

# Raising the Bar for Child Health and Nutrition: Insights from Lao PDR

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# Get to know about Lao PDR



4 ethno-linguistic groups

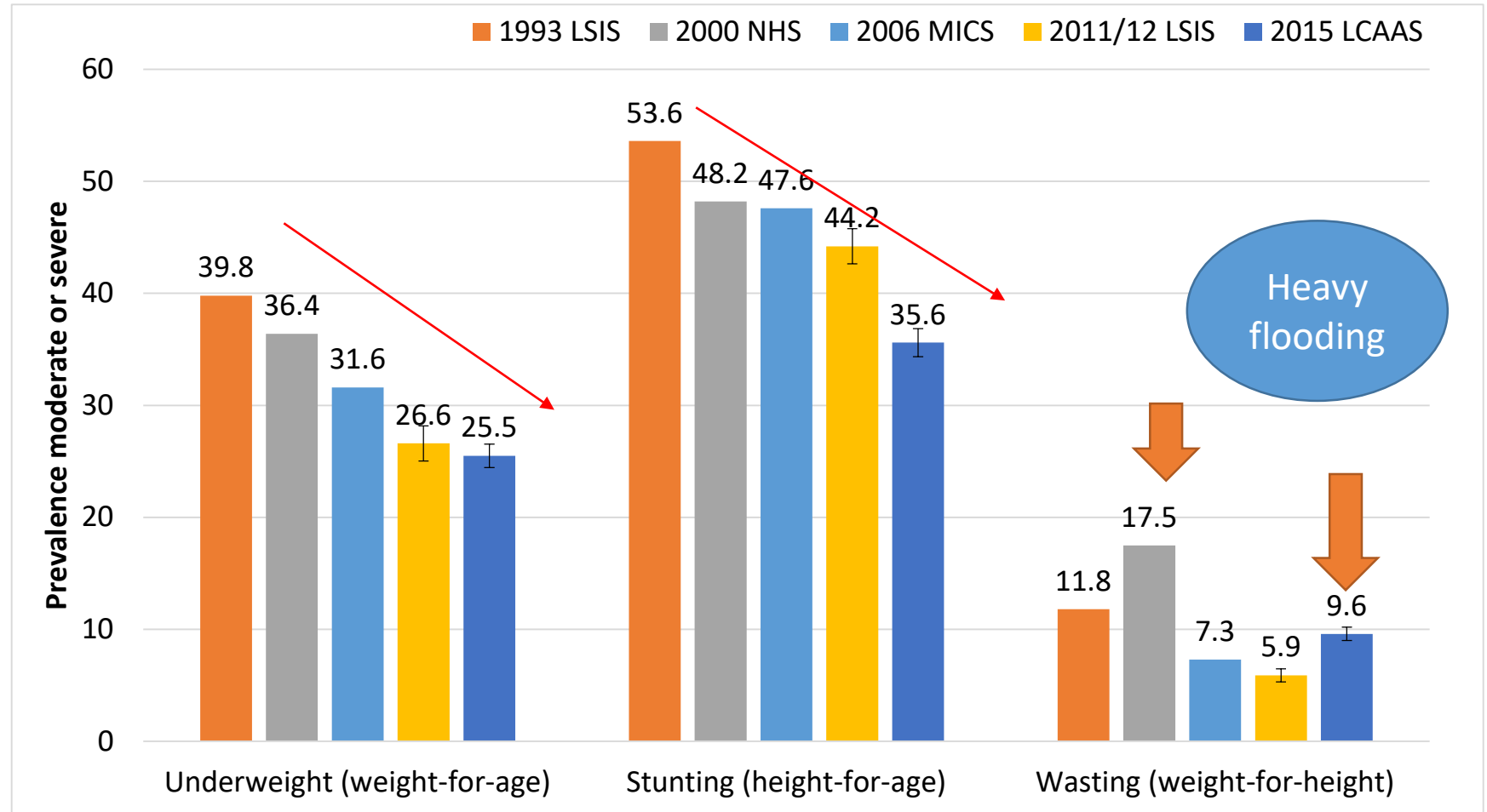


1. Lao-Tai (62.4%)
2. Mon-Khmer (23.7%)
3. Hmong-Lu Mien (9.7%)
4. Chine-Tibetan (2.9%)

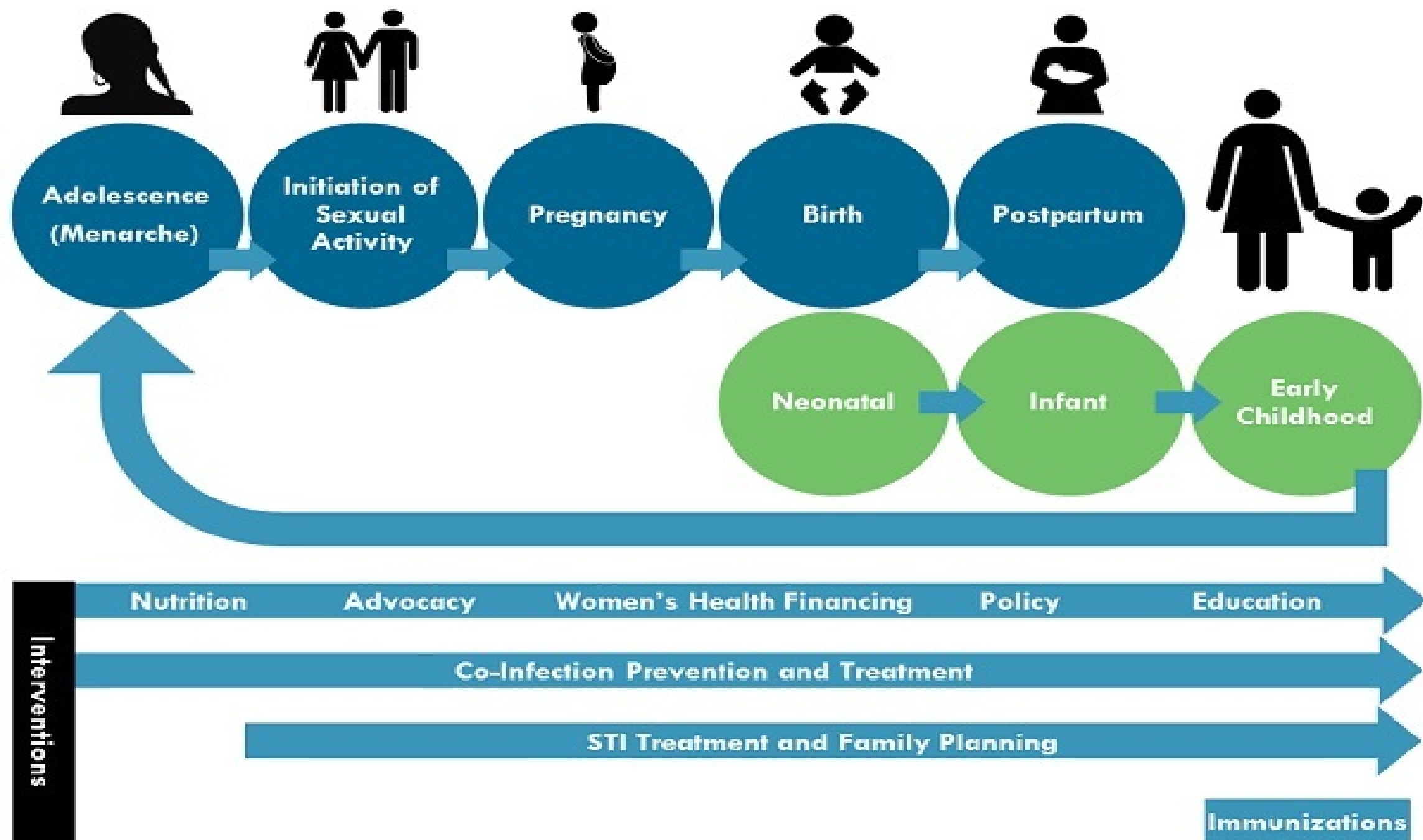
50 ethnic groups



# National trends in nutritional status of children under age 5, 1993-2015



1993-2006 data retrieved from 2015 UNICEF-WHO-World Bank Joint Child Malnutrition Estimates



### Challenges

- Persistent malnutrition
- Food insecurity including access and affordability of nutritious foods
- “Traditional” food system, subsistence agriculture, but increased consumption of unhealthy foods
- **Population** Inequality and vulnerabilities **and increasing risks – including climate change**
- Multitudes of interpersonal and socio-cultural factors influencing food choices and behaviors
- Siloed approaches: agriculture, trade, health & education are separate
- Insufficient **data**
- **Recent** prioritization of economic value in agricultural production and limited focus on consumers

