Technical Report 6: Structural and Individual Factors Related to the Effectiveness of CBD Promoters in Nicaragua

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EXECUTIVE SUMMARY

The Community-Based Distribution (CBD) network directed by PROFAMILIA is growing rapidly and is one of the most important systems for women's health in Nicaragua. That is why this study was designed to collect information on promoters' practices and the setting in which they perform so that PROFAMILIA and other NGOs working in the area of reproductive health and family planning (RH/FP) in Nicaragua could use this information for future planning.

The objectives of this study are to identify the factors or combination of factors related to the effective performance of the promoters, and to determine the relationships and interrelationships among these factors.

The factors include four areas: the CBD promoters, the PROFAMILIA system, other health and family planning services, and the community in which the promoters are found. Effective performance of the promoters was measured by quality-of-service indicators and by the perceptions of convenience samples of women who live in the communities and are using, or are potential users, of family planning (FP) services.

The project lasted one year (from March 1997 to March 1998). Data collection took place from May to September 1997. The study design is exploratory, descriptive and cross-sectional. The sample size was determined by the resources available and includes 73 CBD promoters from 40 different communities.

These communities are located in five regions in which special efforts are being made to improve FP services: Managua, Boaco, Juigalpa, Matagalpa and Rívas. In each of these regions, the sample included four urban communities and four rural communities, selected by geographic distribution.

There were five data sources in this study:

- An SPSS database with information about the entire population of CBD promoters, which was provided by PROFAMILIA in July 1997 (S1).
- Intake/referral forms that were to be completed by the sample of CBD promoters for a

two-week period. Actual data collection ranged from 21 to 27 days, and all data were standardized to represent a 23-day period (S2).

- Semi-structured interviews with the sample of CBD promoters and observations of the sites by the interviewers (S3).
- Semi-structured interviews completed by the CBD promoters' supervisors (S4).
- Semi-structured interviews with a sample of 20 women in each community (S5).

The sample of 73 promoters was similar to the study population, both in terms of demographics and practices, according to the comparison between S1 and S3 data.

Positive Aspects of the Network:

Most of the promoters use a contraceptive method. Over half of the sites are located in the promoters' homes, and the majority of them have educational materials. Most of the promoters are trained, and most of them have 2-4 years of experience. They have ample time to attend their clients, and their clients can seek their services at any time during the day. Most of the appointments given to the clients are indicated correctly. More than half of the promoters would like to do more activities than what they are currently doing and would like to receive more training. A high percentage of the women are aware of the promoters' existence.

Negative Aspects of the Network:

Almost half of the sites have unsanitary conditions. Most of the promoters don't have a private setting where they can attend their clients. Also, they were without contraceptive methods for a period of one to two months. Almost half of the promoters do not do client follow-up, and a third of them don't do anything when their clients do not return for their next appointment because they don't make house visits as a follow-up mechanism. The community is lacking activities for the educational development of the population. One third of the supervisors are not satisfied with the duration and number of visits paid to the promoters. There is little coordination among the promoters and other health care providers in the community. Only a small number of women know what promoters do.

As a result of the analysis, the literature review, and the discussions with PROFAMILIA, this report presents some recommendations on areas that need strengthening or areas in which PROFAMILIA should make changes and establish priorities.

These areas include:

- The composition of the network, which has eminent distribution components (pharmacies), and of its community-based services (sites for household distribution).

Also important are the grocery stores, which are considered a type of site and fall between the pharmacies and houses.

- The selection of the communities and promoters, determined by convenience and not as part of a strategic plan.
- The unmet need for temporary methods for men and clients aged 15-24.
- A supply system.
- The lack of information for monitoring and evaluation.
- The role of social workers/supervisors who presently do not provide an adequate level of supervision and training.
- The impact of the selection and training of promoters on redefining PROFAMILIA's mission with respect to the provision of reproductive health (RH) services.
- The need to promote and send a clear message about the role of the promoters' health posts.
- The conflict between providing services to very poor populations and financing promoters' work.

The project conducted by PRIME was financed by USAID, with support from PROFAMILA. The Project Director in Nicaragua was Dr. Adelina Barrera, from the Department of Preventive Medicine of UNAN-Managua. Her counterparts in PROFAMILIA were Claudia Dávila, Assistant to the Division of Planning and Research, Dr. Carlos Jarquín González, Director of Regional Coordination, and Verónica Mátuz, Director of the CBD Training System. The primary investigator was Dr. Jane Stein, consultant for PRIME, North Carolina, USA.

I. INTRODUCTION

A. Research Goal and Questions

The goal of this study is to identify factors that positively or negatively influence the effectiveness of PROFAMILIA's CBD promoter network in Nicaragua so that PROFAMILIA can use the information to strengthen their selection, training, and supervisory processes.

The questions addressed are:

(1) Of the following factors, which ones relate to effective performance of CBD promoters? a) the CBD promoter, b) the PROFAMILIA system, c) other health and family planning (FP) services, and d) the community in which the CBD promoters are found.

(2) How are these factors related and interrelated?

Both quality-of-service indicators and the perceptions of convenience samples of women from the communities, who are eligible for FP services or are presently using them, define effective performance.

B. Study Rationale and History

The need for FP/RH services in Nicaragua and the role of PROFAMILIA

Nicaragua has both a high fertility rate[1] and a documented need and demand for additional, effective and accessible family planning and reproductive health (FP/RH) services[2]. There are approximately one million women in Nicaragua of childbearing age. Data show that certain overlapping subgroups of women are in particular need of these services. These subgroups include women living in rural areas, women who are poor and have less than a primary education, women between the ages of 15 and 29, and women who do not currently want to become pregnant but do not use contraception. Data also indicate that the service network of community-based distribution (CBD) promoters, established and directed by PROFAMILIA, is particularly suitable to meet the needs of these subgroups.

PROFAMILIA, a private IPPF-affiliated institution, began to work in Nicaragua in 1974. They presently carry out their FP/RH activities in nine clinics located in eight regions. These clinics are supplemented by a cadre of approximately 1000 voluntary CBD promoters responsible for between 90 and 95% of the services provided by PROFAMILIA (Godinez, 1996). PROFAMILIA is currently expanding its activities to the eastern coast of Nicaragua to provide nationwide coverage. According to the study carried out by PROFAMILIA and the CDC in 1992-93, 34% of women between 14 and 49 years of age in Nicaragua were using contraception

when the survey was carried out, and 5.4 % of them were receiving services from PROFAMILIA (This 5.4% seems to refer to the use of PROFAMILIA clinics, because only 0.6% of women reported receiving contraception through community distribution.)[3] Although these data are relatively recent, they may underrepresent the current impact of PROFAMILIA, which has grown in the interim. Also relevant is a sense that the Ministry of Health (MINSA), which provides the majority of services to women (almost 60%), has increasingly had problems providing services and supplies. However, USAID is currently working with both PROFAMILIA and MINSA to improve FP/RH services; thus, the situation is in flux.

According to the PROFAMILIA/CDC survey, among 53% of the women who were using temporary methods when the survey was conducted, or who wished to use them in the 12 months thereafter, 76% preferred services that were either offered near their homes or provided by health professionals they knew. Or they had no preference as to the distance and privacy of the FP services. (Seventy-six percent of the members in this group were current users.) Among women with no education, the number reaches 81%, among rural women, 78%. Seventy-seven percent of these women prefer to receive services from a female doctor or nurse rather than a male doctor or midwife, while an additional 13% have no preference. Fifty-one percent of women between 15 and 49 who are current users or wish to use contraception in the future are willing to accept services from CBD-type promoters, and CBD acceptance is highest among rural women with little or no education. Data also show that 17% of users and potential users prefer to receive services on weekends and that the largest percentage prefers to receive services in the afternoons when such services are not usually available. Thus, there is a demonstrated demand for additional CBD-like services from women who are most in need.

PROFAMILIA and USAID are committed to improving the distribution of family planning services by PROFAMILIA in Nicaragua through the strengthening of PROFAMILIA's CBD network. Present activities include training of supervisors and CBD promoters. There has been a change in the leadership of the organization and a major review of the mission and services of the agency is underway. It is our hope that this study's findings will provide information that will assist PROFAMILIA in developing strategies to further improve their available services as well as the recruitment and training of future CBD promoters. Given that the institution has presently about 1,000 CBD promoters and anticipates increasing that number, acquiring relevant and updated information about its network will help PROFAMILIA in the management of this complex and geographically-disbursed network.

C. General Review of CBD Services

Community-based distribution (CBD) of contraceptives is a non-clinical approach to service delivery which, by bringing contraceptive methods into communities through local promoters, can significantly contribute to meeting the unmet demand for family planning among couples who cannot or do not wish to obtain contraceptives at a clinic. Contraceptive prevalence rates

have often doubled within the first years of initiating a CBD program (Ross and Frankenberg, 1993). In low-demand areas, the effects of CBD promoters' work, beyond supplying contraceptives, include generating demand for contraceptives by fostering concepts of reproductive planning and helping to normalize social and psychological perceptions of fertility regulation (Phillips and Greene 1993).

In Latin America, CBD coverage ranges from 30-40% in the Dominican Republic, Ecuador, El Salvador and Guatemala to as high as 60% in Mexico and 70% in Honduras. In Colombia, informants perceive coverage to be most of the rural and urban population (Ross et al., 1992). Other areas of the world boast coverage as high as 90% in South Korea and rural China, and 95% in urban China (Ross and Frankenberg, 1993).

CBD services are provided in a variety of ways. Volunteers work outside their homes or in a health post or clinic. Promoters make house visits; community health workers incorporate FP services into their own work; providers visit local health posts, such as pharmacies and other commercial locations, using social marketing techniques; or promoters attend colleagues at the workplace (partially from Phillips and Greene, 1993, p. iii). Some promoters are salaried; others do not receive a salary, or receive some or all of the proceeds from sales.

Scope of Services

Some programs offer only one contraceptive method, while others offer a mix, usually consisting of condoms, spermicides, oral pills and injectables. IUDs and sterilization procedures are provided elsewhere. Because no single method meets the needs of every individual or couple, making available a variety of contraceptive options is thought to improve program acceptability and effectiveness. By enhancing choice, a CBD program can appeal to the needs of a broader base of clients.

Role of CBD promoters

Family planning may be the sole service offered, or it may be integrated with primary health care or MCH services, such as immunizations and/or health education and counseling (Phillips and Greene, 1993). Offering family planning in conjunction with other health services is thought to enhance the credibility of family planning. In areas where social costs of contraception are high, health services provide a convenient cover for users who may want to have confidential discussions about family planning (Phillips & Greene 1993). However, there is also a danger of overloading community health workers to such an extent that they cannot give sufficient attention to keeping abreast with contraceptive technology or with preventive services in general. Given that CBD promoters can easily be overloaded with tasks and expectations, in such a way that they become overwhelmed and ineffective, it is important to prioritize the interventions to be provided by CBD promoters (Mitchell, 1997).

It is important to determine the optimal number of tasks and responsibilities that a CBD promoter can effectively perform. This is done based on the training and supervision s/he receives, the amount of time s/he spends with each client, how often s/he contacts clients, the total time worked per weekday, and the size of the area (geography or population) to be covered.

Tasks or activities commonly performed by CBD promoters include: counseling new clients, distribution of pills and condoms (and injectables), referrals for other methods, distribution of iron to all women, outreach and education. Additional tasks may be added in phases, including treatment in other areas of concern, such as malaria and diarrhea. (Mitchell, 1997).

The workers' roles also depend on how they are seen, be it as an extension in the community of the services of an organization or institution, or as an agent of change within the community, with primary commitment to the community.

