FOOD AND
NUTRITION
TECHNICAL
ASSISTANCE

Credit With Education: A Promising Title II Microfinance Strategy

Christopher Dunford
Vicki Denman
March 2001

Food and Nutrition Technical Assistance Project (FANTA)
Academy for Educational Development 1825 Connecticut Ave., NW Washington, DC 20009-5721
Tel: 202-884-8000 Fax: 202-884-8432 E-mail: fanta@aed.org Website: www.fantaproject.org

This publication was made possible, in part, through the support provided to the Food and Nutrition Technical Assistance (FANTA) Project by the Office of Health and Nutrition of the Bureau for Global Programs Field Support and Research at the US Agency for International Development, under terms of Cooperative Agreement No. HRN-A-00-98-00046-00 awarded to the Academy for Educational Development (AED). The opinions expressed herein are those of the authors and do not necessarily reflect the views of the US Agency for International Development.

Published March 2001

Recommended citation:

Dunford, Christopher and Denman, Vicki. 2001. Credit With Education: A Promising Title II Microfinance Strategy. Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington, D.C.

Copies of this report can be obtained from:

Food and Nutrition Technical Assistance Project
Academy for Educational Development
1825 Connecticut Avenue, NW
Washington, D.C. 20009-5721
Tel: 202-884-8000
Fax: 202-884-8432
E-mail: fanta@aed.org
Website: www.fantaproject.org

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This paper introduces the reader to microfinance integrated with health and nutrition education as a promising strategy for Title II practitioners. Section I of this paper provides an overview of how microfinance, particularly village banking, can contribute to the food-security objectives of Title II. Section II describes a variant of village banking, called *Credit with Education*, which was designed for the specific purpose of achieving food- and nutrition-security objectives. Section III reviews the available evidence that the *Credit with Education* model can be cost-effectively implemented to improve household food security and child nutrition among large numbers of the food-insecure poor. Section IV considers the opportunities and difficulties created when *Credit with Education* is introduced as a sustainable financial/educational service into the more familiar mix of Title II nonemergency development programming.

Credit with Education combines credit and savings services (through village banking) with nonformal adult education that addresses child health and nutrition as well as other topics. With start-up training and ongoing technical assistance from Freedom from Hunger, credit unions and nongovernmental organizations (NGOs) in 12 countries (Bolivia, Burkina Faso, Ghana, Guinea, Haiti, Honduras, Madagascar, Malawi, Mali, the Philippines, Togo and Uganda) are offering *Credit with Education* services to more than 145,000 clients, the great majority of whom are women living in very poor, rural areas. At the end of June 2000, *Credit with Education* loans outstanding totaled nearly US$8.2 million, with only 3.52 percent of the portfolio being "at risk." Average loan size was $70 per borrower. Personal savings totaled just over $1.5 million. On average, the 24 implementing institutions reporting adequate financial data had recovered 85 percent of their operating expenses (for financial *and* educational service delivery and for cost of capital and loan-loss provisioning) with the interest and fee revenue from their lending operations.

Freedom from Hunger has conducted considerable research to verify that *Credit with Education* is having the intended impacts. Research focuses on program success in providing participants the anticipated intermediate benefits—improved economic capacity, empowerment and adoption of key child survival health/nutrition practices—that lead to measurable change in food security and nutritional status. Results from a variety of evaluations are reviewed and summarized. The most conclusive results come from controlled, longitudinal studies designed in collaboration with the Program in International Nutrition (PIN) at the University of California, Davis and conducted in Ghana and Bolivia.

The research in Ghana clearly indicates that *Credit with Education* not only increases income and savings, enhances self-confidence and improves health/nutrition knowledge and practices of women, but it can also ultimately improve household food security and children's nutritional status. The positive changes measured in Bolivia were not nearly as dramatic as those in Ghana, but the problems with quality/quantity of education implementation in Bolivia provided a unique opportunity to verify one of the central assumptions underlying the design of *Credit with Education*. To create a marked improvement in child nutrition, income increases, consumption smoothing and even empowerment are not enough. Programs must provide sufficient good-quality education to change caregivers' behavior.

Credit with Education, as a stand-alone program, seems capable of cost-effectively generating certain impacts that contribute to the food security goals of Title II. By itself, this strategy seems worthy of Title II support through monetized food aid. However, greater impact will be achieved when *Credit with Education* is offered with more familiar maternal/child health/nutrition (MCHN) services to improve and support food security in a population. In this circumstance, *Credit with Education* can be expected to enhance a multisectoral Title II program effort in three ways:

- Improve income generation, asset accumulation and consumption smoothing for a large number of food-insecure households.
- Supplement and reinforce MCHN-education programming and promote informed use of MCHN services (clinic-based and other).
- Expand the outreach of MCHN education efforts to include older women who would not normally choose or be allowed to participate in standard MCHN programming, thus broadening the audience for messages and stimulating social influence of older women on younger women to adopt recommended practices and to use locally available services.

Freedom from Hunger recommends a clear institutional identity and specialized management for a *Credit with Education* program, separate from other services that do not seek to recover all operating costs from the beneficiaries of those services. Field staff should be recruited and trained for the specific purpose of integrating microfinance and education and to operate *Credit with Education* like a successful, even if nonprofit, business. Freedom from Hunger recommends that, when implementing *Credit with Education* to strengthen impact of other Title II activities, programmers should seek to identify or create an organization operating on principles of cost recovery rather than attempting to retrofit a social service agency unaccustomed to such business approaches.

To date, the *Credit with Education* institutions that have succeeded in reaching reasonably large scale (10,000-plus clients) and approaching financial sustainability (covering nearly all out-of-pocket costs of operation with their own *Credit with Education* revenues) are *financial service NGOs* and *federations of credit unions* (together labeled "financial service organizations"). Identifying and enabling an existing financial service organization to provide *Credit with Education* is more cost-effective than creating one. A current case example from Madagascar shows that *Credit with Education* can be introduced successfully into a traditional Title II program when due consideration is given to:

- Selecting implementing agencies
- Mediating between the business and social service perspectives
- Designing for efficient staffing, training, management and coordination
- Accessing external technical support (in the early stages at least)
- Complementing Title II funding with private donor funds and accumulated savings of local citizens.

It also shows that the business objectives of a financial service organization can be blended with a vital commitment to good-quality education for health and nutrition improvements among the very poor. This commitment can be substantially reinforced when the financial service organization offers *Credit with Education* in coordination with Title II health/nutrition education and services.

INTRODUCTION: HUNGER AND MALNUTRITION, TITLE II AND MICROFINANCE

The twentieth century brought encouraging progress to the fight against hunger and malnutrition. Since 1970, the proportion of hungry people in the developing world is estimated to have dropped from one-third to less than one-fifth, despite an increase in the world's population of approximately two billion more people (Bread for the World Institute, 2000). Decline in the number of persons undernourished (inadequate consumption of calories, protein and nutrients) has been particularly striking in East and Southeast Asia with an estimated percentage change of –52 percent from 1969-1997. Unfortunately, the trend is much less positive for Sub-Saharan Africa and South Asia where the number of undernourished people has risen 66 percent and 19 percent, respectively, for this same period.

Malnutrition afflicts a large and increasing number of Africans and impedes the social and economic progress of the continent. Although a recent analysis of changes in levels of child malnutrition show that the prevalence of stunting among children under 5 in developing countries has fallen, the absolute number has increased. In Africa the level of stunting fell from 40 percent in 1980 to 35 percent in 2000. But despite these reductions in the prevalence, the number of stunted children in Africa increased from 35 million to 47 million during the same period because of population growth. Within Africa the highest level of stunting is found in Eastern Africa, where 48 percent of children are currently affected (Onis, Frongillo and Blossner, 2000).

Currently, under-five mortality rates in Africa are around 150 deaths per 1,000 live births. Being malnourished, even moderately malnourished, significantly increases a child's risk of dying from an illness: in Sub-Saharan Africa, of the 56 percent of all child deaths related to malnutrition, a majority (83 percent) of these deaths occur in children who are moderately, rather than severely, malnourished (Pelletier, et al., 1994).

About one-quarter of the Sub-Saharan African population is unable to secure adequate food to meet their nutritional requirements (Badiane and Delgado, 1995). Each year people, particularly those living in rural areas, experience some degree of hunger during the rainy or "hungry" season when food stocks dwindle and roads become muddy and impassable. The hungry season normally corresponds with the peak season for diarrhea, malaria and other diseases that inhibit utilization of ingested nutrients. The large and increasing incidence of malnutrition in Sub-Saharan Africa impedes the social and economic progress of the continent.

The United States government's most direct and sustained response to this massive food and nutrition insecurity, past and future, is Public Law 480 (as amended and re-authorized by the 1996 Farm Bill). Title II of that law provides food commodities to private voluntary organizations, cooperatives and intergovernmental organizations for direct feeding and/or monetization (sale of not less than 15 percent of Title II nonemergency commodities for generating foreign currency to support program logistics and development). These commodities may be used to address famine or other urgent needs; combat malnutrition (particularly in vulnerable populations such as mothers and children); alleviate causes of hunger, mortality and morbidity; and foster economic and community development.

Title II is committed to increasing food security for vulnerable households and individuals, fostering greater self-reliance and promoting sustainable improvements in the situation of the poor (USAID, 2000). "Food security" exists when all peoples at all times have physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life. The US Agency for International Development (USAID, 2000, p. 5) recognizes three dimensions of food security:

- *Availability* of sufficient quantities of food of appropriate quality, supplied through domestic production or imports
- *Access* by households and individuals to adequate resources to acquire appropriate foods for a nutritious diet
- *Utilization* of food through adequate diet, water, sanitation and health care

To accomplish these goals, Title II development (nonemergency programming) activities have addressed food security through distribution and monetization of commodities to support health and nutrition (41% of Title II funding for food aid development activities), agriculture (39%), education (10%), water and sanitation (6%), and microenterprise (4%) (USAID, 2000). Credit activities are included in both agriculture and microenterprise, but what has come to be known in the development community as "microfinance" is classified almost solely as support for "microenterprise."

Title II development programming has absorbed concepts and principles from successful nonfood-aid development experiences. Project standards have evolved to include objectives such as sustainability, community participation and empowerment, and assessment of environmental impact. Many of the USAID standards for child survival programming have found their way into Title II health and nutrition program design. The USAID standards for microfinance have also influenced Title II programming for credit-led support of microenterprise development.

During the 1990s, microcredit for microenterprise development (a.k.a. microfinance) has become the preferred means for supporting income generation by the food-insecure poor. Prominent microfinance programs, such as Grameen Bank and other Asian success stories, are reaching very large numbers of people with lending and saving services that are attractive mainly to the poor and very poor. In attaining large scale, these programs have achieved substantial, even full, recovery of recurrent operating costs from the interest paid on the loans by the participants themselves. The majority of participants are not merely successfully repaying their loans, they also appear to be increasing their incomes and assets as a result of borrowing and investing microfinance loans in microenterprises, and building their savings from the profits (Sebstad and Chen, 1996).

By helping the food-insecure poor increase their incomes and assets, microfinance has great potential for improving access as a component of Title II food-security programming. Microenterprise development is already a significant, though still small, component of Title II development activities. Even in food-producing areas, nonfarm income-generating activities of women represent an important aspect of households' livelihood strategies. Poor, rural households often lack *food access*, as they typically need cash to purchase food during one or more critical periods of the year.

Microfinance programming is also promising as a food-security strategy with potential for financial and institutional sustainability. Monetized food aid can be invested in the start-up operations and the loan portfolio of a microfinance organization, which can yield an ongoing return on investment as the loan portfolio is recycled through successive loans and the interest paid on these loans becomes sufficient to cover all operating costs (including the financial costs of the organization—loan-loss reserves, compensation for inflation and interest payments for borrowed capital).

The microfinance best practices promoted by USAID (1995) are designed to promote such investment in sustainability by fostering the emergence of financially self-sustaining microfinance institutions (MFIs). However, there is growing realization that the favored design features of best practice MFIs are not fully compatible with participation of the food-insecure poor (Morduch, 1999; Woller et al., 1999; Dunford, 2000). In pursuit of financial and institutional sustainability, these MFIs strongly tend toward serving the better-off poor, specifically those who can make good use of working-capital loans (the larger the loan, the more profitable for the MFI) and who are usually not dealing with food insecurity. MFIs also tend strongly to focus their services on urban and periurban populations. Greater transportation costs and risks associated with agriculture-based economies make rural lending more expensive, yet poorer rural communities face chronic food insecurity due to predictable seasonal food shortages and less predictable crop failures.

Microfinance best practices do not intentionally push MFIs away from serving the needs of the food-insecure poor, but that is the corollary effect. Microfinance theorists assume there must be a tradeoff between financial sustainability and outreach to the poor. More to the point, there is very likely a real tradeoff between MFI profitability and outreach to the poor. But there is also increasing evidence that an MFI can become very nearly independent of recurrent-cost subsidy and still reach out effectively and efficiently to large numbers of the food-insecure poor (Gibbons and Meehan, 1999; Dunford, 2000; Thys, 2000). To promote food security, best practice features must be supplemented, at some additional expense, in service-delivery designs specifically oriented to reaching out to and serving the needs of the very poor.

The design most often used specifically to combat food insecurity is “village banking” for relatively poor women (see Box 1). This large-group-based microfinance design shifts many of the transaction costs of lending and savings services from the MFI to the clients themselves. The women select each other as members, approve each other’s loans and are responsible for ensuring loan repayment and safety of savings. They meet together with MFI staff regularly and repay in frequent installments of principal and interest, making it less likely that repayment problems will remain undetected until they become overwhelming. A single field agent or credit officer of a village banking MFI can serve several village banks, each composed of 15-50 women. Being able to deal with so many women as a single joint-liability group allows for much lower costs per client than either individual or Solidarity-Group lending, allowing clients to borrow small amounts (typically well below $300 per loan per average client) without ruining the MFI’s prospects for financial sustainability (Woller, 2000). Poorer people—those more vulnerable to food insecurity—are usually unable or unwilling to borrow larger amounts, due to the very limited sizes of their enterprises. So an MFI that targets the food-insecure poor while still trying to attain financial sustainability will usually employ some version of village banking as its strategy for service delivery to its poorest clients.

