Reach Alliance

Nourished or Merely Fed? Examining Child Food Poverty in Ghana

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Note: Authors are listed alphabetically with the faculty mentors listed last.

Cover photo: Children in a public school partaking in the school feeding program (photo by Bill Wegener on Unsplash)

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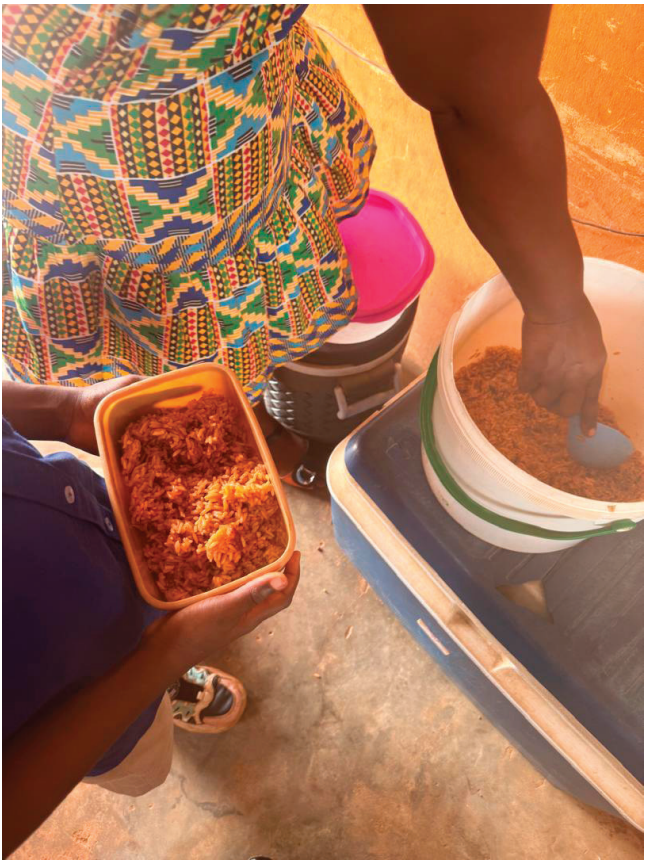

Contribution	Contributor (Initials)
Conception or design of the work	DNKA, IFC, NUS, PTA
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Figure 1. The eight food groups as defined by UNICEF

Executive Summary

Child food poverty (CFP), as UNICEF defines it, refers to children's inability to access and consume a sufficiently diverse and nutritious diet. It is measured by dietary diversity, where children consuming fewer than five of eight food groups are considered food poor. In Ghana, approximately 2.4 million children under five are affected by CFP, which makes it a major public health and development concern with long-term effects on cognitive development, education, and productivity.

We examine the systemic drivers of child food poverty in Ghana across socioeconomic contexts, with particular focus on children aged two to five who fall outside major nutrition interventions that may include the Ghana School Feeding Programme (GSFP). We also investigate the efficacy of existing interventions with particular attention on the GSFP.

Our qualitative research draws on semi-structured interviews with parents, caregivers, and school administrators in the Greater Accra and Upper West regions. We analyzed data thematically using Braun and Clarke's six-step framework and interpreted it through key theories and frameworks. The findings show that CFP is driven by interconnected structural and behavioural factors. At the household level, we found that food prices, seasonal food availability, access constraints, and caregiver knowledge gaps limit dietary diversity. Social factors such as parental attitudes, peer perceptions, and children's preferences also shape nutritional outcomes. The effectiveness of interventions such as the GSFP is constrained by centralized decision making, limited funding, and concerns regarding meal quality and diversity.

CFP in Ghana requires moving beyond food provision to caregiver education, program accountability, and social dynamics. The question facing the nation is whether it will nourish the brains of 2.4 million children to secure its youths' future or continue feeding stomachs while losing minds.

Context: Child Food Poverty

Child Food Poverty (CFP) refers to children's inability to access and consume a nutritious and diverse diet in early childhood. Children experiencing CFP typically consume fewer than five of the eight recommended essential food groups daily. These food groups include breast milk; grains, roots, and tubers; Vitamin-A-rich fruits and vegetables; flesh foods; legumes and nuts; eggs; other fruits and vegetables; and dairy products.

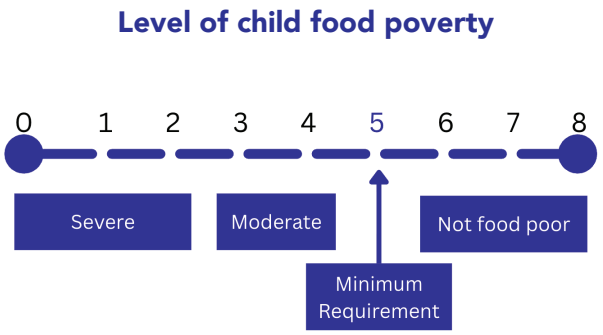

Figure 2. Child food poverty status based on number of food groups consumed

CFP is measured using a Dietary Diversity Score constructed by the World Health Organization (WHO) and UNICEF. Children consuming zero to two food groups daily are classified as living in severe CFP, those consuming three or four food groups daily as living in moderate CFP, and those consuming five food groups as meeting the minimum dietary requirement and thus not facing CFP.[1] These categories reflect very different nutritional realities. Severe CFP refers to an extremely limited and nutritionally inadequate diet. Children in this category face a significantly higher risk of life-threatening malnutrition, including wasting.[2] Moderate CFP offers slightly more variety, yet it still falls catastrophically short of what a developing brain and body require: gaps in essential nutrients accumulate silently. Only when a child reaches five or more food groups daily does their diet cross the threshold into adequacy, where they are consuming a diverse portfolio of nutrients needed for their body to grow, their intellect to sharpen, and for their immunity to strengthen.