One additional factor is the global movement to expand and reorient population control programs towards more general reproductive health programs. These include considerations of prevention and treatment of sexually transmitted diseases and other reproductive tract infections, menstrual problems, prenatal services, and sexuality services that are gender-sensitive. This orientation is so recent that, as yet, there is no literature about potential roles for CBD promoters in the provision of reproductive health care.

Promoter Rotation

CBD promoter rotation schemes range from house-to-house visits to visits to places of congregation (markets, meetings, etc.), or fixed posts in convenient community locations. Where promoters are paid for their work, rotation may be more flexible. However, if promoters serve their communities on a volunteer basis, passive approaches work best, as CBD routines can be incorporated into the promoters' existing work regimen (Phillips and Greene, 1993). House visits have been associated with higher clinic referral rates and higher continuation rates for new users (Benalcazar et al., 1989). Nevertheless, there is no single optimum coverage scheme. Promoter rotation should be culturally appropriate and will also depend on the institutional context (Phillips and Greene, 1993).

Promoter Selection

There are no demographic qualities that make a person inappropriate for CBD work. Successful promoters may be paramedical or non-paramedical, male or female, of almost any age, literate or illiterate. They can work alone, in pairs, in teams, or in conjunction with traditional birth attendants or community health promoters. INOPAL I (Investigación Operativa de Planificación Familiar y Atención Materno-Infantil para América Latina y el Caribe--Operations Research on

Family Planning and MCH Care in Latin America and the Caribbean) found that the typical street vendor or market woman does not necessarily make a better CBD distributor than other women such as housewives or community leaders (Population Council, 1991).

More important than educational level, marital status, profession, or sex are the personality attributes and skills of a given promoter: communication skills and character traits, such as honesty and the ability to maintain confidentiality. The promoter should be a person who is respected by the community (Phillips and Greene, 1993). However, where change in gender-stratified contraceptive prevalence is a goal, the sex of the CBD promoter may be an important concern. A study in Peru found that male distributors were more likely to serve clients of the same sex; that is, male promoters sold approximately twice as many condoms, while female promoters sold about twice as many pills (Guillén et al., 1990).

The most consistent finding is that community involvement in promoter selection can be a key factor in determining community acceptance of the CBD program. It helps ensure that the promoter is respected by the community and engenders a sense of community participation and ownership of the project (Phillips and Greene, 1993).

Training and Supervision

Because many CBD promoters are not well-educated, or even literate, and few have time to attend training sessions away from home, CBD promoters require brief, specialized, low-literacy training (Gallen and Rinehart, 1986). While some CBD programs provide extensive theoretical training, emphasizing topics ranging from demography to the history of the parent organization, others concentrate on increasing knowledge and developing the specific skills needed for CBD work. Although there is little consensus on what constitutes essential CBD training materials, skills and competency-based training has been shown to be most effective (Phillips and Greene, 1993).

Many programs routinely train large groups of promoters in a central location, sometimes including a refresher course after several months or even a year of work to prevent loss of initial post-training knowledge. And while typical supervision of CBD promoters centers on re-supplying promoters with contraceptives and collecting statistical information on sales and services provided, supervisory visits are potentially an ideal opportunity for individualized on-site retraining. INOPAL studies have shown that supervision must include knowledge reinforcement if knowledge is to be maintained at, or near, initial post-training levels (Population Council, 1991).

Operations Research projects in Peru, the Dominican Republic, and Guatemala resulted in the development of new retraining and supervision strategies using diagnostic and teaching instruments which have improved distributor knowledge and performance (Population Council, 1991). Workers who received on-site retraining consistently demonstrated higher knowledge

than workers who received basic training and standard refresher courses (Leon et al, as cited in Population Council, 1991). In addition, selective supervision, or spending more time and resources on lower performers, was found to increase both group family planning knowledge and overall program performance, as opposed to group refresher training courses (Caram and Rosenhouse, 1990).

In addition, supervision should be supportive and not overly oriented towards control or criticism. Paid supervisors and those with practical CBD experience who were promoted from the CBD promoter ranks are most effective. Supervisors must be trained in the technical aspects of their work as well as in communication skills needed for supervision.

In summary, training and supervision should be selective, competency-based, supportive, and specialized, using diagnostic instruments to detect promoters' weaknesses. On-site follow-up training that is customized to the needs of each worker or small group of workers is more effective and more cost-effective than group retraining because:

- supervisors can selectively target and spend more time with those workers who are low performers;
- individualized training permits supervisors to focus on correcting specific weaknesses rather than covering the entire curriculum; and
- on-site training decreases absenteeism when compared to group sessions which require the workers to travel to the training sites.

Promoter Compensation and Motivation

CBD promoters are typically unsalaried. Motivation is established and maintained using various approaches: volunteer promoters may be motivated by an enhanced social position in the community, provision of transportation, or other useful equipment such as rain gear; and education, or completing a course and obtaining a certificate, contributes to morale and helps improve performance. Other programs may allow promoters to keep a percentage of their contraceptive sales revenue (Zaire, Mali, Nicaragua), while a smaller number of programs (Zimbabwe, Morocco) provide workers with salaries and/or other benefits such as family health care (Phillips and Greene, 1993).

Paying CBD promoters allows more supervision, faster implementation of programs, and standardized work routines (Phillips and Greene, 1993). In addition, paid workers perform better and remain with the CBD program longer than volunteer distributors (Gallen and Rinehart, 1986; Pooley et al, 1989, in Population Council, 1991; Phillips and Greene, 1993). In fact, a Bolivian study showed that the average paid promoter distributed approximately three times more CYP (couple-years of protection) than the average volunteer, made more than five times

the number of clinic referrals, and had a five-month drop-out rate of zero. Thus, hiring a small number of paid workers may be more effective and cost-effective than recruiting a larger number of volunteers (Pooley et al, 1989, in Population Council, 1991).

In urban areas and other areas where community organization is weak, compensation initiative must be strong. Unfortunately, paying promoters is often unsustainable and it undermines the spirit of volunteerism. In response, some programs have considered using increased competition, rewards, and the provision of uniforms to increase promoter motivation. Because there are different conclusions about which motivation schemes work best, strategies should be carefully chosen for each setting, based on diagnostic operations research.

Relationships with Donor Agency

Successful programs need a high level of support for the workers, to include the regular availability of supplies, supervision, and feedback about the impact they are having on the community (Mitchell, 1997).

An adequate referral system needs to be developed so the CBD promoters can make appropriate referrals depending on the needs of the client, so that they are notified as to the outcome of the referral. Referrals usually require cooperation among various organizations providing the necessary services so clients will be referred to the agency that will best meet the needs of the client. Referring clients may create a 'conflict of interest' for the workers if they are compensated based on the number of clients they serve or if they sell supplies, because they affect their income when they refer to other services, particularly for sterilization (Mitchell, 1997). This aspect of referrals still needs to be addressed.

Community Involvement

Community involvement is crucial at the planning stage but not necessarily important or even beneficial for day-to-day management of the program. In areas with great developmental need, family planning may not be a high community priority; thus, community involvement may not translate into an improved climate for the family planning program. However, some type of community liaison is essential.

Community selection of the CBD promoter provides an opportunity to introduce the program and to impart a sense of participation in and ownership of the program. The respect for the selected promoter often extends to his or her spouse, who can serve individuals who prefer to see a promoter of the same sex (Mitchell, 1997).

The level of community support may be more important to the success of a program than the

worker's actual performance. Because CBD programs are rooted in the community, the community provides more support than the employing agency, which is always somewhat distant from day-to-day operations. This has important implications for the design of the program and the selection criteria for the CBD promoters (Mitchell, 1997).

System Support

Program Resource Base

CBD efforts may be financed via an external funding source, a community-managed scheme, government or employer support, cross-subsidization from other health services, and/or user fees. Charging clients for the contraceptives they use, plus some or all of service costs, is the most direct way to earn income. This is not always feasible, though, because those clients who are most in need of services may be least able to pay. There is evidence, however, that a small fee does not significantly decrease use (Mitchell, 1997).

While cost recovery helps a program become more sustainable over the long-term, arguments against it include:

- Charges exclude the poor and may impair the quality of services.
- Collecting fees is costly and cumbersome.
- Family planning is a human right, which, in principle, should be available at no cost.

Nevertheless, among 48 countries with large-scale CBD systems, a 1991 survey showed that 31 charged for contraceptive supplies and services, while only seven did not (10 were unknown). Most fees were minimal, however (Ross et al., 1992).

It is not possible to estimate globally the trade-off between cost and utilization. However, it is important for each program to carefully test and monitor the effect of fees and to decide when coverage is more important than cost recuperation and when it is not. These decisions are of course dependent on the source, availability, and cost of supplies and the amount of government support for FP programs.

Management Information Systems

Management Information Systems (MIS) should be designed to reflect the information needs of both CBD promoters and management. A UNFPA study in 40 countries showed that the workers did not regularly use the information they collected for decision-making. The data collected were either of little use or merely used for management reports, and not linked to field operations practice (UNFPA, 1990). Supervisors and promoters should receive training in how to utilize the information in order to improve program effectiveness.

In Zimbabwe, the CBD promoter prepares a daily summary that shows the total number of condoms and pills distributed, as well as new acceptors, the total amount of moneys collected, and the number of referrals to health centers. In addition, each worker maintains a logbook of service data, in which characteristics and resupply statistics of each client are tracked (Zinanga, 1990). In Bangladesh and Indonesia, village workers use maps, which provide a record system and planning tool (Mitchell, 1997).

A MIS works best if the forms are simple, if all staff members are involved in its development and understand its purpose, and if it contains a mechanism for feedback. It should provide both routine and special information to program decision-makers, although special studies may be a better way to get detailed information on users or on time-allocation. The system is not working properly if data are not collected on a regular basis and reports are not timely and useful.

Political Support

Community development activities often depend on active support from civil organizations. Political parties can legitimize CBD programs, organize community action, and mobilize support from civil administration (Phillips and Greene, 1993). In Zimbabwe, some regional projects have large management committees that reflect political leadership. These committees ensure authority support and access to agencies that may enhance program effectiveness, but also run the risk of becoming unwieldy (Phillips & Greene, 1993). Where political support is possible, it can be crucial to CBD program success.

Government support is also important, particularly in expanding services in rural, remote, and underserved areas (Mitchell, 1997).

The CBD Network in Nicaragua

PROFAMILA has some information about its CBD cadre of FP promoters in Nicaragua. CBD promoters are self-selected (volunteers). About 16% are male. They come from a wide variety of occupations, including health care providers (27%, of whom 17% are physicians), store owners (16%), pharmacists (2%), and homemakers (34%). Many are active in their community and choose to become CBD promoters to serve the community (Ojeda, 1993). The most common profile of a CBD promoter is a 35-year-old homemaker, who has three children and a grammar school education, and is active in her community. She herself is a FP method user, most commonly through sterilization, and has been a CBD promoter for about three years (Godinez, 1996).

