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Small-Quantity Lipid-Based Nutrient Supplement Program Implementation

Learning and Considerations for Scale-Up from International Food Relief Partnership Partners in Honduras, Niger, and Somalia

Executive Summary



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Introduction

Small-quantity lipid-based nutrient supplements (SQ-LNS), a fortified product, fill key nutrient gaps during the complementary feeding period, pregnancy, and lactation. Strong evidence shows that SQ-LNS effectively reduces stunting, wasting, anemia, and mortality among children ages 6–24 months. A small but growing number of studies show that SQ-LNS supplementation of pregnant women contributes to positive birth outcomes. However, less is known about the challenges and opportunities for expanding the use of this product and the best approaches to do so. The objectives of this learning activity were to—

1. Document the factors that promoted and/or hindered successful implementation of SQ-LNS programs in highly food insecure contexts.
2. Garner perspectives on considerations for scale-up.

Methods

We used qualitative methods and convenience sampling to conduct [this study](#) in three of the United States Agency for International Development’s (USAID) International Food Relief Partnership (IFRP)-funded SQ-LNS programs in Honduras, Niger, and Somalia. In each country, we interviewed program staff (Honduras: 8; Niger: 7; Somalia: 8); caregivers of children 6–24 months (Honduras: 23; Niger: 18; Somalia: 24); and pregnant and lactating women (PLW) (Honduras: 22; Somalia: 23). We also visited warehouses (Honduras: 2; Niger: 1; Somalia: 2) and distribution sites (Honduras: 3; Niger: 3; Somalia: 3). We coded and analyzed interview transcripts and site visit checklists for themes related to program implementation and considerations for scale-up.

Findings

The learning activity found that partners implementing SQ-LNS programs in Honduras, Niger, and Somalia operated through different delivery strategies and in varying program contexts. Despite this, one universal theme common across the partners was their strong relationship and coordination with national and/or local partner nongovernmental organizations (NGOs). Partners were committed to optimizing the resources they had to serve their communities because they felt that SQ-LNS filled a critical need. The learning activity also found similarities and differences in product acceptability, program models, complementary activities, monitoring and evaluation, and considerations for scale-up, described below.

- **Acceptability:** There was high acceptability¹ of SQ-LNS among program participants in all three countries, but dissatisfaction with the size of the product in Niger and Somalia where participants cited high food insecurity and dislike of the aftertaste in Honduras. Partners in Honduras also noted that in highly food insecure areas, SQ-LNS alone was not sufficient and that families needed food.
- **Enrollment, duration, frequency:** There was variation in how partners designed their SQ-LNS programs, with differences in eligibility criteria, supplementation duration, distribution sites, and frequency of distribution. For example, enrollment eligibility for children in Niger included children 6–11 months, whereas in Honduras and Somalia it included any child 6–24 months. Children received the product for up to six months in Somalia, up to 12 months in Honduras, and up to 18 months in Niger. Enrollment of pregnant women in Honduras and Somalia

¹ Acceptability is defined as a favorable attitude toward a product, which predisposes the individual to use the product as per instructions (Tolley et al. 2013). Sensory attributes, food practices, need perceptions, and the social environment influence acceptability (Klever et al. 2016).

happened at any stage of pregnancy and PLW received the product for up to 12 months. The distribution frequency was every two weeks in Somalia, four weeks in Niger, and three months in Honduras. Partners distributed SQ-LNS at health facilities in Niger and Somalia, but also at community sites, volunteer homes, and participant homes in Honduras.

