

BOLIVIA

Total country population (2000)	8 million
Catchment population	1.0 million
Project catchment area	153 municipalities in all of the country's 9 departments

Country Profile

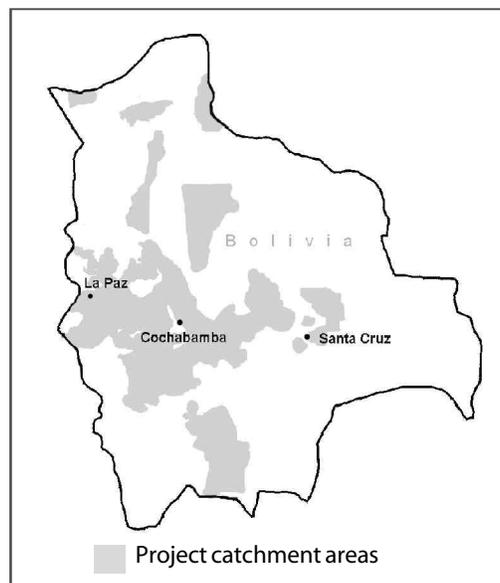
Twenty-eight percent of all Bolivian children under three years of age suffer from chronic malnutrition. Sub-optimal breastfeeding practices and inappropriate complementary feeding account for high rates of infection, malnutrition, and an estimated 4,500 infant deaths each year (*Profiles 2000*). Approximately 50 percent of infants less than six months of age are not exclusively breastfed. Other detrimental feeding practices include postponed initiation of breastfeeding (62 percent initiation after the first day), early introduction of liquids and/or other foods (31 percent introduction within the first month), and infrequent feedings (1998 DHS). Many complementary foods—such as the thin broth often served to infants—lack the calories needed to satisfy infants' nutritional requirements.

Partners

This situation prompted USAID, through the LINKAGES Project, and the Collaborative Program for Integrated Health (PROCOSI) to develop a plan to improve breastfeeding and complementary feeding and to expand access to the lactational amenorrhea method (LAM) as a family planning option in the country's three eco-regions. LINKAGES works with 16 of the 24 members of PROCOSI's network of Bolivian and international nongovernmental organizations involved in integrated and reproductive health programs. These members serve nearly 1,000,000 people in the catchment areas (shown in the map above). LINKAGES has expanded its outreach by providing training and materials to MOH staff in the PROCOSI/LINKAGES catchment area.

PROCOSI/LINKAGES Member Partners

APSAR, APROSAR, CARE, Caritas, CEPAC, Consejo de Salud Rural Andino, Esperanza, Freedom from Hunger/Creceer, PLAN Internacional, PROSALUD, Project Concern International, SACOA, Save the Children/Canada, Save the Children/US, Servir, Universidad Nur



Assessment and Program Design

In 1998 COTALMA (the Technical Breastfeeding Support Committee) conducted a needs and resource assessment of PROCOSI members. After analysis of the assessment, regional behavior change communication (BCC) workshops were held for NGO technical staff to reach consensus on priority behaviors, analyze factors that influence them, and develop behavior change strategies to achieve measurable change. The PROCOSI member partners and LINKAGES designed a program focusing on five key infant feeding behaviors:

- ♦ Initiate breastfeeding within the first half hour after birth
- ♦ Exclusively breastfeed until the baby is six months old
- ♦ Start giving foods at six months; give mashed foods in the soup, not just soup broth
- ♦ Increase the density, frequency, and quantity of complementary foods as the baby gets older
- ♦ Increase breastfeeding and complementary feeding during and after the illness of mother or child

The program was also designed to support family planning and optimal breastfeeding by offering the lactational amenorrhea method. LAM is a modern postpartum contraceptive method based on three criteria: no return of menses, baby is fully or nearly fully breastfed, and the baby is less than six months old.

Program Strategies and Activities

PROCOSI and LINKAGES, working in close collaboration with the Ministry of Health, outlined strategies for improving infant feeding behaviors and for offering LAM. The strategies include community mobilization and behavior change communications, training of community workers and service providers in the PROCOSI/LINKAGES catchment areas, policy and advocacy initiatives, and monitoring and evaluation.

Community Mobilization and Behavior Change Communications

PROCOSI/LINKAGES use the following channels to communicate messages on the five key behaviors.

