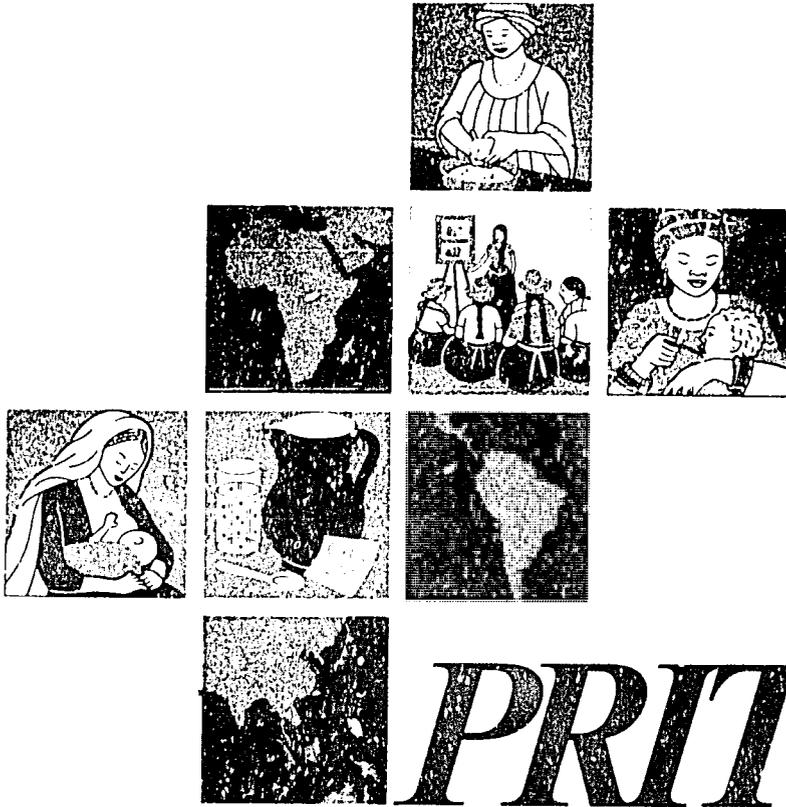


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Occasional Operations Papers

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From Research to Policy and Action

by Paul J. Freund

**PROMOTION OF BREASTFEEDING IN ZAMBIA:
From Research to Policy and Action**

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INTRODUCTION

This Occasional Operational Paper is another in a series that the PRITECH Project, funded by the U.S. Agency for International Development, will be publishing periodically. The papers will focus on programmatic experiences in the field and on lessons we have learned. The PRITECH Project has full-time field staff operating in country and regional offices in Asia, Africa, and Latin America. Our field staff, in collaboration with their national colleagues, have operational experiences and ideas to share with their colleagues through these papers. Although the experiences derive from a particular country situation, we hope that lessons learned can be useful to CDD program managers elsewhere.

We believe that, by sharing our experiences working with national CDD programs throughout the world since 1983, we may give you new ideas for your programs. We encourage you to let us know about your experiences. We hope that you find this series interesting and useful — and that you enjoy a sense of sharing in the many struggles and successes of CDD programs throughout the world.

BACKGROUND

The Zambian control of diarrheal diseases (CDD) program was instituted in July 1986 with the appointment of a program manager, a secretariat, and the national coordinating committee. The major objectives of the program were to reduce diarrheal diseases mortality in children under age five by improving case management and increasing the awareness and use of oral rehydration therapy. Initial activities included the establishment of a diarrhea training unit at the University Teaching Hospital, the carrying out of a national baseline survey, production of health education materials, and improvement in production and distribution of oral rehydration salts. Since 1986 the program has continued these activities in addition to an active research agenda, an intensive decentralized training plan, expansion of educational materials production and social mobilization efforts, improved supervision through district- and provincial-level coordinators, better program coordination and integration, and increased attention to new initiatives.

Although there had been some research on breastfeeding in the 1980s, conducted by the Ministry of Health and the National Food and Nutrition Commission, the active promotion of breastfeeding — particularly exclusive breastfeeding — has been a recent development. Moreover, even though Zambia was a signatory to the International Code of Marketing of Breastmilk Substitute in 1984, the code was not well publicized nor was it accompanied by a breastfeeding policy.

