Barriers to adoption of optimal complementary feeding practices in Ethiopia:

A formative qualitative investigation

Evidence from SPIR II

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Overview and study objectives

Since its inception in 2005, the Productive Safety Net Program (PSNP) has been a cornerstone of the Ethiopian government's strategy for poverty alleviation, disaster risk management, and rural development. The PSNP provides food or cash transfers targeted to poor households in the form of payments for seasonal labor on public works or as direct support to households. It has played an important role in improving the lives of poor Ethiopian households by reducing household food insecurity, increasing asset holdings, and improving agricultural productivity (Berhane et al. 2014; Hoddinott et al. 2017).

The Strengthen PSNP5 Institutions and Resilience (SPIR II) Resilience Food Security Activity (RFSA) in Ethiopia is a five-year project (2021–2026) that supports implementation of the fifth phase of the Productive Safety Net Program (PSNP5) in the Amhara and Oromia regions and provides complementary livelihood, nutrition, gender, and climate resilience activities. Activities under SPIR II are organized into three purpose areas: 1) sustained nutrition security, 2) reduced livelihood risk, and 3) strengthened social safety nets. World Vision, with funding from USAID's Food for Peace (FFP) Initiative and in close collaboration with the Government of Ethiopia, leads implementation of the SPIR RFSA in partnership with the Organization for Rehabilitation and Development in Amhara (ORDA) and CARE.

IFPRI is leading the SPIR II learning agenda in close collaboration with the implementation partners, and as part of this learning agenda, conducted a series of formative studies in the first year of program

implementation. The objective of the formative nutrition assessment was to understand more about the key factors driving the late introduction of complementary foods for infants in rural Ethiopia, motivated by the growing evidence that inappropriate introduction of complementary foods is a significant challenge in Ethiopia (Hirvonen et al. 2021) that contributes to persistently high levels of child malnutrition (Golan et al. 2019). Previous evidence suggests that the PSNP is not effectively achieving any enhancement of child nutritional status (Guush et al. 2020).

IFPRI's investigation focused on the following research questions:

1) What are the challenges related to availability of financial resources that lead to late introduction of complementary foods?
2) How important are challenges linked to limited availability of nutritious foods?
3) Are constraints on maternal time or limited knowledge or engagement in active or responsive feeding salient in shaping feeding practices?
4) What role is played by limited knowledge around weaning timing, appropriate weaning foods, and over-adherence to exclusive breastfeeding?

Methods

The qualitative study was conducted in East Hararghe and West Hararghe Zones in the Oromia region (Kortu, Milkayee, Hula Jenete, and Haqa Bas kebeles). Study sites in Amhara were not included in this investigation because they were not accessible due to conflict during the data collection stage of the study. The communities were purposively selected to include kebeles characterized by both relatively high and relatively low on-time initiation of complementary foods, drawing on data from the SPIR I endline survey.

The methodology included focus group discussions and key informant interviews, and the target focus group participants included mothers and fathers of young children 6–23 months of age; grandmothers of children 6–23 months of age; and community health workers. Within the sample of mothers, we also purposively sampled both more experienced mothers (those already reporting multiple children, or older mothers) and less experienced mothers (generally first-time mothers).

A total of 16 focus group discussions were conducted, as summarized in the table below. In addition, key informant interviews were conducted with one Health Extension Worker (HEW) in each selected kebele.

Table 1: Summary of focus groups

	Number of focus groups	Number of participants
Inexperienced mothers	4	22
Experienced mothers	4	23
Fathers	4	21
Grandmothers	4	23

All focus group discussions and key informant interviews were conducted in Afaan Oromo using semi-structured interview guides and were audio-recorded after obtaining informed consent. Extensive fieldnotes were taken during each interview. Qualitative content analysis of the fieldnotes was initiated using MAXQDA software and an inductive analysis method. Both data collection and analysis were led by Dr. Elazar Tadesse, a professor in the Department of Human Nutrition at Kotebe Metropolitan University.

Primary findings

Timing of introduction of complementary foods

Both delayed and early introduction of complementary foods are widely reported in this sample, though early initiation was found to be more common. (Both early and late introduction of complementary foods, before or after the age of 6 months, can be problematic and contribute to child malnutrition.) Reasons for the delayed introduction of complementary foods include the child's rejection of foods and the mother's perception that she has adequate breastmilk. Reasons for the early introduction of complementary foods include the perception that breastmilk is inadequate, maternal time constraints linked to the resumption of economic activities (often petty trading), maternal health challenges, and new pregnancies.

