

Our global efforts to prevent malnutrition during the first 1,000 days

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PATH/Evelyn Hockstein

ABOUT THE INFANT & YOUNG CHILD NUTRITION PROJECT

The Infant & Young Child Nutrition (IYCN) Project was the flagship project on infant and young child nutrition of the United States Agency for International Development (USAID) from 2006 through 2012. The five-year project aimed to improve nutrition for mothers, infants, and young children and promote HIV-free survival of children. The IYCN Project built on 25 years of USAID leadership in maternal, infant, and young child nutrition, focusing on proven interventions that are effective during pregnancy through the first two years of life.

For more information, please visit www.iycn.org.

The IYCN Project was led by PATH and implemented by PATH and three partners: CARE, The Manoff Group, and University Research Co., LLC.



Infant & Young Child Nutrition (IYCN) Project

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A message from the project director

Dear colleagues:

I am pleased to introduce the Infant & Young Child Nutrition Project's *Final Report: Our global efforts to prevent malnutrition during the first 1,000 days*. This document summarizes the project's accomplishments across five years of maternal, infant, and young child nutrition programming.

The IYCN Project aimed to build healthier and more productive lives by focusing on prevention of malnutrition during the 1,000 day window from pregnancy through a child's second year of life. Through needs assessment, policy guidance, social and behavior change communication, capacity building, monitoring activities, and sharing good practices, we aimed to improve the nutritional status of mothers and children and to increase children's chances of leading healthy lives free of HIV. These activities resulted in the following achievements:

- Built an enabling environment for improved nutrition
- Strengthened social and behavior change communication programming
- Enhanced complementary feeding programs
- Increased HIV-free survival for the next generation
- Brought women's and children's nutrition to the forefront of agriculture
- Strengthened health systems for healthier mothers and children

IYCN's experiences and accomplishments can help to inform future global health programs and strategies including the United States Government's Global Health Initiative. In particular, our achievements in building the capacity of governments and local partners to implement high-quality nutrition activities and to support the development of country-owned policies, programs, and tools have resulted in strengthened health systems and sustainable solutions that will have a lasting impact on the health and well-being of mothers and children. Similarly, our experience and resources for integrating strategic nutrition interventions across HIV, agriculture, and gender programs at the community and facility level can be adapted and replicated by programs aiming to strengthen comprehensive health services for mothers and children. In addition, we encourage partners to build on our innovations, such as an approach for using micronutrient powders to improve complementary feeding in Bangladesh.

The IYCN team is tremendously grateful to global and local partners for collaborating with us to achieve the accomplishments described in this report. We would like to thank our government partners, including ministries of health, agriculture, gender, and social welfare, for their vision, guidance, and dedication. We are grateful to the World Health Organization and the United Nations Children's Fund in addition to numerous nongovernmental organizations and local partners for their close collaboration and expertise. We greatly appreciate the leadership and generous support of USAID's staff in Washington, DC, and in the countries where we worked.

Over the past several years, many of these partners have been at the forefront of an exciting global movement to strengthen and scale up nutrition programming. As the momentum continues, we look forward to the acceleration of efforts that will ultimately lead to healthier and more productive futures for countries, communities, and individuals. We hope that our colleagues and future programs continue to build on IYCN's legacy in preventing malnutrition of mothers, infants, and young children.

Sincerely,

Denise Lionetti

Project Director, IYCN Project

INTRODUCTION

The Infant & Young Child Nutrition (IYCN) Project focused on the critical window of opportunity for preventing malnutrition that exists during the 1,000 days between conception and a child's second year of life. Staying well-nourished during the first 1,000 days can pave the way for a strong, healthy, productive future. Evidence shows that optimal nutrition during this time can have a lasting impact on a child's growth, learning, and future productivity.

Without proper nutrition, children are susceptible to more frequent and severe childhood illnesses, stunted growth, developmental delays, and death. The Lancet Maternal and Child Undernutrition series reports that maternal and child undernutrition is an underlying cause of more than one-third of child deaths and 11 percent of the total global disease burden. In developing countries, more than 3.5 million children younger than five die each year as a result of undernutrition.

Fortunately, malnutrition is largely preventable through proven nutrition actions such as optimal breastfeeding and complementary feeding practices. The Lancet Child Survival series shows that child deaths could be reduced by 13 percent through exclusive breastfeeding alone and by another 6 percent through the practice of optimal complementary feeding.

As the United States Agency for International Development's flagship project on infant and young child nutrition, the IYCN Project aimed to prevent malnutrition of mothers and children through global and country-focused efforts.



Ayiti Foto

This document describes the project's activities and accomplishments over five years of programming that spanned 16 countries. Together with governments and global and local partners, the project built a strong foundation for worldwide efforts to reduce the burden of malnutrition and build healthier futures for mothers and children.



PATH/ Evelyn Hockstein

The IYCN Project supported maternal, infant, and young child nutrition programs in 16 countries. The map below shows where we implemented comprehensive programs or selected activities, and highlights significant accomplishments described in this report.

Haiti

Following IYCN's capacity-building intervention, health workers offered more appropriate infant feeding counseling for HIV-positive mothers upon receiving their babies' first HIV test results.



