



Effectiveness of nutrition awareness campaigns on dietary diversity of caregivers and their children under five in Southeast Liberia

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Introduction

- Malnutrition** remains a major health concern in Liberia, especially among pregnant and lactating women and young children.
- Poor health and nutrition outcomes due to **poor dietary diversity, limited nutrition knowledge, and micronutrient deficiencies** (Arimond & Ruel, 2004; Moursi et al., 2008).
- Health System Strengthening (HSS) Project** (2019-2025) by Welthungerhilfe implemented tailored nutrition awareness campaigns.
- Aims:** improved **dietary diversity (DD)** and **nutrition knowledge** among women and caregivers.



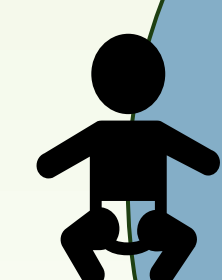
Staple foods (rice, maize, beans) at a local market in Southeast-Liberia. © I. Parker 2024



Administrative divisions of Liberia, reproduced under CC BY-SA 3.0. Source: Wikimedia Commons, author: TUBS.



45% of women of reproductive age (15-49 years) suffer from **anemia**, including **52% among pregnant women** (LDHS, 2019–20)



30% of children under five are **stunted**, **11% underweight** (LDHS 2019–20)

Main objectives

- Assess the **effectiveness** of the HSS nutrition awareness campaigns on:
 - Dietary Diversity of Women** (Minimum Dietary Diversity for Women (MDD-W))
 - Dietary Diversity of Children** (Minimum Dietary Diversity for Children (MDD-C))
 - Nutrition-related **Knowledge, Attitudes and Practices (KAP)**
- Compare outcomes** between baseline, intervention and control groups

Methodology

- Design:** Mixed-methods approach combining quantitative assessment and qualitative inquiry
- Sample:** 244 women (224 women of reproductive age: 110 intervention, 114 control) & 62 children aged 6-23 months (29 intervention, 33 control)
- Quantitative:** Structured questionnaire assessing MDD-W, MDD-C, KAP indicators
- Qualitative:** 6 Focus Group Discussions (FGD) with women from intervention communities & 4 Key Informant Interviews with government officials and NGO representatives
- Study Area & Period:** Grand Gedeh & Grand Kru Counties, Southeast Liberia; Dec 2024-Feb 2025