However, there has been little data on how CBD promoters do their jobs or on the amount of time they devote to their work, the amount of outreach and education they provide, and the number of individuals and families they serve. CBD promoters are paid and evaluated based

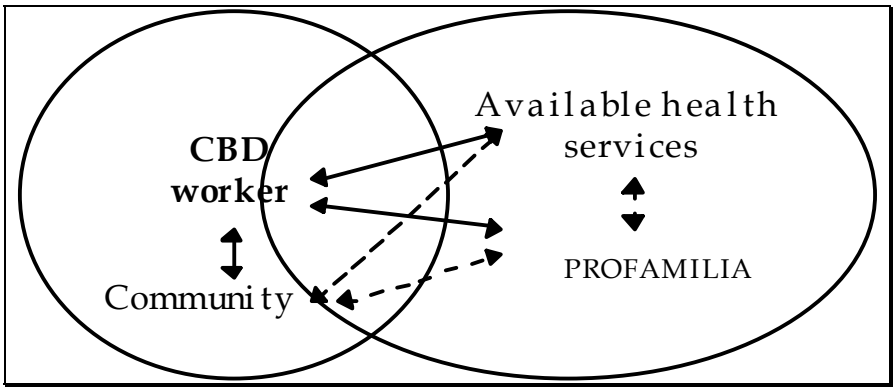
only on the number and type of contraceptives that they personally sell. For this reason, it has been somewhat problematic to expect them to refer away clients who seek their services. Nonetheless, PROFAMILIA clinics have performed about 10% of the sterilization procedures in Nicaragua, the most commonly used method of contraception in Nicaragua. It is not known how many women learn of clinic services from CBD promoters.

CBD promoters' strength as a cadre lies in the fact that they are available, accessible, and, according to the data presented above, acceptable to a majority of potential users. This study provides information not only about the personal characteristics of the promoters but also about the context in which they work. Obtaining information from CBD promoters, their supervisors, and potential users of CBD promoters in a sample of communities offers an opportunity to better understand, within this context, the relationships among CBD promoters, PROFAMILIA, the health care system, and the communities. This should be useful in suggesting strategies to improve the quality of services provided by PROFAMILIA in the future.

D. Research Framework

This study, based on evidence presented in the preceding literature review, assumes that the effectiveness of a CBD promoter is due not only to personal traits and skills, but is also related to structural and environmental factors. Among these, the community in which they are located; the type, quantity, and quality of available health services; and PROFAMILIA, the organization that maintains the CBD network, play key roles.

The following model depicts the relationships that we investigated in this study.



Given that this was an exploratory, descriptive study, we did not formulate specific hypotheses to be tested. However, evidence from Ecuador indicates that the "character" of the community is at least as important as the "character" of the CBD promoter (Manglesdorf, 1988). It is also probable that the existence of other health services will have multiple effects, not all of which we were able to investigate in this study. If these other services have increased awareness of FP and its relationship to the health of women and children, they may increase the demand for FP

services. If the other services are close, free or inexpensive, and serve other health needs as well as FP, they may decrease the use of the CBD network. Competition among CBD promoters may also have multiple effects on increasing awareness and overall coverage, while decreasing individual productivity and effective supervision. Similarly, the location and "image" associated

with the PROFAMILIA clinic, as well as the manner in which supplies are distributed and CBD promoters are supervised will undoubtedly affect the effectiveness of the CBD promoter.

II. METHOD

A. Design

The study design for this project is that of a simple, cross-sectional, exploratory, descriptive study. The sample size was determined primarily by the available resources. Seventy-three CBD promoters from 40 different communities were included. Given that we anticipated important differences between urban and rural contexts, we stratified on a rural context, selecting 20 urban and 20 rural sites. Although rural women have been identified as a group particularly in need of effective services, urban women are also underserved. Nicaragua also continues to struggle with the influx of economically needy, rural families to urban areas, particularly to Managua.

B. Location and Sample

The study was carried out in communities served by PROFAMILIA and the sample was selected by the agency. Five regions were selected: Managua, Boaco, Juigalpa, Matagalpa, and Rivas. Four rural and four urban communities were selected from each of these regions. The communities were selected based on their accessibility and on the presence of at least one promoter with experience. PROFAMILIA staff used no other criteria and felt satisfied that the sample of communities was representative of the areas. From each community, up to five promoters were recruited for the study. The final sample consisted of 73 promoters.

A second sample consisted of twenty women from each of the 40 communities under study. We wanted these women to represent the largest potential group of users of CBD services, as indicated in the data reported previously. To reduce variability and focus the study on an important target group, therefore, only women between the ages of 15-29 were interviewed. Women were interviewed in their homes by trained interviewers who attempted to select a representative sample of houses in the community.

C. Data Sources

Data for the study was collected from the following five sources.

- **S1**: An SPSS database with information about the **entire population of CBD promoters,** provided by PROFAMILIA during the summer of 1997.
- **S2**: Intake/referral forms that were to be completed by the **sample of CBD promoters** for a two-week period. Actual data collection ranged from 21 to 27 days, and all data were standardized to represent a 23-day period.
- **S3**: Semi-structured interviews with the **sample of CBD promoters** and observations of the site by the interviewers.
- **S4**: Semi-structured questionnaires completed by **CBD promoters' supervisors**.

- **S5**: Semi-structured interviews with a **sample of 20 women from each community.**

D. Units of Analysis

There were several units of analysis in this study. Information on clients was summarized by promoter and by community. The promoters served as the primary unit of analysis. However, promoters were also grouped by community level, and the community-level information was obtained from supervisors and community women. The 800 community women were also studied collectively, although they, in no way, constitute a representative sample. Given that the total number of promoters in this study was small due to the exploratory nature of the study, strict statistical analyses were not feasible. However, quantitative, analytic techniques were used to look for trends, patterns, and interactions. A fair number of open-ended questions were asked, and the data were also analyzed in a more qualitative manner.

We performed univariate and bivariate descriptive analyses to evaluate and reduce, insofar as possible, the number of variables within each independent dimension. We investigated not only the relationships of the independent variables to the dependent variables, but also to one another.

All analyses were done using STATA, release 5 on a Macintosh computer (StataCorp, 1997).

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[1] As of 1996, Nicaragua had a population growth rate of 3.1%, which, given its current population of about four million, indicates a tripling of the population to 12 million in only 35 years. The country has one of the highest fertility rates (estimated number of children for 50-year-old women) in Latin America, calculated to be 4.6 during the period from 1987 to 1992.

Within this national rate, there are, of course, groups of women whose fertility rate is higher than the reported mean rate. Although the overall national rate decreased between 1982-1987 and 1987-1992, the fertility rate rose among women aged 15-19 while remaining stable for those aged 20-24. Because 45% of the population was estimated to be younger than 15 years of age, in 1995 (PROFAMILIA, 1996, p. 4), this increase in the birthrate among adolescents and lack of decrease among young women will have a great bearing on population growth in the next years. Other groups with a high birthrate included rural women, with a rate of 6.4 per 1000, rural women who live in the mountainous areas (6.8), women with no education (6.9), women who began but did not complete primary school (5.4), and those of low socioeconomic status (6.3). Forty-seven percent of those interviewed were women with no or incomplete primary education (74 percent of the rural women), and 45 percent had the lowest socioeconomic status (88 percent of rural women). These data suggest that rural women from mountainous areas have a greater likelihood of being both poor and poorly educated than other women do. Rural households also had a larger percentage of young women aged 15 to 24, and the fertility rates among young women were much higher in rural areas than in urban areas.

[2] Three groups of women are important with regard to need and demand for FP services: women who have never used contraception, young women, and women who have used but discontinued using contraception.

Non-users: While only 30% of Nicaraguan women married or in stable unions have never used contraception, the rate among rural women, women with no education, and women of low socioeconomic status ranges between 44% and 54%. Fifty-one percent of married women or women in stable unions in the PROFAMILIA/CDC study did not use either a temporary or permanent contraceptive method, although 72% did not want to become pregnant. Among this group of non-users, sixty-eight percent wish to use contraception within the 12 months following the day they were interviewed. Among women aged 15 to 29, the rate averages about 77%. The rate is lowest for rural mountain women (57%) and for those with no education (59%). However, in all cases (excepting women aged 40 to 49), it ranges from 50 to 78%, representing a large potential demand.

With regard to the provision of FP/RH services, all women of childbearing age constitute a particularly important group. These women may or may not be married or in a consensual union; do not use contraceptives; are not pregnant, infertile, or sexually inactive; and do not desire a child at the present time. These women are considered to be non-users in need of FP services. The PROFAMILIA/CDC study found that 16 percent of the women in their study, representing an estimated 160,350 women aged 15 to 49 in Nicaragua, fit this profile. Of these women, 64 percent were rural, 70 percent of low educational level, and 63 percent of low socioeconomic status. Fifty-nine percent were younger than 29 years of age. Seventy-six percent of women in-need, representing about 106,000 women, would like to be using contraception. The primary reason given by these women for not using contraception was that they were nursing (36%). Sixteen percent didn't like to use contraceptives, 12% feared side effects, 8% were non-users due to negligence, 4% for economic reasons, 4% for lack of knowledge, and 2% for lack of access. Only 2% gave religious reasons for not using contraception. (These data did not vary significantly by region.) The proportion of women who didn't like using contraception was much lower among younger women than among older women.

Young women: Another identifiable, needy subgroup is adolescents and women younger than 29 years of age. Thirty-two percent of women aged 15-19 were pregnant or had recently given birth (PROFAMILIA, 1996, p. 4). Among those adolescents in need of contraception, 11.2% lacked knowledge, 13.9% did not like contraception, and 44.3% were not using contraceptives because they were breastfeeding and assumed that this would protect them against pregnancy. Thus, adolescents are a group particularly in need of further education with regard to family planning. Another study indicated that women aged 20-29 comprise the largest percentage in need of services, and that these women are most likely to reside in rural areas. Among women in need of services, about 75% of those between 15 and 29 wish to use contraceptives.

Discontinuers: Another important group is that of women who have discontinued using contraception, about 15% of those responding to the survey. Overall, 32% (of the 15%) discontinued because they wanted to become pregnant or were not sexually active. This 32% may be considered to be potential, future users. The others were potential users at the time of the survey. Thirty-three percent of these women discontinued use due to side-effects: 12% for health reasons, 6% because their method was ineffective, 4% for lack of money, and an additional 7% for neglect, dislike, or difficulty with usage. Reports of side effects, lack of efficacy, and lack of money were higher among rural women.

[3] Women who are married or in stable union and currently using contraception are most likely (61%) to use public services, primarily those provided by MINSA. PROFAMILIA currently serves 5.4% of these women, but only 3.8% of those live in rural mountainous areas. The majority of the women served by PROFAMILIA are aged 25 to 39; the largest group of users being women aged 30 to 34.

Although, overall, some 28% of served women (excluding those seeking sterilization) travel more than one-half hour to obtain services, this proportion reaches 54% among rural women, and 61% among those who live in the mountains. Urban, Managuan women live an average of 29 minutes from a health unit; rural women report 88 minutes; (those in mountainous regions report 116 minutes); and all women of low socioeconomic status report 83 minutes. Distances are even greater for non-users who wish to use contraception: 45 minutes for Managuans, 109 for rural women, 158 for rural women in mountainous areas, and 108 for women of low socioeconomic status.