Box 1:

What is Microfinance?

Several methodologies exist for microfinance service delivery. One typology includes the following:

- Individual lending. Lending to individuals who come to a bank-like office in a town or a city (example: credit unions).
- Solidarity-Group lending. Lending to small groups of about five individuals each, who come together to a bank-like office and accept "joint liability" for each other's loans (example: ACCION affiliates).
- Village banking. Lending and saving services taken into a community where a large group of individuals (15-50) accepts joint liability for a group loan and manages its own financial affairs as an informal cooperative (example: Freedom from Hunger and the Foundation for International Community Assistance (FINCA) affiliates).

There are many variations in these designs. For example, the well-known Grameen Bank has a more centralized management structure in its "village banking" with the participants less involved in self-management of the group credit. Most programs also include a savings component. Overall, the preferred means for increasing the income and assets of very poor women has become group-based lending, especially village banking.

Note: Many programs offer financial services other than credit. The term "microfinance" is preferred to "microcredit" because it embraces savings and insurance services.

Village banking by itself can increase incomes, savings and self-confidence of the very poor (Nelson et al., 1996; MkNelly and Dunford, 1996, 1998, 1999), thereby addressing *access* problems of food insecurity. However, village banking also creates an opportunity to do more—toward other Title II food-security objectives relating to *utilization* of food through adequate diet, water, sanitation and health care (USAID, 2000, p. 5). Without important improvements in knowledge and practice, achieved most often by public health information, education and communication, increased access to food is unlikely to bring about marked improvement in maternal and child nutritional status (MkNelly and Dunford, 1996). The regular gathering of village bank members provides a frequent and ongoing opportunity for education. Household behavior change and use of locally available services can be promoted to address the health and nutrition problems related to poor utilization of available food. The predominance of women in village banks provides an opportunity to focus education and promotion on the vulnerability of young children and pregnant and lactating women to malnutrition (USAID, 2000, p. 6). Title II food-security objectives could be served well by integrated delivery of microfinance and health/nutrition education services, which is made possible by the village banking model.

Integration can be fruitful at another level. Integrated delivery of village banking and health/nutrition education has the potential to reinforce the impact of other typical Title II interventions, especially Maternal and Child Health and Nutrition (MCHN) activities, when implemented in coordination for the benefit of the same population. MCHN usually offers both health/nutrition education and health-care services, targeted to mothers of young children.

Education at the village bank meetings can reinforce the MCHN education by delivering the same information and promoting the same practices—including use of the MCHN services.

Village banking is likely to serve only a fraction of the mothers of young children targeted by an MCHN program, but village banking reaches out to a broader spectrum of women in the joint service area. Village bank members will include some of the MCHN program participants, but also others in the community, such as mothers of older children, mothers-in-law, aunts and grandmothers. These older women are likely to provide peer counseling and more subtle influence on mothers of young children, even on those who are not participating in the village banking and perhaps not even in the MCHN program. Educating these older women can be as important as directly educating the mothers of young children. Such creation of demand for behavior change and use of services is itself reinforced by increasing income, assets and self-confidence that enable women to act on what they learn about caring for young children and pregnant and lactating women.

CREDIT WITH EDUCATION

Within the village banking movement, there have been many attempts to take advantage of the opportunity to integrate education with village bank meetings. They fall into two types: the generalist field staff provide both the education and financial services at the same village bank meetings or two or more specialist field staff provide the services separately, sometimes employed by the same organization, sometimes by different organizations, sometimes at the same meetings of village bank members, sometimes at different meetings. The first type represents the tightest integration of activities, and when combined costs for both services are considered, this is the lower-cost model, most likely to be fully sustainable with program-generated revenues.

The most developed and documented of the first type is the *Credit with Education* model of Freedom from Hunger, inspired originally by the Grameen Bank, which combines a distinctive form of village banking with a simple change-promotion agenda known as the "Sixteen Decisions." Freedom from Hunger has since developed a deeper adult education strategy within the context of the village banking model originally developed by FINCA (Foundation for International Community Assistance). *Credit with Education* is a strategy for providing self-financing microfinance to women (primarily in very poor, rural areas) while simultaneously offering nonformal adult education for family and business survival (topics in health, nutrition and microenterprise management).

C*redit with Education* was consciously designed to address access and utilization problems of food insecurity, starting from these assumptions (see MkNelly and Dunford (1996) for a review of literature supporting these assumptions):

- The scope and scale of the problems of hunger and malnutrition require solutions with potential for widespread expansion and sustainability.
- Access to financial services (loans and savings) offers food-insecure households a flexible and potentially sustainable means for enhancing their livelihood strategies and reducing their vulnerability.
- Income increases that will have the most direct, positive impact on food security and nutrition are those earned by the poorest households, controlled by women and earned in steady and regular amounts.
- Income in itself is unlikely to have a substantial impact on malnutrition of women and young children unless key maternal and child health and nutrition behaviors are also adopted.

The first *Credit with Education* programs were started by Freedom from Hunger in Mali and Thailand in 1989. Three more pioneer programs were started in 1990 in Bolivia, Ghana and Honduras. Building on this early implementation experience, Freedom from Hunger now provides training and technical assistance to local partners who themselves are the direct implementers, managing each program toward financial and organizational sustainability.

Freedom from Hunger has introduced *Credit with Education* to three types of implementing partners, which have developed their own minor variations on the theme:

- Nongovernmental organizations in Bolivia, Guinea, Honduras, Madagascar, Malawi, Mali, Thailand and Uganda (and just starting in Haiti)

- Rural Banks in Ghana
- Credit unions and credit union federations (associated with Développement international Desjardins, the World Council of Credit Unions or the European mutualist movement) in Burkina Faso, Madagascar, Mali, the Philippines and Togo (and just starting in Bénin).

At the end of June 2000, implementing partners in 12 countries were offering *Credit with Education* to more than 145,000 women who had an average loan size of just $70 (see Annex A for additional details).

Project HOPE and World Relief Corporation have been inspired by Freedom from Hunger's example to develop their own versions of *Credit with Education* (Project HOPE: Ecuador, Honduras and Malawi; World Relief Corporation: Cambodia and Mozambique). Several other NGOs have independently developed distinctive versions of *Credit with Education*.

A *Credit with Education* program creates an opportunity for women to form self-managed Credit Associations (village banks) to jointly guarantee each other's loans (less than $300 per woman) and accumulate savings (see Annex B). Members meet regularly (usually weekly in the first year at least) to repay the principal and interest, deposit savings and participate in nonformal learning sessions facilitated by the field agent. The learning sessions should add no more than 30 minutes to a regular village bank meeting. Typically, meeting management and financial transactions require one- to one-and-a-half hours, which is an important opportunity cost in terms of women's time. The addition of education can add value to the meeting, thereby reducing the net opportunity cost, but only if the total meeting time is not extended beyond about one-and-a-half to two hours. This is an important constraint on the design of learning sessions and the overall education program.

In the programs started with Freedom from Hunger assistance, the health and nutrition education promotes recommended practices (in conformity with the behavior-change messages in *Facts for Life* [Adamson et al., 1993]) in the following topics and generally in this order of presentation:

- Diarrhea prevention and management
- Breastfeeding
- Infant and child feeding
- HIV/AIDS prevention
- Family planning
- Immunization.

The emphasis always is on solutions that the women themselves can adopt, afford and manage. There is much that even very poor, illiterate women can do to significantly improve their children's and their own health and nutrition without dependence on external services. However, where such services are available and of good quality, *Credit with Education* programs encourage their clients to use them as informed consumers.

The role of the field agent in the education is to introduce topics, help participants understand the relevance of the issues in their lives, offer basic information about practical changes they can make, encourage participants who have mastered these changes to share their successful experiences, and promote solidarity to help each other persist in their efforts to change. The field agents are not experts in health and nutrition. Their training focuses on techniques for presenting simple informational messages and facilitation skills for drawing the participants into learning from each other as well as from the field agent (see Box 2).

Box 2:

Strategies in Adult Education

There are a variety of philosophical and methodological approaches to adult education. When applied to health and nutrition, some general approaches might be characterized as follows (from Stetson and Davis, 1999):

- <u>Conventional education</u> provides information to change individual learners' knowledge, attitudes and beliefs about health and nutrition.
- <u>Communication</u> (social marketing or behavior-change communication) develops and delivers messages to attract and motivate a large population for behavior change to improve health and nutrition.
- <u>Empowerment/critical thinking</u> (popular education or community organization) facilitates dialogue that leads learners to problem identification, analysis, reflection and action for better health and nutrition.

Depending on staff (ability, skills), time and funding, adult learning developed for health and nutrition programs often utilizes a mixture of approaches. *Credit with Education* places great emphasis on "empowerment/critical thinking" but also includes elements of the other two approaches in response to the stringent staffing and time constraints imposed by the integration of learning sessions with village banking meetings.

Freedom from Hunger has created a generic health/nutrition curriculum with the objective of serving a broad range of practitioners with an educational program focused on care-related causes of infant/child malnutrition. The underlying assumption is that these causes are nearly universal among low-income communities, hence there is great consistency from program to program in the topics covered. But Freedom from Hunger and/or the implementing practitioner organization vary the detailed content of learning session modules (developed to guide field agents), depending on the local circumstances and needs of the program's service area. These variations arise from the following:

- Knowledge, practice and coverage are assessed, qualitatively and/or quantitatively, to determine how the module needs to address the particular needs or traditional practices in the service area.
- The health and nutrition education curricula are reviewed and revised as needed to assure consistency with health priorities, policies and communication strategies of the national ministry of health.
- Family planning and/or immunization are promoted extensively only in cases where modern family planning supplies and/or immunization facilities are dependably available. Programs may proactively seek out and attract such independent services to the program's service area.
- When there is an outbreak of a disease, such as cholera or meningitis, programs usually introduce emergency education relating to prevention and management of the disease and to awareness of government and other health-care services that can help.

More recently *Credit with Education* programs also provide education for better business skills to enhance profitability of microbusinesses. The topics are generic: management of business money, promotion of sales, planning for business growth, increasing profitability through cost controls and so on. These topics are not geared toward teaching people how to do bookkeeping or how to succeed in specific sectors or types of business. A basic assumption of microfinance, and particularly village banking, is that participating women are already or are potentially economically active and do not need to be taught to be entrepreneurs. They freely choose their own lines of business, which they already know from experience or can learn about from other local people. However, there is room for simple but important improvement in their basic business skills.

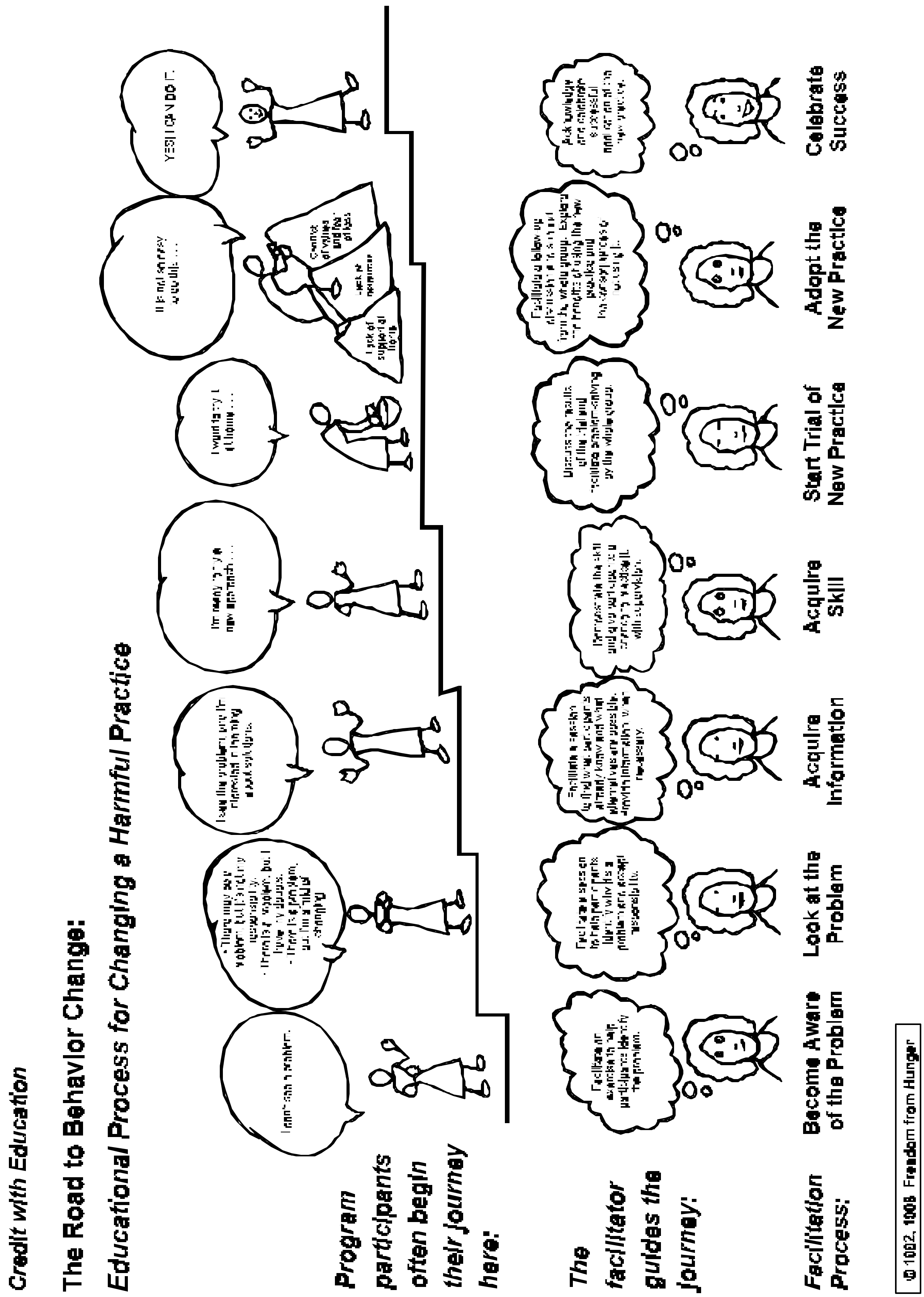
Currently, it takes a Credit Association two years to cover all the recommended curricula. Usually one health/nutrition topic and one better business topic are covered in each loan cycle (a loan cycle is 16 weeks from loan disbursement to full repayment). Credit Association members may drop out before the end of the two years and not benefit from all of the topics. Others may join after the Credit Association has already completed several loan cycles. Some women may drop out early and rejoin later. Over two years of operation, the turnover of Credit Association members (due to attrition and replacement) may be 30 percent or more (MkNelly and Stack, 1998). This is an important factor to consider when researching the impact of these programs.

