Synergy in Paradox: 
The Role of Food Aid and Assistance in Addressing the Double Burden 
of Malnutrition in Ghana 

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Acronyms for Reference

CSP—Country Strategic Plan

FAO—Food and Agricultural Organization of the UN

GHS—Ghana Health Service

GSFP—Ghana School Feeding Program

LMICs—Low- and Middle-Income Countries

MDGs—UN Millennium Development Goals

NCD—Non-communicable disease(s)

PLHIV—People living with HIV

SBCC—Social behavioral change communication

SDGs—UN Sustainable Development Goals

UN—United Nations

WFP—World Food Programme

WHO—World Health Organization
Definitions for Reference

**Double burden of malnutrition**—“The coexistence of forms of undernutrition (child stunting and wasting and vitamin and mineral deficiencies) with overweight and obesity in the same country, community, household or individual” (1).

**Double-duty action**—“Double-duty actions include interventions, programmes and policies that have the potential to simultaneously reduce the risk or burden of both undernutrition (including wasting, stunting and micronutrient deficiency or insufficiency) and overweight, obesity or diet-related NCDs (including type 2 diabetes, cardiovascular disease and some cancers). Double-duty actions leverage the coexistence of multiple forms of malnutrition and their shared drivers to offer integrated solutions” (1).

**Food aid and assistance**—“While food aid is a tried and tested model, proudly woven into WFP history, it sprang from a largely unidirectional, top-down vision: people were hungry; we fed them. Food assistance, by contrast, involves a more complex understanding of people’s long-term nutritional needs and of the diverse approaches required to meet them… It implies not just emergency interventions, but tailored, multi-year support programmes designed to lift a whole nation’s nutritional indicators. We balance the urgency to alleviate hunger here and now with the broader objective of ending hunger once and for all. Food assistance thus becomes part of a policy mix that advances social wellbeing in general. In line with the Sustainable Development Goals, and in particular with Goal 2, we consider the quality as well as the quantity of food, with the emphasis on its nutritious character and seasonality. Crucially, food assistance enlists beneficiaries as actors: it gives them a voice, and, wherever possible, a choice in what food they receive and how they receive it” (2).

**Food insecurity**—“A situation that exists when people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life. It may be caused by unavailability of food, insufficient purchasing power, inappropriate distribution or inadequate use of food at the household level. Food insecurity, poor conditions of
health and sanitation and inappropriate care and feeding practices are the major causes of poor nutritional status. Food insecurity may be chronic, seasonal or transitory” (3).

**Hunger**—“Hunger is an uncomfortable or painful physical sensation caused by insufficient consumption of dietary energy” (1).

**Malnutrition**—“An abnormal physiological condition caused by inadequate, unbalanced or excessive consumption of macronutrients and/or micronutrients. Malnutrition includes undernutrition (child stunting and wasting and vitamin and mineral deficiencies) as well as overweight and obesity” (1).

**Nutrition transition**—“Modernization, urbanization, economic development, and increased wealth lead to predictable shifts in diet. Currently, most low- and middle-income countries are rapidly moving from pattern 3 (end of famine) to pattern 4 (consuming more energy-dense diets). This shift from traditional diets to Western-style diets has been a key contributor to the obesity epidemic in low- and middle-income countries” (4).

**Overweight and obesity**—“Body weight that is above normal for height as a result of an excessive accumulation of fat. It is usually a manifestation of expending less energy than is consumed. In adults, overweight is defined as a BMI of 25 kg/m\(^2\) or more, and obesity as a BMI of 30 kg/m\(^2\) or more. In children under five years of age, overweight is defined as weight-for-height greater than 2 standard deviations above the WHO Child Growth Standards median, and obesity as weight-for-height greater than 3 standard deviations above the WHO Child Growth Standards median” (1).

**Undernutrition**—“The outcome of poor nutritional intake in terms of quantity and/or quality, and/or poor absorption and/or poor biological use of nutrients consumed as a result of repeated instances of disease. It includes being underweight for one’s age, too short for one’s age (stunted), dangerously thin for one’s height (suffering from wasting) and deficient in vitamins and minerals (micronutrient deficiency)” (1).
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ABSTRACT

In many low- and middle-income countries, the coexistence of undernutrition with overweight and obesity threatens economic development and progress to improve health. This double burden of malnutrition demands a re-evaluation of the roles and responsibilities of nutrition actors, both traditional and nontraditional. The United Nations World Food Programme (WFP) is one nontraditional actor in the double burden debate. Using a descriptive case study qualitative methodology, this paper explores whether WFP’s food aid and assistance has the potential to reach beyond its traditional mandate on undernutrition to also address overweight and obesity. The analysis demonstrates that in the context of Ghana, one country experiencing the double burden, WFP’s food aid and assistance activities do have the potential to serve as a platform on which to address the double burden. Interview insight from key actors in the global nutrition landscape also helped identify challenges that complicate the role of WFP and other players in addressing the double burden in Ghana. The findings suggest that the integration of WFP as a partner in the effort to address the double burden might help amplify progress. Moreover, they suggest that, to better address the double burden, WFP might prioritize retrofitting existing activities rather than implementing new interventions. While this study focuses on Ghana, the foundation of its findings might be applicable in similar contexts.
INTRODUCTION

In 2016, the United Nations (UN) and its member states committed to ending hunger around the world by 2030 with their Sustainable Development Goal (SDG) agenda. In the midst of rising hunger rates globally—with 821 million people hungry and 150 million children stunted in 2017 (3)—they identified the need for accelerated progress in combatting global hunger and undernutrition. Yet today, the global nutrition landscape is ever more complex. Under the backdrop of rising hunger rates, the global community has seen a simultaneous rapid rise of overweight and obesity in every setting of the world, especially in low- and middle-income countries (LMICs). This seemingly paradoxical coexistence of undernutrition and overweight—called the double burden of malnutrition—presents an urgent challenge to LMICs already facing high unmet health burdens.

Stimulated by the UN’s designation of 2016 to 2025 as the Decade of Action on Nutrition, the World Health Organization (WHO) recently developed a first of its kind roadmap for addressing the double burden of malnutrition (5). In its 2017 policy brief, WHO contends that certain interventions, called double-duty actions, actually have the potential to simultaneously address both undernutrition and overweight in synergistic ways (5). WHO’s proposition challenges the conventional assumption that addressing undernutrition and addressing overweight entailed a zero-sum game. However, the WHO roadmap leaves several questions unanswered about how double-duty actions can be implemented and who should be implementing them. In particular, WHO proposes one platform on which to deliver double-duty actions—humanitarian aid and emergency nutrition programs—that demands more thorough evaluation.
The World Food Programme (WFP), one of the foremost players in the food aid and assistance landscape, has for decades played a key role in helping LMICs address chronic and emergency food insecurity issues; yet, as its role evolves, the question remains of whether it can realistically serve as a platform on which to implement double-duty actions. WFP’s growing nutrition-conscious role hints that it may possess the potential to address the double burden of malnutrition in beneficiary countries. This potential may be particularly relevant in West Africa where countries face some of the most concerning risks associated with the double burden (6). While WFP’s current mission includes addressing malnutrition in all its forms (i.e. undernutrition, obesity, overweight, and micronutrient deficiencies) (7), there is a paucity of analysis on how WFP’s mission to address the double burden has materialized in its country level work now and in the past. This absence of analysis of the role of food aid and assistance in addressing not just undernutrition but also overweight and obesity serves as the basis of my thesis that considers the questions:

To what extent does WFP's food aid and assistance serve as a possible platform on which to address the growing double burden of malnutrition in Ghana? What challenges exist in this context that complicate WFP’s ability to better address the double burden?

The literature surrounding this topic largely fails to address these questions. Past research has explored the role of multilateral and bilateral food aid and assistance programs as economic drivers in recipient economies (8-10), their cost effectiveness (11), and their role in alleviating hunger (12, 13). Yet, there is no readily available analysis that explores the role of multilateral food aid and assistance in also addressing overweight and obesity.
Using a descriptive case study methodology, I will investigate WFP’s practices and their relationship to the double burden. With Ghana as my priority country, I will explore my research questions using qualitative document and interview analysis.

In the next section of this thesis, I explore the existing literature on the double burden of malnutrition in West Africa, its causes, its consequences, and the theoretical framing of the role food aid can play in addressing the double burden of malnutrition with double-duty actions.

**LITERATURE REVIEW**

**The Nutrition Transition and Its Consequences in Sub-Saharan Africa**

For decades, the growth of LMIC economies has had unintended consequences for public health, propelling LMICs into a phenomenon called the nutrition transition. The nutrition transition describes the dynamic change in diets within countries as they simultaneously undergo the demographic and epidemiologic transitions—wherein population growth slows and main disease burdens shift from infectious to non-communicable disease (NCD) (14). During the nutrition transition, nations converge on so-called “Western diets” as the consumption of saturated fats, sugars, and refined foods increases and adherence to native diets decreases (14). The increased consumption of such foods promotes growth in overweight and obesity rates (14). A term first coined by Popkin (14), the nutrition transition therefore describes the dynamic changes that give rise to the double burden of malnutrition (i.e. the coexistence of undernutrition and overweight).

In contemporary society, the nutrition transition has descended upon sub-Saharan African nations, threatening grave consequences. Over the past 30 years, African nations have experienced an unanticipated rapid rise in overweight. From 1980 to 2008, the prevalence of overweight in Africa rose from 17% to 30%, almost doubling (15). In West Africa, countries
such as Ghana, Cameroon, and Nigeria face a particularly rapidly growing prevalence of overweight, with adult obesity, the most extreme form of overweight, in these countries hovering around 10%, 10% and 8%, respectively (16). While the nutrition transition signals beneficial economic growth and urbanization, it produces new health consequences, namely a costly overweight and diet-related NCD burden (17), on nations already facing some of the highest rates of undernutrition in the world.

Most saliently, the nutrition transition levies a hefty economic cost (18). Estimates from Latin American countries hint at the extent of possible damage that the double burden can inflict. While difficult to measure, it has been estimated in Mexico, Chile, and Ecuador, three transitioning nations, that the additional costs sustained from increased overweight and obesity in 2014 alone amounted to US$6.1 billion, US$330 million, and US$1.5 billion, respectively (19). The potential negative consequences of the nutrition transition thus have the potential to counteract the benefits of economic development, posing a formidable obstacle to LMICs attempting to expand their power and compete on the global economic stage.

Preventing the Consequences of the Nutrition Transition in Sub-Saharan Africa

Sub-Saharan Africa is the final region in the world to experience the nutrition transition (15), and, as such, has a unique untapped opportunity to learn from the mistakes of other regions. In theory, sub-Saharan African nations, by implementing early preventative strategies to combat overweight, can avoid experiencing the costly overweight and diet-related NCD burdens seen in other regions of the world (15, 20). The opportunity in sub-Saharan Africa is ripe, especially because, as of 2014, dietary fat still represented less than 30% of the energy intake in most sub-

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1 Note: estimates from sub-Saharan African are not readily available.
Saharan African countries (17). These intake rates contrast those of high-income settings such as the US and Western Europe, where, as of 2010, fat intake was above the concerning 30% benchmark (17, 21). Despite many sub-Saharan African nations being uniquely positioned to learn from others’ mistakes, the extent to which the mistakes of other regions have been leveraged and acted upon across sub-Saharan Africa remains limited.

African nations may have failed to fully capitalize on the mistakes made in other regions for several reasons. In addition to embracing the economic development that fuels the nutrition transition, a possible explanation is the belief that addressing overweight takes away resources from addressing undernutrition, constituting a zero-sum game. Many sub-Saharan African states face internal political pressure to prioritize more pressing and life-threatening public health concerns related to undernutrition and infectious disease. This pressure may explain why the rapid growth in obesity and overweight and diet-related NCDs, which is perceived as less urgent, has gone largely unaddressed. This zero-sum game belief is explained in part by the public health arena’s use of different frameworks to understand and categorize the overweight and undernutrition issues (22). The use of different frameworks and terminologies to describe these issues—namely, a socio-ecological approach to describe undernutrition and a combined socio-ecological and systems approach to describe obesity, write Pradeilles, Baye, and Holdsworth (2018)—made these issues and their drivers appear starkly different. This conception of difference may have hindered progress to conceive innovative solutions that could address both issues simultaneously.

