

Feeding practices and nutritional status of 10-14-month-old Thai children participating in a stable iron isotope study

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1 Background

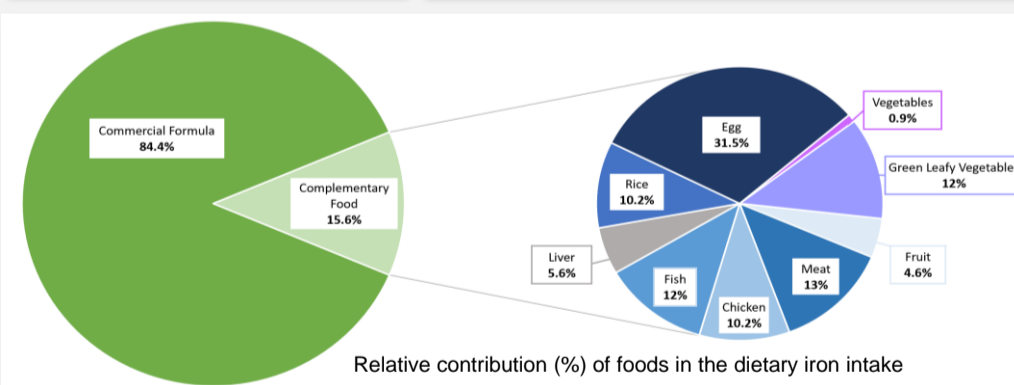
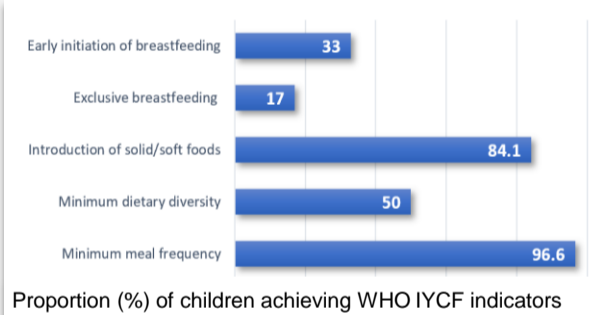
In Thailand, where **breastfeeding rates are low** and **complementary foods mostly consists of rice**, and small portions of meats, fruits and vegetables, **micronutrient deficiencies, such as iron**, remain a major public health problem among infants and young children^{1,2,3}. Therefore, it is crucial to evaluate feeding practices and their relationship with nutritional status to **identify strategies to improve nutrition** and health of children under the age of two.

2 Objective

The main objective of this thesis was **to evaluate feeding practices and to assess nutritional status** in 10-14-months-old Thai children participating in a stable iron isotope study

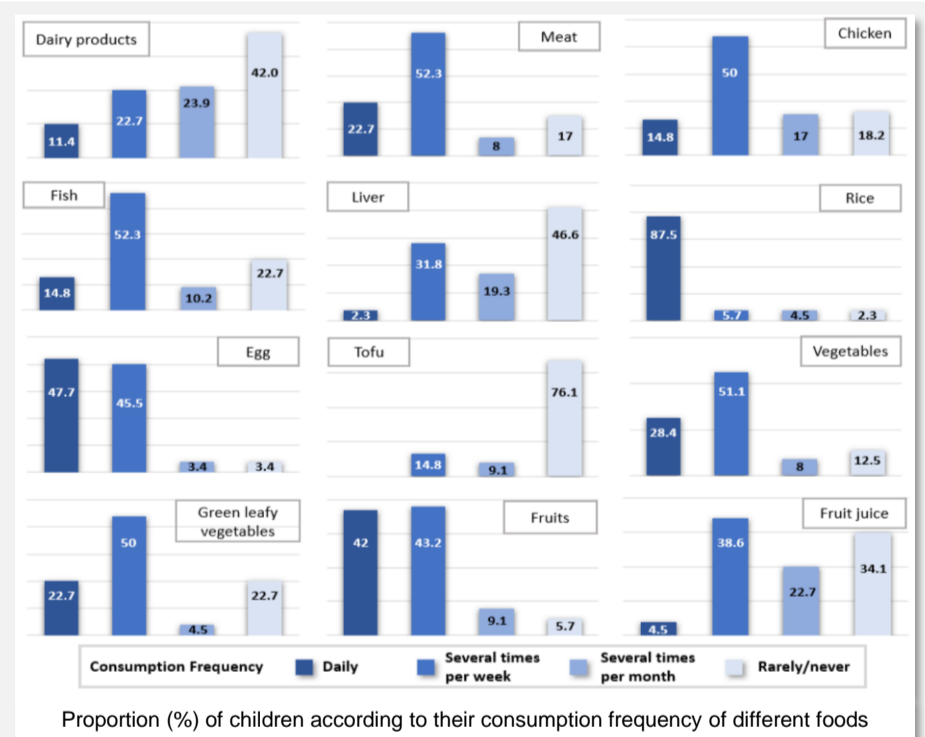
4 Results

Nutritional Status	Screening (n=88) Mean [SD] or n (%)
Hb (g/L)	107.6 [14.5]
Anemia (Hb < 110 g/L)	49 (55.7)
WAZ	-0.06 [0.97]
Underweight (SD <-2)	0 (0)
WHZ	0.09 [1.00]
Wasting (SD <-2)	2 (2.3)
Overweight (SD >2)	2 (2.3)
HAZ	-0.21 [1.01]
Stunting (SD <-2)	2 (2.3)



3 Method

- 10-14-months-old Thai children were recruited to participate in a stable iron isotope study. At screening visit, **anthropometric measurements** and **finger prick blood sample** were collected, and socio-economic status (SES) and **feeding practices questionnaires** were administered.
- The nutritional status of children was assessed via **Hb concentration** and **anthropometric Z-scores**
- Feeding practices were evaluated with **food consumption patterns**, the **WHO/UNICEF standardized indicators** for IYCF⁴, and estimated **iron intakes**
- Bivariate logistic regressions and one-way ANOVA were performed to identify associations between nutritional status, feeding practices and SES



5 Conclusion

- Feeding practices were characterized by **low breastfeeding rates**, poor dietary diversity, inappropriate complementary feeding, **over-reliance on commercial formula**, and **non-responsive feeding**, but sufficient meal frequency and early signs of a **double burden of malnutrition** among young children in Thailand were found.
- Priority should be set in **healthcare staff training** and **maternal education in IYCF⁵**, as well as the development of IYCF indicators to tackle **obesogenic feeding practices**, such as formula feeding, in order to improve IYCF practices and reach micronutrient adequacy in young Thai children.

References

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5. Greffeuille V, Kameli Y, Chamnan C, Chea M, Daream S, Winichagoon P, et al. Multi-criteria Mapping of Stakeholders' Viewpoints in Five Southeast Asian Countries on Strategies to Reduce Micronutrient Deficiencies Among Children and Women of Reproductive Age: Findings from the SMILING Project. *Matern Child Health J.* Springer US; 2019;23:67– 78.

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