



Strategies to increase micronutrient intakes among Laotian women adhering to traditional postpartum dietary restrictions

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INTRODUCTION

- Culturally determined, highly restrictive diets are common among postpartum women in Lao People's Democratic Republic (Lao PDR)⁽¹⁻²⁾.
- This places lactating women, and consequently their breastfed infants, at high risk of micronutrient deficiencies.
- Food fortification or micronutrient supplementation may help to prevent micronutrient deficiencies during this time, although this has yet to be explored.

PURPOSE

- To describe commonly consumed and restricted foods and the attainment of minimum dietary diversity (MDD-W) among postpartum women in Lao PDR.
- To explore if fortified condiments and supplements would be suitable strategies to improve micronutrient intakes among women adhering to postpartum dietary restrictions.



Lao Thiamine Study

LITERATURE CITED

1. Barennes *et al.* (2009) *Eur J Clin Nutr* 63, 323-331
2. de Sa *et al.* (2013) *Matern Child Nutr* 9, 452-466
3. Hess *et al.* (2020) *BMJ Open* 10, e036539
4. FAO & FHI 360 (2016)

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METHODS

- Data were collected from 680 mother-child pairs participating in a recently completed* hospital- and community-based prospective cohort study in Luang Prabang, Lao PDR⁽³⁾.
- Mothers reported which foods and condiments were either consumed or restricted in weekly (for the first four weeks) and monthly intervals postpartum.
- Mothers were also asked if they would be willing to take supplements during this time if provided to them by health centers (n = 415).
- Dietary intake in the previous 24 hours was gathered to determine MDD-W (consumption of ≥5 out of 10 defined food groups)⁽⁴⁾.

RESULTS

- Mean child and maternal age was 4.3 ± 3.3 months and 24.7 ± 6.3 years respectively, 95% of mothers were breastfeeding their child and 34% of households were moderately to severely food insecure.
- 97% of women reported adhering to food restrictions after delivery for a median (IQR) duration of 1 (1, 3) month (range 1 week to 36 months).
- White rice was consumed universally postpartum. Other diverse foods were highly restricted and consumed by <32% of women in the first month (**Figure 1**).
- MDD-W was achieved by 10.4% of women currently restricting their diet and 16.4% who had resumed/were consuming their normal diet (p = 0.04).
- **Table 1** shows the habitual and postpartum condiment use among the women asked (n = 480).
- 87% of women reported that they would take supplements during the period of dietary restrictions.

Table 1. Proportion of women, n (%), who habitually consumed condiments and who continued to consume or restricted condiments during postpartum dietary restrictions

	Salt	Fish sauce	Soy sauce
Habitually consumed	479	208	256
Continued to consume during dietary restrictions	479 (100)	96 (46)	158 (62)
Stopped consuming during dietary restrictions	0 (0)	112 (54)	98 (38)

* Data collection was completed in December 2020 and the results have been updated to include the final sample size.

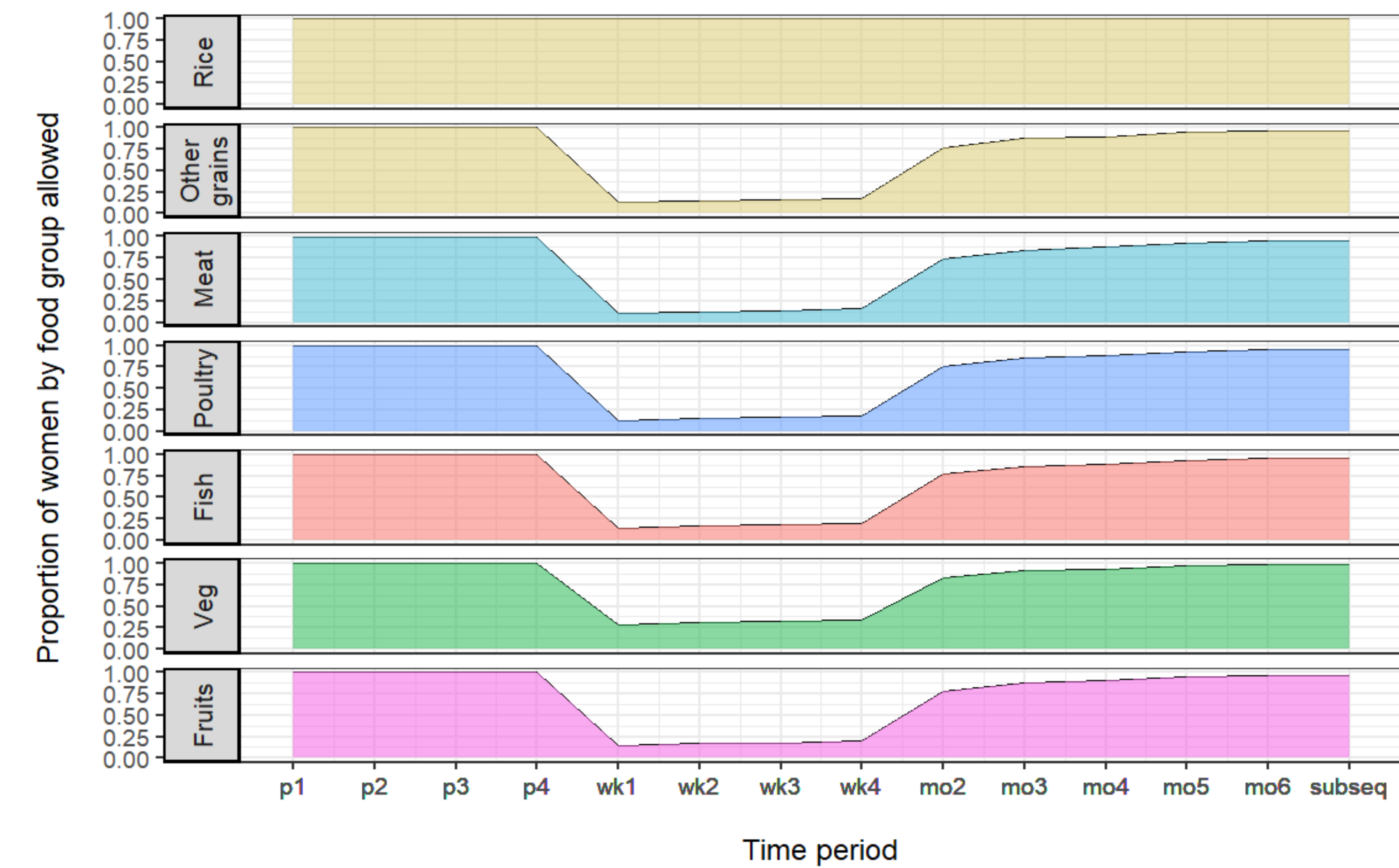


Figure 1. Proportion of women reporting consumption of foods groups during pregnancy and postpartum

p1 = trimester 1; p2 = trimester 2; p3 = trimester 3; p4 = before delivery; Postpartum period is in weekly intervals for the first 4 weeks (wk1 – wk4), monthly intervals until 6 months (mo2 – mo6) and then subsequent months (months 7-18)

DISCUSSION AND IMPLICATIONS

- Postpartum dietary restrictions and poor dietary diversity are widespread among women in Lao PDR.
- This likely contributes to micronutrient deficiencies in mothers that may have important consequences for their breastfed infants through reduced micronutrient content of breastmilk, which requires further exploration.
- Salt fortification with micronutrients and supplementation could be viable strategies to increase micronutrient intakes among women.