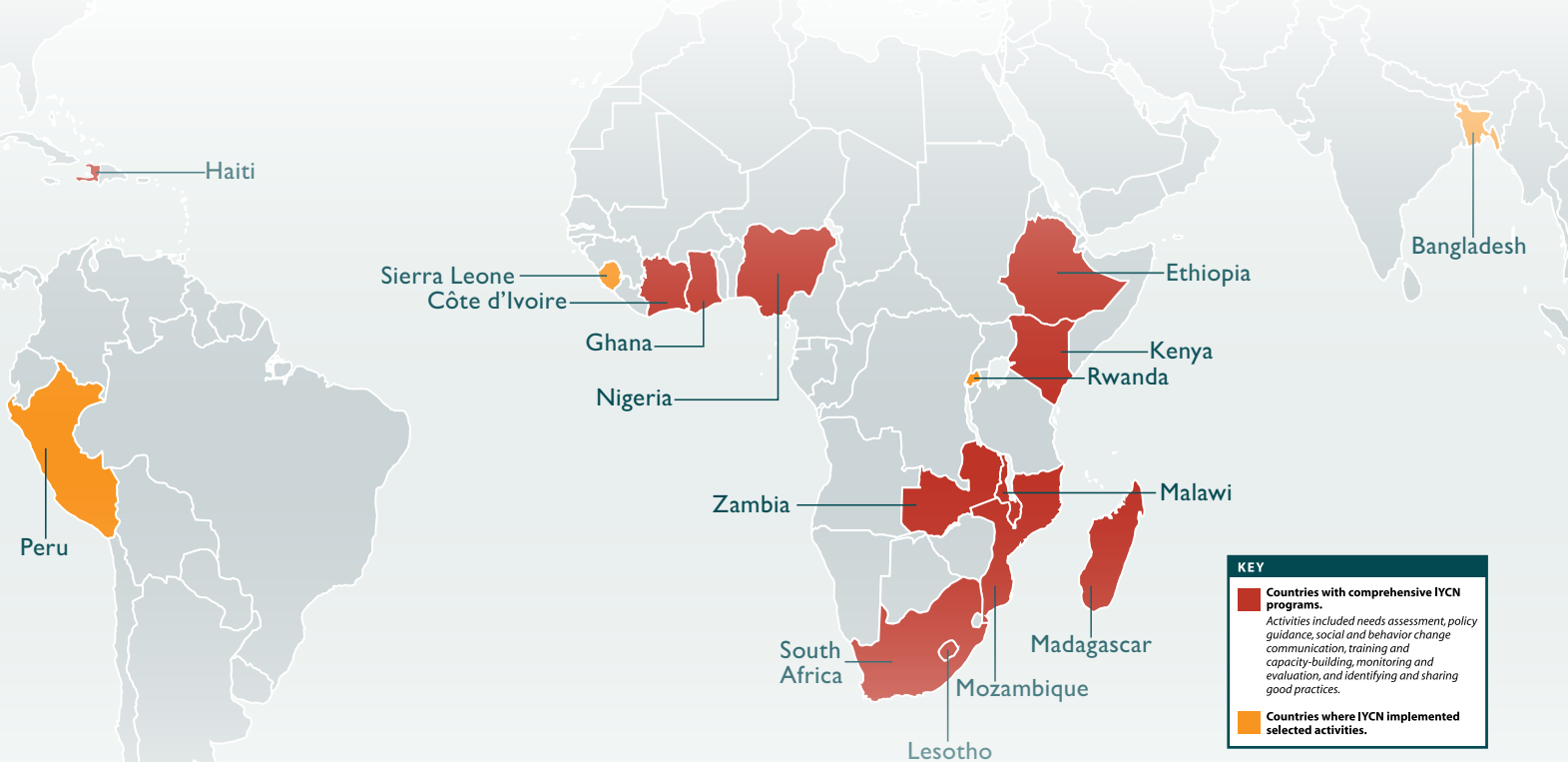
Ayiti Foto

Bangladesh

Together with partners, IYCN reached 55,000 young children with an innovative intervention promoting improved complementary feeding practices and encouraging use of micronutrient powders to prevent anemia.



M.Dorgabekova



Nigeria

IYCN played a key role in the country's adoption of the 2010 WHO guidelines on HIV and infant feeding. A new policy promoting breastfeeding as a national strategy is increasing children's chances of surviving free of HIV.



PATH/Veside Pikuda

Ethiopia

Agriculture extension workers trained by IYCN are now offering nutrition counseling, giving cooking demonstrations using nutritious food from household gardens, and making referrals for nutrition services.



PATH/Evelyn Hockstein

Zambia

With strengthened linkages between communities and health facilities in Kabwe District, community volunteers and health facility workers are joining together to prevent malnutrition and offering consistent feeding advice for caregivers across the continuum of care.



Tina Kaonga

Malawi

As part of the country's Scaling Up Nutrition strategy, national stakeholders adopted IYCN's pilot intervention for training community nutrition workers to promote optimal feeding.



PATH/Christine Demmelmaier

Starting with our programming principles and core activities, we tailored our approach to the needs of each country in which we worked and collaborated with partners to implement sustainable, cost-effective solutions. Here is a snapshot of our approach.

Our programming principles

Focusing on prevention

Keeping a child well-nourished during the first 1,000 days prevents irreversible damage that can impact health and productivity for a lifetime. By emphasizing prevention of malnutrition, our programs contributed to reduced morbidity and mortality, improved school performance, and increased productivity later in life.

We supported families, communities, and countries in using optimal nutrition practices based on international recommendations. Following these recommendations and implementing small changes in feeding behaviors is the most effective and cost-efficient way to address malnutrition. Prevention not only protects children from lifelong effects, but it costs far less than malnutrition treatment, which can be a burden for households, communities, and health systems in low-resource settings.

Involving communities in addressing malnutrition

Infant and young child feeding happens at home, not in health facilities, so we focused on solutions that start at the community level. We began by supporting health care providers and equipping them with the skills they need to support caregivers in optimally feeding their children. We trained a wide range of community workers and volunteers to understand mothers' current practices, constraints, and

beliefs around feeding their children and to counsel them on the best ways to meet their children's nutritional needs.

IYCN also helped communities support mothers' decisions and overcome challenges and barriers to providing optimal feeding by engaging families through mother support groups, men's groups, and grandmother groups. To enhance follow-up in the community and increase utilization of health services, we strengthened two-way referral systems between health facilities and communities.

Strengthening health systems to improve services for mothers and children

IYCN strengthened health systems to build a supportive environment for nutrition counseling. We worked with partners and health workers to integrate nutrition assessment, counseling, and support into child health, antenatal care, maternity, HIV treatment, family planning, and prevention of mother-to-child transmission of HIV (PMTCT) programs. Importantly, we collaborated with governments to introduce supportive supervision procedures to enhance health workers' skills.

Using a quality improvement approach, the project identified areas where improvements could be made in facility- and community-based nutrition services and organized service providers to create solutions and assess progress in introducing improvements.

Our activities

IYCN's contribution to country nutrition programming focused on core elements: assessing the need in order to tailor activities to the local situation; policy guidance to lay the foundation for coordinated action; development of social and behavior change communication strategies, materials, and tools; capacity-building to boost human resources supporting nutritional improvements; monitoring and evaluation to improve management and assess impacts; and sharing of good practices to expand the global impact of nutrition programs.

Assessing the need

To develop responsive, effective strategies, we worked with each country to assess the situation and identify key beliefs and behaviors affecting maternal, infant, and young child nutrition and needs for nutrition programs. We focused on identifying gaps in service provision where we could contribute to national programs and policies, and on barriers



PATHE/Evelyn Hockstein



PATH/Evelyn Hockstein

and facilitators to optimal nutrition practices. The results of these assessments helped to inform strategies, training curricula, policy guidance, and materials.

