, Evaluation, Accountability & Leadership Support (MEALS) for NCDs Prevention

MEASURING THE HEALTHINESS OF GHANAIAN CHILDREN'S FOOD ENVIRONMENTS TO PREVENT OBESITY AND NON-COMMUNICABLE DISEASES

PROJECT UPDATES
SEPTEMBER 2021

University of Ghana, University of Health and Allied Sciences, Ghana Health Service, African Population and Health Research Center, University of Amsterdam, National Research Institute for Sustainable Development (IRD), Sciensano Research Institute, University of Toronto

BACKGROUND

Why is the project necessary?

Like most other countries, Ghana is experiencing an increase in obesity and nutrition-related non-communicable diseases (NR-NCDs). The need to adopt effective and comprehensive interventions/approaches to address this burden at global, regional, and national levels has been recognized. The MEALS4NCDs prevention project aims to measure and support public sector actions that create healthy food marketing, retail and provision environments for children in Ghana.

OBJECTIVES

- Describe the nature and extent of unhealthy foods and non-alcoholic beverage promotion on television, in stores, and in and around schools.
- 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.

- Evaluate the nutritional quality of foods and beverages sold or provided in public sector basic schools.
- Assess community stakeholders' readiness to accept, and capacity to implement interventions to improve children's food environments in the Greater Accra region of Ghana.

WORK PACKAGES

Work Package 1: Food Promotion

What is the extent of exposure and promotion of unhealthy foods and non-alcoholic beverages on TV, in stores, in/around public basic schools in Ghana?

Approaches: Mapping and Assessing Outdoor Advertising in and Around Selected Schools

Work Package 2: Food Provision

What nutrition standards are in place to facilitate implementation of food provision policies?

What is the nutritional quality of foods and non-alcoholic beverages provided in public basic schools in Ghana?

Approaches: Policy Rating, Mapping Food Provision and Food Retail Outlets Within Stipulated School Zones

Work Package 3: Community Readiness Assessments

How ready are community members and stakeholders ready to accept and implement actions to improve food environments of children?

Approaches: Community Readiness Model & Net-Mapping studies

Mapping of outdoor food advertising and outlets within and around selected basic schools in the Greater Accra region
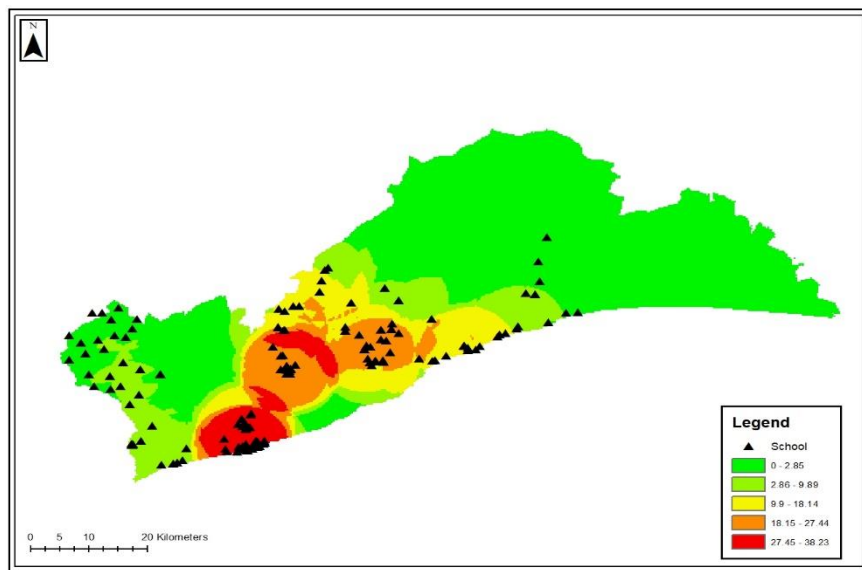
Aims
- To assess the density/hotspots of outdoor food advertisements, and outlets around schools
- To examine the distribution of healthy vs unhealthy food advertisements around schools.

Methods
- Zones earmarked for assessment were road networks within a distance of 250m from the main entrance of each school.
- Direct observation was use to locate all food advertisements and food outlets present within study zones.
- Smartphones with built-in geo-positioning functions were used to map and record attributes of all advertisements and outlets.
- Advertised foods were classified (core, noncore, or miscellaneous) in accordance with the INFORMAS food classification system.
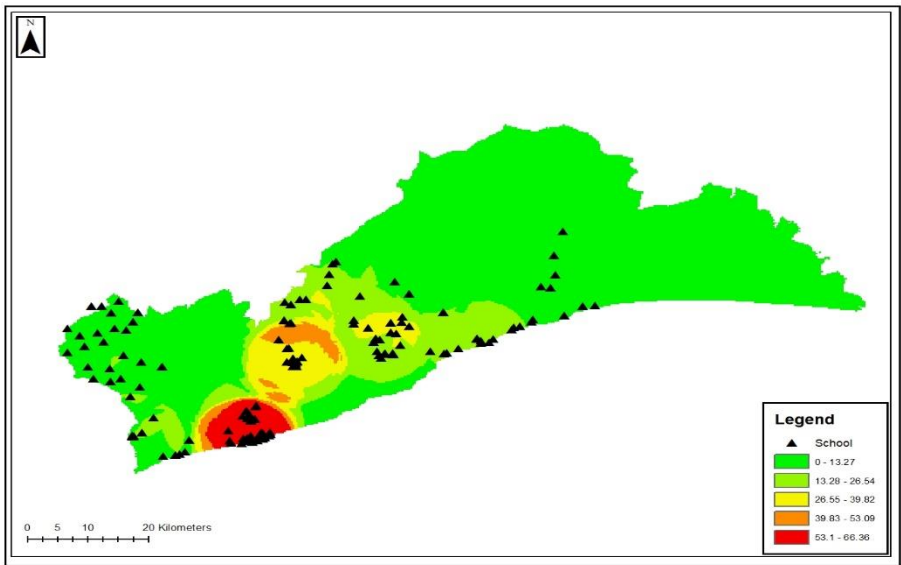
Key Findings

Fig.1. Hotspot map of food advertisements around schools

We observed a high prevalence of food adverts in & around PSBS (n = 200).