In recent years, as the understanding of the double burden has grown, public health officials have begun to consider the potential to address undernutrition and overweight in synergistic ways. These efforts have largely been reinforced by public health officials’
recognition that undernutrition and overweight often have shared drivers at the biological, socioeconomic, and environmental levels (5). One study found that about 40% of drivers for either overweight or undernutrition are shared between them at the individual, interpersonal, environment, and system levels (22).

Using the theory and evidence supporting this concept of synergistic action, WHO developed a framework in 2017 for addressing the double burden of malnutrition (5). This framework—which discusses potential “double-duty” actions to address the double burden and the platforms on which to implement these actions—provides an initial roadmap for progress. WHO lists actions such as the promotion of exclusive breastfeeding, proper introduction of complementary feeding in infants, school food programs, maternal and antenatal care programs, and marketing regulations as potential double-duty actions (5). Others have explored the concept of double duty actions, with one study noting regulations on marketing and the promotion of early breastfeeding as the two double-duty actions that have the potential to address the greatest number of shared drivers of overweight and undernutrition (22). While this discussion on double duty actions suggests which actions might combat the double burden, the question of who should implement these actions is equally important.

The possible platforms WHO proposes on which to implement double-duty actions show the vast number of sectors that influence nutritional outcomes. WHO’s framework explores, in particular, the role of the state actor (i.e. government) in implementing double-duty actions. WHO and others propose using social policies, urban food policies, agricultural policies, health systems, etc. to catalyze progress (5, 15, 23, 24). The use of existing government infrastructure to address these public health problems is intuitive because it makes use of the government, the central public health stakeholder in many LMICs. WHO’s double-duty actions proposal,
however, makes a novel suggestion when it proposes the potential for humanitarian aid and assistance to play a role in this battle. This suggestion identifies the important role that humanitarian aid and assistance plays amongst some of the most vulnerable communities in LMICs in sub-Saharan Africa and around the world.

**The Role of Food Aid and Assistance in the Nutrition Transition**

The recognition of the possible role of humanitarian food aid and assistance in combatting the consequences of the nutrition transition comes as development aid has slowly recognized the importance of nutrition. During the Millennium Development Goal (MDG) era between 2000 and 2015, development aid largely prioritized the delivery of energy through calories to achieve its goal of ending hunger (25). Yet, evidence slowly began to challenge this approach. In 2011, the U.S. Government Accountability Office (GAO) published an evaluation of U.S. food aid that investigated its effectiveness in combatting food insecurity (26). The GAO contended that while the U.S.’s food aid approach provided life-saving calories to communities in emergency situations, it may have failed to provide adequate nutrition for long-term aid beneficiaries in non-emergency settings (26). While the GAO does not specifically mention how adequate nutrition is important for preventing overweight, its argument raised the question of food aid’s capacity to do more.

These questions directly invoke the work of WFP, the main multilateral stakeholder in the food aid landscape, whose priorities and mission since its establishment in 1961 have slowly evolved. WFP, since its inception, has delivered food aid both in humanitarian emergencies and in communities facing sustained malnutrition concerns. In 1961, WFP embraced the traditional food aid model wherein surplus food from around the world was redistributed to food insecure
areas (27). The traditional food aid model, as WFP writes, “sprang from a largely unidirectional, top-down vision: people were hungry; we fed them” (2). Since then, WFP has developed a more multifaceted approach—leveraging parts of the traditional in-kind food aid model while also integrating new cash transfers, e-vouchers, and capacity strengthening into its programming.

As nutritional burdens have changed, WFP argues that its current approach to food aid “involves a more complex understanding of people’s long-term nutritional needs and of the diverse approaches required to meet them” (2). WFP’s evolving understanding of its own role in the nutrition landscape manifests itself in WFP’s 2017 to 2021 Nutrition Policy (28)—which expanded WFP’s mandate by explicitly affirming WFP’s goal of eliminating all forms of malnutrition including overweight and obesity. WFP’s sight of the double burden and the long-term implications of its work lends itself well to considering how food aid and assistance as a platform might maneuver the changing malnutrition landscape.

Despite WFP’s acknowledgement of the double burden, there is no readily available analysis, to my knowledge, on the extent to which food aid and assistance activities actually possess the potential to address the double burden, especially in non-emergency settings. Existing analyses on multilateral food aid and assistance have largely focused on its effects in emergency settings. These analyses on food aid and assistance in emergency settings often consider the economic effects of food aid on the local markets (8-10), the cost effectiveness of programs (11), and the challenges of dependency (29, 30). By nature of being emergencies, this work is often more concerned with acute, immediate and ostensible energy needs and less on the long-term nutritional needs of beneficiary communities (31). The nature of this work contrasts non-emergency setting where the timeframe of work is longer, those who are in need are not as obvious, and sustainability is a critical concern (31). As the consequences associated with the
nutrition transition rapidly multiply in transitioning nations, there is urgent need for research that considers how nontraditional players such as WFP fit in the conversation on the long-term nutritional challenges in non-emergency settings facing the double burden, such as those in West Africa.

By considering WFP’s activities in a context experiencing the double burden, this study aims to explore a gap in the literature by providing an in-depth evaluation of the role food aid and assistance activities might play in combatting the double burden of malnutrition. With Ghana as its case, this paper’s methodological approach is designed to illicit insight from Ghana that may hint at wider themes that are applicable to the ways in which food aid and assistance can and does address the double burden of malnutrition in West Africa and, more broadly, in the world.

RESEARCH QUESTION

To what extent does WFP’s food aid and assistance serve as a possible platform on which to address the growing double burden of malnutrition in Ghana (RQ1)? What challenges exist in this context that complicate WFP’s ability to better address the double burden (RQ2)?

HYPOTHESES

For RQ1: WFP’s persisting traditional mandate on hunger, food insecurity and undernutrition and explicit acknowledgement only recent of its aim to address the double burden suggests that WFP activities both in the past and present possess little potential to serve as a platform on which to address the double burden.
For RQ2: Common problems related to effective action to address the double burden might relate to poor nutrition funding and lack of prioritization. However, the challenges countries face are often context-specific. The paucity of literature on the challenges associated with the double burden in Ghana make the nuances of the challenges in the Ghanaian context unknown. Therefore, this research question will be hypothesis generating rather than hypothesis testing.

**METHODOLOGY**

I employ a descriptive case study methodology to examine: 1) the extent to which WFP’s delivery of food aid and assistance might address the double burden of malnutrition and 2) the challenges that complicate WFP’s ability to better address the double burden.

**Choosing the Case: WFP in Ghana from 2012 to 2023**

The primary case of this analysis is WFP’s food aid and assistance activities in Ghana from 2012 up through its planning into 2023. The combination of this organization, country, and time period provides a strong conceptual framework through which to analyze the role of food aid and assistance in addressing the double burden.

WFP was chosen as the main actor of this analysis because of its role as the main multilateral provider of food aid and assistance globally. As a UN agency, WFP is strategically positioned to address malnutrition by leveraging global frameworks—such as the UN Decade of Action on Nutrition and the SDGs—and knowledge sharing based on country experiences from across the world. Its connection to the global stage also allows it to tap into global progress to maximize its impact in country. These characteristics position WFP as a strong candidate for evaluation against my research questions.
Ghana was chosen as my setting because of its alarming status in the nutrition transition as a middle-income nation. Middle-income nations often face the greatest pressure from the double burden of malnutrition (32). Accordingly, Ghana’s double burden of malnutrition is a cause for concern. While undernutrition in Ghana is decreasing, progress to address undernutrition has been slow and unequal across the country (33). Nationally, rates of undernutrition remain at concerning levels—with 19% of children stunted (reaching as high as 30% in the Northern region), 5% wasted and 11% underweight as reported in 2014 during the most recent Demographic Health Survey (33). Simultaneously, overweight and obesity in Ghana has witnessed rapid growth. In a 2016 systematic review conducted on studies estimating the prevalence of overweight and obesity at the national level in Ghana, the authors estimated that approximately 42% of adults in Ghana were either overweight (24.5%) or obese (17.1%), generally with a greater distribution of risk in urban relative to rural areas and amongst women relative to men (34). It is important to note that there was asymmetry amongst various studies in the estimates of overweight in Ghana, potentially indicating publication bias; moreover, data on the prevalence of overweight and obesity is not widely available at the district level or for children. However, studies generally demonstrate the increasing trajectory of overweight and obesity in Ghana (16, 34). In line with the growing urgency of the problem of overweight at the national level in Ghana as indicated by a growing burden, WFP listed in its 2019 to 2023 strategic plan for Ghana, published in 2018, that addressing the double burden of malnutrition was one its six main priorities (35). While the double burden of malnutrition was not listed explicitly in WFP’s Ghana documents until recently, its explicit mention of this priority demands further analysis on the extent to which its activities before and after 2018 actually possess the
potential to address the double burden. These characteristics and developments concerning Ghana justify its inclusion as the setting of this case.

Finally, the period from 2012 up through WFP’s planning into 2023 was chosen for the scope of this analysis because it comprises when WFP began country strategic planning in Ghana up through the end of WFP’s most recently available projected planning in Ghana. Country strategic planning was implemented across countries where WFP operates as a means to prevent program fragmentation and better align with the work of other UN agencies (36). WFP Country Strategic Plans (CSPs) provide a well-articulated description of WFP planned programming and thus also a basis on which to ground this analysis. Moreover, rapid global progress and knowledge sharing in the nutrition landscape since 2012 justifies the importance of this time period. Over the last decade, global focus has shifted from ending hunger by delivering calories in the MDG era to ending malnutrition in all its forms by promoting and ensuring good nutrition post-2015, in the SDG era. The shift in focus from the MDGs to the SDGs coupled with the expansive growth in literature related to the double burden help explain the importance of this period that will frame my analysis.

**Methodological Approach**

There are two components of this descriptive case study methodology: qualitative analysis of WFP planning, operations and evaluation documents and qualitative analysis of interviews with key actors in the global nutrition landscape. A case study methodology was chosen for this analysis because it facilitates an in-depth investigation of my research questions, which are largely unaddressed in the literature. While case studies are limited in their generalizability, they may hint at themes in a previously unchartered area that are worthy of
further exploration. In this way, while my case study focuses specifically on Ghana, my methodological design will provide insight into the ways in which food aid and assistance more broadly can be used as a mechanism to combat the double burden of malnutrition.

