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# **1 Abstract**

## **1.1 Objective**

To assess the impact of a Summa Foundation-supported microfinance program that provided business-skills training and revolving loans to private sector midwives on the perceived quality of care received by clients and client loyalty to the clinics.

## **1.2 Methods**

A quasi-experimental study with a pre-test post-test design evaluated the impact of the intervention. Exit interviews were conducted at 15 clinics that received the intervention and seven clinics that did not. Baseline exit interviews were conducted between November and December 2000. Five days of business-skills training were provided to midwives and loans (averaging \$454) were given during January and February 2001. A follow-up clinic visit was made to assess whether midwives were implementing what was emphasized during the training. The loans were to be repaid with interest within six to 12 months at an interest rate that is standard within the local microfinance market. For those who repaid the first set of loans (11 clinics), a second set of loans (averaging \$742) was provided after June 2001. Follow-up exit interviews were conducted at the same clinics between February and March 2002. Multivariate logistic regression analysis was used to assess the net impact of the intervention.

## **1.3 Results**

The intervention resulted in a significant net improvement in clients' perceptions of the quality of care received at intervention clinics. The intervention was also associated with a higher level of client loyalty.

## **1.4 Conclusions**

A microfinance program that provides business-skills training and revolving loans to small-scale private providers, such as midwives, can increase client loyalty by increasing client perceptions of the quality of care they receive.



## 2 Introduction

In recent years, there was considerable interest in understanding and augmenting the role of the private sector in the provision of reproductive health services in developing countries. Although the absence of regulatory mechanisms caused concerns about the quality of services provided by the private sector in developing countries (Brugha and Zwi, 1998); health sector reform, the recognition of the potential for greater efficiencies in resource allocation through market segmentation (Sine, 2002; Foreit, 2002), contraceptive security concerns, and the potential for increasing the provision of reproductive health services drives an interest in the private sector.

Efforts to increase the quality and viability of the private-sector supply of health services in developing countries included franchising and accreditation schemes (Mills et al., 2002). Microfinance is a mechanism with the potential to increase the quality and viability of services offered by small-scale private providers — such as midwives. Although they run their practices as businesses, many small-scale providers lack access to capital that could be used to improve the quality or increase the range of services they offer. Moreover, they lack the business skills needed to make their practices more viable. Training providers and enabling them to make financial investments in their health practices may increase the quality and the viability of their services.

This study assesses the impact of a microfinancing program on client perceptions of the quality of care offered at private midwife clinics. The main objective of the loan program was to improve the viability of midwife practices by increasing client flows (through greater client loyalty and establishing the clinic's reputation for quality services), by increasing sources of revenue (from an increased range of services and the consistent availability of drugs) and by a higher level of provider savings. Improvements in the perceived quality of care can be expected to lead to increased client flows by leading to greater retention of clients and by attracting new ones.





## 3 Background

Between the 1950s and 1970s, microfinance programs supported by governments and donors focused primarily on providing subsidized agricultural credit to small and marginal farmers to improve farm productivity. During the 1980s, microcredit was targeted at poor women to enable them to invest in small-scale businesses and generate income for their households. The emergence of microfinance institutions (MFIs) spurred growth and diversity in microfinance projects in developing countries. Donor efforts to increase resources for microfinance were accelerated in 1995 after the establishment of the Consultative Group to Assist the Poorest (World Bank, 1999). The rationale for microfinance is self-evident: Lower-income entrepreneurs typically are not served by commercial financial institutions because of a variety of reasons, such as the high cost of small transactions, the lack of traditional collateral, and geographic isolation. Microfinance facilitates access to credit for the poor by allowing small loans (sometimes less than US\$50) and relaxing collateral requirements by accepting social collateral through group-lending schemes where members of the group co-guarantee each other's loans. This method became well-known after the Grameen Bank experience in Bangladesh.

Microfinance schemes have the primary objective of alleviating poverty, though the functional areas of emphasis may vary among programs. Some of the intermediate objectives typically include empowering women, increasing assets, and improving children's schooling ([www.cgap.org/history](http://www.cgap.org/history)). There is little documentation of microfinance programs designed for small-scale private health care providers. In many countries, small-scale health providers are considered unbankable and cannot access credit through local commercial banks, as they do not have adequate collateral and small loans are too costly for a bank to process.

There appears to be only one documented instance of the use of microcredit to strengthen the delivery of reproductive health services. In Indonesia, a revolving loan fund was used to train midwives to establish or expand private practices delivering family planning and reproductive health services. Although no formal impact evaluation was conducted, midwives reported an average of 207 new family planning clients within a year of receiving loans (Summa Foundation, n.d.).

No published study has assessed the impact of a microfinance program on the perceived quality of services available at health facilities in developing countries. Evidence does indicate, however, that microfinance programs can lead to improvements in the quality of life: studies show the positive impact of microfinance programs on consumption, asset accumulation, reducing domestic violence, and an overall improvement in living conditions (MkNelly et al., 1993; Hule and Mosley, 1996; Montgomery et al., 1996; Schuler et al., 1996).