Results

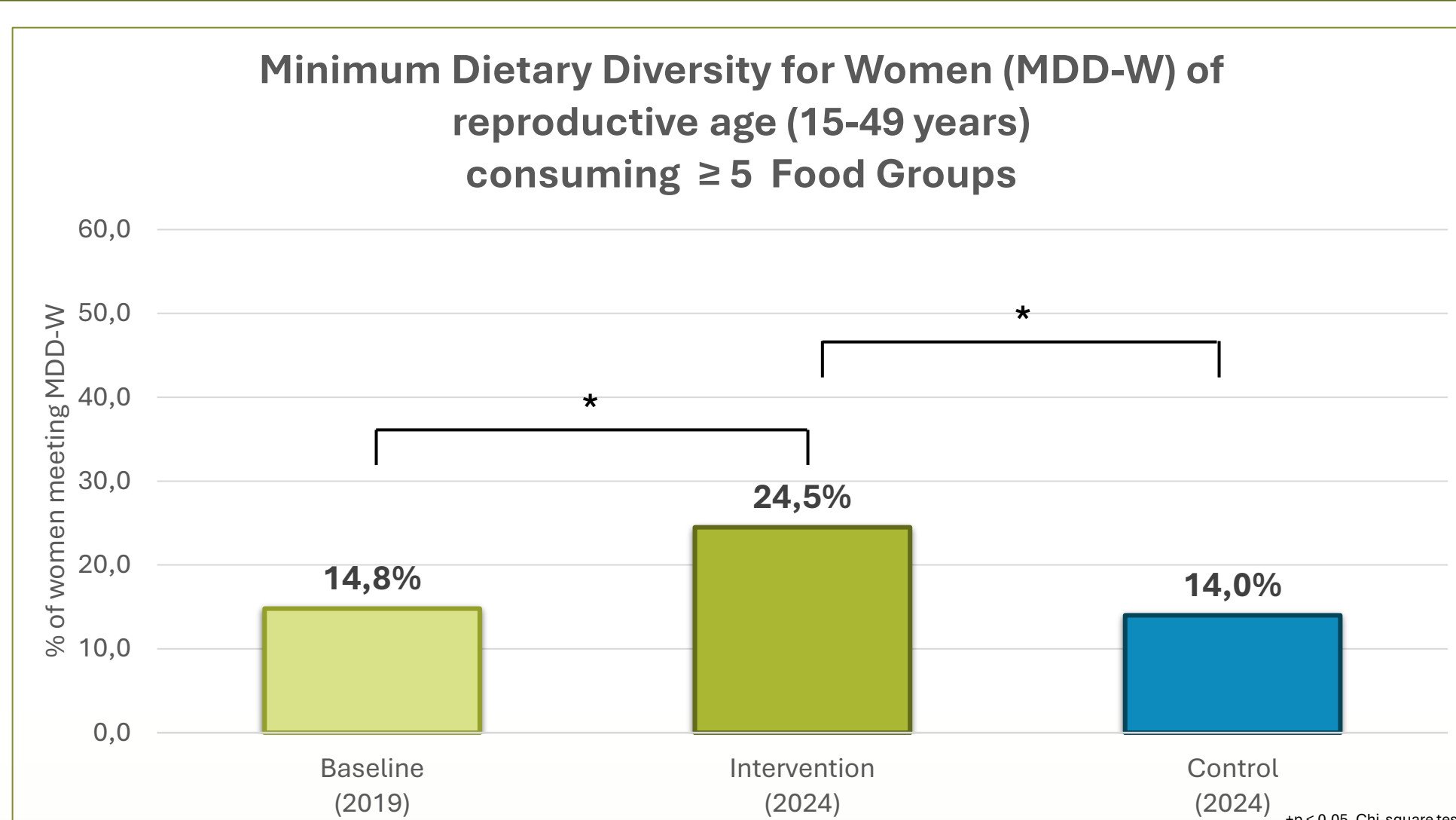


Figure 1: Women (15–49y) achieving Minimum Dietary Diversity (≥5 food groups), baseline (2019) vs. intervention and control (2024).

Women: intervention group was significantly more likely to achieve minimum dietary diversity (24.5%) compared to baseline (14.8%) and control group (14.0%, $p < 0.05$).