For the first prong of my analysis, WFP planning, operations and evaluation documents were qualitatively analyzed against a theoretical framework. WFP documents related to Ghana were identified from three databases on WFP’s website: 1) the “Publications” database, 2) the “New Releases” database, and 3) the “Operations” database. In each of the three databases, a country filter for “Ghana” and a publication time filter for the years 2011 through 2019 were applied to identify relevant documents. 82 documents in total were identified. They were each briefly reviewed for inclusion or exclusion in this analysis based on their actual relatedness to Ghana’s context and on their inclusion of specific information on WFP operations and activities in Ghana. Documents for which Ghana was tagged but for which the main subject did not concern Ghana specifically (e.g. documents that focused broadly on West Africa or Africa) or for which there was no or minimal specific information on WFP operations in Ghana (e.g. documents focusing on the resource situation in Ghana) were excluded from the analysis. The excluded documents, however, provided necessary background information and supporting details that help frame the analysis. As a result of this inclusion/exclusion exercise, 11 documents were included in this paper’s analysis (See Appendix 1). When directly quoted, these 11 documents will be cited in this report using letters A through N in parentheses (e.g. (A)) to distinguish them for citations from the literature. The insight from these documents was judged against criteria developed by WHO, which is discussed in the “Theoretical Framework” section of this paper, to determine whether WFP activities have the potential to address the double burden.
For the second prong of my analysis, insight was extracted from interviews with key actors and experts in the global nutrition landscape who were recruited using a snowball sampling method. I began by reaching out to participants of interest at UN organizations and working in the Ministry of Health in Ghana. These participants then helped identify other actors with expertise in my research question. This method allowed me to contact people ranging from the international level to the district, regional and national levels in Ghana. Each potential participant was sent an email with a general description of my research, the themes I hoped to discuss with them and a consent script (See Appendix 2). I stopped interviewing key actors after the additional insight from each additional interview began to diminish, reaching a threshold of saturation of responses. In total, I requested to interview 20 people of which 17 agreed and consented. These 17 participants and the institutions for which they work are presented in Table 3 in a later section of this paper. Descriptions of the functions of the institutions for which these participants work is provided in Appendix 5. Two of the three people who declined the request for interview attributed their decision to lack of time and/or insufficient expertise on the subject of this research. The third failed to respond to email requests. Consenting participants were interviewed for between 30 minutes and one hour using semi-structured interview methodology based on themes related to my research questions such as: 1) actors’ perceptions on the role of food aid and assistance in addressing the double burden; 2) the priority of the double burden and 3) the challenges associated with action to address the double burden, among others. Interview questions were adapted to each participant’s familiarity with the context of Ghana (See Appendix 3).

The next section discusses the theoretical framework, based on WHO criteria, that forms the basis of my qualitative analysis of WFP documents.
THEORETICAL FRAMEWORK

In this analysis, I employ WHO’s classification of the determinants of the double burden as my basis for defining whether WFP activities in Ghana have the potential to address the double burden of malnutrition. WHO categorizes the determinants of the double burden into seven domains: 1) epigenetics; 2) early-life nutrition; 3) lifestyle factors; 4) food access, portion sizes and cost; 5) urbanization, urban design and built environment; 6) socioeconomic disadvantage, inequality and poverty; and 7) food systems as seen in Table 1 (See Appendix 4 for original information) (37). I define a “determinant” as a factor that influences or gives rise to a phenomenon (e.g. early-life nutrition influences the prevalence of both undernutrition and overweight). A determinant of the double burden may be considered synonymous to a driver of the double burden. Activities that target these determinants of the double burden are called double-duty actions. For example, we might consider a nutrition education workshop on local fruits and vegetables that aims to increase healthy food consumption behaviors as addressing the “lifestyle factors” determinant of the double burden. However, we might consider a treatment program for diarrheal infections amongst children greater than two years of age as addressing undernutrition but failing to address a shared determinant of the double burden.

To categorize WFP activities, I considered the combination of each activity’s general description, objectives and its outcome and output indicators. An activity was classified as targeting a determinant of the double burden (i.e. an activity was classified as a potential double-duty action) if its description and objectives related to the key features of each determinant in Table 1. If available, outcome or output indicators for WFP activities were also reviewed to gain additional insight. However, not every activity had clearly defined outcome or output indicators
(e.g. indicators were sometimes grouped by component (comprised of several activities) rather than by activity). Therefore, indicators only provided supplementary justification. Together, this information provides insight into the question of whether we might consider existing activities in the food aid and assistance domain as a possible platform on which to address the double burden.

Table 1: Summary of Determinants of the Double Burden and their Key Features (adapted from WHO “The double burden of malnutrition: Policy brief”)

<table>
<thead>
<tr>
<th>Determinant</th>
<th>This Determinant Relates to:</th>
<th>Example Interventions to Address this Determinant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epigenetics</td>
<td>• Changes in the expression of genes</td>
<td>• Prevention of intrauterine growth restriction (42)</td>
</tr>
<tr>
<td></td>
<td>• Changes that affect the body’s regulation of energy.</td>
<td></td>
</tr>
<tr>
<td>Early-Life Nutrition</td>
<td>• Period from conception to early childhood (often called the first 1000 days)</td>
<td>• Promotion of exclusive breastfeeding in the first 6 months (43)</td>
</tr>
<tr>
<td></td>
<td>• Pregnant and lactating women; children under two (24 months)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Fetal development and infancy</td>
<td></td>
</tr>
<tr>
<td>Lifestyle Factors</td>
<td>• Unhealthy behaviors, both automatic and learned</td>
<td>• Counselling of mothers on contents of an appropriate healthy diet (44)</td>
</tr>
<tr>
<td></td>
<td>• Food habits</td>
<td></td>
</tr>
<tr>
<td>Food Access, Portion Sizes and Cost</td>
<td>• Quality and quantity of available food</td>
<td>• School food/meal programs (43)</td>
</tr>
<tr>
<td></td>
<td>• Meal portions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Price of nutritious food such as fresh produce</td>
<td></td>
</tr>
<tr>
<td>Socioeconomic Disadvantage, Inequality and Poverty</td>
<td>• Poverty</td>
<td>• Establishment of well-managed microfinance institutions (45)</td>
</tr>
<tr>
<td></td>
<td>• Household’s ability to afford nutrient-rich food</td>
<td></td>
</tr>
<tr>
<td>Urbanization, Urban Design and the Built Environment</td>
<td>• Water and sanitation infrastructure</td>
<td>• Urban-agriculture programs and direct farm-consumer marketing (46)</td>
</tr>
<tr>
<td></td>
<td>• Opportunity for physical activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Source of food (e.g. smallholder and home-grown food vs. store bought)</td>
<td></td>
</tr>
<tr>
<td>Food Systems</td>
<td>• Food/agricultural production</td>
<td>• Minimizing post-harvest losses amongst smallholder farmers (47)</td>
</tr>
<tr>
<td></td>
<td>• Homogenization of diets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Food environment—what’s on the market</td>
<td></td>
</tr>
</tbody>
</table>
In this analysis, my classification of whether an activity targets a particular determinant does not imply that a WFP activity intended to impact the double burden directly. I do not ascribe intent to WFP activities in terms of the double burden because WFP did not explicitly mention its priority for addressing the double burden in Ghana until 2018. Rather, this analysis identifies the extent to which food aid and assistance activities might serve as a platform on which to address the double burden by considering the extent to which activities target, inadvertently or deliberately, the determinants of the double burden. The results of this analysis are presented below.

**EMPIRICAL FINDINGS**

Contrary to what my hypothesis predicts, WFP planning, operations and evaluation documents demonstrate that WFP’s food aid and assistance possesses great potential to address the double burden in Ghana—with most activities targeting two or more determinants of the double burden (i.e. those stipulated in Table 1). While there was no explicit mention of the double burden in Ghana in WFP documents until recently, namely in the 2019 to 2023 Country Strategic Plan (CSP), WFP operations have since 2012 targeted several determinants of the double burden.

The below section evaluates in further depth WFP activities from 2012 through its planning into 2023 and the potential of these activities to address determinants of the double burden. Each WFP plan in Ghana is structured around programmatic “components.” Each component is composed of at least one but often several specific “activities.” This analysis considers the activities that make up these programmatic components.
The below section is divided into two periods based on WFP strategic planning in Ghana. The years 2012 to 2017 fall under WFP’s first CSP in Ghana (F).\(^2\) The year 2018 was an interim year during which WFP operated under a transitional CSP (D). This interim year was combined for analysis with WFP planning in Ghana from 2019 to 2023 (C) because of the similarity in operations under these two planning periods.

The below analysis of WFP activities and their potential to address determinants of the double burden is followed by an analysis of the insight gleaned from key actors in the global nutrition landscape on the challenges that might complicate WFP’s and others’ ability to address the double burden of malnutrition in Ghana.

**WFP STRATEGIC PLANNING AND OPERATIONS FROM 2012 TO 2017**

WFP’s operations in Ghana between 2012 and 2017 had three main components: 1) support for primary education and girls’ education; 2) nutrition support for vulnerable groups and 3) resilience to climate shocks and support for livelihoods. Table 2 groups the activities under these three components by their potential to address a shared determinant of undernutrition and overweight and obesity.

Table 2 demonstrates that during this CSP the most targeted determinant of the double burden was food access (5 activities), followed by socioeconomic disadvantage (4 activities). All activities targeted at least one determinant, most activities targeted two determinants, and one activity targeted four determinants. Justifications for why certain activities were categorized as targeting a particular determinant of the double burden are discussed below.

---

\(^2\) Note: this plan was originally from 2012 to 2016 and was extended into 2017.
### Table 2: WFP Activities CSP 2012 – 2017 by Related Determinant of the Double Burden of Malnutrition

<table>
<thead>
<tr>
<th>Component</th>
<th>Activity</th>
<th>Early Life Nutrition</th>
<th>Lifestyle Factors</th>
<th>Food Access</th>
<th>Food Systems</th>
<th>Socioeconomic Disadvantage, Inequality</th>
<th>Urbanization, Built Environment</th>
<th>Epigenetics</th>
<th>Addresses No Determinant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Support of primary education and girls' education</td>
<td>Children receiving school meals</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Support of primary education and girls' education</td>
<td>Girls receiving take home rations</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Nutrition support for vulnerable groups</td>
<td>Prevention of stunting for children under 2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Nutrition support for vulnerable groups</td>
<td>Treatment of wasting: Children 6 to 59 months given food under supplementary feeding*</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Nutrition support for vulnerable groups</td>
<td>HIV/AIDS and TB beneficiaries of household food and nutrition support</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Climate change adaptation and IGA</td>
<td>Resilience to climate shocks and support for livelihoods</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

* Note: This activity was phased out in 2016

#### Component 1: Support for primary education and girls’ education

Component 1 of WFP’s operations during this CSP aimed to “increase access to education, improve school attendance and gender parity, reduce micronutrient deficiencies and improve the capacity of [the Ghana School Feeding Program (GSFP)]” (F). This component’s two main activities were the provision of school meals to children and take-home rations to girls.
The below section investigates each individual activity and its targeting of determinants of the double burden.

**School feeding.** The school feeding program targeted the socioeconomic disadvantage and food access determinants of the double burden by providing children in selected schools “a hot and nutritionally balanced meal…on every school day, consisting of cereal, pulses, fortified vegetable oil, iodized salt and micronutrient powder” (F).

WFP documents indicate that the main objectives of the program were to increase children’s attendance and retention rates in WFP-assisted primary schools. WFP clarifies the link between school feeding and school attendance, writing, “the high retention rate is a beneficial result of the provision of on-site feeding which draws the children to class daily. Parents are also eager to send their children to school because they are assured that the children will be provided one warm meal each day” (G). During the lean season where one WFP evaluation found that children had not eaten breakfast in more than 50% of sampled school, the incentive provided by the meals program was likely particularly strong (B). Improved school attendance and retention rates improve a child’s learning potential, likelihood of completing higher studies and thus also possible lifelong economic prospects, WFP argues (A). By ultimately aiming to combat poverty, these objectives correspond to the socioeconomic disadvantage determinant of the double burden.

Additional objectives of the program included: 1) increasing household income by alleviating household expenses spent on children’s food and 2) improving children’s nutrition and health (A). Improved economic prospects and alleviation of household income may increase a household’s ability to provide for its members and avoid poverty, helping address the
socioeconomic disadvantage determinant of the double burden. Moreover, the provision good quality school meals of sufficient quantity corresponds to the key features of the food access determinant of the double burden.

*Take-home rations.* The second activity of this programmatic component was the provision of take-home rations to girls, which similarly targeted the socioeconomic disadvantage and food access determinants of the double burden. Under this activity, girls with at least 80 percent school attendance were provided a monthly take-home ration to incentivize them to come and stay at school. The take-home ration program and the school feeding program relied on similar principles—the provision of food as an incentivize for students to succeed in school and also to improve gender parity in education. The take-home rations activity thus adheres to the same justification as the school feeding program for its targeting of the socioeconomic disadvantage and food access determinants of the double burden.