Globally, one in four children face severe CFP, with the highest burden most concentrated in the South Asia and Sub-Saharan Africa regions that together account for more than 68 per cent of all affected children.[3] Among the countries affected by this issue, Ghana is among the most significantly impacted countries with over 2 million children currently living under conditions of CFP.

The consequences of CFP extend well beyond hunger. In early childhood, inadequate dietary diversity impairs physical growth, weakens immune systems, and increases vulnerability to diseases. Malnutrition in early childhood is linked to irreversible cognitive and developmental delays, reduced educational attainment, and lower economic productivity later in life.[4] Adequate nutrition is critical in the first two years of life when brain development is at its peak with about 1,000 neural connections forming every second. Failure to support this window of rapid development through adequate dietary diversity can result in deficits that are difficult or even impossible to reverse later in life. At a societal level, the sustained effects of CFP perpetuate cycles of poverty and hinder broader national development, making it not only a public health crisis but a significant barrier to the long-term development of the future workforce.

1 "Child Food Poverty: Nutrition Deprivation in Early Childhood: Child Nutrition Report 2024," New York, UNICEF, 6 June 2024.

2 Ibid.

3 "UNICEF Child Food Poverty," UNICEF USA.

4 "Malnutrition in Children," World Health Organization.

Child Food Poverty in Ghana

In Ghana, millions of children go to bed undernourished despite having eaten. Out of the 4 million children under the age of five in Ghana, 27 per cent live under severe CFP, 35 per cent live under moderate CFP, and just 38 per cent meet the minimum dietary diversity requirement.[5] This results in about 2.4 million children living under the CFP line.

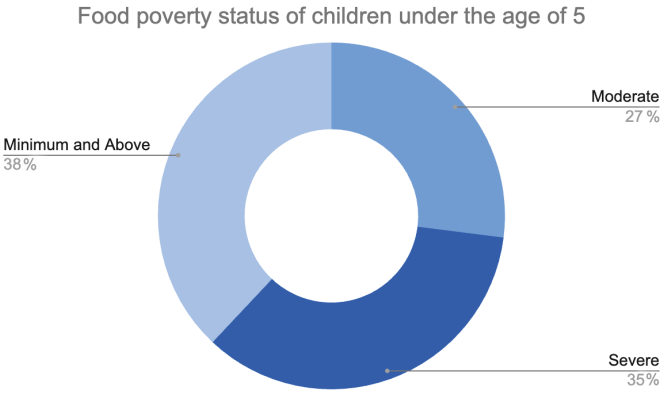

Figure 3. Child food poverty statistics in Ghana

CFP is unevenly distributed across regions. Higher prevalence is observed in the Savanah, Northern, Upper East, Bono East, Upper West, and Greater Accra regions, where climatic constraints such as erratic rainfall, poor soil fertility, and limited market access reduce the availability and diversity of food.[6] These structural constraints limit dietary diversity and increase reliance on monotonous staple-based diets.

CFP is not confined to rural areas. Across the country, limited dietary diversity persists as a national issue driven by a combination of economic constraints, food inflation, and gaps in nutrition awareness.[7]

CFP transcends geographic boundaries and affects households across different socioeconomic contexts.

Child food poverty has far-reaching consequences. Currently, about one in five children is stunted, one in two children is anaemic, and there is a rapidly increasing vulnerability to morbidity and mortality.[8] Poor nutrition leads to various manifestations of malnutrition and reduces learning capacity, all factors that undermine Ghana's future economic growth. Historically, CFP and the resulting malnutrition have cost Ghana about 6.4 per cent of its annual GDP and about 7.3 per cent of its workforce.[9]

In response to the growing burden of CFP and malnutrition, both the Ghanaian government and nongovernmental organizations have implemented initiatives aimed at improving children's access to nutritious meals. The Ghana School Feeding Programme (GSFP) is one of the most prominent interventions in curbing malnutrition. The GSFP operates as a universal intervention, providing the same school meal to all enrolled children regardless of their household socioeconomic circumstances or levels of food security. It aims to provide one hot meal per school day to children in public primary schools and has reached over 3.6 million children in nineteen years.[10] Organizations such as Food for All Africa have also worked at the community level to improve dietary diversity among vulnerable households. However, many of these interventions address food access without adequately addressing the underlying dietary diversity issues, and as a result, millions of children in Ghana continue to lack access to the balanced, nutrient-rich meals essential for healthy development.

5 "UNICEF Ghana Bulletin," UNICEF Ghana, 2025, 5.

6 "UNICEF Child Food Poverty."

7 "Ghana Food Systems Synthesis Paper: From Concept to Implementation," Ghana National Development Planning Commission, 2023.

8 Richmond Aryeetey, Afua Atuobi-Yeboah, Lucy Billings, et al., "Stories of Change in Nutrition in Ghana: A Focus on Stunting and Anaemia Among Children Under-five Years (2009–2018)," *Food Security* 14 (2022): 355–79.

9 "Ghana Has Been Losing 6.4 Percent of Its GDP Due to Child Undernutrition," Scaling Up Nutrition (SUN) Movement.

10 "Feeding Futures: The Ghana's School Feeding Programme Journey Through Challenges and Hope," *BudgIT Ghana*, 10 April 2025.

The Hard-to-Reach: Children Outside Existing Support Systems

We define the "hard-to-reach" as children in Ghana between the ages of two and five years who fall outside the coverage of major government nutrition interventions, particularly those in the transitional period between infancy and school age. Children from birth to two years old often receive some nutritional monitoring through postnatal care and child welfare clinic visits, while children five and older may benefit from the Ghana School Feeding Programme, leaving children above two years and just below the age of five excluded from structured public nutrition support systems.

