

Community-Driven School Nutrition Strategies in Guatemala: Insights from a Capstone Study in El Tejar

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Introduction / Need for Research

Guatemala has one of the world's highest rates of childhood stunting, affecting 47% of children under five and exceeding 70% in rural Indigenous areas (UNICEF, WHO, & World Bank, 2021). While the First 1,000 Days framework (Thurow, 2018) has guided early childhood interventions, school-aged children continue to face iron deficiency, low protein intake, and limited dietary diversity that hinder learning outcomes (Black et al., 2013).

Guatemala's *Ley de Alimentación Escolar* (2017) mandates daily school meals and local food procurement while the *Gran Cruzada Nacional por la Nutrición* (SEGEPLAN, 2020) promotes decentralized, community-led nutrition strategies. Yet implementation challenges persist. This study examines how local schools and partners adapt national policy to improve nutrition outcomes, reflecting AAAE's research values of learning, leadership, and community development.

Theoretical Framework

Guided by Community-Based Participatory Research (CBPR), this study emphasizes shared ownership, cultural relevance and collaboration (Jacquez, Vaughn, & Wagner, 2013). CBPR principles align with agricultural and extension education priorities that build local capacity through experiential learning and leadership.

Methodology

A qualitative case study was conducted in May 2025 in El Tejar, Chimaltenango, Guatemala. Data were collected through semi-structured interviews, site observations, and document review at five elementary and middle schools. Participants included school directors, cafeteria workers, NGO leaders, parent association members, and fellows from the USDA International Agricultural Fellowship Program (IAEFP).

Interviews were conducted in Spanish and English, transcribed, translated, and coded using the constant comparative method (Charmaz, 2014). Data were organized into themes of school feeding, community participation, agricultural linkages, and nutrition education.

Results, Products, and Conclusions

Stakeholders agreed that daily school meals serve as a lifeline for food-insecure students. However, protein-rich foods such as eggs, meat, and dairy were inconsistently available due to budget constraints and limited infrastructure. Meals typically consisted of rice, beans, corn tortillas, and fortified drinks. Several schools relied on school gardens for supplemental vegetables, though production levels were too limited to serve as primary ingredients. Cafeteria staff reported a sense of pride in their work but expressed concerns about the lack of infrastructure, time, and refrigeration capacity.

Community-based actors, particularly parent associations and local development councils (COCODEs), played a growing role in meal planning and procurement. Schools that successfully

partnered with these groups demonstrated higher levels of accountability, creativity, and flexibility. For example, one school worked with its COCODE to secure funding for kitchen renovations, while another employed mothers as paid cooks through a rotating cooperative model.

Implications / Recommendations / Impact

Findings from this case study offer practical insights for educators and development practitioners working in nutrition, school-based agriculture, and community engagement. First, national nutrition policies must be supported by localized training and infrastructure investment to ensure that schools can meet both caloric and nutritional benchmarks. Second, empowering parent associations and community leaders in school governance – especially around food purchasing and preparation – can improve ownership, accountability, and cultural relevance.

NGO partnerships and Extension programs should prioritize participatory design, long-term follow-up, and locally appropriate solutions, such as small-scale gardening, vertical planters, and protein sourcing through community-supported agriculture. Agricultural education can be a powerful vehicle for nutritional literacy, especially when tied to classroom instruction across disciplines. Finally, the findings highlight the need for continued capacity-building for cooks, garden coordinators, and local leaders – many of whom are women – who serve as the front line of food security for children.

This study contributes to the scholarship and practice of international agricultural and extension education by showing how participatory, school-based initiatives can strengthen nutrition and learning outcomes in resource-limited settings. The model developed in El Tejar offers a replicable framework for other regions or Latin America and the Global South.

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