

# **Microfinance and HIV/AIDS: Five Key Questions on Program Impact**

**C. Leigh Anderson, PhD**

**Mary Kay Gugerty, PhD**

**Ruth O. Levine, MA**

**Marcia Weaver, PhD**

**University of Washington**

**August 2002**



---

This work was supported by The Synergy Project, through USAID contract HRN-C-00-99-00005-00. The interpretations expressed in this paper are those of the authors and do not necessarily reflect the views of the University of Washington, Social & Scientific Systems, or the United States Agency for International Development.

# Microfinance and HIV/AIDS: Five Key Questions on Program Impact

By C. Leigh Anderson, PhD; Mary Kay Gugerty, PhD; Ruth O. Levine, MA; and Marcia Weaver, PhD

## Introduction

### The Contradictory Origins of Microfinance

The practice of microfinance, or providing small loans to the poor, is enjoying a sustained wave of popularity, at the same time that the global HIV/AIDS situation is worsening. It makes sense that HIV/AIDS prevention, and care and support programs look to microfinance as a potential strategy for stabilizing vulnerable households and disseminating HIV/AIDS information and education. Microfinance organizations (MFOs) and donors envision that such lending will translate into self-employment opportunities and home-based businesses, thereby helping individuals to accumulate capital and increase their incomes. The evidence on the effects of microenterprise programs surveyed here suggests that it is difficult to identify clear effects on individual or household welfare.

Contemporary microfinance programs originated in the development field as a mechanism to fight poverty and increase access to lending and savings products. By the late 1990s, more than 8 million households had been served by microfinance programs (Morduch 1999). Microfinance is also a business practice, and as such, it is guided by economic and financial mores and indicators.

In the microfinance industry, the goal of social change may conflict with the goal of financial sustainability. MFOs in the social welfare camp believe that education, literacy, health services, and training skills should be provided in addition to credit. Subsidies for an MFO are regarded as an acceptable trade-off, particularly if there are positive social benefits, and if it allows an organization to reach the poorest of the poor in a more cost-effective manner than other program approaches (Morduch 1999). MFOs in the sustainability camp are committed to covering the cost of capital without any subsidy, often through higher interest rates. The majority of MFOs generate only 70 percent to 83 percent of their necessary income (Morduch 1999). Although the methods and program objectives vary for the two camps, their shared goal is to deliver financial services to the poor.

The goals set by a lender determine which clients to serve; the products, services, and repayment incentives to offer; the mechanisms for lending; and the organizational structure and source of financing. The tremendous diversity of MFOs is demonstrated by the following three examples (Morduch 1999):

- Subsidized village banks, such as the nongovernmental organization–based model developed by the Foundation for International Community Assistance, are banks with 30 to 50 members offering \$50 loans at four-month terms to a primary clientele of very poor and rural women. This model of village banking began in Latin America, but it has spread to other regions.
- The Grameen Bank in Bangladesh popularized the group-lending model, in which members act as each other's co-guarantor, substituting social pressure and support for physical collateral. The more than two million borrowers are mostly very poor women, and loans are typically for a one-year period.

- Financially self-sustainable Bank Rakyat Indonesia, which earned \$175 million in profits in 1995, lends to the wealthier of the poor (sometimes called the “economically active poor”) and the nonpoor. The bank serves two million borrowers and 16 million depositors. All loans are made to individuals, who must offer physical collateral, and the mostly rural clientele is 80 percent male.

The diversity of MFOs is also illustrated in the box to the right, which lists the many characteristics that may differ from organization to organization.

Microfinance has earned well-deserved optimism as a development tool; it should, however, be approached with a critical eye regarding what can be accomplished and who will be served. This paper examines the currently available evidence to answer key questions about the effect of MFOs.

