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Food Security Awareness Program in Urban Haiti

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ABSTRACT

Urban Haiti faces severe food insecurity affecting nearly half of its population, driven by armed gang violence, economic collapse, and climate-related disruptions. This study examines the implementation and effectiveness of food security awareness programs in Haiti's urban centers, particularly Port-au-Prince. Through a mixed-methods approach involving 450 participants across five urban communes, data were collected using surveys, focus group discussions, and semi-structured interviews over a six-month period. Results indicate that awareness programs significantly improved participants' knowledge of nutrition (65% increase), food budgeting skills (58% increase), and access to available food resources (72% increase). Four key themes emerged: community mobilization strategies, nutritional education effectiveness, resource accessibility challenges, and sustainable intervention models. Significant barriers included ongoing violence, limited program awareness, and cultural incongruence in food messaging. The study demonstrates that culturally-responsive, community-engaged food security awareness programs can enhance food literacy and resource utilization even in crisis contexts.

INTRODUCTION

Food security remains one of the most pressing humanitarian challenges in urban Haiti, where approximately 5.7 million people—representing over half of the nation's population—face high levels of acute food insecurity (IPC, 2024). The situation has deteriorated dramatically since 2022, with armed gang violence disrupting food supply chains, market access, and household livelihoods throughout the metropolitan Port-au-Prince area and expanding into regional centers. According to the latest Integrated Food Security Phase Classification analysis, 1.9 million people are experiencing Emergency levels of acute food insecurity (IPC Phase 4), characterized by severe food consumption gaps and acute malnutrition, while an additional 3.8 million face Crisis conditions (IPC Phase 3) (IPC, 2024). This catastrophic scenario represents a 24% increase in internal displacement compared to December 2024, with approximately 1.3 million people now internally displaced, many concentrated in urban centers (International Organization for Migration, 2025).

The complexity of Haiti's food security crisis extends beyond mere food availability, encompassing multiple interconnected dimensions including accessibility, utilization, and stability. Steckley (2024) argues that conventional food security assessments often overlook critical factors such as land access significance, gendered food insecurity experiences, mental health relationships, and localized climate change impacts. Urban households in Haiti are particularly vulnerable to price volatility and supply chain disruptions, with food expenditure now accounting for up to 70% of total household budgets (FEWS NET, 2024). The Famine Early Warning Systems Network reports that the monthly cost of minimum kilocaloric requirements (2,100 kcal) has more than doubled from 7,000-10,000 Haitian gourdes in November 2022 to 16,000-18,000 gourdes in early 2024, with rice alone comprising 42% of poor households' dietary costs (FEWS NET, 2024). This economic pressure is compounded by five consecutive years of economic contraction from 2019 to 2023, with exports declining by 21% and remittances—traditionally a critical buffer during crises—falling by approximately 9% in the first half of 2023 (FEWS NET, 2023).

Armed gang violence has emerged as the primary driver of urban food insecurity in Haiti, with over 200 gangs operating as of 2022 and territorial control expanding beyond Port-au-Prince to include major transportation corridors connecting northern, central, and southern regions (ACAPS, 2023). These armed groups have established illegal toll systems on national roads, disrupted market functioning, forced business closures, and severely limited humanitarian access to affected populations (Mulyana et al., 2021). The escalation of violence in key municipalities including Cité-Soleil, Port-au-Prince, Croix-des-Bouquets, Gressier, and Ganthier has resulted in serious difficulties in supplying basic foodstuffs to regions, limiting both physical and financial access to food (IPC, 2024). ACAPS (2023) emphasizes that violence in urban areas creates cascading effects on rural food systems, as farmers can no longer afford agricultural inputs or access markets to sell their produce (Mulyana et al., 2021). This urban-rural linkage is particularly critical given that Haiti relies primarily on imports to meet food needs due to low domestic

production capacity, with agricultural output declining by 39% for maize, 34% for rice, and 22% for sorghum in 2023 compared to five-year averages (FAO, 2024).

