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European Union



Nutrition Policy Brief

Determinants of Child Food Poverty in Lao PDR

June, 2024

A better understanding of the determinants on child food poverty (CFP) is crucial to inform and update nutrition-focused policies and programme decisions in Lao PDR.

This policy brief explores the intricate relationship between socio-demographic variables and CFP, shedding light on the multifaceted influences that shape this phenomenon. This brief highlights key findings from “Determinants of CFP in Lao PDR: Evidence from the Nutrition Sentinel Surveillance 2023”. The analysis was conducted by the Development Research Institute (DRI), Ministry of Planning and Investment (MPI), supported by the European Union and the United Nations Children’s Fund (UNICEF).

What’s at Stake?

Dietary diversity plays a significant role in maintaining children’s health and is utilized as a tool to measure dietary quality, micronutrient adequacy, and food accessibility.¹ Young children must consume a variety of nutritious foods to fuel their physical and mental growth. Research shows that consuming diverse foods during the first two years of life is associated with improved linear growth.² Conversely, a diet lacking in a variety of nutrient dense foods such as eggs, flesh food, dairy, fruits and vegetables can increase the risk of undernutrition (stunting, wasting, and underweight) and lead to irreversible setbacks in cognitive and physical development^{3,4}.

According to World Health Organization’s (WHO) recommendations from 2023, all infants and young children aged 6–23 months should consume a minimum of five out of eight food groups daily to ensure that nutrient needs are met. These food groups include: 1) grains, roots, and tubers, 2) legumes and nuts, 3) dairy products, 4) flesh foods, 5) eggs, 6) vitamin A-rich fruits and vegetables, 7) other fruits and vegetables and 8) breast milk.⁵

According to UNICEF’s definition, children who consume fewer than five out of the eight defined food groups are considered to be living in food poverty. Children consuming two or fewer of the eight defined food groups fall

¹ Khamis et al., 2019.

² Onyango et al., 2014.

³ Aguayo et al., 2016.

⁴ Aboagye et al., 2021.

⁵ World Health Organization, 2023.

under “*severe Child food poverty*”, while those consuming three or four out of the eight defined food groups are in “*moderate Child food poverty*”.⁶

In Lao PDR, only two-in-five (40.4 per cent) children aged 6–23 months meet the minimum dietary diversity, as reported by Lao Social Indicator Survey (LSIS III) conducted in 2022. Child food poverty is a pressing issue that intersects with multiple socio-demographic factors, significantly impacting the nutritional well-being and development of children worldwide. While economic factors play a significant role, it is crucial to recognize the broader socio-demographic landscape that contributes to this pervasive challenge.

Rationale for the Research Topic

Globally, one-in-three children live in severe food poverty. In East Asia and the Pacific, 70 million children under the age of five are experiencing food poverty, of whom 20 million suffer from severe food poverty. In South Asia, half of all children experiencing food poverty live in severe food poverty.⁶

Given the wealth of evidence-based studies globally on the effect of severe CFP on stunting and wasting, it is vital to investigate the influence of socio-demographic variables on this pressing challenge. By delving into the influence of maternal dietary diversity, household food consumption and socio-demographic variables – such as income level, household composition, parental education, and geographical location – we can gain a deeper understanding of the complex dynamics underlying CFP. This nuanced perspective is essential so insightful information and evidence can inform targeted interventions and policy strategies aimed at effectively addressing this critical issue.