#### Variation Among Microfinance Organizations

Microfinance organizations differ in their lending methodologies and financing on such factors as:

- Client numbers
- Client base
- Average loan size
- Term (length) of loan
- Repayment schedule
- Repayment incentives
- Interest rates and fees
- Group lending requirement
- Collateral requirement
- Savings requirement
- Financial products
- Nonfinancial products and training
- Reliance on donor or other external funding

## Current State of Research

### Nuances of Microfinance Impact Data

Measuring the effect of microfinance presents challenges for social science researchers and evaluators. Although banking and financial standards exist, indicators that are relevant to the entire spectrum of microfinance are still being debated. This has allowed necessary innovation in the field, but it has also created challenges for those who analyze the data. Listed below are four barriers to constructing rigorous impact studies capable of measuring outreach and improved financial and social welfare of borrowers:

- It is rarely feasible to implement a randomized trial with control groups, thereby making it difficult to evaluate how the provision of credit truly affects clients. For example, it is necessary to examine whether credit would help all potential borrowers equally, or whether the entrepreneurial-minded are more likely to initially seek out credit and use it successfully; and whether these entrepreneurs would have been successful without the credit intervention.
- Household income includes revenue streams from several different sources, making it difficult to track the effect of a single stream of money generated through a microenterprise once the funds enter the household.
- MFOs use different indicators and outcomes for evaluation, such as repayment rates, financial sustainability, client income, improved health status, increased self-empowerment, and support for educating girls. It is therefore difficult to make comparisons across studies.
- Microfinance affects clients of varying income levels in different ways. For example, microfinance may have a greater long-term effect on the wealthier of the poor than it does on the truly destitute.

### Does Microfinance Reduce Poverty?

Mosley and Hulme (1998) examined 13 microfinance institutions during 1991–93 to better understand whether microfinance reduces poverty. They discovered that the loan effect on household income is positively correlated to the financial health of the borrower. This makes sense, if the route from poverty to financial

stability is depicted as a series of steps. Those households on the bottom step will borrow to supplement their household income and to cover daily expenses, and are wary of financial risk. Borrowers a few steps higher are better positioned to use loans for investing, to hire employees, or to cover entrepreneurial-related capital expenses. Each MFO faces the decision whether to lend to the very poor, which has a smaller effect on household income, or to lend to the wealthier of the poor to gain a larger effect.

Navajas et al. (2000) approached this same question, but from a social impact perspective. The researchers developed a theoretical framework for measuring the effectiveness of an MFO's outreach or social worth that goes beyond simply counting client numbers. The framework addresses the following questions:

- Is the MFO reaching the poorest?
- What is the worth of a loan and the cost of a loan to a borrower?
- How large is the borrower base?
- Is the MFO sustainable?
- Does the MFO offer both lending and savings products?

Navajas and colleagues used this framework in 1995 to examine the effect of five MFOs in Bolivia. Three nongovernmental organizations, one regulated bank, and one regulated nonbank served a combination of rural and urban clients, providing individual and group-based loans. First, researchers found that group loans, in which joint liability replaced physical collateral, were more effective than individual loans in reaching the poorest of the clients. Second, MFOs generally reached people existing near the poverty line rather than the poorest of the poor. Wealthier people can seek assistance from banks, whereas the poorest people either do not seek loans or are considered high-risk candidates for loans.

Armendáriz de Aghion and Morduch (2000) raised the provocative question of whether individual lending, rather than group lending, may be more suited to industrialized, transition economies such as those of Russia and Eastern Europe. In addition, they critically examined joint liability, the mechanism that underlies group lending, and its actual benefits versus its perceived benefits. The researchers reasoned that implementing and sustaining individual lending, rather than group lending, is less expensive for MFOs and clients (e.g., it reduces the cost of traveling to frequent group meetings), and individual loans allow clients who successfully repay their loans to borrow ever-increasing amounts of money for their microenterprises to thrive. Other strategies were found to be used in place of joint liability for screening out high-risk, potential borrowers and encouraging timely repayment. MFO staff visit the homes and businesses of potential clients, in addition to requiring extensive documentation, and in some programs, character references are required. For physical collateral, clients pledge their homes, land, businesses, or items of high personal value.

## **Does Microfinance Benefit Women?**

MFOs seeking financial sustainability target the economically active poor, and in particular women, who are reputed to have higher repayment rates. However, MFOs with a social mission may deliberately court special populations, including the truly destitute.