### 3.1 The Intervention

In recent years, the government of Uganda recognized that private health providers (consisting of licensed midwives, pharmacists, nurses, and doctors) could play an important role in the provision of reproductive health services. The financial investment needed to improve the quality and expand the range of services offered by the private sector, however, is not available. One assessment identified the lack of credit as a major constraint to the development of small private health practices in Uganda (SEATS, 2000).

This project was designed to increase the financial viability of small private practices in Uganda by providing 280 private providers with business-skills training and small loans (\$30 to \$5,000)

to increase the viability and quality of their practices. The Summa Foundation<sup>1</sup> designed the Uganda Private Providers Loan Fund, which was administered by the Uganda Micro-finance Union. The loans were six to 12 months in duration and were given on the principle of group lending. (Institutions such as the Grameen Bank used similar mechanisms.)

In this study, the impact of the intervention on the first set of borrowers of these loans — 15 midwives from the Uganda Private Midwives Association (UPMA) — is assessed. Enrolled midwives must have completed their ordinary level (O-level, grade 11) and received about two years of professional training. Registered midwives receive three years of professional training after completing their advanced level (A-level, 13 years). Registered midwives' training entails more clinical practicum for obstetrical procedures than does the training of enrolled midwives (Harriet Nakanyike, personal communication, 2002). Midwives typically work for many years in government service before establishing their own private clinic. Their clinics provide a range of primary care services including curative care, antenatal, labor and delivery, family planning, immunizations, and drugs. Some midwives may have laboratories and/or dental services available at their clinics. The midwives treat male and female clients of all ages. Most midwives employ a small staff, often consisting of young midwives or nurses who just finished their training. Occasionally a midwife might employ an unskilled relative as her assistant (Beth Fischer, personal communication, 2002).

Later borrowers include nurses, clinical officers, and doctors, although midwives remained the largest group of borrowers. (As of December 2001, midwives took 49 percent of the loans, nurses 29 percent, clinical officers 11 percent, and doctors 11 percent.) The loans were probably more attractive to providers such as midwives and nurses than doctors because of the loan size and terms of the microfinance program. The impact of the loans on later borrowers will be assessed in a separate study.

Loan recipients were identified through professional associations, such as UPMA, but the loans were later made available to all private providers. The loans were given on a revolving basis, upon repayment of the initial amount. Providers could use loans for working capital, to purchase drugs and equipment, and to renovate and expand clinics. It was anticipated that a high proportion of initial loans would be used for purchasing drugs. Once the clinic increased its revenues and became financially more sustainable and providers gained experience and confidence in borrowing, it was expected that loans would support clinic expansion, renovation, and the purchase of equipment. Of the 15 midwives who took loans (average loan amount of \$454), 11 repaid their loans and took out second loans (average loan amount of \$742). A review of loan applications showed that about 87 percent of midwives used the first loan for drug purchases, 47 percent to buy equipment, and 40 percent for clinic renovation. The proportion of midwives who used the second loan for drug purchase (91 percent) increased slightly and the proportion buying equipment (55 percent) with the second loan increased even more. There was a substantial increase in the proportion of midwives who used the second loan for clinic renovation/upgrade (73 percent). These statistics are consistent with the expectation that with the increase in the loan amount over time, borrowers are more likely to use the funds for making large-scale improvements in the clinics.

An important component of the loan program consisted of training geared towards imparting basic business skills to borrowers. The National Smallholder Business Center, a local business training organization, provided the business-skills training. An initial assessment revealed that

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<sup>1</sup> A not-for-profit investment fund that operates under the USAID-funded Commercial Market Strategies (CMS) Project

most of the midwives possessed limited business skills, did not keep complete financial records, and had little information about how to access credit. The training program was designed to respond directly to these areas of potential improvement and focused on basic principles of running a private practice and credit management. Five days of business-skills training were given to loan recipients. It consisted of training in key elements of business management, including business planning, record keeping, financial reporting, credit management, and marketing. Ensuring that clients were satisfied with services was discussed as a critical component of marketing. Trainees were encouraged to increase client satisfaction by improving the quality of the services they offered. The training specifically addressed issues such as client-provider interaction, the availability of drugs and supplies, hygiene and sanitation, confidentiality, affordability, and accessibility. The importance of these factors in determining client perceptions of quality and eventually client flow to the clinic was emphasized. Trainees were also given an introduction to family planning products sold by the Commercial Market Strategies (CMS) project (Meaghan Smith, personal communication 2002).