- **Social and behavior change (SBC):** There was a higher staff to participant ratio in Honduras (1:5 to 1:7) compared with Niger (1:13 to 1:18) and Somalia (1:13 to 1:25). This meant that staff in Honduras (primarily volunteers who lived in the same communities) spent more time giving participants information about SQ-LNS and in some cases, problem-solving on distribution days. The three-month distribution schedule of SQ-LNS in Honduras, but more frequent interaction with volunteers, may have freed up staff time to achieve this high ratio. Despite this, all three partners noted that human resources were a significant constraint to their programming. For example, in Somalia local NGO staff noted that 10 instead of 2 staff at the distribution site would be ideal.
- **Complementary activities:** Partners in all three countries added SQ-LNS delivery to an existing program or platform. In Honduras, SQ-LNS complemented the Atención Integral del Niño en la Comunidad (AIN-C, Comprehensive Care for Children in the Community), which operated through volunteers. In Niger, SQ-LNS was part of the partner organization's 1,000 days program, delivered through health facilities, and in Somalia, SQ-LNS was provided at health facilities along with routine health services. All three partners noted that funding in addition to that of IFRP's was essential to making complementary activities (e.g., food rations, vaccines) available.
- **Monitoring and evaluation (M&E):** Although IFRP did not require partners to report on anthropometric measurements, the partners in all three countries tracked weight, height, and mid-upper arm circumference of children at varying frequencies. The partner in Somalia tracked weight of PLW but the partner in Honduras did not, as they assumed that pregnant women would be weighed at the health center. Partners in Honduras and Somalia reported challenges with data entry: entering data from paper forms to Excel or an electronic platform on time every month. However, partners anecdotally shared that program data showed improvements due to SQ-LNS, including lower cases of child malnutrition in all three countries when comparing the prevalence of malnutrition (underweight in Honduras and wasting in Niger and Somalia) at program sites before and after implementation of SQ-LNS. They also described higher vaccination rates in Niger and greater birth weight, breast milk supply, and child consultation visits at health centers in Honduras.
- **Scale-up:** Partners recommended expanding the SQ-LNS program through the health system in Niger and Somalia and through the health system's community-based AIN-C program in Honduras. Despite their willingness to expand, they noted several existing funding constraints that would need to be addressed, such as insufficient human resources; challenges with data entry; and inadequate funding for SBC materials (e.g., job aids to use while interacting with program participants).

Discussion and Recommendations

Based on what we learned from this activity, we recommend several actions for program implementation and scale-up relevant to the global nutrition community, IFRP SQ-LNS program implementers, and management of the IFRP award.

Global nutrition community:

- **Develop program guidance to enable implementers to determine how to program SQ-LNS in their contexts.** The program guidance should articulate how to program SQ-LNS in a highly food insecure setting. To date, evidence for the effectiveness of SQ-LNS programs has come from studies conducted primarily in development contexts. Several of these studies documented household food insecurity, which was not found to modify the impact of SQ-LNS on child growth (Dewey et al. 2021b). However, the level of food insecurity in Somalia is much more dire (crisis levels) than the settings in which the studies were conducted. Partners could use metrics such as the Famine Early Warning Systems Network Integrated Phase Classification to determine whether to program SQ-LNS alone or in combination with household-level food assistance. If partners are unable to provide food assistance, then the document should encourage referral to existing food security or social protection programs, or partners should implement SQ-LNS in partnership with an organization that can provide food assistance.
- **Ensure that the guidance provides the evidence-based rationale for the elements of the distribution model.** Evidence shows that children who start to receive SQ-LNS at close to six months of age are more likely to benefit (Galasso et al. 2019). This is because 20 grams of SQ-LNS meets half the non-milk caloric requirements of a child 6-8 months (Dewey and Brown 2003). Similarly, recent evidence shows that receiving the product for at least 12 months is as beneficial as receiving it for more than 12 months (Dewey et al. 2021b). However, it is unclear whether SQ-LNS supplementation for six months will confer the same benefit. Moreover, there is limited evidence on when in pregnancy to begin supplementation and for how long to provide the supplementation to PLW. As with all supplements for PLW, starting sooner is likely to confer the greatest benefit.

