

Drivers of anaemia persistence among children and women of reproductive age in the Sahel

G. Albuquerque^{1,2}, R. Kumar³, A. Alpha^{4,5}, C. Lachat⁶, D. Petalios⁶, M. Broin⁷, M. Holdsworth⁵, P. Sarfatti⁶, L.F. Goulão^{1,2}

¹Linking Landscape, Environment, Agriculture and Food Research Centre, Instituto Superior de Agronomia (ISA), Universidade de Lisboa, Lisboa, Portugal; ²TERRA – Laboratório para a Sustentabilidade do Uso da Terra e dos Serviços dos Ecossistemas, ISA, Universidade de Lisboa, Lisboa, Portugal; ³ Faculty of Engineering & Science, Natural Resources Institute, Livelihoods and Institutions Department, Greenwich, United Kingdom; ⁴Montpellier Interdisciplinary Centre on Sustainable Agri-Food Systems, University of Montpellier, CIRAD, CIHEAM-IAMM, INRAE, Institut Agro, ⁵IRD (UMR MoISA), Montpellier, France; ⁶Ghent University, Food Technology, Safety and Health, Ghent, Belgium; ⁷Agropolis International, Montpellier, France

The Sahel faces high undernutrition and anaemia prevalence for decades, despite the substantial investment in nutrition programming. Aim: to identify drivers of the anaemia burden among children and women of reproductive age (WRA) in Sahelian countries, through a systematic mapping review.

Methods

Evidence was gathered from publications identified by a search syntax in scientific databases, hand-searches of grey literature, and citation tracking. Studies published in English or French up to December 2022 and including data from the Sahel were considered for publication after full-text screening against predetermined eligibility criteria. Drivers were coded according to the UNICEF/Young conceptual framework of malnutrition¹⁻³. Twenty-one publications focused on anaemia drivers (n=9 children; n=7 WRA and n=5 both populations) were analysed.

Results

Each major category of undernutrition drivers was reported by approximately two-thirds of the publications.