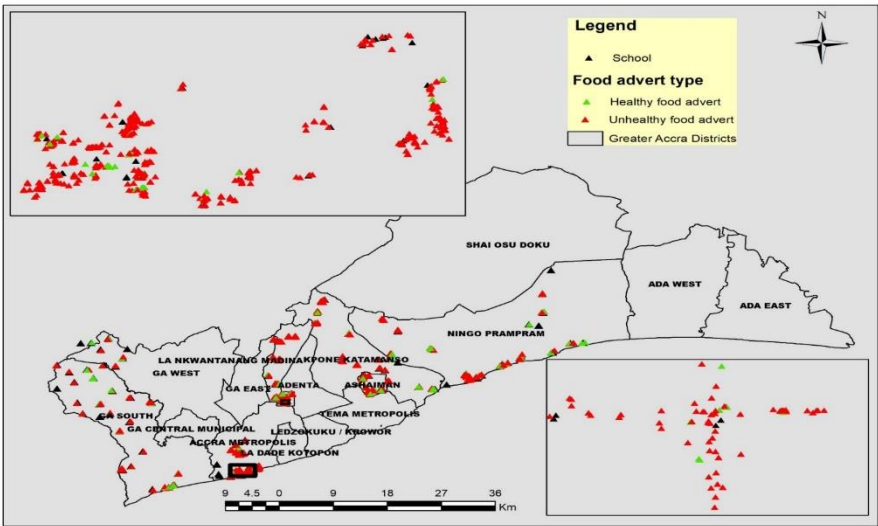More adverts were located in urbanized districts than rural districts

Fig.2 Hotspot map of food outlets around schools

There was a near perfect correlation of the distribution of food outlets with food adverts

There were more food outlets in/around schools located in urbanized districts than in rural districts

Fig.3. Distribution map of food advertisements (healthy and unhealthy) around schools

Over 70% of the food adverts were noncore ("unhealthy")

Red triangles = unhealthy food adverts

Green triangles = healthy food adverts

Recommendations for Interventions and Policy

- Government should consider introducing zoning laws to restrict the location of unhealthy food adverts and outlets in/around schools, and other child-serving settings.

Unhealthy food marketing around public basic schools in Greater Accra region, Ghana
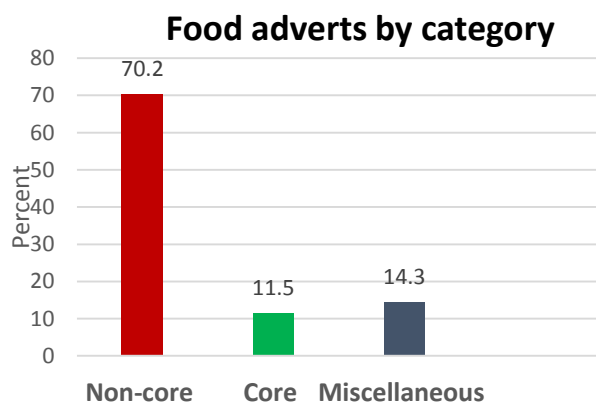
Aims

The study examined:

- The prevalence of outdoor foods, alcoholic and non-alcoholic beverages advertisements around a sample of public basic schools in the Greater Accra Region of Ghana.
- The nature of outdoor foods, alcoholic and non-alcoholic beverages advertisements around the schools was assessed

Methods

- We surveyed 200 schools, covering six selected districts in Greater Accra Region
- All outdoor advertisements within school zones (250m road network distance from the schools' main entrance) were mapped and categorized as food and non-food
- Food advertisement attributes– including advert setting, advert type, advert size, product/brand name, and promotional techniques used were recorded.
- Foods advertised were categorized according to the INFORMAS food categorization system: core/healthy foods, non-core/unhealthy foods and miscellaneous
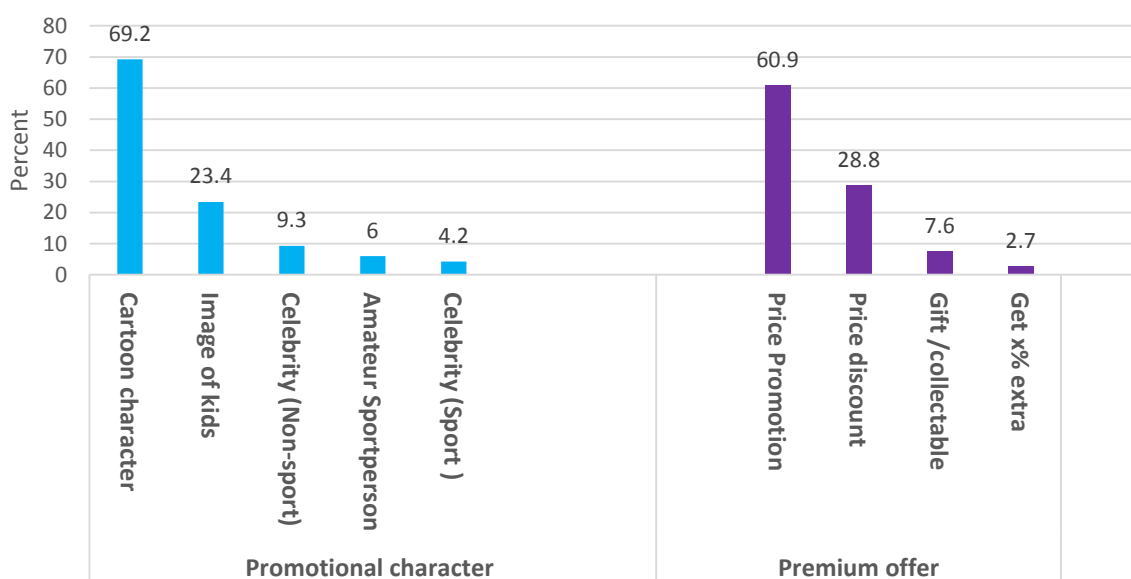
Key Findings