SQ-LNS program design should be evidence-based with the intended outcomes of the distribution model in mind at the outset. Usually, organizations implement SQ-LNS with the aim to improve nutrition outcomes for PLW and children under 24 months of age. Partners may integrate the distribution of SQ-LNS within a broader program that has other intended outcomes such as increasing child vaccination rates and ANC visits for pregnant women. However, it is critical for the distribution of SQ-LNS to be evidence-based when determining eligibility, the duration of supplementation, and which anthropometric measurements to take, if any, and how frequently.

- **Mandatory inclusion of SBC in the program guidance for SQ-LNS programming.** To support this, develop SBC materials that partners can adapt to their contexts to appropriately equip distribution site staff with the information they need to provide participants. This includes illustrations of the key information that staff must share with caregivers, which organizations could source and adapt from the USAID Advancing Nutrition and UNICEF Infant and Young Child Feeding Image Bank (iycf.advancingnutrition.org). Due to the volume of participants at each site and the time needed to take anthropometric measurements, staff in Niger and Somalia did not always have time to give caregivers all the information that they needed to give. Staff also did not have any written document to guide them. By contrast, volunteers in Honduras interacted with a small group of participants on a regular basis and were trained on how to counsel them, including problem-solving.
- **Conduct operational research to understand how to scale-up SQ-LNS programs in areas with high levels of undernutrition.** The addition of any new product comes with the need to orient, train, supervise, and remunerate staff. It also comes with the added responsibility of tracking program participants and, if anthropometric measurements are taken, accurately taking and tracking those measurements. Funding will likewise be required to procure SQ-LNS

products. At this time, organizations source SQ-LNS from the United States or Europe, but supporting regional and local production would be critical to ensure the timely delivery in the supply chain and the sustainability of the program. Adding the product to the World Health Organization (WHO) Essential Medicines List (EML) and national medicine lists would enable country governments to procure the products through their medical commodities budgets. Additionally, scaling up SQ-LNS will require disposing of a large volume of empty sachets in an environmentally sustainable way. It would be helpful to explore options to develop biodegradable sachets and strategies to collect and use empty sachets at home.

IFRP SQ-LNS program implementers:

- **Consider ways to increase staff interaction time with program participants.** In Niger and Somalia, program participants wanted more interaction time with staff and had several questions about the product. This was primarily due to the low staff-to-participant ratio at the distribution sites. By contrast, participants in Honduras interacted with volunteers on a regular basis and met as a group once a month, allowing them to problem solve with program participants. Evidence shows that that frequency of interaction with program participants is critical to supporting nutrition behaviors. For example, the Alive & Thrive program found that near monthly visits by health or community workers was associated with 2-3 times higher odds of optimal IYCF practices in Bangladesh and Ethiopia (Kim et al. 2020). Thus, SQ-LNS program implementers should consider mobilizing an adequate number of staff to provide sufficient interaction time between staff and program participants.
- **Co-implement, refer or link program participants with existing food security and social protection programs.** In highly food insecure areas, partners recognize that SQ-LNS is not sufficient to meet the nutritional needs of program participants. It is therefore important for programs to co-implement with an organization that can provide food assistance. If this is not possible, partners can refer or link participants with existing food security and social protection programs if they themselves do not implement such a program. This will ensure that participants receive food or other assistance in addition to SQ-LNS. In Honduras, unlike Niger and Somalia, participants did not comment on the size of SQ-LNS because they were receiving household food rations, and pregnant women received food from the health facility. In this way, partners helped participants and members of their households meet their caloric requirements in addition to the nutrients from SQ-LNS. In highly food insecure areas, if partners are unable to, directly or in collaboration with others, provide food assistance then they should not implement SQ-LNS.