These children are difficult to reach not because they are geographically isolated but because they occupy a policy and service gap within existing nutrition interventions. Once routine postnatal monitoring comes to an end and before formal school enrolment begins, responsibility for nutrition falls on households and caregivers. Children depend on household food security, caregiver knowledge, and local food environments to meet their nutritional needs. Because some of these children can be found in certain schools that make special accommodations for children within that age range, these schools also become stakeholders in reaching these hard-to-reach little children.

This group is vulnerable because it coincides with the developmental window in which inadequate nutrition can have lifelong effects on physical growth, cognitive development, and health outcomes. Children in this age bracket who live in low-income households, informal settlements, or underserved communities may face a bigger disadvantage, making them vulnerable to child food poverty.

Figure 4. Team members Tracy and Dillys explaining research and consent to a teacher

About Our Research

Despite the scale of the problem, there remains limited understanding of the factors that drive CFP across different socioeconomic groups in Ghana. While poverty is often identified as the major contributor to poor nutrition, the persistence of CFP among households with varying income across both rural and urban settings suggests that a broader set of factors may be at play. We therefore sought to identify and analyze the key drivers of CFP across socioeconomic groups in Ghana and to investigate the efficacy of existing interventions. Our study of how household, community, and structural factors shape children's access to diverse and nutritious diets produced insights that can support the design of more targeted and effective interventions to reduce CFP and improve nutritional outcomes.

Aim

We aimed to identify and analyze the key factors driving child food poverty in Ghana across different socioeconomic and geographic contexts: how economic conditions, household dynamics, food

environments, public services, and structural inequalities influence children's nutritional outcomes. We also explored how interventions can better work for the "hard-to-reach" population of children aged two to five who fall outside the coverage of existing government nutrition support systems. By examining the systemic barriers that leave this group underserved, we sought to identify pathways for improving access to nutrition support for vulnerable young children.

Theoretical Framework

During our research the UNICEF Conceptual Framework on the Determinants of Child Malnutrition appeared as key to understanding the drivers of CFP in Ghana. This framework highlighted certain ideas and societal structures that influence the dietary diversity of children under the age of five.[11] It helped us to examine both the systemic drivers of child food poverty and evaluate the effectiveness of the Ghana School Feeding Programme (GSFP) in addressing it.

A shallow understanding of child food poverty and its lifelong effects contributes to inadequate policy prioritization and resource allocation. The effectiveness of the GSFP in responding to children's nutritional needs is constrained by centralization and resource limitations, as well as mismatches in program design like fixed per-child feeding grants for long periods despite inflation and the case of children of different ages receiving similar portion sizes. These systemic factors are further influenced by economic and geographic inequalities that affect access to resources and services.

Household livelihood constraints limit access to diverse and nutritious foods, while limited caregiver knowledge and rigid feeding practices affect how available food is selected, prepared, and fed to children. The way schools and communities implement and manage the GSFP influences whether children have equitable access to its benefits, while food acceptability and nutritional adequacy affect children's willingness and ability to consume these meals. These systemic and household-level factors contribute to children's inadequate dietary intake. Children's experience of limited access to diverse and nutritious diets may result in poor growth, impaired cognitive development, lower educational achievement, reduced productivity, and the intergenerational transmission of poverty.

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The framework effectively describes both the determinants of child food poverty and forms a basis for evaluating the implementation and impact of feeding programs, such as the GSFP. It highlights the need for integrated policy, program, and household-level interventions to improve child nutrition outcomes across economic and geographic boundaries in Ghana.

Research Approach

A qualitative research design helped us to understand people's different lived experiences and opinions when it comes to child nutrition, interventions, and feeding practices. This design was appropriate because we sought to understand not only the prevalence of CPF, but also the social, behavioural, and institutional factors that shape

11 "UNICEF Conceptual Framework on Maternal and Child Nutrition," New York, UNICEF, November 2021.

children's dietary practices and access to nutrition. We aimed to prioritize the meanings, experiences, and contextual influences that underpin observed nutritional outcomes.

Study Setting and Site Selection

The research was conducted across the Greater Accra and the Upper West regions in Ghana. These regions were chosen based on their ranking of food security across Ghana.[12] The regions also differ geographically which influences the living conditions and types of food available. La Dade Kotopon Municipality in the Greater Accra region and the Wa Metropolitan in the Upper West region were selected for their geographically distinct settings with diverse livelihood patterns, socioeconomic characteristics, and food environments.[13] This allowed us to compare geographic, socioeconomic, and cultural factors while seeking out our hard-to-reach group.

Qualitative Data Collection and Analysis

Our semi-structured interview approach sought to uncover the factors that contribute to the dietary needs of children in their most vulnerable stage where food consumed can affect long-term health. The data collection process lasted close to a month. We visited schools to investigate and observe feeding practices and speak to parents to get a glimpse of children's diets at home.

Sampling Strategy

Purposive sampling identified parents as having a direct impact on children's diets. As a result of urbanization and the need for dual income homes, some children begin schooling at the age of two. Although it is more common for children from age two and below five to be enrolled in daycare, some schools accommodate this age range with younger classes. These schools formed the remaining portion of the sample. Convenience sampling supported the initial plan of purposive sampling. We interviewed some teachers we encountered during the school interviews from their perspectives as parents.

Interview Process

In each region we visited one private school and one public school (a school on the Ghana School Feeding Programme). At each school we had conversations with the head teacher or persons in charge of food and health. Some schools had special roles for that purpose while others had a head teacher responsible for managing feeding. We interviewed sixteen parents across the two regions. The language of communication was mostly English, but where the participant felt more comfortable using the local language Twi, team members who understood it continued the conversation.

