

Program Approach



Updated April 2004

*"If a new vaccine became available that could prevent one million or more child deaths a year, and that was moreover cheap, safe, administered orally, and required no cold chain, it would become an immediate public health imperative. Breastfeeding can do all of this and more...." –A warm chain for breastfeeding. (Editorial) *The Lancet* 1994;344(8932): 1239–41.*

Breastfeeding: A High Impact Intervention

Increasing *optimal* breastfeeding practices could save an estimated 1.3 million infant lives annually.¹ Up to 55 percent of infant deaths from diarrheal disease and acute respiratory infections may result from inappropriate feeding practices.² Population-based studies in developing countries show that the greatest risk of nutritional deficiency and growth retardation occurs in children between 3 and 15 months of age, a period noted for sub-optimal breastfeeding and inadequate complementary feeding practices.³

The WHO Collaborative Study Team on the Role of Breastfeeding on the Prevention of Infant Mortality⁴ found that in developing countries, any breastfeeding produced more than two-fold protection against infant mortality compared with no breastfeeding in the first year of life. Breastmilk contains hundreds of health-enhancing antibodies and enzymes that protect babies from diarrhea and acute respiratory infections and stimulate their immune systems.

The benefits of breastfeeding extend beyond child health outcomes. Breastfeeding creates a special bond between mother and infant. Breastfed babies benefit from more maternal attention and stimulation, aiding their growth and development. Breastfeeding also benefits the mother by helping the uterus to contract soon after delivery, thus reducing chances for prolonged bleeding. Breastfeeding delays the resumption of ovulation after childbirth and reduces a mother's risk of breast cancer.

Evidence and International Consensus

Scientific evidence and more than two decades of international and public health consensus and action (i.e., International Code of Marketing of Breastmilk Substitutes in 1981, the Innocenti Declaration of 1990, and the Baby-Friendly Hospital Initiative of 1991) guided the development of international recommendations for optimal breastfeeding practices. These optimal practices include timely initiation of breastfeeding (within one hour of birth), exclusive breastfeeding to six months, and timely and appropriate complementary feeding along with continued breastfeeding up to two years of age or beyond. The 55th World Health Assembly resolution⁵ of 2002 reaffirmed this guidance.

During much of the twentieth century, breastfeeding declined in developing countries as a result of urbanization and the marketing of infant formula. These trends began to reverse in the past two decades with increases in breastfeeding initiation and duration, particularly in countries and regions with good breastfeeding promotion and support programs. However, to achieve significant public health impact, these programs need to reach many more people.

Enough evidence now exists for donors, national governments, and international partners to work together to implement strategies to improve child survival through better breastfeeding. HIV-endemic areas deserve special attention to encourage safe feeding while avoiding inappropriate dissemination of breastmilk substitutes, which could undermine optimal breastfeeding by uninfected mothers.

Experience LINKAGES is a series of publications on the strategies, tools, and materials used by the LINKAGES Project to achieve results.

¹ Jones G et al. How many child deaths can we prevent this year? *Lancet* 2003;362:65-71.

² UNICEF. *Facts for Life*. 3rd ed. New York: UNICEF, 2002.

³ Shrimpton R et al. Worldwide timing of growth faltering: Implications for nutritional interventions. *Pediatrics* 2001; 107:E75.

⁴ WHO Collaborative Study Team on the Role of Breastfeeding on the Prevention of Infant Mortality. Effect of breastfeeding on infant and child mortality due to infectious diseases in less developed countries: A pooled analysis. *Lancet* 2000; 355:451–5.

⁵ Fifty-fifth World Health Assembly. Resolution WHA55.25. 18 May 2002.