Providing policy guidance

In order to create an enabling environment for nutrition programming, IYCN collaborated with ministries of health, nongovernmental organizations, the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), and other partners to incorporate current international nutrition recommendations into national policies and guidelines.

Promoting behavior change and mobilizing communities

Social and behavior change communication activities were a key component of IYCN's strategic approach to achieve sustainable improvements in maternal, infant, and young child nutrition. Improving key practices requires change at the individual, household, and community levels and in services for mothers and families. We facilitated the development of national behavior change communication strategies and ensured that consistent and accurate messages were reinforced at each level through one-on-one counseling, home visits, mother support groups, cooking demonstrations, drama performances, and mass media. We also created communications materials, such

as take-home brochures for mothers and families, to encourage the adoption of positive behaviors.

Training health workers and building capacity

After collaborating with governments and partners to adopt improved policies, identify key behaviors, and develop messages, IYCN collaborated with stakeholders to incorporate updated national guidelines into training curricula and job aids for everyone from health facility workers, including physicians, nurses, and midwives, to community workers and volunteers. We also enhanced referral systems, supervision, and monitoring to improve the performance of health workers.

Monitoring activities

Continuous monitoring of our programs ensured a results-based approach to influencing behaviors and improving infant feeding practices. The use of data for management increased the effectiveness of our interventions and improved decision-making by program managers.

Identifying and sharing good practices

Sharing of lessons learned from each country helped a wide range of global and country partners enhance the impact of their programs. Exchanging experiences and materials across each country where IYCN worked resulted in strengthened programs.

Built an *enabling environment* for improved nutrition



PATH/Evelyn Hockstein

Prevention of malnutrition requires an enabling environment at the national level as well as in health facilities and communities. Through needs assessments in several countries, we found that national policies often did not reflect current international standards on infant feeding and providers in health facilities and communities lacked up-to-date guidance and tools required to adequately counsel caregivers on feeding children. In addition, program implementers needed practical resources and advice for implementing effective nutrition interventions.

IYCN set the stage for stronger nutrition policies and programs by focusing attention on nutrition behaviors and encouraging national adoption of internationally recommended policies, guidelines, and tools. In HIV-endemic areas, the project promoted national policy actions and strategies that are increasing HIV-free survival by helping to prevent mother-to-child transmission of HIV while also increasing a child's chance of surviving and leading a healthy life. We also shared the results of our formative research as a foundation for other nutrition programming, encouraged adoption of evidence-based approaches, and regularly disseminated good practices and practical tools among global health stakeholders. As a result, countries, communities, and caregivers have benefitted from a more supportive environment for maternal, infant, and young child nutrition programs.

Key accomplishments

- **Building the global evidence base.** The project significantly expanded evidence available to help policymakers and program implementers understand the role of behaviors in maternal, infant, and young child nutrition and advance nutrition programming by publishing around 35 qualitative assessments from 12 countries, three global literature reviews, and a series of ten user-friendly technical briefs. These publications illuminated maternal dietary practices and child feeding behaviors, highlighting the barriers and motivators that influence them; identified gaps in nutrition assessment, counseling, and support services; and summarized current research.
- **Enhancing national guidelines for healthier futures.** IYCN supported country-led efforts to strengthen 19 nutrition policies and operational strategies that aim to improve maternal and child nutritional status and increase children's chances of surviving and thriving free of HIV in 12 countries. In Madagascar, for instance, IYCN developed a comprehensive maternal nutrition strategy that stakeholders across the country are using to design and strengthen programs addressing high rates of malnutrition among mothers.

- **Policy turnaround on breastfeeding.** When WHO issued new guidelines on HIV and infant feeding in early 2010, we assisted HIV and nutrition stakeholders in understanding the evidence behind the recommendations by facilitating discussions and conducting presentations during national meetings and by publishing a summary of research findings on the risks and benefits of infant feeding options for HIV-positive mothers. Notably, in South Africa, we joined partners in presenting evidence for exclusive breastfeeding and facilitating stakeholder discussions that led the minister of health to declare the country a “breastfeeding nation” in August 2011. The declaration—which signified a turnaround from previous policy recommending formula feeding for HIV-positive mothers—will help to ensure that children are not only protected from HIV but have a better chance of survival.
- **Increasing access to research, tools, and innovations.** Through a broad array of communications efforts, we reached a diverse audience of health and development colleagues across the globe with new knowledge and practical resources for implementing programs. We regularly exchanged innovative and evidence-based approaches by hosting or presenting at key nutrition meetings, including more than 25 international events and eight national end-of-project meetings. Our quarterly newsletter and frequent news alerts reached more than 3,000 subscribers in 130 countries with timely research updates, helpful tools, and program news. The IYCN website served as a nutrition information hub, receiving 70,000 unique visits from thousands of users in 180 countries and territories who accessed 55,000 resources, including IYCN’s training tools, success stories, and multimedia materials.

Supporting a country-led shift on breastfeeding in Nigeria

In Nigeria, the IYCN Project played a key role in supporting national consensus for adopting the WHO 2010 recommendations on HIV and infant feeding. By facilitating discussions and presenting key evidence, IYCN helped convince national leadership not only to adopt the new guidelines, but also to promote breastfeeding as a national strategy to maximize HIV-free survival. Nigeria’s new policy now includes resolute language that instructs health workers to counsel HIV-positive mothers to breastfeed their infants and take antiretroviral drugs—a shift from the former policy, under which health workers were charged with the nearly impossible task of helping mothers choose between breastfeeding and replacement feeding.

Subsequently, the project assisted the government to integrate the policy into a national curriculum for facility- and community-level workers and to develop and disseminate 50,000 copies of a user-friendly brochure to help stakeholders across the country understand the new guidance.