The participants were made aware of what the study was about, and we obtained their consent to participate in the study and to be recorded. Some participants opted out of being recorded but still participated in the interviews. Most participants did not consent to having their pictures taken. The interviews with parents covered home feeding practices; household financial situation; breastfeeding and weaning methods; and evidence of children's cognitive impairment or delayed development.

The interviews with the schools covered details of the feeding programs (Ghana School Feeding Programme for public schools); the process of receiving and applying feedback from students and parents in relation to school feeding; menu planning and control of food preparation processes; student behaviour after they had eaten; and evidence of cognitive delay.

The team transcribed all recordings into English. In the case where recordings were corrupted or unusable, team members paraphrased participants' comments from notes taken alongside recording during interviews.

12 *Comprehensive Food Security and Vulnerability Analysis (CFSVA) Ghana* (Accra: World Food Programme, Ghana Statistical Service, Ministry of Food and Agriculture, and Food and Agriculture Organization of the United Nations, 2020), 22–23.

13 "2021 Population and Housing Census: General Report," Ghana Statistical Service, 2021.

Table 1. Key to respondent codes

Participant code	Locality	Gender	Role
101	Wa	Male	Parent
102	Wa	Female	Parent
103	Wa	Female	Head Teacher
104	Labone	Male	Head Teacher
105	Wa	Female	Parent
106	Labone	Female	Parent
107	Labone	Female	Parent
108	Wa	Female	Parent
109	Wa	Female	Teacher
110	Wa	Male	Manager
111	Wa	Male	Parent
112	Wa	Female	Teacher
113	Labone	Female	Parent
114	Labone	Female	Teacher
115	Labone	Female	Teacher
116	Labone	Female	Head Teacher

Data Analysis

We based our analysis on Braun and Clarke's six-step framework. We familiarized ourselves with the transcripts and then broke down large chunks of data through open coding, allowing the codes to emerge directly from the data. After coding we compiled a codebook with preliminary codes and did a second iteration of coding. We categorized codes that pointed to certain issues, for instance, health and special needs were grouped under one category for further analysis to develop themes. We developed preliminary themes and reviewed them before arriving at our final themes. We applied theories and frameworks as a guide for interpreting and synthesizing our themes.

Key Findings: Systemic Factors Driving CFP

Child food poverty is driven by a range of interconnected factors operating at the household, caregiver, and community levels. While economic constraints remain a significant determinant of children's access to nutritious food, other less visible factors can also contribute to poor dietary outcomes. These include parents' limited understanding of child food poverty and its long-term consequences, household livelihood challenges that restrict dietary diversity, and gaps in caregiver knowledge that may result in rigid feeding practices.

Shallow Understanding of Child Food Poverty and Its Lifelong Effects

A key issue we identified was caregivers' limited understanding of what constitutes a nutritionally adequate diet for children. According to the UNICEF Conceptual Framework on the Determinants of Maternal and Child Nutrition, caregiver knowledge and practices form part of the underlying determinants of child nutrition because they influence the quality and diversity of foods provided to children and ultimately shape dietary intake.[14] Although participants generally recognized the importance of feeding children well and ensuring that they received regular meals, their understanding of dietary adequacy and diversity varied considerably and was not explicitly linked to the eight essential food groups.

Most parents we spoke with from Labone and Wa had not encountered the term *child food poverty*, yet they demonstrated a general awareness of the need to provide what they perceived to be nutritious meals. However, some described a balanced diet as a combination of vegetables, proteins, and carbohydrates, while others emphasized the inclusion of protein, often viewing it as the most important component of a healthy meal. Few participants demonstrated an understanding of the importance of dietary diversity or the role of different food groups in supporting children's growth and development.

This limited understanding was further reflected in the way some caregivers and guardians approached children's daily feeding needs. Their concern was often whether children had eaten enough to avoid hunger, rather than whether their meals were sufficiently diverse or nutritionally adequate. Participant 115 illustrated this concern when she observed that "there are those who are truly struggling — maybe not living with their biological parents — staying with guardians who don't really care what they eat. They wake up early, leave the house without eating, and whatever they eat through the day, nobody at home knows or cares." This suggests that, in some cases, children's nutrition is not actively monitored within the household, leaving schools to absorb part of the responsibility for ensuring that children receive adequate meals.

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The UNICEF framework emphasizes that adequate child nutrition depends not only on food availability but also on appropriate caregiving practices and knowledge that support healthy feeding behaviours. Caregivers often rely on personal knowledge, lived experience, or prevailing community norms when making decisions about children's diets rather than on established nutritional guidance. Participant 106 illustrated this by saying, "Growing up in a family, you see how children are cared for. You want to make sure your child has that same love and proper nutrition. You want them to grow well." While such efforts may reflect a genuine commitment to feeding children, they may not always translate into meals that provide the range of nutrients required for healthy physical, cognitive, and emotional development: nutrient-rich food groups such as flesh foods, eggs, dairy products, legumes and nuts, and vitamin A-rich fruits and vegetables supply iron, zinc, iodine, and B vitamins that support brain development and emotional regulation. In other words, child food poverty is not solely driven by a lack of food or financial resources but is also shaped

14 "UNICEF Conceptual Framework on Maternal and Child Nutrition."

by underlying determinants related to caregiver knowledge and feeding practices.