As part of the training follow-up, clinic visits were conducted to identify areas of improvement and to recommend corrective actions. During these clinic visits, midwives' performance was assessed on items covered in the initial training. These areas included cleanliness, client privacy, availability of drugs and basic supplies, placement of clinic signboards as a way of making clinics more accessible, and record keeping. Based on findings from the baseline client-exit survey, midwives were also given feedback on client perceptions of the quality of care they provided. The training and follow-up visits made midwives cognizant of factors that determine client perceptions of quality.

### **3.2 Perceived Quality of Services**

Increasing attention was paid in recent years to patient views of the quality of services they receive. A number of studies showed that perceived quality of care has a strong impact on patterns of utilization of health care services (Baltussen et al., 2002), contraceptive use (Speizer and Bollen, 2000), and that patient satisfaction is associated with continued use of medical services (Bernhart et al., 1999). As patient perceptions of quality of care are considered an important determinant of the utilization of health services and there is an interest in increasing the utilization of services, client perceptions are increasingly treated as an outcome of health care delivery (Baltussen et al., 2002).

Researchers have regarded the conduct of health personnel, adequacy of resources and services, accuracy of diagnosis, efficacy of cure, and financial and physical accessibility of services as important dimensions of the quality of care (Baltussen et al., 2002; Bernhart et al., 1999). Despite substantial recent interest on this subject in the context of developing countries, however, there is no definitive agreement on the tools or indicators that should be used to operationalize these concepts. Relatively few published studies have examined the criteria used by individuals to judge the quality of services. Also, there is not a detailed taxonomy of perceived quality that might be used to develop tools that measure client perceptions adequately (Haddad et al., 1998). Client satisfaction with the quality of services is difficult to measure because patients tend to withhold negative opinions if they feel gratitude for the provider or fear retribution. As a result, clients tend to over-report positive perceptions. Moreover, objective measures of quality may not be directly relevant to service utilization decisions, as client perceptions of quality can be quite different from more objective measures of technical competence (Speizer and Bollen, 2000). For these reasons, there is a danger of collecting information on indicators that may not be important to clients' decisions to use services in the future.

To measure indicators of quality that are relevant to clients' decisions to use services, clients are asked about events and behaviors rather than their opinions (Bernhart et al., 1999). This approach helps identify aspects of the services that are meaningful to clients and are most likely to influence service utilization. To determine privacy, for example, patients in one study were asked whether anyone who did not participate in providing care was present during counseling and treatment. The usual approach to measuring this indicator would have been to ask patients whether they felt that privacy was observed during their visit (Bernhart et al., 1999). This study used a similar approach, by asking clients about their reasons for preferring the particular clinic they visited on the day of the interview. As clients report on measures of quality that are directly relevant to a behavior (their choice of a particular outlet), these indicators are likely to capture important predictors of service utilization.

## **4 Data and Methods**

### **4.1 Study Design**

A quasi-experimental design using baseline and follow-up surveys and a nonequivalent comparison group was adopted to evaluate the impact of the loans on client perceptions of the quality of services. Fifteen out of the 22 clinics in the sample received loans. The 15 intervention clinics were located in the Kampala, Mukono, and Mpigi districts. Five out of the seven comparison group clinics were located in Mbarara and two were located in Kampala. It originally was planned that all midwife clinics that first received loans in the Kampala, Mukono, and Mpigi districts would be the intervention clinics, while all clinics in Mbarara would be the comparison clinics. Two clinics in Kampala, however, that expressed interest in applying for loans decided against doing so and were later re-assigned to the comparison group. The Mbarara district was chosen as the location for the comparison clinics because the socio-economic characteristics of Mbarara city were comparable to those of Kampala. In addition, comparison clinics were chosen based on their similarity to intervention clinics in client volume, inpatient and outpatient facilities, and the range of services offered.

Although a non-equivalent comparison group design is more practical to implement than a true experimental design, it has limitations. Kampala is unique in Uganda because of high levels of health service provision by private sector providers. For example, 80 percent of the Uganda's pharmacies are located in Kampala. Although Mbarara is also a developed district, there is a strong public-sector presence in Mbarara. In particular, there is a regional referral hospital in Mbarara city with which private midwives compete. Between the baseline and follow-up surveys, cost-sharing at government health centers was abolished. Private midwives in Mbarara reported that this change adversely affected the client flow to their clinics.

### **4.2 Questionnaire and Indicators**

The questionnaire was designed to collect data on socio-demographic characteristics (such as age, gender, marital status, and education), service utilization (preventive or curative care reasons for visiting the outlet), and client satisfaction. Prior to data collection, the questionnaire was pre-tested at several clinics in Kampala and revised. To measure service utilization, clients were asked "For what reason did you visit this outlet today?" Respondents could spontaneously report their reasons for visiting — family planning, antenatal care, postnatal care, immunization, delivery, child nutrition, AIDS counseling, STI treatment, malaria treatment, or other. To measure client satisfaction, respondents were asked, "Could you please give me all the reasons that you came to this outlet instead of any other?" Respondents could spontaneously report on quality related reasons for their visit, including the availability of drugs, fair charges, cleanliness, good handling of clients, privacy, accessibility, good physical outlook, range of services, and other reasons.

