



OUR APPROACH: **QUALITY IMPROVEMENT**

# Improving nutrition counseling across the continuum of care

Demonstration project emphasizes strong linkages between nutritional support activities at the community and health facility levels

*Esnat began bringing her son, Misozi, to regular weighing sessions at the local health center soon after he was born. Although Misozi did not gain any weight between 6 and 9 months, Esnat was frustrated to find that she received no counseling on how to help him improve; the clinic staff just recorded his weight and moved on to the next person in an overstretched line of caregivers with children. In the health talks given after the sessions, Esnat heard important information about the illnesses children Misozi's age face, but received none of the feeding advice she so urgently needed. Esnat simply stopped going for weigh-ins. Even when long-awaited cooking demonstrations and mother support groups were begun in her community, Esnat stayed home, until a concerned friend finally convinced her to give the new activities a try. "One of the most important things I learned was that groundnuts and pumpkin leaves—which my husband and I cultivate in our own garden—can be crushed and added to porridge as a way to help Misozi grow," Esnat said after attending her first cooking demonstration. "Chipo [a community health volunteer] comes to my home often to see if I want to discuss anything that was covered in the sessions. I was very happy to tell her at the last visit that I had returned to the weighing sessions, and most importantly, that Misozi was gaining weight each time."*

## Introduction

A demonstration project implemented in two of Zambia's health facilities by the United States Agency for International Development's Infant & Young Child Nutrition (IYCN) Project showed that efforts to improve nutrition assessment, counseling, and support throughout the continuum of care achieve greater success when activities at the community and health facility levels are linked. In particular, the experience conveyed that engaging health care workers and community health volunteers in a system of two-way referrals helps direct caregivers to the interventions that best address children's immediate feeding needs, whether to prevent or to treat malnutrition.

## Background

In Zambia, inadequate infant and young child feeding practices have led to excessively high rates of chronic malnutrition (stunting): A 2007 Demographic and Health Survey showed that 45 percent of children younger than 5 years of age suffer from chronic malnutrition, while the Zambia Central Statistical Office suggests this figure may be as high as 54 percent. Both estimates place Zambia on par with the world's least-developed countries, leaving families to face a per-

sistent risk of permanent physical and cognitive deficits, and fatal illness, among their children.

From 2006 to 2011, the IYCN Project provided technical assistance to the government of Zambia through the Ministry of Health and the National Food and Nutrition Commission, with the aim of strengthening infant feeding support and services in prevention of mother-to-child transmission of HIV programs and related child health services.

IYCN initially trained facility-based health workers in three provinces using the World Health Organization's (WHO) integrated course, *Infant and Young Child Feeding Counseling*, which was specifically modified for the Zambian context. The project contributed to the training of master trainers in each province, who in turn trained more than 500 health workers in infant and young child feeding counseling for families affected by HIV and AIDS. Although the trainings addressed an urgent need across Zambia for more effective counseling for infant feeding choices within the context of HIV, many caregivers still need broader support for feeding to promote good nutrition. Regularly scheduled health talks in facilities, for example, lacked structure and often did not focus on a specific topic. Additionally, the limited time that staff members have for providing one-on-one counseling is usually reserved for HIV-positive mothers facing complex issues in their own care and in the care of their children, and little time is left for more extensive discussions about feeding practices.

IYCN also recognized that although the WHO course included the most up-to-date feeding recommendations,



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After conducting nutritional assessments, community health volunteers refer children who are not growing well to counseling and cooking demonstrations.

it did not address the counseling skills needed to effectively share information with mothers and caregivers, such as properly using job aids. This reinforced the idea that supportive supervision for counseling needed to be a significant part of the IYCN approach. The project therefore developed infant and young child feeding supervision guidelines and counseling observation checklists, and supported follow-on supervision of many course trainees conducted by the same people who had trained them.

## Improving nutrition counseling by linking health facilities and communities

Building on these capacity-building initiatives, IYCN implemented a demonstration project from October 2010 to March 2011 with the objective of establishing a scalable model for implementing systematic improvements in facility- and community-based nutrition assessment, counseling, and support. Conducted in collaboration with the health management team in Kabwe District (located in Zambia's Central Province) and with planning input from the Zambia Prevention, Care and Treatment Partnership, the demonstration targeted Bwacha and Makululu Health Centers, whose catchment areas are among the country's largest periurban communities and whose rates of malnutrition and HIV are among the highest in the district.

Evidence for building the demonstration project was gathered through 476 exit interviews with caregivers who had attended health talks, weighing sessions, and other services at health facilities. Among other discoveries, the data confirmed the infrequency of one-on-one nutrition counseling sessions. Mothers overwhelmingly reported that they did not receive individual counseling and commonly expressed the desire to seek advice on feeding questions they felt uncomfortable asking during health talks. Moreover, the content of the counseling sessions that did occur did not always adhere to WHO recommendations and national policy. For example, some health care workers automatically advised HIV-positive mothers to discontinue breastfeeding when their children tested negative for HIV (usually around 6 weeks of age), regardless of whether replacement feeding was acceptable, feasible, affordable, sustainable, and safe. The interviews also yielded a repeated interest among caregivers in attending cooking demonstrations, where they could learn to prepare nutrient-rich foods for their children.