III. DISCUSSION OF RESULTS

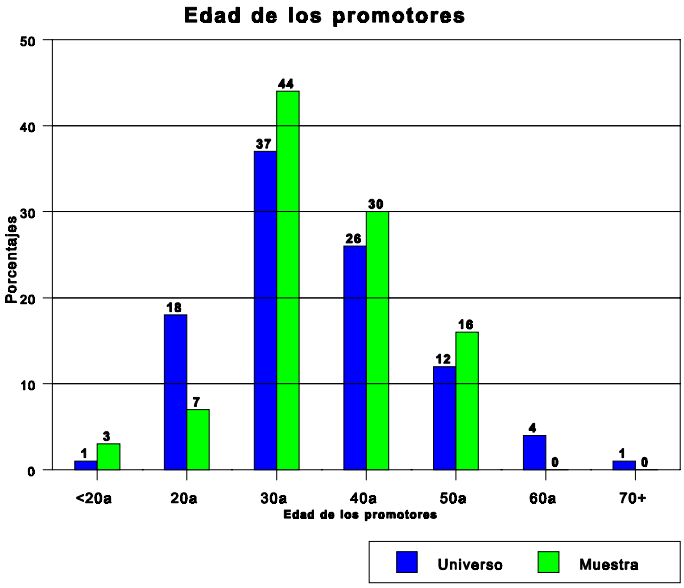
These univariate and bivariate analyses are the most useful for the data that have been collected. This study was a preliminary test of many of the aspects of PROFAMILIA's CBD promoter network. To document a broader perspective, more in-depth information is needed on individual aspects. However, this extensive list provides much information of immediate use for designing future, operations research (OR) studies.

A. CBD Promoters

Personal Characteristics

The age range of the sample of promoters is very similar to that of the study population, which shows that the sample is representative. The highest percentages were concentrated among the groups aged 30 (44%) and those aged 40 (30%). These percentages were slightly higher in the sample, where it was found that promoters who were less than 20 years old, and those who were over 50 represented the lowest percentages (4% and 16% respectively). In the study population, it was found that those aged 60-70, and older, also represented the lowest percentages (4% and 1% respectively) (Figure 1).

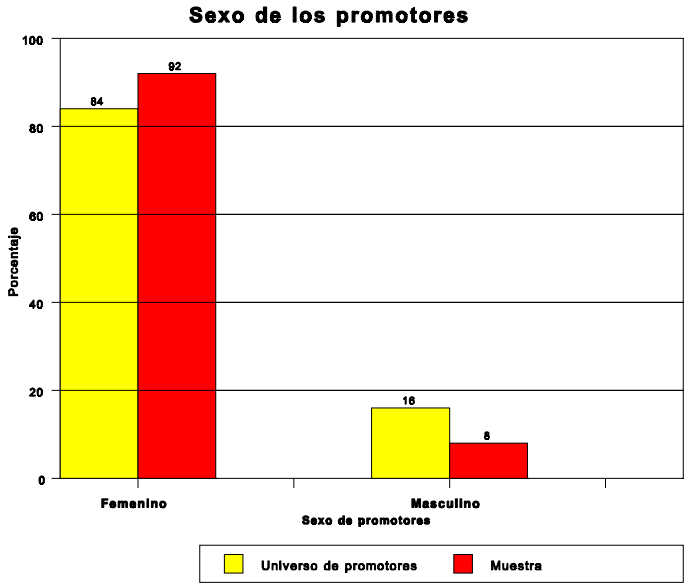
Figure 1



The study population's adolescent group is at high risk of sexually transmitted diseases and early pregnancies. Given that the promoters' network has a low percentage of young promoters, it is important to consider the benefits that could result from incorporating into the network groups of adolescents who could conduct activities to promote family planning among other adolescents.

One strategy that may be effective is having other adolescents participate as program educators, coordinators or designers, because this would allow those adolescents to promote sexual and reproductive health among other adolescents. They could also design educational materials for adolescents in the communities, and they could receive training to become educators.

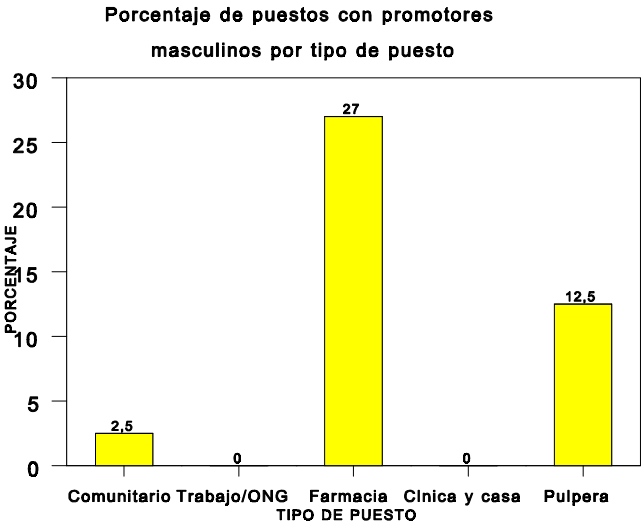
Figure 2



Ninety-two percent of the promoters in the sample were females (Figure 2).

Male participation in sexual and reproductive health, particularly in family planning, is not only relevant but also indispensable for men to succeed in planning their own families. Thus, males should be more involved in the network of promoters to increase the effectiveness of family planning promotion targeted specifically toward men.

Figure 3

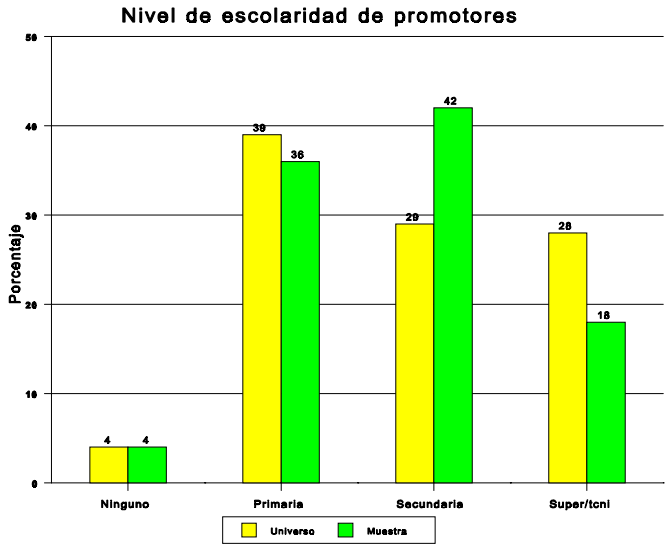


With respect to health posts managed by male promoters, of those located in pharmacies, 27% are managed by males; of those located in grocery stores, only 12.5%; and of those located in the community, only 2.5%. None of the health posts located in the work centers/NGOs and clinics are managed by male promoters (Figure 3).

In general, there is a low percentage of health posts managed by male promoters, which is probably one of the reasons why there is a lower demand from male clients. In Nicaraguan culture, family planning is considered a "woman's matter;"thus, a higher demand from female clients is to be expected. However, an alternative to promoting men's use of contraceptive methods may be to establish, within the same community, some CBD posts managed by females and others managed by males.

Most of the promoters have completed primary and secondary school studies; a high percentage of them have completed technical and higher studies; and a very small percentage (4%) of promoters have never had any schooling (Figure 4).

Figure 4



Thus, it may be affirmed that the promoters' network has a great potential, given that knowing how to read and write facilitates training and communication processes both for promoters' ongoing education and for their promotion of family planning in the community.

Sixty-eight percent of promoters reported having a partner, and one third of them (38%) reported having 2-3 children. A lower percentage of promoters with 4-5 children (17%) and 6 or more (11%) was observed. Approximately twenty-three percent of promoters have 0-1 child (Figures 5 and 6).

Figure 5

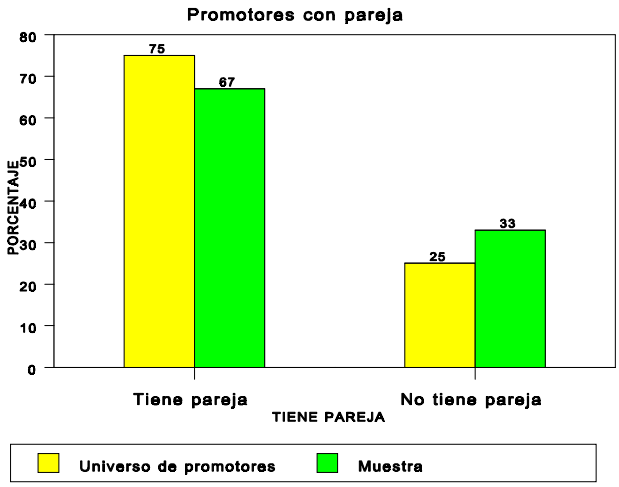
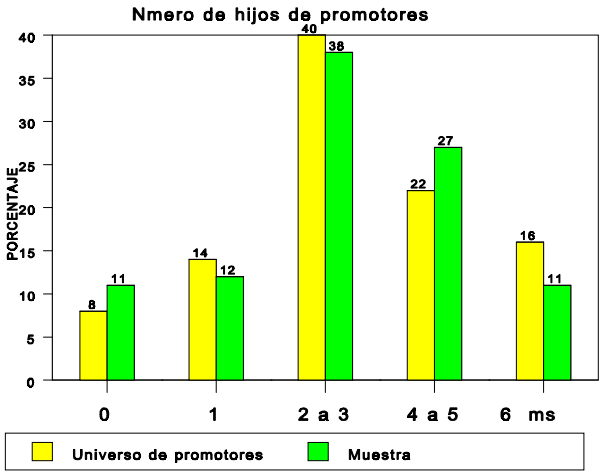


Figure 6



Forty percent of promoters with community health posts have other jobs or professions. A similar percentage of promoters with health posts located in grocery stores have other jobs. The most frequent types of employment are as nursing auxiliaries and businessmen (Figures 7 and 8).

Figure 7

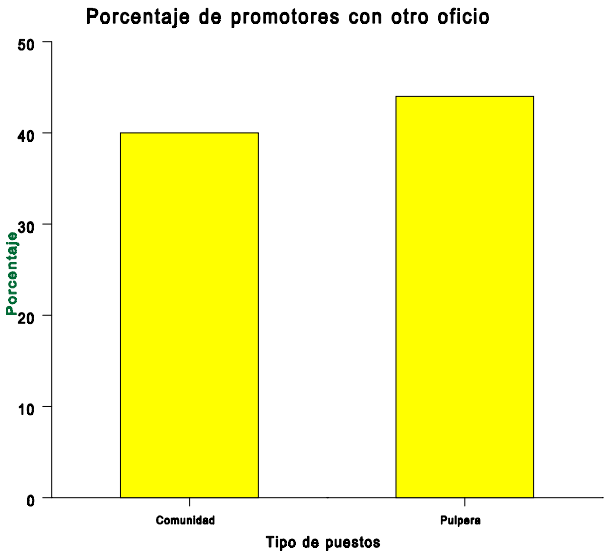
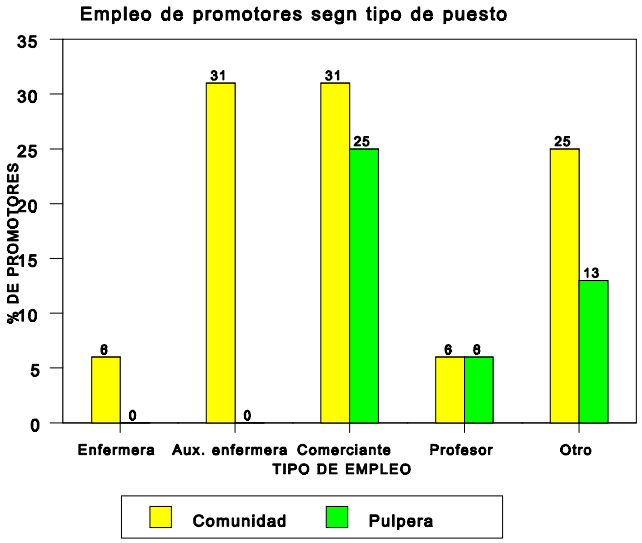


Figure 8



It may be that those health posts where promoters have other jobs are managed by other people (See Figures 17 and 18).