The national CDD program had been conducting mid-level supervisory skills courses since 1984 using modules from the World Health Organization (WHO) that included information on the advantages of breastfeeding and the role of breastfeeding in the prevention of diarrhea. In addition, training courses at the diarrhea training unit since 1989 and the revised nurses curriculum and midwife tutor training include information on the relationship between breastfeeding and diarrhea.

The key messages for mothers emphasized in these trainings are:

- To breastfeed their babies exclusively for the first four to six months and partially up to at least a year.
- To start breastfeeding as soon as possible after delivery.
- To breastfeed on demand, as increased suckling increases milk supply. If it is not possible to take the baby to work, breastfeed before leaving home, upon returning, at night and any other time when with the baby.

- To express milk manually to avoid engorgement during periods of separation from the baby.
- To decrease the risk of infection, give no extra fluids — such as water, sugar water, or milk formula — especially in the first days of life. And to breastfeed during and after illness of their babies, especially diarrhea.

As more and more research pointed to the importance of exclusive breastfeeding in preventing diarrhea and respiratory infections, it became increasingly evident that the national CDD program needed to do more than simply to include information on these relationships in training courses. As the program had achieved some success in improving case management, training, and the use of oral rehydration therapy, the time was right to concentrate on new initiatives (such as breastfeeding and training traditional healers).

The opportunity for a more active involvement in breastfeeding promotion and supporting activities came through. PRITECH helped arrange for five Zambian participants to attend a Wellstart¹ training course in 1991. In addition, Dr. Larry Casazza (PRITECH) encouraged and assisted the PRITECH country representative to conduct a knowledge, attitudes, and practices survey of breastfeeding, which provided the Wellstart participants with baseline information on the Zambian situation.

Lack of Exclusive Breastfeeding

Although studies in Zambia² have found that breastfeeding is highly valued — many mothers continue breastfeeding up to 18 months or longer — and is continued during 84 percent of diarrheal episodes,³ there is a problem with exclusive breastfeeding. Information from nutrition studies and from interviews with mothers attending the diarrhea training unit and clinics indicate that many mothers introduce water or sugar water within hours or days after birth. The early introduction of semi-solid foods into an infants' diet frequently occurs at two to three months of age.⁴

Moreover, health workers were not actively promoting breastfeeding, were unclear as to why exclusive breastfeeding is important, and were encouraging prelacteal feeds for newborns. Pediatricians at the University Teaching Hospital, although aware of the

¹ Wellstart, a nonprofit organization based in San Diego, California, offers lactation management training programs to health professionals from developing countries.

² S.A. Goma. 1983. "Breastfeeding and Bottle Feeding Patterns in Zambia and the Reasons for such trends." Ministry of Health, Lusaka; K. Gaisie, A.R. Cross, and G. Nsemukila. 1993. *Zambia Demographic and Health Survey 1992*. Columbia, MD: Demographic and Health Surveys IRD/Macro International Inc.

³ Salmonsson, S., and P.J. Freund. 1987. "UCL/CDD Baseline Survey." Ministry of Health, Lusaka.

⁴ Bhat, G., and P.J. Freund. 1990. "Missed Opportunities for Immunisations and other Child Survival Intervention." Ministry of Health and UNICEF, Lusaka.

importance of exclusive breastfeeding and supportive hospital practices, felt frustrated by lack of awareness by hospital management, the absence of a clear, written breastfeeding policy; and incorrect beliefs held by personnel working in maternal and child health (MCH).

In order to address this problem, PRITECH in collaboration with University Teaching Hospital, the national CDD program staff, WHO, and UNICEF began a more intensive effort to initiate breastfeeding promotion activities. While the importance of breastfeeding as an intervention within CDD programs has been well documented, there was clearly a need to go beyond merely mentioning breastfeeding during diarrhea training courses. In Zambia's case, this meant that the problem needed to be researched and specific actions taken. At the same time there was a need to increase awareness among policymakers of the importance of breastfeeding and to develop clear, written guidelines for health workers.