- A total of 5887 advertisements were recorded, (42%) were food advertisements.
- **Top four advertised food Products:**
    - Sugar sweetened beverages
    - Locally prepared mixed dishes
    - Alcohol
    - Milks and yoghurts (> 3g fat /100g)

Food adverts by category

Category	Percent
Non-core	70.2
Core	11.5
Miscellaneous	14.3

- **Promotional technique used in advertisements:**

Promotional characters = 13.5% (334/2469) || Premium offers = 7.5% (184/2469)

	Promotional character	Premium offer
Cartoon character	69.2	
Image of kids	23.4	
Celebrity (Non-sport)	9.3	
Amateur Sportperson	6	
Celebrity (Sport)	4.2	
Price Promotion		60.9
Price discount		28.8
Gift / collectable		7.6
Get x% extra		2.7

Recommendations for Interventions and Policy

- Policies that regulate advertising of unhealthy foods (especially to children) are needed

- Guidance on what is permitted or not permitted to be advertised to children in schools and other child-serving settings is needed

How healthy are our supermarkets? Availability of healthy and discretionary ultra-processed foods in supermarkets of selected districts in Greater Accra region, Ghana

Aims

We determined the healthiness of foods sold at supermarkets located in the six selected districts selected for the MEALS4NCDs Study - in the Greater Accra Region of Ghana.

Methods

We measured the shelf length and breadth of all food products found in supermarkets located within the six selected districts. Digital photographs of the food products were taken. Foods were grouped using the NOVA classification system and according to the nutrient and energy-density (energy dense if >225 kcal/100 g).

Key findings

- Of 103 supermarkets identified, 67 consented
- 85% of the shelf length occupied by food in all the supermarkets was allotted to unhealthy food categories.
- Refined grain products were the most available food groups occupying an average (SD) of 577m²(984m²) – representing 15% of the total shelf space occupied by food.

- Fresh fruits occupied an average (SD) of 17m²(52m²) of the total shelf area occupied by food- 0.4%
- Fresh vegetables and unsalted canned vegetables occupied an average (SD) of 32m²(115m²)- 0.8%
- For each unprocessed or minimally processed food product, there are 5 ultra-processed food products available.
- For every 1m² of shelf area for a healthy food, there is 6m² of shelf area for an unhealthy food.

Recommendations for interventions and policy

- Towards a healthier supermarket food environment, relevant actors (e.g. the MoFA, FDA, local government, private sector) need to institute measures that to improve availability of healthy foods within supermarkets.

Perspectives of Urban Ghanaian Adolescents on Healthy Eating Habits

Aims

This study explored food choice decision making among school-going adolescents in urban Accra, Ghana, including perspectives on healthy and unhealthy food and their relationships to portion sizes.

Methods

- In-depth interviews with public junior high school students (n=48)
  - July-August 2020
  - Ages 14-17
  - Six districts in Greater Accra Region
  - Enrollment per district based on GES roll size estimates
- Interviews conducted in schools in English
- Audio recorded, transcribed verbatim, coded with NVivo 12 using a thematic analysis

Key findings

- All students demonstrated basic nutrition knowledge by talking about the importance of "proteins," "carbohydrates," "fats and oils," and "vitamins and minerals."
- Connections between NCDs and consumption of foods high in fats, sugars, and salts were rarely made. In other words, participants admitting to consuming items differing to what they described as a "healthy diet."
- In the school environment, students reported that they had more choices than in their homes, based on the variety of food vendors within and around the school environment and the time allotted to find and consume food during school hours.
- Participants admitted peer pressure and food advertising claims informed their food choices and demonstrated minimal knowledge of misleading marketing tactics targeting their age group.