POLICY AND STRATEGY CONTRIBUTIONS

Côte d’Ivoire: Minimum Standards of Nutritional Support of Orphans and Vulnerable Children

Ethiopia: National Nutrition and HIV Guidelines

Haiti: National Norms for Safe Feeding of HIV-Exposed Infants and Young Children

Kenya: National Policy on Infant and Young Child Feeding

Lesotho: National Infant and Young Child Feeding Guidelines

Madagascar: Maternal Nutrition Strategy

Malawi: National Community-Based Management of Acute Malnutrition Guidelines; National Strategy for the Prevention of Micronutrient Malnutrition; Operational Strategy to Support the National Infant and Young Child Feeding Policy and Strategic Plan

Mozambique: National Infant Feeding Policy

Nigeria: National Consensus on 2009 WHO Rapid Advice; National Infant and Young Child Feeding Guidelines; National Guidelines on Nutritional Care and Support for Persons Living with HIV; National Operational Guidelines for Community-Based Management of Acute Malnutrition; National Plan of Action on Infant and Young Child Feeding in the Context of HIV/AIDS; National Policy on Infant and Young Child Feeding

Rwanda: Monitoring and Evaluation Plan for the National Multi-Sectoral Strategy to Eliminate Malnutrition in Rwanda 2011–2013

South Africa: Shift from formula feeding to exclusive breastfeeding for the first six months in the context of HIV

Zambia: National Consensus Statement on HIV and Infant Feeding

Advanced *social and behavior change* communication programs



PATH/Evelyn Hockstein

Changes in feeding behaviors, such as practicing exclusive breastfeeding for the first six months, can significantly improve child health and nutritional status. Bringing about such changes requires a strategic communications approach that targets individuals, households, and communities. Yet many programs have focused singularly on influencing caregiver behaviors while ignoring other influential household and community members. In many countries, lack of training and job aids for health providers and practical resources for program implementers has impeded progress in improving feeding behaviors.

Strengthening social and behavior change communication programs to prevent malnutrition was an essential component of our work. In each country, IYCN identified barriers and facilitators related to recommended behaviors and used targeted communications interventions to facilitate change and reinforce key messages with health workers, communities, and households, in addition to caregivers. Through comprehensive capacity-building and training activities, IYCN influenced significant changes in practices among facility- and community-based health providers—ensuring that caregivers received accurate, actionable

advice that would lead to critical feeding improvements and sustainable progress. We also engaged fathers, grandmothers, and community leaders to support improved feeding. We documented these experiences, shared our tools with program implementers worldwide, and promoted practical approaches for advancing social and behavior change communication programs.

Key accomplishments

- **Creating locally appropriate materials.** Based on our understanding of local barriers to improved nutrition and the latest national policies and international guidelines, IYCN, in collaboration with partners, developed, pre-tested, and disseminated national curricula, job aids, take-home brochures, and posters to support social and behavior change in 12 countries. Notably, we assisted Malawi, Mozambique, Nigeria, and Zambia in adapting UNICEF's *Community IYCF Counselling Package* and supported Mozambique to adapt the *Baby-Friendly Hospital Initiative* curriculum for training health providers. Partners in Malawi and Zambia are already scaling up use of materials for training community-based workers nationally.

- **Improving provider performance.** Our training and capacity-building activities reached nearly 5,900 trainers; health, social, and community workers; peer counselors; mother support group leaders; agriculture extension workers; and other providers across the health, agriculture, gender, and education sectors. Trainees are now supporting improved feeding practices through counseling, home visits, cooking demonstrations, weighing sessions, health talks, and mother support groups in 12 countries. Pre- and post-training assessments, including focus groups and in-depth interviews, revealed that participants gained a wealth of new knowledge and improved their ability to counsel caregivers; many providers said they learned to give more appropriate feeding advice and felt empowered to offer helpful information for mothers, such as about local foods they can feed to their children.
- **Engaging key influencers.** IYCN piloted innovative approaches for involving fathers and grandmothers in comprehensive community-based programming—bringing increased understanding of their roles in influencing caregiver feeding practices. The project facilitated community theater performances; trained community leaders, traditional healers, and men’s groups; and established dialogue groups for grandmothers. Through international events for program implementers, we disseminated unique tools to use in these approaches, discussed findings from a global literature review on engaging grandmothers and men, and shared results from a qualitative assessment on engaging grandmothers and men in Kenya.
- **Expanding our reach through mass media.** The project reached a vast array of households with evidence-based messages about improved maternal, infant, and young child nutrition through entertaining and informative multi-language radio and television campaigns in Ethiopia, Ghana, Haiti, and Zambia. In Zambia, we supported the government to create a popular 13-part radio series, *Bushes that Grow Are the Future Forest*, which aired on several national radio stations and resulted in a high volume of questions and reports of caregivers taking their children for consultations about feeding. We documented the approach and offered tips for program implementers in a brief guide: *Using radio to improve infant and young child feeding in Zambia*.
- **Global tools for program implementers.** Based on experiences in eight countries, IYCN developed a collection of 13 resources for *Strengthening Community Nutrition Programming*. Launched in July 2011, we distributed more than 3,000 copies of the resources, including training manuals, a guide for strengthening health talks, and monitoring tools. Program implementers around the world have expressed interest in adapting the resources for use in a wide variety of programs.

Set the stage for a new cadre of community nutrition workers in Malawi

After examining current caregiver feeding practices and identifying practical behavior change solutions through formative research, the IYCN Project developed and launched a package of training materials in support of the Malawi Office of the President and Cabinet’s strategy to develop a new cadre of community nutrition workers. The project used the training package during a pilot intervention with 40 national and district-level trainers and 153 community workers in Salima District, where trained workers reached 1,000 households in 77 villages by making home visits and conducting cooking demonstrations to improve feeding practices and prevent malnutrition of children. The intervention, which has been adopted as part of the country’s Scaling Up Nutrition strategy, will be scaled up nationally to improve the nutritional status, health, and HIV-free survival of infants and young children.



PATH/Christine Demmelmaier

HIGHLIGHTS

- Trained nearly 5,900 health workers and community-based workers in 12 countries on infant and young child feeding or maternal nutrition.
- Disseminated more than 3,000 copies of tools for reaching caregivers, households, and communities.
- Distributed more than 4,300 sets of counseling cards in three local languages to health facility- and community-based providers across Ethiopia.

Enhanced complementary feeding programs



Tina Kaonga

A common cause of inadequate child growth is poor feeding practices, particularly starting after six months of age, when children need food to complement breastmilk. In many cases, families can feed their children adequately using locally available foods, but they often do not know how to prepare or feed these foods in a way that will meet the needs of their children. In many communities, there is also an urgent need to improve access to nutrient-rich, local foods for better complementary feeding.

We emphasized feeding for children after six months of age as a critical component of maternal, infant, and young child nutrition programming. IYCN conducted research to increase understanding of complementary feeding practices, designed social and behavior change communication and social marketing strategies to promote optimal use of nutritious local foods, and developed a local food supplement for HIV-positive mothers and their children. We also piloted an innovative method for using micronutrient powders to promote improved complementary feeding.