IFRP SQ-LNS award management:

- **Provide technical reference materials on SQ-LNS communication, distribution frequency, and anthropometric measurements in the Request for Application (RFA).** The IFRP Fiscal Year 2022 RFA provides applicants with instructions on what to include in the technical narrative, including the program goal and objectives; frequency, location, and process of distribution; integration with ongoing programs; coordination with nutrition and/or food security actors; description of complementary activities; and M&E. The RFA also refers applicants to two technical reference materials: one for M&E clarifying that the number of participants reached is the only required indicator; and the second on programming guidance (e.g., eligibility criteria, duration) and how SQ-LNS can be integrated with other programs such as those focused on nutrition, social protection, or food assistance. We recommend including three additional materials. The first reference material should provide guidance on what SQ-LNS-related information to share with program participants, including responses to common questions (e.g., how SQ-LNS differs from other LNS treatment products). The second reference

material should help planners adjust the distribution model to ensure that staff have adequate time to interact with program participants (e.g., staggering participants). The third technical reference material should list the anthropometric measurements to take for children and PLW.

- **Expand award duration to allow for 24 months of implementation.** At present, SQ-LNS does not arrive in the country until at least six months after the award has been signed with USAID. This leaves 12 months for implementation, including programming, reporting, and close-out. With this limitation, some partners provide SQ-LNS to children for six months, but there is currently limited evidence on the effectiveness of SQ-LNS given to children for less than 12 months (Dewey et al. 2021b). Similarly, the recommended duration of supplementation with SQ-LNS for PLW is 12 months; however, partners found it challenging to provide the product for this duration when they only had 12 months to implement and close-out their program. Because enrollment in the program occurs on a rolling basis, partners seldom had the target number of program participants on day one, thus making it impossible to provide SQ-LNS to program participants for 12 months. After experiencing this challenge once, the partner in Somalia was no longer planning to apply to program SQ-LNS for PLW in the next fiscal year. Thus, the award duration likely limits the number of partners who apply to program SQ-LNS for PLW.
- **Increase the award amount to ensure that partners have adequate funds to implement high quality SQ-LNS programs.** Partners were pleased with SQ-LNS but consistently shared that the award amount was insufficient to implement the program. They mentioned that the cost of the program was more than what the award covered and described subsidizing the award by cost sharing certain aspects. For example, in Honduras, the national NGO covered per diem for program staff and volunteers on SQ-LNS distribution day as a cost share. The program in Honduras also operated through a large number of volunteers who were unpaid, other than for transportation of SQ-LNS from IFRP and per diem from the national NGO. However, these volunteers were expected to interact with program participants about the product outside of distribution day, which they described doing. The unpaid services provided by the volunteers have largely been unaccounted for in the cost of the program. Partners in Niger and Somalia also voiced that the award did not meet the staffing needs of the program. Additional resources would also allow partners to do quality SBC, monitoring and evaluation, and supervision.
- **Facilitate a platform for partners to share implementation experiences to strengthen SQ-LNS programming.** From USAID Advancing Nutrition’s Program Mapping and Gap Analysis conducted in 2020, we learned that experienced partners who had programmed an IFRP award for at least one award cycle had several recommendations (USAID Advancing Nutrition 2021). Similarly, new partners who had received the award for the first time had several questions about the distribution model and complementary activities. To support partners in implementing high quality SQ-LNS programs, a community of practice would serve as an ideal platform for partners to share experiences and resources, and to solicit feedback on specific implementation-related questions.

Conclusion

This learning activity documented the implementation experiences and considerations for scale-up from partners implementing IFRP-funded SQ-LNS for children 6–24 months and PLW in Honduras, Niger, and Somalia. We identified several areas that the global nutrition community can support in the implementation of SQ-LNS and specific recommendations for IFRP SQ-LNS partners and management of the IFRP award. SQ-LNS is a highly accepted product among caregivers, children 6–24 months, and PLW, but several operational considerations need to be factored in during implementation for high-

quality programming. They include developing program guidance and standardized SBC materials, and providing sufficient resources to recruit, train, and supervise distribution site staff in efforts to scale up SQ-LNS programs through the health system and associated community platforms.

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