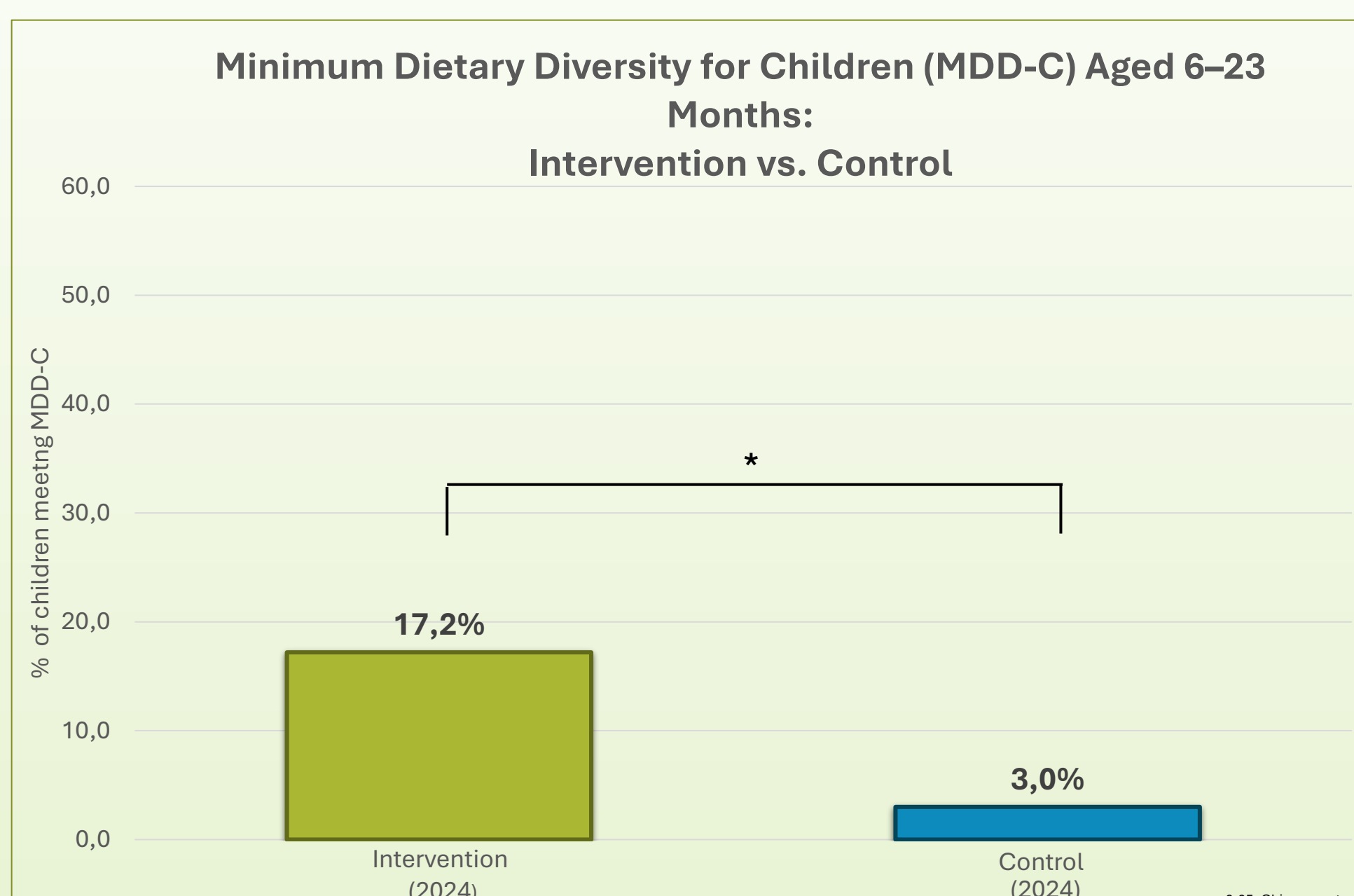