Diet Limitations Due to Restricted Livelihood

A key factor influencing children's access to nutritious and diverse diets was households' livelihood situations. Discussions with participants revealed that caregivers frequently balanced children's dietary needs against competing household demands, often prioritizing foods that could adequately feed all household members until the next payday. Participants explained that fluctuations in food prices influenced purchasing decisions and, in some cases, affected portion sizes. However, some caregivers reported making deliberate efforts to preserve the nutritional quality of meals by reducing overall quantities rather than eliminating specific food groups. Participant 102 said "I try my best, so the food doesn't change." This account suggests that households continuously negotiate between affordability and nutritional adequacy when making food-related decisions.

Access to food sources also emerged as an important influence on household feeding practices. Participant 102 said that "The market is far but not that far" which coincided with comments about foods that were often purchased less frequently, potentially reducing the variety of fresh foods available within the home. Participant 105 explained that during periods when okra was scarce or prices increased significantly, it was excluded from meals. In contrast, Participants 101 and 102 described adjusting their household budgets to ensure that key food items remained part of their children's diets despite rising costs. These accounts illustrate the practical challenges households face in maintaining dietary diversity when confronted with seasonal shortages and market fluctuations.

Participants also highlighted important variations in how households respond to similar economic pressures. Although Participants 102 and 105 fell within the same income bracket, their coping strategies differed considerably. While one opted to exclude or substitute expensive food items during periods of scarcity, the other chose to absorb the additional financial burden to maintain relatively consistent meals for their children. This suggests that household income alone does not fully explain children's dietary experiences. Caregiver priorities, budgeting decisions, and perceptions of nutritional importance also shape how they allocate limited resources.

While financial constraints remain a major barrier to providing children with nutritious and diverse diets, child food poverty is also influenced by the accessibility of food markets, seasonal availability of food items, household purchasing practices, and caregiver decision making. Efforts to address child food poverty must therefore consider not only household economic conditions but also the broader food environment and the strategies households employ to navigate resource constraints.

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Limited Caregiver Knowledge and Inflexible Feeding Practices

In many households, knowledge relating to child feeding and nutrition was transmitted informally from mothers, grandmothers, and other female relatives rather than through formal nutrition education. While this system of intergenerational knowledge transfer remains widely accepted and provides practical guidance to caregivers, it can also create gaps in knowledge and practice that affect children's nutritional outcomes. These gaps appeared to transcend economic and geographic boundaries,

influencing feeding decisions across both urban and rural contexts.

Participants generally reported receiving advice on breastfeeding and weaning during antenatal and postnatal care visits. However, the usefulness and applicability of this information varied depending on individual circumstances. Participant 115 explained that while the guidance she received from health professionals was beneficial, each mother's experience was unique and often required additional learning and adaptation. Reflecting on her experience as a mother of twins, she told us, "I was not advised to do the exclusive breastfeeding for the twins because they're two." She explained that this advice was necessary because she was unable to produce sufficient breastmilk to sustain long-term exclusive breastfeeding for both children and required support from her mother to keep up with feeding times. This suggests that while formal health education provides an important foundation for infant feeding practices, caregivers often require additional support and information tailored to their specific circumstances.

We also learned of structural barriers that influenced caregivers' ability to apply recommended feeding practices. Although exclusive breastfeeding for six months is widely promoted, several participants indicated that workplace demands and limited maternity leave made this difficult to achieve. Participants noted that the current three-month maternity leave period for many public sector workers does not align with recommendations for six months of exclusive breastfeeding. Differences in workplace environments further shaped feeding practices. Participants from Wa generally reported longer breastfeeding durations, ranging from 12 to 18 months, compared to participants from Accra, who more commonly reported breastfeeding for between three and six months.

Participant 105 attributed her ability to breastfeed for two years to being permitted to bring her child to work. Although Participants 105 and 115 worked within the same professional field, they described different workplace experiences regarding childcare support. These findings suggest that institutional and workplace conditions can either facilitate or constrain recommended feeding behaviours. This observation aligns with the UNICEF framework's recognition that caregiving practices are shaped by broader social, economic, and institutional environments.

Knowledge regarding weaning and complementary feeding was similarly shaped by both formal and informal sources of information. Many participants reported relying on guidance from older women within their families and communities when transitioning children from breastmilk to solid foods. Some caregivers were taught how to prepare locally available and nutritious foods like "Tom Brown" (fortified porridge made from roasted maize, soybean, and groundnuts — sometimes enriched with millet or sorghum) or mashed yam with egg, fish, or beans while others relied on processed and prepackaged baby foods for convenience. However, participants acknowledged that possessing nutritional knowledge did not always translate into practice. Time constraints associated with balancing employment, childcare, and household responsibilities often limited caregivers' ability to prepare meals from scratch. Financial constraints also affected some households' ability to purchase either commercially prepared baby foods or nutritious local alternatives. Consistent with the UNICEF Conceptual Framework, we found that knowledge, resources, and caregiving practices interact to influence children's nutritional outcomes.

Some caregivers adopted well-thought-out and planned feeding approaches, including meal planning and menu rotation, to improve household food management and dietary consistency. While participants reported that meal planning facilitated shopping and meal preparation, some noted that repetitive meal patterns could reduce children's interest in food. Participant 114 described how she works with such challenges: "So for my boy like this because I know his menu for him. If today we are taking jollof rice then today my menu has to change," demonstrating flexibility in meal planning. Participant 115 also planned meals. Both participants indicated that they regularly enquired about foods served through school feeding programs and adjusted home meals accordingly to increase variety. These practices demonstrate a conscious effort among some caregivers to diversify children's diets and avoid monotonous feeding routines.

While caregiver knowledge and feeding practices play a significant role in shaping children's nutritional experiences, knowledge alone is insufficient to guarantee optimal feeding outcomes. Caregivers' ability to apply recommended practices is influenced by a range of contextual factors, including workplace policies, time availability, financial resources, access to nutrition information, and household caregiving arrangements. Consequently, child food poverty can persist even where caregivers possess a basic understanding of nutrition. Interventions must address both knowledge gaps and the structural barriers that limit the application of appropriate feeding practices.