### Opportunities

- Role of agricultural production for nutrition is clear - guidance and recommendations are available
- Formative research on social norms on feeding and consumption available for some population groups
- Use existing multisectoral coordination mechanisms for nutrition to support broader food system
- Sectoral programmes (edu, social protection, health etc.) can be combined with interventions to influence consumption choices
- Private sector interest to contribute to nutrition outcomes



### Policies

- NSEDP and Agriculture Development Strategy - food and nutrition security as a key goal
- National Nutrition Strategy & Plan of Action
- ASEAN Declaration on Ending All Forms of Malnutrition
- But, sector specific action plans must reflect contributions
- Few policies targeting the creation of a healthier food environment:
  - Decree on Food Products & Feeding Equipment for Infants & Toddlers

### Practices

- Poor food consumption practices across population groups/life stages
- Beliefs and social norms
- Availability & affordability of food limits diets and intake of key nutrients
- Food system currently provides little positive impact on diets
- “Convergence”: openness to work across sectors, but scale is limited





## Possible Synergies

1. **Food chains**: Work to increase safe & nutritious food for all within agricultural production, post-harvest food processing, distribution, natural resources management
2. **External food environments**: Work in cooperation with markets & schools to improve & maintain food safety, improve & incentivize nutritious food choices in those locations
3. **Personal food environments & behaviors**: Focus on food consumption social norms, including social media



## Possible Trade-Offs

1. **Food production – child care:** Rural women may have to choose between producing food for the household and providing care for infants and young children.
2. **Cash crops – nutrition:** Increased cash crop production & income may not translate into safe & nutritious food choices.
3. **Markets – food safety & nutrition:** More developed markets may not be consistent with food safety & nutrition and may not be responsive to the most vulnerable.





# Research activities to Support Health Care Quality



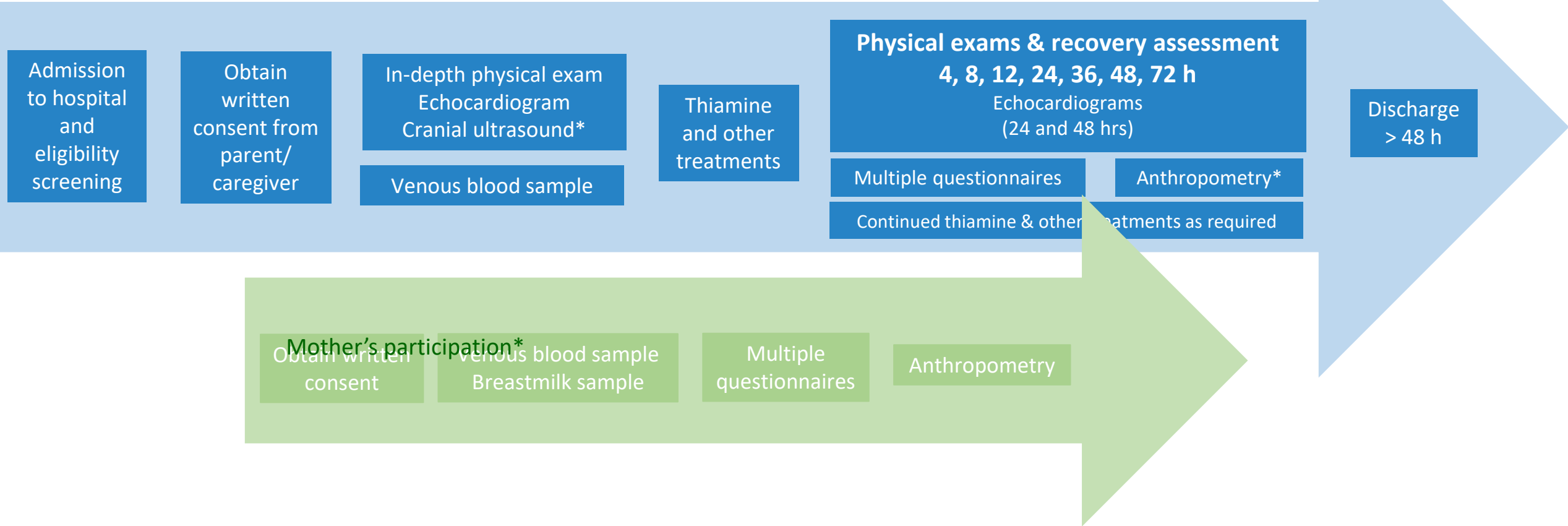
**Prospective cohort study to develop a case definition of thiamine responsive disorder  
(2018-2021)  
*Preliminary results***