Once initiated, feeding practices are often inconsistent with nutritional guidelines, particularly in the earlier period, that is infants 6–12 months of age. Mothers rely on bottle-feeding using liquid and/or semi-solid foods, delaying solid foods to a later age (10–12 months). They also generally provide a diet characterized by extremely low diversity, relying on grains and processed foods such as biscuits, soft drinks, and lipid-based nutrient supplements (LNS, sold internationally under the brand Plumpy'Nut).

Box 1: Key findings from the formative work

- Both late and early initiation of complementary feeding are observed in the sample; however, early initiation is more common.
- Once initiated, complementary feeding practices often rely entirely on liquid or semi-solid food until the first birthday, and show a low level of dietary diversity.
- Household-level barriers to appropriate complementary feeding include limited financial resources, maternal time constraints, and inadequate support from husbands.
- Key community-level barriers include low health worker engagement, high food prices, and the widespread availability of highly processed complementary foods.

Individual- and household-level barriers to appropriate complementary feeding

The primary individual- and household-level barrier to appropriate complementary feeding identified is limited financial resources, which makes it difficult for households to purchase nutritious foods for their children. More nutritious foods (particularly fruits, vegetables, and animal-source foods) are characterized by high prices, and some respondents also reported limited availability at local markets. These challenges also encourage mothers to opt for staples such as grains or highly processed foods such as

biscuits or LNS that are relatively affordable. (While this investigation was not able to identify precisely why LNS were available cheaply, one hypothesis is that they are diverted from the formal health system, and thus available at a lower cost.) Processed foods are also available at convenient locations, and can be purchased in small portions with a low initial outlay.

Box 2: Quote from a mother, focus group discussion

"Food is abundantly available in the market but we don't have the money to buy it; from the market what you buy is high in price."

Maternal time constraints are also highly relevant and closely linked to financial constraints: many women report early separations from infants due to their need to resume petty trading to generate economic resources, or simply due to other domestic responsibilities. In these cases, grandmothers or older siblings may be responsible for the infant's care (including feeding), or mothers may carry infants with them but be limited in their ability to feed them as and when they wish.

Role of health workers

In general, engagement of health workers (health extension workers [HEWs] and Health Development Army members) in provision of nutritional advice to mothers of young children is extremely low. (HEW outreach is supplemented by the work of the Health Development Army, health sector volunteers supervised by the HEWs). Particularly in more remote kebeles, both men and women reported that health extension workers did not engage in any home visits. Accordingly, HEWs' contact with mothers and young children primarily occurs during mothers' visits to health posts and health centers for services such as vaccination, growth monitoring, and curative health services when their children are ill. Active home visits are rarely conducted by HEWs, except in the context of vaccination and latrine campaigns; during these campaigns, there is minimal or no discussion of child feeding.

Though the level of knowledge of health workers around complementary feeding practices was generally found to be high, the behavioral change counseling they do provide was often inconsistent and lacking in clarity. In particular, both health workers and parents reported that health workers regularly recommend the preparation of a complementary feeding mix for young children from a set of 12 food items (maize, barley, sorghum, wheat, teff, pumpkin seed, peanuts, broad pea, chickpea, lentils, kidney beans, and peas), constituted by 40% legumes, 60% grains, and the addition of an animal product (milk, eggs or meat). While consistent with previous Ministry of Health guidelines in Ethiopia, this recommendation is not evidence-based. Given that mothers often lack both financial resources and adequate time to follow these instructions, they then proceed to make their own decisions regarding complementary food provision and rely heavily on simple staples or processed foods. One important question that remains for future research is whether early introduction of processed foods renders it more challenging to transition children to healthier foods later in their development.

Box 3: Quote from an experienced mother, focus group discussion

"The HDA leader or a HEWs never visited us to discuss how we feed our children. They make a home visit during the polio campaign… no regular visit to us."

Implications for future work

Following this formative work, the SPIR II learning agenda continues to build on these themes in a randomized trial implemented under the IMPEL (Implementer-Led Evaluation and Learning) mechanism evaluating the effectiveness of interventions that target the identified barriers to appropriate complementary feeding. The research questions for this trial include assessing the effects of nurturing care groups on nutritional outcomes (knowledge, dietary practices, and outcomes including dietary diversity and anthropometrics) and assessing the effects of nurturing care groups in conjunction with maternal cash transfers on the same outcomes.

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