Because women are considered such a high priority by MFOs, researchers are interested in the effect of lending on female borrowers. Two studies examined the effect of Grameen Bank programs on its almost exclusively female and rural-based clientele. The findings have produced contradictory results.

Hashemi, Schuler, and Riley (1996) studied two MFOs in Bangladesh, the Grameen Bank, and the Bangladesh Rural Advance Committee (BRAC), to determine whether or not participation in microfinance programs fostered a sense of empowerment among impoverished rural women. Second, the researchers wanted to explore the effect of two different approaches to empowering women—the first, a relatively minimalist approach, focused primarily on credit, as represented by the Grameen Bank; and the second was a

more grassroots, gender and class consciousness–raising approach used by BRAC. Researchers gathered data in six villages from 1991 to 1994. Hashemi and colleagues developed the following setting-specific indicators to measure women’s empowerment:

- The ability to make small purchases, large purchases, or both;
- Decision-making power in the household;
- Mobility;
- Ownership of assets;
- Self-control and self-determination within the household;
- Knowledge of legal rights; and
- Involvement in political protests.

Researchers determined that women who met five of the indicators were empowered. Hashemi and colleagues found that the duration of membership in either MFO was positively related to empowerment. In addition, the Grameen Bank’s mission of lending specifically to women increased the likelihood that women would control the loans, as compared to the broader community development approach taken by BRAC.

In contrast to these findings, Rahman (1999) performed an impact study on Grameen Bank clients and found that the pressure of loan repayment contributed to violence and control over women, and led to a downward spiral of debt. Rahman conducted ethnographic research in the mid-1990s in a village where the Grameen Bank had had a long presence. The study population included 154 clients and 12 bank staff. Rahman used the concept of public and private transcripts to describe official Grameen Bank objectives versus the reality of how lending practices are implemented in reality. Publicly, Grameen Bank deliberately targets women as borrowers in order to increase women’s status in the household and in society, and to strengthen the welfare of the entire family. Privately, bank officials confide that women are more cooperative and less mobile than men. The role of women’s honor, and the societal pressure placed on guarding it, are used as tools by the bank; men are less vulnerable to public shame and humiliation. This takes on a more menacing light, given Rahman’s findings that in the village in question, men were the loan users more than 50 percent of the time. In addition, a rigorous repayment schedule, in part driven by bank officers who are responding to the pressure of their superiors, had created a phenomenon of debt recycling. Clients borrow new loans to pay off previous loans, thereby increasing the household’s financial vulnerability and the potential points of social friction within the family.

## **Can Microfinance Effectively Deliver Welfare Services?**

Smith (2002) examined the effect of credit banks and health banks on clients. Project HOPE, a private, voluntary health services organization, started several village banks based on both models in an urban setting in Honduras and in a rural setting in Ecuador. The health banks provided 15 minutes of health information at each biweekly bank meeting and selected one member to track immunizations, child growth, and mortality, and to provide referrals to health services, in addition to providing credit.

Diarrhea was used as an indicator of child health and cancer screening was used as an indicator of maternal health. In Honduras, health bank participants had a lower probability of diarrhea, unlike those who belonged to the credit banks. In Ecuador, almost the reverse was found, with credit bank participants showing a greater reduction in the probability of child diarrhea than health bank participants. The health services may be a more effective tie-in for the urban-based Honduran participants than the rural clientele in Ecuador. In Honduras, health bank participants had significantly higher rates of cancer screening, compared with credit bank participants or those in the Ecuador samples. Smith surmises that tie-ins offer some benefit and calls for additional well-designed research to further explore this issue.

## Does Microfinance Benefit HIV-Affected Households?

Too few data and studies exist to answer this question. Data on the social and financial effect of lending to HIV-affected households are extremely limited. The need to examine microfinance within the context of HIV-affected populations will continue to grow, as program managers look for ways to counter poverty and the social and economic devastation of the HIV epidemic. Although insufficient studies have been carried out to develop policy recommendations for delivering microfinance to HIV-affected households, the two programs described below suggest that microfinance can have positive effects for some HIV-affected clients, particularly when new products are designed for this particular population, and they also suggest that the trade-off between the potential positive effect of microfinance and the possibility of further burdening HIV-affected households with debt must be assessed.