Recommendations for interventions and policy

- Interventions should include strategies educating students and parents about diet-related NCDs and deceptive marketing tactics used to promote unhealthy foods.
- Food environment interventions to promote healthier food access and availability

An Analysis of Food Provisioning Policies and Programmes in Ghanaian public sector basic schools (PSBS)

Aims

- To identify and describe food provision policies and programs applicable to PSBS
- To assess the quality of food provision policies and programs applicable to PSBS

Methods

Step-wise framework for monitoring foods and beverages provided or sold in publicly funded institutions

Component I: Policy and programme assessment and analysis	Component II: Monitoring policy and programme implementation
- Step 1: Identification of food provision policies and programmes - Step 2: Description of the characteristics of identified food provision policies and programmes - Step 3: Description of the details of nutrition standards/guidelines applied to identified policies and programmes	- Step 1: Appraisal of existence of nutrition policies/programmes and their implementation - Step 2: Review of available monitoring and evaluation data - Step 3: Assessment of nutritional quality of provided and/or sold foods

Adapted from L'Abbe et al., 2013

Information search

- Literature searches
  - Ghana Food-EPI exercise
  - Additional academic literature searches
  - Government websites

- Stakeholder in-depth interviews
  - Governing ministries – Ministries of Health, Education, Agriculture, etc.
  - Supporting agencies, external partners and funders – World Food Program, Partnership for Child Development, etc.

Country or Jurisdiction	Program/ Policy	Sector (e.g. schools, hospitals etc)	Nutrition Standards or Guidelines in Place		Participation		Implementation Support? (Resources Developed)		Monitoring Framework or monitoring data avail?	
			Yes (if Yes, see section C)	No	Mandatory (e.g. legislated by government or stated *mandatory* policy)	Voluntary	For foods purchased or sold	For food preparer, chef, caterer, consumer	Yes (if Yes, see section F)	No
	e.g. "Healthy Schools" Program	e.g. Primary schools	✔		✔		✔	✔	✔	

Core characteristics

- Jurisdiction
- Sector
- Type of participation
- Nutrition standards or guidelines
- Implementation support
- Monitoring framework

Program/ Policy	Web link (for details)	Basis[2]		Type of nutrition standards/guidelines applied				Age Specific Reqmts		Application of nutrition standards[2]		
				Food Guide or Food Group-based (see Section D)		Nutrient-based[3] (See Section E)						
		Per serving	Per 100 g	Food Guide Servings[4]	Other food composition standards[5]	Inclusion criteria	Exclusion criteria	Yes	No	In/Out[6]	"Choose most/least"[7]	Composite Score[8]
e.g. "Healthy Schools" Program				✔	✔	✔	✔	✔				

Details of applied nutrition standards/guidelines

- Type of nutrition standard/guideline
- Portion sizes
- Food-group inclusions and exclusions
- Nutrient levels
- Age specific requirements

Policy and programme rating were done using guidance from the *Wellness School Assessment Tool, WellSAT 3.0*

Key Findings

Identified Policies and Programmes
- Ghana School Feeding Policy
- Ghana School Feeding Programme

Description and Details of the Ghana School Feeding Program
- Jurisdiction and sector
    - Government KG and primary schools in deprived communities
- Type of participation
    - No details about type of participation and school selection
- Implementation support
    - Resources available for catering staff
- Monitoring framework
    - Monitoring framework available
- Type and details of nutrition standards/guidelines applied
    - No clear details about nutrition standards/guidelines
        - *"…to provide children in public primary schools and kindergartens with one hot nutritious meal, prepared from locally grown foodstuffs, on every school-going day"*
        - *"…30% RDA standard through the one, hot, nutritious meal"*

Summary of Quality Ratings

School food and nutrition programmes and school meals

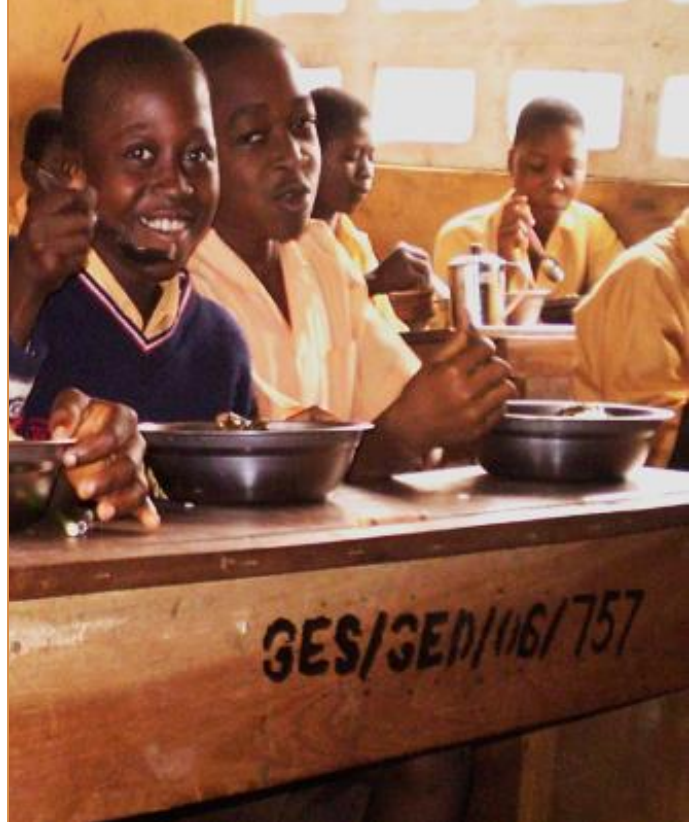| Item no.	Areas addressed	Areas for Improvement
Comprehensiveness Score: 4/21 Strength Score: 2/21	- Provision of nutritious meals - Some application of food standards - Provision of free, accessible, clean, and safe water - Nutrition training for catering personnel - Purchasing of local foods for school meals	- Details of nutrition standards/guidelines - Food safety and food emergencies - School meal environment - Seat time - Sanctions for non-compliance