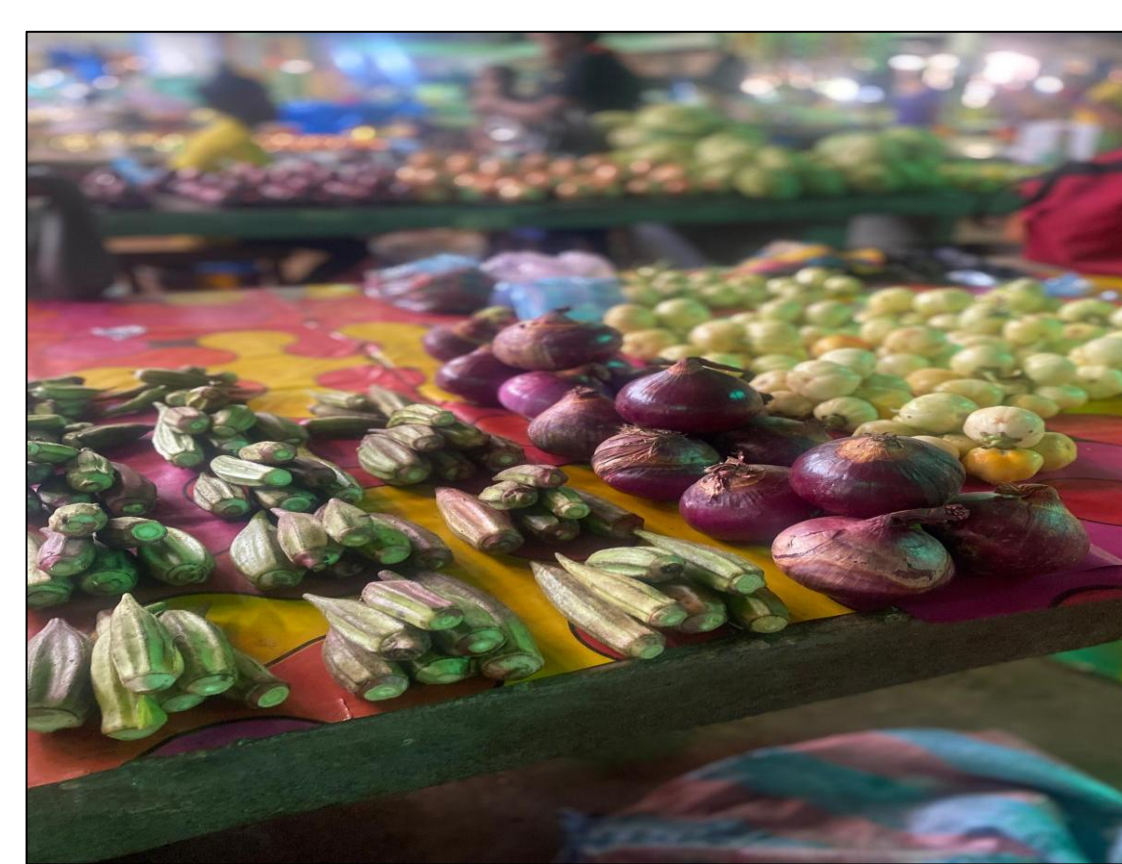