Also, at any one time, only a minority (about 20 to 30 percent) of Credit Association members are mothers with children under the age of five years. The relevance of the child-oriented topics to their personal lives changes over time. Therefore, *Credit with Education* programs tend to recycle Credit Associations through the same curriculum to reinforce the earlier learning and expose others for the first time.

Education, like microfinance, is a continuing service of *Credit with Education*. Both the frequency (initially weekly) and extended time frame (16 weeks in a loan cycle; multiple loan cycles over several years) for learning opportunities make it possible to explore a topic in a series of steps spanning several meetings. First, awareness is built concerning the problem, then, new attitudes and behaviors are introduced for dealing with the problem, and finally, there is support: the new behavior is tried and assistance is provided as barriers to behavior change are encountered.

Figure 1 illustrates this ideal "road to behavior change," showing both the progression for a Credit Association member and for the field agent facilitating the progression. As *Credit with Education* continues to evolve with the growing experience and experimentation of practitioner organizations, Freedom from Hunger is upgrading the learning sessions to improve practitioner efforts to move Credit Association members along this ideal progression.

Figure 1: Road to Behavior Change



ADDITIONAL COSTS AND IMPACTS OF *CREDIT WITH EDUCATION*

The costs of *Credit with Education* are generated primarily by the costs of offering a microfinance service; village banking provides the "vehicle" for health/nutrition education. Microfinance specialists object to the extra cost burden of education, which they argue will compromise the prospects for financial sustainability. In making this argument, however, they overvalue the extra cost and undervalue the extra impact of the education.

Cost of Adding Education to Village Banking

Vor der Bruegge et al. (1999) have done a cost-accounting analysis of three years of expenditure data from each of four different *Credit with Education* programs to estimate the cost of the extra education. The analysis treats *Credit with Education* as a form of village banking with "extra education." It assumes that even a "pure" village banking program must provide clients with some education to help them form and manage their own village banks—involving field agents in several sessions of start-up training and then field agent presence and guidance at each of the regular meetings of the village bank. Time and expenses for training of field agents to enable them to provide education in health and nutrition and business management topics at the regular meetings were allocated to "extra education." These costs are both for local program staff time and expenses and for technical assistance and training activities conducted in-country by U.S.-based advisors/trainers.

The three-year average "cost increase for extra education" varied from 5.9 percent in Bolivia to 9.6 percent in Burkina Faso, with intermediate values in Mali and Togo (coincidentally, Smith and Jain (1998) report a Project HOPE estimate of such allocated cost of education to be 6 percent). In terms of annual cost per client served, of the $63.82 spent per client in Bolivia, for one example, only $3.51 could be saved by eliminating the "extra education," according to the cost analysis. In practical terms, however, the authors point out that these savings would be difficult to achieve while maintaining the village banking program because no staff positions would be eliminated, no vehicles would be sold, and internal training and external technical assistance would likely use the little time saved to work somewhat more intensively to improve village bank management and efficiency of credit operations.

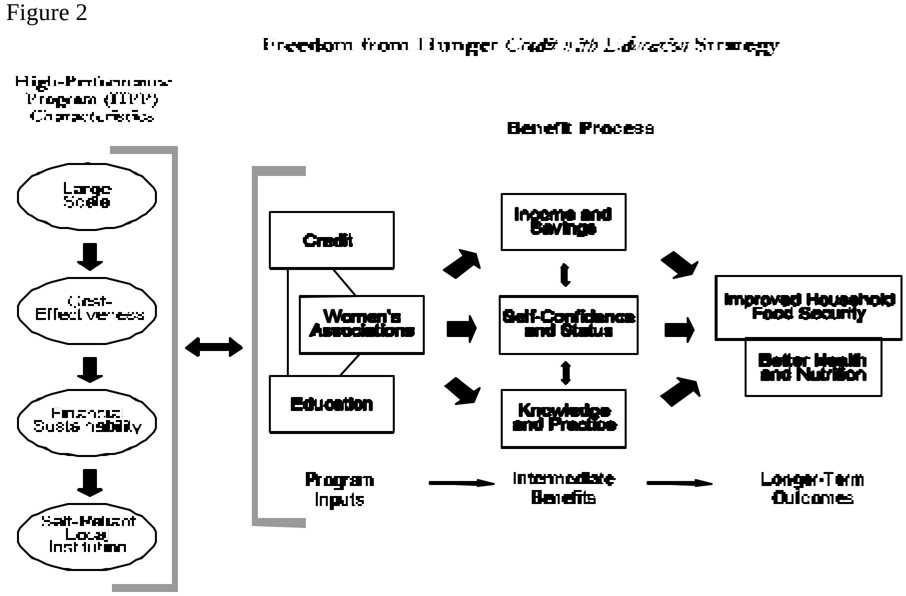
While questions may be raised about some of the assumptions underlying the cost-accounting analysis, it seems safe to estimate that the extra cost of the extra education in *Credit with Education* is no more than 20 percent above what "pure" village banking would cost. Moreover, *Credit with Education* programs generally charge borrowers no more for the integrated service than pure village banking programs in the same countries charge for just credit and savings opportunities. All four *Credit with Education* programs in this analysis are rapidly approaching "operational self-sufficiency;" i.e., all costs of integrated operations and financing and reserve set-asides should soon be covered by interest revenue from the credit operations. One might predict that *Credit with Education* programs would take up to 20 percent longer than microfinance-only programs to reach operational self-sufficiency because they both charge about the same interest rate. The complication, however, is that many other factors unrelated to integration can affect progress to the breakeven point. Good comparative analysis remains to be done.

Impacts of *Credit with Education*

The strategy of *Credit with Education* anticipates that women will borrow capital at affordable rates, build their productive assets, accumulate savings and build their self-confidence. These outcomes and impacts are expected from any well-designed and well-implemented microfinance program. The education in *Credit with Education*, however, should help improve life-saving health and nutrition practices to an extent not expected from pure microfinance programming. The credit and education components should also reinforce each other by addressing both the informational and economic obstacles to better health and nutrition.

Figure 2 shows the hypothesized linkages from the *Credit with Education* program to intermediate benefits (equivalent to USAID's intermediate results at the client level) and to the ultimate impact of improved household food security and nutritional status. Evaluations were conducted to verify that the strategy is having the intended impact results. Research focuses on program success in attaining the intermediate results on improved economic capacity, empowerment and adoption of key child survival health/nutrition practices, all of which lead to a measurable change in food security and nutritional status.

Figure 2



Multiyear studies in Bolivia and Ghana were completed by Freedom from Hunger, in collaboration with the Program in International Nutrition at the University of California, Davis, and funded by the Thrasher Research Fund and the Nutritional Division of UNICEF/New York (research design described in Box 3). In addition, Freedom from Hunger has conducted or sponsored detailed field studies of *Credit with Education* programs in Burkina Faso, Mali and Thailand. Project HOPE sponsored a study of its integrated delivery programs in Ecuador and Honduras. Research designs are described in Box 4. This section of the paper highlights the evidence regarding the impact of the *Credit with Education* approach on economic capacity, health and nutrition and empowerment.

Box 3:

Research Design: Ghana* and Bolivia**

In both studies, two major survey and anthropometric (heights and weights) data collection rounds were carried out—with different mother/child pairs participating in the two time periods. A quasi-experimental design was applied at the community level to minimize possible bias. Following baseline data collection, 19 study communities were assigned to either a program or control group, with the latter not receiving *Credit with Education* until the evaluation research was completed. Baseline respondents were later classified as future "participants" or "nonparticipants," depending on whether they joined the program (when and if it was offered in their community).

Three sample groups of women with children under three years of age were included in the follow-up research: *Credit with Education* program participants of at least one year; nonparticipants in program communities; and residents in control communities selected <u>not</u> to receive the program for the period of the study. Women for the two nonparticipant groups were randomly selected from comprehensive lists of all women with children younger than three years of age.

Program impact is evaluated by comparing the magnitude and direction of change in the responses and measurements between the two data collection rounds—program participants versus nonparticipants and residents in control communities.

*MkNelly, Barbara and Christopher Dunford. *Impact of* Credit with Education *on Mothers and Their Young Children's Nutrition: Lower Pra Rural Bank* Credit with Education *Program in Ghana*. Freedom from Hunger Research Paper No. 4 (Freedom from Hunger, Davis, CA, www.freefromhunger.org) 1998.
**MkNelly, Barbara and Christopher Dunford. *Impact of* Credit with Education *on Mothers and Their Young Children's Nutrition: CRECER* Credit with Education *Program in Bolivia*. Freedom from Hunger Research Paper No. 5 (Freedom from Hunger, Davis, CA, www.freefromhunger.org) 1999.

Impact on Women's Economic Capacity

Evidence from the various studies clearly demonstrates that *Credit with Education* has made a measurable change in the economic capacity of participants. Because of their longitudinal and controlled designs, the Ghana and Bolivia studies provide the most compelling evidence.

In Ghana:

- The vast majority of participants (90 percent) stated that their incomes had "increased" or "increased greatly" since they had joined the *Credit with Education* program. Most commonly, participants attributed this improvement to expanded businesses, reduced input costs as a result of buying in bulk or with cash and new activities or products made possible by access to credit.
- There was a significantly greater increase in net nonfarm monthly income (revenue minus costs) of $36 for participants, compared to $18 for nonparticipants and $17 for residents in control communities (a material difference given that the program works with the poor in a country where the per capita Gross Domestic Product is $340[1]).
- A significantly greater percentage reported having savings. The value of cash savings for participants versus controls and participants versus nonparticipants also increased.

[1] *Background Notes: Ghana*, Office of West African Affairs, Bureau of African Affairs, U.S. Department of State, February 1998.

In Bolivia:

- The study showed a significant difference in the household monthly nonfarming enterprise profit (as compared to the other two groups) and personal savings accumulation for participants.
- Almost one-third of the clients in the follow-up period reported using at least part of their last loan to buy food (often in bulk at a lower unit price) or other basic needs for their family.
- One-third also reported using loan capital to buy animals such as sheep, pigs, cows and bulls, which are perhaps the most important stock of wealth on the Altiplano.

The Bolivia study results, in particular, underscored the reality that the principal economic effects of access to financial services may be increased livelihood security and consumption smoothing rather than an increase in income.

Positive and statistically significant impacts were discovered in the other, point-in-time, cross-sectional studies of *Credit with Education.*

In Burkina Faso:

- 85 percent of long-term participants in both programs (see Box 4) reported an increase in income, about 60 percent of which stated the increase was due to expanded scale of income-generating activity.
- Similar percentages (about 80 percent) reported improvement in family diet, most (about 80 percent) stated using income earned from the loan-supported activity to buy food.
- Borrowers increased the scale of income-generating activity by 80 percent, with roughly one-third more than doubling the scale. Many participants increased their profit margin by buying larger amounts of inputs, often when prices were low. Many had made significant investments in increasing or improving their productive capacity by buying fixed assets, such as aluminum and clay cooking pots, and by establishing regular market sites.

In Thailand:

- Participants developed significantly more diversified economic strategies and contributed more to their households' economic well-being relative to the comparison group.
- Despite a recent drought in the program area, and the fact that participants were of a similar, if not lower, socioeconomic status than nonparticipant households, participant families and their children were eating significantly more and better food.
- Participant households had significantly greater per-person weekly food expenditures (approximately \$2.00) than nonparticipant households (\$1.50).

In Mali:

- Long-term or current clients were significantly more likely than new clients to have expanded their businesses, added new products, reduced costs with cheaper credit or developed new businesses in the preceding 12 months.
- A progression of impact over time was also evident. As compared to incoming clients, two-year clients—but not one-year clients—were significantly more likely to have acquired business assets, invested in a marketing site, hired more workers, and improved the quality of their products.

- Program participation enhanced the ability of the households to reduce risk and deal with periods of crisis or economic difficulty, such as a period of acute food insecurity or a lack of money to continue their enterprises. One- and two-year clients were more likely to have personal savings and report increased income in the last year than were incoming clients. Two-year clients also had more diversified enterprise strategies.
- While in-depth interviews provided anecdotal evidence of quality-of-life improvements, the formal survey instrument detected few quantitative differences in household welfare.

The results from Honduras and Ecuador are not as clear. Smith and Jain (1998) point out limitations imposed on their data set by the difficulties of depending on field program staff to collect the data. Nonetheless, they offer some indicative comparisons of results from Ecuador, a rural village program, and Honduras, an urban slum program. They used "total monthly expenditures" and "monthly food expenditures" as proxies for income.

- In Honduras, total expenditures increased from baseline to follow-up for the participants in health banks (*Credit with Education*), but they found no difference in food expenditures. There was no statistically significant increase in either variable for participants in credit-only banks.
- In Ecuador, there were no differences for either expenditure variable for either type of bank participant—borrowers may be saving their net income and/or reinvesting it in their businesses rather than spending it on consumption.

Despite the challenge researchers face in quantifying changes in income for households involved in any type of microfinance program, the gathered data demonstrate increasing levels of livelihood security—more regular earnings throughout the year, asset accumulation, and consumption smoothing—that access to financial services makes possible. One should expect these impacts on women's economic capacity in any well-designed and well-implemented microfinance program, regardless of the inclusion or absence of extra education. In fact, impact studies for microfinance-only programs (Sebstad and Chen, 1996; MkNelly and Dunford, 1996; Sharma and Schrieder, 1998; Zeller and Sharma, 1998) show results similar to those found in the impact studies for integrated *Credit with Education* programs. The addition of health and nutrition education does not appear to diminish the ability of village banking to produce these significant impacts sought in all poverty-oriented microfinance programming.