BASELINE SURVEY

One of the first activities that turned out to be key in the development of a breastfeeding policy and a range of other promotional activities was the carrying out of a knowledge, attitudes, and practices survey from November 1990 to July 1991. The main purpose of the study was to provide baseline information for the national CDD program to enable it to focus activities on breastfeeding more effectively. Specifically, the research would highlight areas of knowledge and practice that would require more health education or training efforts. The information would also be used by Wellstart participants in their activities in Zambia following their training in the fall of 1991. Moreover, the data would be beneficial to other programs, including those in MCH, primary health care, and nutrition.

Data were collected using four structured questionnaires designed to assess knowledge, attitudes, and practices regarding breastfeeding by hospital health workers, clinic and diarrheal training unit workers, mothers presenting a child for treatment of diarrhea, and postpartum mothers.

Health Worker Attitudes

A total of 75 interviews were conducted with clinic staff at the hospital, the diarrhea training unit, and urban clinics. The results indicated a number of significant gaps in knowledge and problems not conducive to breastfeeding promotion. For example, the assessment of when to initiate breastfeeding among hospital health workers indicates that 43 percent recommended breastfeeding at birth while 36 percent said from one to 12 hours after birth. In addition, 56 percent recommended water for the newborn during the first hours of life. Many health workers believed that lactation starts only on the third day and that water was safe. Sugar water or sugar water with formula was recommended by 34 percent of the health workers (particularly by nurses and midwives).

As in previous surveys the recommended duration of breastfeeding was 18 months or longer, but 54 percent of health workers recommended that prelacteal feeds be introduced by the time the infant was two months old. It was also significant that less than half of the health workers interviewed said they were confident in explaining how lactation works, how to position a baby properly, and how to advise a breastfeeding mother about contraception.

When asked about recommended ages in which to introduce fluids and foods into the child's diet, 80 percent of health workers said they would start water at one day, and 88 percent said sugar water at one day. Cereals would be introduced at one month by 30 percent of health workers, 36 percent said at two to three months.

There were also problems identified in regard to health workers advising mothers who think they have insufficient milk or who must return to work after two months. Thirty-six percent

said they would advise breastfeeding first, then giving a formula supplement, while only 18 percent of workers advised breastfeeding more often. Fifty percent would recommend a formula for a mother returning to work after two months.

There was uncertainty among health workers regarding the existence of a written policy on breastfeeding. Many regarded a poster on the wall as constituting policy. This clearly illustrates the importance of developing a clear written policy disseminated to health workers.

The major conclusion brought out in this assessment of health workers was that they need to update their knowledge (through lactation management courses) in order to become confident, aggressive breastfeeding promoters — particularly for exclusive breastfeeding.

Maternal Practices

One hundred and three interviews were held with mothers bringing their child to the diarrheal training unit and with postpartum mothers. While 96 percent of the mothers interviewed received prenatal care, 39 percent received no advice on breastfeeding during their visits.

When questioned on when they introduced water into their child's diet, 29 percent said at one day and 13 percent at two days. Although this is less often than health workers advise, there is still a problem with exclusive breastfeeding practice. This was in fact confirmed during a 1992 CDD case management survey, which found that only 4 to 5 percent of mothers practiced exclusive breastfeeding for up to three months.⁵

It was encouraging however that knowledge and recommended practice for breastfeeding during a child's episode of diarrhea was satisfactory, with 47 percent of mothers continuing breastfeeding, 8 percent increasing feeds, and 34 percent increasing breastfeeding. These results were also confirmed by the case management survey, which showed that 96 percent of mothers continued breastfeeding during the diarrhea episode.

The analysis of the results of interviews of postpartum mothers also revealed significant problems. While all mothers interviewed attended prenatal clinics, only 33 percent received advice on feeding their babies, and 44 percent said their baby was placed in a nursery, 73 percent started breastfeeding only after two hours or more after birth, and 81 percent planned to give water or sugar water to their newborn.

In general the survey did bring out significant problems in knowledge by both health workers and mothers. The final survey report provided recommendations that stressed that the first priority should be the development of a clear written policy on breastfeeding to

⁵ P.J. Freund and H. Troedsson. 1992. "Diarrhoeal Diseases Household Case Management Survey, Zambia." Ministry of Health, Lusaka.

be made available to all health workers. In addition, the report recommended lactation management training courses, the incorporation of breastfeeding information in all related health worker training (in the areas of CDD, MCH, intensive care, and primary health care), the importance of using prenatal visits to inform mothers fully about feeding, and the development of health education materials.