Nutrition standards for sold and other competitive food and beverages

Item no.	Areas addressed	Areas for Improvement
Comprehensiveness Score: 0/13 Strength Score: 0/13	- None	- Regulation of sold foods and beverages during school hours - Application of nutrition standards/guidelines to sold and competitive foods - Regulation of foods and beverages served at class parties and other school celebrations - Assurance of compliance and sanctions for non-compliance

GOVERNMENT OF GHANA

DRAFT NATIONAL SCHOOL FEEDING POLICY

NOVEMBER, 2015
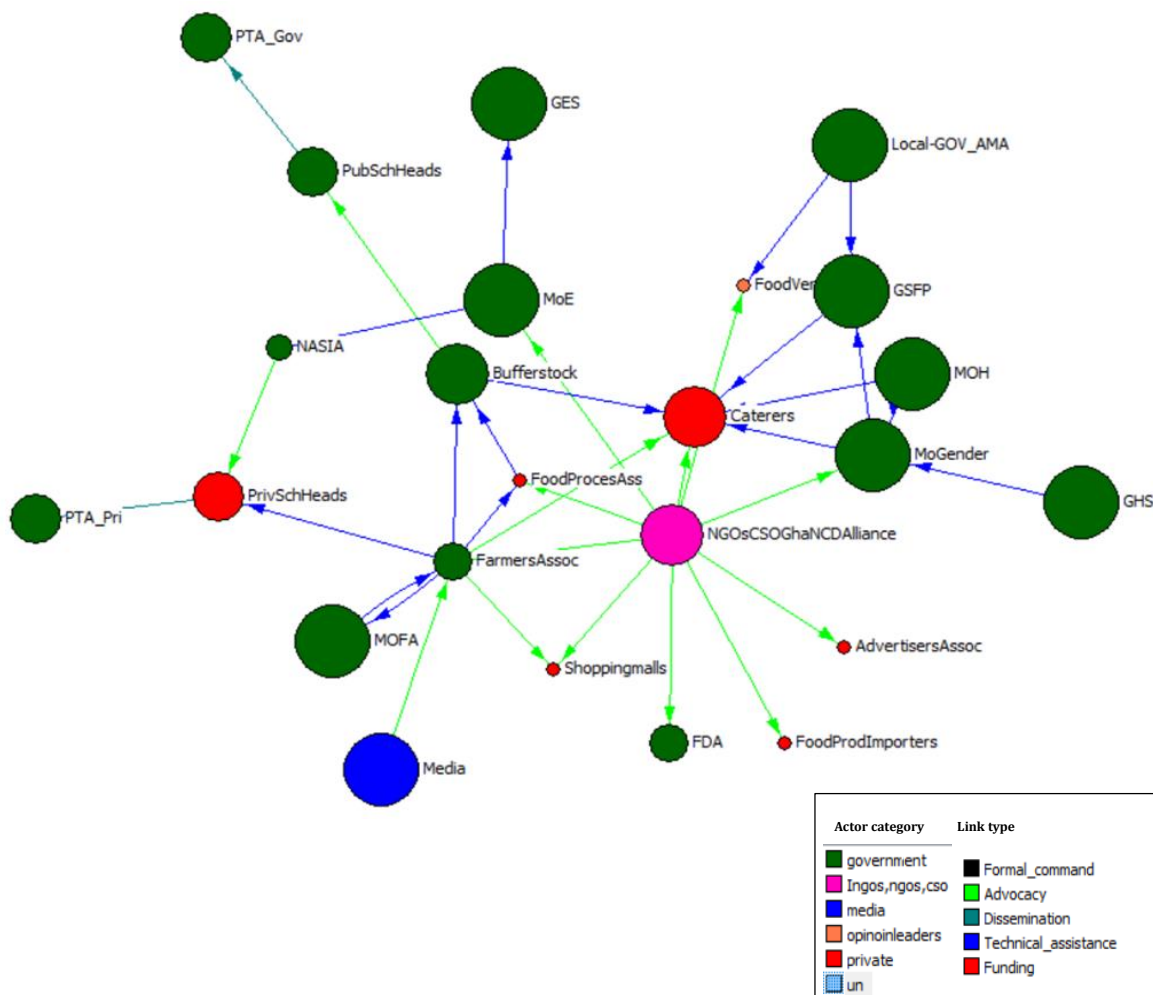
Summary of Quality Ratings (Cont'd)

Wellness promotion and food and beverage marketing

Item no.	Areas addressed	Areas for Improvement
Comprehensiveness Score: 0/11 **Strength Score: 0/11**	- None	- Modeling of healthy eating behaviors by staff - Physical activity - Marketing within the immediate school environment - Marketing in curricula and other educational materials - Marketing at fundraisers and corporate-sponsored events

Implementation, Accountability, Monitoring and Evaluation, and Communication

Item no.	Areas addressed	Areas for Improvement
Comprehensiveness Score: 8/12 **Strength Score: 2/12**	- Ongoing implementing committee at district level - Community-wide representation in district implementation committee - Provision of monitoring framework - Periodic assessment of district implementation	- Provision of implementation framework for schools - Implementation support for school staff - M&E support for school staff - M&E support and tools for catering staff

Network Mapping of Stakeholders in Food Promotion and Provisioning among children in schools in Ghana

Aims

To identify, and describe key stakeholders (individuals and institutions) who influence food promotion and provisioning among children and adolescents in Ghana

Methods

- Group Interview: 10 informants (food promotion) and (9) informants for (food provision)
- 4-step participatory conversation: **actor mapping, linking actor networks influence mapping** and **identifying champions/opinion leaders**.
- Pictures and audio records were taken of each session.