Box 4:

Research Designs

Thailand, Burkina Faso, Mali, Ecuador and Honduras

Thailand: (MkNelly, Watetip, Lassen and Dunford, 1996)
This research was designed as a cross-sectional interview study of *Credit with Education* participants and nonparticipants in Korat Province. The program had been in operation since 1989. The program design included a slightly longer loan cycle (six-month loans) in order to accommodate the agricultural and animal husbandry activities. Nutrition and health education, deposits of individual members' savings and installment payments of interest due took place at the monthly meetings. Participants interviewed were members of Credit Associations for at least one year and had taken at least one loan in the past 12 months. Participants and nonparticipants (drawn at random from matched-control communities) had at least one preschool child.

Burkina Faso: (Kevane, 1996)
This study was conducted with participants in the *Credit with Education* program of the Réseau des Caisses Populaires du Burkina (RCPB). In-depth, qualitative, retrospective interviews were conducted in early 1996 with nearly all members of three *caisses villageois* (Credit Associations) in operation for at least two years, in three distinct rural communities of the Central Plateau region around Ouagadougou. Each community was visited for approximately one week. Community leaders and other nonparticipants were interviewed as well. The objective of the study was to clarify the processes by which program impacts occurred.

Burkina Faso: (MkNelly and Foly, 1997)
Freedom from Hunger, in collaboration with World Relief Corporation, conducted a cross-sectional, comparative study of *caisse villageois* members in the very similar village banking programs of RCPB and CREDO (the World Relief affiliate in Burkina Faso). The primary differences between the two programs was that RCPB includes health/nutrition education as an integrated part of the *caisse villageois* program and operates predominantly in smaller rural communities, while CREDO operates in larger communities and towns. The study collected interviews and anthropometric measurements from women (and their youngest children) in the two programs. These were divided into two groups: new members in their first loan cycle and long-term members who have completed at least one year of membership in a *caisse* in operation for at least two years. All members had children under the age of two years. The design allows comparison of effects of the two programs.

Mali: (MkNelly and Lippold, 1998)
This research tested "practitioner-led impact assessment" tools with Kafo Jiginew, a credit union federation implementing *Credit with Education* in Mali, as part of the AIMS (Assessing the Impact of Microenterprise Services) project funded by the USAID Office of Microenterprise Development. As with the comparative study in Burkina Faso, the tools test in Mali compared new with long-term program participants, but in three categories: incoming clients (women interested in the program who had not yet received any services), one-year clients and two-year clients. Due to the test nature of the study, only a minimal number of clients was interviewed with each of the six tools tested. Still, positive program impact was seen at all levels.

Ecuador and Honduras: (Smith and Jain, 1998)
This field research was directed by the Center for International Health at George Washington University, with funding from and collaboration with Project HOPE in Ecuador and Honduras. In 1993, Project HOPE initiated a form of integrated delivery of microfinance and health education services which it calls "village health banks." This design is a variation on the *Credit with Education* theme. Project HOPE conducted an experiment to compare conventional village banking with its village health banks. The George Washington University and Project HOPE study team surveyed women ages 15-49, some with and some without children under the age of two, who were participating in either a "health bank" or a "credit-only bank" for at least two loan cycles of four months each. In addition, the team surveyed women who met the study criteria but who were neither members of either type of village bank nor participants in a Project HOPE child survival program. Comparisons were made between participants in the two types of village banks and between village bank participants of both types and nonparticipants. Baseline data were collected in June 1994 and the follow-up was conducted in June 1996.

Impact on Women's Empowerment

Even before economic impacts can be anticipated, much less detected, many women participants in village banks show signs of being "empowered" by their experiences. There has been much anecdotal reporting but little formal research on this phenomenon.[2] To evaluate program impact, Freedom from Hunger defined women's empowerment in terms of women's self-confidence and vision of the future; status and bargaining power within the household; and status and networks in the community. Based on qualitative interviews, these factors were operationalized as several site-specific indicators meant to capture what it means to be "empowered" in that particular program context.

In Ghana, participants (compared to both groups of nonparticipants) rated themselves as being significantly more confident of feeding their children good foods needed for growth; preventing their children from becoming infected with diarrhea and other illnesses; and earning more money the following year. They were *not* more confident that they could educate their children to their children's full potential.

In Ghana, participants' bargaining power was *not* significantly improved for decisions on a number of household investments, such as how much to spend on clothing, medicines, agricultural inputs and house repairs. However, there was a significant increase in participants' "say" in whether or not their children went to school as compared to nonparticipants in the same communities, and a marginally significant difference as compared to residents in control communities.

The Ghana program seemed to have positively affected women's participation in the community and their ability to help family and friends. Participants were more likely to have helped a friend with his/her work; offered health/nutrition advice to others; offered business advice to others; and contributed money to nonkin funerals, which is important to an individual's social status and to the reputation of one's family.

Using these three aspects of women's empowerment, the Ghana study clearly demonstrated that participants were significantly more empowered than the two nonparticipant groups, especially at the individual and community levels. However, it is interesting to note that residents in control communities were more confident and enjoyed relatively greater assistance from their husbands than nonparticipants in program communities. It is possible that the decision of women, who choose not to participate in the program in their community, itself reflects an initial lack of self-confidence and a greater degree of marital inequity.

In Bolivia, participants were more likely to have given advice to others about good health and nutrition practices and about good strategies for income-generating activities; spoken up at community meetings; and run for or held community-level elected positions. In Thailand as

[2] Some exceptional, pioneering research on empowerment effects of microfinance participation has been done by Sidney Schuler and Syed Hashemi with studies of the microfinance programs of Grameen Bank and BRAC (Bangladesh Rural Advancement Committee) in Bangladesh (Schuler and Hashemi, 1995). Freedom from Hunger consulted in depth with Schuler and Hashemi before designing its own studies in Ghana and Bolivia.

well, there was evidence of changing attitudes. Examples of women organizing and taking unprecedented leadership roles were also noted.

Such empowerment effects could be expected of any form of microfinance, as participants successfully borrow and repay loans, regardless of whether participants are educated by the program. The effects should be further enhanced in group-based microfinance, which fosters mutual support among participants. This is especially true in village banking, which demands a certain degree of group self-management. However, there is little to no research on empowerment in stand-alone microfinance programs for comparison with integrated programs.[3] *Credit with Education* more likely fosters empowerment at the level of the individual and in the community than it does within the household.

The increased self-confidence can have potentially important health and nutrition benefits. Self-confidence can be linked to a more open attitude toward learning and problem resolution and, more specifically, to greater success rates in women breastfeeding, taking a more active role in nourishing children with illness-induced anorexia, and making use of existing health services. A greater involvement in community affairs and nonkin networks also potentially exposes women to a broader range of experiences and ideas.

Impact on Mothers' Health/Nutrition Practices

When looking for impacts that can only be attributed to the addition of health/nutrition education, the Freedom from Hunger study and related studies found evidence of significantly greater positive change among participants in a variety of the health/nutrition practices promoted by the *Credit with Education* program. In Ghana, these positive changes were evidenced in mothers:

- Giving newborns the antibody-rich first milk (colostrum)
- Introducing liquids and first foods (in addition to breastmilk) closer to the ideal age of about six months
- Not using feeding bottles
- Enriching the traditional complementary food, koko, with beans/cowpeas, egg, fish, groundnuts, milk and palm oil
- Enriching Weanimix (a complementary food promoted and distributed by the Ministry of Health) with fish powder
- Rehydrating children who had diarrhea by giving them either Oral Rehydration Solution (ORS) made from the packets or home liquids such as tea or rice water
- Not "treating" children who had diarrhea by giving them enemas
- Learning ways to prevent the onset of diarrhea, such as covering food and keeping food.

The Ghana study also discovered good evidence that health/nutrition behavior-change promotion from multiple sources can be mutually reinforcing when coordinated and focused on the same population.

---

[3] The studies of Grameen Bank and BRAC (Schuler and Hashemi, 1995) yield similar conclusions about empowerment effects of microfinance, but both programs must be classified as "integrated" with other social development services, including education relevant to better health and nutrition.

- During the period of the evaluation research, the practice of exclusive breastfeeding went from being virtually unheard of in the program area to being widely accepted. This change was due in part to in-service training of health professionals at the local health centers as part of a UNICEF breastfeeding promotion campaign. But the most dramatic positive change was evident for the *Credit with Education* participants (due, no doubt, to the education component and the specific changes it generated—see first three bullets above).
- Mothers reported that reinforced messages and support and encouragement from trusted sources—*Credit with Education* field agent as well as other Credit Association members—were important factors in their trying this new behavior.
- Despite involvement in their loan-financed activities, participants in Ghana did not stop breastfeeding their children any earlier than nonparticipants. Participants were just as likely as nonparticipants to breastfeed their children into the second year of life.

All the studies summarized here depend on mothers' reports of their own health and nutrition practices. To corroborate these reports relating to feeding practices, an independent study (unpublished research by Dr. Margaret Armar-Klemesu of the Noguchi Memorial Institute for Medical Research, University of Ghana, Legon) investigated the dietary intake of children 9-20 months old who were in the Ghana follow-up study (MkNelly and Dunford, 1998). Dietary intake was assessed by the mother's 24-hr recall of all breastfeeding episodes and all meals and snacks consumed by the child on two nonconsecutive days. Mothers identified measures used to offer food to the children, indicated how much was offered, and reported on proportions consumed in reference to local measures and fist size. Samples of all foods reported were taken to the lab for calorie and nutrient content analysis using appropriate food composition tables. The following three conclusions were drawn by Dr. Armar-Klemesu. These provide strong evidence that increased knowledge resulted in an improvement of some, but not all, feeding practices.

- Feeding frequency was not greater for participants' children relative to the other two nonparticipant groups.
- Dietary quality of the non-breastmilk meals given to participants' children was significantly higher relative to the other two groups.
- Estimated caloric adequacy (from non-breastmilk foods) was significantly higher for participants' children relative to the nonparticipants' children.

Participants in the Bolivia research also self-reported learning about good health and nutrition practices from the *Credit with Education* program. Participants mentioned:

- Rehydrating children suffering from diarrhea
- Giving newborns colostrum
- Introducing first foods at the appropriate age (about six months)
- Reducing use of feeding bottles
- Implementing positive changes in breastfeeding or child-feeding practices for the current child as compared to previous children at a comparable age.

However, the variety and degree of improvement in clients' health and nutrition knowledge and reported behavior change was less dramatic in Bolivia than in Ghana.

In Thailand, results showed that nutrition and health education can be effective even in the context of a credit and savings program that brings women together in groups only once a month. The participants demonstrated superior knowledge and practice of a number of key health/ nutrition behaviors promoted by the program; for example:

- Using ORS to manage diarrhea
- Using appropriate timing for introducing complementary foods to infants.

The fact that their knowledge of practices *not* promoted by the program was *not* superior to that of the nonparticipants further reflected the importance of the program's monthly education sessions.

In Burkina Faso (Kevane, 1996), in-depth interviews revealed that the majority of women could identify specific health/nutrition behaviors that they had adopted as a result of what they learned at the *caisses villageois* (Credit Association) meetings. The program demonstrated success in teaching the basic tenets of:

- Managing and preventing diarrhea
- Giving colostrum to the newborn
- Feeding the first foods to a breastfeeding infant at the right age
- Positively reinforcing participant attitudes toward modern medicine and family planning methods, even though such services were still difficult to access.

In Burkina Faso, again (MkNelly and Foly, 1997), long-term RCPB participants (*Credit with Education)* were more likely than long-term CREDO (credit only) participants to report having learned new health/nutrition practices, tried the newly learned practices, and advised others about the recommended practices.

- When asked whether they had given more liquids to a child suffering from diarrhea, about 55 percent of mothers *just joining* both programs said, "Yes." Significantly higher percentages of *long-term* members (of older Credit Associations in different communities) of both programs gave positive responses: 70 percent of CREDO members but 81 percent of RCPB members.
- The impact of the RCPB education was even more evident in the responses to the question on colostrum. About 50 percent of the new members of both programs gave infant children colostrum compared to 65 percent of the long-term CREDO members and 87 percent of the long-term RCPB members.

Smith and Jain's (1998) data demonstrate the following:

- In Honduras, "health bank" participation showed a large, positive and statistically significant effect on the reduction of the incidence of diarrhea in children younger than two years of age at the time of the follow-up. No effect was found for participation in credit-only banks.
- In Ecuador, participation in health banks also had a slight, but not statistically significant reduction in diarrhea cases. However, participation in the credit-only banks had a similar, if not greater, effect in reducing the incidence of diarrhea.
- In both countries, there was a clear tendency for breastfeeding incidence to increase for health bank participants and some tendency for it to decrease for credit-only participants.

To proxy maternal health practices, especially the use of existing medical services, Smith and Jain (1998) examined the effect of participation on the incidence of subsequent cancer screening (presumably Pap tests and breast examinations) at local clinics.

- In both countries, health bank participation was uniformly associated with higher subsequent cancer screening. The link between credit-only participation and subsequent cancer screening was weak in Ecuador, and nonexistent in Honduras.

It seems reasonable to conclude that *Credit with Education* can be effective in bringing about positive changes in health knowledge, self-reported practice and certain health outcomes. One should expect such impacts on mothers' knowledge, practices and outcomes in any well-designed and well-implemented health/nutrition education program, whether or not it is piggy-backed on a microfinance service delivery system. In fact, impact studies for stand-alone health/nutrition education programs (Cerqueira and Olson, 1995; Contento et al., 1995) show results similar to those found in the impact studies for *Credit with Education* programs. Therefore, it seems the education in *Credit with Education* can be as effective in stimulating behavior change as the education in typical MCHN programs supported by Title II funding.