### **4.3 Data Collection**

Baseline exit interviews were conducted at intervention and comparison clinics between November and December 2000. Loans were given out during January and February 2001. Eleven midwives repaid their loans and took second loans after June 2001. Follow-up exit interviews were conducted at the same clinics between February and March 2002. On average there was a

period of about one year between the first loan disbursement and the follow-up interviews. All clients 15 and older who exited the clinics were eligible for interviewing.

The baseline and follow-on surveys were conducted over five days, from Tuesday to Saturday. Twenty-two interviewers conducted the interviews. Each interviewer was assigned to the same clinic throughout the study. Each interviewer was present at the clinic from the time of opening until it closed or until 9.00 p.m.

#### **4.4 Data Analysis**

At the bivariate level, this study examined changes in perceived quality (measured by reasons for client preference of one clinic over another) and any shifts in the proportion of clients coming for preventive or curative care. Multiple indicators measured each of the above. Chi-squared tests of independence tested whether differences were statistically significant at the bivariate level.

In a nonequivalent comparison group design, respondents in intervention and comparison groups can differ in their socio-demographic characteristics (O'Leary et al., 1997). Multivariate logistic regression analysis determined the net impact of the intervention, after adjusting for socio-demographic variables and changes because of secular trends. Two separate multivariate models were run for each indicator of quality.

The first model tested whether the change over time in a particular indicator was significant after adjusting for age, gender, marital status and education. This model was first run with data from intervention clinics (using a merged data set that included baseline and follow-up data from the intervention clinics only) and then with data from comparison clinics (using a merged data set that included baseline and follow-up data from the comparison clinics only). This part of the analysis showed what the trends in each indicator were at intervention and comparison clinics, net of socio-demographic characteristics of the samples.

As factors beyond the control of an intervention can influence study findings, it is important to assess the impact of an intervention net of secular trends. Therefore, a second model tested whether trends in intervention and comparison clinics were significantly different from each other, using a merged data set that contained baseline and follow-up data from intervention and comparison clinics. The second model included all variables used in the first model plus an interaction term that indicated whether trends in the intervention and comparison clinics were significantly different from each other. This model allowed the study to assess whether the impact of the intervention, net of socio-demographic characteristics of the samples and secular trends, was positive, negative, or none.

The net impact of the intervention on a particular indicator could be positive in several instances:

- when a positive trend was observed among clients at intervention, but not at comparison clinics
- when a positive trend was observed at intervention and comparison clinics, but the trend was significantly stronger at intervention clinics
- when no trend was observed at intervention clinics and a negative trend was observed at comparison clinics.

The intervention also could have no net impact. This possibility could occur if

- the intervention and comparison clinics had positive trends, but they were not significantly different from each other
- the intervention and comparison clinics had negative trends that were not significantly different.
- the trend at one set of clinics was significant, but not significantly different from the trend at the other set of clinics.

A negative net impact of the intervention could result from

- comparison clinics showing a positive trend that was significantly stronger than the trend at intervention clinics
- a negative trend at the intervention clinics
- a negative trend at the intervention clinic that was stronger than a negative trend at comparison clinics.





## 5 Results

Table 1 shows the socio-demographic characteristics of clients at intervention and comparison clinics. The mean age of clients was 27 years in intervention clinics and 28 years in the control clinics. Clients at the intervention clinics were significantly more likely to be females than clients at the comparison clinics (73 versus 56 percent). This difference is because pharmacies are far more prevalent in Kampala than in other parts of the country (Jacobs et al., 1999) and a smaller proportion of men would visit midwife clinics in Kampala to purchase drugs. Consistent with this fact, clients at the intervention clinics were more likely to be married than clients at the comparison clinics (66 versus 60 percent). There were no significant differences in the education level of clients at intervention and comparison clients: 28 percent of respondents in intervention and 24 percent in comparison clinics completed secondary education or higher. There were no significant differences in the usual sources of treatment. Nearly 80 percent of clients reported that they usually used private hospitals/clinics.