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Centralization and Resource Constraints in the GSFP

The effectiveness of the Ghana School Feeding Programme (GSFP) in curbing malnutrition is influenced by its design and implementation structures. Across participating schools, respondents described a highly centralized system in which key operational decisions, including caterer selection and management, are made externally by government authorities. Participant 102 noted that food is prepared and delivered by caterers assigned to the school. Similarly, participant 107 noted "A caterer is assigned and paid by government. School cannot choose its caterer. The previous caterers had no feedback mechanism." This top-down arrangement limits schools' capacity to directly monitor and respond to gaps in food provision, weakening a key accountability layer in program delivery. As a result, gaps in food provision, such as limited protein, low dietary diversity, small portion sizes, or irregular meal delivery, may go unaddressed, limiting the program's ability to ensure adequate dietary quality, a key pathway through which feeding programs are expected to reduce malnutrition.

Resource constraints further compound service delivery challenges. Several participants reported that caterers operate under significant pressure, with some serving multiple schools simultaneously. Participant 107 explained, "The caterer serves about three schools. She is not stationed at the school. A second in command assists her." Such arrangements stretch delivery capacity, increasing the risk of disruptions in food provision. Participant 107 further recounted a direct case of failure: "The caterer failed to come for two consecutive days. Children walked to the roadside with their bowls waiting for the food vehicle." These disruptions meant that children had no access to food on those days.

Financial constraints emerged as an equally critical challenge. Participant 101 noted "The current budget allocation stands at GHC 2.50 [about CAD .32] per child per day," a figure consistently referenced across schools and in existing literature. Participant 111 told us: "The budget is about GHC 2.50 per child per day. The food quantity is not really enough, but it is impacted by the budget available per child." Participants widely regarded this allocation as insufficient for nutritious meals, considering that GHC 2.50 can buy only one small bean fritter. Such funding limitations directly constrain both the quality and quantity of meals provided, undermining the program's nutritional objectives.

Comparing schools with private feeding arrangements further illuminates these disparities. Unlike GSFP schools, some private institutions supplement feeding costs through school fees, enabling greater resource allocation for food provision. Participant 110 noted that "students pay GHC 265 per term (between three and four months) [just over CAD 33] for a school feeding service," while Participant 112 explained that "The school food is compulsory for everyone. They added it to the school fees for them to pay." This contrast underscores how funding structures shape the quality and consistency of school feeding outcomes.

These findings highlight that centralized decision making, resource constraints, and limited school-level accountability collectively mediate the GSFP's effectiveness. These structural and underlying factors affect immediate dietary intake, thereby affecting the program's capacity to achieve its intended nutritional outcomes.

Social Negotiation of Program Participation

Access to meals under the GSFP does not automatically translate into meal consumption. Although children may be enrolled in participating schools, their decisions about whether to eat school meals are shaped by a range of social influences including parental attitudes, peer dynamics, and individual food preferences. These behavioural and social influences directly affect children's immediate food intake.[15]

Participation in the feeding program is largely voluntary and heavily mediated by parental decisions. As Participant 107 explained, "Eating the school food is not compulsory. Some parents instruct their child not to eat it; that portion goes to another child." Some parents distrust the GSFP as not being nutritious enough. Participant 114 further elaborated: "Some parents don't even allow the child to eat the school food. They say things like, 'You are eating this at school?' They think the food should be the same as what they prepare at home, same ingredients, same quality." Because parents function as important gatekeepers to program participation, access to food does not necessarily translate into dietary intake.

Negative perceptions about meal quality also extended to children themselves. Participant 114 observed that "Some students don't take the food at all. The perception of the food not being good is a challenge. Some children bring their own food and don't touch the school food." This suggests that the effectiveness of school feeding depends not only on food provision but on whether children perceive meals as desirable and acceptable.

Peer influence can further deter participation in feeding programs. In some schools, children associate school meals with poverty and low social status. Participant 107 noted that "Children mock their peers for eating '*abban* food' (government food)." Participant 104 observed that "Children buy food because their friends do so," choosing vendor food to conform with peers rather than out of genuine preference. The pricing and purchasing of these meals is not a problem but rather the inability of parents and school officials to monitor or regulate the foods bought by children from these vendors. These dynamics illustrate how social pressures within schools can discourage participation even where food is readily available.

Food preferences equally shaped children's engagement with the program. Participants described how children often rejected nutritious meals that did not align with their tastes. Participant 101 noted that "Children do not favour local foods of the region such as *tuo zaafi*," while Participant 112 observed that "If the food prepared is not their favourite, the person will not go, and the person will be starving himself or herself." *Tuozaafi* referenced here is a Ghanaian dish made from cooking cereal flour in boiling water and serving it with local soups. This highlights that nutritional adequacy alone is insufficient — meals must also align with children's tastes, familiarity, and social exposure to particular foods to ensure consistent consumption. The nutritional benefits of the GSFP are therefore contingent not only on meal provision but on the

15 "UNICEF Conceptual Framework on Maternal and Child Nutrition."

broader social environments and behavioural factors that shape children's willingness to consume them.

Food Acceptability and Nutritional Adequacy

The GSFP's effectiveness is also shaped by the nutritional composition and perceived quality of meals served, particularly in relation to their adequacy, consistency, and acceptability. Meals provided under the program are largely carbohydrate based, with limited inclusion of other food groups. Participant 107 noted, "Most meals do not come with protein. On days protein is available there is not enough for the whole class." Meal consistency was further affected by variability in ingredient availability, with Participants 106 and 108 reporting that menus were regularly adjusted due to seasonal changes and fluctuations in food supply. These accounts suggest that nutritional adequacy under the GSFP is constrained by both budgetary limitations and external supply conditions.

