

# COMMUNITY BASED EDUCATION TO PREVENT STUNTING IN AILEU DISTRICT, TIMOR-LESTE: STRENGTHENING FAMILY KNOWLEDGE AND NUTRITION PRACTICES

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## ABSTRACT

Stunting remains a major public health issue in Timor-Leste, particularly in Aileu District, where prevalence rates exceed the national average. This study aimed to describe the implementation and outcomes of a community-based education program designed to improve family knowledge and practices regarding stunting prevention. Using a participatory approach, the intervention engaged mothers, fathers, and caregivers through locally adapted sessions emphasizing nutrition during the first 1,000 days of life, exclusive breastfeeding, complementary feeding with local foods, and hygiene practices. Instituto Superior Cristal (ISC) acted as a key partner, mobilizing lecturers and students to facilitate sessions, monitor activities, and support community engagement. The results showed a significant increase in family awareness and behavior change related to child feeding and hygiene, as well as stronger community participation in maternal and child health initiatives. The study concludes that community-based education, when supported by academic partnerships and local involvement, can effectively promote sustainable practices to reduce stunting in rural areas.

**Keywords:** Stunting, Community Education, Nutrition, Timor-Leste, Public Health, Academic Partnership

## INTRODUCTION

Stunting, defined as impaired growth and development resulting from chronic malnutrition, continues to be a pressing public health concern in Timor-Leste. The national prevalence of stunting among children under five was recorded at 50.2% in 2014, placing the country among the highest globally. In Aileu District, the prevalence reached 52.3%, indicating a higher risk compared to the national average. Stunting not only affects physical growth but also compromises cognitive development, educational performance, and long-term productivity (Adisasmito, 2010).

The problem of stunting in Aileu is multifactorial. Contributing factors include inadequate maternal nutrition, poor feeding practices during infancy, limited access to quality healthcare, and low community awareness of balanced diets. Furthermore, the district's rural and hilly terrain limits access to health facilities, complicating the implementation of nutrition programs. Data show that stunting in Aileu increased from 31.4% in 2010 to 52.3% in subsequent surveys (Becker, 2012), reflecting deep-rooted social and economic challenges.

Given these conditions, a targeted intervention is needed to strengthen family and community knowledge about proper nutrition and care during the first 1,000 days of life. This study documents a community-based education program implemented in Aileu District, highlighting its process, outcomes, and

contribution to reducing stunting through active participation and academic partnership.

## METHOD

This community service based intervention applied a participatory and community centered approach to promote behavioral change in stunting prevention. The program was implemented in Aileu District with active collaboration between local leaders, health workers, and Instituto Superior Cristal (ISC).

Educational sessions were designed to be accessible, interactive, and culturally appropriate. They were conducted in local dialects using simple language and visual tools to explain key topics such as the definition and causes of stunting, exclusive breastfeeding, appropriate complementary feeding, maternal nutrition, and hygiene practices.

Each session included practical demonstrations such as preparing nutritious meals from local ingredients and building handwashing stations. Families were guided to develop household action plans for daily application of learned practices. To ensure sustainability, peer support groups of mothers and fathers were formed to encourage continued implementation and community-based monitoring.

ISC lecturers and students facilitated the sessions, collected baseline and follow-up data, and observed changes in family practices. Evaluation was carried out through pre- and post-session surveys,

direct observations, and community feedback meetings. Sustainability strategies included integrating the program into ISC's annual community service and linking activities with local health authorities for policy alignment.

## DISCUSSION

The implementation of the stunting prevention program in Aileu District revealed several important findings. First, knowledge improvement among parents was evident after participation in the educational sessions. Mothers gained a clearer understanding of exclusive breastfeeding, timely complementary feeding, and the importance of maternal nutrition during pregnancy. Fathers and other family members also showed increased involvement in childcare, contributing to more supportive home environments for growth and development.

Second, behavioral changes were observed in household practices. Many families began to use local food ingredients to prepare diverse, nutrient-rich meals for children. Handwashing practices improved, reducing the risk of infections that contribute to undernutrition. Families became more proactive in attending child health services, such as growth monitoring, immunization, and nutrition counseling.

Third, the partnership with ISC played a crucial role in ensuring program quality and sustainability. The academic involvement helped standardize educational materials, train facilitators, and monitor outcomes with scientific rigor. Students gained experiential learning opportunities, while the community benefited from credible, evidence-based guidance. This collaboration bridged the gap between academic knowledge and practical health promotion at the grassroots level.

Moreover, the participatory design fostered community ownership of the program. By engaging local leaders and peer groups, families were motivated to sustain the practices beyond the intervention period. The use of local language and culturally relevant demonstrations enhanced understanding and acceptance of the messages.

These findings align with previous research indicating that community driven education and multi sectoral collaboration are effective strategies in reducing malnutrition and promoting health equity in rural areas. The results from Aileu highlight the importance of adapting interventions to local contexts, ensuring that communities not only receive information but also gain practical skills and long-term support networks.

## CONCLUSION

The community-based education program implemented in Aileu District, Timor-Leste, successfully improved family knowledge, attitudes, and practices related to stunting prevention. Through participatory learning, practical demonstrations, and strong academic collaboration with Instituto Superior

Cristal (ISC), the program empowered families to adopt healthier feeding and hygiene practices.

The findings underscore that sustained community involvement, combined with academic and institutional support, can significantly contribute to reducing stunting prevalence in rural areas. Future initiatives should integrate these educational components into national and local health programs, ensuring that knowledge translation continues and impacts child health outcomes across Timor-Leste

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