Research Approach

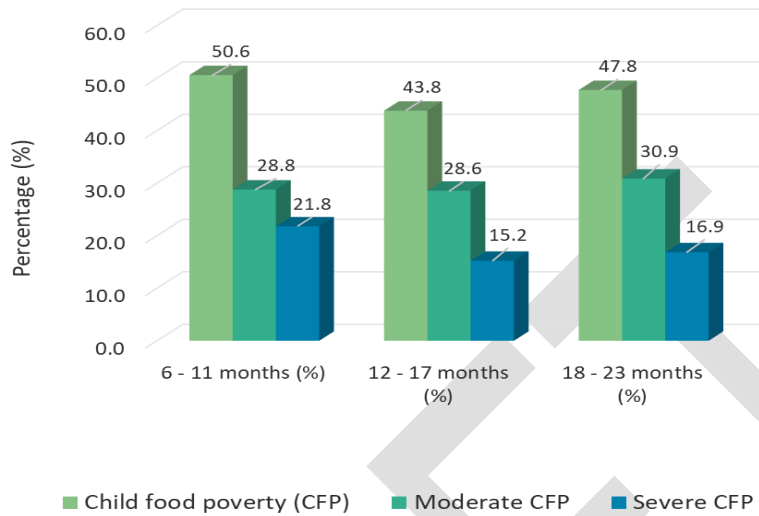
This study seeks to fill these research gaps by examining the influence of socio-demographic variables (region, family size, maternal education, maternal age, breastfeeding status, and food consumption score) as well as their associations with CFP. The analysis is based on Nutrition Sentinel Surveillance data collected during the post-harvest season (October to November 2023) by the Centre of Nutrition (CN), UNICEF and WFP, with funding from the European Union. A total of 1,487 households were surveyed across all three regions of Lao PDR. Among these, 645 children aged 6–23 months with complete information on dietary diversity provided by their mothers or caregivers were included in the study after cleaning and removal of incomplete entries.

Key Findings

Despite being in the post-harvest season, approximately one-in-two children were experiencing CFP in Lao PDR. Its severity was most acute among children aged 6–11 months (22 per cent), followed by 15 and 17 per cent among children aged 12–17 months and 18–23 months, respectively (Figure 1).

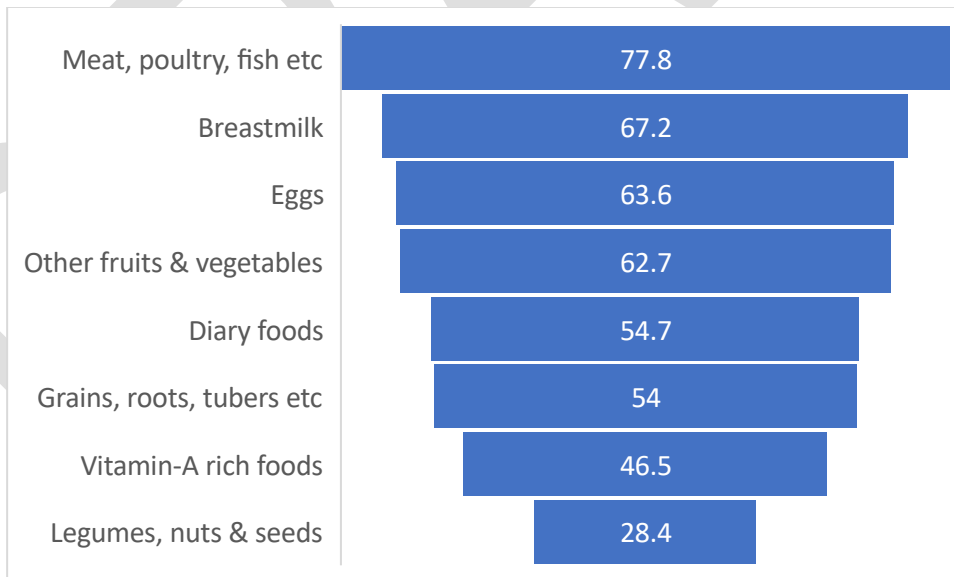
⁶ UNICEF, 2022

Figure 1. Percentage of children aged 6–23 months in CFP in Lao PDR



The 24-hour dietary recall collected from mothers on their child’s minimum dietary diversity showed low consumption of Vitamin A-rich fruits and vegetables, as well as legumes, nuts, and seeds in this age group. This underscores the necessity of targeted educational interventions, counselling, and behaviour change interventions to ensure the population meets its minimum dietary diversity needs (see Figure 2).