> "Although the program is designed on the assumption that school meals will be uniformly accessed and consumed by all enrolled pupils, **children's engagement with the intervention varies significantly** depending on household conditions, social environment and individual food preferences.

Concerns about food quality and preparation practices further shaped how children received meals. Some respondents highlighted hygiene-related issues that undermined children's confidence in the food. Participant 108 noted "Some children avoid school meals after witnessing the conditions under which food was prepared, perceiving them as unsanitary." Participant 104 similarly observed that "Even the aroma alone will drive you away from the food." This suggests that meal acceptability is not determined solely by nutritional content but is equally influenced by children's trust in the safety and cleanliness of food preparation. While the GSFP increases physical access to food, variations in nutritional composition and concerns around preparation practices limit the extent to which children eat the meals.

Policy–Child Mismatch in Program Design

We found a fundamental mismatch between the policy assumptions underpinning the GSFP and the diverse lived realities of children. Although the program is designed on the assumption that school meals will be uniformly accessed and consumed by all enrolled pupils, children's engagement with the intervention varies significantly depending on household conditions, social environment, and individual food preferences.[16] These differences reflect the importance of underlying household and individual-level determinants that shape dietary intake and nutritional outcomes.

Across the interviews, it was evident that children do not constitute a homogeneous group in their engagement with the program. While some rely heavily on GSFP meals as a primary source of nutrition, others selectively consume or reject them in favour of home or vendor alternatives. Participant 112 explained that "Some students do not show up for class. They simply bring their food bowl, eat, and return home," illustrating a deep reliance on the feeding program as a nutritional lifeline. By contrast, Participant 114 noted that "Some parents don't even allow the child to eat the school food."

16 Ato Essuman and Cynthia Bosumtwi-Sam, "School Feeding and Educational Access in Rural Ghana: Is Poor Targeting and Delivery Limiting Impact?" *International Journal of Educational Development* 33, no 3 (2013): 253–62.

These contrasting accounts reveal varying degrees of dependency within the same intervention, challenging the program's assumption of uniform uptake.

> “For some children, **school meals function as a nutritional supplement to adequate food consumed at home** while for others school meals constitute one of the few reliable sources of daily nourishment.

Socioeconomic background further shapes how children experience the program. Participant 106 observed that children from households with greater economic security tended to express fewer concerns about meals provided than those from financially constrained households who rely on school feeding: “Children from stable homes tend not to complain. Those from difficult backgrounds — the nutrition is not good for them. It depends on their home situation.” This suggests that household food security plays a central role in determining how meaningfully children benefit from school feeding. For some children, school meals function as a nutritional supplement to adequate food consumed at home while for others school meals constitute one of the few reliable sources of daily nourishment. Consequently, the same program produces uneven nutritional and social outcomes across different categories of children, with the most vulnerable not necessarily receiving proportionally greater benefit because they get little to no supplementary meals.

While the GSFP functions as a universal intervention, providing the same meal to every enrolled child, its effectiveness is mediated by diverse and context-specific realities. This raises important questions about the assumption of uniformity in policy design and the extent to which standardized programs can adequately address the differing experiences of child food poverty and malnutrition across varied social and economic contexts.

Figure 5. Team member Innocent interacting with parents

Lessons Learned and Recommendations

Child food poverty is shaped by an interaction of economic, social, and behavioural factors that extend beyond food availability. A limited understanding of child food poverty and its lifelong consequences, household livelihood constraints that limit dietary diversity, and gaps in caregiver knowledge that lead to limited dietary variety all contribute to children's vulnerability to inadequate diets. These

factors influence the quality, diversity, and nutritional adequacy of what children eat.

Although the GSFP plays an important role in supporting children's access to food and encouraging school attendance, several implementation challenges affect its ability to fully address CFP. Issues related to centralized decision making and resource constraints, the social dynamics surrounding program participation, concerns regarding food acceptability and nutritional adequacy, and mismatches between policy design and the realities of children's needs were found to influence the program's effectiveness. Access to meals alone is insufficient if the meals provided do not meet children's nutritional requirements.

Addressing child food poverty therefore requires a holistic approach that combines household-level, community-level, and institutional interventions. Strengthening caregiver education on child nutrition and feeding practices can improve dietary choices within households, even in resource-constrained settings. At the same time, enhancing the GSFP's implementation, targeting, and sensitization efforts can help ensure that it better responds to the nutritional needs of children and achieves its intended outcomes.

Reducing CFP will require coordinated action across sectors, with greater attention to both the structural barriers that limit access to nutritious food and the social and behavioural factors that shape children's feeding experiences. By addressing these interconnected drivers, stakeholders can make meaningful progress toward improving child nutrition, well-being, and long-term development outcomes.

Recommendations

Nationwide push of caregiver education programs. Outside the health centres and after postnatal care, caregiver knowledge usually comes from personal experiences, and cultural and religious beliefs of friends and family. These can be helpful but may also make mothers feel frustrated if it does not work for them. Government-backed research-based caregiver education programs should be offered to parents who are expecting. The ministry of health should work hand in hand with health centres nationwide to deliver these programs that emphasize the importance of both parents being present, active, and aware of children's nutritional needs. The programs should also find local and inexpensive alternatives to nutritional staples to ease the burden and dispel the belief that nutritious meals are expensive.