Figure 2: Children (6–23 months) achieving Minimum Dietary Diversity (≥5 food groups), intervention vs. control (2024).

Children: intervention group was significantly more likely to achieve minimum dietary diversity (17.2%) compared to control group (3.6%, $p < 0.05$).



Locally available vegetables at a market in Southeast Liberia. © I. Parker 2024



Processing cassava into fufu at a household in Southeast Liberia. © I. Parker 2024



Community nutrition garden with okra plants in Southeast Liberia. © I. Parker 2024

Knowledge, Attitudes and Practices (KAP) on Nutrition Among Women: Intervention vs. Control Group

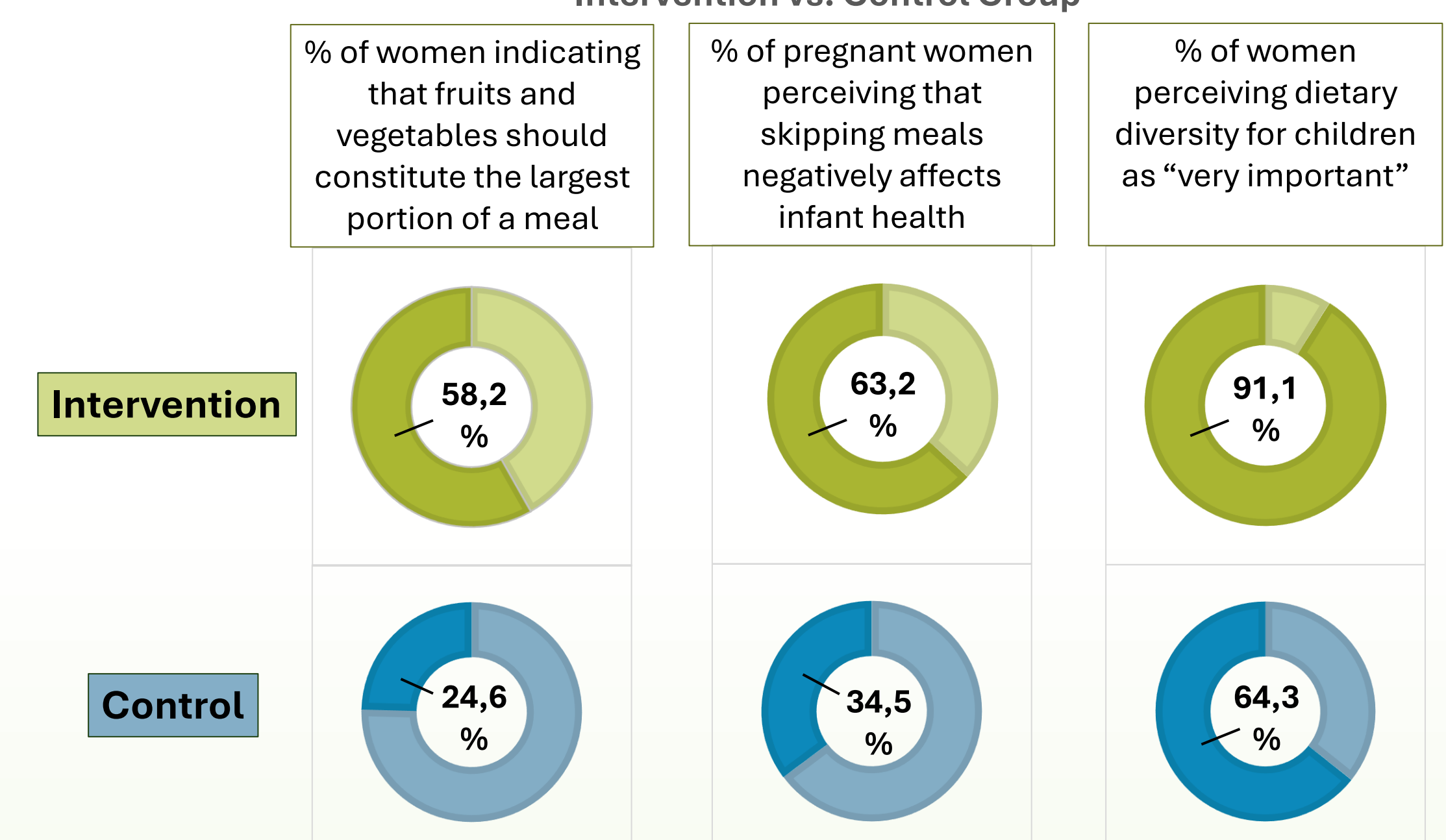


Figure 3: KAP on nutrition among women in intervention and control groups.