Figure 2. Percentage of food groups consumed by children aged 6–23 months in 24 hours (%)

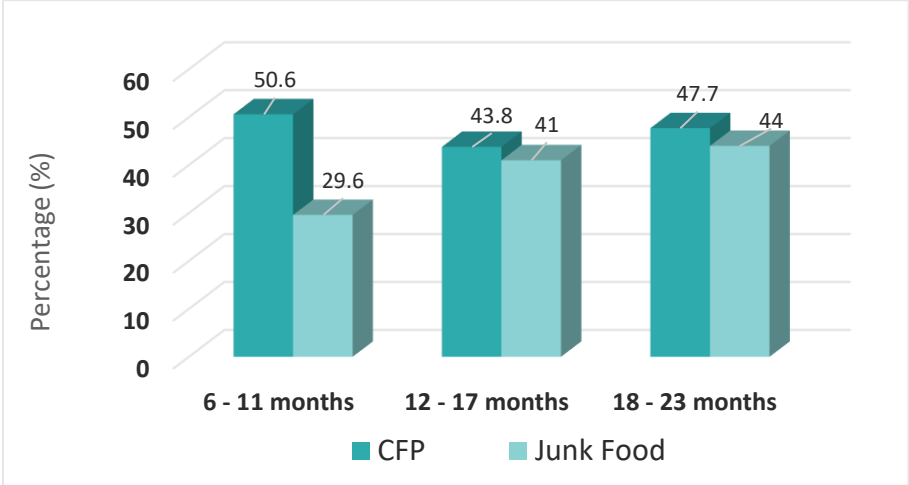


Further examination of children’s food intake revealed that more than one-third of children consume unhealthy (“junk”) food, such as ultra-processed foods and sugary drinks. These foods are energy-dense, nutrient-poor, and high in salt, sugar, saturated and/or trans fatty acids, as defined by the WHO.⁷ The consumption of junk food is comparatively higher by children aged 18–23 months than by those aged 6–11 months because of their higher

⁷ WHO and UNICEF, 2021.

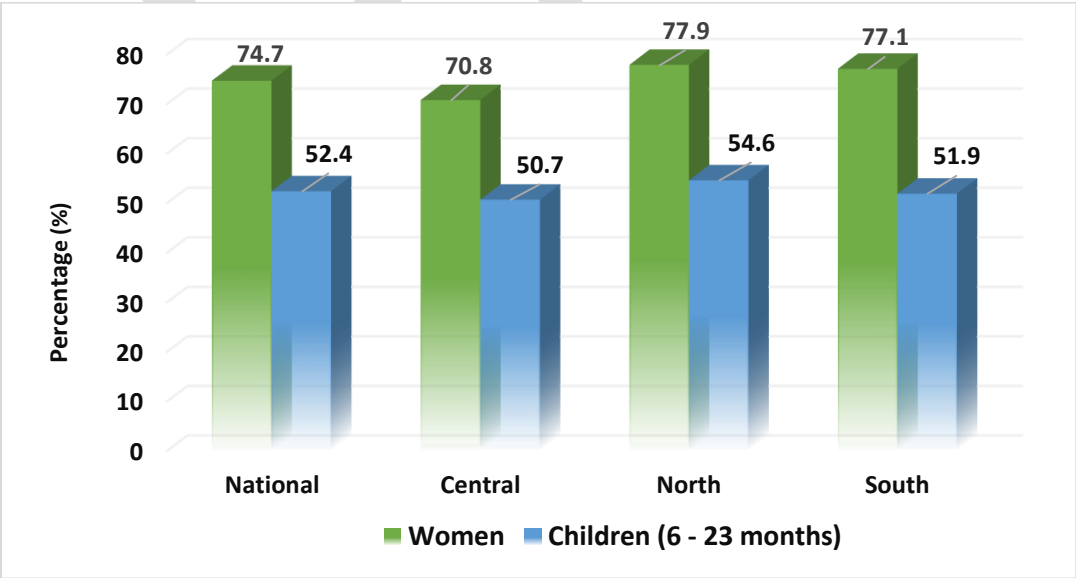
probability of eating a family diet which may include ultra processed food (see Figure 3), consistent with a study done in Lebanon.⁸ Possible reasons could be easy access to junk food and its convenience in preparation compared to healthy food, thus impacting diversity of diets. Furthermore, advertisements of junk food could be among many reasons for introducing these unhealthy foods to children.⁹