It appears that integration with village banking does not have to diminish the power of adult education. On the contrary, the Credit Association is a good forum for adult education for several reasons: the meetings provide an opportunity for regular face-to-face contact; the solidarity structure and joint guarantee mechanism foster a supportive atmosphere of "collective" self-interest; and women's successful management of the loans tends to foster confidence and, thereby, encourage the adoption of new health-seeking behaviors.

Impact on Food Security and Nutritional Status

The data clearly indicate that the expected *intermediate benefits* (Figure 2) have been produced by actual *Credit with Education* program operations. This, in itself, demonstrates tangible program impacts. However, the final question remains: Will these changes in income and savings, self-confidence and status, and nutrition knowledge and practice result in improved household food security and better nutritional status? Three of the studies actually provide the information on nutritional status needed to investigate whether *Credit with Education* can translate benefits into achievement of these ultimate goals.

The results of the Ghana study are the most clear:

- Participant households reported significantly reduced vulnerability to the "hungry season" relative to the baseline period as compared to the two nonparticipant groups.
- The nutritional status of participants' one-year-old children—both in terms of weight-for-age and height-for-age—was also significantly improved relative to the children of residents of control communities. The mean height-for-age z-score (HAZ) for participants' one-year-olds was 0.3 better in the follow-up period, whereas the mean HAZ for children in control communities was 0.2 worse.
- A similar positive effect was not found for maternal nutritional status as measured by women's body mass index (BMI).

The Bolivia study, however, did *not* show statistically significant improvements for participants:

- No positive difference in whether the family experienced a hungry season (and the duration thereof) compared to 12 months earlier.
- No positive difference in the mother's or child's nutritional status.
- No positive difference in the percentage of children who were malnourished.

The nutritional status of participants' children remained constant or was even lower in the follow-up period, a pattern that was similar for children in control communities.

An important difference between the Ghana and Bolivia programs was in the quality and quantity of education that the women received from the *Credit with Education* field agents.

- Prior to and during the study period in Bolivia, program management showed a weak commitment to the education component, due to a preoccupation with other implementation challenges primarily related to program expansion and internal credit controls.
- Supervision of field agents was less consistent in Bolivia than in Ghana and field agent turnover was higher. The majority of Credit Associations had a series of field agents working with them, which resulted in inconsistent quality for delivery of health/nutrition education.

These findings of the study led the Bolivia program management to give better attention and resources to recruitment, training, supervision and support for field agents (including monetary incentives for complete, good-quality delivery of the education).

In the Ghana program, health/nutrition education was well-adapted to local circumstances and consistently delivered. Most of the Credit Associations had only one field agent, who progressed sequentially through the education topics, covering at least diarrhea prevention and management, breastfeeding and child-feeding practices.

Further analysis of the Bolivia data explored three possibilities for the apparent lack of effect of the Bolivia program on the nutritional status of the members' children:

- Variable quality of the health/nutrition education services provided to *Credit with Education* participants
- Loan-use strategies, such as purchasing animals for the family, that yield longer-term rather than relatively short-term nutritional benefits
- Household enterprises that were usually male controlled rather than female controlled.

Exploring these possibilities required further subdividing the 1997 participant sample, which resulted in small sample sizes. Still, the analysis provided some evidence of the relationship between the quality of education received and the nutritional status of participants' children but no evidence for the other two possibilities.

By comparison with those who received average or less-than-average education, women in Credit Associations who received better quality/quantity of health and nutrition education reported statistically greater improvement in how they fed or breastfed the "study children" compared to how they had fed their older children at comparable ages. Also, between the baseline and follow-up periods, there was a significant and positive relationship between the quality of education received by mothers and their children's mean weight-for-age z-scores, as well as the prevalence of moderate to severe malnutrition, when controlling for a variety of child, household, community and provincial (location) variables. However, the strength of these results is tempered by small sample sizes of fewer than 30 cases each.

In Burkina Faso, like the Bolivia study (in aggregate), MkNelly and Foly (1997) did *not* find that prevalence of malnutrition was lower among the children of long-term members of either CREDO or RCPB. In fact, the prevalence of malnutrition was slightly higher among the children of long-term RCPB (*Credit with Education*) members. This highlights the difficulty of demonstrating impact of any kind of program on children's nutritional status, particularly with a cross-sectional design. It also raises the possibility of prior differences between RCPB members and CREDO members. There were no significant differences between new and long-term members, or between RCPB and CREDO members, in mother's age (about 30) or years of formal education (about one year only) or in ownership of large livestock or type of roof on the house. Yet long-term CREDO members had significantly higher literacy and were more likely to have electricity and a health dispensary in their communities (reflecting the larger size and greater commercial development of their communities). Long-term RCPB members, on the other hand, had significantly larger family size. These differences are likely to be related to children's nutritional status and could confound detection of any differential impact of the nutrition education. There may also be systematic prior differences between new and long-term members of both programs that cannot be adequately teased out due to limitations of the study's cross-sectional design.

Impacts: In Conclusion

The research in Ghana clearly indicates that *Credit with Education* not only increases income and savings, enhances self-confidence and improves health/nutrition knowledge and practices of women, but it can also ultimately improve household food security and children's nutritional status. The positive changes measured in Bolivia were not nearly as dramatic as those in Ghana, but the problems with quality/quantity of education implementation in Bolivia provided a unique opportunity to verify one of the central assumptions underlying the design of *Credit with Education*. To create a marked improvement in child nutrition, increased income, consumption smoothing and even empowerment are not enough. Programs must provide sufficient good-quality education to change caregivers' behavior. This conclusion is consistent with past evaluations of Title II programs, which highlighted the importance of the presence and quality of educational services to foster improvements in caregiver practices and, thereby, child nutrition (e.g., Mora et al., 1990).

Integration of activities is seen as a way to achieve synergy of impacts, but there is a counterbalancing concern. Smith and Jain (1998) point out that an organization trying to operate simultaneously in two very different sectors of development activity may compromise its effectiveness and efficiency in one or both sectors. The logic is that specialization in one or the other heightens effectiveness and efficiency; a generalist, multisectoral approach decreases effectiveness and efficiency. However, there is no evidence to support this idea that quality of either microfinance or nutrition education service must be compromised for the sake of integration. As pointed out above, impact studies for stand-alone microfinance programs and stand-alone health/nutrition education programs show results relating to intermediate benefits similar to those found in these impact studies for integrated *Credit with Education* programs. Moreover, the combination of these intermediate benefits from an integrated service delivery program is likely to result in better household food security and child nutritional status, as shown in Ghana and Bolivia.

Reaching Large Numbers of the Food-Insecure Poor

Credit with Education seems to be a cost-effective way to generate impacts needed to improve food and nutrition security. However, to make a difference in the worldwide food-insecurity problem, these impacts must be experienced by large numbers of the people, families, households and communities most vulnerable to food insecurity and malnutrition. To provide a complete picture of the potential of *Credit with Education*, there must be evidence that this sustainable, integrated delivery system can reach the very poor in substantial numbers.

Microfinance can only serve those households with economically active members. This is no less true of group-based programs, such as *Credit with Education*, which are designed specifically to reach very poor people in their own communities. More specifically, these economically active people must put short-term working-capital loans to productive use to gain enough income both to pay back the loan with interest and to have sufficient net profit to make a difference in the food production and/or purchasing power of the household. These are not the most vulnerable of the poor: the elderly, the disabled, orphans or those individuals who live on the fringes of their societies due to mental health problems. These people need welfare or charitable assistance—from the family, the community or outside agencies. They cannot respond to development initiatives demanding substantial involvement in education or economic activity. However, they *can* be reached indirectly when they live in households that have economically active members able to take advantage of microfinance services.

Microfinance programs face unusual challenges in making sure their services reach even the poorest of economically active households. A major obstacle is a set of assumptions of the community of academics, donors and practitioners supporting microfinance programming. They assume that the design of microfinance, especially poverty-oriented, group-based microfinance, creates a desirable bias toward the poor (or more accurately, *against* the not-so-poor). The small loan size, high interest rate, short loan duration (too short for many kinds of investment, especially for most types of production agriculture), the frequent repayments (initially weekly in most programs), and dependence on mutual guarantees are all factors assumed to make the program unattractive to people who have other sources of easier credit. It is assumed that the poor, with few, if any, other options (because they lack collateral and distinct businesses), will tolerate these unattractive features, while the not-so-poor, *for whom easier options are available*, will tap more attractive sources of credit.

Firm belief in the effectiveness of a "self-selection" bias toward the poor explains why few practitioners attempt to verify that they are reaching relatively poor entrepreneurs. Formal intake surveys or selective screening out of the not-so-poor are considered unnecessary, costly and disruptive practices that are detrimental to the work of field agents. This is as true for *Credit with Education* as it is for most other group-based microfinance program strategies. However, when easier finance options are *not* available to the not-so-poor, the demand for credit may be so high that even *they* are willing to tolerate the unattractive features of group-based poverty lending. In such a case, self-selection may prove to be ineffective in focusing services on the poorer community members. At best, the participant profile may simply reflect the poverty profile of the whole community.

MkNelly et al. (1996) used a "wealth ranking" technique in four Thai villages to investigate the distribution of *Credit with Education* clients among five socioeconomic categories (defined in local terms). This distribution of clients was compared to the distribution of all community residents in these villages. They found that the wealthiest fifth and the poorest fifth of the total population were slightly underrepresented in the local Credit Associations, while the three-fifths in the middle of the poverty-wealth spectrum were slightly overrepresented in the Credit Association membership. *Credit with Education* attracted a fairly broad spectrum of the rural village residents, yet the program had selected relatively poor villages in one of the poorest areas of the country. Presumably then, this broad spectrum was within a relatively poor population.

Including women who are not-so-poor may contribute to the overall success of village banking programs, particularly *Credit with Education*. Having a good number of better-off women in the Credit Associations probably means larger average loan size, which serves to increase program revenue, and create a cross-subsidy for the smaller loans taken by the poorer Credit Association members. The better-off are typically better educated and more worldly, which should improve the self-management capacity of the Credit Associations and the cross-fertilization of learning within the groups. Also, allowing the better-off the choice of participation reduces the potential for undermining community support when influential members are excluded. However, when does the proportion of better-off women to chronically hungry women become too high?

Practitioners and donors alike were shocked by the report of Navajas et al. (2000) that only two to three percent of clients of three well-known urban microfinance programs in Bolivia (including Banco Sol) could be classified among the poorest ("extremely poor") in relation to a national poverty standard (a poverty line below which specified basic needs are not adequately met) developed by the Ministry of Development. Even the two rural microfinance providers surveyed in Bolivia had less than 20 percent of their clients classifiable as extremely poor, even though 76 percent of the rural population as a whole was in the extremely poor category. However, it should be noted that none of these five microfinance institutions in Bolivia is known for its commitment to reach the poorest. The MFI's interest is in serving clients of a somewhat higher socioeconomic level who can make use of larger loans (larger loans being more efficient to administer and, therefore, more profitable).

Bresnick and MkNelly (1999) developed a correspondence between local measures of poverty among *Credit with Education* clients in Bolivia and the national poverty standard used by Navajas et al. (2000). There was no statistical difference in the socioeconomic status (as measured by value of assets) between participants in *Credit with Education* and randomly selected nonparticipants in the same and similar communities. They concluded that *Credit with Education* participants are likely to mirror the distribution of poverty levels found by the national survey in the general population of the 20 provinces in which the program was active. By that logic, 84 percent of *Credit with Education* participants were classified as "poor" and 49 percent as “extremely poor.” These figures are much higher than the figures for the five microfinance institutions with different program designs and commitments to reach the poor.

Greater outreach to the poor by *Credit with Education* in Bolivia seems as much a function of selecting poorer populations to serve (the more rural, the poorer the people in Bolivia) as it is a function of client self-selection fostered by the program design. *Credit with Education* programs appear to have good outreach to the poor as a result of both design (which seems to ensure that membership reflects the relative proportion of the poor in the community or neighborhood) and location (which determines the relative proportion of the poor in the community or neighborhood). It is also clear, however, that many of the poorest are missed or are unwilling to participate.

The Bolivia and Thai examples are corroborated by preliminary results of a wealth-ranking exercise conducted in March 2000 by Freedom from Hunger in two Malian *Credit with Education* programs (still in final data analysis and reporting). All four program examples illustrate the importance of locating microfinance services in relatively poorer communities or neighborhoods, *if* the explicit objective is to serve large numbers of the poorest of the economically active poor.

Even a well-located program has to decide whether to actively screen out the better-off—whether to avoid or deal with the potential drawbacks of “means testing,” such as burden on staff skills and time, higher operating costs, and divisiveness within the community. For those willing to accept this challenge, it is fortunate that there is increasing effort to develop screening criteria and methods that group-based poverty lending programs can use to target their resources to the poorer members of a community. The Microcredit Summit Campaign has taken the lead in stimulating this effort (Simanowitz et al. 2000).

At this point in their development, local wealth-ranking and similar poverty-assessment techniques do not relate well to national-level poverty standards, which makes it quite difficult to compare the relative outreach to the poor of varying programs operating in different regions of a country. However, the local poverty assessment can be very useful for techniques such as comparing relative outreach of different financial products offered by the same institution in the same area, can be very useful.

For example (Thys (2000) drawing from the same preliminary results from Mali, referenced above), Kafo Jiginew, a federation of credit unions in Mali. The federation began with mainly agricultural lending, achieving a client base of 31,888 in 1995, the great majority of which were relatively better-off (and male) cotton farmers. Kafo Jiginew added *Credit with Education* in 1996 to reach out to more women and to poorer, more remote communities. By the end of 1999, the federation reached 82,898 clients of whom 17,670 received *Credit with Education* services. In March 2000, Freedom from Hunger conducted wealth-ranking research in *Credit with Education* communities to determine the distribution of current and former *Credit with Education* members among five socioeconomic strata. These strata were locally defined in terms of food insecurity (the lowest three strata progressed from *occasional* to *seasonal* to *daily* problems of food insecurity). Seventy-seven percent of the sample from nine communities were classified as being in one of the three food-insecure strata. If the sample was representative of the *Credit with Education* membership, about 13,600 food-insecure households were reached by Kafo Jiginew's new *Credit with Education* service. Most, if not all, of these households otherwise would not be members of Kafo Jiginew credit unions. At the same time, the Kafo Jiginew federation (aggregate of all credit unions and all lines of service) increased its operational self-sufficiency to 126% and reduced its subsidy dependence index (SDI) to 3% (Banco Sol had an SDI of 5% after ten years, which was the age of Kafo Jiginew in 1999).