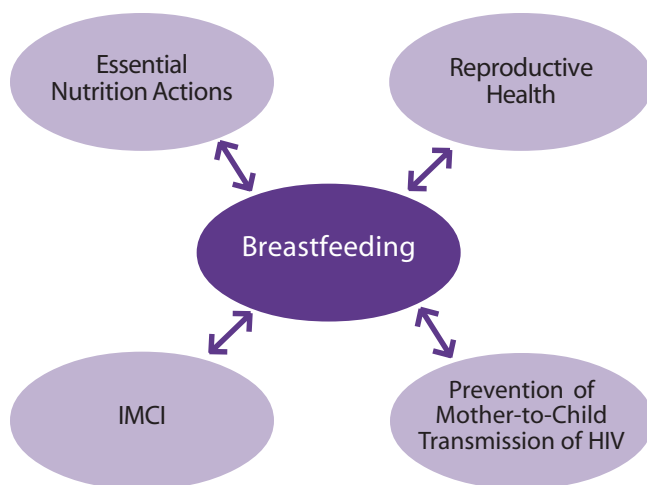
Breastfeeding Promotion

In the early 1990s many breastfeeding promotion efforts emphasized changes in hospital routines and facility-based breastfeeding support. While these programs were cost effective, links from the hospital to the community were weak and community support for breastfeeding was ineffective or limited. Many primary health care, MCH, and child survival programs included breastfeeding messages, but did little to enhance the specific skills and practices needed to change breastfeeding behaviors. By mid-decade the challenge was to affect breastfeeding practices rapidly and at a scale that could achieve significant public health impact

Integration with Other Programs

Since 1997 USAID, through the LINKAGES Project, has supported a comprehensive program intended to mainstream optimal breastfeeding practices in the community and throughout the health care delivery system. Using breastfeeding as its entry point, LINKAGES helps strengthen and expand the infant and young child feeding components of other programs such as child survival, reproductive health, nutrition, and prevention of mother-to-child transmission of HIV (figure 1).

Figure 1. Breastfeeding as an entry point to health programs



A behavior change framework designed to bring about rapid change in individual behaviors and community norms provides an overall framework for the program. With this approach LINKAGES and its partners are reaching sizable populations in large geographical areas in Bolivia, Ghana, and Madagascar. While country programs emphasize community-level interventions, activities cross multiple levels (national, district, community, and health facility).

Champions of Change

Partnerships are essential for program success. LINKAGES cultivates “champions of change” at all levels.

Non-governmental and private voluntary organizations, international agencies, community service organizations, and academic institutions. In each country LINKAGES develops strong partnerships, usually with international agencies and local groups and builds its behavior change efforts on functioning programs (for example, a USAID bilateral project in Madagascar, an NGO umbrella network in Bolivia, and PVO and NGO community programs in Ghana). These partnerships help to bring “visibility” to breastfeeding, increase coverage, and achieve rapid change. Partners participate in stakeholder workshops, action-oriented research, skills building workshops, pre-testing of messages and materials, implementation of community activities, and monitoring and evaluation.

Ministry of Health and other government agencies. In each country the program receives the endorsement of the Ministry of Health and, if possible, fully involves the MOH as an implementing partner. The support of the chief of the Nutrition Unit in Ghana was extremely important to the success of the program in that country and ensured the link between community-based approaches and national-level policy initiatives.

USAID mission. Mission support is crucial both in terms of financial support and programmatic “buy-in,” which lend further credibility to the program.

In each country program, a full-time, dedicated country coordinator facilitates partner arrangements among the various groups. The coordinator is experienced with USAID programs and knowledgeable in technical and program areas.

Behavior Change Orientation

LINKAGES applies its behavior change orientation to policymakers, program planners, service providers, community volunteers, and mothers and their families. The project designs interventions for these specific audiences.

Policy advocacy. In most countries the role that nutrition, and particularly breastfeeding, plays in a country’s nutritional security, educational success, and overall development is not well understood or appreciated. At the outset of the project, policy advocacy initiatives at the national level identified nutrition gaps and helped “set the stage” for programs to address them. Stakeholder workshops, meetings of an intersectoral nutrition task force, and applications of the nutrition policy analysis and advocacy process (*Profiles*) provided and continue to provide forums for building consensus and mobilizing resources.

Behavior change communication. Breastfeeding program interventions are built on formative research and sustained through effective program processes that focus on bringing about the desired behavior change. Formative research is conducted to identify attitudes, influential secondary audiences, and the specific set of breastfeeding behaviors the program will address. The behavior change strategy is based on the assumption that improved breastfeeding practices are more likely to occur if women (and communities) perceive them to be beneficial, feasible, and socially acceptable.