Table 1: Socio-demographic characteristics of clients at baseline

Characteristic	Intervention (n=779)	Comparison (n=439)	Diff. Sig.
Mean age	27.0	27.8	-
<b>Gender</b>			
Male	27.0	44.0	**
Females	73.0	56.0	
<b>Marital status</b>			
Never married	27.6	36.2	**
Married	65.6	59.5	
Other	6.8	4.3	
<b>Education</b>			
None, some primary	29.1	26.4	-
Completed primary	18.0	20.3	
Some secondary	24.6	29.8	
Completed secondary or higher	28.2	23.5	
<b>Usual sources of treatment</b>			
Public hospital/clinic	15.1	14.6	-
Private hospital/clinic	79.5	77.7	
Pharmacy	2.1	1.4	
Drug shop	2.2	4.8	

\* p<0.05  
\*\* p<0.01

Table 2 shows reasons for preference of intervention and comparison clinics at baseline and follow-up. At intervention clinics, there were significant increases in the percentage of clients who reported the availability of drugs (23 to 37 percent), fair charges (18 to 28 percent), privacy (4 to 8 percent), accessibility (43 to 50 percent), good physical outlook of the clinic (3 to 7 percent), and the range of services offered (12 to 18 percent), as reasons for their preference of these clinics over others. There were no significant changes in the percentage of clients who reported cleanliness (19 percent) or good handling of clients (58 percent). The percentage of clients who reported always visiting the intervention clinics increased from 38 to 45 percent.

As for the comparison clinics, there were significant declines in the proportion of clients who reported drug availability (49 to 34 percent), fair charges (32 to 21 percent), cleanliness (27 to 5 percent), good handling of clients (66 to 44 percent), privacy (8 to 3 percent), and accessibility (65 to 48 percent) as reasons for preference. Consistent with these negative trends in reported

reasons for visiting comparison clinics, there was also a significant decline in the percentage of clients who reported that they always visit the comparison clinics (36 to 23 percent). There was no significant change in the percentage of clients at comparison clinics who reported that good physical outlook of the clinic was a reason for their visit. Finally, clients at comparison clinics reported a significant increase in the range of services being offered as reason for their visit (3 to 13 percent).

Table 2: Reasons for visiting the clinic rather than another clinic at baseline and follow-up

Reason	Intervention			Comparison		
	Baseline (n=779)	Follow-up (n=917)	Diff. Sig.	Baseline (n=439)	Follow-up (n=301)	Diff. Sig.
<b>Reasons for visit today</b>	%	%		%	%	
Availability of drugs	23.4	36.9	**	49.2	34.2	**
Fair charges	18.1	27.7	**	31.9	21.3	**
Cleanliness	19.4	17.8	-	26.9	4.7	**
Good handling of clients	57.9	57.3	-	66.1	43.5	**
Privacy	4.0	8.4	**	8.0	3.3	**
Accessibility	43.1	50.2	**	64.9	47.8	**
Good physical outlook	2.8	6.8	**	1.8	1.7	-
Range of services	12.3	18.0	**	2.7	12.6	**
Always visit the clinic	38.3	44.9	**	36.4	22.9	**

\* p<0.05  
\*\* p<0.01

Table 3 shows client reports of preventive and curative reasons for their visit to intervention and comparison clinics at baseline and follow-up. There was no significant change in the intervention or comparison clinics in the proportion of clients who visited to obtain family planning services. There was, however, a significant increase at intervention clinics (from 30 to 39 percent) in the proportion of clients who obtained preventive maternal and child health (MCH) services, such as antenatal or postnatal care, immunization, delivery care, child nutrition advice, and family planning. Consistent with the baseline survey conducted during November and December (the rainy season) and the follow-up being conducted during February and March (the dry season), there was a significant decline in the proportion of visits made for malaria treatment at intervention and comparison clinics. There was no significant change in the proportion of clients reporting other curative care as the reason for their visits.

Table 3: Preventive and curative reasons for visiting clinics at baseline and follow-up

Reason	Intervention			Comparison		
	Baseline (n=779)	Follow-up (n=917)	Diff. Sig.	Baseline (n=439)	Follow-up (n=301)	Diff. Sig.
<b>Preventive reasons for visit</b>	%	%		%	%	
Family planning	7.6	9.3	-	6.2	7.3	-
MCH <sup>1</sup>	29.8	38.6	**	19.8	25.2	-
<b>Curative reasons for visit</b>						
Malaria treatment	35.6	27.5	**	40.1	31.9	*
Other curative care	33.4	30.9	-	41.2	35.2	-

\* p<0.05  
\*\* p<0.01

<sup>1</sup> Including family planning visits

Table 4 shows adjusted odds ratios indicating changes between baseline and follow-up surveys in clients' reasons for coming to one clinic instead of another, and the net effect of the intervention. An odds ratio that is greater than one shows an increase in that indicator between baseline and follow-up surveys. An odds ratio less than one shows a decrease in that indicator between baseline and follow-up surveys.

Clients at intervention clinics became more likely to report the availability of drugs as a reason for their preference of clinic (reflected by the statistically significant odds ratio of 1.9) while clients at comparison clinics became less likely to report this as a reason for their preference of the comparison clinics (reflected by the statistically significant odds ratio of 0.5). These findings resulted in a net positive impact of the intervention. Clients at intervention clinics also became more likely to report that fair charges were a reason for their preference of intervention clinics, while clients at comparison clinics became less likely to report that fair charges were a reason for their preference of comparison clinics. This finding also resulted in a net positive impact of the intervention.