This example demonstrates that a microfinance institution seeking to reach out to substantial numbers of the food-insecure (very) poor can do so without compromising its viability as a business operation. *Credit with Education* offers such an institution an opportunity not only to reach and involve the food-insecure poor in greater economic activity, but also to offer them a broader range of benefits to enhance food and nutrition security for all family members.

INCORPORATING *CREDIT WITH EDUCATION* INTO TITLE II PROGRAMS

Having reviewed the *Credit with Education* program model and the evidence that *Credit with Education* can achieve key food security and nutritional improvement objectives of Title II, we turn now to the specific advantages and challenges of incorporating *Credit with Education* into Title II programming.

Credit with Education, as a stand-alone program, seems capable of cost-effectively generating certain impacts that contribute to the food-security goals of Title II. By itself, this strategy seems worthy of Title II support through monetized food aid. However, greater impact will be achieved when *Credit with Education* is offered as one of two, or preferably more, services to improve and support food security in a population. In this circumstance, *Credit with Education* can be expected to enhance a multisectoral Title II program effort in three ways:

- *Credit with Education* can help improve income generation, asset accumulation and consumption smoothing for a good number of food-insecure households, expanding their ability to purchase locally grown foods and thereby reinforcing Title II MCHN and agricultural development programming.

- *Credit with Education* can supplement and reinforce MCHN education programming to disseminate information and promote care-giving practices that enhance child health and nutrition It can promote informed use of MCHN services (clinic-based and other).

- *Credit with Education* can expand the outreach of MCHN-education efforts to include older women who would not normally choose or be allowed to participate in standard MCHN programming. This would broaden the audience for messages and stimulate the social influence of older women on younger women to adopt the recommended practices and use locally available services to improve child health and, thereby, "utilization" of food.

There are several important but manageable challenges to introducing *Credit with Education* into the mix of a multisectoral Title II program. They can be discussed in these four categories:
- Title II Funding Choices
- Integrating Social Service and Business Perspectives
- Managing Expectations of Microfinance as a Vehicle for Other Services
- Choice and Management of an Implementing Institution

Title II Funding Choices

Microfinance is attractive, in part, because of its potential to become financially sustainable. Investment in start-up and/or expansion of operations can be expensive, but once the cost-revenue breakeven point has been reached, new spending to sustain the operations can be very low or zero. However, the up-front cost can be *much* more expensive than program start-ups in other sectors because of the need for a large pool of credit funds. To reach a significant number of people in need (often considered in microfinance circles to be at least 10,000 clients) requires a major investment in the loan portfolio. If the average individual loan size were to stabilize at $100 per client (reflecting a very poor average clientele), the loan portfolio would have to be

$1,000,000. Bearing in mind that the number of clients who can be classified as "food insecure" upon entry to the program is likely to be considerably lower than 10,000, the up-front investment of one million dollars to make loans to the food-insecure poor is even greater per capita.

Compared to other sector initiatives, the life of project cost to Title II funds may be about the same (if, in fact, other sector initiatives can become independent of Title II funding at some point farther down the road), but the costs of a microfinance initiative are front loaded. Analogous to creating an endowment, a great deal of capital must be locked up (as loans and reserves; not available for recurrent operating expenses) before an adequate revenue stream is generated by the investment. This amounts to a great deal of monetized food aid in the first two or three years of the microfinance program. Some of the cost of the portfolio build-up can be mitigated by borrowing capital, but this option requires a sizeable paid-up portfolio (equity of the program) to begin with and, even then, external loan guarantees from USAID or other entities.

The point is this: introducing *Credit with Education* into a multisectoral mix of Title II programming is likely to heighten competition for funds among the sectors if the annual monetization level is a significant limiting factor in programming decisions. In other words, introducing *Credit with Education* on any significant scale may require a programming decision to forego or abandon other valuable initiatives. There may well be tough choices.

Integrating Social Service and Business Perspectives

In the *Credit with Education* model, microfinance is the vehicle carrying the integrated service package toward positive impact in the lives of large numbers of people in need. The distinguishing characteristic of modern microfinance is surely its objective to build highly disciplined, self-sustainable service-delivery institutions. There is a practical reason for this objective: As noted above, a great deal of money is put in the hands of large numbers of borrowers. The temptation of borrowers to avoid repaying the loans is strong unless there are credible incentives to repay and disciplined application of sanctions against nonrepayment. If this structure of incentives and sanctions should start to crumble, a great deal of money will be lost very quickly.

The greatest motivating incentive to repay is the promise of access to future loans (conversely, the most important sanction is denial of future access to those who do not repay on time). If the institution providing the loans should ever be perceived by the borrowers as unwilling or unable to enforce sanctions and thereby render itself unable to ensure future access to loans, then the borrowers would have a huge disincentive to repay. The borrowers' perception quickly becomes a self-fulfilling prophecy as many withhold repayment and hope to "get away with it." Soon it becomes irrational for a borrower to repay when many others are not repaying. Such a program would collapse sooner rather than later, due to massive and sudden decapitalization. This kind of spectacular failure would likely poison the local population against future credit initiatives. This is a scenario based not on speculation, but on historical experience. Disciplined pursuit of financial sustainability is crucial for microfinance to achieve its potential for large-scale impact.

The financial sustainability objective imposes the rigors of managing a high-volume, low-margin business. The business needs to recover—from the interest payments of the poor—its full operational and financial costs of providing the integrated service. Management must be very cost-conscious and market-oriented to succeed. There are clear expectations for “client” performance, which must be consistently enforced. And there are the client-perceived needs (“wants” or “demands”) which must be satisfied, as well as program-perceived needs (which usually are not exactly the same as “wants”). A good financial-service manager operates not only from a business perspective focused on *the customer*, but also on preservation of *the institution serving the customer.*

This business perspective is very different from the perspective of most social-service providers and development program managers. Even when financial sustainability is a real concern, the social-service perspective is focused on *beneficiaries* with diagnosed *needs* and on the *development impact* of services on those needs. “Breaking even,” much less becoming profitable with revenues gained from the beneficiaries themselves, is an alien notion. There is a long-standing tendency among business-oriented managers to regard their development-oriented counterparts as “soft” in facing up to the harsh realities of achieving institutional sustainability. Development-oriented managers have trouble understanding the “hard” attitude of business managers toward the needs and constraints of the poor.

It is always difficult to coordinate the work of two or more independent service providers, but much more difficult when their worldviews are so different. In bringing a *Credit with Education* service under the same umbrella as the more familiar Title II services, the potential for a clash of worldviews among the respective service managers becomes very real. If this potential is underestimated and not proactively managed, the opportunities for coordination of services and reinforcement of outcomes and impacts are likely to be lost.

The generic solution is for Title II programmers, attempting to coordinate microfinance (including *Credit with Education*) with other sectors of service, to understand these differences of perspective and establish mutual understanding and agreement among the different service managers. *Credit with Education* management and field staff must be allowed to work toward financial-educational service sustainability even as they are motivated to coordinate their service with the other services in order to maximize the food-security impacts of all services operating under the Title II umbrella.

To this date, even though Freedom from Hunger has long recognized the potential and sought the opportunity, few *Credit with Education* programs have been implemented in close coordination with independent social-service providers (see sub-section D below for the one good example, in Madagascar). Thus, the experience in managing potentially clashing worldviews in the context of inter-service coordination has been very limited. *Credit with Education* programs have mostly stood alone. The social-service component of *Credit with Education* has been the education delivered by the same field agent who delivers the financial service. This tight integration places a premium on training and supervision that balances the business and social-service perspectives under the oversight of a single management and governance structure.

Even so, tight integration does not guarantee long-term balance of institutional and developmental perspectives. The ultimate reason may be that the means for tracking progress toward institutional (especially financial) sustainability are more developed and standardized and less costly than the means for tracking progress toward developmental impacts on people. Without counterbalancing signals from social-impact indicators, even well-intentioned, impact-oriented *Credit with Education* managers have let the financial bottom line drive the "business." This leads to institutional self-preservation by the easiest means, which is to serve better-off people living in accessible communities with simpler products (e.g., remove health/nutrition education) at less cost to the business. Given the difficulty of managing this tendency toward "mission drift" even within the unified management structure of a *Credit with Education* program, one can imagine how difficult it would be for external coordinators and collaborating entities to keep a *Credit with Education* program on track with other, more traditional, social-service programs. It can be done, but not without conscious, continuous effort.

Freedom from Hunger maintains that the success of *Credit with Education* as a programming option for Title II funding depends, in a major way, on incorporation of food-security and other impact indicators into the *Credit with Education* management information system. More than rigorous evaluation research methods are needed. New methods must be developed for regular management tracking of program progress toward food security and nutritional objectives. With such tools, managers will find it much easier, internally and externally, to steer *Credit with Education* providers, in coordination with more traditional social-service providers, toward food-security objectives.

Managing Expectations of Microfinance as a Vehicle for Other Services

Village banking has real potential for fully funding, with interest income from credit operations, a few extra activities at the regular group meetings. However, as a high-volume, low-margin business, its revenue stream can support only a very limited number of "extras." In delivery of an integrated system for improving food and nutrition security, a major issue becomes the temptation to overload this delivery system.

Freedom from Hunger illustrates the problem of overloading *Credit with Education* with the analogy of a locomotive (credit operations) pulling a coal car (income-generating activities financed by the credit and fueling the locomotive with interest payments) and one or more freight cars (education topics) in tow. The locomotive can pull only a certain number of freight cars. Yet there are so many crucial services and education topics which could contribute to improving food and nutrition security.

Development-oriented programmers unfamiliar with the business constraints of *Credit with Education* have often become over-enthusiastic about the capability of the village banking vehicle to carry extra loads. In addition to the problem of too many extras, there is the problem of the wrong kind of extras. Generally, only health and nutrition and some other forms of *education*, not *services*, can be delivered by *Credit with Education*. Activities, such as health screening or literacy training, which require additional, specialized personnel to attend the regular meetings, dramatically increase salary and travel costs to unsustainable levels. Only activities that can be carried out during the regular group meetings and that can be managed by the regular field agent can be financially sustained by the low-margin microfinance business.

The advantage of linkage to MCHN educators and service providers funded and managed by more traditional social-service organizations is that the hard business constraint on the number and diversity of extra activities is relieved, at least from the *Credit with Education* management viewpoint. A health-care professional or a specialized educator or a literacy trainer can attend the same meetings as the *Credit with Education* field agent and provide specialized education and services in coordination with the field agent's work plan. There are experiments with this kind of coordinated health education/service delivery just getting underway between Freedom from Hunger and Andean Rural Health Care in collaboration with local partners in Bolivia and Guatemala. In the past, there have been several *ad hoc* coordination efforts that were either unsuccessful or undocumented. Therefore, adding *Credit with Education* into the mix of Title II MCHN activities offers opportunities for creative experimentation and learning from successes and failures.

Even appropriate extra activities must not unduly extend the length of the *Credit with Education* meetings. Meetings create an opportunity cost to the clients (who otherwise could be engaging in business or providing child care) or to the field agents (who could attend more meetings in the day and serve more people overall). As with monetary costs, the opportunity cost of time must be managed carefully. These are cost, efficiency and scale considerations that apply whether or not *Credit with Education* is seeking to become self-financing or trying to take advantage of linkages to other independent service providers.

Choice and Management of an Implementing Institution

The peculiarities of cost, culture and capability of *Credit with Education* pose challenges to Title II programmers, but all can be met when there is understanding of the issues and commitment to accommodate them. It is tempting to do so within the framework of a single institution, to add *Credit with Education* as a new service-delivery unit under a unified management and governance structure. There are efficiencies and control in this institutional arrangement. Nonetheless, it is not likely to be the best option for incorporating *Credit with Education* into a typical Title II program.

The culture of *Credit with Education* as a sustainable financial service is not easily embraced by a social-service organization for the reasons discussed above. Resolution of this compatibility problem is seriously complicated by the public image of most social-service organizations as having a humanitarian motivation to serve without expectation of recovering from the poor the full cost of the service. Bound up with this generally positive image is the fact that most services to the poor are offered or made possible by people who are relatively "wealthy", be they donors in other countries or the national government controlled by a well-to-do and powerful elite. There is a common assumption (often an explicit conviction) on the part of both service providers and service recipients that this humanitarian generosity is a moral obligation of the better-off. The feeling is that it is simply not right to expect the poor to pay more than a token amount—to enhance recipient-perceived value of the service rather than to ensure its continuation. This humanitarian expectation makes it very difficult to adopt a real business perspective in search of full financial self-sufficiency.

Often social-service organizations have offered grants to the poor, but with muddled logic, they have sometimes labeled them “loans” at very low or no interest and without serious concern about full or even partial repayment, especially if repayment seems to create a hardship. “Borrowers” are quite happy to take advantage of the offer and willing to play a cynical game of pretending that they take the loan obligation seriously when in fact they perceive the lender does not. And some borrowers will shamelessly manipulate the muddled “lender” into forgiving or forgetting the obligation to repay. The irony is that the poor are accustomed to paying for the use of other people’s money, even at exorbitant interest rates. They are eager to comply even with usurious terms, if the service is available when they need it and if the lender makes clear that access to this service depends solely on the borrower’s repayment performance rather than on any humanitarian consideration. The poor perceive the lender has a purely business motivation, and they treat the loan as a purely business transaction.

A “hard” business image has to be created and projected by an institution offering *Credit with Education*. This is a very difficult task if the same institution (especially when operating under the same name) is also offering essentially free services for education, health, and/or agriculture (virtually impossible if this institution has been “lending” grants to the poor in recent years). The task becomes *extremely* difficult when the same *staff* is offering cost-recovering *Credit with Education* along with other “free” services (see Annex C).