# Prospective cohort study to develop a case definition of thiamine responsive disorder (2018-2021)

*Preliminary results*



Children's participation



## Flow of Study Activities in Hospital

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

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Lao Thiamine Study

## INTRODUCTION

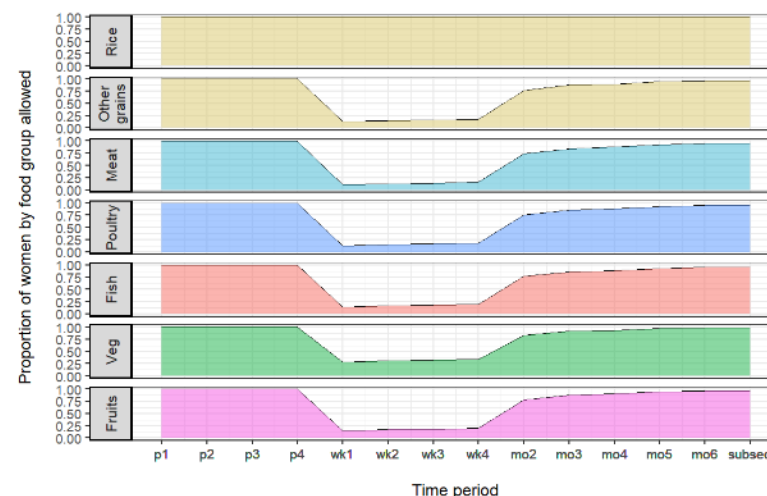
- Highly restrictive, deeply rooted traditional diets are common among postpartum women in Lao People's Democratic Republic (Laos)<sup>(1-2)</sup>.
- The aim of this analysis was to describe commonly consumed and restricted foods and attainment of minimum dietary diversity (MDD-W) among postpartum women in Laos.

## METHODS

- Data were collected from 323 mother-child (aged 21 days - <18months) dyads participating in the Lao Thiamine Study<sup>(3)</sup>.
- Mothers reported which foods were either consumed or restricted in weekly and monthly intervals postpartum.
- 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.

## REFERENCES

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



**Figure. 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)

## CLUSTER ANALYSIS

### Highly restrictive for 2 months postpartum (n = 60)

- <10% of women consumed any type of meat, poultry, fish or fruit

### Least restrictive (n = 45)

- 67 – 100% of women consumed foods from most food groups postpartum

### High vegetable consumption (n = 52)

- 92 – 100% of women consumed vegetables for the first month postpartum
- <15% of women consumed any type of meat, poultry, fish or fruit

### Highly restrictive for 1 month postpartum (n = 161)

- 0 – 6% of women consumed any type of meat, poultry, fish, vegetable or fruit
- Resumed their normal diet in the second month postpartum

## RESULTS

- Mean maternal age was  $24.9 \pm 6.5$  years and 95% of mothers were breastfeeding their child.
- 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).
- 82% of women reported tradition within the family or ethnic group was the primary reason for following food restrictions.
- 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).

## CONCLUSIONS

- 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.






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BILL & MELINDA GATES foundation





# Key Messages of the Intervention

During Pregnancy	After Birth	Breastfeeding	Complementary Feeding	Child Illness
				
Eat extra food at every meal (especially iron-rich, protein-rich foods)	Put baby to breast as soon as they are born	Breastfeeding often (day and night) and get baby full	Baby can now have food other than breastmilk after 6 months (include animal protein)	Identify and monitor symptoms
Take pregnancy vitamins daily	Give baby first milk (colostrum)	Do not give baby any other food or drinks except breastmilk	Continue breastfeeding to get baby full	Encourage frequent breastfeeding and include protein-rich complementary foods
Go to ANC visits	Keep baby with you and practice kangaroo care	Mothers eat extra food at every meal	Make feeding times fun	Know when to take child to health centre or hospital
Plan for health facility birth or with birth attendant	Do not give baby any other food or drinks except breastmilk	Wash hands after changing baby pee/poo		
Wash hands before cooking and eating				





Swiss TPH



# Vientiane multi-Generational Birth Cohort (VITERBI) (2021-2023)

## Primary Objectives

Establish a multi-generational birth cohort

Will be used for observation and interventional studies

Capacity building:  
place for the internship  
and research of master  
students

Breastfeeding  
study

VITERBI-GUT  
study



Improving  
Quality of  
Care:  
Screening  
Combating  
Cholangio-  
carcinoma in  
Lao PDR





## Ensure Healthy Foods and Better Nutrition



Thank you very much  
for your kind attention



Lao Tropical and Public Health Institute