There was no trend in cleanliness being reported as a reason for visiting the intervention clinics, but clients became less likely to report cleanliness as a reason for their visiting comparison clinics. This finding resulted in a net positive intervention impact. The intervention also had a net positive impact on the perceived good handling of clients, because of a negative trend at comparison clinics: clients became less likely to report good handling as a reason for visiting comparison clinics. Intervention clients became more likely to report the privacy and accessibility of the clinics as reasons for their preference of the intervention clinics, while comparison clients became less likely to report these as reasons for their visits. Hence, the net impact of the intervention on perceived privacy and accessibility was positive.

There was no net impact of the intervention on client perceptions of the good physical outlook of the clinic as a reason for visiting clinics, in spite of a positive trend among clients at the intervention clinics. Clients at intervention and comparison clinics became more likely to report that the range of services offered was a reason for their visit, but the trend was significantly stronger among comparison clients and resulted in a net negative impact of the intervention.

Finally, the study also looked at trends in client reports of always visiting the clinic. Clients at intervention clinics reported that they were more likely to always visit intervention clinics and clients at comparison clinics reported becoming less likely to always visit comparison clinics. This resulted in a net positive impact of the intervention on this indicator.

Table 4: Adjusted odds ratios<sup>1</sup> indicating changes in reasons for visiting the clinic rather than another clinic between baseline and follow-up, and net effects of the intervention

Dependent Variable	Intervention (n=1690)	Comparison (n=739)	Net Effect of the Intervention
<b>Reasons for visit today</b>			
Availability of drugs	1.90**	0.53**	Positive
Fair charges	1.71**	0.52**	Positive
Cleanliness	0.87	0.13**	Positive
Good handling of clients	0.96	0.36**	Positive
Privacy	2.19**	0.37**	Positive
Accessibility	1.33**	0.50**	Positive
Good physical outlook	2.45**	0.91	No effect
Range of services	1.51**	4.44**	Negative
Always visit this outlet	1.31**	0.53**	Positive

\* p<0.05

\*\* p<0.01

<sup>1</sup> Adjusted for age, gender, marital status, education of respondents

Table 5 shows adjusted odds ratios indicating changes between baseline and follow-up surveys in preventive and curative reasons for the visit and the net effect of the intervention.

After controlling for age, gender, marital status, and education of the respondent, there was no trend in family planning being the reason for the visit at intervention or comparison clinics. Clients at intervention clinics became 1.6 times as likely to report MCH services as the reason for their visit, while there was no trend in this indicator at comparison clinics. The trend was not significantly stronger at the intervention relative to the comparison clinics, however, and there was no net impact of the intervention on the utilization of MCH services.

There was a significant negative trend in malaria treatment being the reason for the visit at intervention clinics, but the intervention did not have any net impact on this indicator because of a similar (but non-significant) trend at comparison clinics. There was no trend in other curative care being the reason for the visit at either intervention or comparison clinics.

Table 5: Adjusted odds ratios<sup>1</sup> indicating changes in preventive and curative reasons for the visit between baseline and follow-up, and net effect of the intervention

Dependent Variable	Intervention	Comparison	Net Effect of the Intervention
<b>Preventive reasons for visit</b>			
Family planning	1.26	0.90	No effect
MCH <sup>2</sup>	1.60**	1.02	No effect
<b>Curative reasons for visit</b>			
Malaria treatment	0.68**	0.73	No effect
Other curative care	0.89	0.85	No effect

\* p<0.05

\*\* p<0.01

<sup>1</sup> Adjusted for age, gender, marital status, education of respondents

<sup>2</sup> Including family planning visits

Table 6 shows adjusted odds ratios indicating factors associated with clients' reports of always visiting the clinic. After adjusting for other variables in the model, clients at intervention clinics were 1.8 times as likely as clients at comparison clinics to report that they always visited the clinic. Clients with secondary or higher education were less likely to report that they always visited the clinic.

Many of the quality-related reasons given by clients for visiting the clinic were associated with their reports of always visiting the clinic. Clients who reported that cleanliness was a reason they preferred this clinic to another were 1.3 times as likely to report that they always visited this clinic. Clients who reported the perceived availability of drugs as a reason for their visit were 1.3 times as likely to report that they always visited the clinic. Clients who reported good handling of clients by providers or fair charges as reasons for their preference of this clinic were about 1.8 times as likely to report that they always visited the clinic. Clients who reported privacy as a reason for coming to the clinic were 1.5 times as likely to report that they always visited the clinic.

There were no relationships between client reports of good physical outlook of the clinic, the range of services offered or the accessibility of services, and their always visiting that clinic.