LINKAGES uses a combination of interpersonal communication strategies, group process activities, and media to change individual behavior while at the same time educating and engaging those who influence the individual's (usually the mother's) choices. This approach provides ongoing support to the desired behavior while at the same time bringing about normative change in the community. While applying a systematic behavior change strategy, LINKAGES adapts it to different contexts. This results in a collage of locally tailored approaches based on common messages that are reinforced through print materials, mass media, organized support networks, and community events.

Common elements of the behavior change communication strategy in LINKAGES' country programs are shown in the box below.

Behavior Change Communication

- ◆ **Formative research** with an analysis of benefits and barriers to change within the population and identification of specific, key actions that achieve the desired outcomes and are “do-able”
- ◆ **Targeted, concise messages** to promote the “do-able” actions
- ◆ **Counseling and communication skills** for health and community workers
- ◆ **Consistent messages and materials** across program communication channels to address critical behaviors
- ◆ **Saturation of specific audiences with messages** through appropriate media (electronic, print, interpersonal, event, traditional)
- ◆ **Mother support and peer group interaction** such as mother-to-mother support groups, women's clubs, or other existing groups at the village level

Capacity building. Training is a tool for behavior change. The purpose of LINKAGES' training is to equip service providers, government health workers, and

community-level health promoters to promote and support improved infant and young child feeding behaviors. Technical updates, an emphasis on counseling and communication skills, and practice using the new skills characterize the training.

Training offered by the project transfers skills for communicating key messages on breastfeeding and complementary feeding and encouraging women and families to try, adopt, and maintain new behaviors. Participants practice using visuals and other communication techniques to enliven the messages and create an environment where individuals and communities feel comfortable trying and adopting new behaviors.

In addition to in-service training, LINKAGES is involved in pre-service curriculum revision to build sustainability into breastfeeding and support services.

Monitoring and evaluation. In each country a strong monitoring and evaluation (M&E) base with a limited number of clearly articulated indicators to measure progress in changing behaviors guides the program. Program results from annual rapid assessment procedure surveys are compared with several data points including baseline surveys, survey results from control communities, Demographic and Health Surveys, Multi-Indicator Cluster Surveys, and data from other organizations working within or near LINKAGES program areas.

Program Management and Cost

Country programs are implemented within a 3–4 year time frame. The first several months focus on securing funds, cultivating partners, building consensus through policy advocacy, and conducting needs assessments and baseline surveys. At least two years of implementing behavior change activities follow, launched by rapid formative research, program development, and collection of baseline data for program indicators. Important program and results indicators are tracked through annual “rapid assessment” procedures. Toward the end of the time frame, a transition phase is initiated when coordination and continuation of key interventions such as behavior change communication, health worker training, and M&E are mainstreamed by local partners at the initial program site and in expansion sites.

Cost, efficiency, and effectiveness of country programs vary by country, influenced by the level of partner participation in implementation, the size of the target population, and the baseline rates of exclusive breastfeeding and timely initiation of breastfeeding. LINKAGES has engaged Abt Associates to help conduct cost and effectiveness analyses of LINKAGES' breastfeeding interventions in Ghana, Jordan, Madagascar, and Zambia. A report on cost and effectiveness across all four country programs will be published in a later issue of *Experience LINKAGES*.

Program Results

In 2000 LINKAGES conducted surveys in Madagascar, Ghana, and Bolivia. The results of rapid assessment procedures the following year showed that the country-specific versions of the approach outlined in this document resulted in significant increases in timely initiation of breastfeeding and exclusive breastfeeding in the three countries. The rapid assessments were repeated regularly to monitor progress. Figures 2 and 3 show the first and last survey points in each country. Figure 4 compares the incidence of diarrhea among exclusively and non-exclusively breastfed infants.

Figure 2. Timely Initiation of Breastfeeding

(% of infants < 12 months who were breastfed within one hour of birth)

At the time of the last survey, approximately three-fourths of newborns in Madagascar and Bolivia initiated breastfeeding within the first hour, increasing from 34 percent to 76 percent in Madagascar and from 56 percent to 74 percent in Bolivia. The increase in Ghana was more modest, from 32 percent to 40 percent.