Print materials. In 1999 representatives of the participating NGOs and the Ministry of Health attended regional materials production workshops to develop print and radio materials to address key behaviors. Local designers, artists, photographers, and musicians contributed to their development. In the catchment areas, NGO staff pre-tested the culturally specific, 12-panel cloth flipcharts, six counseling cards, and calendars on breastfeeding, complementary feeding, and LAM. PAHO collaborated with PROCOSI/LINKAGES in the production of educational materials for health personnel.

The counseling cards and flipcharts assist health promoters in a wide array of programs, including reproductive health services, integrated health programs, and child survival activities. Health promoters use the cards during clinic consultations and home visits and the flipcharts during educational talks in clinics, community settings, and mothers' clubs. The MOH has incorporated the messages and images developed by PROCOSI/LINKAGES in the community nutrition component of the Integrated Management of Childhood Illness (IMCI).

Other print materials include regional manuals for community workers that outline the Freedom from Hunger/Crecer methodology of conducting an educational talk using ORPA: Observe, Reflect, Personalize, and Act. The manuals also describe the methodology for negotiating behavior change during home visits. A recipe booklet using local foods is presently being designed that will be distributed in the PROCOSI/LINKAGES program areas. CEDOSI, the information division of PROCOSI, will be producing nutrition bulletins for the PROCOSI network.

Radio. In 2000 six radio spots, four radio dramas, and five folk songs were broadcast for five months, reinforcing messages on breastfeeding, complementary feeding, and LAM in three languages throughout the country. The same messages were aired during a three-month radio

Field Notes: Male Involvement in Breastfeeding Promotion and Support

Involving men in breastfeeding promotion and support is critical, particularly in rural Bolivia where 57 percent of births are attended by a family member/friend (usually the husband) and the majority of community health promoters are men. As part of the training provided by PROCOSI/LINKAGES, promoters participate in role plays that always include the mother, husband, and promoter. Male community health volunteers often schedule visits for Sundays when husbands are at home. The flipcharts and counseling cards developed for use by the promoters include images of a man encouraging his wife to initiate breastfeeding immediately after delivery, caring for an older child while his wife breastfeeds the new baby, and feeding complementary foods to an older infant. These images also appear on the calendars that the promoters give to families.

Another way of reaching men is through the radio. Approximately 75 percent of rural men in Bolivia listen to the radio daily. Men are part of the dialogue in all of the PROCOSI/LINKAGES radio dramas. In one of the dramas, a man con-

vinces another man of the importance of exclusive breastfeeding. In another drama, a woman shares with her husband what she learned at the health center about LAM, and he then repeats the three criteria for LAM use.



One of the 18 counseling cards developed by PROCOSI and LINKAGES

campaign in 2001 that was kicked off with the distribution of 2,000 posters announcing the campaign. The messages were rebroadcast in March and April 2002.

For four months in 2001, La Leche League of Bolivia conducted a radio call-in program on breastfeeding, complementary feeding, LAM, and breastfeeding difficulties. During the same period eight testimonials from mothers on their personal breastfeeding and related experiences were aired. The radio program reached listeners in La Paz, El Alto, and part of the Altiplano.

Videos. The project produced two videos. *A New Life for Tomorrow*, a story/drama video, emphasizes the key PROCOSI/LINKAGES behaviors. Health promoters show the video at community gatherings to stimulate discussion. *Working to Improve Infant Nutrition* documents the process of implementing a behavior change strategy in LAM and infant and maternal nutrition.

Health fairs. In the municipalities of Santa Cruz, La Paz, Cochabamba, and Oruro, PROCOSI NGOs have organized and conducted health fairs as a community mobilization strategy to sensitize and inform community members on optimal infant feeding behaviors.

Training

The 1998 needs assessment of PROCOSI members revealed that staff were highly motivated and experienced in community work but needed technical updates and training in interpersonal communications. In 1999 NGO supervisors responsible for training community health workers in their respective organizations participated in regional training workshops. The training included discussions of key messages, role plays, demonstrations, and practice in the use of IEC materials in individual counseling and group sessions. The training also focused on practice in negotiating behaviors with mothers through trials of improved practices and implementation of the mother-to-mother support group strategy. Since initiation of the PROCOSI/LINKAGES program, more than 2,000 community health workers and Ministry of Health personnel have been trained in key messages, counseling skills, and use of the IEC materials.