Table 6: Adjusted odds ratios<sup>1</sup> indicating factors associated with always visiting the clinic (n=2429)

<b>Location (ref: comparison group)</b>	
Intervention	1.82**
Age	1.01
<b>Gender (ref: male)</b>	
Females	1.01
<b>Marital status (ref: never married)</b>	
Married	1.20
Other	0.97
<b>Education (ref: not completed secondary)</b>	
Secondary completed or higher	0.76**
<b>Cleanliness was reason for coming to this outlet today</b>	
No	1.00
Yes	1.33*
<b>Availability of drugs was reason for coming</b>	
No	1.00
Yes	1.27*
<b>Good handling of clients was reason for coming</b>	
No	1.00
Yes	1.84**
<b>Fair charges was reason for coming</b>	
No	1.00
Yes	1.80**
<b>Good physical outlook was reason for coming</b>	
No	1.00
Yes	0.61
<b>Range of services was reason for coming</b>	
No	1.00
Yes	0.78
<b>Privacy was reason for coming</b>	
No	1.00
Yes	1.54*
<b>Accessibility was reason for coming</b>	
No	1.00
Yes	1.15

\* p<0.05

\*\* p<0.01

<sup>1</sup> Adjusted for age, gender, marital status, education of respondents



## 6 Discussion

To our knowledge, this study is the first to systematically evaluate the impact of a microfinance program targeting small-scale private sector providers on the perceived quality of care received by clients. Overall, the intervention had a net positive impact on six out of the eight indicators of perceived quality.

Clients at intervention clinics reported significant improvements in four indicators: the perceived availability of drugs, fair charges, privacy, and clinic accessibility. These changes are consistent with anecdotal observations and informal discussions with midwives during clinic visits. For example, midwives reported that the consistent supply of drugs was a factor that was important in determining the clinic's reputation, client flow, and profits. This reason explains the midwives use of a substantial portion of the first loan to purchase drugs. One midwife reported that she lowered the charges on drugs because the loan enabled her to obtain drugs at wholesale prices. Several midwives increased the number of rooms that were part of their practice by making an existing room usable or by renting additional space. Client perceptions of clinic accessibility might have improved because of an enhanced reputation of clinics or because midwives were expected to display signboards outside their practices.

At the same time, clients at comparison clinics reported declines in these four indicators. The declines in these indicators may have occurred because of the abolishment of user fees at government clinics. Although the removal of user fees occurred nationally, it is likely to have had a substantially greater impact on the performance of private sector clinics in Mbarara district (where most comparison clinics were located) than in Kampala. This difference is because the public sector makes a significant contribution to the delivery of health care in Mbarara, through a regional referral hospital in Mbarara city and through a substantial number of other public sector facilities. In contrast, the public sector's role in Kampala is relatively limited: 80 percent of the pharmacies in Uganda are located in Kampala (Jacobs et al., 1999). Midwives in Mbarara reported that the removal of user fees resulted in drawing clients away from their clinics. With the availability of free drugs from the public sector, the purchase of drugs may have become a less important reason for visiting a midwife clinic in Mbarara. Moreover, clients may have perceived the charges at private clinics in Mbarara less fair after free services became available at government clinics in Mbarara. With government clinics becoming more attractive, the proximity of private clinics may have become a less important reason for visiting them. As a result of the improvements at intervention clinics and declines at comparison clinics, the intervention had a net positive impact on these indicators of perceived quality.

Two indicators, cleanliness and good handling of clients, reflected a net positive impact of the intervention because of declines in these indicators among clients at comparison clinics (while there was no change among clients at intervention clinics). Declines in client perceptions of cleanliness and good handling of clients at comparison clinics may simply reflect that these reasons became less important in drawing clients to comparison clinics once the removal of cost-sharing made government services more attractive.

Consistent with a net positive impact of the intervention on clients' perceptions of the quality of care, there was a positive trend at intervention clinics and a negative trend at comparison clinics in client reports of always visiting the respective clinics. This finding indicates that the intervention had a net positive impact on client loyalty.

The study also examined if there were any changes in the composition of clients coming to clinics as a result of the intervention. Between 20 and 39 percent of clients visited clinics for preventive care, including family planning (between 6 and 9 percent). The majority of clients (between 61 and 80 percent) visited midwife clinics for curative care. There was no net impact of the intervention on the composition of clients who visited clinics for preventive or curative care reasons.

From a methodological viewpoint, by tying client perceptions of quality to the actual behavior of visiting a clinic (clients were asked about their reasons for coming to the clinic they were interviewed at rather than another clinic), it was expected indicators would be given that were meaningful to patient satisfaction. An examination of the association between indicators of perceived quality and client loyalty to a clinic (measured by client reports of always visiting the clinic) showed that client reports of (most) quality-related reasons for visiting the clinics were significantly associated with their loyalty to the clinic. This increased confidence in the validity of the findings.