The majority of the promoters interviewed (74%) reported that they are currently using a method to prevent pregnancy. The methods most frequently cited by the promoters were female surgical sterilization (45%), followed by oral contraceptives (17%), IUDs and injectables (both 13%), and condoms (8%) (Figures 9 and 10).

Figure 9

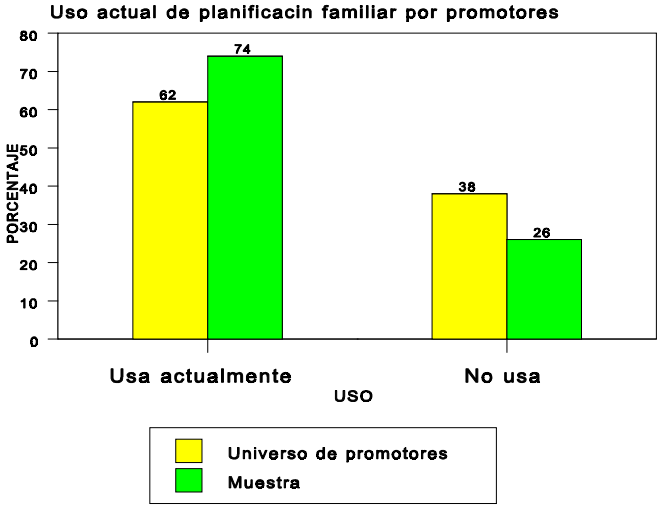
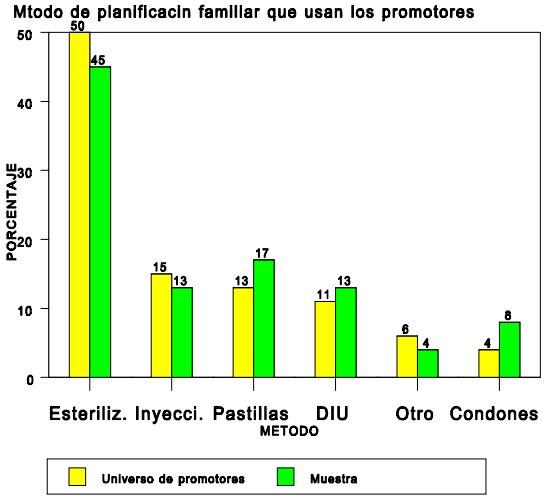


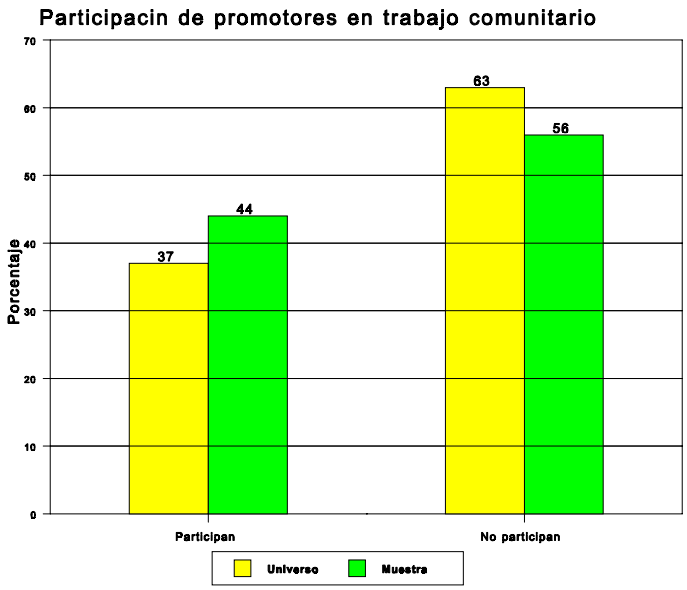
Figure 10



This is a very positive aspect because it sets an example for potential users. Having

promoters who do not apply their family planning knowledge would not be the best option.

Figure 11



As for promoters' participation in community work, less than half (44%) reported becoming involved in activities developed by their communities. This is related to the type of health post, as those located in pharmacies (73%) and grocery stores (75%) devote almost all their time to selling their products and do not become involved in this type of activities. However, more than half of the community health posts (57%) participate in community activities (Figure 11).

Promoters' participation in community work may be a means to drive activities for the promotion of family planning methods and **the use of health posts and PROFAMILIA clinics,** as well as a means to project and disseminate information about promoters' tasks and responsibilities.

On the other hand, the community would see promoters as people who are concerned about the problems of the community and about contributing to improve the lives, and especially the health, of its inhabitants. The image that promoters project to their communities may lead to improved relationships, within the framework of respect and trust, which would then lead to increased possibilities of performing an effective job at promoting the use of family planning methods.

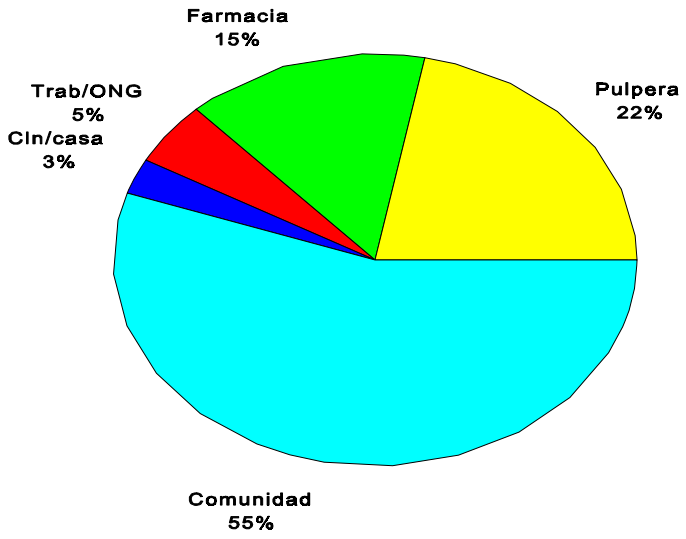
Services

Types of Health Posts

Fifty-four percent of the health posts in the study are located in promoters' homes, 22% in grocery stores, 15% in pharmacies, and only 5% in work centers/NGOs (Figure 12). Among the study population, the types of health posts are distributed in the same manner.

Figure 12

Tipos de puestos (porcentajes)

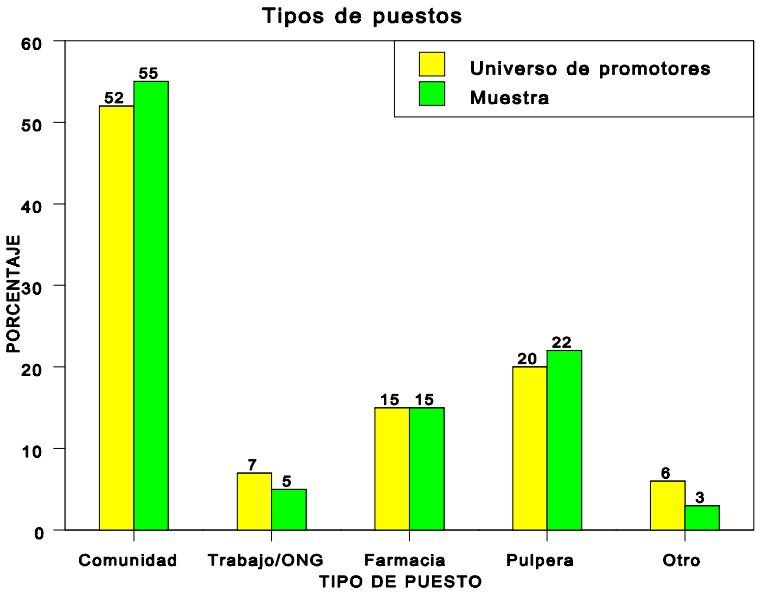


The fact that more than half of the health posts are located in promoters' homes is a positive aspect because services are being offered in the same community, which means that the population does not have to travel great distances to have access to family planning methods.

Community health posts should be seen as the most important in the distribution network, given that they could become true promoters with a focus on comprehensive care for all their clients, especially with respect to offering counseling and privacy during the care provided. In contrast, pharmacies and grocery stores, due to their business nature, would be unlikely to succeed.

To provide comprehensive care, it is necessary to implement ongoing education programs targeted to promoters. These programs would highlight the importance not only of contraceptive technology aspects, but also of other aspects such as: interpersonal communication, gender and reproductive health focus on adolescents and adults, and counseling of partners, particularly directed toward men (Figure 13).

Figure 13



Contraceptive Methods Distributed

The contraceptive method sold most by the promoters was the pill (45%), followed by Depo-Provera (31%), and the mini-pill and condoms, both sold in equal percentages (12%), (Figure 14). This may not reflect the actual demand for methods, but rather be related to the supply of methods in the health posts, given that when one method is out of stock, clients can either switch methods or resort to another supplier. This may possibly increase users' costs or lead to method discontinuation.

Figure 14

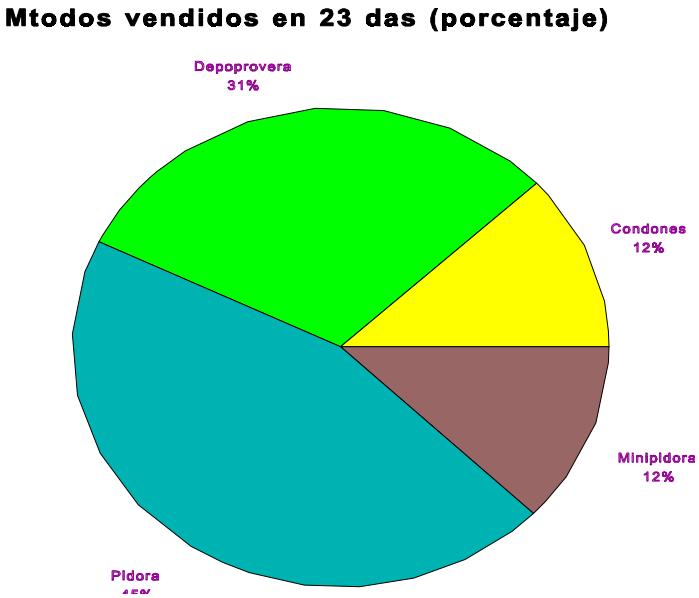
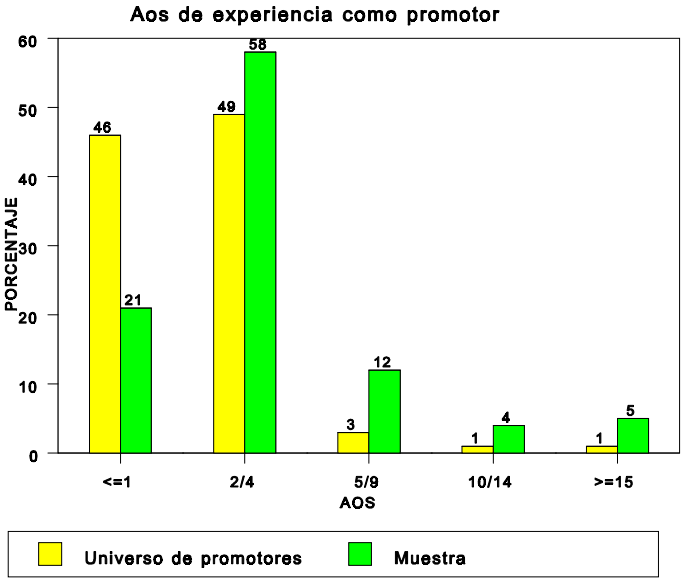


Figure 15



More than half of the promoters (58%) have 2-4 years of experience working as PROFAMILIA distributors; 21% have 2 years or less; 12% have 5-9 years; and 5% have 15 or more years of experience (Figure 15).