“Difficult” and “extremely difficult” do not mean “impossible.” But Freedom from Hunger recommends a clear institutional identity and specialized management for a *Credit with Education* program, separate from other services that do not seek to recover all operating costs from the beneficiaries of those services. Freedom from Hunger’s experience is that it is far easier to recruit and train new staff for the specific purpose of implementing *Credit with Education* than it is to retrofit existing staff of a traditional social-service institution to operate *Credit with Education* as a successful, even if nonprofit, business.

To maintain alignment with the Title II food-security and nutrition objectives, the overall management of a Title II effort involving *Credit with Education* and other institutionally separate services must still insist on close coordination of training and supervision of field staff in all implementing organizations. This is particularly necessary for ensuring that educational messages and methods are compatible, if not identical, across the full range of field staff, activities and participants.

Many types of institutions are successfully recruiting and training field agents, field supervisors and program managers to implement cost-recovering *Credit with Education* programs:

- **Single-purpose NGOs** created for the specific purpose of delivering microfinance services.
- **Multipurpose NGOs** that have managed to effectively segregate their microfinance service from other nonfinancial services.
- **Community-based financial institutions** (credit unions in various countries and the Rural Banks of Ghana), which offer *Credit with Education* as one of several financial services.

To date, the institutions that have succeeded in reaching reasonably large scale (10,000-plus clients) and approaching financial sustainability (covering nearly all out-of-pocket costs of operation with their own *Credit with Education* revenues) are *financial service NGOs* and *federations of credit unions* (together these may be labeled “financial service organizations”).

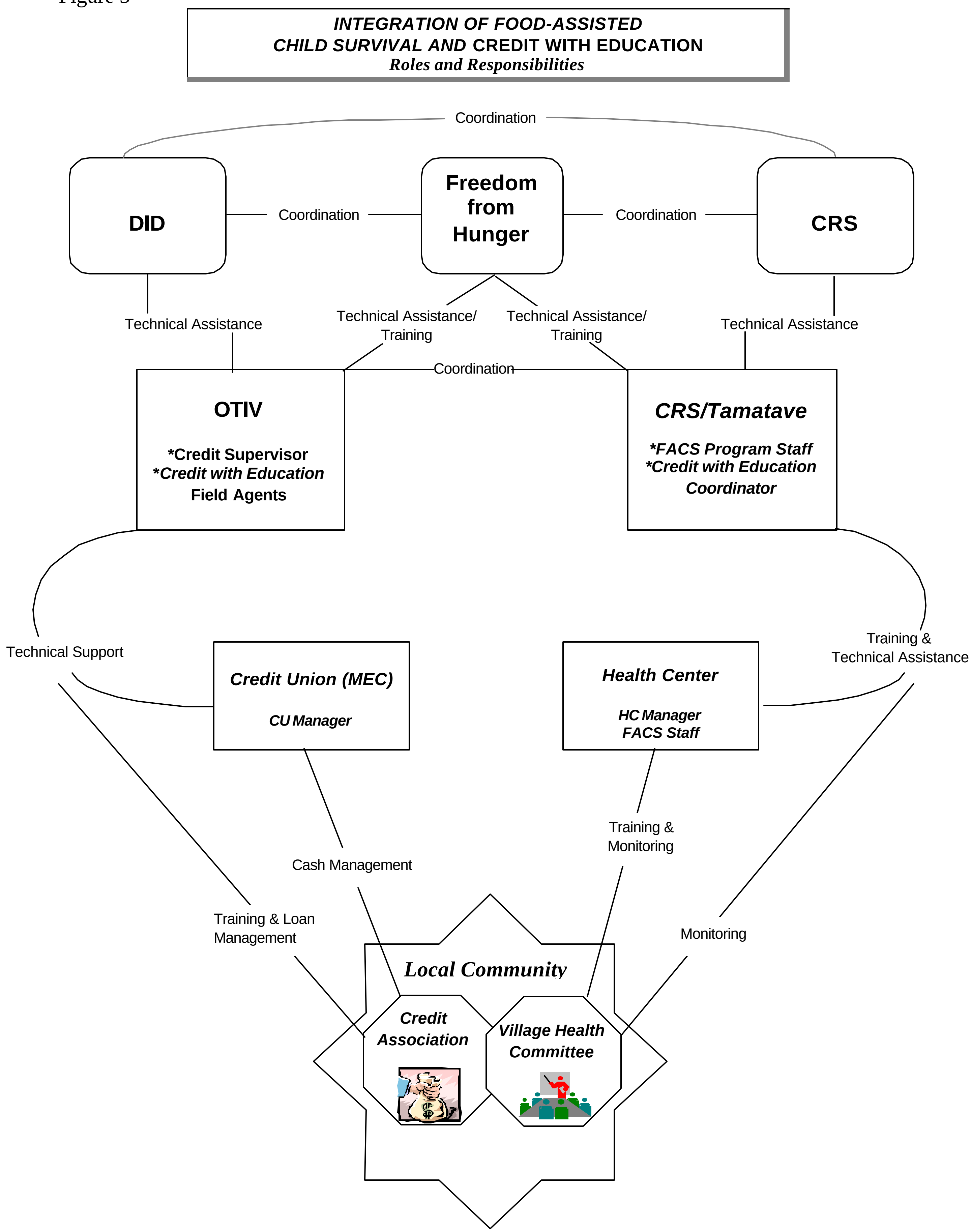
Freedom from Hunger recommends that Title II programmers who want to introduce *Credit with Education* either identify or create a financial service organization to provide *Credit with Education*—in a geographic area where an independent social-service organization (or two or more) is or will be providing services that are supported by Title II and that could be coordinated with *Credit with Education*.

It would be more cost-effective to partner with an existing financial-service organization rather than create one from scratch. However, a well-managed financial-service organization interested in adopting *Credit with Education* (including the health/nutrition education) is not easy to find, especially in a preselected service area. It may be easier to find such a partner in another part of the same country and provide incentives for it to expand its services to the preselected area. It will be even easier to select the partner first and then introduce the nonfinancial-service Title II programming into the partner’s existing service area.

This recommendation was put into practice recently in Madagascar in a three-way collaboration of Freedom from Hunger with Catholic Relief Services (CRS) and Développement international Desjardins (DID of the Mouvement Desjardins in Québec). Figure 3 illustrates the relationship among these three North American organizations and their on-the-ground partners in Madagascar.

Before the three-way collaboration got its start, CRS was already supporting (with Title II monetized food aid) a food-assisted child survival (FACS) program implemented by the Diocese of Tamatave in eastern Madagascar, and DID had already created and was supporting a small but growing federation of credit unions known as OTIV (Ombona Tahiry Ifampisamborana Vola) and operating in the same area around Tamatave. In 1998, Freedom from Hunger was asked by CRS to investigate the feasibility of introducing *Credit with Education* into the Tamatave area in coordination with the FACS program. Freedom from Hunger identified OTIV as a suitable implementing agency for *Credit with Education* and brought DID/OTIV together with CRS and the FACS program to design a coordinated effort. CRS agreed to fund the effort from its private donor sources, including start-up operating costs of OTIV *Credit with Education* and Freedom from Hunger’s technical assistance and training for OTIV and FACS staff. DID/OTIV agreed to fund the *Credit with Education* loan portfolio from the liquidity of its member credit unions (therefore, from the savings of local credit union members).

Figure 3


INTEGRATION OF FOOD-ASSISTED
CHILD SURVIVAL AND CREDIT WITH EDUCATION
Roles and Responsibilities
Coordination
DID
Coordination
Freedom from Hunger
Coordination
CRS
Technical Assistance
Technical Assistance/ Training
Technical Assistance/ Training
Technical Assistance
Coordination
OTIV
*Credit Supervisor
*Credit with Education Field Agents
CRS/Tamatave
*FACS Program Staff
*Credit with Education Coordinator
Technical Support
Credit Union (MEC)
CU Manager
Health Center
HC Manager
FACS Staff
Training & Technical Assistance
Cash Management
Training & Monitoring
Training & Loan Management
Monitoring
Local Community
Credit Association
Village Health Committee

As shown in Figure 3, both OTIV and the FACS program hired or designated their own staff to manage or oversee *Credit with Education* operations. These staff were trained by Freedom from Hunger staff based in the United States and a Malagasy training contractor. The OTIV staff focuses on service delivery and the FACS *Credit with Education* Coordinator is the liaison between the two entities, with special attention given to the health/nutrition education activities of OTIV's program.

The first Credit Associations of women were formed in 1999. Slightly less than one year later (May 31, 2000—Annex A), OTIV and its member credit unions were providing *Credit with Education* to 152 Credit Associations in the same area where FACS supports health centers and village health committees. There were 3,510 women members of Credit Associations. Most, if not all, had not been credit union members before forming Credit Associations to receive *Credit with Education*. Loans outstanding to Credit Associations totaled US$71,227 (only 2 percent were delinquent in repayment), and savings had been built in the Credit Associations to US$29,196. Average individual loan size was US$50, among the lowest of the worldwide set of *Credit with Education* programs, indicating that the OTIV participants are indeed relatively very poor.

A cross-sectional evaluation of client satisfaction and impact was carried out in October 2000 by Freedom from Hunger and CRS for the purpose of pointing the way toward program improvements. The approximately 100 women interviewed all have children under the age of two years and live in communities with access to both the CRS/FACS program and the DID/OTIV *Credit with Education* program, but only half had joined *Credit with Education*. Fifty percent of the women (nearly evenly distributed among *Credit with Education* participants and non-participants) had received food rations from CRS/FACS. Survey data analysis is still underway, but the preliminary results are fully consistent with the results reported from earlier studies in other programs (see section III above). The analysis so far indicates that health/nutrition education delivered through *Credit with Education* adds statistically significant extra value (reported knowledge and practice) to the education delivered through FACS. The quality of *Credit with Education* service delivery appears to be quite high, in part because of the partnership of CRS with DID/OTIV.

In conclusion, this example from Madagascar shows that *Credit with Education* can be introduced successfully into a traditional Title II program, when due consideration is given to:

- Selecting implementing agencies
- Mediating between the business and social-service perspectives
- Designing for efficient staffing, training, management and coordination
- Accessing external technical support (in the early stages at least)
- Complementing Title II funding with private donor funds and accumulated savings of local citizens.

It also shows that the business objectives of a financial-service organization can be blended with a commitment to good-quality education for health and nutrition improvements among the very poor. This commitment can be substantially reinforced when the financial-service organization offers *Credit with Education* in coordination with more traditional Title II MCHN service providers.

ANNEX A: Status of *Credit with Education* Programs

(as of June 30, 2000)

Country	Partner	Year of First Loan	Partner Type	Number of Credit Associations	Number of Members	Amount of Outstanding Loans	Amount of Savings	Average Loan Size
Africa								
Burkina Faso	RCPB	1993	Credit Union	1,336	26,302	$711,218	$69,555	$39
Ghana	Lower Pra*	1992	Rural Bank	56	1,365	$39,533	$8,815	$54
Ghana	Brakwa Breman	1994	Rural Bank	44	1,233	$56,485	$2,460	$49
Ghana	Nandom*	1996	Rural Bank	78	2,092	$60,077	$10,209	$45
Ghana	WWB Ghana*	1996	Non-bank Finance Co.	58	1,725	$47,201	$8,315	$57
Ghana	Nsoatreman*	1996	Rural Bank	99	2,662	$85,818	$7,699	$36
Ghana	Builsa*	1998	Rural Bank	65	1,231	$36,579	$5,627	$37
Ghana	Bonzali*	1999	Rural Bank	69	2,127	$108,655	$9,645	$56
Ghana	Afram Plains*	1999	Rural Bank	21	591	$15,653	$3,858	$27
Guinea	OIC Guniea	1999	NGO	48	1,124	$17,978	$2,829	$24
Malawi	FITSE	1999	NGO	98	2,680	$104,775	$12,376	$41
Mali	Kafo Jiginew	1996	Credit Union	733	16,272	$491,543	$46,338	$43
Mali	Nyèsigiso	1996	Credit Union	816	17,892	$726,316	$198,104	$63
Madagascar	OTIV**	1999	Credit Union	152	3,510	$71,227	$29,196	$50
Madagascar	Tiavo	1999	Credit Union	28	519	$19,139	$4,659	$38
Madagascar	Haingonala	1999	NGO	64	1,155	$23,541	$5,014	$21
Madagascar	Tamifi	1999	NGO	38	876	$19,162	$3,623	$25
Togo	FUCEC*	1996	Credit Union	431	10,842	$588,825	$119,013	$56
Uganda	FOCCAS	1996	NGO	279	10,003	$256,116	$65,713	$36
Asia								
Philippines	WOCCU CUES	1998/99	8 Credit Unions	499	15,068	$783,943	$142,791	$56
Latin America								
Bolivia	CRECER	1990	NGO	1,203	22,471	$3,453,676	$630,077	$154
Honduras	FAMA***	1990	NGO	220	3,467	$450,900	$120,000	$130

* As of 31 March 2000.

** As of 31 May 2000.

*** Number of Credit Associations and Amount of Savings as of 31 December 1998.

ANNEX B: Creation of Credit Associations: *Credit with Education* in the Community

To establish a Credit Association (village bank), the field agent visits the community to introduce the program to local leaders and to request a meeting with interested local women. At this meeting, the field agent introduces the program, its benefits, its structure and its requirements. Then a date is set for the registration of women who wish to participate as a Credit Association.

Individual women need to come together in a Solidarity Group of four to seven women. The Solidarity Group serves as each woman's guarantee for the loan. When four to six Solidarity Groups have been formed, they associate as an informal financial cooperative (Credit Association) to accept savings and provide loans to participating women.

After the registration of the women and their Solidarity Groups, five weekly meetings are dedicated to teaching the women how to manage their Credit Association. This training includes the following:

- Establishing bylaws for the group
- Creating the management committee for the Credit Association and learning the roles of president, secretary, treasurer and education officer
- Conducting weekly meetings
- Assessing the viability of the business ideas in which women wish to invest their loans
- Establishing procedures to manage problems in attendance, missed meetings, missed payments
- Keeping the Credit Association records
- Requesting a loan and distributing the loan to the members.