Outcome indicators for both the school feeding and take-home rations programs demonstrate that the primary focus of their overarching shared programmatic component was addressing socioeconomic disadvantage. To illustrate this point, in 2015, 16 out of the 20 (80%) outcome indicators of this component measured school attendance, retention and performance. These findings suggest that although the activities of this programmatic component also targeted food access, food access might have only been a secondary objective of this component.

**Component 2: Nutrition support for vulnerable groups**

The second component of WFP operations during this CSP aimed to provide nutrition support to vulnerable groups through three activities: 1) stunting prevention; 2) the treatment of
wasting; and 3) nutrition support to people living with HIV (PLHIV). In this context, vulnerable
groups were defined as children and pregnant and lactating women during the 1000-day period
from conception to two years of age; children under 5; and HIV-positive patients on
antiretroviral therapy. The below section analyzes these activities and their targeting of
determinants of the double burden at greater depth.

*Stunting prevention.* Under this component’s first activity, children and pregnant/lactating
mothers during the 1000-day period were recruited as part of a stunting prevention program—
targeting the early-life nutrition, food access, lifestyle factors and socioeconomic disadvantage
determinants of the double burden. Starting in 2014, these children and mothers were supported
through the provision of fortified and nutritious food rations, integration into larger maternal and
child health programs of WFP partners, and access to WFP income-generating activities. The
stunting prevention program may be classified as a double-duty action because it addressed: 1)
early-life nutrition by targeting the first 1000 days; 2) food access by providing nutritious food
rations; 3) lifestyle factors by educating beneficiaries on healthy practices and 4) socioeconomic
disadvantage by providing income generating activities to women. Many of the output indicators
of this activity, in particular, related to the lifestyle factors determinant: 1) number of
beneficiaries/caregivers who received messages/training on health and nutrition; 2) number of
community groups developed to share nutrition messages; 3) number of women and men
exposed to nutrition messaging; 4) number of cooking demonstrations undertaken for fortified
foods, complementary foods and special nutritional products, among others. These indicators
might suggest that despite its targeting of other determinants, the stunting prevention program
was primarily focused on targeting the lifestyle factors determinant of the double burden.
Treatment of wasting. The treatment of children 6 to 59 months facing acute malnutrition (wasting), an additional activity of this programmatic component, targeted the early-life nutrition and food access determinants. Under this activity, children were provided a hot meal of fortified food to treat wasting. This activity’s targeting of children under two years of age and provision of nutritious food demonstrate that it targeted the early-life and food access determinants of the double burden, respectively. This program, however, was phased out in 2016.

Support of PLHIV. The final activity of component two included nutrition support for people living with HIV (PLHIV), whose principles corresponded to the food access determinant of the double burden. WFP’s nutrition support to undernourished PLHIV, who are screened in part based on food insecurity criteria, intended to aid in participants’ disease prognosis by providing them access to good quality food. Outcome indicators of this activity that were related to the food access determinant included: 1) nutritional recovery rate and 2) the proportion of affected households with acceptable food consumption score. With its focus on improving the nutritional outcomes of PLHIV, this activity meets the key features of food access determinant of the double burden.

Component 3: Resilience to Climate Shocks and Support for Livelihoods

The third component of WFP’s programming during this plan aimed to “increase physical and economic resilience to extreme weather events” (F). This component was of comprised one main activity that had several sub-activities.
Agricultural resiliency and income generation. This component of WFP operations targeted the food systems and socioeconomic disadvantage determinants of the double burden by aiming to increase farmers’ resilience to extreme weather events and to reduce poverty in WFP-beneficiary regions. WFP writes,

“Building rural [communities’] resilience to climate shocks is highly relevant to the northern regions of Ghana, which display many of the same agro-ecological features as countries in the Sahel, including degraded soils, single rainy season, and recurrent droughts. These adverse conditions affect [people’s] capacities to meet their own food needs throughout the year” (B).

To address these conditions, WFP’s agricultural resiliency project included activities such as water harvesting, flood mitigation works, and de-silting of small dams for dry-season irrigation, among others. The objective of these activities was to better ensure that agricultural production in the Northern regions of Ghana could provide people with more consistent access to good quality and nutritious products. Relevant output indicators related to the food systems determinant included: the number of assisted communities with improved physical infrastructures to mitigate the impact of shocks. By attempting to enhance agricultural production, this activity targeted the food systems determinant of the double burden.

WFP also conducted sub-activities designed to provide livelihood and income-generating opportunities to communities, targeting the socioeconomic disadvantage determinant of the double burden. Relevant outcome indicators for this activity related to socioeconomic disadvantage included: Community Asset Score. Relevant outputs indicators included: the number of assets built, restored or maintained by targeted communities and individuals. Income-
generating activities directly aimed to reduce poverty, explaining the classification of this activity under the socioeconomic disadvantage determinant.

In the above section, the classification of different WFP activities was justified according to the key features associated with the determinants of the double burden during WFP’s first strategic planning period in Ghana from 2012 to 2017. The below section mirrors this format for the next strategic period, from 2018 to 2023, providing an opportunity for comparison of activities across time and their potential to address the double burden.

**WFP STRATEGIC PLANNING AND OPERATIONS FROM 2018 TO 2023**

In the current planning period (2018 to 2023), WFP’s operations in Ghana include four main components, herein called strategic outcomes: 1) Nutrition support for vulnerable groups; 2) Enhanced food systems; 3) National capacity strengthening; 4) Policy coherence. During this period, WFP planning is framed by two different strategic plans: the 2018 interim country strategic plan (ICSP) and the 2019 to 2023 CSP. The activities of the ICSP and CSP closely resemble one another, justifying why their analysis has herein been grouped together.

Table 3 demonstrates that under the current CSP, WFP largely targets the food access and food systems determinants of the double burden (each with five activities), marking a shift in targeting relative to the previous period. Notably, the number of activities targeting food systems increased from one to five. Justifications and explanations for whether an activity under these four strategic outcomes targets a determinant of the double burden are discussed below.
Table 3: WFP Activities CSP 2018 – 2023 by Related Determinant of the Double Burden of Malnutrition

<table>
<thead>
<tr>
<th>Component</th>
<th>Activity</th>
<th>Determinants of Double Burden of Malnutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nutrition support for vulnerable groups</td>
<td>Provision of take-home rations, nutrition education to girls*</td>
<td>✓</td>
</tr>
<tr>
<td>1. Nutrition support for vulnerable groups</td>
<td>Commodity cash vouchers for pregnant women, children for stunting prevention, and PLHIV***</td>
<td>✓ x 2**</td>
</tr>
<tr>
<td>1. Nutrition support for vulnerable groups</td>
<td>Capacity strengthening for nutrition counseling</td>
<td>✓</td>
</tr>
<tr>
<td>2. Enhanced food systems</td>
<td>Technical support to community blended flour processors</td>
<td>✓</td>
</tr>
<tr>
<td>2. Enhanced food systems</td>
<td>Financial and technical support to industrial processors</td>
<td>✓</td>
</tr>
<tr>
<td>2. Enhanced food systems</td>
<td>Capacity building and equipment for smallholder farmers</td>
<td>✓</td>
</tr>
<tr>
<td>3. National capacity strengthening</td>
<td>Technical support to National School Feeding Program</td>
<td>✓</td>
</tr>
<tr>
<td>4. Support for policy coherence</td>
<td>Support for policy coherence</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

* Note: This program was phased out in 2018.
** Note: See the justification for this multiplication effect in “Cash vouchers for food” below.
*** Note: Commodity cash vouchers to only PLHIV (sub-activity) was phased out in 2018.
Strategic Outcome 1: Nutrition support for vulnerable groups

This component of WFP operations mainly represents a continuation of component two of the previous CSP. This component’s three main activities include: 1) the provision of take-home rations to girls; 2) the provision of commodity vouchers for food; and 3) capacity strengthening among health workers to provide social behavioral change communication.

**Take-home rations.** The provision of take-home rations and nutrition education to adolescent girls in Junior High School (phased out in December 2018) targeted the socioeconomic disadvantage, food access and lifestyle factors determinants of the double burden. Similarly to the take-home rations program in CSP 2012 to 2017, girls received take-home rations as a reward for good school attendance. By aiming to improve learning potential (and future economic potential) and provide girls with access to nutritious food, this activity meets the key features of the socioeconomic disadvantage and food access determinants of the double burden. Relevant outcome indicators of this activity related to these determinants included: 1) school attendance rate, 2) Food Consumption Scores and 3) Minimum Dietary Diversity for women.

Unlike its counterpart in CSP 2012 to 2017, this activity in this planning period targeted an additional determinant of the double burden: the lifestyle factors determinant. The lifestyle factors determinant was targeted in this program through nutrition sensitization with the goal of preventing stunting in girls’ future offspring.

**Cash-vouchers for food.** The cash vouchers activity for pregnant and lactating women and girls, PLHIV and children 6-23 months primarily aims to prevent stunting by providing WFP beneficiaries with access to locally produced nutritious food—targeting the food access and early
life nutrition determinants of the double burden. This activity was also conducted in the 2012 to 2016 CSP although using food rations rather than cash vouchers. Similarly to in the last strategic plan, the provision of cash vouchers to PLHIV addresses the food access determinant of the double burden; this particular project was, however, discontinued at the end of 2018. The remaining sub-activities of this activity, by providing pregnant/lactating women and young children with access to nutritious food, target the food access and early-life nutrition determinants of the double burden. Relevant outcome indicators that demonstrate this targeting include: 1) the proportion of children 6-23 months who receive minimum acceptable diet and 2) Food Consumption Scores.

In the previous period, these sub-activities were considered three distinct activities whereas they are considered a single activity under this programmatic component; thus, for comparison reasons, each sub-activity of this activity (i.e. 1) vouchers for pregnant and lacting women; 2) vouchers for children; and 3) vouchers for PLHIV) is awarded its own check mark in Table 3 (See Note below Table 3).

**Capacity strengthening for nutrition counseling.** Under this activity, WFP targets the lifestyle factors determinant of the double burden by conducting capacity strengthening among government health workers to better provide nutrition counseling through social behavioral change communication (SBCC) and to “promote healthy diets in high burden areas” (J). WFP works with Ghana Health Service (GHS), the implementing agency of the Ministry of Health, to “develop effective communication materials and messaging to targeted groups” (D). This activity’s output indicators demonstrate its targeting of the lifestyle factors determinant. These
indicators include: 1) number of women receiving WFP-supported nutrition counseling and 2) number of caregivers (female) who received messages/training on health and nutrition.

Strategic Outcome 2: Enhanced Food Systems

This component of WFP’s programming aims to enhance the local food system and nutrition value chain. This component’s three main activities include: 1) the provision of technical support to a food processor of blended flour; 2) financial and technical support to two industrial processors; and 3) capacity building and equipment support for smallholder farmers. The below analysis combines the first two activities of this programmatic component because of their similar principles.

Support to Processors. WFP’s support to community level processors of blended floor and to two industrial processors targets the food systems determinant of the double burden. Both activities aim to improve the quality of food produced for the community and also increase the production of specialized nutritious food for the Ghanaian population. Community processors for blended floors are targeted to “increase the availability of blended flours at the community level and promote household consumption of safer and more nutritious porridges for children and other household members” (D). Two industrial processors are also supported to ensure access to nutritious food particularly for WFP beneficiaries but also to enhance the nutrition value chain in general. Relevant outcome indicators of these activities related the food systems determinant include: 1) the volume of specialized nutritious foods produced by the supported processors and 2) the percentage increase in production of high-quality nutrient-dense foods.
**Capacity building for smallholders.** Under this activity, smallholder farmers receive support from WFP to reduce post-harvest losses and improve the quality of their products, targeting the food systems and socioeconomic disadvantage determinants of the double burden. By boosting the capacity of smallholder farmers to reduce post-harvest losses of quality products, this activity aims to create an enhanced nutrition value chain that fosters an improved food system. Relevant outcome indicators of this activity related to the food systems determinant include: 1) the percentage of smallholder farmers reporting increased production of nutritious crops and 2) rate of post-harvest losses, among others. WFP also targets women farmers, in particular, aiming to improve the quality of their products so that their revenues increase. By working to increase the revenues of these women, one can argue that this activity also targets the socioeconomic disadvantage determinant of the double burden.