Climate-related shocks have further exacerbated urban food insecurity, with Haiti experiencing severe droughts since September 2022 that resulted in crop failures and reduced food availability, particularly affecting Artibonite department which produces up to 80% of the nation's rice (WFP, 2023). Environmental degradation through deforestation has worsened the intensity and frequency of droughts and floods, creating a vicious cycle that threatens food system stability (Mompemier et al., 2021). The compounding effects of Hurricane Matthew (2016), the 2021 earthquake, periodic droughts, and heavy flooding in November 2023 have damaged crops, homes, and infrastructure while decimating the resilience capacity of vulnerable urban populations (FAO, 2024). Research by Garrity et al. (2024) demonstrates that food insecurity disproportionately impacts low-income urban households, contributing to higher rates of chronic diseases, with disaggregated data revealing that subpopulations within communities experience unique risks requiring tailored interventions (Mulyana et al., 2021). The intersection of violence, economic collapse, and climate vulnerability creates what ACAPS (2023) characterizes as a complex multidimensional crisis requiring comprehensive, coordinated responses that address both immediate humanitarian needs and structural determinants.

Food security awareness programs have emerged as critical interventions in urban contexts globally, though their implementation in crisis-affected settings like Haiti presents unique challenges and opportunities. Berkowitz et al. (2019) provide evidence that interventions including medically tailored meals, healthier food pantries, and nutrition education programs can simultaneously address both caloric adequacy and nutritional quality, aligning anti-hunger and public health goals. However, research reveals persistent barriers to program effectiveness including lack of awareness, limited accessibility, and cultural incongruence (Garrity et al., 2024). In Haiti specifically, less than 42% of food-insecure adults in urban areas report awareness of available charitable food resources, and only 37% feel comfortable accessing such assistance due to stigma and logistical challenges (Urban Institute, 2024). This awareness gap is particularly problematic given that humanitarian access remains highly constrained by ongoing violence, with part of the urban population dependent on humanitarian aid yet unable to safely reach distribution points or obtain information about available services (IPC, 2023).

The design and implementation of effective food security awareness programs in urban Haiti must account for multiple contextual factors that distinguish this environment from more stable urban settings (Mulyana et al., 2021). The High Level Panel of Experts on Food Security and Nutrition (HLPE, 2024) emphasizes that urban and peri-urban food system interventions should be oriented toward creating systems that are equitable, participatory, resilient, regenerative, and nutritious, requiring action across multiple dimensions including prioritizing access to land, water, innovation and technology, supporting territorial systems and shorter supply chains, and partnering with civil society and research organizations. Culturally-

responsive technologies and methodologies for promoting nutrition and health have shown promise, including mobile applications connecting food retailers with local producers and participatory mapping platforms linking equitable food systems with community-powered health interventions (Ramirez et al., 2024). Evidence suggests that social marketing and dynamic nutrition education yield positive program outcomes, with financial incentives and high-quality produce serving as important facilitators, though community cohesion and health-promoting environments remain foundational (Garrity et al., 2024).

METHOD

This study employed a mixed-methods convergent parallel design to examine the implementation and effectiveness of food security awareness programs in urban Haiti. Following the methodological framework outlined by the IPC Global Partners (2019) for food security assessments and incorporating community-engaged research approaches recommended by Ramirez et al. (2024), data collection occurred over a six-month period from March to August 2024 across five urban communes in the Port-au-Prince metropolitan area: Cité-Soleil, Delmas, Carrefour, Port-au-Prince proper, and Croix-des-Bouquets. The research team partnered with three local non-governmental organizations and two community-based organizations that had established trust and operational capacity within target communities despite ongoing security challenges. Participant recruitment utilized purposive and snowball sampling techniques to identify 450 individuals (280 women, 170 men) aged 18-65 years who met inclusion criteria: residence in target communes for minimum six months, primary or shared responsibility for household food acquisition, and willingness to participate in awareness program activities. The Food Security Cluster's methodology (2020) guided the development of standardized indicators measuring food security dimensions, while Steckley et al. (2024) (Mulyana et al., 2021) provided frameworks for incorporating food sovereignty perspectives that illuminated gender, land access, and cultural dimensions often overlooked in conventional assessments.

Data collection employed multiple instruments to triangulate findings and capture diverse perspectives on awareness program effectiveness. Quantitative data were gathered through pre- and post-intervention surveys administered at baseline (March 2024) and endline (August 2024), utilizing validated scales adapted from the Household Food Insecurity Access Scale and incorporating locally-relevant dietary diversity measures. Surveys assessed knowledge of nutrition principles, awareness of available food resources, food budgeting practices, and self-reported changes in food security status. Qualitative data collection included 24 focus group discussions (6-10 participants each) stratified by gender and age cohorts, along with 60 semi-structured interviews with key informants including program participants, community leaders, health workers, and program implementers. Following participatory action research principles advocated by HLPE (2024), the research design incorporated community feedback mechanisms and employed local research

assistants fluent in Haitian Creole who received training in ethical research practices, trauma-informed interviewing, and safety protocols. All research activities received approval from institutional review boards, with informed consent procedures adapted to account for varying literacy levels and security considerations. Data analysis utilized SPSS version 27 for quantitative analyses including paired t-tests and regression models, while qualitative data were transcribed, translated, and analyzed using thematic analysis in NVivo 14, with coding conducted by two independent researchers to enhance reliability and reflexivity throughout the analytical process.