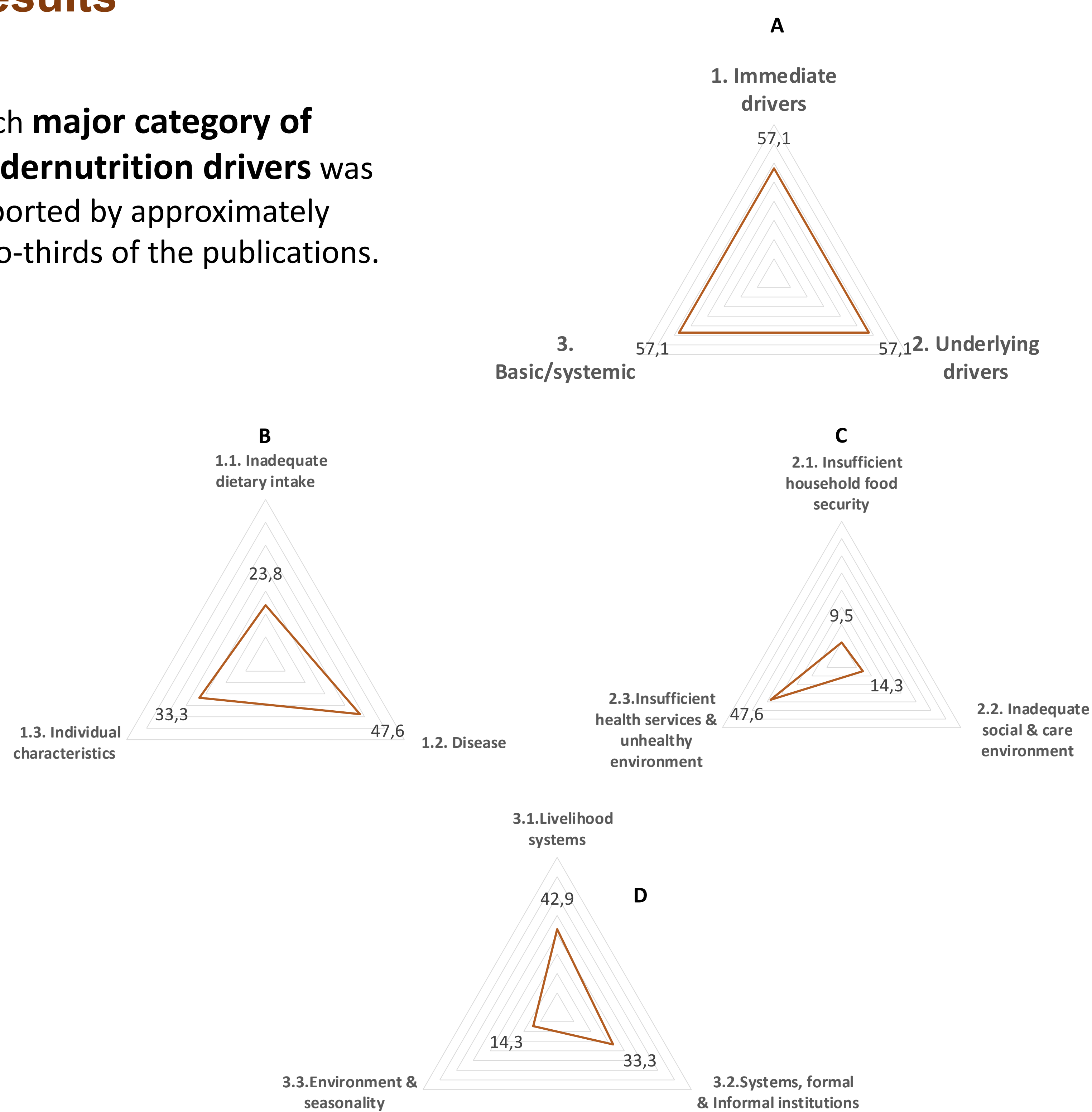
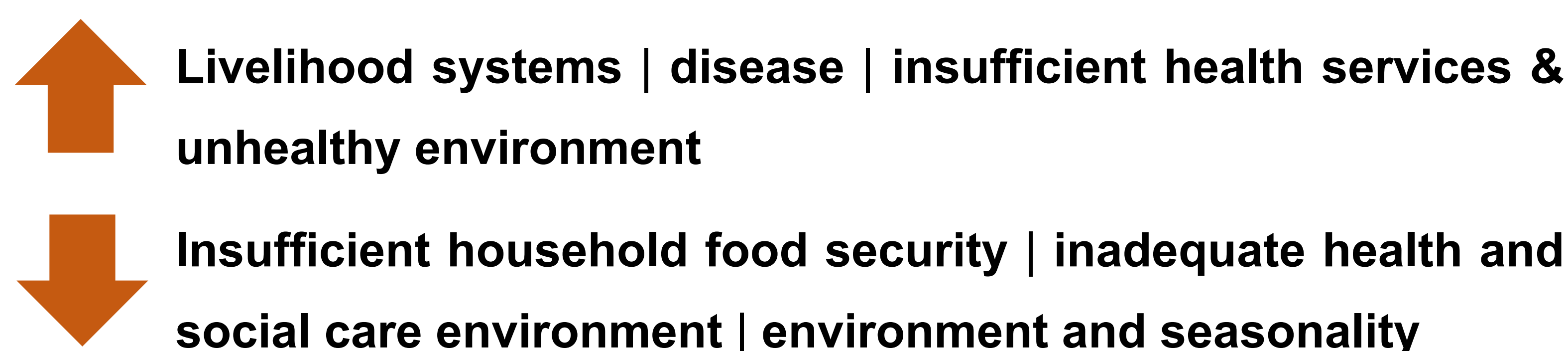


Figure 1. Frequency of reported anaemia driver categories (A) and subcategories (B, C, D).



This study was conducted in the scope of a wider systematic review on the drivers of undernutrition (anaemia, stunting, wasting) in the Sahel. The findings led to the design of a proposed framework of the undernutrition drivers specifically in this region, based on the UNICEF/Young framework¹⁻³ (Figure 2).