This is a positive finding for the CBD network, because having previous experience in attending users of contraceptive methods will facilitate the processes of ongoing education, especially now under a new PROFAMILIA approach.

Help Received by Promoters for Method Distribution

More than half of the promoters (60%) reported receiving help from other people, mostly from one or two people (71% and 16% respectively), to distribute contraceptive methods (Figures 16 and 17).

Figure 16

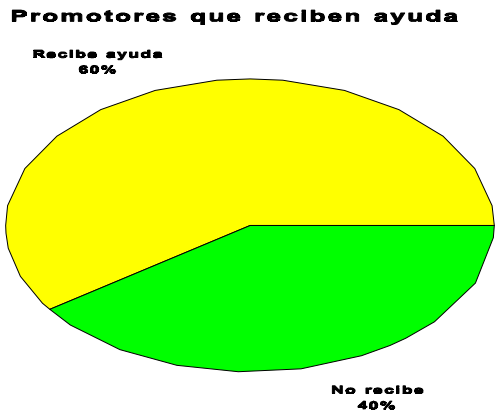
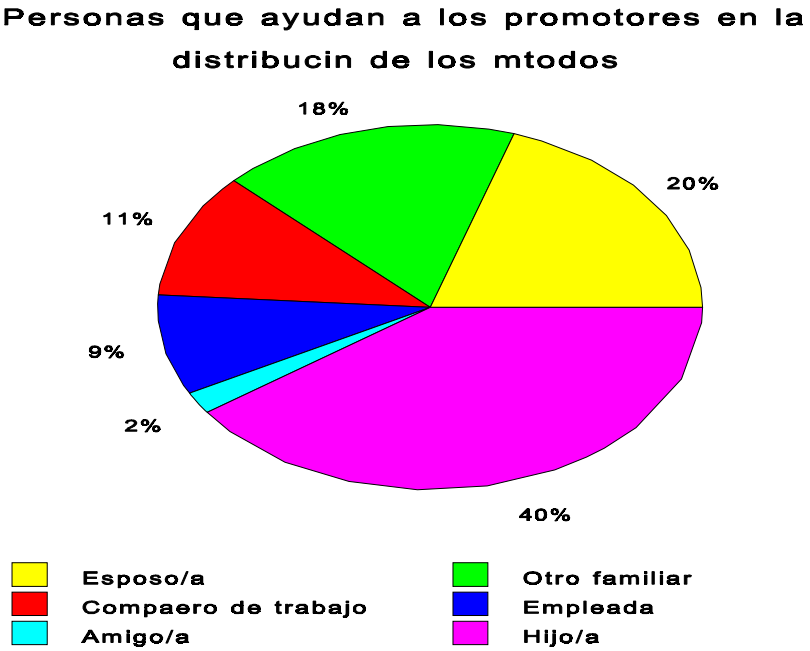


Figure 17

Promoters are helped mainly by their children (40%), their spouses (20%), and other relatives (18%) (Figure 18). The study has not documented the age and sex of the helpers, much less their knowledge and practices with respect to reproductive health and family planning.

Figure 18



It may be relevant to find out the characteristics of the support staff that is currently participating in the CBD network. This could be done through a rapid operations research that would facilitate the process of training support staff.

Figure 19

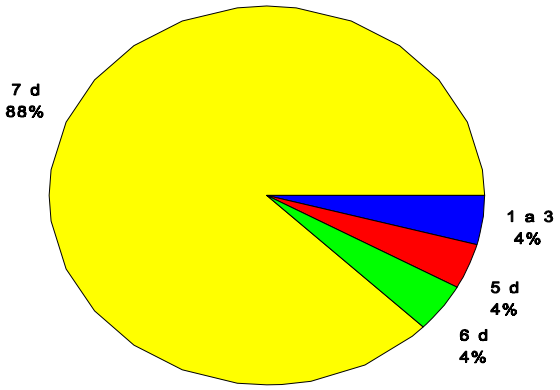
Close to half of the promoters (43%) receive this support on a daily basis, and a high percentage of them (34%) receive it on a weekly basis (Figure 19).

Based on the reality that more than half of the promoters are helped by people who, in theory, are not qualified to perform this work, but whose participation, in practice, would be difficult to restrict given the characteristics of the health posts (especially those located in the promoters' homes), the most feasible alternative would be to incorporate them gradually and systematically in a training program.

In the future, a monitoring system targeted exclusively to the promoters' helpers should be implemented to evaluate the type of work they do. In addition, there should be a system for periodical evaluation to examine the helpers' knowledge and practices, with the objective of strengthening all aspects that are detected as weaknesses.

Das abiertos por semana (porcentaje)

Figure 20



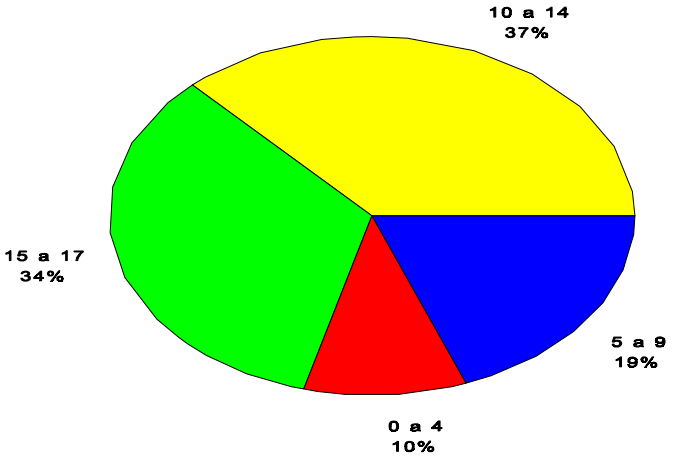
Service Delivery Schedule

Almost all the health posts (88%) provide health care seven days a week, and more than half of them (71%) 10-17 hours daily. Only 10% provide care for 4 hours or less daily (Figures 20 and 21).

The time available to the promoters to care for their clients is a very positive aspect of the network, because users can resort to the health posts at any time during the day, and certain hours during the night, to obtain their contraceptive methods.

Figure 21

Nmero de horas que se encuentran abiertos los puestos por da



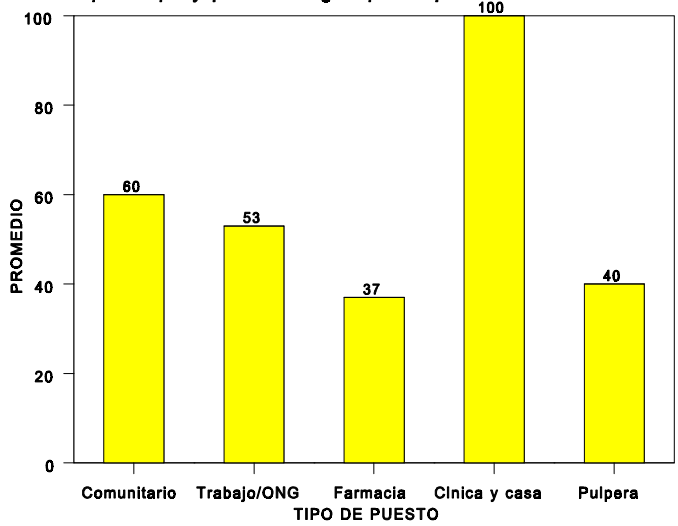
Client Follow-up

Follow-up appointments documented in the logbooks filled by the promoters, in the cases of clients who were sold oral contraceptives or Depo-Provera, were indicated correctly for the most part (87%). Thirteen percent of the promoters who participated in the study experienced difficulties in correctly indicating follow-up appointments to their clients. This finding reflects the distributors' technical knowledge with respect to the method use 1interval, as well as their willingness to document follow-up appointments in logbooks.

Of those clients who visited

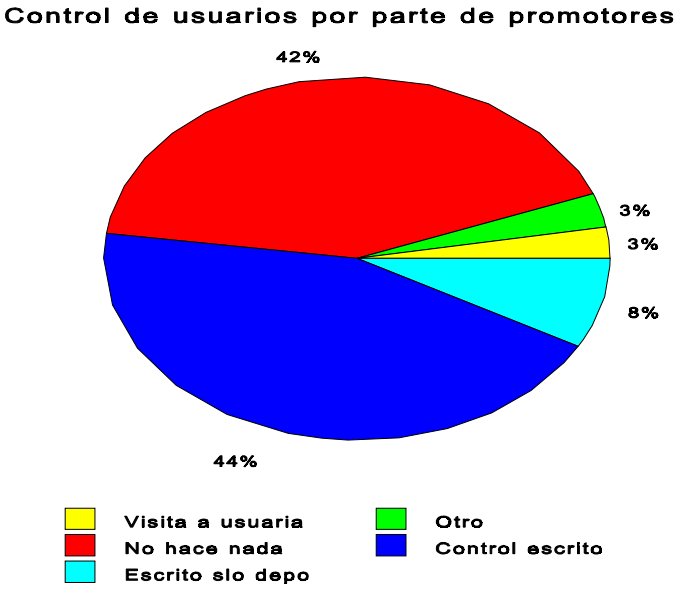
Figure 22

Promedio de usuarios a los que se les indic prxima visita correcta por depo y pldoras segn tipo de puesto en 23 das



community health posts and were sold oral contraceptives or Depo-Provera, 60% were correctly given a follow-up appointment; of those who resorted to the work centers/NGOs, 53%; of those who went to the grocery stores, 40%; and of those who purchased these methods in pharmacies, 37%. Of those who resorted to clinics, all of them were correctly given follow-up appointments (Figure 22).

Figure 23



Other client follow-up activities conducted by the promoters are weaknesses of the network, because **almost half of the promoters (42%) do not do any client follow-up**. Forty-four percent of the promoters reported keeping a written log as a personal initiative or, occasionally, as their supervisors' initiative. Only 3% of the promoters reported visiting their clients (Figure 23).

Figure 24

When asked what they do when their clients do not return for follow-up visits, **35% of the promoters reported not doing anything,** 37% reported visiting their clients, 21% reported asking about them, and 7% reported sending someone to talk to them (Figure 24).

Actively searching for clients who do not return for their follow-up visit is very important for method use continuation. Usually all that is needed to reassure the client and gain her trust is good counseling.

Any interruption of method use could have serious consequences for women who do not wish to become pregnant.

Client follow-up may lead to improved quality of care. One follow-up mechanism could be the use of a simple recording system that would facilitate the work and allow promoters to identify early on clients' failure to return for their follow-up visits. The use of postcards reminding clients of their next visit may help clients remember that they must return to the health post for a resupply of methods. House visits may be a necessary tool for regaining those clients who for one reason or another have not returned to the post.

Promoting coordination activities among promoters and other health care providers in the communities, as well as implementing a logbook system and making house visits as a mechanism to actively search for clients who do not return for follow-up visits, is a way to express not only promoters' knowledge about the importance of these aspects, but also their attitudes. These attitudes must be motivated by PROFAMILIA's guidance and management.

Health Post Characteristics

According to the interviewers' observations, considering previously established criteria, it was reported that slightly more than half (55%) of the health posts have excellent sanitary conditions; however, a significant percentage of health posts (41%) had fair sanitary conditions, and 4% had poor sanitary conditions (Figure 25).