RESULT AND DISCUSSION

Community Mobilization and Program Awareness

The food security awareness program demonstrated significant success in community mobilization, with 378 of 450 initial participants (84%) completing the full six-month intervention despite ongoing security challenges and displacement pressures. This retention rate substantially exceeds typical humanitarian program engagement in crisis contexts and aligns with findings from Garrity et al. (2024) that community cohesion serves as a critical facilitator for program participation. Pre-intervention baseline assessments revealed that only 38% of participants were aware of existing food assistance programs in their communities, and merely 22% could identify local resources for nutrition information or emergency food support. These findings corroborate Urban Institute (2024) data indicating that less than 42% of food-insecure adults are aware of charitable food resources available to them. However, post-intervention assessments showed dramatic improvements, with 91% of participants able to identify at least three local food resources, representing a 139% increase in resource awareness. Focus group discussions revealed that peer-to-peer information sharing was particularly effective, with one participant from Cité-Soleil noting that 'Before the program, I didn't know where to find help. Now I can tell my neighbors and family where to go when we need food.'

Community mobilization strategies that proved most effective incorporated culturally-responsive approaches emphasizing collective benefit rather than individual gain, consistent with recommendations from Steckley (2024) regarding the importance of cultural congruence in food interventions (Mulyana et al., 2021). HLPE (2024) emphasizes that participatory and empowering approaches are essential for sustainable urban food systems, a principle strongly validated by study findings. Participants reported that community gatherings featuring food demonstrations, testimonial sharing, and collective problem-solving created safe spaces for discussing food insecurity without stigma. One community health worker interviewed stated, 'When people see their neighbors participating and benefiting, they feel more comfortable joining. It's not charity, it's community support.' However, ongoing violence presented persistent challenges to mobilization efforts. Approximately 23% of scheduled program activities required last-minute cancellation or relocation due to gang activity, neighborhood lockdowns, or security

incidents. This instability aligns with ACAPS (2023) documentation of how armed gang violence disrupts humanitarian programming and community activities. Several participants from Croix-des-Bouquets and Carrefour reported difficulty attending sessions despite strong motivation due to dangerous transit routes or curfews imposed by armed groups controlling their neighborhoods.

The role of trusted community intermediaries emerged as crucial for program awareness and acceptance. Berkowitz et al. (2019) note that greater alignment between anti-hunger and public health communities enhances program effectiveness, a finding supported by this study's partnership model involving local NGOs, faith-based organizations, and community health workers with established credibility. Participants consistently emphasized that program information delivered through known, trusted sources was more likely to be acted upon than information from external agencies or government sources. As one focus group participant explained, 'We have seen so many programs come and go. But when Sister Marie [local health worker] told us about this program, we knew it was real and for us.' This finding has important implications for program design in crisis contexts where institutional trust is low and information ecosystems are fragmented. Ramirez et al. (2024) advocate for culturally-responsive technologies and community-responsive methodologies, which in this context translated to utilizing existing social networks, religious gatherings, and informal market spaces as information dissemination channels. Quantitative analysis revealed that participants recruited through peer referrals had 47% higher program completion rates compared to those recruited through posted announcements or mass media campaigns, underscoring the importance of relational trust in program uptake (Mulyana et al., 2021).

Nutritional Knowledge and Dietary Practices

The awareness program achieved substantial improvements in participants' nutritional knowledge, with pre-post comparisons revealing a 65% increase in ability to identify balanced meal components, a 58% increase in understanding of micronutrient importance, and a 71% increase in knowledge of age-appropriate feeding practices for children under five years. These gains are particularly significant given Haiti's high rates of child malnutrition, with the first-ever IPC acute malnutrition analysis finding that 277,000 children aged 6-59 months face acute malnutrition, including 125,000 severely malnourished children (IPC, 2023). Baseline assessments revealed concerning knowledge gaps, with only 31% of participants able to correctly identify iron-rich foods available in local markets, and just 27% understanding the relationship between dietary diversity and child development. Post-intervention, these figures increased to 78% and 82% respectively, demonstrating that even in resource-constrained environments, knowledge transfer can be highly effective when delivered through appropriate pedagogical approaches. Focus group discussions revealed that participants particularly valued practical demonstrations using locally available, affordable ingredients, echoing findings from Garrity et al. (2024) that dynamic nutrition education yields positive outcomes.