Once this orientation is complete, the Credit Association's application for the loan is reviewed. If approved, the loan is disbursed at the next meeting. The disbursement occurs during the first meeting of the 16-week loan cycle. The loan agreement is read aloud and signed (or thumb-printed) by all the Credit Association members. Each member receives her loan from the Credit Association along with a passbook for the loan cycle. Loans typically begin at about US$50 for each member. These loans increase in size to a maximum of US$300 in later cycles as the member builds a credit history. Each week the member is expected to make a repayment on the loan and provide a savings deposit. To foster transparency of operations in the Credit Association, all transactions occur during the meeting in front of the entire Credit Association. The next 15 weekly meetings follow a similar pattern: taking attendance, paying fees or fines (as established in the bylaws), making loan repayments, collecting savings, reporting on the financial status of the Credit Association to the members, and conducting a learning session. The learning sessions are brief adult education activities that provide information on health and nutrition (focused on child survival) and better business management. These 20- to 30-minute sessions focus on creating dialogue to support behavior change for the women in the Credit Association and in the community.

At the end of the 16-week loan cycle, the principal and the interest loaned to the Credit Association is repaid to the Credit with Education implementing organization. This repayment involves a full reconciliation of cash transferred in the Credit Association to/from each of the members. If the members of the Credit Association repay the loan, maintain adequate savings, and have good attendance at weekly meetings, the Credit Association (and thus the women participating) becomes eligible for a new loan. Credit Associations that cannot repay their loan are considered delinquent. These Credit Associations are subject to late charges and are not eligible for new loans until the outstanding loans are paid in full.

ANNEX C: *"It Collapses Like a House of Cards"*

In the early years of Freedom from Hunger's experience with Credit with Education (1990-91), Credit with Education was introduced on a pilot basis to an existing Freedom from Hunger program in Kintampo District (Brong-Ahafo Region) of Ghana. The original program had offered free growth monitoring, nutrition education and immunization services to communities in the district since 1985. From the start, highly competent managers and technical staff of the Ministry of Public Health had been seconded to Freedom from Hunger for implementation of this program as a pilot monitored by the Ministry. Once the program had penetrated most of the communities in the district, the staff reported a strong local demand for credit—to stimulate income generation, which would make it easier for women to act on what they were learning by purchasing better food and medicines for their children. Credit with Education was developed by Freedom from Hunger, in part, to meet this demand in Ghana.

Most of the program design and training techniques and materials currently used to successfully introduce *Credit with Education* to implementing organizations around the world were first developed for the Ghana program to train the managers and staff seconded by the Ministry of Public Health. The program was introduced by these staff in two pilot communities and was very well received by staff, community leaders and poor women. After about one year of apparently successful operation, a program review was conducted by a consultant team financed by the USAID (Global Bureau) GEMINI (Growth and Equity through Microenterprise Investments and Institutions) Program, at Freedom from Hunger's request. This team arrived just in time to observe and document the *Credit with Education* pilot in the throes of a fatal repayment crisis (Ashe et al., 1992).

The visitors discovered that there had been too much dependence on cassava processing by too many of the women borrowers, which led to local competition and vulnerability to a shortfall in cassava production. This is a common sort of problem in rural lending operations, and failure to anticipate the problem reflected Freedom from Hunger's inexperience. However, the program staff and managers turned this manageable problem into an unmanageable crisis by allowing borrowers (contrary to the training by Freedom from Hunger) to defer paying their weekly installments of principal and interest. This leniency sent a message that on-time repayment was not important after all. Late repayment spread throughout the program, and soon motivation to ever repay was destroyed.

A joint-liability group must cover for nonpayers, but it can do so only if nonpayers are few. Repayment problems have to be nipped in the bud. Failure to enforce the rules for some, even those with legitimate problems, undermines the rules for all. If nonpayers are many, the group's capacity to cover for them is overwhelmed. It soon becomes irrational for *any* member to repay her loan, because the program will keep whatever she repays and still deny her future access to loans for as long as the total group loan remains unpaid. Once a joint-liability group crosses this threshold, it collapses like a house of cards.

The *Credit with Education* program collapsed in Kintampo District because the staff and managers could not bring themselves to be tough enough, early enough, to persuade the borrowers to enforce among themselves the repayment of their individual loans. The pilot program was closed down, and the local population was denied an important service in high demand.

What started as a commendable humanitarian gesture turned into a development blunder. Freedom from Hunger's training was insufficient to turn public health staff into "tough love" facilitator-enforcers of *Credit with Education*. However, this same training approach (with modest adjustments) has since turned many, many cohorts of newly hired staff into successful tough-love facilitator-enforcers of *Credit with Education* in 12 countries around the world, including Ghana (in different regions with staff hired for the specific purpose of implementing this program). Many of these successful field staff have public health educations and employment backgrounds, but they were hired and trained with clear performance expectations aligned with both the business and humanitarian objectives of *Credit with Education*.

REFERENCES

Adamson, Peter, UNICEF, WHO, UNESCO and UNFPA. 1993. *Facts for Life.* Revised ed. P&LA, Wallingford, Oxfordshire, UK (available from UNICEF House–DH40, Facts for Life Unit, 3 UN Plaza, New York, NY 10017).

Ashe, Jeffrey, Madeline Hirschland, Jill Burnett, Kathleen Stack, Marcy Eiland and Mark Gizzi. 1992. "Access to Credit for Poor Women: A Scale-up Study of Projects Carried Out by Freedom from Hunger in Mali and Ghana." GEMINI Technical Report No. 33.

Bread for the World Institute. 2000. *A Program to End Hunger: Hunger 2000.* Tenth Annual Report on the State of World Hunger. 1100 Wayne Avenue, Suite 1000, Silver Spring, MD 20910-5603 (www.bread.org).

Bresnick, Stu and Barbara MkNelly. 1999. "Poverty Profile of CRECER *Credit with Education* Client Households." Unpublished manuscript prepared for Gibbons and Meehan by Freedom from Hunger, Davis, CA (info@freefromhunger.org)

Cerqueira, Maria Teresa and Christine M. Olson. 1995. "Nutrition Education in Developing Countries: An Examination of Recent Successful Projects." Chapter 4 in P. Pinstrup-Andersen, D. Pelletier and H. Alderman, eds., *Child Growth and Nutrition in Developing Countries*. Cornell University Press, Ithaca, NY.

Contento, I., G. I. Balch, Y. L. Bronner, L. A. Lytle, S. K. Maloney, C. M. Olson and S. S. Swadener. 1995. "The Effectiveness of Nutrition Education and Implications for Nutrition Education Policy, Programs, and Research: A Review of Research." *J. Nutrition Education*, 27 (6) Special Issue.

De Onis, Frongillo E.A., and M. Blossner. 2000. "Is malnutrition declining? An analysis of changes in levels of malnutrition since 1980." Bull. WHO. 78 (10).

Dunford, Christopher. 2000. "The Holy Grail of Microfinance: 'Helping the Poor' and 'Sustainable'?" *Small Enterprise Development*, 11 (1): 40-44.

Gibbons, David S. and Jennifer W. Meehan. 2000. "The Microcredit Summit Challenge: Working Towards Institutional Financial Self-Sufficiency while Maintaining a Commitment to Serving the Poorest Families." www.microcreditsummit.org/papers/papers.htm.

Kevane, Michael. 1996. *Qualitative Impact Study of* Credit with Education *in Burkina Faso*. Freedom from Hunger, Research Paper No. 3, Freedom from Hunger, Davis, CA (info@freefromhunger.org).

MkNelly, Barbara and Christopher Dunford. 1996. *Are Credit and Savings Services Effective Against Hunger and Malnutrition? A Literature Review and Analysis*. Freedom from Hunger Research Paper No. 1, Freedom from Hunger, Davis, CA (info@freefromhunger.org).

MkNelly, Barbara and Christopher Dunford. 1998. *Impact of* Credit with Education *on Mothers and Their Young Children's Nutrition: Lower Pra Rural Bank* Credit with Education *Program in Ghana*. Freedom from Hunger Research Paper No. 4, Freedom from Hunger, Davis, CA (info@freefromhunger.org).

MkNelly, Barbara and Christopher Dunford. 1999. *Impact of* Credit with Education *on Mothers and Their Young Children's Nutrition: CRECER* Credit with Education *Program in Bolivia*. Freedom from Hunger Research Paper No. 5, Freedom from Hunger, Davis, CA (info@freefromhunger.org).

MkNelly, Barbara and Ayele Foly. 1997. "Preliminary Evidence from the Freedom from Hunger/World Relief Collaborative Evaluation in Burkina Faso." Presentation at the *Credit with Education* Learning Exchange, Millwood, VA, August 1997 (info@freefromhunger.org).

MkNelly, Barbara and Karen Lippold. 1998. "Practitioner-led Impact Assessment: A Test in Mali." Paper submitted to USAID by AIMS. Management Systems International, Washington, DC (aims@msi-inc.com).

MkNelly, Barbara and Kathleen E. Stack. 1998. "Loan Size Growth and Sustainability in Village Banking Programmes." *Small Enterprise Development*, 9 (2): 4-16.

MkNelly, Barbara, Chatree Watetip, Cheryl A. Lassen, and Christopher Dunford. 1996. "Preliminary Evidence that Integrated Financial and Educational Services can be Effective against Hunger and Malnutrition." Freedom from Hunger Research Paper No. 2, Freedom from Hunger, Davis, CA (info@freefromhunger.org).

Mora, Jose O., Joyce M. King and Charles H. Teller. 1990. "The Effectiveness of Maternal and Child Health (MCH) Supplementary Feeding Programs: An Analysis of Performance in the 1980s and Potential Role in the 1990s." Prepared for the Agency for International Development under Contract No. PDC 0262-I-00-7151-00.

Morduch, Jonathan. 1999. The microfinance promise. J. Economic Literature, 37: 1569-1614.

Navajas, Sergio, Mark Schreiner, Richard L. Meyer, Claudio Gonzalez-Vega, and Jorge Rodriguez-Meza. 2000. "Microfinance and the Poorest of the Poor: Theory and Evidence from Bolivia." Forthcoming in *World Development*, Vol. 28 (http://gwbweb.wustl.edu/users/schreiner).

Nelson, Candace, Barbara MkNelly, Kathleen Stack and Lawrence Yanovitch. 1996. *Village Banking: The State of the Practice.* Small Enterprise Education and Promotion (SEEP) Network and the U.N. Development Fund for Women (UNIFEM), New York, N.Y. (books@pactpub.org).

Schuler, Sidney R. and Syed M. Hashemi. 1994. "Credit Programs, Women's Empowerment, and Contraceptive Use in Bangladesh." *Studies in Family Planning*, 25 (2): 65-79.

Sebstad, Jennefer and Gregory Chen. 1996. "Overview of Studies on the Impact of Microenterprise Credit." AIMS Paper. Management Sciences International, Washington, D. C. (available on the www.mip.org under AIMS Project Publications).

Sharma, Manohar and Gertrud Schrieder. 1998. "Impact of Finance on Food Security and Poverty Alleviation—A Review and Synthesis of Empirical Evidence." Presentation paper for "Innovations in Micro-Finance for the Rural Poor: Exchange of Knowledge and Implications for Policy" Workshop organized by DSE (Berlin, Germany), IFPRI (Washington, DC, USA) & IFAD (Rome, Italy) in Ghana, November 8-13, 1998 (M.Sharma@cgiar.org).

Simanowitz, Anton, Ben Nkuna and Sukor Kasim. 2000. "Overcoming the Obstacles to Identifying the Poorest Families: Using Participatory Wealth Ranking (PWR), the CASHPOR House Index (CHI), and Other Measurements to Identify and Encourage the Participation of the Poorest Families, Especially the Women of Those Families." www.microcreditsummit.org/papers/papers.htm.

Smith, Stephen C. and Sanjay Jain. 1998. "Village Banking and Maternal and Child Health: Theory and Preliminary Evidence from Honduras and Ecuador." Paper presented at the 1998 Northeast Universities Development Consortium Conference, Yale University, New Haven, Connecticut.

Stetson, Valerie and Robb Davis. 1999. "Health Education in Primary Health Care Projects: A Critical Review of Various Approaches." Published and disseminated by The CORE Group (The Child Survival Collaborations and Resources Group) 220 I Street NE, Suite 270, Washington, DC 20002.

Thys, Didier. 2000. "Depth of Outreach: Incidental Outcome or Conscious Policy Choice?" Invited editorial for the *Microfinance Gateway* (Website), reprinted in *Nexus* (newsletter of the Small Enterprise Education and Promotion (SEEP) Network), Summer Issue, pp. 7, 11.

USAID. 1995. *Microenterprise Development Policy Paper*. U.S. Agency for International Development, Washington, DC 20523 (may be ordered from docorder@dec.cdie.org).

USAID. 2000. *U.S. International Food Assistance Report 1999*. U.S. Agency for International Development, Washington, DC 20523 (may be ordered from docorder@dec.cdie.org).

Vor der Bruegge, Ellen, Joan E. Dickey and Christopher Dunford. 1999. "Cost of Education in the Freedom from Hunger Version of *Credit with Education* Implementation." Freedom from Hunger Research Paper No. 6, Freedom from Hunger, Davis, CA, (info@freefromhunger.org).

Woller, Gary. 2000. "Reassessing the Financial Viability of Village Banking: Past Performance and Future Prospects." *MicroBanking Bulletin* (5): 3-8.

Woller, Gary M., Christopher Dunford and Warner Woodworth. 1999. "Where to Microfinance?" *International Journal of Economic Development*, 1 (1) (online journal found at http://www.spaef.com/IJED_PUB/index.html)

Zeller, Manfred and Manohar Sharma. 1998. "Rural Finance and Poverty Alleviation." Food Policy Report, International Food Policy Research Institute, Washington, DC (ifpri@cgnet.com).