Figure 25

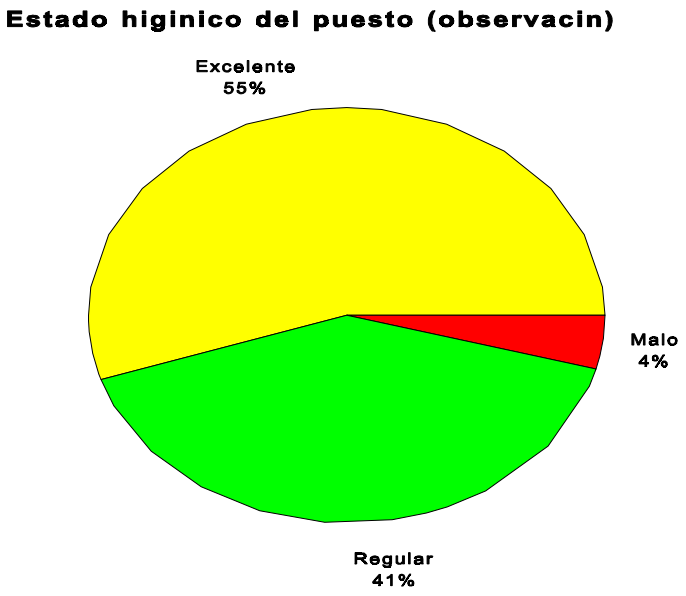
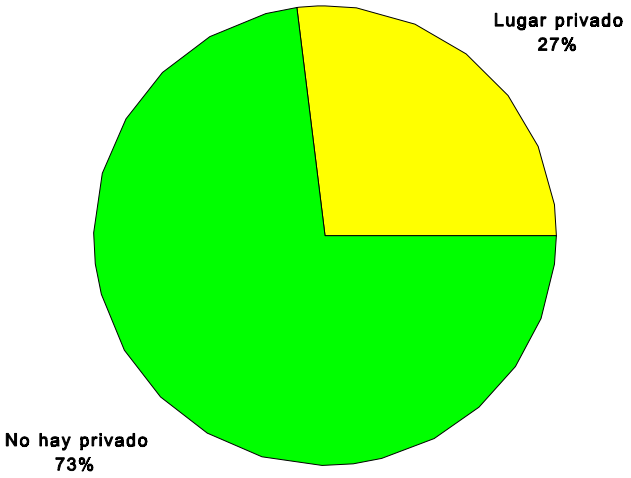


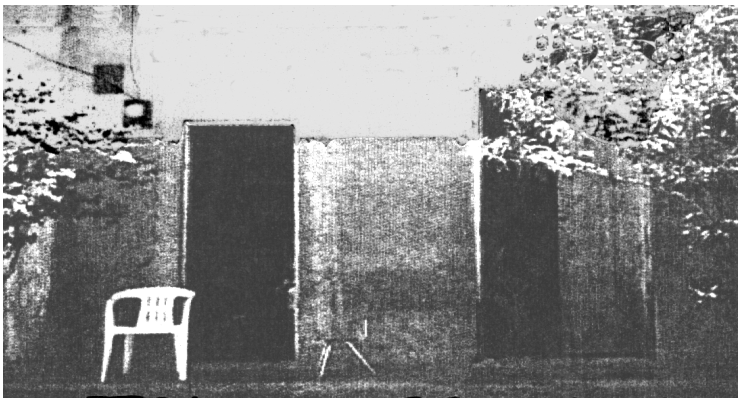
Figure 26

Lugar privado para atender



Seventy-three percent of the health posts do not have a private place where promoters can attend their clients, according to the criteria to be considered during the observation (Figure 26). Although in small houses it may be difficult to find a private place, the use of curtains and/or a specific space will ensure privacy during care.

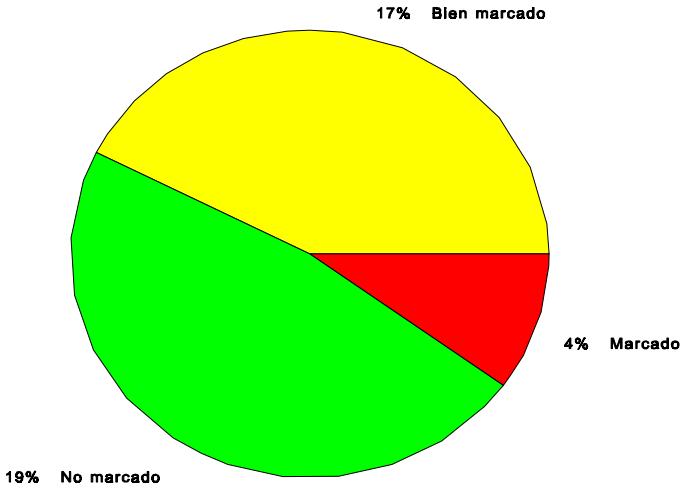
Both sanitary conditions and privacy are key elements to consider in quality of care. They may be aspects that could be strengthened during promoters' training, and politely and ethically emphasized in each of the supervisory visits to the health posts. In this way, the rationale for supervisory visits would not be limited strictly to delivering supplies and commodities and collecting payment.



The majority of the health posts (77%) have visible, well-marked signs; 19% of them are not well marked; and 4% are inadequate (Figure 27). Using well-marked signs at sites where there are health posts and in central community locations may contribute to informing the community about the existence of PROFAMILIA's health posts.

Figure 27

Visibilidad de rtulos de puestos

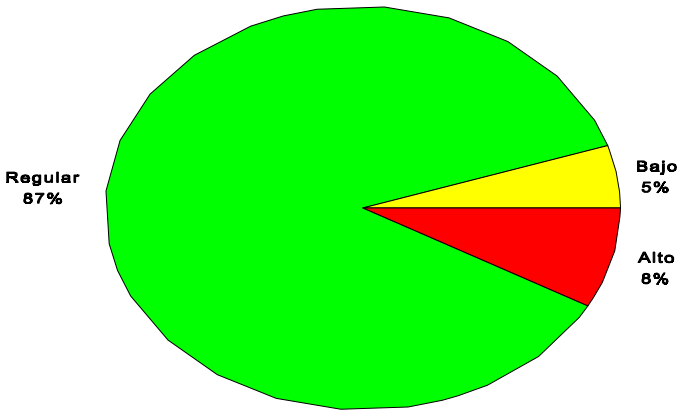


Almost all the promoters used the new form that was distributed at the beginning of the study to record the client data requested. According to verbal expressions and the information reflected in the forms, apparently they had no difficulties in filling them out.

From these forms, it was extracted that 87% of the promoters charged similar sums of money for the sale of family planning methods; 8% charged a higher cost with respect to the sums of money charged most regularly; and 5% charged a lower cost (Figure 28).

Figure 28

Variacin en sumas cobradas en 23 das (S2)



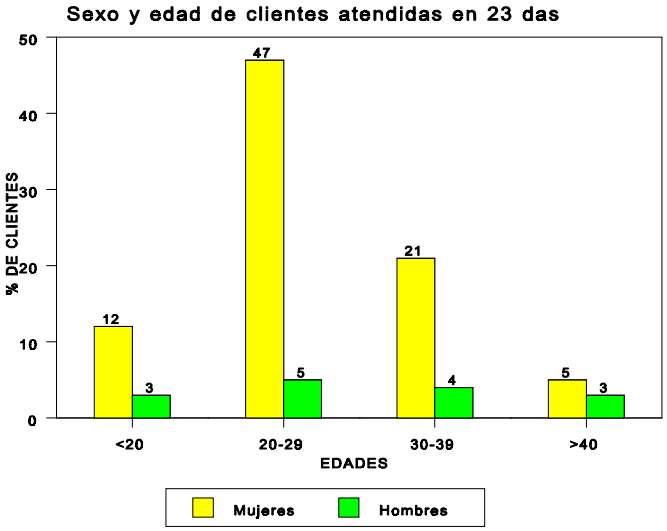
Although it may be difficult to control this aspect without official prices, this highlights the need to have a simple recording and monitoring system, not only based on logbooks but also on clients' opinions about method prices.

Quality of Services

Clients' Characteristics

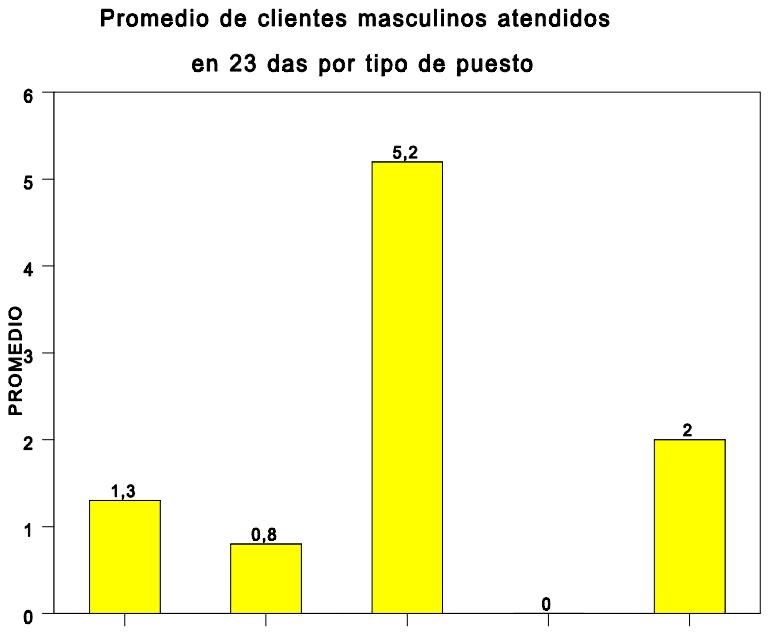
Generally, the demand was higher among females (84%). With respect to age, the highest percentage fell between the ages of 20 and 29, the lowest percentages in the group older than 40 years of age (7.5%) and those less than 20 years of age (15%).Analyzing by sex and age, most of the clients (45%) were 20-29 year-old females, in second place were those aged 30-39 (20%); only 12% were women younger than 20. The demand from males in the different age groups was much lower than the demand from females, the majority in the diverse age groups being less than or equal to 5% (Figure 29).

Figure 29



The average number of male clients who signed up during the 23-day period was 5.2 in the pharmacies, 2 in the grocery stores, 1.3 in the community posts, and 0.8 in the work centers/NGOs. In the case of the woman who works at a clinic and the woman who has a health post in her home, there was no demand from male clients (Figure 30).

Figure 30



These results suggest that women consider family planning their responsibility because they are the ones who use contraceptive methods to prevent pregnancy. Family planning is the couple's responsibility; however, culturally it has been a practice delegated to women. Changing beliefs and attitudes is a medium-term task that should unfold with men's direct involvement, not only as people but also as agents of change who can share their knowledge and influence the attitudes of other men in their own communities.

The majority of the promoters (56%)reported that they had not attended adolescent clients, and 30% attended 1-5 adolescents in the last week prior to the study. A minimum percentage (3%) reported having attended more than ten adolescents (Figure 31).