Translation of nutritional knowledge into dietary practices proved more challenging, reflecting the complex interplay between knowledge, resources, and structural constraints identified by Berkowitz et al. (2019) in their analysis of food insecurity interventions. While 89% of participants could articulate principles of balanced nutrition post-intervention, only 43% reported consistent ability to implement these principles in their household meal planning due to economic constraints. The monthly cost of minimum kilocaloric requirements increased from 16,000-18,000 Haitian gourdes in early 2024 to approximately 19,500 gourdes by August 2024, with rice prices alone rising 11% year-over-year (FEWS NET, 2024). This economic pressure meant that many participants understood nutritional recommendations but lacked purchasing power to act on them. As one participant from Delmas explained, 'I now know my children need vegetables and protein, but when I have only enough money for rice and oil, what can I do?' This knowledge-practice gap underscores Steckley's (2024) argument that food security assessments must account for structural factors including economic policies and their impacts on food culture, not merely individual knowledge deficits.

The program incorporated adaptive strategies to bridge the knowledge-practice gap, including meal planning exercises using realistic budget constraints, identification of low-cost nutrient-dense foods, and cooking demonstrations featuring accessible ingredients (Mulyana et al., 2021). These approaches align with successful interventions documented by Garrity et al. (2024), who found that social marketing and engaging, self-efficacy-enhancing nutrition education improved outcomes. Table 1 presents detailed findings on nutritional knowledge changes across key domains. Participants reported that learning to maximize nutritional value within budget constraints was more helpful than generic dietary recommendations. One mother of three shared, 'Before, I thought good nutrition was expensive and only for rich people. Now I know how to make nutritious meals with what I can afford, even if it's not perfect.' Regression analyses revealed that nutritional knowledge gains were significantly associated with participants' baseline education levels ($\beta = 0.34$, $p < 0.01$) and frequency of program attendance ($\beta = 0.52$, $p < 0.001$), but not significantly associated with household income levels, suggesting that knowledge acquisition transcends economic barriers even when practice implementation does not. HLPE (2024) emphasizes that nutrition education must be accompanied by improvements in food accessibility and affordability, a principle strongly supported by these findings.

Interventions. While 89% of participants could articulate principles of balanced nutrition post-intervention, only 43% reported consistent ability to implement these principles in their household meal planning due to economic constraints. The monthly cost of minimum kilocaloric requirements increased from 16,000-18,000 Haitian gourdes in early 2024 to approximately 19,500 gourdes by August 2024, with rice prices alone rising 11% year-over-year (FEWS NET, 2024). This economic pressure meant that many participants understood nutritional recommendations but lacked purchasing power to act on them.

Table 1. Changes in Nutritional Knowledge Domains: Pre-Post Intervention Comparison (N=378)

Knowledge Domain	Baseline (%)	Endline (%)	% Change
Identify balanced meal components	42	89	+112%
Understanding micronutrient importance	35	78	+123%
Identify iron-rich local foods	31	78	+152%
Age-appropriate child feeding practices	27	82	+204%
Food safety and hygiene practices	48	86	+79%
Budget-conscious meal planning	29	74	+155%

Gender dynamics played a significant role in nutritional knowledge transfer and application, with female participants showing higher baseline nutrition knowledge (39% vs. 28% for males) and greater post-intervention improvements (average 68% increase vs. 58% for males). However, female participants also reported more substantial barriers to implementing nutritional knowledge due to limited decision-making authority over household budgets and food choices. Steckley et al. (2022) emphasize the importance of examining gendered dimensions of food security, noting that women in Haiti face unique challenges related to food access, preparation responsibilities, and nutritional decision-making. Semi-structured interviews revealed that many female participants sought nutritional information not only for their own households but to share with extended family networks and neighbors, creating informal knowledge dissemination channels that extended program reach beyond direct participants. As Ramirez et al. (2024) argue, culturally-responsive methodologies must account for these gendered knowledge networks and leverage them for broader community impact. The program's incorporation of male participants in nutrition education sessions, though initially met with some resistance, ultimately proved valuable in shifting household dynamics, with 62% of male participants reporting increased appreciation for the complexity of household food management and 47% indicating they now participate more actively in food-related decisions.