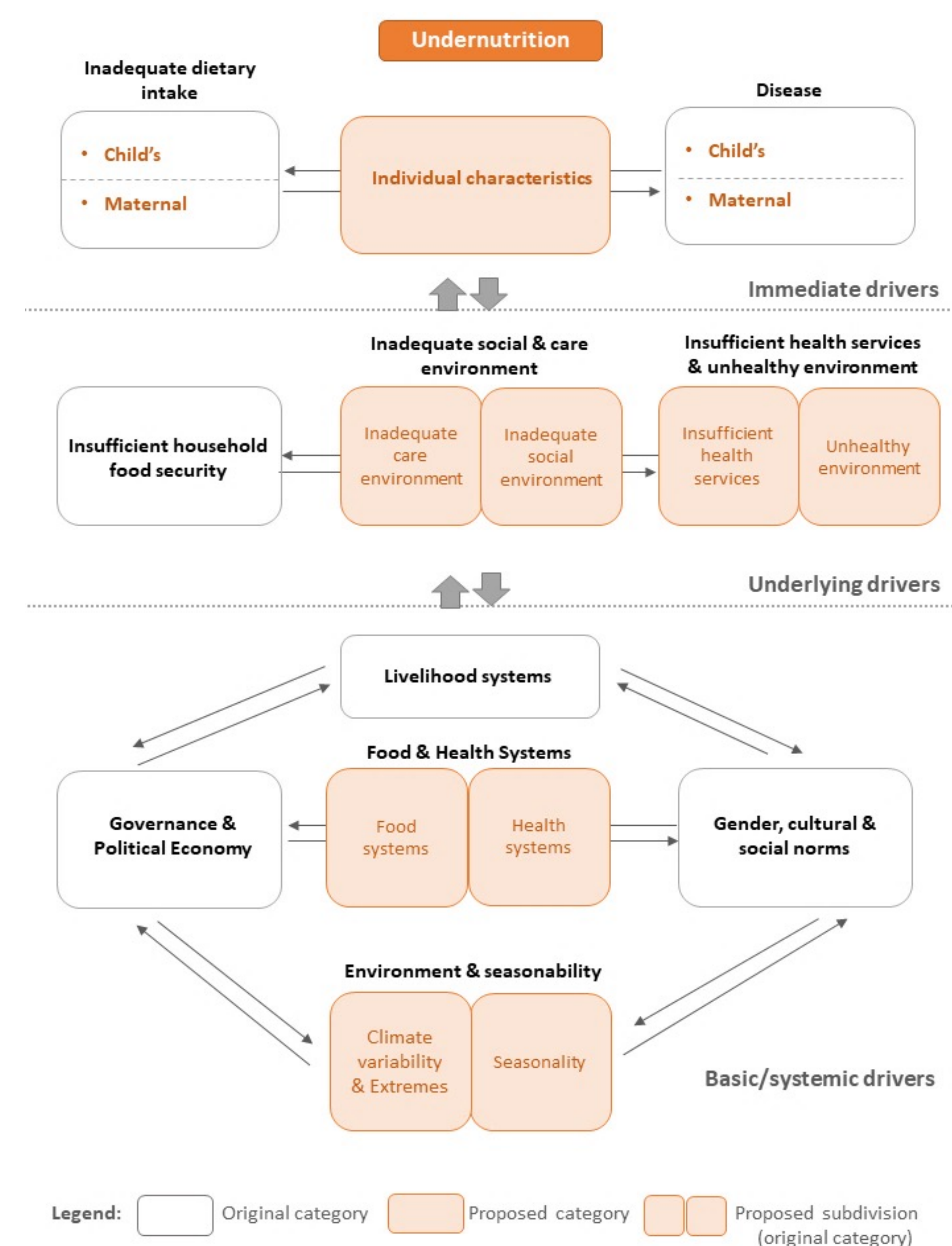


Figure 2. Proposed framework of drivers of undernutrition in the Sahel.

References
1. UNICEF (1990) Strategy for improved nutrition of children and women in developing countries. New York, NY, USA.
2. UNICEF (2020) United Nations Children's Fund. (UNICEF). Nutrition, for Every Child: UNICEF Nutrition Strategy 2020–2030. New York, USA:
3. Young H (2020) Nutrition in Africa's Drylands: A Conceptual Framework for Addressing Acute Malnutrition. Feinstein International Center, Tufts University.

Conclusion

- There is a need for research and public health prioritisation of issues identified as critical in the Sahel, (e.g., food insecurity, environment, seasonality, conflicts and shocks) → underlying and basic/systemic drivers.
- More robust evidence may sustain a recommendation for implementing Interventions covering these topics in the Sahel, to improve the health of children and WRA, namely decreasing the anaemia prevalence.