Key findings

Promotion

Provisioning

Actor category

- government
- Ingos,ngos,cso
- media
- opinoinleaders
- private
- un

Link type

- Formal_command
- Advocacy
- Dissemination
- Technical_assistance
- Funding

Key Findings

- Diverse actors involved in promotion and provision for children/adolescents
- Government agencies are most influential
- Untapped opportunities for engagement

Recommendations for interventions and policy

- Policy
  - Promote co-creation and co-actions
  - Empower the media with adequate food environment and nutrition information
- Implementation
  - Establish a coordination mechanism for promoting optimal diets in food environment

MEALS4NCDs TEAM

INVESTIGATORS

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

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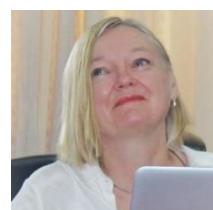
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Emmanuel Hammond
Information Specialist

ADVISORY BOARD

This project is supported in process and methodology by the expertise of a high-level Project Advisory Board to ensure the research team achieves its objectives. The Board's role will be crucial in providing expert guidance in relation to the implementation of the project, dissemination and future plans to scale-up the innovation and implement the project's findings in other countries.

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DIETARY TRANSITIONS IN GHANAIAN CITIES:

LEVERAGING EVIDENCE FOR POLICY AND INTERVENTION TO PREVENT DIET-RELATED NON-COMMUNICABLE DISEASES

JANUARY 2019

DIETARY TRANSITIONS IN AFRICAN CITIES: LEVERAGING EVIDENCE FOR INTERVENTIONS AND POLICY TO PREVENT DIET-RELATED NON-COMMUNICABLE DISEASES

BACKGROUND

Ghana is experiencing a nutrition transition with some evidence of transitioning dietary habits related to urban demographic change. As a consequence, obesity and diet-related non-communicable diseases (DR-NCDs) are rapidly increasing and becoming an important public health problem, especially in cities.

OBJECTIVES

We recruited adolescents and adults living in socio-economically deprived urban neighbourhoods in Accra (n=64) and Ho (n=32) from May-December 2017.
- Participants were asked to take photographs of: places where they eat, things that influence what they eat in their neighbourhood, someone who influences what they eat, things that make eating healthy easy or difficult.
- Participants told the 'stories' of their photographs during follow up interviews.

WHAT WE DID

We undertook several pieces of research involving individuals, communities, local and national stakeholders; addressing the following questions:

1. People in their communities
- What are dietary behaviours in urban Ghana and Kenya? A systematic review and meta-analysis.
- What influences people's dietary behaviours in urban Africa? A systematic mapping review.
- How are unhealthy food and beverages embedded in everyday life in urban Ghana? Dietary intake and time use study.
- What are the factors shaping dietary behaviours of people living in urban Ghana? A Photovoice study.

2. Communities and neighbourhoods
- How is food sold and advertised in urban Ghana? Geographical mapping study.
- How ready are urban Ghanaian communities to reduce unhealthy food and beverage consumption? Community Readiness mapping study.

3. Priorities for national action
- What are the priorities for policy and interventions to improve diets at a national level? Benchmarking food environments to prioritise recommendations.
- Developing a conceptual framework of drivers of dietary behaviours in African cities.

How are unhealthy food and beverages embedded in everyday life in urban Ghana?

We explored how habits related to food consumption are structured and organised in social practices in Ghanaian cities, such as when unhealthy food and beverages are eaten, how quickly, where and with whom.
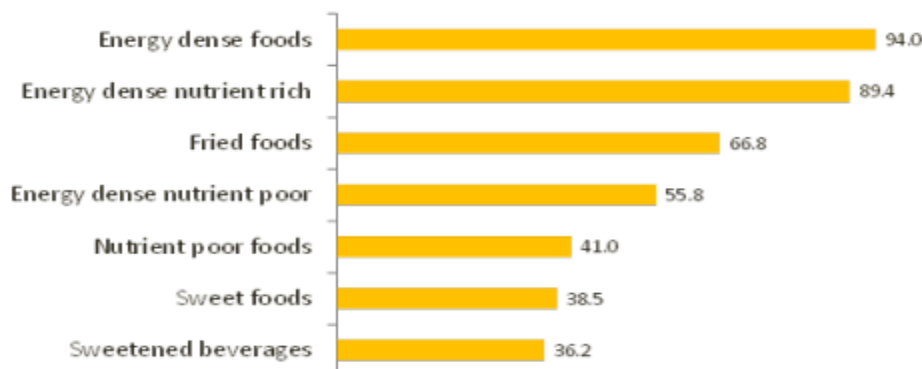
Methods

Deprived neighbourhoods in two Ghanaian cities: Accra (James Town) and Ho (Ho-Dome).

- A quota sampling method (based on age, BMI, occupation and economic status) was used to recruit
- 301 female and male adolescents/adults aged ≥ 13 yrs in both cities.
- Qualitative 24hr recall via face-to-face interviews were conducted in June to December 2017, which noted:
  - all food and drink consumed inside/outside the home in the previous 24hr period
  - time of day of the food event
  - how long a food event lasts
  - who participants eat with and where

Key Findings

Percentage of sample consuming unhealthy food and beverages

Category	Value
Energy dense foods	94.0
Energy dense nutrient rich	89.4
Fried foods	66.8
Energy dense nutrient poor	55.8
Nutrient poor foods	41.0
Sweet foods	38.5
Sweetened beverages	36.2

- A structured meal pattern around 3 main meals a day persists in Ghana with limited snacking in-between.
- Unhealthy foods were more commonly consumed during the morning.