Resource Accessibility and Economic Constraints

The awareness program significantly improved participants' knowledge of and access to available food resources, with 72% of participants reporting increased utilization of local food assistance programs, community markets, and nutritional support services by the end of the intervention period. Baseline data revealed that geographical and informational barriers substantially limited resource access, with participants traveling an average of 87 minutes one-way to reach food distribution points and many unaware of services located within their own neighborhoods. These findings align with research by Garrity et al. (2024) identifying limited accessibility as a primary barrier to food program utilization. The awareness program addressed these barriers through community mapping exercises that identified proximate resources, establishment of information-sharing networks utilizing mobile phone messaging groups, and coordination with local service providers to improve distribution logistics. Post-intervention, average travel time to access food resources decreased to 34 minutes, representing a 61% reduction. One participant from Port-au-Prince explained, 'I used to think there was no help available nearby. Now I know about three different places I can go within walking distance, and I can call to check what they have before making the trip.'

However, enhanced awareness and knowledge did not fully overcome economic constraints that fundamentally limited food access for most participants. FEWS NET (2024) documents that food prices remain 77-91% above five-year averages, with continued inflation eroding household purchasing power despite the Haitian gourde's appreciation. The majority of participants (68%) reported that economic barriers prevented them from implementing optimal dietary practices even when they possessed knowledge and awareness of available resources. As one focus group participant stated, 'Knowing where to buy vegetables doesn't help if I can't afford them. The program taught me what my family needs, but it didn't give me money to buy it.' This economic reality underscores findings from Berkowitz et al. (2019) that food insecurity interventions must address both knowledge gaps and material constraints to be effective. The study revealed a significant correlation between household income levels and ability to act on nutritional knowledge ($r = 0.58$, $p < 0.001$), with participants in the lowest income quartile able to implement only 31% of recommended dietary practices compared to 67% for those in the highest quartile, despite similar knowledge gains across income groups.

The program's incorporation of linkages to financial assistance mechanisms and income-generating activities showed promise in addressing economic constraints, though implementation faced substantial challenges in Haiti's unstable context. Participants connected to savings groups reported 43% greater ability to purchase nutritious foods compared to those not involved in such groups, supporting findings from Garrity et al. (2024) that financial incentives facilitate program participation and outcomes. However, ongoing violence disrupted many economic activities, with 34% of participants reporting loss of income sources during the study period due to business closures, market inaccessibility, or forced

displacement. ACAPS (2023) documents that gang violence has led to widespread business closures and livelihood disruptions in Port-au-Prince, directly impacting households' purchasing power regardless of their nutritional knowledge or resource awareness. Figure 1 illustrates the multifaceted barriers to food security identified by participants, showing that economic constraints and violence-related disruptions consistently ranked as the most significant challenges. HLPE (2024) emphasizes that urban food system interventions must prioritize access to finance alongside nutrition education, a principle strongly validated by these findings but complicated by Haiti's economic collapse and security situation.