Modifications to the training were made following the August 2000 training evaluation, which was conducted by observing performance skills of promoters and health personnel. Results of the evaluation demonstrated the need for refresher training in negotiation skills applied to home visits. PROCOSI/LINKAGES incorporated the lessons learned from the evaluation into subsequent

trainings by placing more emphasis on negotiation techniques, practice sessions, and complementary feeding during refresher training for six NGOs. In 2001 PROCOSI/LINKAGES placed a regional field coordinator in each of the three regions to provide greater support for training, media, and community mobilization activities.

Policy and Advocacy

In 1998 LINKAGES helped the Nutrition Unit in the Ministry of Health and nutrition-oriented NGOs conduct policy analysis and develop a policy communication strategy by using *Profiles*. *Profiles* is an evidence-based tool and process to advocate for a bold new investment in nutrition—especially infant and maternal nutrition—at national and regional levels. Since that time multidisciplinary teams have developed national, regional, and municipal *Profiles* presentations. Those attending the presentations include government officials, health professionals, and community leaders.

Municipal *Profiles* presentations have generated nutrition projects and municipal resolutions protecting the nutrition of children less than 24 months old. The MOH has incorporated the nutrition assessment based on *Profiles* in Bolivia's 2002-2005 Strategic Plan for Nutrition.

Monitoring and Evaluation

Through baseline data collection, technical assistance visits, and workshops, LINKAGES has worked with PROCOSI to identify specific indicators and ways of measuring, collecting, and using data on target behaviors. A manual on the project's indicators and a series of data collection forms were developed and provided to the PROCOSI NGOs for their use in monitoring program progress, with data reported twice annually. A monitoring and evaluation consultant was hired in 2001 to help the NGOs monitor their interventions, collect and analyze their data, and make program adjustments accordingly.

In April 2000 PROCOSI and LINKAGES conducted a baseline survey in the catchment areas. To assess changes in infant feeding practices and LAM use, PROCOSI/LINKAGES carried out rapid appraisals using Lot Quality Assurance Sampling methodology at program sites in October 2000 and October 2001. NGOs supplied interviewers, supervisors, and transportation to survey communities. PROCOSI/LINKAGES provided overall coordination for survey design, training of supervisors and interviewers, and data collection and analysis.

The rapid appraisals included interviews with mothers of children less than 12 months. The results between the April 2000 baseline survey and the October 2001 rapid appraisal demonstrate significant improvements in timely initiation of breastfeeding and LAM use. Although it is not clear why the rate of timely complementary feeding declined, it should be noted that the percentage of infants 6–9 months receiving denser and higher energy foods increased.

Results from a 2002 PROCOSI/LINKAGES training evaluation as well as an evaluation of the radio campaign in program and control areas will provide important information on the effectiveness of LINKAGES' strategies. The endline survey of the program will be conducted in March/April 2003.

Program Results

- **Timely initiation of breastfeeding** (within the first hour): 56 percent at baseline, 69 percent in 2001
- **Exclusive breastfeeding** among mothers of infants less than six months of age: 54 percent at baseline, 56 percent in 2001
- **Timely complementary feeding** among infants 6– < 10 months of age: 90 percent at baseline, 85 percent in 2001
- **LAM use**: 7 percent at baseline, 14 percent in 2001

For more information on the Bolivia country program, the tools developed, and other LINKAGES' activities, contact:

LINKAGES Headquarters

E-mail: LINKAGES@aed.org

Phone: (202) 884-8367

Fax: (202) 884-8977

Website: www.linkagesproject.org

PROCOSI

E-mail: procosi@caoba.entelnet.bo

Phone: 591-2-241-6061

Fax: 591-2-242-4148

Website: www.procosi.org.bo

LINKAGES is a USAID-funded program providing technical information, assistance, and training to organizations on breastfeeding, related complementary feeding and maternal dietary practices, and the lactational amenorrhea method (a modern postpartum method of contraception for women who breastfeed). LINKAGES also provides technical assistance in the prevention of mother-to-child transmission of HIV to help mothers understand the balance of risks so they can make informed infant feeding choices.