**Strategic Outcome 3: National Capacity Strengthening**

This component of WFP’s programming—strengthening national capacity—is comprised of one activity, institutional support to the Ghana School Feeding Program Secretariat.

WFP’s support of the school feeding program targets the food access and food systems determinants of the double burden. The activity aims to improve “the nutrition-sensitive school feeding program, with a strengthened home-grown component in which the caterers providing the meals source commodities more directly from smallholder farmers” (D). Expected outputs include: schoolchildren targeted by Ghana’s [Home-Grown School Feeding] benefit from increased capacity of the Government to implement [the School Feeding Program]. By aiming to improve the quality of GSFP and consequently children’s access to nutritious food, the program targets the food access determinant of the double burden. Moreover, by strengthening the link of
GSFP to smallholder farmers, the program increases the demand of nutritious products in the market. This demand creation might stimulate greater production of quality products, potentially yielding positive dividends for the food system in general, meeting the key features of the food systems determinant of the double burden of malnutrition.

**Strategic Outcome 4: Support for Policy Coherence**

During this plan, WFP undertook the broad mandate of supporting the government of Ghana’s effort to achieve SDG 2 (Zero Hunger) through effective and coherent policy frameworks. The main activity under this component includes technical support to government related to social protections, nutrition, local fortification and smallholder farmers.

WFP’s technical support of Ghana under this main activity aims to target the food access, food system and socioeconomic disadvantage determinants of the double burden. The description of this activity in WFP’s ICSP and CSP is broad; however, its expected outputs provide a clearer description of its objectives. These outputs include: 1) improved access to meals and education for school children (targeting the food access determinant); 2) an improvement in the quality of locally produced fortified foods (targeting the food systems determinant); and 3) improved income and livelihoods of smallholder farmers (targeting the socioeconomic disadvantage determinant).

The above section of this thesis demonstrates the extent to which WFP activities might serve as a possible platform to address the double burden by providing justifications for how WFP activities, inadvertently or deliberately, target determinants of the double burden. The next section of this thesis investigates some of the challenges that WFP and others face in this battle to address the double burden of malnutrition in Ghana.
CHALLENGES TO ADDRESSING THE DOUBLE BURDEN

While the above analysis provides insight into the ways by which WFP targets determinants of the double burden in Ghana, challenges likely exist in this context that complicate WFP’s efforts. Understanding the challenges related to the double burden is important if WFP and its partners are interested in identifying action areas to enhance their work to address the double burden. Moreover, an understanding of these challenges provides insight on the constraints within this context that might prevent WFP from better addressing the double burden.

To identify these challenges, I interviewed 17 participants in the global nutrition landscape (see Table 4)—at the district, regional and national levels in Ghana and at the international level—to gain insight on some of these challenges. Their positions included: director(s) of nutrition, nutrition coordinator(s), nutrition officer(s), nutrition planning analyst(s), health policy analyst(s), and agricultural development officer(s). In the below analysis, they will all be referred to as “officials” and with last name pseudonyms in order to anonymize their identities. Analysis of the transcripts of these interviews led to the identification of several challenges to addressing the double burden of malnutrition. These challenges are presented below.

WFP’s Role in the Double Burden of Malnutrition Problem

As WFP’s role and priorities have broadened—notably with the explicit mention of the double burden for the first time broadly in 2017 but in Ghana in 2018—the question of whether actors in the nutrition landscape have also embraced this changing mandate remains critically relevant. While the above analysis demonstrates where food aid and assistance does potentially
fit in the double burden of malnutrition question, interview participants provided their perspectives on where they think food aid and assistance today should fit.

**Table 4:** List of Interview Participants in the Global Nutrition Landscape

<table>
<thead>
<tr>
<th>Key Informant Last Name</th>
<th>Institution*</th>
<th>Type</th>
<th>Level**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addison</td>
<td>Ghana Health Service</td>
<td>Government</td>
<td>District (Upper West Region)</td>
</tr>
<tr>
<td>Blakely</td>
<td>Ministry of Health</td>
<td>Government</td>
<td>National</td>
</tr>
<tr>
<td>Cahn</td>
<td>Ghana Health Service</td>
<td>Government</td>
<td>National</td>
</tr>
<tr>
<td>Dane</td>
<td>Ministry of Food and Agriculture</td>
<td>Government</td>
<td>Regional (Upper West Region)</td>
</tr>
<tr>
<td>Essien</td>
<td>Ghana Health Service</td>
<td>Government</td>
<td>Regional (Brong Ahafo Region)</td>
</tr>
<tr>
<td>Fuller</td>
<td>Ghana Health Service</td>
<td>Government</td>
<td>District (Northern Region)</td>
</tr>
<tr>
<td>Gallagher</td>
<td>National Development Planning Commission</td>
<td>Government</td>
<td>National</td>
</tr>
<tr>
<td>Hassan</td>
<td>Ghana Health Service</td>
<td>Government</td>
<td>National</td>
</tr>
<tr>
<td>Inslee</td>
<td>World Food Programme</td>
<td>UN</td>
<td>Global</td>
</tr>
<tr>
<td>Jacobson</td>
<td>World Food Programme</td>
<td>UN</td>
<td>Global</td>
</tr>
<tr>
<td>Kay</td>
<td>World Food Programme</td>
<td>UN</td>
<td>National (Ghana)</td>
</tr>
<tr>
<td>Lao</td>
<td>World Food Programme</td>
<td>UN</td>
<td>Regional (Latin American and Caribbean)</td>
</tr>
<tr>
<td>Mensah</td>
<td>World Food Programme</td>
<td>UN</td>
<td>Regional (West Africa)</td>
</tr>
<tr>
<td>Napoli</td>
<td>World Food Programme</td>
<td>UN</td>
<td>National (Ghana)</td>
</tr>
<tr>
<td>Ofori</td>
<td>World Health Organization</td>
<td>UN</td>
<td>Global</td>
</tr>
<tr>
<td>Packard</td>
<td>World Health Organization</td>
<td>UN</td>
<td>Global</td>
</tr>
<tr>
<td>Quarshie</td>
<td>Food and Agricultural Organization of the UN</td>
<td>UN</td>
<td>Global</td>
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*   Note: A description of the purview of these institutions is provided in Appendix 5
**  Note: A map of the regions of Ghana is provided in Appendix 6

Most participants argued that WFP should have *some* rather than no role to play concerning overweight and obesity, acknowledging that malnutrition must be addressed holistically rather than on a linear equation. Ofori, one official at WHO headquarters, cited the Baker hypothesis—which states that undernutrition in childhood increases a child’s later risk of
overweight, obesity and diet-related NCDs—as a concrete example of how the interlinkages between undernutrition and overweight demand that malnutrition is addressed holistically. He acknowledged that there is a tendency to want to disconnect the conversation on undernutrition and overnutrition and the work needed to address them—a separation that WHO almost made when deciding which departments handled each issue some time ago. He argued that such separation fails to build off of the vast interlinkages between undernutrition and overnutrition and thus constitutes a mistake. Several other officials expanded upon this point by noting that WFP’s role in the double burden is inherent in the fact that it aims to address undernutrition, which is closely linked to overweight and obesity. Packard, another official at WHO headquarters added, “the presence of overweight can happen and shouldn’t be a reason to stop food aid; it should rather be a reason to target food aid and to shape it differently.” Packard’s statement implied the need for WFP and food aid and assistance actors to incorporate trends in overweight and obesity into their programming.

Despite participants noting that WFP should play some role, many argued that WFP’s role is and should be more passive (i.e. a “do no harm” mindset) than active (i.e. a “do good” mindset). Packard from WHO argued that ideally food aid and assistance would play an active role in preventing overweight and obesity, but realistically, it must start by doing no harm. Other participants—including Ofori, Quarshie and Gallagher, officials at WHO headquarters, FAO headquarters and Ghana’s National Development Planning Commission (NDPC), respectively—argued that food aid and assistance has only a small role to play in addressing overweight and that other UN actors are better suited to address the structural and developmental factors that give rise to overweight.
Several participants nonetheless applauded recent progress in food aid and assistance towards the prevention of overweight. One official contended that social protection programs—such as food aid and assistance—increasingly pursue double duty actions that have the potential to prevent overweight such as the WFP-supported GSFP that has now been completely adopted by Ghana’s government and rolled out nationwide. Other participants also praised WFP’s Fill the Nutrient Gap work as an example of WFP’s shifting role to address malnutrition more holistically.

Actors’ uncertainty with how they conceive what WFP’s role should be might provide a challenge to WFP as it seeks to establish itself as a worthy counterpart in the fight to address the double burden. Jacobson and Inslee, two officials at WFP headquarters, acknowledged that WFP is still trying to find itself and the role it might play in the changing malnutrition landscape globally. As a nontraditional player in the prevention of overweight and obesity, WFP might be perceived by government and other organizations as an unlikely partner in the double burden debate, Lao, an official in WFP’s Latin American and Caribbean region, argued. This failure by partners to view WFP as a counterpart in the double burden potentially complicates WFP’s ability to address the double burden even if it has the capacity.

Insufficient Government Priority, Attention and Resources to Address Malnutrition in Ghana

Several participants also spoke on what they see as insufficient priority towards addressing malnutrition in Ghana, why it exists and the problems it poses for nutrition actors. Government priority for addressing malnutrition impacts not only what government does but often also what UN agencies are able to do. Governed by their Member States, UN agencies operate under a standard of integrating their work into existing government priorities, requests,
plans and desires, Inslee, an official at WFP headquarters clarified. It is this facet of the UN’s relationship with Member States that explains in part why UN work in-country is so context-specific. It is also this facet of this relationship between actors that suggests that government priority, attention and resources to address malnutrition in Ghana might facilitate or constrain WFP’s ability to better address the double burden.

Many participants claimed that malnutrition is often not a prominent political issue. Kay, one with WFP’s national office in Ghana, argued that despite malnutrition levying a significant toll on Ghana’s economy, the government of Ghana often prioritizes brick and mortar projects, such as building roads, that are more visible or tangible to citizenry than preventing malnutrition. Fuller, one district official with Ghana Health Service (GHS) detailed,

“You go to the community level, you’ll see that they are building this compound, they are building clinics for treatment purposes. But when you are talking about nutrition, they will tell you, ‘nutrition will not help us win an election.’”

Fuller and Hassan, a national official with GHS, expanded upon this point by noting that even within the realm of health programs, malnutrition is more of a silent killer whose impact is overshadowed by diseases such as malaria, diarrhea and measles that present with sudden sickness and require perceivably more immediate medical attention. Hassan described,

“If you walk into a children’s ward in any hospital, you’re going to find a number of malnourished children but most of the time their reason for being there is not because they’re malnourished. It’s probably because they had diarrhea, they had malaria or…if you get my point.”

This observation demonstrates the hidden quality of malnutrition and the ability of other issues to overshadow its importance.
Some participants also connected the lack of government priority on malnutrition to insufficient or misguided knowledge about malnutrition at all levels of society. Participants provided numerous examples illustrating the ways by which misguided knowledge of malnutrition subverts the nutrition agenda. Hassan argued that conversations on malnutrition are new relative to traditional medical and clinical health-related issues, which might explain some of these misconceptions. Other officials spoke about the challenge of framing overweight and obesity as a problem. Fuller provided one example, noting that because excess weight is more often seen amongst people with more purchasing power at this stage of Ghana’s economic development, excess weight is viewed by some as a sign of affluence and that a person is living a healthy life. This sentiment was mirrored by Essien, a regional official with GHS, who emphasized that the community members’ general perception of malnutrition is oftentimes limited only to hunger or “skinniness.” She expanded upon this point noting that people are often unaware of how harmful unhealthy food products may be. Furthermore, Hassan raised a unique point, explaining that he sometimes struggles to explain malnutrition and its urgency to families and policymakers who might, in the case of stunting, think that a child is short because their father or mother is short rather than because of nutritional deficiencies. These challenges associated with knowledge of malnutrition and its complexities likely undermine the prioritization of malnutrition in Ghana and also provide a justification for the importance of data that might illuminate the extent and consequences of the problem.