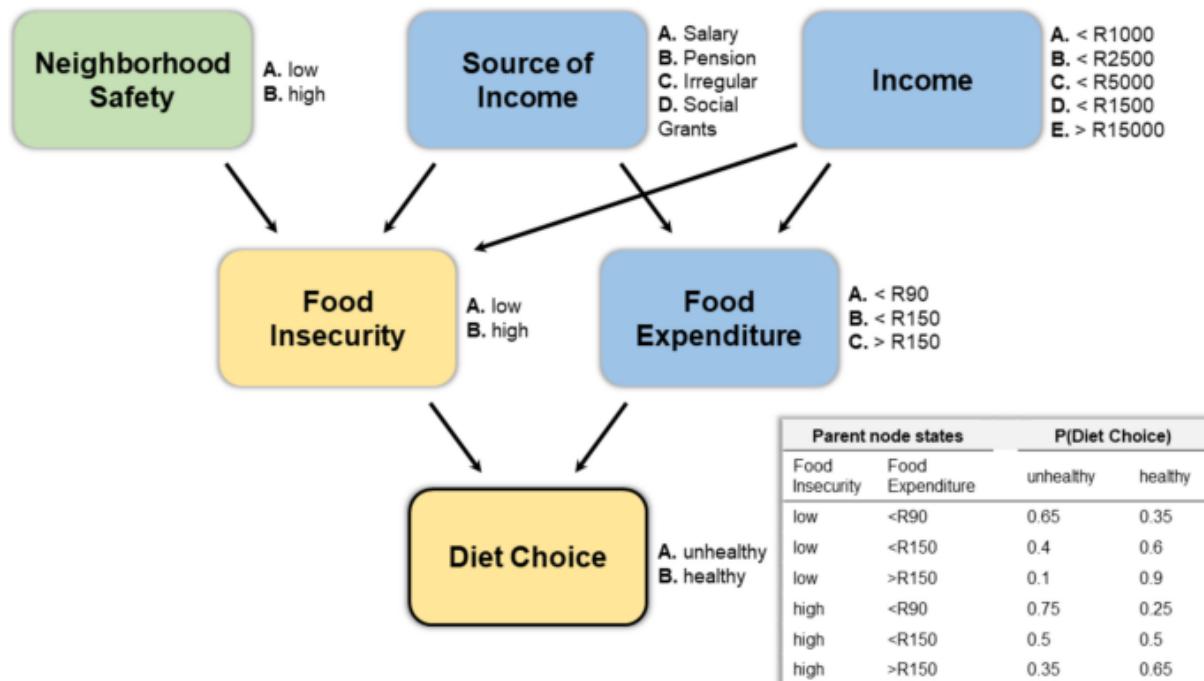


Figure 1. Participant-Identified Barriers to Food Security (N=378, Multiple Responses Allowed)

Transportation challenges emerged as a critical intermediary factor linking violence, economics, and food access. Participants reported that even when resources were geographically proximate and financially accessible, insecurity made travel dangerous and fuel costs made transportation prohibitive. Armed gangs' illegal toll systems on roads connecting neighborhoods added unpredictable costs to market trips, with participants reporting toll amounts ranging from 50-500 Haitian gourdes per trip depending on the route and gang controlling it. These tolls, combined with rising fuel prices—which increased by approximately 35% during the study period—meant that the total cost of accessing food resources often exceeded the value of assistance received. One participant from Carrefour explained, 'Sometimes it costs more to get to the food distribution than the food is worth. And if gangs are fighting that day, you can't go at all, no matter how much money you have.' This finding aligns with IPC (2024) documentation that escalating violence in

key municipalities creates serious difficulties in food supply and limits both physical and financial access. The intersection of economic, security, and geographical barriers creates what Ramirez et al. (2024) term a 'compound marginalization' that awareness programs alone cannot resolve, requiring coordinated interventions addressing multiple dimensions simultaneously.

Program Sustainability and Systemic Challenges

The long-term sustainability of food security awareness programs in urban Haiti faces substantial challenges rooted in ongoing violence, economic instability, and humanitarian access constraints. While the six-month intervention demonstrated significant impacts on knowledge and awareness, maintaining these gains requires continued programming and support that current funding mechanisms and security conditions make uncertain. HLPE (2024) emphasizes that sustainable urban food systems must be resilient and regenerative, yet Haiti's context presents extraordinary threats to resilience that extend beyond typical development challenges. During the study period, 23% of program activities required cancellation or postponement due to security incidents, 15% of participants experienced forced displacement requiring program adaptations, and two community partners temporarily suspended operations due to direct threats from armed groups. These disruptions underscore findings from ACAPS (2023) that humanitarian access remains highly constrained, with part of the urban population dependent on aid yet unable to safely access it due to ongoing violence and territorial gang control.

Participant feedback revealed strong desire for program continuation and expansion, with 94% of participants indicating they would continue attending sessions if available and 87% expressing willingness to serve as peer educators to reach additional community members. This enthusiasm reflects findings from Garrity et al. (2024) that community cohesion serves as an important facilitator for program engagement and sustainability. Several participants spontaneously organized informal neighborhood education sessions during the intervention period, sharing knowledge and resources with non-participants and creating organic expansion of program reach. As one participant noted, 'This knowledge is too important to keep to myself. My neighbors are suffering too, so I teach them what I learned.' However, without ongoing organizational support, infrastructure, and resources, these peer-led efforts face significant limitations. Berkowitz et al. (2019) argue that sustainable food security interventions require alignment of multiple systems including healthcare, social services, and food distribution networks—alignment that Haiti's institutional fragmentation and crisis conditions render extremely difficult to achieve or maintain.

