

Coverage and Determinants of Regular Fortified Blended Flour Use Among Children 6-23 Months in Remote Mountains, Karnali Province, Nepal

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Sona Shrestha MPH<sup>1,2</sup>, Vishnu Khanal PhD<sup>3,4</sup>, Bishnu Prasad Choulagai PhD<sup>1</sup>  
<sup>1</sup> Central Department of Public Health, Institute of Medicine, Tribhuvan University, Kathmandu, Nepal ; <sup>2</sup> Public Health Office, Dolakha, Ministry of Health, Bagmati Province, Nepal ; <sup>3</sup> Remote Health Systems and Climate Change Centre, Menzies School of Health Research, Charles Darwin University, Alice Springs, Australia ; <sup>4</sup> Nepal Development Society, Bharatpur, Nepal

BACKGROUND

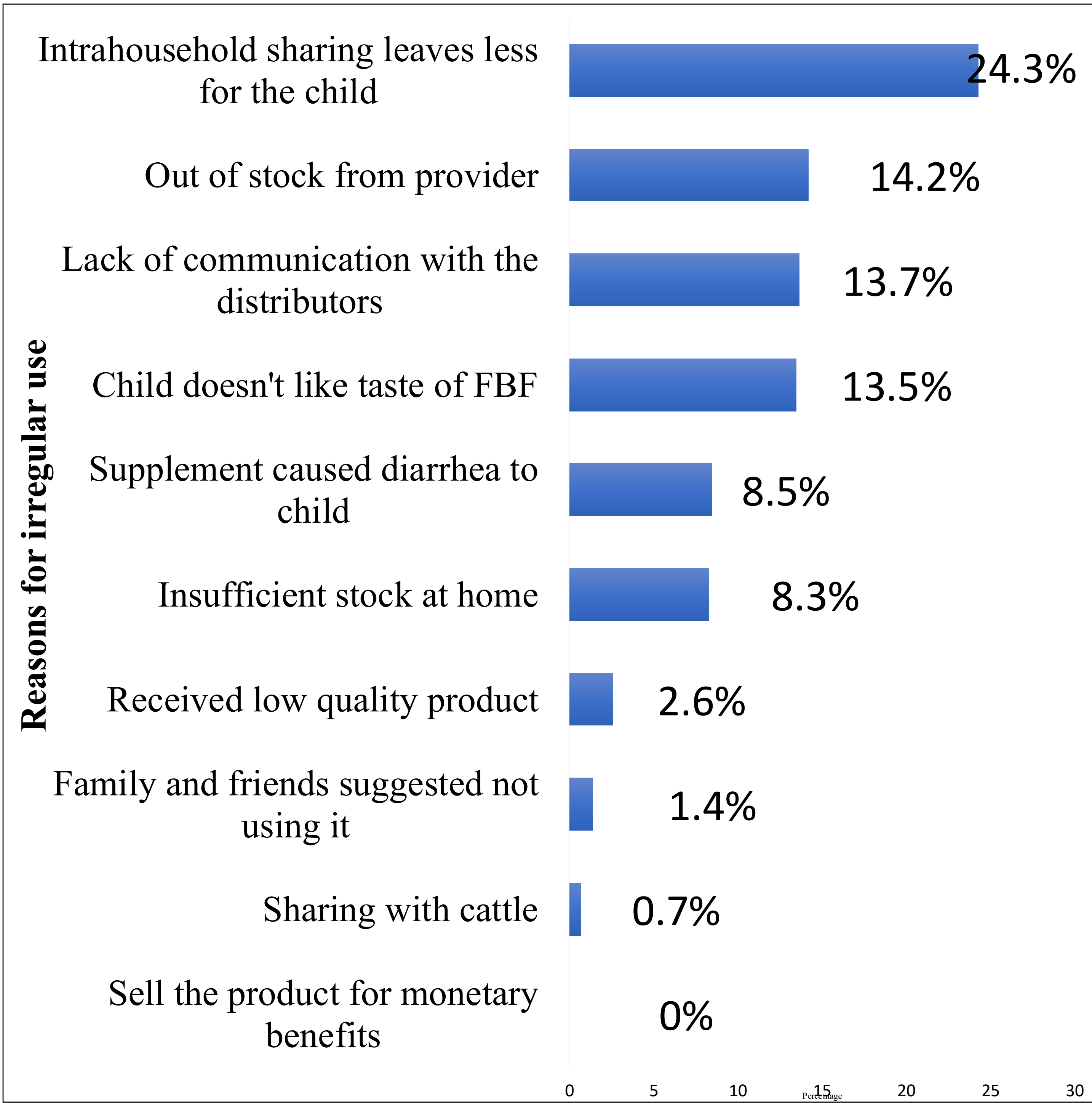
Nepal has a high burden of child undernutrition, with the Karnali Province being most affected due to geographic, food security, and supply challenges. Fortified blended flour (FBF) is a key supplementary nutrition strategy of Nepal’s Mother and Child Health and Nutrition program. Limited evidence exists on FBF coverage and utilization in Nepal, creating a need to assess barriers and facilitators in remote regions like Karnali.

METHODS

- Study Design: Community-based cross-sectional study
- Study site : Khadachakra Municipality, Kalikot District, Karnali Province, Nepal
- Participants : 423 mothers/caregivers of children aged 6-23 months
- Sampling : Probability proportional to population size
- Data Collection: Structured questionnaire adapted from WHO/UNICEF IYCF guidelines, Nepal Demographic and Health Survey (NDHS) , Prior studies (pretested and culturally adapted)

RESULTS

- **High coverage but low consistent use:** Message coverage (100%) and contact coverage (96.9%) were high, yet only **48% of children** consumed FBF regularly.
- **Feeding & household context:** Most mothers made feeding decisions(63.1%); 54.1% of households shared FBF, and 75.9% of children lacked minimum dietary diversity.
- **Motivators & barriers:** Regular use driven by perceived child growth benefit (37.6%), free supply (27.7%), & health worker advice benefit (23.9%) ; irregular use linked to intrahousehold sharing (24.3%), product stock-outs (14.2%), poor communication (13.7%), supplement causing diarrhea to the child (8.5%). & child disliking the taste of FBF (13.5%) .
- **Determinants of regular use (AOR, 95% CI) :** Higher use associated with no intra-household sharing 4.22 (2.16-8.24), acceptable taste 2.44 (1.24-4.79), maternal decision-making 2.67 (1.17-6.09), advance distribution info 4.08 (2.13-7.81), adequate product amount 5.12 (2.36-11.13) & shorter walking distance 4.18 (1.74-10.02) .
- **Quality issues:** Moisture-exposed FBF received, causing lumps and poor texture, leading three households to fed FBF to cattle.
- **Supply challenge:** Three-month stockout due to contracting delays. Not a new issue, but has not been addressed



CONCLUSION

- High coverage but low regular use due to intra household sharing, supply gaps and quality concerns.
- **Recommendations:**
  - Improve distribution systems: ensure timely supply, and advance notice on distribution,.
  - Address moisture-related quality concerns and improve palatability.
  - Strengthen counseling on correct use to discourage sharing and reinforce intended nutritional benefits.
  - Monitor supply chain performance and address contracting delays to prevent stockouts.