Barnes (2002) examined the burden of HIV/AIDS on microfinance and the effect of microfinance on HIV/AIDS-affected households in Zimbabwe. Zambuko Trust, a Christian, nongovernmental organization, is the largest MFO in Zimbabwe, providing loans and business training for urban, female microentrepreneurs who are primarily engaged in trading or manufacturing. The MFO offers individual loans, group co-guaranteed loans, and loans through a variation of the village banking model. Impact data were collected in 1997 and 1999 from client households and from a control group of microentrepreneurs who did not receive loans. About 40 percent of the client and nonclient households sampled appeared to have been affected by HIV. Survey data suggested that HIV-affected households were more vulnerable to slipping into poverty. They had a lower monthly income, less income from their microenterprises, and fewer funds for medical care. Among HIV-affected households, MFO clients appeared to have more sources for securing income, a higher proportion of male children in school, and a savings account at a bank.

Zambuko Trust has a policy of not lending to those who appear ill, due to repayment concerns. In focus groups and key informant interviews, staff and clients expressed the opinion that loans create a burden for those already in crisis or who are chronically ill. However, several examples contradicted this philosophy. Some staff members reported lending to HIV-affected individuals and negotiating special deferments, and clients acknowledged accepting HIV-affected individuals as group co-guarantors and helping individuals temporarily cover short-term costs. As an organization, Zambuko Trust recently initiated two new policies: a mandatory 1 percent insurance fee to protect against the outstanding loans of deceased clients, and a mandatory savings requirement.

MFOs, HIV/AIDS service organizations, and donors met to discuss the study's findings. MFOs were recommended to formally discuss HIV/AIDS as a management and training issue, explore offering short-term loans and partnering with others to provide health and life insurance products, and to begin collecting data on the effect of HIV/AIDS on MFOs and clients. In turn, donors were urged to better understand how HIV/AIDS affects an MFO's financial sustainability, risk, loan delinquencies, and loss of reserves, and to be supportive of new product development.

In Kenya, the STD/AIDS Control Project of the University of Nairobi, and Improve Your Business–Kenya developed microfinance programs in 1999 that provide small loans, business training, and HIV/AIDS education to female sex workers (Costigan et al. 2002; Odek et al. 2002a,b). HIV prevalence rates are as high as 80 percent among these borrowers. One year after loan disbursement, researchers conducted a mid-term impact assessment. Of the 209 enrollees, 90 had left the program, and 6 women had died. Surviving microenterprises (representing about half of all businesses started) were concentrated in the trading of agricultural products and sales of second-hand clothes. Failed businesses were hindered by insufficient demand for services, client health problems, and household and family needs.

There were, however, notable reductions in sexual risk behavior among the borrowers. Almost 20 percent of the women left sex work completely, and those who remained in the industry dramatically reduced their

average number of clients. The level of sexually transmitted infections decreased among them, as did their average weekly income directly tied to sex work. At 18 months after loan disbursement, researchers conducted a program assessment. Half the microenterprises were stable, and the loan repayment rate was 72 percent. Illness and illness-related debt of some members negatively affected fellow group co-guarantors. Based on these findings, researchers recommended that MFOs operating in similar settings should explore offering a combination of loans and grants.

## **Does Microfinance Affect Reproductive Behavior?**

Pitt et al. (1999) examined how increased income and time demands affected fertility for female and male borrowers. In 1991–92, researchers conducted a household survey of 87 villages, most of which were served by the Grameen Bank, BRAC, or a program of the Bangladesh Rural Development Board. Each MFO included education on family planning and emphasized smaller family size and the importance of education for children. Pitt and colleagues found that fertility increased in female borrowers and decreased in male borrowers. Second, contraceptive use did not increase for female borrowers, but it did increase slightly for male borrowers.