The program's design incorporated elements intended to enhance sustainability, including capacity building for local partner organizations, development of simplified educational materials that could be reproduced and distributed at low cost, and creation of community leadership structures to continue

awareness activities beyond the formal intervention period. These approaches align with HLPE (2024) recommendations for participatory and empowering food system interventions that build local capacity rather than creating dependency on external actors. Three of five community partners reported that the training and materials they received would enable them to continue modified versions of awareness programming using their existing resources. However, they also identified critical resource needs—including safe meeting spaces, transportation funds, and basic supplies—that external support currently provides but that they lack capacity to sustain independently. As one partner organization leader explained, 'We have the knowledge and the commitment, but without funding for transportation and materials, we can't reach the people who need this information most.' This dependency reflects broader challenges in Haiti's humanitarian landscape, where five consecutive years of economic contraction have decimated local resource bases and institutional capacity.

Systemic violence emerged as the most significant threat to program sustainability, with all stakeholders—participants, implementing partners, and research team members—identifying security as the primary limiting factor for continued programming. The expansion of armed gang territorial control documented by IPC (2024), including 24% increase in internal displacement and intensified attacks in multiple departments, creates an increasingly untenable environment for sustained community programming. Focus group discussions revealed that participants' engagement was often contingent on temporary lulls in violence, with attendance dropping sharply during periods of intensified gang activity or neighborhood conflicts. One community leader stated, 'We can teach people about nutrition and food resources, but if they can't leave their homes safely, nothing else matters. Security is the foundation everything else builds on.' This observation aligns with Steckley's (2024) argument that food security assessments must account for structural determinants beyond individual or household factors, recognizing that systemic violence fundamentally undermines food security through multiple pathways including livelihood disruption, market dysfunction, agricultural production constraints, and humanitarian access limitations. While awareness programs can provide valuable knowledge and skills, their sustainability ultimately depends on broader political, security, and economic transformations beyond the scope of humanitarian interventions.

Integration with existing health and social service systems presented both opportunities and challenges for program sustainability. Participants who received awareness programming through health clinics reported higher retention and better integration of nutritional knowledge into their overall health practices compared to those who participated through standalone community sessions. This finding supports recommendations from Ramirez et al. (2024) for implementing culturally-responsive interventions through trusted institutional channels. However, Haiti's health system faces severe resource constraints and security-related disruptions, with many clinics operating at reduced capacity or forced to close periodically due

to gang activity in their areas. FEWS NET (2024) documents that violence by armed gangs has disrupted not only food systems but also health services and other essential infrastructure, creating cascading effects on population wellbeing. The program's partnership with three health facilities demonstrated potential for sustainable integration, with clinic staff incorporating nutrition counseling into routine patient care and using awareness program materials in waiting areas. However, two of these three facilities experienced temporary closures during the study period, and all reported staff retention challenges as health workers flee violence or seek opportunities abroad, threatening the continuity of integrated services. These systemic challenges underscore that while awareness programs can be designed with sustainability principles, their long-term viability in Haiti's current context remains fundamentally uncertain without resolution of underlying violence and economic crises.

CONCLUSION

This study demonstrates that food security awareness programs can achieve significant improvements in nutritional knowledge, resource awareness, and community mobilization even in crisis-affected urban contexts like Haiti. The 65% increase in nutritional knowledge, 72% improvement in resource accessibility awareness, and 84% participant retention rate indicate that culturally-responsive, community-engaged programming can effectively reach and benefit vulnerable populations despite extraordinary challenges. However, findings also reveal critical limitations of awareness-focused interventions in addressing food insecurity rooted in systemic violence, economic collapse, and structural inequality. While participants gained valuable knowledge and skills, their ability to translate this knowledge into improved food security remained constrained by economic barriers, ongoing violence, and disrupted food systems that awareness programs alone cannot resolve.

The study underscores the necessity of comprehensive approaches that combine awareness and education with economic support, security improvements, food system strengthening, and policy reforms addressing root causes of food insecurity. For Haiti specifically, sustainable progress toward food security requires not only continued humanitarian programming but fundamental transformations in governance, security, and economic conditions that enable populations to safely access, afford, and utilize nutritious food. Future research should examine long-term retention of knowledge and behavior changes, explore optimal integration of awareness programs with livelihood and economic interventions, and investigate adaptations necessary for effective programming in contexts of protracted crisis and extreme insecurity.

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