Figure 3. Percentage of CFP and consumption of “junk” food by children aged 6–23 months in Lao PDR



Interestingly, it is observed that the percentage of children meeting the minimum dietary diversity is lower (52 per cent) than that of women (75 per cent) (see Figure 4). This could suggest that within the same household, foods are available for consumption by women, but may not be provided to children.

Figure 4. Percentage of women and children aged 6–23 months meeting minimum dietary diversity in Lao PDR



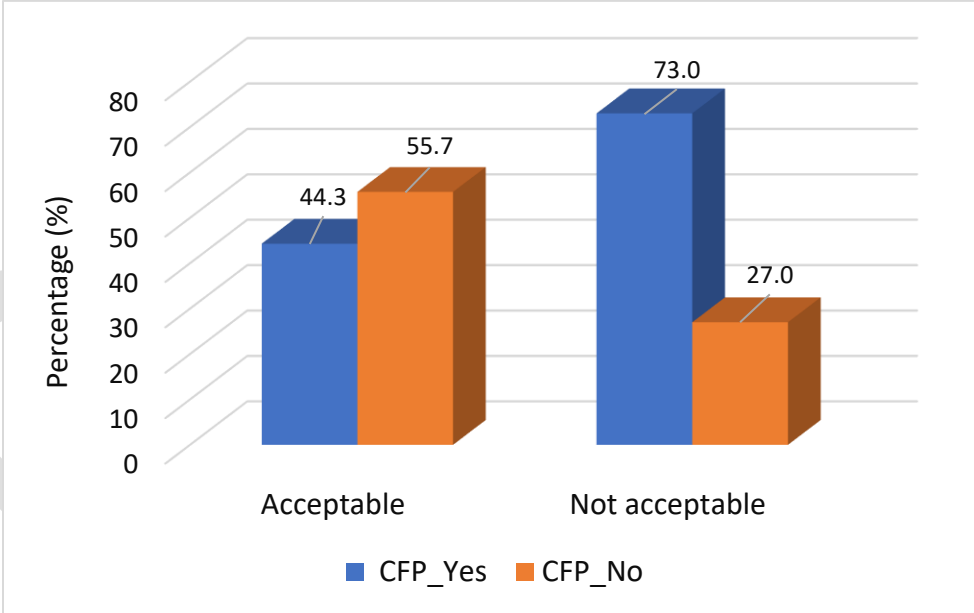
⁸ Naja et al., 2023.

⁹ SNV, 2024.

One of the reasons for young children’s lack of dietary diversity could be they are being raised by others (grandmother/relatives)¹⁰ who might have limited knowledge of healthy feeding practices for young children. Disparities in dietary diversity between children and women within households indicate a need for enhanced awareness and practices regarding appropriate feeding for infants and young children among caregivers. Additionally, cultural preferences and social norms within households or communities can influence dietary choices for children. Traditional diets or cultural practices may prioritize certain types of foods over others, potentially limiting the variety of foods consumed by children.

Further analysis revealed 73% children are experiencing child food poverty in households with unacceptable FCS compared with 44% in households with acceptable FCS (Figure 5) The FCS indicator is used to assess household food security. This is a composite score based on households’ dietary diversity, food consumption frequency and relative nutritional importance of different food groups. An association between poor household food consumption and child poverty is apparent. However, it is noteworthy that in households with acceptable food consumption, almost half (44 per cent) of children still experience child food poverty. This implies that households have sufficient food, but children are deprived of it. Although, there is a significant difference in the percentage of CFP between households with acceptable and unacceptable food consumption, the analysis affirms that the availability of food in households has less to do with CFP and more with caretakers’ lack of knowledge of children’s healthy feeding practices.