Key accomplishments

- **Understanding complementary feeding practices.** Through a global literature review of evidence of nutritional impact through intervention programs focused on complementary feeding, and rigorous formative assessments in nine countries, the project significantly increased understanding of complementary feeding practices. In Malawi, for instance, IYCN conducted Trials of Improved Practices to identify feeding problems and simple practices that mothers could adopt such as preparing less watery porridge or substituting fruit for biscuits and sugary drinks. The findings provided valuable evidence for national policies, strategies, and programs, including the World Bank's investment strategy for nutrition in Malawi as well as the country's Scaling Up Nutrition strategy.

“Indeed biscuits are expensive...and with the same amount of money, I can buy eight bananas.”

—Mother in Salima, Malawi

- **Promoting locally available foods and optimal feeding practices.** In 13 countries, we emphasized that local foods can contribute to improved complementary feeding of children. For example, the project created local recipe books and trained community workers and volunteers in Côte d'Ivoire, Ethiopia, Malawi, and Zambia to conduct cooking demonstrations using available resources to promote more nutritious meals for children. In many cases, mothers were unaware of the variety of foods that children can eat if prepared properly, but during cooking demonstrations in Zambia, caregivers were happy to learn that they could use foods from their own gardens, such as groundnuts, to enrich their children's meals and they found it helpful to practice preparing the foods to make them child friendly.

“Now I conduct cooking demonstrations to teach mothers to mix some of the nutritious local foods to give to the child. We pound meat and add it to the porridge.”

—Community health volunteer in Kabwe, Zambia

- **Public-private partnership to encourage use of fortified foods.** We collaborated with the government of Ghana, the Global Alliance for Improved Nutrition, and Yedent Agro, a local food manufacturer, to create a social marketing strategy to promote improved complementary feeding practices and encourage use of fortified complementary foods for young children. The intervention reached households in Brong Ahafo Region with targeted messages on complementary feeding by airing more than 1,000 radio spots on eight radio stations, distributing nearly 6,000 posters and more than 19,000 flyers, and training 196 health workers and 137 community group leaders to conduct community activities.
- **Innovative supplementary food for HIV-positive mothers and children.** In Zambia, the project developed a lipid-based, add-in food supplement primarily made of groundnuts and fortified with a micronutrient mix. Targeted for use at sites offering PMTCT services, this product offers HIV-positive pregnant and lactating women, and their children aged six to 23 months, a nutrient-dense food made with locally available ingredients. The food supplement is ready for production and the project published a manual to help manufacturers in Zambia and other countries replicate the formula using local resources.

Piloting an innovative approach: using micronutrient powders to improve complementary feeding in Bangladesh

To address the high prevalence of anemia among children in Bangladesh, the project designed an innovative complementary feeding intervention by coupling specific infant and young child feeding practices promoted by the Ministry of Health with the use of micronutrient powders for home fortification. In collaboration with CARE, the project led a consensus-building workshop with nutrition stakeholders to select specific target practices to promote—such as the addition of mashed vegetables to complementary foods—and created communications materials to assist community health workers in promoting these practices along with the use of micronutrient powders, supplied by the Global Alliance for Improved Nutrition. The intervention reached more than 55,000 young children in the country's Karimganj District. CARE will evaluate its impact both on anemia prevalence and infant and young child feeding practices.



M.Dorgabekova

HIGHLIGHTS

- Reached 55,000 young children in Bangladesh with an innovative complementary feeding intervention.
- Aired more than 1,000 radio spots on complementary feeding in Ghana's Brong Ahafo Region.

Increased HIV-free survival for *the next generation*



PATH/Evelyn Hockstein

Exclusive breastfeeding during a child's first six months not only reduces the risk of HIV transmission, compared to breastfeeding along with giving other foods and fluids, it also improves a child's overall health and chances of survival. Yet, in response to the HIV epidemic, mixed messages have led to confusion around how HIV-positive mothers should feed their infants. Lacking up-to-date guidelines, tools, and training, health providers commonly give inaccurate and potentially harmful feeding advice to these mothers. As a result, some mothers stop breastfeeding altogether, while others practice mixed feeding before six months—leaving their babies more vulnerable to illness and disease.

Our efforts to strengthen infant feeding and HIV policies and programs emphasized the importance of achieving HIV-free survival—ensuring prevention of mother-to-child transmission of HIV while also increasing a child's chance of surviving and leading a healthy life. Following the 2009 introduction of the WHO Rapid Advice on HIV and Infant Feeding and accompanying 2010 guidelines, we encouraged countries to select a single national recommendation for mothers based on the new WHO guidance—breastfeeding with antiretroviral interventions

or formula feeding. We also focused on building the capacity of health workers to strengthen nutritional support for HIV-positive mothers. These efforts resulted in dramatic shifts in national breastfeeding policies and critical improvements in provider practices that are contributing to increased HIV-free survival for the next generation.

Key accomplishments

- **Integrating nutrition and HIV programs.** In ten countries, IYCN integrated nutrition assessment, counseling, and support into HIV programs, including PMTCT, orphans and vulnerable children (OVC), and pediatric AIDS services. In many cases, we helped to extend nutrition promotion beyond HIV programming to other health facility services, including maternal and child health—ensuring that populations not affected by HIV also benefitted from strengthened nutrition support across the continuum of care. In Côte d'Ivoire, for example, mothers received high-quality nutrition services from trained health care providers in 92 PMTCT sites, 30 nutritional therapeutic units, and ten pediatric care and support centers.

- **Country-specific materials.** IYCN worked with ten countries to develop and distribute local training and social and behavior change communication tools for promoting HIV-free survival. Notably, we assisted national stakeholders in Côte d'Ivoire, Lesotho, Nigeria, and Zambia in adapting WHO's *Infant and Young Child Feeding Counselling: An Integrated Course*, designed to give health providers the competencies to conduct counseling in breastfeeding, HIV and infant feeding, and complementary feeding. The governments of these countries have already used the adapted courses to train health workers nationally.
- **New tools for communicating risk.** The project created a decision tree for use by health workers when helping HIV-positive breastfeeding mothers decide whether they are ready to stop breastfeeding once their children have reached 12 months (recommended by WHO only when a mother can provide a nutritionally adequate and safe diet without breastmilk). For countries that have decided to follow WHO's recommendation to provide antiretroviral interventions during breastfeeding but have not yet adopted the recommendation to promote a single feeding option, IYCN created a counseling card that helps HIV-positive mothers visualize the infection risks of breastfeeding with antiretrovirals for 12 months compared with the mortality risks of formula feeding.
- **Nutrition support for orphans and vulnerable children.** The project provided targeted support for OVC in Côte d'Ivoire, Ethiopia, and Nigeria. For example, in Côte d'Ivoire, we developed national guidance on nutrition for OVC and trained more than 150 social workers and 130 other community stakeholders at 30 social centers to enable them to offer nutrition assessment, counseling, and support for OVC. We also supplied the social centers with anthropometric tools and cooking equipment. Trained social workers are now able to measure children's growth, refer malnourished children to health services, and advise caregivers on optimal feeding and caring practices.
- **Involving communities.** IYCN connected with communities to integrate nutrition and HIV programming. The project reached more than 34,000 community members in Kenya's Western Province by training HIV peer counselors to integrate nutrition messages into their existing community-based activities, such as home visits and health talks with HIV-positive mothers and their families. In Zambia, we facilitated task-shifting by training community volunteers to offer nutrition counseling for HIV-positive mothers at health facilities to assist overburdened health workers.