WORLD LINKAGES is a publication of LINKAGES: Breastfeeding, LAM, and Related Complementary Feeding and Maternal Nutrition Program. LINKAGES is supported by G/PHN/HN, the United States Agency for International Development (USAID) under the terms of Grant No. HRN-A-00-97-00007-00 and is managed by the Academy for Educational Development. The opinions expressed herein are those of the authors and do not necessarily reflect the views of USAID.



Bolivia Results

PROCOSI/LINKAGES' behavior change strategy in Bolivia demonstrates that some infant feeding practices can be changed quickly. Using a baseline survey and follow-up Rapid Assessment Procedure (RAP) studies, PROCOSI/LINKAGES collected quantitative and qualitative data in April 2000, October 2000, and October 2001 to evaluate the effectiveness of its countrywide behavior change strategy. The strategy aims to improve breastfeeding and complementary feeding practices and to increase the acceptance of the lactational amenorrhea method (LAM) as a family planning method. Most of the key indicators show that practices continued to improve since baseline.

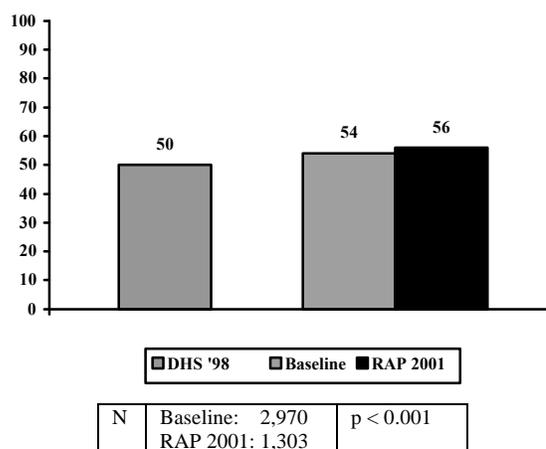
The studies were conducted in coverage areas of sixteen NGOs that are part of PROCOSI's network throughout Bolivia. While the baseline survey used a cluster sampling methodology, LINKAGES encouraged the PROCOSI network of NGOs to adopt Lot Quality Assurance Sampling Methodology (LQAS) for the RAP studies. This serves a dual purpose: to provide overall rates for LINKAGES' key indicators and to track progress for each of the indicators by NGO and health service area. The studies were cross-sectional surveys of mothers with children less than 12 months of age.

The findings are based on interviews with 4,327 mothers of children less than 12 months of age during the baseline in 2000, with 565 mothers during the RAP 2000, and with 2,581 mothers during the RAP 2001. The 1998 Demographic and Health Survey (DHS) serves as a point of comparison.

The main findings of the surveys are reported below. Results from the RAP 2000 are reported separately because that study included only six of the 16 PROCOSI/LINKAGES NGO partners and is, therefore, not comparable to the baseline and RAP 2001 data. Baseline, 2000, and 2001 results for those six NGOs can be found after the presentation of the main findings. Full reports on the results of the baseline and the 2000 and 2001 RAP surveys are available from LINKAGES upon request.

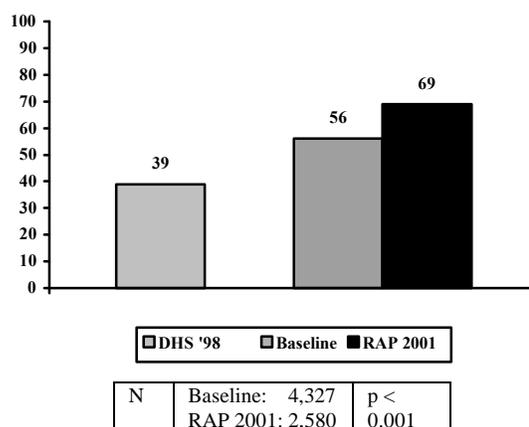
Exclusive breastfeeding increased slightly. Although the change from baseline to the RAP 2001 is small (54% versus 56%), the sample sizes were large and the change is statistically significant ($p < 0.001$).