Meanwhile, other participants—including officials at WHO, FAO, GHS and NDPC—attributed the insufficient progress in nutrition to a lack of human and financial resources rather than to a lack of knowledge. Quarshie, an official at FAO headquarters, noted that the government of Ghana, with keen interest from even its current First Lady, recognizes the
importance of nutrition but sometimes lacks the appropriate resources to address the double burden. Gallagher, a national official with Ghana’s NDPC, clarified this point within the context of malnutrition by discussing the challenge government faces in addressing pressing concerns of undernutrition without compromising that work by investing in the prevention of overweight and obesity. She explained,

“There is a bit of a dilemma because for years we’ve been struggling with undernutrition, especially in stunting and we still have a quite high [burden] even though figures are coming down. It’s a bit of a balancing act. We don’t want to take away attention from stunting and other malnutrition issues. But at the same time, we do need to pay attention to the growing problem of overweight and obesity.”

Gallagher continued by giving the example of national coordinating mechanisms that were originally set up with the support of WFP to address undernutrition but have the capacity, she argued, to address overweight. She attributed the failure of these coordinating mechanisms to address both undernutrition and overweight at the moment to the lack of financial resources. While these participants acknowledged the potential impact of limited resources on prioritization, they noted that in spite of limited governmental resources, the double burden deserves and demands greater attention. Jacobson, one official at WFP global headquarters, clarified that this attention must be sustained rather than fleeting so that nutrition interventions can be properly brought to scale.

However, participants did generally recognize that, while still insufficient, nutrition is receiving more visibility in Ghana’s governmental agenda than in the past. To illustrate this point, Gallagher at NDPC informed that between 2018 and 2021, food and nutrition security will be mainstreamed as a priority in the country’s development agenda. Similarly, Blakely, a
national official at Ghana’s MOH discussed the growth in human capacity in recent years of the unit that handles nutrition at the Ministry. Some participants praised Ghana as a model in West Africa. Mensah, an official at WFP’s regional office for West Africa, applauded Ghana’s work in West Africa, noting that of the 20 countries in the West African region, Ghana has done some of the best work in its fight against poverty, food insecurity and malnutrition. These commendations, however, spoke more to malnutrition in general rather than directly to overweight and obesity. A question remains on how the priority towards preventing overweight has changed up until present day.

Government attention and resources dedicated to malnutrition is greatly tied to the extent to which the problem and impact of the double burden is known, participants argued. The following sub-section investigates the role of data at greater depth.

The Compounding Effect of Poor Data

Several participants described an absence of strong data on overweight and obesity in Ghana. Essien at GHS provided the sobering example that as even as a practicing nutrition officer, she does not have access to data on overweight and obesity in her own district. Despite health posts having the infrastructure, such as standard growth charts for children, that can be used to plot overweight, it is unclear why this data is not collected and reported, Essien and Gallagher, two government workers, contended. This absence of data on the burden of overweight and obesity particularly at the district level—where the actual delivery of interventions happens—is problematic, Gallagher regretted. The absence of data transcends to even the national level, where the last time data on overweight and obesity (and other nutrition indicators) was officially reported was in 2014 (38).
Several participants discussed how and why the absence of data on malnutrition, especially overweight and obesity, inhibits effective action not only within the Ghanaian context but also across the globe. Addison, a district official with GHS, argued that data on malnutrition indicators helps health workers appropriately target and fine tune interventions. She continued by noting that in her district, there is more effort put into undernutrition, in part, because data on undernutrition is much more readily available than is data on overweight. She argued, “Of course we are aware that overnutrition is also prevalent. If you look at the top 10 causes of disease, you’ll see stroke, diabetes and other things also coming up. So, we know it is a problem, but we don’t have consistent data to speak to it.” Similarly, Gallagher at NDPC maintained that from a planning perspective, government planners are unable to allocate appropriate resources to address the double burden if they do not have the necessary data on the situation at the district level. Furthermore, Packard at WHO focused on how data hinders progress particularly in the realm of social protection program. She argued that data is essential to social protection programs, which more often than not target particularly vulnerable groups instead of being blanket programs. She clarified, “the data element is so critical to be able to assess the vulnerabilities in a country so that these programs can be designed with the best cost-benefit ratios.” These arguments together provide examples of different ways by which poor data subverts the nutrition agenda for both WFP and other actors.

Poor access to appropriate instrumentation to measure overweight likely also plays a role in inhibiting progress to address the double burden, participants noted. Two officials with GHS, Addison and Essien, discussed the challenge they have faced in finding even basic equipment such as stadiometers, body composition monitors and skin fold caliper tapes necessary to
measure overweight and to fulfill their duties as nutrition officers. Without appropriate instrumentation, obtaining data on the malnutrition situation is likely significantly hindered.

The experiences of other regions of the world provide some insight into the impact and importance of data. Jacobson at WFP contended that prioritization of stunting has increased because Cost of Hunger Studies and Zero Hunger Strategic Reviews, both of which Ghana has done (33, 39), have shed important light on the adverse impact of stunting on national development. Participants argued that to increase the attention given to overweight, similar analysis is necessary to identify the impact of overweight and obesity on national development. Reflecting on the contexts of Southeast Asia and Latin America where the economic costs of overweight has been investigated, Jacobson argued, “if we want greater investment and recognition to be able to respond to overweight, obesity and the NCDs along with that, we need to have this well profiled and documented in every country context.” Lao, an official with WFP’s Regional Office for Latin America and the Caribbean provided an example: in El Salvador, a joint WFP-government stunting prevention program called “Nutrimos El Salvador,” was reoriented and enhanced to better prevent overweight because data illustrated a high burden of overweight and obesity in the population. The reorientation of the program included, in particular, the strengthening of social behavioral change communication meant to address the lifestyle factors determinant of the double burden and the strengthening of the dietary diversity component of the program. Lao also spoke about the Double Burden of Malnutrition study being conducted in its second wave of countries in the Latin American and Caribbean region. The Double Burden of Malnutrition report, he noted, adapted methodology from the Cost of Hunger Studies to provide a clearer picture on the burden of overweight. Lao concluded that in the Latin American and Caribbean region, he has seen how important malnutrition indicators for
monitoring and evaluation can be in providing the necessary information to persuade policymakers of the urgency of the double burden and to identify specific areas for concern. As previously mentioned, with UN agencies striving to embed their work in existing government priorities, providing a clear and compelling picture of the malnutrition situation on the ground is likely necessary for WFP, other UN agencies and government workers to more effectively combat the double burden.

The Economic Pressures Associated with Development

Some participants also spoke about the economic pressures that governments and communities face as governments work to catalyze national economic development, sometimes at the expense of public health.

Packard at WHO argued that as countries develop agricultural or food systems-related policies, they sometimes treat food as a commodity rather than as a product meant to benefit people’s health and nutrition. She noted that these decisions are often related to the economic structures of countries, especially when food is an important source of country income. She expanded on this point by noting that geopolitical concerns often also influence trade policies that might create opportunities for the private sector but at the expense of public health. These considerations that government must weigh as they try to cultivate economic prosperity might present a difficult challenge for actors such as WFP whose priorities position food in the context of health.

Dane, a regional official with Ghana’s Ministry of Food and Agriculture, discussed some of the challenges these economic incentives tied to food create at the local level. Dane detailed, in particular, the pressure some families face to prioritize cultivating and selling cash crops to boost household revenue at the expense of growing nutritious subsistence crops for household
consumption. Dane’s observation is echoed in WFP assessments that detail the transition from traditional food production to mono-culture that is happening in Ghana (K).

While economic development might increase households’ incomes and ability to purchase nutritious foods, certain economic pressures associated with development might simultaneously run contrary to the nutrition agenda, presenting a formidable challenge to nutrition actors.

The nuances of the challenges for nutrition actors associated with: 1) actors’ conception of what WFP’s role should play in the double burden; 2) government priority and attention to malnutrition; 3) data on malnutrition; and 4) the economic pressures associated with national development provide important areas for further investigation and attention related to how they subvert the nutrition agenda for WFP and other actors.

The challenges identified above may serve as the foundation for hypotheses for future validation and analysis related to the challenges to addressing the double burden in Ghana and similar contexts.

**DISCUSSION**

This analysis demonstrates that despite being a nontraditional player in the double burden debate, WFP’s food aid and assistance activities may serve as a platform on which to address the double burden of malnutrition in Ghana—namely by targeting the food access, socioeconomic disadvantage and food systems determinants of the double burden. Even before the double burden was an explicit WFP priority in Ghana, WFP activities targeted several determinants. This observation suggests that food aid and assistance activities might inherently possess some potential to address the double burden. By possessing this potential, WFP, to increase its impact on the double burden, does not necessarily need to implement new (or “de novo”) actions but
rather might prioritize enhancing the capacity of existing activities to address the double burden. Retrofitting existing activities rather than implementing new activities provides a practical and likely less costly means by which WFP might better address the double burden. These observations lead to the following policy recommendations:

**Recommendation 1:** Given the potential of existing WFP activities to address the double burden of malnutrition, WFP should prioritize retrofitting each of its activities in the oncoming 2019 to 2023 CSP to more deliberately address the double burden. Retrofitting existing interventions might include, for example, expanding outcome and output indicators to better monitor progress in the double burden situation or enhancing the capacity of health workers to discuss obesity with beneficiaries by strengthening SBCC.

**Recommendation 2:** Given the potential of existing WFP activities to address the double burden of malnutrition, nutrition actors should consider integrating WFP as a partner in the fight to address the double burden.

WFP’s success in effectively addressing the double burden, however, remains contingent on activities being delivered as intended, especially now that addressing the double burden is a specific priority of WFP in Ghana. One challenge associated with the double burden is that activities to address undernutrition can sometimes promote overweight inadvertently by endorsing, for example, the high consumption of energy-dense but not necessarily nutritious foods. In Ghana’s context, WFP’s school meals program was one activity of concern in this regard. WFP nutrition appraisals frequently questioned the consistency of the nutritious quality
of the meals provided under this program. A 2017 evaluation notes, “[the] operational assessment of the school meals was weak and required improvement on various fronts, including nutritional quality of school meals, community involvement and oversight, linkages to smallholder farmers, and monitoring and evaluation” (I). The administrators of GSFP have similarly acknowledged that while monitoring and evaluation exercises exist, they need to be more rigorous at the district and school level. Delivering activities as intended also means ensuring that high impact activities, in particular, deliver smoothly. To this point, WFP’s stunting prevention program was the program that targeted the most determinants of the double burden but faced several challenges that might have compromised its potential impact. When the stunting prevention program commenced in 2014, WFP wrote, “It can be argued that preventive nutrition activities to address stunting and micronutrient deficiencies, given the magnitude of the problem and better cost-effective of prevention, is where WFP could have made a greater difference” (B). However, a 2016 evaluation noted that this potentially high impact program had low coverage because of a tedious registration process that discouraged caregivers, particularly in urban areas, from participating (H). These types of issues demand attention because inaction threatens delaying or even countering progress to combat the double burden. These challenges lead to the following recommendation:

**Recommendation 3:** *WFP monitoring and evaluation activities should pay focused attention to deficits in the implementation of WFP activities that: 1) might inadvertently promote overweight and obesity and 2) might have high impact on the double burden.*

*These shortcomings, once identified, should be prioritized and immediately rectified. To increase the ability of monitoring and evaluation activities to capture these deficits, WFP*
might, for example, streamline reporting systems to make it easier for beneficiaries and partners to identify deficits for further investigation. WFP might also, for example, conduct additional quality assurance checks of WFP activities each period.