To strengthen support to caregivers in these specific areas, the demonstration project focused on building stronger linkages between communities and health facilities, including encouraging health workers to refer mothers of children who were not growing well to particular community volunteers or organizations depending on their identified needs. The project built on a pre-existing structure for referring cases of growth-faltering from the community to the facility level, which required considerable reinforcement and created a new referral system from facilities to communities for critical preventative support.

Building these linkages meant increasing contacts for maternal, infant, and young child nutrition and health services, including antenatal care and postpartum visits for women, postnatal visits for children from birth to 24 months, and additional visits for timely responses to health and nutrition problems or concerns. A referral system creates these linkages by enabling health facilities to refer pregnant and postpartum women to specific community providers and organizations for additional infant feeding counseling and support services. It also gives community providers and organizations an opportunity to engage with health facilities to identify women and children who need additional nutritional support services. To initiate the two-way referral system, IYCN used a quality improvement model that facilitated joint planning and collaboration within facilities, and between facilities and communities, to continuously identify problem areas and feasible improvements that could be made.

Implementation of the demonstration project comprised five main steps:



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During cooking demonstrations, mothers learn how to prepare nutritious meals for children using locally available foods.



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A drama group educates the Bwacha community through a performance about infant and young child feeding.

1. IYCN conducted a process analysis at Bwacha and Makululu Health Centers and in their catchment areas to identify bottlenecks, missed opportunities for counseling and linkage with the community, and potential task-shifting of activities within the package of interventions to be implemented and tested from the facility to the community. From this analysis, three particular areas were recognized as in need of improvement: First, the existing referral system functioned inefficiently and almost exclusively as a mechanism for community health volunteers to direct severely ill and malnourished children to facility-based services with no reciprocal mechanism linking mothers from the facility to community-based support. Of the 13 nurses-in-charge interviewed, ten said they did not refer caregivers to community support and all noted that no tools existed to facilitate such referral. Second, facility-based health talks lacked significant information about infant and young child feeding, and rarely covered nutrition issues. Because topics were not documented in activity registers or elsewhere, it was particularly hard to pinpoint the frequency and quality of information shared. Third, there were no cooking demonstrations at the community level, depriving caregivers of valuable experience in preparing locally available nutrient-rich foods. Other volunteer-led community activities did occur in some areas, however, including breastfeeding support groups and growth monitoring and promotion.
2. Small quality improvement teams were established, consisting of government counterparts, facility staff, and appropriate community representatives from each site to identify areas in which promotion of

improved nutrition could be introduced into community support and clinic-based services. The teams also defined which activities should be conducted at the facility level and which at the community level. Because involving community representatives was a relatively new idea, IYCN and its implementation partners considered two different options: having separate teams at the facility and community levels with select representatives of each establishing a linking function, or having a facility-based quality improvement team conduct the large part of the work and then reach out to the community, particularly through meetings to seek input from community leaders, grandmothers, and others. Given the considerably tight timeline of the demonstration project, IYCN chose the latter option.

3. A consultant trained the local demonstration project coordinator and facilitated an initial learning session with quality improvement team members, focusing on using data to track implementation at each site and on reaching agreement on solutions for better integrating nutrition into facility- and community-based care and support. These solutions included:
  - Conducting orientation sessions for health workers on infant and young child feeding (two days), supporting safe infant feeding practices through appropriate counseling to avoid inappropriate

changes in feeding after early infant diagnosis of HIV (one-half day), and strengthening health talks (one-half day).

- Rolling out a six-day training and support package for community health volunteers in infant and young child feeding support and counseling, including a focus on home visits, cooking demonstrations, and the creation of mother support groups.
  - Bolstering community health volunteer activities by training local drama groups to integrate relevant feeding messages into their performances, which provide an excellent way to engage the community.
  - Designing and distributing referral forms for use between the community and the health facility.
4. At each of the facilities, quality improvement teams set simple targets to address areas identified for improvement and data use.
  5. Government counterparts and designated coaches provided ongoing technical assistance for nutrition counseling and support. Coaching is an integral strategy for quality improvement. Coaches possess a combination of technical skills and expertise in quality improvement. Their visits helped health facility staff to analyze their work processes and results of tested changes, and to review data.

## Results

The IYCN demonstration project provided an invaluable opportunity to test an implementation approach and initiate a process of joint problem-solving between communities and facilities. Although its ambitious timeline made data collection and analysis of targeted improvements very challenging, it is clear that overall, the project succeeded in engaging a broad range of actors in continuous quality improvement of infant and young child feeding activities, and a number of key results are worth noting:

1. Thirty-five health workers were trained during a three-day orientation on: infant and young child feeding, counseling messages surrounding early infant diagnosis, and how to conduct health talks. Participants largely immediately improved their knowledge of infant and young child feeding, which pre-training assessments had shown to be very poor prior to the training.