Exclusive breastfeeding (EBF) in the first 6 months of life (women with infants from 0-5 months)



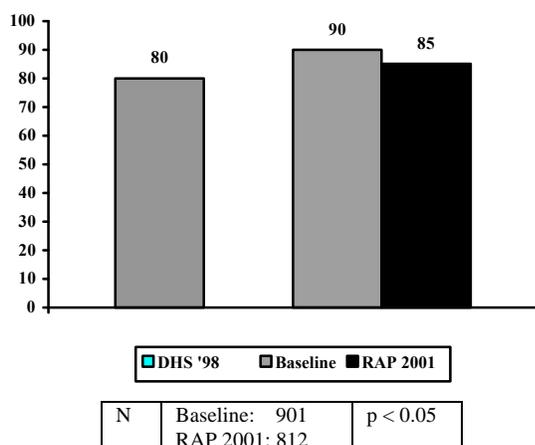
Timely initiation of breastfeeding (within one hour of birth) showed a sizeable increase. The early initiation of breastfeeding rate increased from 56% at baseline to 69% in 2001, compared with 39% in the 1998 DHS.

Timely initiation of breastfeeding (TIBF) within first hour (women with infants from 0-11 months)



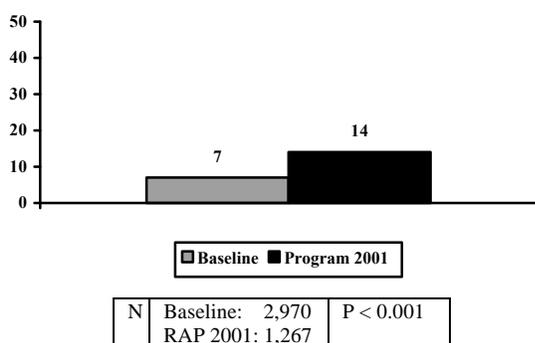
Timely complementary feeding of infants 6–9 months declined in program areas, from 90% at baseline to 85% in 2001. It is not clear why this decline took place.

Timely Complementary Feeding (TCF)
(infants 6–9 months)
(complementary foods in previous 24 hours)



Use of LAM by mothers as a birth spacing choice during the first six months after birth doubled in program communities. The LAM rate doubled from baseline (7%) to the RAP 2001 survey (14%), indicating a rapid growing acceptance of LAM as a contraceptive method in LINKAGES program areas.

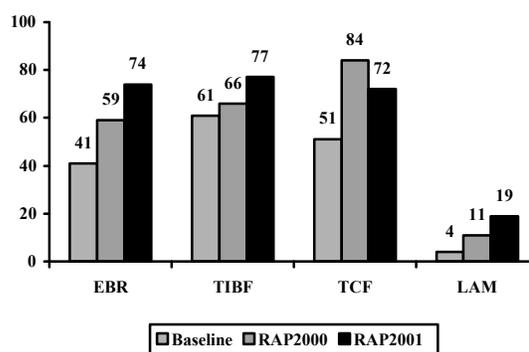
Lactational Amenorrhea Method (LAM Rate)¹



¹ The LAM Rate is the proportion of women who give birth in a given period of time who consciously and deliberately state that they use LAM as a modern contraceptive method and form of birth spacing.

Results varied considerably among the NGO partners. The following chart presents the findings of the six NGOs that participated in the 2000 RAP study. Based on the results of this subset of partners, it is apparent that there is significant variability between the NGOs in the program area. For each of the key indicators, the progress over time is much more marked among these six NGOs—Caritas, PCI, Nur, Esperanza, Sacoa, and CSRA—than for the program area as a whole.

Results for 6 PROCOSI/LINKAGES NGO Partners²



Other Key Findings

- **Evaluation of Training in 2001.** Eighty percent of health promoters trained in 2001 by LINKAGES' partner PVOs showed excellent retention of knowledge of key messages 4–6 months after training. More than half were able to effectively demonstrate appropriate use of counseling cards using skills based on the ORPA educational model (**o**bserve, **r**eflect, **p**ersonalize, and finally make a decision to **a**ct by trying out the new behavior).
- **LQAS findings in RAP 2001 study.** Using the decision rules for Lot Quality Assurance Sampling, the RAP 2001 study revealed that out of 20 project sites, 13 demonstrated adequate progress in improving timely initiation of breastfeeding and 15 in exclusive breastfeeding. Seventeen showed good progress in timely complementary feeding and 10 in LAM.

² Calculation of the timely complementary feeding rate in this table includes only the thick part of soup and other solid foods. Normally the rate also includes thin soups.