A complex relationship exists between changes in wealth and changes in fertility. Greater income can increase the demand for children and increase household spending on each child. As a microenterprise increases the value of a woman's time, it also increases the cost of the time associated with childrearing; women may substitute time in their business for time spent childrearing, thereby reducing their fertility. It is not clear which effect will be stronger.

In Pitt's example, home-based self-employment allowed women to simultaneously take on the demands of the microenterprise and childrearing. As women's income increased, so did the momentum to have more children. However, for men, the increased value of time spent on a microenterprise had a smaller effect on their decisions regarding childbearing, because little of their time was assigned to child care. The slight increase in contraceptive use among men may be attributed to an educational message that is usually directed at women, and which is now also being targeted toward men.

This study contained an important design and findings. Although several previous studies had consistently reported a positive relationship between participation in a microfinance program and contraceptive use by women, study design flaws and biases called those findings into question. In response, Pitt and colleagues designed a rigorous study that controlled for three common biases: choice-based sampling (in which program participants are overrepresented in the sample), self-selection into programs (in which participants who choose to enroll in microfinance programs differ from those who opt out of participating), and nonrandom program placement (in which programs are placed in villages where they are more likely to succeed).

## **Conclusion**

For HIV/AIDS program planners, microfinance represents a potentially powerful tool, but the precise benefits and effects of access to credit are often difficult to determine. Findings from the development field show that microfinance is an art, as well as social science. It is challenging to evaluate, it is receptive to innovation, its permutations of structure and organization are fluid, and its effect on the welfare of the poor are indeterminate. It is an approach that holds the promise of empowering borrowers and improving the financial health of families, particularly women and children. Only more rigorously designed studies and impact evaluations will be able to better gauge the effect of microfinance and its applicability to various settings. This paper has identified several key variations in approach and methodology that must be examined when designing or comparing programs.



Program planners need to be clear from the start whether their goals are welfare-oriented or oriented toward the financial sustainability of the MFO itself. Lending methodologies and practices—lending to whom, what types of financial and nonfinancial services, and under what conditions—will vary, depending on the mission of the MFO. If financial sustainability is the primary goal of the MFO, then programs may not be able to serve the poorest of the poor, or to offer nonfinancial services. If social goals dominate, then offering program tie-ins such as HIV/AIDS prevention education may be appropriate but require continuous donor support. Moreover, there is a growing sense among practitioners that savings and insurance products rather than credit may be more valuable to some populations. This may mean a change in banking regulations, and in the orientation of future microfinance programs, because most MFOs are not allowed to accept voluntary savings deposits.

## Acknowledgment

We acknowledge Izumi Yamamoto of the University of Washington for directing us to several important resources on microfinance.

## References

- Armendáriz de Aghion, B., and J. Morduch. 2000. Microfinance beyond group lending. *Economics of Transition*, 8:401–420.
- Barnes, C. 2002. Microfinance and mitigation of the impacts of HIV/AIDS: An exploratory study from Zimbabwe. Assessing the Impact of Microenterprise Services (AIMS) Paper. Washington, DC: Management Systems International.
- Costigan, A., W.O. Odek, E.N. Ngugi, M. Oneko, S. Moses, and F.A. Plummer. July 7–12, 2002. Income generation for sex workers in Nairobi, Kenya: Business uptake and behavior change. XIVth International AIDS Conference, Barcelona, Spain. Abstract MoPeF4143.
- Hashemi, S.M, S.R. Schuler, and A.P. Riley. 1996. Rural credit programs and women's empowerment in Bangladesh. *World Development*, 24:635–653.
- Morduch, J. December 1999. The microfinance promise. *Journal of Economic Literature*, XXXV:1569–1614.
- Mosley, P., and D. Hulme. 1998. Microenterprise finance: Is there a conflict between growth and poverty alleviation? *World Development*, 26(5):783–790.
- Navajas, S., M. Schreiner, R.L. Meyer, C. Gonzalez-Vega, and J. Rodriguez-Meza. 2000. Microcredit and the poorest of the poor: Theory and evidence from Bolivia. *World Development*, 28(2):333–346.
- Odek, W.O., A. Costigan, E.N. Ngugi, S. Moses, F.A. Plummer, and M. Oneko. July 7–12, 2002a. Adapting micro-finance to HIV vulnerable communities: Lessons for scaling up from a Kenyan pilot project targeting female sex workers. XIVth International AIDS Conference, Barcelona, Spain. Abstract MoOrF1046.
- Odek, W.O., A. Costigan, E.N. Ngugi, S. Moses, F.A. Plummer, and M. Oneko. July 7–12, 2002b. Business successes and failures among female sex workers: Results from a Kenyan pilot project. XIVth International AIDS Conference, Barcelona, Spain. Abstract MoPeF4129.
- Pitt, M.M., S.R. Khandker, S. McKerman, and M.A. Latif. 1999. Credit programs for the poor and reproductive behavior in low-income countries: Are the reported causal relationships the result of heterogeneity bias? *Demography*, 36(1):1–21.
- Rahman, A. 1999. Micro-credit initiatives for equitable and sustainable development: Who pays? *World Development*, 27(1):67–82.
- Smith, S.C. 2002. Village banking and maternal and child health: Evidence from Ecuador and Honduras. *World Development*, 30(4):707–723.