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Collaborative meeting with health workers to introduce the quality improvement approach and identify problems with nutrition service delivery.

## Quality improvement

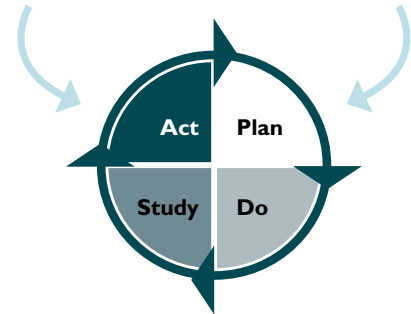
Quality improvement activities are conducted to help implement new guidelines or standards and to give health care providers and community-based volunteers a way to analyze how well they are doing and to systematically try new ways of organizing care and counseling to improve desired outcomes. Training alone is rarely, if ever, sufficient to change the process of service delivery. Quality improvement uses a plan-do-study-act cycle. In this model, a change believed likely to yield improvement is proposed. However, whether the change will yield an improvement or not is a hypothesis that needs to be proved or disproved. To do this, a plan is developed for testing the change, the plan is implemented, and the effect of that test is studied to determine whether the change did in fact yield the improvement expected. Action taken next is based on the result of the test. If the test is successful, the team may introduce it on a larger scale; if it is not successful, they may decide to discard it or to adapt the change to make it work more successfully.

### Model for Improvement

*What are we trying to accomplish?*

*How will we know that a change is an improvement?*

*What changes can we make that will result in improvement?*



Source: Associates in Process Improvement.

2. Sixty-seven community health volunteers were trained, and 68 caregivers were referred for individual counseling and cooking demonstrations. Trained community volunteers identified malnourished children through home visits and group activities. Throughout the ten zones of the Makululu catchment area, volunteers implemented 19 rotating cooking demonstrations, with an average of 20 to 30 participants each, and formed 17 15-member mother support groups. Both of these activities were used to identify and refer underweight children and to provide individual counseling and support. Nineteen cooking demonstrations were held, with an average of 20 to 30 participants each.
3. Fifty-two community drama performances with messages on infant and young child feeding took place, with an average of 50 to 60 attendees at each performance. After performances, caregivers asked the performers questions about issues related to exclusive breastfeeding and complementary feeding. Drama performers said they felt motivated with their new infant and young child feeding knowledge and could correctly interpret growth cards for children younger than 5 years of age and counsel mothers.
4. At both facilities, health talks became more frequent. On average, four health talks were held each week at Bwacha Health Centre on infant and young child feed-

ing-related topics, compared to one talk (which rarely covered infant and young child feeding) prior to the intervention. Attendees reported that the introduction of appropriate visual aids, such as counseling cards, and increased audience participation made the talks easier to understand. Staff observed that the mothers appreciated the use of counseling cards (the volunteers went around the group to show each mother), which helped them to better understand the information.

5. Staff at both health centers reported improved knowledge among mothers, which resulted in fewer hospital admissions for nutrition-related treatment.

“Many mothers here have been introducing complementary foods to children as young as three months because they believe babies who cry a lot are hungry. We have come to understand that this creates a big risk for malnutrition. We also believed that a woman who becomes pregnant will begin to produce ‘dirty’ milk and should stop breastfeeding if she has a child under the age of one. Now, with the knowledge we have and with more information in the community through drama groups, most mothers are learning that there is no harm to breastfeed a child while pregnant.”

—Participant in a cooking demonstration in Makululu



Drama troupes engage the community through performances and songs about infant and young child feeding.

Furthermore, staff reported an increased level of engagement with the community; at Makululu, health workers said the intervention brought more clients to the health center for a wide range of services.

- The project resulted in a strengthened two-way referral system. Referrals from community health workers to health facilities greatly increased, with 36 occurring during the life of the project, and 24 referrals from health facilities to community volunteers occurring, when prior to the project there were none.

## Looking ahead

Despite the short implementation period, this approach demonstrated that a small investment that builds on existing structures and resources can be integrated and maintained. The high level of engagement among partners suggests that the momentum behind these activities will be sustained. The district health team is supporting the inclusion of these activities in the next cycle of annual district plans and budgets. Furthermore, other child health partners have pledged to integrate this approach into additional activities at the health facility and community levels.

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### ABOUT THE INFANT & YOUNG CHILD NUTRITION PROJECT

The Infant & Young Child Nutrition Project is funded by the United States Agency for International Development. The project is led by PATH and includes three partners: CARE, The Manoff Group, and University Research Co., LLC. For more information, please contact [info@iycn.org](mailto:info@iycn.org) or visit [www.iycn.org](http://www.iycn.org).