- Most food episodes were quick. 40.1% at <10 mins 47.0% at 10-29 mins
- Shorter meals were more likely to have a greater intake of unhealthy foods, nutrient poor foods, sweet foods or sweetened beverages.

- Only 12.9% of food episodes were 30 mins or more.
- Longer meals were more likely to include fried food, energy dense, energy dense-nutrient rich foods and occur at home.

Key Findings (Cont'd)

Key Findings	Interventions
Families and the home environment were very important, 46.5% of meals were consumed at home- especially the evening meal.	The role of families in the social environment is therefore key to maintaining healthy diets
Only 7% of meals were eaten with friends. Consumption of fried foods and SSBs (more than twice) was higher with friends, with whom breakfast was often eaten.	Eating with friends was often a vehicle for unhealthy eating practices, so awareness about eating well with others could be developed as part of interventions.
Eating alone was also quite common (45.4%), especially at lunchtime, when it was more associated with eating away from home.	Encourage people to choose healthier options when eating out.
Unhealthier foods were consumed in schools/workplaces.	Interventions in schools and workplaces to promote healthier diets should be encouraged.
Consumption of unhealthy food was widespread.	Food based dietary guidelines are needed as a tool to educate the public about eating healthier diets.

Recommendations for Further Research

- Explore how work patterns and convenience are associated with dietary practices.
- Extend the approach to more urban areas in Ghana to understand how representative the findings are across cities.

What are the factors shaping dietary behaviours of people in Ghanaian cities?

We aimed to identify social and physical environmental drivers shaping dietary behaviours of individuals living in urban Ghana.

Methods

Photovoice, a participatory photography method, was used
- We recruited adolescents and adults living in socio-economically deprived urban neighbourhoods in Accra (n=64) and Ho (n=32) from May-December 2017.
- Participants were asked to take photographs of: places where they eat, things that influence what they eat in their neighbourhood, someone who influences what they eat, things that make eating healthy easy or difficult.
- Participants told the 'stories' of their photographs during follow up interviews.

Key Findings

Physical environment factors influencing dietary behaviours

Food hygiene was important when choosing where to eat

"They keep that place very well. They sell by a gutter but, when they come, they clean the gutter very well before they sell. They have glass covering all their food. And the place they give you to sit if you are eating the food there, is very neat, there is soap, to use in washing your hands. When you eat, you enjoy it, even if the food is not so nice at times, you will enjoy it because of how the place is kept. How the place is neat, makes me want to eat over there." (Female, 15-18 years, lowest SES, Ho)

Environmental sanitation was a key consideration

"As you can see the place is not neat… if you cook in a place like this and sell, I will not buy food from you to eat. That is why I took this picture. As you can see in this picture there are dirty rags on the ground and the place is littered with plastic rubbers. You can also see a bag full of empty sachet water rubbers." (Female, 19-49 years, lowest SES, lactating, Accra)

Food adulteration by street vendors was a common concern

"Some food sellers also go and buy rotten and spoilt items to cook. I have also seen at the milling shop were rotten tomatoes, pepper and onion with maggots all over the container being milled together to be used to prepare food for people to buy and eat. These are happening in the larger markets like Makola so I prefer to cook at home to avoid all these things." (Male, over 50 years, lowest SES, Accra)

Key Findings (Cont'd)

Physical environment factors influencing dietary behaviours

Financial access was a barrier to a healthy diet

"when you have [money] then you can buy something to cook at home, and when you cook it, you can get some health from it. But if you don't have money, and you go to the roadside to buy something…people do not take care of how they cook their food, when you eat, you can fall sick. So when you have money and you buy the foodstuff and cook at home, you will have nothing to worry about with regards to your health. So money is needed, everywhere." (Female, 19-49 years, lowest SES, lactating, Ho)

Social environment factors influencing dietary behavior

Family members influence dietary behaviours of participants in a number of ways:

Being in charge of the cooking of meals

"This picture shows my mum… what she cooks at home is what I eat home. She is very selective of what we should eat because of my little brother and so she is mindful to cook what will be good for us for us to grow strong because at the end of the day when we get sick she will end up spending more money at the hospital so in order for her to prevent that she makes us eat good food, selecting the right nutrients." (Female, 19-49 years, low-to-middle SES, Accra)

Providing advice on the type of foods consumed and on the source of provisioning of these foods

"This is my auntie and she advices me on the food to eat and not to eat. I listen to her because she is older than me and I have to take advice from her. I will say that everyone should get an elderly one who will advise you on the food to eat and things to do in order to become healthy and this will help us a lot." (Male, 19-49 years, lowest SES, Accra)

Providing support in times of hardship

"The food seller is my auntie… Even when I don't have money, she could sell to me on credit then I pay later when I have money. She also provides the food to my children even when we don't have money." (Female, lowest SES, lactating, Accra)

Key Findings (Cont'd)

Social environment factors influencing dietary behavior

Following family's food preferences and needs

""It is because of them that I eat a lot or eat a healthy food to get more breast milk for them to feed on. Because if I don't eat a lot or eat a healthy food, they will not get the breast milk to feed on and they need to grow well..." (Female, low-to-middle SES, lactating, Ho)