Improving nutrition counseling for HIV-positive mothers in Haiti

In Haiti and several other countries, we found that health workers commonly misunderstood the purpose of the early infant diagnosis test for HIV and counseled HIV-positive mothers to stop breastfeeding when they received a negative test result. To address the problem, IYCN developed a unique training module on counseling surrounding early infant diagnosis of HIV, trained health workers at two health facilities, and created a supportive supervision system to follow up with training participants. Although health workers were reluctant to change their practices at first, many said they were able to provide more appropriate counseling on breastfeeding following the training. Most significantly, health providers who had previously counseled mothers to stop breastfeeding upon receiving a negative result said they began encouraging mothers to continue breastfeeding in order to keep their children healthy and increase their chances of surviving free of HIV.



Ayiti Foto

HIGHLIGHTS

- Integrated nutrition into HIV programs at 132 sites in Côte d'Ivoire.
- Reached 34,000 community members with an infant feeding and HIV intervention in Kenya's Western Province.
- Trained 280 social workers and community stakeholders and equipped 30 social centers to provide nutrition assessment, counseling, and support for OVC in Côte d'Ivoire.

Brought women's and children's nutrition to *the forefront of agriculture*



PATH/Evelyn Hockstein

Renewed global interest and investment in agriculture and food security has provided a promising context for creating programs that not only boost production and incomes, but improve nutrition—particularly for women and children. Although agricultural projects can have a significant effect on household food security and nutritional well-being, some offer little or no nutritional advantages or can be harmful for women, children, and other nutritionally vulnerable populations. Agricultural program designers have lacked guidance and practical tools to assist them with developing programs that are sensitive to the nutritional concerns of vulnerable women and children.

We paved the way for transformations in how program designers think about and develop agriculture and food security initiatives. The project created valuable materials and tools that can help to guide and influence program designers and promoted them in relevant institutions. By collaborating with governments and other stakeholders to orient agricultural programming for better nutritional outcomes, we forged critical links between agriculture and nutrition programs. Because women's diets can serve as an important

indicator for the effectiveness of food security programs, we also elevated the importance of improving maternal diets. All of this work focused on maximizing nutritional benefits for the most nutritionally vulnerable groups.

Key accomplishments

- **Practical tools for integration.** The project developed a set of four unique resources that are helping agriculture project designers around the world address the nutrition concerns of women, children, and other vulnerable groups. We distributed nearly 7,000 copies of the resources—which include a tool for integrating nutrition objectives into agriculture projects and a Nutritional Impact Assessment Tool—and engaged hundreds of agriculture and health stakeholders in using the materials during practical workshops and discussion forums. The World Bank has endorsed the resources, and India's National Rural Livelihoods Mission as well as Nigeria's National Programme for Food Security have started adapting the tools for national use.

- **Country-level integration.** We facilitated collaboration and increased dialogue between health and agriculture stakeholders in Ethiopia, Lesotho, Nigeria, and Zambia. In Zambia, we collaborated with the Ministry of Agriculture and Cooperatives, the Ministry of Health, and other partners to create a recipe book of indigenous and local foods. The government distributed more than 1,000 copies of the book to stakeholders, including provincial agriculture officers, to support caregivers on improved complementary feeding of their children. In Lesotho, we facilitated multisectoral collaboration between the Ministries of Health and Social Welfare, Agriculture, and Education at the national and local levels by encouraging shared work plans and coordinating cascade training for community workers. As a result, nearly 500 Ministry of Agriculture workers conducted cooking demonstrations and promoted keyhole gardens to improve complementary feeding.
- **Tailored materials.** Based on formative research, IYCN created counseling tools to assist community-based workers in delivering targeted messages about nutrition and agriculture. In Ethiopia, for example, the project's discussion cards helped agriculture extension workers facilitate discussions about nutrition. In Nigeria, IYCN's counseling cards for use by community workers included key messages about kitchen gardens as well as raising small animals at home to promote improved access to animal-source foods.

“During pregnancy, I was using vegetables and I was feeling healthy.”

—Mother and beneficiary of IYCN's intervention with the Urban Gardens Program in Ethiopia

- **Addressing maternal diets to improve household food security.** We elevated the importance of improving maternal diets as part of food security interventions by publishing a technical brief and sharing findings from an analysis of Demographic and Health Survey data during events in Washington, DC, and Rome. Findings revealed that in Cambodia, Ghana, and Haiti, poor nutrient intakes are common among mothers in resource-poor settings and that the diets of mothers are strongly associated with the diets of their children. Based on the findings, IYCN suggested that food security programs incorporate nutrition education and social and behavior change interventions that target maternal dietary diversity. Additionally, the project recommended further research to evaluate the linkages between maternal and family dietary diversity to expand the potential of a maternal dietary diversity indicator.

Integrating nutrition and agriculture interventions in Ethiopia

Through a unique partnership with USAID's Urban Gardens Program, we trained 109 agriculture extension workers to incorporate nutrition education into existing activities aiming to help families generate income from their gardens. Based on findings from our qualitative assessment of current feeding practices, the project created behavior-focused training materials and conducted five-day training workshops for the extension workers. As a result, they are now offering nutrition counseling, giving cooking demonstrations using nutritious foods from household gardens, and making appropriate referrals for nutrition services.



PATH/Evelyn Hockstein

HIGHLIGHTS

- Distributed 7,000 copies of tools for agriculture project designers to colleagues globally.
- Trained 109 agriculture extension workers to integrate nutrition education into existing agriculture activities in Ethiopia.
- Trained nearly 500 Ministry of Agriculture workers to promote improved complementary feeding in Lesotho.