The question also remains on whether WFP’s targeting of determinants of the double burden will have long term impact. The above analysis demonstrates that WFP activities address many determinants of the double burden; however, the analysis assumes that each determinant of the double burden holds equal potential in making impact on the double burden. In reality, the effect of some activities on Ghana’s long-term nutrition trajectory may be minimal. Quarshie, an official at FAO headquarters, noted that addressing the double burden requires structural change. He argued that in the Northern regions of Ghana, despite WFP and many other organizations having worked there for decades, undernutrition persists because these organizations fail to address many of the structural and systemic changes needed to prevent malnutrition in all its forms. This paper’s analysis reports that many WFP activities target the food access and socioeconomic disadvantage determinants of the double burden through the provision of a food product or cash vouchers. One might argue that absent this direct support from WFP, beneficiaries will revert back to facing the same food access and socioeconomic risk factors of malnutrition that made them beneficiaries in the first place, as Fuller, a district official at GHS, speculated. The extent to which this is true or not of WFP programs is to be debated. However, this issue of sustainability is critically important as WFP explores its role in the double burden, especially as it phases out its work in the Ghana. Dane, an official with Ghana’s Ministry of Food and Agriculture summarized the importance, saying “It’s only [when] you teach the person
how to fish and when you’re not there, he will continue. But if you always provide the fish for
the person, when you go, he won’t know how to fish.”

To this end, WFP’s transition in the 2018 to 2023 period towards a greater focus on
capacity development at the national level and within the food system illustrates that WFP is
increasingly recognizing the need to address the root issues that sustain the threat of
undernutrition and overweight. This period in Ghana, coinciding with WFP’s first explicit
mention of its priority on the double burden of malnutrition in Ghana, saw the end of WFP’s
take-home rations program and its treatment of wasting program. This period also saw a
substantial rise in the number of activities targeting the food systems determinant of the double
burden, from one to five. The shift from the provision of food products or treatment to more
systems development and capacity strengthening activities may suggest that the sustainability of
WFP’s work is increasing. It also suggests that Ghana’s malnutrition problems are increasingly
structural rather than acute in focus. The unknown nature of the long-term impact of WFP
activities on the double burden and the changing nature of some WFP activities inform the
following recommendation:

**Recommendation 4:** *Future analysis (e.g. cost-benefit analysis) should attempt to
quantify the impact of activities that target different determinants on their ability to
actually address the double burden, especially in the long term. These analyses should
inform WFP programming in Ghana and, more broadly, in similar contexts. One possible
opportunity on which to conduct this analysis is if WFP and the Government of Ghana
initiate a Double Burden of Malnutrition study such as has been done in WFP’s Latin
American and Caribbean region.*
While this analysis did not evaluate the impact of each WFP activity on the double burden, the analysis shows that many activities in both planning periods targeted more than one determinant of the double burden. Targeting multiple determinants increases the focus of a particular activity on nutrition, which might position an activity to have greater impact on the double burden. To illustrate this point, one might argue that an activity that targets the socioeconomic disadvantage determinant by reducing poverty but also incorporates healthy diet counselling to address the lifestyle factors determinant may have a greater positive impact on the double burden than an activity that targets socioeconomic disadvantage alone. The United Nations Standing Committee on Nutrition wrote following a symposium at WFP in 1993, “Malnutrition has many causes; it results from a complex set of interacting elements, including the biological, social, cultural, political and economic environments. Malnutrition cannot be overcome by simply improving access to an adequate diet; disease, especially infections, or poor maternal health and childcare practices may be as important a cause of malnutrition as inadequate food intake. Therefore, although food aid by itself can make a significant contribution, it cannot be expected to solve a complex problem such as malnutrition. It is when food aid is combined with other inputs, such as health care, education, improved agricultural technology and so on, that it can be most effective in overcoming poverty and malnutrition” (31). This thinking was likely what propelled WFP’s traditional food aid mandate into one that included food assistance as well—that is, all those other elements surrounding food that work to improve nutrition and food security. This discussion on the potential additional benefit accrued
from targeting multiple determinants with a single activity informs the following recommendation:

**Recommendation 5:** *WFP and nutrition partners should consider scaling up activities that address several rather than few determinants of the double burden (e.g. the stunting prevention program) into order to ground interventions more deliberately in the double burden and potentially also increase the impact of different activities on the double burden.*

Moreover, the insight gleaned from key actors in the nutrition landscape about the challenges to addressing the double burden (and particularly overweight and obesity) provide an interesting case for further investigation. The analysis from these interviews demonstrates that addressing the double burden effectively relies on intricate relationships between government institutions, UN agencies and other players that depends on these institutions aligning their priorities, being knowledgeable about the problem and having the resources and will to do something about it. The many moving parts of what it takes to address the double burden illustrate the difficulty of addressing the double burden effectively, especially from a governance standpoint. These many moving parts also demonstrate that each context is different and that a one size fits all approach from the standpoint of WFP, the UN or any government is bound to fail. Each setting’s unique challenges present areas for action, which when addressed help boost impact on the double burden. These findings inform the following recommendation:

**Recommendation 6:** *Nutrition actors should explore the challenges to addressing the*
double burden that might hinder progress in relevant settings. An understanding of these challenges will endow nutrition actors with the tools to better address the double burden. This analysis provides a preliminary exploration of these challenges in the Ghanaian context, providing areas for validation and future action for WFP and other actors.

While I acknowledge that how WFP addresses the double burden in Ghana and the challenges actors face in Ghana are both context specific, there are lessons from this case that might be applicable and relevant across the globe. In today’s nutrition landscape, country networks—such as South-South cooperation networks—facilitate lesson sharing that provides useful insight for countries facing similar challenges. It is for this reason that this analysis employed insight from WFP’s Latin American and Caribbean region as a useful comparison case. As a UN agency, WFP is particularly well positioned to benefit from learnings based on its experiences in countries across the world. The usefulness of country case studies in this sense informs the following policy recommendation:

Recommendation 7: WFP should consider the ways in which the context of Ghana and/or its activities in Ghana compare to that of other beneficiary countries. It should employ and adapt these learnings, especially those related to the double burden, in ways that might magnify its impact in countries facing the double burden.

While this analysis contains lessons that may be applicable outside of Ghana, the following section discusses the limitations and assumptions of this analysis that might limit the generalizability and conclusions of this case.
Limitations and Assumptions

This analysis is limited by several assumptions and choices including: 1) potential bias introduced from its snowball sampling method of interview participants; 2) the absence of analysis on the specific nutritional content of WFP commodities (e.g. take-home rations) and 3) the omission of analysis related to micronutrient deficiencies.

As described in the methodology, a snowball sampling method was employed in this analysis to identify key actors with interest and expertise in my research questions. Because participants identified other participants, participants may have been linked through social networks, leading to potential sampling bias. Participants, for example, could have identified colleagues of theirs who share similar rather than opposing views. It is in part because of this limitation that the analysis of insight from key actors was designed to generate (rather than test) hypotheses for future validation in the context of Ghana or in another country’s context.

This analysis also assumes that “specialized” or “nutritious” food products delivered by WFP are indeed nutritious. This analysis does not explore the actual nutritious quality of food aid and assistance food products—a question which is explored in depth in the literature. The analysis does not consider the actual nutritional content of food because my research question explores the extent to which WFP activities might serve as a platform to address the double burden and not the actual impact those activities have. However, the question surrounding the nutritious quality of food aid and assistance products demands continuous exploration. Packard, an official at WHO, elaborated on the importance of continuous evaluation by noting that the distribution of specialized nutritious products may actually discourage or interfere with the
consumption of family foods and may even lead to the overconsumption of energy, potentially promoting overweight and obesity.

Moreover, this analysis fails to comment on efforts to address micronutrient deficiencies in Ghana. The double burden of malnutrition in many settings such as Ghana is actually a triple burden of malnutrition marked not only by a burden of undernutrition and overweight but also by a coexisting burden of micronutrient deficiencies. Jacobson at WFP headquarters emphasized the importance of micronutrient deficiencies as one of the biggest malnutrition issues that can be addressed with some of the cheapest interventions. I acknowledge the importance of the discussion on micronutrient deficiencies—especially because the burden, for example, of anemia amongst women of reproductive age in Ghana rests around 42% (38). This analysis omits the issue because micronutrient deficiencies and undernutrition are coupled under programmatic objectives more often than are undernutrition and overweight. The analysis presented here that considers the apparent paradox of coexisting overweight and undernutrition provides a stronger challenge to the traditional understanding of the role of food aid and assistance in non-emergency settings.

CONCLUSION

Rapidly changing nutritional burdens around the world force us to reconsider what it will take to combat malnutrition. The double burden phenomenon, in particular, presents paradoxes for food, health and nutrition policymakers. These challenges demand that institutions designed to address and prevent malnutrition reevaluate their approaches—from the US, where the beneficiaries of a federal food assistance program designed to address food insecurity face disproportionately higher rates of overweight (40) to emergency settings, where some refugee populations face previously inconceivable high rates of overweight and obesity (41). These
examples illustrate that the consideration of how food aid and assistance is addressing the double burden is not just important in Ghana but also in many settings around the world.

My analysis shows that organizations such as WFP, who might be seem as nontraditional actors in the overweight and obesity debate, may actually possess the potential to address these complex issues through their existing programming. As the nutrition landscape becomes more complex, nutrition players must similarly adapt their approach: forming new partnerships with nontraditional actors and strengthening old ones. As Quarshie at FAO argued, “[Overweight and obesity] is at a concerning level because it’s not the numbers you see now. You have to look at the trajectory.” To this end, the current nutrition landscape demands that nutrition actors have greater intentionality in addressing the risk factors that give rise to the double burden of malnutrition. The current landscape also demands exploring and addressing the challenges—related to data, agenda setting, and sensitization, among others—that may hinder progress to address malnutrition within each context. Under the backdrop of a compounding burden of overweight and a persisting burden of undernutrition, addressing shared determinants of these malnutrition issues presents a practical, synergistic means by which to address the seemingly paradoxical challenges of the double burden.
Works Cited

# APPENDICES

**Appendix 1: WFP Documents for Analysis Based on Inclusion/Exclusion Criteria**

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Appendix 2: Consent Script and General Themes of Interview Sent to Participants by Email

Key Stakeholder Interview Consent Script
Hello, my name is Niisoja Torto. I am honored to speak with you. I am an honors student from Duke University writing a thesis on food aid in today’s malnutrition landscape. I am interested in interviewing experts and key stakeholders in the global nutrition landscape, such as yourself, to learn about current practices in food aid and what opportunities there are for progress. The interview should take about 40 minutes during which I will ask for your frank expert opinion. In my analysis, I will use IDs and pseudonyms (such as J120, World Health Organization) to make sure your insight cannot be identified directly as yours. Are you willing to be interviewed?

Great.

I would like to record this interview so that I can revisit it and write notes. This recording is only meant to expedite the interview and will be used only for my research. I plan to provide you a copy of my report after I have completed. Do you give me permission to record?

Great. I’d now like to double check that my audio is working.

Themes and Topics for Semi-Structured Interview with Key Stakeholders
Definitions for Reference:
- **Double burden of malnutrition**: I define the double burden of malnutrition as the coexistence of two issues: undernutrition, on one hand, and overweight and obesity on the other. Do you generally agree with this definition? Do you have any amendments?
- **Food aid and assistance**: I define food aid and assistance as the provision of in-kind food, cash vouchers for food and the use of other strategies such as capacity strengthening, etc. to address food insecurity.