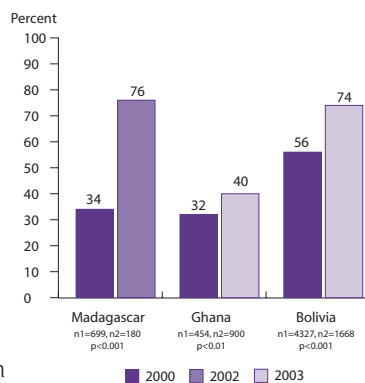
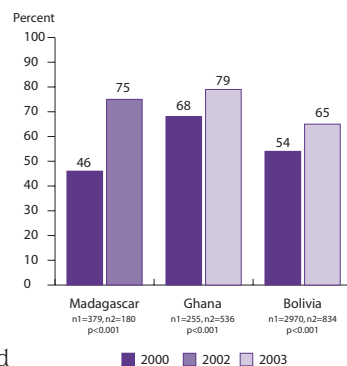


Figure 3. Exclusive Breastfeeding

(% of infants < 6 months receiving only breastmilk in previous 24 hours)

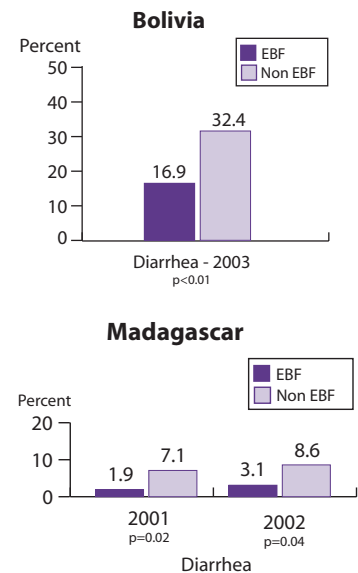
Madagascar, Ghana, and Bolivia all showed marked improvements in the exclusive breastfeeding rate. In Madagascar, the rate increased by almost two-thirds between the baseline and the last survey (46 percent to 75 percent). The rate increased by one-sixth in Ghana (68 percent to 79 percent) and one-fifth in Bolivia (54 percent to 65 percent).



The health benefits of exclusive breastfeeding are well known and confirmed by data from Bolivia and Madagascar. LINKAGES asked mothers of infants less than six months if their infants had experienced diarrhea in the previous two weeks. In Bolivia, non-exclusively breastfed infants less than 6 months old were nearly twice as likely to have had diarrhea in the two weeks before the survey as infants who were exclusively breastfed (32 percent versus 17 percent). This suggests that nearly half the cases of diarrhea among non-exclusively breastfed infants could have been prevented had they been exclusively breastfed. The most plausible explanation for this association is the strong protective effect of exclusive breastfeeding against diarrheal disease often described in the literature.

In Madagascar, illness-related data were collected in 2001 and 2002. Non-exclusively breastfed infants less than 6 months old were about three times more likely to have had diarrhea in the previous two weeks than exclusively breastfed infants (2001: 7 percent versus 2 percent; 2002: 9 percent versus 3 percent).

Figure 4. Diarrhea in Previous 2 weeks among Breastfed Infants < 6 months*



*The number of non-breastfed infants was too small to be included in the figure.

Enough successful country program experience now exists, coupled with cost studies and documented increases in breastfeeding rates, to warrant greater attention by USAID missions, national governments, and other international donors to integrate breastfeeding strategies with existing programs.

⁵ On an annual basis, LINKAGES collects data on key indicators using a shorter questionnaire and smaller sample sizes than those used for the baseline surveys. For the "rapid assessment" procedure (RAP), LINKAGES used lot quality assurance sampling in Bolivia and cluster sampling in Ghana and Madagascar. Program coverage at the time of the last survey was: Madagascar, 6 million; Ghana, 3.5 million; and Bolivia, 1 million. In the graphs, N1 equals the sample size at LINKAGES' first survey and N2 the sample size at the last survey.