Summaries of Other Research Results

Between 1988 and 1990, 200 mothers were visited in their homes on the third, seventh, 28th, and 42nd days following a normal delivery at the University Teaching Hospital.

- All mothers were separated from their babies immediately after birth.
- 56% of newborns had extra feeds on the third day, 45% on seventh day, 23.6% on 28th day, and 72% on 42nd day.
- None of the mothers breastfed their child within the first hour of life, 25% breastfed within two to eight hours, 53% of mother breastfed nine to 15 hours after birth.
- There was a lack of awareness among hospital staff on the importance of exclusive breastfeeding, and there was no written policy to guide the health workers.

Source: SIDA, research results presented to the National Breastfeeding Promotion Society, University Teaching Hospital, March 1992 (unpublished).

Infant feeding practices

(Percentage of children under age one)

Age	Not breastfed	Breastmilk only	Breastmilk and:		
			Plain water	Other liquids	Soft solids
Under 3 months	1.2	13.2	51.8	10.9	22.9
4 to 6 months	0	2.3	11.6	10.6	75.4
7 to 9 months	1.3	0.0	6.0	3.5	89.3
10 to 12 months	1.6	0.0	3.9	3.0	91.5

Source: K. Gaisie, A.R. Cross, and G. Nsemukila. 1993. *Zambia Demographic and Health Survey 1992*. Columbia, MD: Demographic and Health Surveys IRD/Macro International Inc.

Supplementation of breastmilk with other liquids, by time after birth

(Percentage of infants)

	Rural N = 1,588	Urban N = 1,533
Exclusive	1	1
Within 12 hours	2	2
within 24 hrs	55	54
1 week	24	27
1 month	10	9
2 months	2	2
3 months	3	2
4 months	3	2

Source: P.J. Freund and H. Troedsson. 1992. "Diarrhoeal Diseases Household Case Management Survey, Zambia." Ministry of Health, Lusaka.

USING THE SURVEY RESULTS

The results of the knowledge, attitudes, and practices survey were made available to various departments in the Ministry of Health, the University Teaching Hospital's pediatric and MCH staff, nongovernmental organizations, the La Leche League, the School of Midwifery, the Post Basic School of Nursing, and other researchers. Moreover, the results were presented to participants of the first lactation management course organized by the Zambia Wellstart team in May 1992, the first meeting of the breastfeeding support and promotion committee, and researchers attending a International Health Care Research Institute workshop on research methodology for maternal and child health. The PRITECH country representative emphasized at each opportunity the need for a national and hospital-based policy, in addition to lactation management training.

The survey findings were reinforced by similar results from World Alliance for Breastfeeding Activities research at the University Teaching Hospital and in Lusaka's urban periurban compounds (1988-90). The combined effect of this research, the survey, and Wellstart team support provided strong evidence of the need for a breastfeeding policy and an action plan for promotion activities. (See a box for a summary of research findings.)

After hearing the research findings and recommendations, representatives from the Ministry, the University Teaching Hospital, WHO, UNICEF, PRITECH, and the World Alliance for Breastfeeding Activities agreed to form a permanent national advisory committee and a task force to develop a breastfeeding policy statement and action plan. Some significant activities had already been started by the Wellstart team, including a meeting with the University Teaching Hospital management board to discuss breastfeeding promotion activities, the opening of a lactation counseling clinic at the hospital's maternity ward in October 1991, and planning for a series of lactation management workshops with support from UNICEF.

Developing a Breastfeeding Policy

The task force appointed to develop a national strategy included the Zambian Wellstart team, the head of the School of Midwifery, the head of MCH unit of the Ministry of Health, pediatricians from the University Teaching Hospital, and the PRITECH country representative. The task force divided its work into statements on general policy, hospital policy, research, training and service, and health education.