Topics/Themes for Discussion:
[1] **Priority of Double Burden**: Where does double burden lie among the list of all other health priorities in Ghana/in low- and middle-income nations (LMICs)?
[2] **Governance**: Which actors should be responsible for addressing double burden/malnutrition issues?
[3] **Food Aid and Assistance**: What is the role of food aid and assistance in Ghana/LMICs in addressing malnutrition issues?
[4] **Challenges**: What challenges does food aid and assistance face in addressing malnutrition issues?
Appendix 3: Semi-Structured Interview Questions

INTERVIEW PROTOCOL:
[0] Can you please state your name and position and describe the work you do?

[1] Introduce my interest in this topic: “Over the past few years, I’ve grown really interested in malnutrition. In particular, I’ve become fascinated with the phenomenon called the double burden of malnutrition. In my head, I define the double burden of malnutrition as the coexistence of two issues: undernutrition, on one hand, and overweight and obesity on the other. Do you generally agree with this definition? Do you have any amendments?

[1b] In the work you do, have you come across this phenomenon and in what ways? (Mention that I have spoken with people who sometimes characterize undernutrition and obesity as separate issues)

[1c] Do you know this phenomenon by another name?
* [Question 1 Intent]: Find out whether key stakeholders use other vocabulary to define this issue. Define and clarify terms to make sure all participants are speaking about the same issue. Find out whether they have ever encountered the issue in their work.

[2] Do you think addressing the double burden of malnutrition should be a top priority? Where does the double burden lie among the list of health priorities?
* [Question 2 Intent]: Assess how stakeholders perceive and talk about the importance of the issue. Will inform my understanding of the political will to address the issue.

[3] Governance issue: Give background of nutrition stakeholders in Ghana (Ministry of Gender, Children, and Social Protection; Ministry of Health; Ministry of Agriculture; Ministry of Local Government and Rural Protection). Which stakeholder should be primarily responsible for addressing the double burden of malnutrition in Ghana/in a country? (If applicable, ask who is currently responsible for addressing the double burden in Ghana)
* [Question 3 Intent]: Identify other important stakeholders in nutrition landscape that I may have overlooked. Obtain insight on governance question of who should be responsible for addressing malnutrition in Ghana.

[4] Define food aid and assistance as “the provision of in-kind food, cash vouchers for food and the use of other strategies such as capacity strengthening, etc.” What do you see as the primary purpose of food aid and assistance, such as that delivered by the World Food Programme, in Ghana/LMICs today? (Stated differently: what does it intend to achieve?)
* [Question 4 Intent]: Assess whether key stakeholders naturally conceive of food aid as a means to address overweight and not just undernutrition. Identify the types of interventions key stakeholders believe food aid should prioritize (e.g. provision of in-kind food, capacity-building, etc.)

[5] Do you think food aid and assistance can play a role in addressing overweight and obesity in Ghana/LMICs? Y / N
* [Question 5 Intent]: Explicitly identify why or why food aid and assistance can address overweight and obesity in the perspective of key stakeholders.
[6] Do you think food aid and assistance should play a role in addressing overweight and obesity in LMICs? Y / N

[6a] Why or why not?

- **[Question 6 Intent]**: Assess whether stakeholders think food aid should play a role even if they think it can’t practically, given its constraints, etc. now. This is a normative question.

FOR WFP Officials

If applicable, ask them to discuss some of the projects they are currently overseeing.

[7.1] In your experience, how has and how does the World Food Programme address this double burden of malnutrition?

[7.1.a] Do you think addressing the double burden of malnutrition is a top priority for WFP, and for how long has it been?

- **[Question 7.1 Intent]**: Open-ended question to allow stakeholders to give insider insight on how WFP has addressed double burden in the past and how it addresses the issue now.

[8.1] What do you think WFP can do to better address the double burden of malnutrition?

- **[Question 7.1 Intent]**: Assess whether stakeholders believe WFP has the capacity to improve and the reasons for this perception.

[9.1] What challenges does WFP face in improving its approach to address the double burden of malnutrition?

[9.1.a] Prompt stakeholder by discussing challenges with WFP’s resource allocation for longer term project (e.g. What happens to funding of projects in non-emergency settings when WFP has to respond to a new crisis in another country?)

- **[Question 9.1 Intent]**: Identify challenges WFP faces in improving its approach.

FOR non-WFP Officials

[7.2] In your experience, do you know how food aid and assistance, such as that delivered by the WFP, may currently be addressing overweight and obesity?

- **[Question 7.1 Intent]**: Identify how much non-WFP stakeholders know about the projects and workings of WFP or food aid and assistance programs more generally.

[10] Is there anything that we did not discuss that you would like to raise?

- **[Question 10 Intent]**: Getting feedback on the interview questions from each stakeholder will allow me to adapt the instrument for following interviews and ask more targeted questions.

[11] Who else do recommend I speak to about these issues?

- **[Question 11 Intent]**: My methodology relies on a snowballing effect for identifying new stakeholders with interest or expertise in this issue to interview.

[12] Finally, as part of my thesis project, I will be analyzing documents related to malnutrition in Ghana, especially those produced by the WFP. Are there any documents you recommend that I take a look at? Additional comments:
Appendix 4: WHO Description of Determinants of Double Burden

Epigenetics
Alterations in the expression of genes, not just the genes themselves, are thought to influence the risk of low birth weight, overweight, obesity and NCDs. These changes can be affected by, for example, intrauterine growth restriction resulting from maternal undernutrition, which leads to changes in the way the infant’s body then regulates energy. These changes can be passed on between generations, even once the stimulus (in this case undernutrition) is no longer present (13).

Early-life Nutrition
The in-utero and early-life nutrition environments have significant and often lifelong impacts on health. The quality and quantity of nutrition during fetal development and infancy impact on the body’s immune function, cognitive development and regulation of energy storage and expenditure – including fat stores (16–18).
Poor maternal nutrition prior to, and during pregnancy can also lead to increased risk of maternal anaemia, preterm birth and low infant birth weight; in turn, low-birth-weight infants can be at higher risk of metabolic disease and abdominal adiposity later in life (17, 18).

Women who are overweight or experience excess weight gain during pregnancy are at a greater risk of gestational diabetes and larger birth weights in their offspring, putting their infants at higher risk of obesity later in life; in addition, accelerated weight gain early in life is associated with higher body mass index and obesity later in life (16–18).

Lifestyle Factors
Unhealthy behaviours that lead to greater energy consumption may not always be based on conscious decisions, but may be automatic or learnt responses to cues or nudges in the immediate environment. Once these behaviours are repeated and reinforced, they can become habits that lead to longer-term weight gain, and a difficulty in losing weight (19).

Food Access, Portion Sizes and Cost
The quality and quantity of foods, combined with the systems that produce them, have a profound influence on the nutrition status of populations. In the last half century, portion sizes of many packaged, restaurant and take-away snacks and meals have increased, and their relative costs have decreased. Meanwhile, the cost of fresh produce has increased – particularly among poor consumers in low- and middle-income countries and countries importing food (20).

In areas affected by instability, conflict or natural disasters, where food becomes unaffordable, inaccessible or unavailable, inadequate food intake, and portion sizes that do not meet the nutrition and energy requirements of growing children, contribute to undernutrition, predisposing to infection, wasting and even stunting.

Socioeconomic Disadvantage, Inequality and Poverty
Malnutrition is intimately related to poverty and disease. Each contributes to the presence and permanence of the others (21).
Low socioeconomic status decreases an individual’s ability to afford nutrient-rich foods, predisposing to undernutrition, and also to overweight and obesity (21).
Evidence also suggests a correlation between food insecurity, poverty and obesity, with a socioeconomic gradient of overweight and obesity prevalence in many middle- and high-income countries (22). Globally, obesity is affecting countries across all income groups. While the highest age-standardized prevalence of overweight is found in upper-middle-income countries, most low- and lower middle-income countries have a prevalence of overweight between 10% and 39% (3).

Urbanization, Urban Design and the Built Environment
With more than half of the world’s population now living in urban environments, urban systems play an important role in the nutritional status of individuals and populations.

Urban environments with inadequate water and sanitation infrastructure can place populations at greater risk from water-borne diseases, and resulting undernutrition (23).
Several infections related to hygiene, sanitation, safe water and water management are significant contributors to anaemia worldwide (24).
Associated with economic growth, urbanization itself can improve or worsen nutrition outcomes for populations (25). Urban design and the built environment may discourage physical activity and active travel. They may also lead to reduced reliance on smallholder and home-grown foods and greater reliance on bought foods – altering a population’s risk of food insecurity (25). Combined with the increasing ease of access to unhealthy foods, industrial food systems and food advertising, urbanization can also be associated with an increase in overweight and obesity, particularly among the poor.

Food Systems
Major qualitative and quantitative changes in global food production and the related food systems have led to greater and near-universal access to processed and unhealthy foods in many countries worldwide (26, 27).

The trend has been to a homogenization of diets that are higher in saturated fats, salt and sugar, and lower in vitamins and minerals, than the traditional or local diets they often replace.


Appendix 5: Descriptions of Organizations of Interview Participants

World Food Programme (WFP): “Assisting 86.7 million people in around 83 countries each year, the World Food Programme (WFP) is the leading humanitarian organization saving lives and changing lives, delivering food assistance in emergencies and working with communities to improve nutrition and build resilience.”

Food and Agricultural Organization of the UN (FAO): “The Food and Agriculture Organization (FAO) is a specialized agency of the United Nations that leads international efforts to defeat hunger. Our goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives. With over 194 member states, FAO works in over 130 countries worldwide. We believe that everyone can play a part in ending hunger.”

Ghana Health Service (GHS): “The Ghana Health Service (GHS) is an autonomous Executive Agency responsible for implementation of national policies under the control of the Minister for Health through its governing Council - the Ghana Health Service Council.”

Ghana Ministry of Food and Agriculture (MOFA) “The Ministry of Food and Agriculture (MOFA) is the lead agency and focal point of the Government of Ghana, responsible for developing and executing policies and strategies for the agriculture sector within the context of a coordinated national socio-economic growth and development agenda. By means of a sector-wide approach, the Ministry’s plans and programmes are developed, coordinated and implemented through policy and strategy frameworks.”

Ghana Ministry of Health (MOH): The functions of the Ministry of Health include the following: “Formulate health policy; set standards for the delivery of health care in the country; provide strategic direction for health delivery services; monitor and evaluate the health service delivery by the Ghana Health Service (GHS) and the Teaching Hospitals, other Agencies,

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Development Partners and the Private sector; develop policies for the practice of Traditional and Alternate Medicine in the country; source funding for service delivery through GOG, Health Insurance and international community; allocate resources to all health care delivery agencies under the Ministry; provide framework for the development and management of the human resources for health; provide a framework for the effective and efficient procurement, distribution, management and use of health sector goods, works and services; make proposals for the review and enactment of health legislation; provide framework for the regulation of food, drugs and health service delivery and practice”

**Ghana National Development Planning Commission (NDPC):** “Since its formation, the Commission has worked closely with every President under the Fourth Republic to prepare the Coordinated Programme of Economic and Social Development Policies, which the President is required by the Constitution to submit to Parliament within two years of assuming office. The Commission also led the process of preparing the country’s first long-term (25-year) national development plan, *Vision 2020*, along with its first medium-term plan, *Vision 2020: The First Step (1996-2000).*”

**World Health Organization (WHO):** “WHO, as the directing and coordinating authority on international health within the United Nations system, adheres to the UN values of integrity, professionalism and respect for diversity. The values of the WHO workforce furthermore reflect the principles of human rights, universality and equity established in WHO’s Constitution as well as the ethical standards of the Organization. These values are inspired by the WHO vision of a world in which all peoples attain the highest possible level of health, and our mission to promote health, keep the world safe and serve the vulnerable, with measurable impact for people at country level. We are individually and collectively committed to put these values into practice.”

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10 World Health Organization. Our values. [Available from: [https://www.who.int/about/who-we-are/our-values](https://www.who.int/about/who-we-are/our-values)]
Appendix 6: Map of Ghana and its Regions