This study was not designed to assess whether objective improvements in quality resulted from the intervention. Anecdotally, some midwives used part of the loan proceeds to improve infection control at their clinics, especially for MCH related services. For example, one midwife used her first loan to purchase several sets of plastic tubs and containers to better implement infection control. These tubs are used to disinfect instruments in her midwifery kit (forceps, scissors, etc.) The same midwife used a larger second loan to renovate an unused room in her clinic and furnish it with the equipment needed to provide post-abortion care services. The second loan enabled her to purchase the kits needed to carry out manual vacuum aspiration for girls who present with partial abortions. Another midwife used part of her loan proceeds to purchase an autoclave enabling her to improve her ability to sterilize instruments. A third example is provided by a midwife who purchased vinyl covering for her delivery couch and replaced the torn and infection prone material that previously covered it (Beth Fischer, personal communication, 2002). An objective assessment of the quality of care provided by private providers (such as prescribing practices or infection control) and the subsequent training of providers in areas that are weak could enhance the impact of such an intervention.

Finally, the impact of the intervention was assessed over a relatively short period of time (about 13 months). It is likely that the full impact of the intervention, especially the impact of repeat loans, will be registered over a longer time period. Although client loyalty to clinics appears to have increased as a result of the intervention, it would be useful to measure how greater client loyalty translates into an increase in the number of clients who visit clinics. Overall, these findings suggest that a microfinance program that provides business skills and loans to small-scale private providers, such as midwives, can raise client perceptions of the quality of services provided and increase client loyalty.



## 7 References

- Baltussen RMPM, Ye Y, Hadad S, Sauerborn RS. Perceived quality of care of primary health care services in Burkina Faso. *Health Policy and Planning* 2002; 17(1): 42-48.
- Bernhart M, Wiadnyana IGP, Wihardjo H, Pohan I. Patient satisfaction in developing countries. *Social Science and Medicine* 1999; 48: 989-996.
- Brugha R, Zwi A. Improving the quality of privately provided public health care in low and middle income countries: challenges and strategies. *Health Policy and Planning* 1998; 13(2): 107-20.
- Foreit KGF. Broadening commercial sector participation in reproductive health. The role of the public sector prices on markets for oral contraceptives. Commercial Market Strategies Technical Paper No. 3. Washington D.C.: Commercial Market Strategies project; 2002.
- Haddad S, Fournier P, Machouf Nima, Yatara F. What does quality mean to lay people? Community perceptions of primary health care services in Guinea. *Social Science and Medicine* 1998; 47(3): 381-394.
- Hulme, D. and P. Mosley. Finance against poverty, vol 1: Analysis and recommendations. London: Routledge (draft); 1996.
- Jacobs B, Whitworth J, Lwanga A, Pool R. Feasibility and acceptability of social marketing of pre-packaged treatment for men with urethral discharge (Clear7): results from a controlled train in Uganda. Entebbe: Medical Research Council Research Programme on AIDS, Uganda Virus Research Institute; 1999.
- Mills A, Brugha R, Hanson K, McPake B. What can be done about the private health sector in low-income countries? *Bulletin of the World Health Organization* 2002; 80: 325-330.
- MkNelly B, Watetip C, 1993. Impact evaluation of freedom from hunger's credit with education program in Thailand. Davis, CA: Freedom From Hunger Foundation; 1993.
- Montgomery R, Bhattacharya D, Hulme D. Credit for the poor in Bangladesh the BRAC Rural Development Program and the Government Thana Resource Development and Employment Programme." In Finance Against Poverty, Volume II: Country Case Studies, edited by David Hulme and Paul Mosley, 123-227. London: Routledge (draft); 1996.
- O'Leary A, DiClemente RJ and Aral SO. Reflections on the design and reporting of STD/HIV behavioral intervention research. *AIDS Education and Prevention*, 1997, 9(Suppl. A): 1-14.
- Schuler RS, Hashemi SM, Riley AP, Akhter S. Credit programs, patriarchy and men's violence against women in rural Bangladesh. *Social Science and Medicine* 1996; 43(12): 1729-1742.
- SEATS. Uganda final country report. Arlington, VA: John Snow International; 2000.
- Sebstad J., Chen G. Overview of studies on the impact of microenterprise credit. Assessing the Impact of Microenterprise Services (AIMS). Washington D.C.: Management Systems International; 1996.

Sine J. How much is enough? Estimating requirements for subsidized contraceptives: results from a ten-country analysis. Commercial Market Strategies Technical Paper No. 4. Washington D.C.: Commercial Market Strategies project; 2002.

Speizer IS, Bollen KA. How well do perceptions of family planning service quality correspond to objective measures? Evidence from Tanzania. *Studies in Family Planning* 2000; 31(2): 163-177.

Summa Foundation. Case study: Indonesia midwives loan fund. Can a revolving loan fund be used to encourage private midwifery practices? Washington D.C.: Commercial Market Strategies project; n.d.

The World Bank. The World Bank and Microenterprise Finance: from concept to practice. Report No. 19895. Operations Evaluation Department. Washington D.C.: World Bank; 1999.












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