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## Traditional postpartum food restrictions among women in northern Laos: preliminary analysis of an ongoing prospective cohort study

T.J. Smith<sup>1</sup>, X. Tan<sup>1</sup>, C.D. Arnold<sup>1</sup>, D. Sitthideth<sup>2</sup>, S. Kounnavong<sup>2</sup> and S.Y. Hess<sup>1</sup>

<sup>1</sup>*Institute for Global Nutrition, University of California Davis, Davis, California, USA and*

<sup>2</sup>*Lao Tropical and Public Health Institute, Vientiane, Lao People's Democratic Republic*

Highly restrictive, deeply rooted traditional diets are common among postpartum women in Laos, with some women limiting their diet to just rice and salt after delivery<sup>(1,2)</sup>. Animal source foods and vegetables may also be consumed, often in small quantities<sup>(1)</sup>. Food restrictions continue for 2 days to 2–3 years and vary between, and even within, different ethnic groups. Although local knowledge of restrictive diets is widespread in Laos, there has been little in-depth exploration of these practices. The aim of this analysis was to describe commonly consumed and restricted foods and attainment of minimum dietary diversity (MDD-W) among postpartum women in Laos.

Data were collected from 323 mother-child (aged 21 days - <18months) dyads participating in the Lao Thiamine Study<sup>(3)</sup>, an ongoing prospective cohort study in Laos. Mothers reported which foods were either consumed or restricted in weekly (for the first four weeks) and monthly intervals postpartum until 6 months and then subsequent months (7–18). Dietary intake in the previous 24 hours was gathered to determine MDD-W<sup>(4)</sup>. K-means cluster analysis classified women into groups based on similar food group restriction patterns.

Mean  $\pm$  SD maternal age was  $24.9 \pm 6.5$  years and 95% were breastfeeding their child. Almost all women (97%) reported adhering to food restrictions after delivery for a median (IQR) length of time of 1 (1, 3) month (range 1 week to 36 months). Rice consumption was universal throughout the postpartum period. Cluster analysis revealed four distinct dietary patterns. One cluster of women were characterised by very restrictive diets in postpartum months 1 and 2, with less than 10% of women consuming any type of meat, poultry, fish, eggs, vegetables or fruits for 2 months ( $n = 60$ ). A second cluster of women were the least restrictive, with 67–100% of women consuming most food groups ( $n = 45$ ). A third cluster widely consumed vegetables in the first month postpartum (92–100%), but with minimum consumption of all other food groups (<15%) ( $n = 52$ ). A final cluster of women were very restricted in the first month postpartum, with only 0–6% of women consuming food groups other than rice, but who resumed their normal diet in the second month postpartum ( $n = 161$ ). Tradition within the family or ethnic group was the primary reason for following food restrictions reported by 82% of women. Just 16% of women achieved MDD-W. Among women not following a restricted diet at the time of the interview, 18% achieved MDD-W, compared to 11% of women following dietary restrictions at the time ( $p = 0.12$ ).

Postpartum dietary restrictions are widespread among women in northern Laos. These highly restrictive diets and poor dietary diversity likely contribute to micronutrient deficiencies in mothers that may have important consequences for their breastfed infants through reduced micronutrient content of breastmilk, which requires further exploration.

### References

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