Friends influenced dietary behaviours of men more than women:

Friends regularly gather for eating/cooking

"In the picture you can see some Banku there with my paddies (friends), showing we are about to eat. We normally eat this food with my boys sometimes every Tuesday or every Friday." (Male 19-49, low-to-middle SES, Accra)

Eating together (in a group of friends) is mentioned to be more enjoyable, as well as motivate participants to eat

"I think the food my mum prepares at home is really better than the ones I go and buy outside. But sometimes we the boys feel like going to eat Las Palmas or we friends feel like sitting to eat something and enjoy ourselves and that is the reason why I go outside and buy food." (Male, 15-18 years, lowest SES, Accra)

Implications for Interventions

- Food safety and neighbourhood environmental sanitation need to be addressed within the physical food environment. Enforced legislation and regulation around food hygiene and standards is warranted.
- Friends influence dietary behaviours of males, thus interventions targeting friendship groups may be effective to instill healthy dietary practices.
- Policies to ensure food is financially accessible are needed to enable healthful dietary choices.

Recommendations for Further Research

- Explore whether food safety and financial access are factors in the physical environment influencing dietary behaviours of individuals in other parts of Ghana.
- Explore whether family and friends are important social drivers of dietary behaviours in other Ghanaian communities.

How is food sold and advertised in urban Ghana

We aimed to characterise the food sold and advertised within deprived urban neighbourhoods.

Methods
A full audit of all food shops and vendors selling foods and drinks, as well as standalone advertisements, were surveyed in James Town (Accra) and Ho Dome (Ho) between September and December 2017. We recorded what type of outlet it was, all items sold, whether there were any adverts and what they were (type and item being advertised). The latter was also recorded for standalone adverts. GPS location was also recorded.

Key Findings

- Informal vendors (e.g. kiosk, local sellers, table tops) were common in James Town (81%), with shops most common in Ho Dome (44%).
- Energy dense nutrient poor foods were more commonly sold in informal outlets.
- Energy dense foods, particularly fried and processed foods were commonly available (James Town 37%, Ho Dome 68%), as were sugar sweetened beverages (James Town 36%, Ho Dome 50%)

- Healthier foods were also available albeit less common, e.g. grains/staples (James Town 26% , Ho Dome 56%), vegetables (James Town 20%, Ho Dome 22%), and eggs (James Town 28%, Ho Dome 54%).
- 25% of all outlets in James Town and 39% in Ho Dome contained at least one advert.
- Items most commonly advertised were sugar-sweetened beverages (James Town 58%, Ho Dome 34%) and alcohol (James Town 34% and Ho Dome 32%).

Implications for Interventions

- Regulating the location of advertisements due to the dominance of unhealthy options (or countering these messages) appears important.
- Informal (small-scale) vendors are generally healthy and focus should be on more formal outlets.
- Healthy foods were fairly common, suggesting that addressing availability alone might not be effective.

Key Recommendations for Further Research

- Explore how accessibility to foods sold and advertised is associated dietary behaviours.
- Examine broader aspects of accessibility including acceptability of foods and affordability.
- Extend the approach to more neighbourhoods to understand how representative the findings are and how environments change across cities.

How ready are Ghanaian communities to reduce unhealthy food and beverage consumption?

The capacity and readiness of communities to accept a range of interventions needs to be understood before appropriate interventions can be implemented. We investigated how ready urban poor communities are to improve the diets of women of reproductive age in Ghana.

Methods

- Community readiness model (CRM), adapted to the Ghanaian context, was used to explore the attitudes, knowledge, efforts and activities and resources of community members and leaders in Ho Dome, Ho and James Town, Accra.
- Semi-structured interviews (n=24) were transcribed, reviewed and scored using rating statements for 5 dimensions. An overall readiness score was calculated and compared to the 9 stages of community readiness.

Key Findings

9 Stages of Community Readiness

1. No awareness
2. Denial/Resistance
3. Vague awareness
4. Preplanning
5. Preparation
6. Initiation
7. Stabilisation
8. Expansion/Confirmation
9. Community ownership

Scores of readiness measured for each CRM dimension

Community climate — Ho 4, Accra 3
Knowledge of issue — Ho 4, Accra 4
Resources — Ho 3, Accra 3
Leadership — Ho 3, Accra 3
Knowledge of local efforts — Ho 3, Accra 2

Both communities in 'Vague awareness' stage of readiness (Ho- 3.95, Accra- 3.35)

- Community members had limited knowledge of issues (some misconceptions).
- Limited awareness of local efforts.
- Concerns insufficient to motivate action.
- Limited resources identified that could be used for further efforts.

Implications for Interventions

- Improve community and leader knowledge of the health implications of excessive unhealthy food and beverage consumption to prioritise issue and mobilise resources.
- An initial focus should be on increasing the community knowledge of efforts (Ga Mashie) and the resources available for intervention (Ho Central).
- Need to consider food safety/hygiene in interventions designed to reduce consumption of unhealthy foods.
- Upscale and improve publicity of existing efforts, e.g. present information at local community events, post flyers, posters and billboards strategically in health facilities and schools. Radio considered particularly effective channel of information delivery.
- Improve awareness and utilise existing resources, e.g. use community spaces, coordinate existing experts and NGO activities to raise awareness and profile of diet-related health.
- Work with key members of the municipal assembly, health workers, youth leaders, teachers, local food vendors (businesses) and traditional leaders to develop and implement changes.

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