## The Advances Through HIV/AIDS Research Series

This series uses an innovative methodology to bridge the dynamic worlds of HIV/AIDS research and the practice of HIV/AIDS prevention, care, and support in developing countries. The 2002–2003 series includes nine papers on a range of topics. The goal of the series is to disseminate key research findings and expert analyses to busy practitioners and policy makers working in the field. Each paper places significant, new, or controversial research findings in a broader context and explores their practical and policy implications for those working on the frontlines. These are not “best practice” recommendations. Instead, the series aims to help decision makers recognize research breakthroughs and emerging technical challenges, and consider their implications for HIV/AIDS program planning, design, and applied research.

### The Methodology

In the development of each paper, an internationally recognized expert frames the paper, identifying key issues, recommending the most pertinent and recent publications, and describing significant ongoing research. The key issues and research findings are then modified into an accessible format for a broad audience. These papers are not lengthy or exhaustive literature reviews; rather, they provide a rapid, rich, and selective examination of key issues and findings on the topic from the perspective of one well-known expert in the field.

---

### The Experts

C. Leigh Anderson, PhD in economics, is associate professor at the Evans Graduate School of Public Affairs at the University of Washington. She is director of the Hubert H. Humphrey Fellowship Program, an academic and professional development program for mid-career professionals from developing countries. She specializes in international development, trade and environmental policy, and culture, and has worked in Pakistan and China. She was awarded a U.S. State Department grant for “Curriculum, Research and Outreach in Microfinance in Russia,” a seed grant from the Andrew Mellon Foundation for “Impact Assessment of Microfinance Programs,” and a contract from the United Nations Food and Agriculture Organization on “The Relationship Between Microcredit and Sustainable Natural Resource Use.”

Mary Kay Gugerty, PhD in political economy and government, is assistant professor at the Evans Graduate School of Public Affairs at the University of Washington. She was research coordinator of the Kenya Local Community Action Project for The World Bank and a consultant for the Harvard Institute for International Development’s Consulting Assistance on Economic Reform Project in 1997–2000. She has worked in western Kenya for more than seven years. In 2002, she was awarded grants from the Strategies and Analyses for Growth and Access project, a project funded by the U.S. Agency for International Development that supports research in Africa, and the Russell Sage Foundation.

### The Staff

Faculty and professional staff at the Center for Health Education and Research, University of Washington, Seattle, are responsible for producing this series, as part of The Synergy Project, funded by the U.S. Agency for International Development (USAID) through contract HRN-C-99-0005-00 and managed by TvT Global Health and Development Strategies Division of Social & Scientific Systems, Inc. (TvT/SSS). At the University of Washington, Ruth O. Levine is primary author, Elaine Douglas is senior editor, and Marcia Weaver is project lead. At TvT/SSS, Barbara de Zalduondo is technical reviewer, and Polly Gilbert is responsible for dissemination. The opinions expressed in this series are those of the experts and authors and do not necessarily reflect the views of the University of Washington, TvT/SSS, or USAID.