Strengthened health systems for healthier *mothers and children*



PATH/Evelyn Hockstein

Strengthening health systems is essential for building a supportive environment for nutrition assessment, counseling, and support. A systematic approach is needed to help implement new guidelines and standards and to give community- and facility-based health providers a way to implement new approaches and provide improved services for mothers and children. In the countries where we worked, health officials and providers needed assistance integrating nutrition into existing health care services and improving linkages between health facility- and community-based services in order to effectively reach caregivers with nutrition interventions.

We worked with partners and health workers to address the quality of nutrition services through quality improvement approaches and by initiating two-way referral systems between health facilities and communities. By developing and sharing tools for monitoring nutrition programs, we improved program managers' decision-making and the effectiveness of interventions. These efforts resulted in improved nutrition services and strengthened the overall delivery of health services—ensuring improved health care for mothers and children.

Key accomplishments

- **Building supervision and support systems.** To ensure the quality of services provided in health facilities and communities, we designed sustainable supervision systems and facilitated supportive supervision of trained health workers in six countries. Supervisors used our country-specific supervision checklists to follow up with trained health providers to measure knowledge and record their behaviors during counseling sessions, while program managers used data collected by supervisors to identify gaps, implement solutions, and measure changes over time. For example, at several PMTCT sites in Côte d'Ivoire, supervision visits resulted in more accurate and consistent use of child growth charts—a critical tool for measuring whether a child is growing well.
- **Quality improvement.** We strengthened nutrition assessment, counseling, and support services in PMTCT and OVC programs by initiating sustainable quality improvement interventions in Côte d'Ivoire, Ethiopia, Nigeria, and Zambia. In each country, we facilitated joint problem-solving between stakeholders in communities and health facilities. As a result, a broad range of actors

are engaging in continuous quality improvement of infant and young child feeding activities. In Nigeria, for example, a quality improvement team in the Federal Capital Territory is implementing system-wide interventions to address factors hindering the quality of nutrition services, including weak governance and lack of health worker counseling skills.

- **A national monitoring and evaluation system.** In Rwanda, we assisted the Ministry of Health in creating a new national monitoring and evaluation plan for its Multi-Sectoral Strategy to Eliminate Malnutrition. The plan will help the government track progress toward its goal of reducing all forms of malnutrition among mothers, children, and people living with HIV by 30 percent by 2013. The plan includes identification and management of malnutrition at the community and facility levels, prevention of malnutrition through community- and school-based nutrition projects, improved control of micronutrient deficiencies among women and children, and prioritization of the elimination of malnutrition at all levels of the health system.
- **Monitoring tools.** To address gaps in tools available to monitor global maternal, infant, and young child nutrition programs, we developed and widely disseminated several resources for program managers, including observation checklists, an exit interview guide, and a health talk checklist. In Kenya, our monitoring tools—including a reporting form to help PMTCT counselors accurately report on their facility-based activities in a standardized way and to provide an opportunity to share successes and challenges—were adopted by numerous PMTCT and HIV partners. Additionally, IYCN’s *Infant and Young Child Feeding Practices Monitoring Tool* is now helping global health programs monitor progress in achieving key behaviors related to infant and young child feeding.
- **Strengthening linkages between health facilities and communities.** In Côte d’Ivoire, Ethiopia, Lesotho, and Zambia, the project strengthened linkages between health facilities and communities by initiating two-way referral systems and encouraging increased collaboration between health facility-based workers and community workers and volunteers through training and supportive supervision. In Lesotho, for example, health workers collaborated closely with community health workers and monitored their activities, including home visits and meetings with traditional healers, men’s groups, and village chiefs. By performing supervisory visits with 270 trained health workers, the project monitored referrals between health facilities and communities in Lesotho.

“We cannot afford to go house to house. If we need to get information to the villages, the community health workers are there on our behalf.”

—Nurse in Lesotho

Improving nutrition services across the continuum of care in Zambia

In Zambia and other countries, IYCN enhanced health service delivery by facilitating a seamless continuum of care from health facilities to communities. Community health workers and volunteers were the key to building links between critical health services and households that most needed them. We trained Zambian community volunteers to assist overburdened health workers with tasks such as conducting nutritional assessments, home visits, and cooking demonstrations, and making appropriate referrals for services, while theater groups reinforced key messages through frequent community performances on infant and young child feeding. Through strengthened two-way referral systems, volunteers referred mothers of children who were not growing well to community health centers and hospitals, which in turn, referred discharged children to community health volunteers for follow-up. As a result, more caregivers received consistent messages across the continuum of care and referrals between health facilities and communities increased.



Tina Kaonga

HIGHLIGHTS

- Supported more than 300 supervision visits of trained health workers in Zambia.
- Conducted 268 supervision visits of trained health workers in Côte d’Ivoire.

The IYCN Project encourages partners to build on our efforts and continue advancing programs to support countries, health providers, communities, and caregivers in preventing malnutrition of mothers and children worldwide. We recommend the following actions to strengthen programs:

Listen to caregivers

Conducting formative research to understand the nutrition-related behaviors of caregivers and key influencers is a critical first step in creating an effective program for improving infant and young child nutrition. Trials of Improved Practices is a useful method, not only for understanding current feeding practices and problems, but also for testing practical solutions. Use formative research findings to create interventions that address specific behaviors and bring the voice of the caregiver into social and behavior change communication materials.

Support health workers

Although health workers may initially be reluctant to change

their longstanding advice to mothers, IYCN found that they were willing to change practices. With training, job aids, and supportive supervision, we were able to motivate improved health worker performance, correct inaccurate advice, and encourage behavior changes that will have a lasting impact on the nutritional status and health of mothers and children.

Strengthen linkages between health facilities and communities

Enhancing linkages and initiating two-way referral systems between health facilities and communities can result in more effective interventions. In health facilities with overburdened health workers, community workers and volunteers can fill critical gaps and relieve some of the health workers' burden for nutrition assessment, counseling, and support. In addition, training and engaging with traditional healers, community leaders, and drama performers can mobilize communities and drive increased demand for nutrition services at health facilities.

Influence the influencers

Because fathers and grandmothers are key household decision-makers, it is essential for programs to understand their roles in improving maternal and child nutrition in the local setting. We learned that engaging these key influencers as partners—rather than viewing them as barriers—can help increase support for improved nutrition within the household.

Reach beyond HIV-affected households

Even when targeting interventions to HIV-positive populations, reaching out to all caregivers of infants and young children in health facilities and communities allowed us to better reach HIV-positive mothers, without stigma.