After a review of the draft document during a one-day workshop in September 1992, another workshop was held in October to finalize the document with input from a wide range of ministry officials, nongovernmental organizations, and private voluntary organizations. The draft was rewritten incorporating the results of discussions and

presented to the minister of health by the MCH unit director.⁶ Another subcommittee, consisting of Wellstart participants and staff from the MCH unit and the University Teaching Hospital, was assigned to develop a hospital-based policy. The subcommittee would also benefit from the results of a survey of “baby-friendly” initiatives carried out in five hospitals by the program coordinator of the MCH unit, with support from UNICEF. The research found that all of the hospitals fell far short of being baby-friendly as measured by UNICEF criteria — rooming in, initiation of breastfeeding immediately after birth, and not recommending formula. While a few changes have been made at the University Teaching Hospital — including a lactation counseling clinic, opening of a fee-for-service maternity wing, and inservice training courses — there is still much work to be done.

The writing of a hospital-based policy and continued work by the Wellstart team and national advisory committee is a positive development toward the promotion of breastfeeding in Zambia. These initiatives build on a generation of breastfeeding promotion, including training seminars, changes in nursing curricula, continuing research, increased media coverage, and the appointment of a key advisory group member to head breastfeeding activities within the Ministry’s MCH unit.

Impact

The national advisory group and donors have acknowledged the fact that PRITECH — through its support of Wellstart and the PRITECH representative — has been largely responsible for initiating the development of a national breastfeeding policy and the many related activities.

The experience described here illustrates how research results can be effectively used to stimulate policy formulation and action. Research results can inform policy as well as provide the impetus for policy creation when it does not exist. It is equally important that research continues so that policy decisions can be monitored and revised and impact assessed.

Considerable progress has been made in training since May 1992, when the first lactation management course was held. UNICEF has supported two such courses and two more are planned for 1993. Forty nurses from University Teaching Hospital (from the maternity, obstetrics and gynecology, and neonatal intensive care units) and MCH staff from 10 Lusaka urban clinics have been trained.

The increased interest in lactation management training led to the UN Population Fund to support three nurses from the University Teaching Hospital to attend a five-week lactation management course at the London School of Tropical Medicine and Hygiene. The nurses have now joined the Wellstart team and are active in promoting breastfeeding activities at the hospital.

⁶ National Breastfeeding Advisory Committee. 1992. “A Draft Plan of Action for Training.” Ministry of Health Service, Research, Education and Policy Development, Lusaka.

LESSONS LEARNED

A knowledge, attitudes, and practices survey can raise awareness as well as provide a research basis for action.

The breastfeeding practices survey proved to be a good entry point to raise awareness about breastfeeding issues among Ministry of Health officials, hospital staff, and health workers. The dissemination of the results in various ways also helped to emphasize the need for a specific policy. Moreover, the problems identified regarding health workers' knowledge and practices helped reinforce the need for clear guidelines and lactation management training courses.

CDD program staff must be included in breastfeeding policymaking to ensure successful integration into diarrheal disease activities.

The fact that there was no representative from the national CDD program in the Wellstart training course seriously hindered integration of breastfeeding activities into the CDD program. The CDD secretariat did not participate in the breastfeeding policy formulation committees nor in the breastfeeding lactation seminars organized by the Wellstart team. Consequently, CDD interests were represented by the PRITECH country representative. It is essential that CDD program staff are included in Wellstart training courses to ensure that integration takes place. Because all of the Wellstart team were selected by and based at the teaching hospital, many of the activities tend to be hospital-based without CDD program involvement.

FUTURE ACTIVITIES

The national CDD, MCH, and acute respiratory infections programs plan to continue their involvement in breastfeeding promotion through participation in lactation management courses, inservice training, and development of educational materials.

The national breastfeeding promotion advisory committee will continue to meet and plan future activities. Various subcommittees are now in the process of developing action plans to revise nursing school curricula, conduct research on traditional birth attendants, carry out a national infant feeding survey, develop health education materials, and conduct inservice training courses.

The executive committee has already involved the Le Leche League in its meetings and activities, and several women's support groups have been coopted. In addition, the Zambian Breastfeeding Association, which had been inactive for five years, has been revived and will take an active part in promotional activities.

With the new emphasis on privatization and free market economy it is likely that more infant formulas will appear on the Zambian market. Therefore, there is a need for the Ministry of Health and the national advisory committee to monitor the situation and ensure compliance with the International Breastfeeding Code.