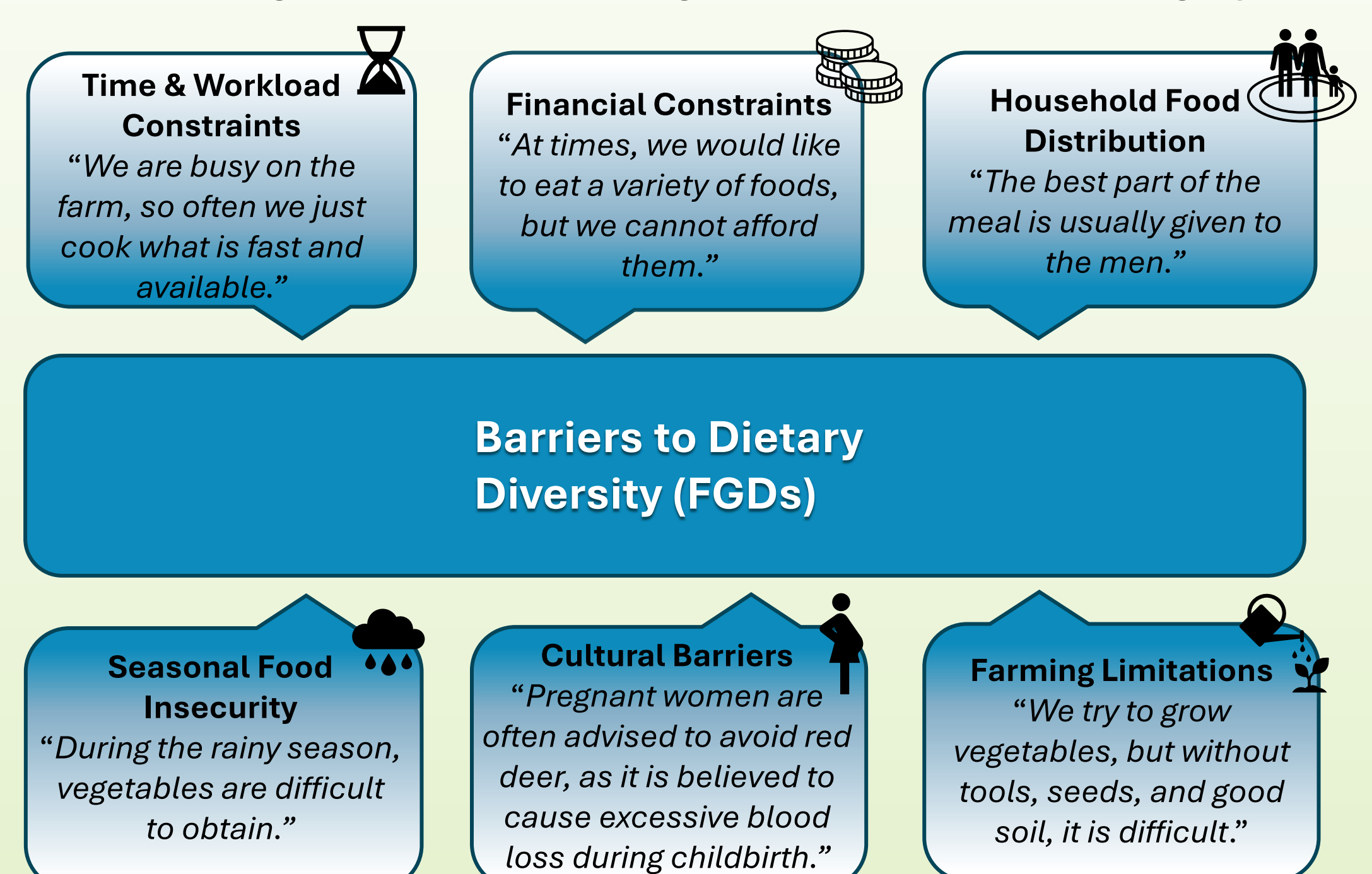


Figure 4: Reported barriers to dietary diversity identified in focus group discussions (FGDs).

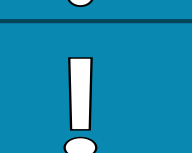
Conclusions



Nutrition education interventions significantly **improved dietary diversity** among women and children, with higher proportions meeting MDD-W and MDD-C compared to baseline and control groups.



Women showed **improved nutrition knowledge and positive attitudes** toward diverse diets.



Despite these gains, **absolute dietary diversity levels remain low**, highlighting persistent barriers such as financial constraints, seasonal food insecurity, cultural food taboos, and limited access to quality and improved farming inputs.

References

Arimond, Mary; Ruel, Marie T. (2004): Dietary diversity is associated with child nutritional status: evidence from 11 demographic and health surveys. In: *The Journal of nutrition* 134 (10), S. 2579–2585. DOI: 10.1093/jn/134.10.2579.
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