Address both HIV prevention and child survival

Compelled by evidence on the benefits of breastfeeding with antiretroviral interventions for preventing the transmission of HIV from mothers to babies and for improving the health and survival of children, stakeholders in Nigeria, South Africa, and several other countries have made significant changes in national infant feeding policies—ensuring that more children will survive and thrive free of HIV. We urge other countries to follow their lead by adopting the 2010 WHO guidelines on HIV and infant feeding and initiating national policies that support breastfeeding with antiretroviral interventions for HIV-positive mothers.

Recommendations for improving child health and HIV-free survival

- **Increase support for breastfeeding.** Promote exclusive and continued breastfeeding, and expand support to mothers by improving infant feeding counseling.
- **Avoid providing infant formula as a routine part of programs** to prevent mother-to-child transmission of HIV.
- **Strengthen education about complementary feeding.** Promote local, nutrient-rich complementary foods.
- **Prioritize antiretroviral therapy and prophylaxis among pregnant and lactating women.** Implement programs to provide CD4 count testing to identify pregnant and lactating women in need of antiretroviral therapy. Make extended infant prophylaxis regimens available for women who do not meet criteria for antiretroviral therapy for their own health.
- **Improve coordination between maternal care services and HIV treatment services** to provide mothers with a full package of nutrition and health interventions.

Integrate

IYCN demonstrated that promotion of improved maternal, infant, and young child nutrition can be effectively integrated with HIV, agriculture, and family planning programs to achieve common goals. Our approaches—especially our efforts to integrate maternal, infant, and young child nutrition into PMTCT programs—can be applied to integration of nutrition with other diseases, such as tuberculosis and malaria.

Strengthen monitoring and evaluation systems

As part of every comprehensive nutrition program, we suggest conducting baseline and endline surveys to effectively monitor interventions and evaluate their impact.

Collaborate closely with national and local governments

Working closely with national and local governments in addition to a wide range of country partners at all stages of planning and implementation resulted in country ownership of policies, activities, and materials and ensured that programming will be sustained beyond the IYCN Project.

Taking interventions to scale

Although we know which maternal, infant, and young child nutrition interventions are most effective, taking these efforts to scale remains a challenge. Based on our experience, IYCN offers the following recommendations for scaling up what works:

- **Work at the national and local levels.** In addition to working within national structures to facilitate adoption of policies and programs, collaborate closely with regional and district health officials to encourage them to adopt interventions.
- **Conduct pilot activities.** Select one district for pilot-testing activities and conducting operations research. Use findings to demonstrate success and make programmatic improvements as you move to other districts or regions.
- **Tap into planning processes.** It is critical to understand planning cycles and structures when working with local government to get nutrition activities included in their work plans and budgets.
- **Create localized materials.** Develop materials, such as job aids for facility- and community-based workers, in local languages. Provide assistance at the national and local levels to disseminate materials to end users.

Achieving sustainable solutions

In each country, the IYCN Project worked with a wide range of partners to ensure country ownership and sustainability of programs. Partners are continuing to build on our efforts. Examples include:

- **Haiti:** The government and partners plan to continue disseminating national guidelines for promoting exclusive breastfeeding, which have been nationally recognized as a crucial tool for convincing pediatricians and other stakeholders about the importance of exclusive breastfeeding, including within the context of HIV.
- **Kenya:** USAID's AIDS, Population, and Health Integrated Assistance Plus Project will complete an evaluation of IYCN's approach for engaging grandmothers and men in Kenya and share results in 2012.
- **Malawi:** IYCN's pilot intervention and comprehensive package of materials for training community nutrition workers was adopted as part of the country's Scaling Up Nutrition strategy. The government plans to roll out the intervention to strengthen nutrition support in communities across the country.
- **Nigeria:** Both governmental and nongovernmental partners have committed to work together to fund and continue implementing the project's nutrition training efforts for health workers and community workers in 28 states and to print counseling job aids for all training participants. In addition, the government plans to roll out IYCN's tools for agriculture project designers.
- **Zambia:** UNICEF printed and disseminated more than 60,000 copies of community training materials developed by the project and partners to community health volunteers across the country.

To meet the need for tools and resources to enhance maternal, infant, and young child nutrition programming, the project developed and widely disseminated a variety of tools and resources that can be used or adapted for different country settings in addition to materials describing IYCN's experiences. Please visit www.iycn.org/resources to access the following global resources in addition to country-specific materials.

Strengthening community nutrition programming: tools for reaching caregivers, households, and communities

Our collection of 13 community-based nutrition programming resources includes literature reviews, social and behavior change communication resources for reaching a wide range of community members, and monitoring and evaluation tools. Informed by IYCN's experience implementing community approaches in eight countries, the tools fill specific program needs but can be adapted for use in other country settings.



Formative research guides

Two guides offer practical advice on conducting formative research specific to maternal, infant, and young child nutrition:

- The Basics: Planning for Formative Research for Infant and Young Child Feeding Practices.
- Guidance for Formative Research on Maternal Nutrition.



Resources for agriculture project designers

IYCN developed several resources to help agriculture project designers effectively integrate the nutrition concerns of vulnerable groups into their activities, including:

- A four-page fact sheet summarizing ways that agriculture projects can maximize nutrition and food security impacts for women, children, and other vulnerable groups.
- A review of more than 30 years of studies examining food security and nutrition impacts of agricultural projects in low-income countries.

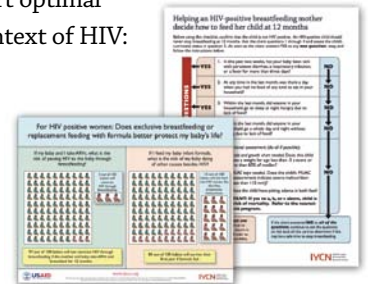


- A Nutritional Impact Assessment Tool to assist agriculture project designers in assessing an agriculture project's likely impacts on the nutritional situation of vulnerable groups.
- Guidance for agriculture project designers seeking to build nutrition and food security objectives into their projects.

Infant feeding and HIV counseling tools

Two unique counseling tools can be adapted based on national policies and guidelines to support optimal feeding behaviors within the context of HIV:

- Counseling card: Risks of infant feeding options for HIV-positive mothers.
- Helping an HIV-positive breastfeeding mother decide how to feed her child at 12 months: A checklist for health care providers.



Country briefs

Our series of 12 country briefs offers summaries of IYCN's experience and achievements in each country where we implemented comprehensive activities.



Our approach series

This series of documents highlights IYCN's key approaches through case examples in selected countries.



IYCN website

Our comprehensive website offers a collection of useful resources on maternal, infant, and young child nutrition, including high-quality social and behavior change communication tools, training materials, formative assessments, national policies, and other helpful resources published by IYCN and a wide range of organizations.



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