Implementation, focus, and sensitization. Improving the GSFP's effectiveness requires strengthening implementation structures and accountability mechanisms. Given the challenges associated with centralized decision making, the program should establish formal monitoring and feedback systems on meal quality, quantity, and reliability that involve schools, parents, and pupils.

Community sensitization might also be important to address negative perceptions and stigma associated with school meals. Participants described a stigma associated with school meals, whereby children who participated in the GSFP were sometimes perceived as coming from households unable to provide adequate food at home. This perception may discourage participation and undermine the program's intended benefits. By recognizing that children's engagement with school feeding programs is shaped by social, household, and behavioural factors, policymakers can design interventions that encourage participation.

> “
> Community sensitization might also be important to **address negative perceptions** and stigma associated with school meals.

Study Limitations

Focus on perceptions and experiences rather than clinical nutritional assessment. This study was designed to explore experiences, perceptions, and practices related to child food poverty, dietary diversity, and food quality. The analysis draws primarily on qualitative insights from participants regarding food access, feeding practices, and perceived nutritional adequacy. While the study did not incorporate clinical or anthropometric assessments, the findings provide valuable contextual understanding of how households and schools experience and navigate challenges related to children's diets and nutrition.

Emphasis on caregiver and institutional perspectives. The study intentionally engaged parents, teachers, and school personnel as key informants, given their central role in shaping children's food environments and feeding practices. These perspectives provided rich insights into the factors influencing children's diets both at home and in school. While children's views were captured to a lesser extent, future research could build on these findings by incorporating more child-centred approaches to further explore children's food preferences, experiences, and perspectives.

Recommendations for Future Work

Future research could build on these findings by incorporating quantitative assessments of children's nutritional status and analyzing school meals' composition to provide objective evidence of dietary adequacy. Children's perspectives could also be included more directly to better understand their food preferences and eating behaviours.

While studies conducted across different regions and school settings helped identify variations in feeding practices and program implementation, longitudinal research could provide insight into the long-term effects of these programs on children's health and academic performance. Further investigation into the effects of inflation, food prices, and seasonal changes on household and school feeding practices would also be valuable.

Future studies might examine the effectiveness of monitoring and feedback systems and explore gender and social influences on feeding experiences. Overall, strengthening research in these areas would contribute to a more comprehensive understanding of child nutrition and support efforts to improve school feeding interventions

Research Team

Princess Tracy Agyemfra-Acheampong is a computer science student at Ashesi University interested in technology, entrepreneurship, and community impact. Her work sits at the intersection of innovation, leadership, and problem solving, with a passion for developing solutions that address real-world challenges. As the founder of Easy Eats, a meal-delivery business, and co-founder of Master Stroke, she is committed to leveraging both technology and entrepreneurship to create meaningful value. Tracy also serves as an entrepreneurship and design coach and is leading the development of a roadmap platform designed to help computer science students navigate their academic and professional journeys. She seeks to advance impactful technologies, build sustainable ventures, and contribute to positive change across African communities.

Dillys Naa Kai Annan is a mechatronics engineering graduate student with a strong interest in applying technology and innovation to address real-world challenges, particularly within the agriculture and agrotech sectors. As she progresses through her studies, she aspires to build a career that leverages automation, embedded, and intelligent systems to improve agricultural productivity and sustainability. In the future, she hopes to contribute to the development of policies and support structures that promote the growth, protection, and well-being of women and children in society.

Innocent Farai Chikwanda is a master's student in intelligent computing systems at Ashesi University whose work sits at the intersection of technology, public policy, and social impact. A Rhodes Scholar, Mastercard Foundation Scholar, and Melton Foundation Senior Fellow, he is interested in applying principled, evidence-based research to complex challenges facing African communities.

Nicole Uzile Sibanda is a recent economics graduate passionate about finding practical solutions to Africa's development challenges. She is an aspiring economist and researcher with interest in macroeconomic policy, health economics, and development economics. Through her academic work and internships, she has combined innovation, research, and leadership to drive meaningful impact. Nicole is committed to lifelong learning and hopes to leverage opportunities that will prepare her to be a changemaker who will leave a mark in African and global development.

Theodora Aryee has a BSc, MPhil, and PhD, all in accounting. She is passionate about research making an impact on society, in particular sustainability, not-for-profit governance, professional identity, and change management. She considers the Reach Alliance a fine platform to support emerging scholars and bring change to hard-to-reach communities through their research. She believes that anything worth doing is worth doing well.

Disraeli Asante-Darko is an associate professor with over a decade of experience in teaching and research. He currently serves as the director of the Ashesi MBA program. His expertise lies in supply chain management, sustainable development, and procurement strategy. He has published extensively in top-tier academic journals and is a recognized thought leader in operations and sustainable supply chain management. Disraeli integrates practical problem solving and innovative approaches into his teaching, making significant contributions to both academia and industry.

Albert Bensusan is a lecturer at Ashesi University with a passion for ensuring industry and academic collaboration. His experience working with last-mile communities and the businesses that support them has driven his research interest in problem solving, innovation, and entrepreneurship. He supports communities' aspirations for growth through innovation grounded in human-centred research. He joined the Reach Alliance to drive similar research. He aims to do this by supporting students to put people at the centre of research and ensuring actionable insights from their research findings.

Ashesi University's mission is to propel an African renaissance by educating ethical, entrepreneurial leaders. Located in Ghana, this private, nonprofit university combines a rigorous multidisciplinary core with degree programs in Computer Science, Business Administration, Management Information Systems, and Engineering. A student-led honour code, integrated community service, diverse internships, and real-world projects prepare students to develop innovative solutions for the challenges facing their individual communities, countries, and the continent at large.
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Back cover photo: School children of different ages coming from school (iStock image by Siempreverde22)

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