Figure 5. Association between household FCS and CFP in Lao PDR



The association between socio-demographic variables and CFP found that maternal education and continued breastfeeding after one year show protective effects against CFP. This underscores the importance of education and breastfeeding support in addressing nutritional deficiencies. It also suggests that mothers with lower education levels may have limited knowledge about nutrition, restricted access to high-quality food sources, lower

¹⁰ Ruiz-Casares, M., 2013.

incomes, and a higher likelihood of purchasing ultra-processed food (junk food) rather than recommended healthy foods.¹¹

Table 1. Influence of socio-demographic variables on CFP in Lao PDR

Socio demographic factors	OR (95% CI)	AOR ¹ (95% CI)
Child Food Poverty		
Region		
Central	<i>Ref</i>	<i>Ref</i>
North	.85 (.61 - 1.21)	.90 (.63 - 1.21)
South	.95 (.63 - 1.44)	.73 (.47 - 1.16)
Household size		
>5 members	<i>Ref</i>	<i>Ref</i>
<= 5 members	.79 (.58 - 1.10)	.77 (.55 - 1.10)
Maternal age		
15–19 years	<i>Ref</i>	<i>Ref</i>
20–29 years	.85 (.58 - 1.39)	.93 (.56 - 1.54)
30–39 years	.73 (.43 - 1.23)	.76 (.43 - 1.35)
40–49 years	1.62 (.44 - 5.98)	1.12 (.47 - 1.16)
Maternal education		
Primary or less	<i>Ref</i>	<i>Ref</i>
Secondary	.59 (.42 - .82)*	.60 (.42 - .85)*
Post secondary	.29 (.16 - .52)*	.27 (.15 - .51)*
Continued breastfeeding		
No	<i>Ref</i>	<i>Ref</i>
Yes	.65 (.47 - .91)*	.54 (.38 - .77)*
Food consumption score		
Unacceptable	<i>Ref</i>	<i>Ref</i>
Acceptable	.29 (.17 - .51)*	.31 (.17 - .54)*

Notes: OR, Odd Ratio; AOR, Adjusted Odd Ratio; Ref, reference group; Asterisks mark statistically significance at the 5 per cent (*).¹ Adjusted for all variables in the table.

Policy Recommendations

In light of the analysis results, the following recommendations are suggested:

Prioritize the eradication of CFP, especially severe cases, by elevating it to a national development priority. This entails building a culture of improved nutritional diets.

For the health system:

¹¹ Jemere et al., 2023.

- Enhance caregivers' access to timely counselling and promotion of safe, adequate, varied and healthy diets for children aged under five years.
- Improve health services by expanding investments in the recruitment, training, supervision, and motivation of community-based health workers.
- Develop national standards and legislation to protect young children from unhealthy ultra-processed foods and beverages, as well as harmful marketing practices directed at caregivers.

For the food system:

- Implement behavior change interventions aimed at encouraging the consumption of diverse diets, with a specific emphasis on less-consumed foods such as vitamin A-rich fruits and vegetables, legumes, nuts, and seeds.
- Agriculture sector to play a central role in raising awareness of nutrition-sensitive agriculture and encouraging home gardening. Additionally, there is a need to coordinate with other sectors to improve and develop production system to ensure food security at household and national levels.

For the social protection system:

- Advocate for the establishment of workplace- or community-based systems designed to support mothers in caring for children under the age of two.
- Expand social safety nets to include targeted cash transfers or food vouchers specifically for households with children under two years old to eradicate CFP, particularly severe cases during early childhood. These transfers should also aim to reduce the need for economic migration among mothers.
- Use social protection programmes to improve caregivers' understanding of child feeding and nutrition through educational initiatives, counselling services, and promotion of essential nutrition services.

For the education system:

- Enable access to education for girls and implement strategies to ensure their retention.
- Integrate practical cooking and nutrition education into school curricula, equipping children with essential life skills for healthy eating and food preparation.
- Promote the establishment of school gardens and nutrition-focused extracurricular activities to reinforce nutrition education and encourage healthy eating habits among students.

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