Figure 31

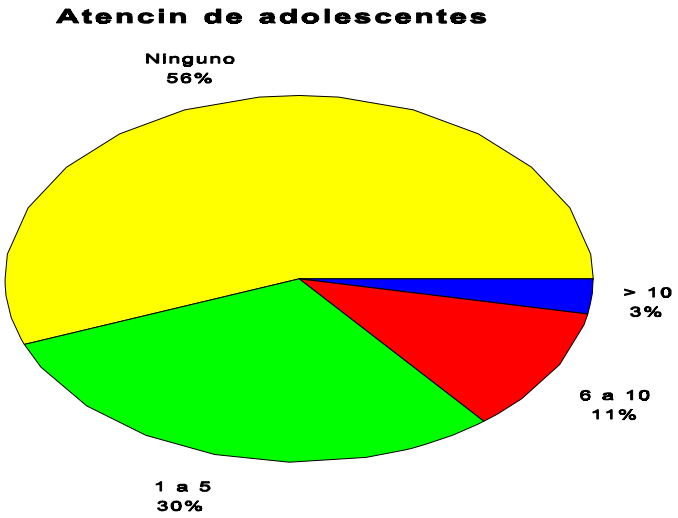
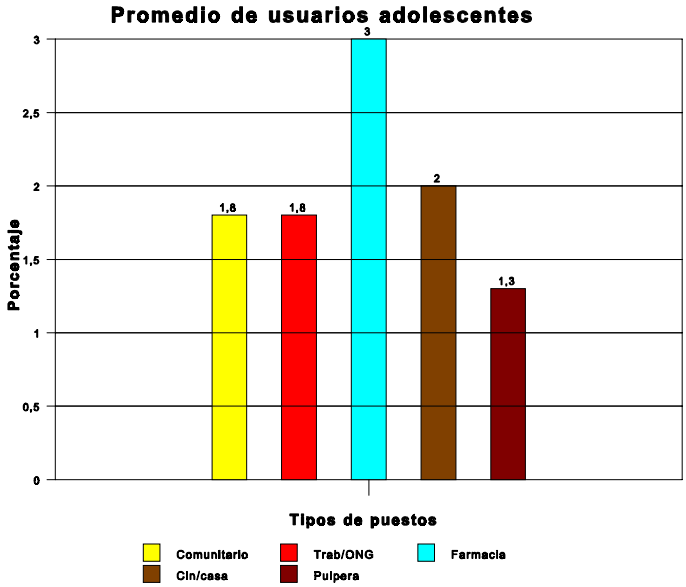


Figure 32



The average number of adolescent clients registered as having been attended within the 23-day period was 3 in the pharmacies, 2 in the clinics, 1.8 in both community posts and posts located in work centers/NGOs, and 1.3 in the grocery stores (Figure 32).

It is unlikely for adolescents to make open or public demands due to the fact that they are young and fear the sanctions that society can impose on them, but, more importantly, because the relationships they establish with their partners are kept hidden from their parents. This places them in a higher risk situation, not only for contracting STDs but also for becoming pregnant at an early age, even when they are not prepared to care for a child and have not completed their studies, forcing them to assume other responsibilities and resulting in a total life change, as they

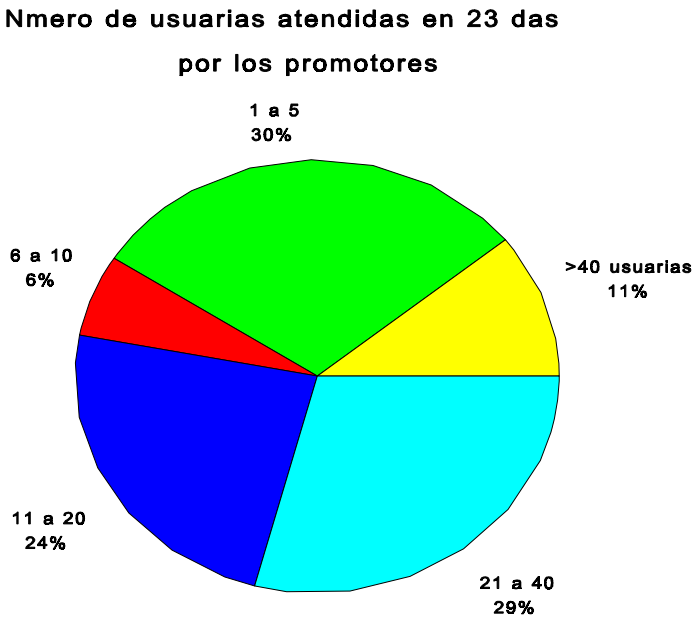
cease being adolescents to confront adult challenges.

Other factors that may influence adolescents' low demand include the fact that sexually active adolescents are rarely well informed about contraceptive options; adolescents generally do not want others to find out that they are sexually active and, thus, do not visit the health posts; and some providers openly disapprove of their adolescent clients' sexual activity, and may not respect their confidentiality.

The CBD network currently cannot stop considering this high-risk group, which requires specialized care and a different approach than the rest of the population. **Considering the use of adolescent promoters may be an innovative strategy, and it may be useful to conduct a cost-benefit analysis.**

When births are not adequately spaced or when women have unwanted pregnancies or repeat abortions, the cost incurred in training and/or distributing family planning methods may be significantly lower than the cost of delivering MCH services.

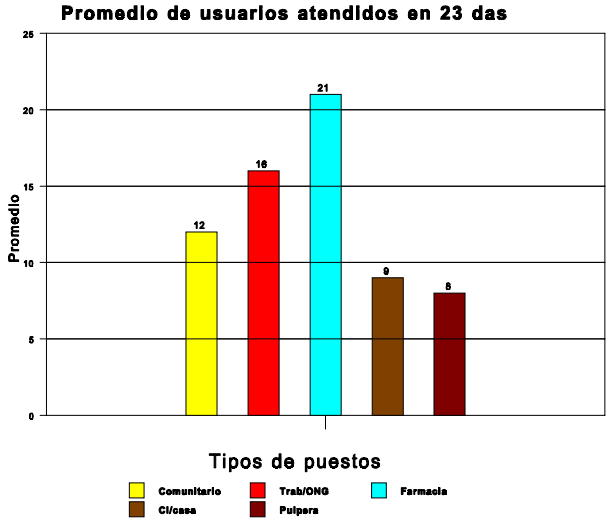
Figure 33



During a period of approximately three weeks (23 days), 30% of the promoters attended 1-5 clients, 29% attended 21-40, 24% attended 11-20, and 11% attended over 40 clients. The highest percentages were found among the promoters who attended 11-40 clients (Figure 33).

Figure 34

The average number of clients who were seen during the 23-day period was 21 in health posts located in pharmacies, 16 in work centers/NGOs, 12 in community posts, 9 in clinics, and 8 in grocery stores (Figure 34).



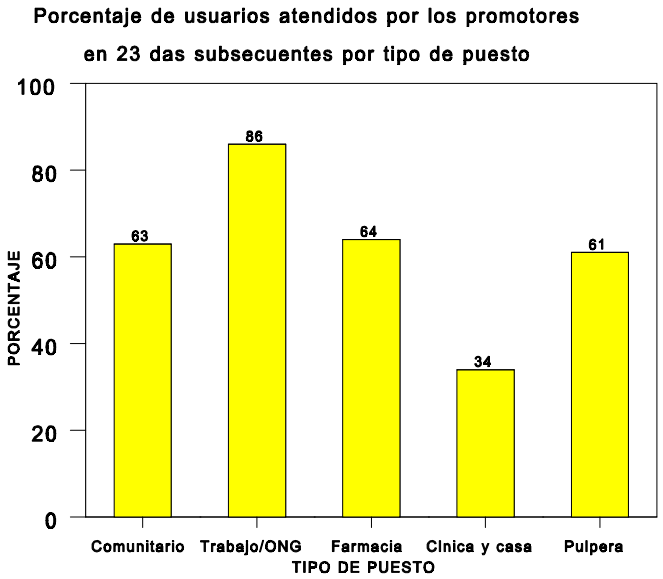
There is a low demand for services offered by the promoters, given that the mean number of clients attended was 12 clients per promoter in 23 days, approximately one client every two days.

Thirty-four percent of clients who were attended by the promoters during the study period were first-time clients, which can be considered as a new demand for PROFAMILIA (Figure 35).

Figure 35

The percentages of clients who subsequently returned were 86% in the posts located in work centers/NGOs, 64% in pharmacies, 63% in community posts, 61% in grocery stores, and 34% in clinics/households (Figure 36).

Figure 36



Promoters' Practices

With respect to the mix of methods sold, the majority of the promoters (47%) sold two methods, 37% sold 3 methods, and 16% sold only one method during the 23-day period. However, given that 21 promoters had five clients or less, thus reducing their likelihood of distributing more methods, this seems to be a positive aspect of the network's services (Figure 37).

Figure 37

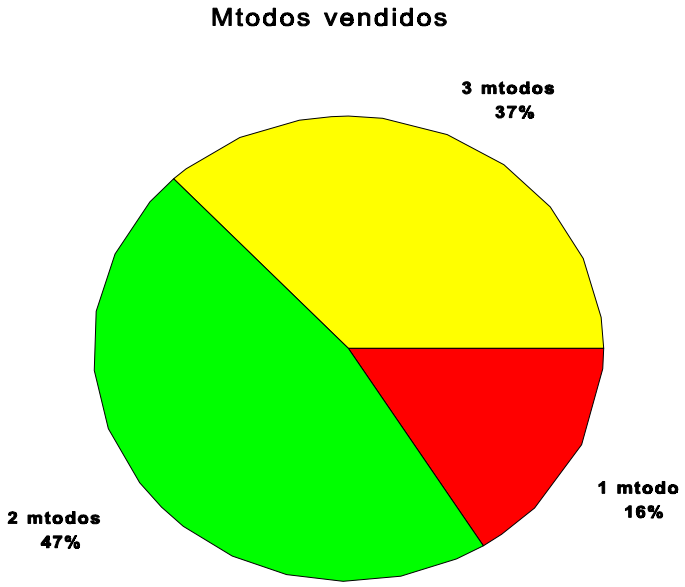
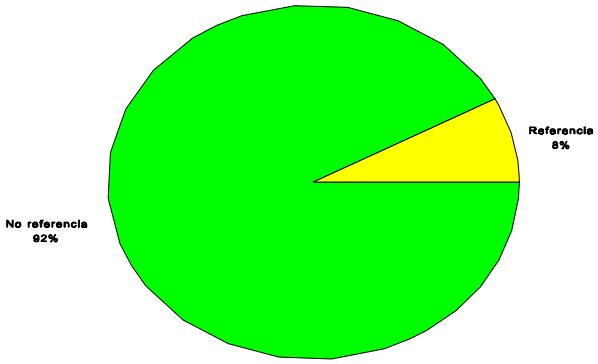


Figure 38

Figure 38

Mujeres que recibieron referencia



Eight percent of the women seen by the promoters during the 23-day period were referred to other health care services, primarily for Pap smears (36%), treatment of gynecological diseases (22%), sterilization (19%), other reasons (21%), and only 1% was referred for an IUD insertion (Figures 38 and 39).

Based on these data, we cannot comment as to whether the references were appropriate and adequate; thus, we recommend conducting another study and/or training aimed at strengthening this aspect of promoters' services.

Figure 39

Motivos de referencia realizados por los promotores en 23 das

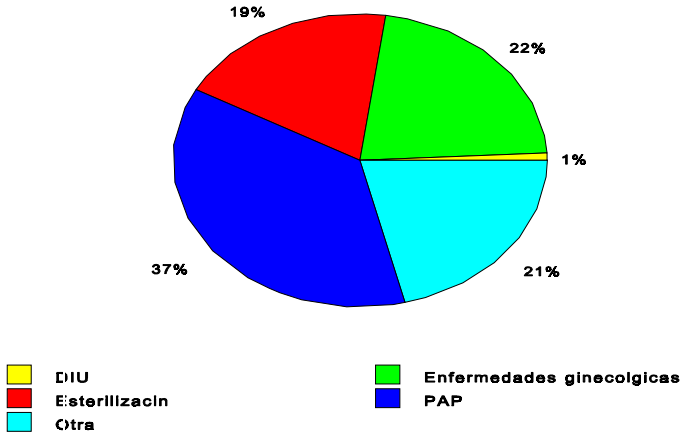
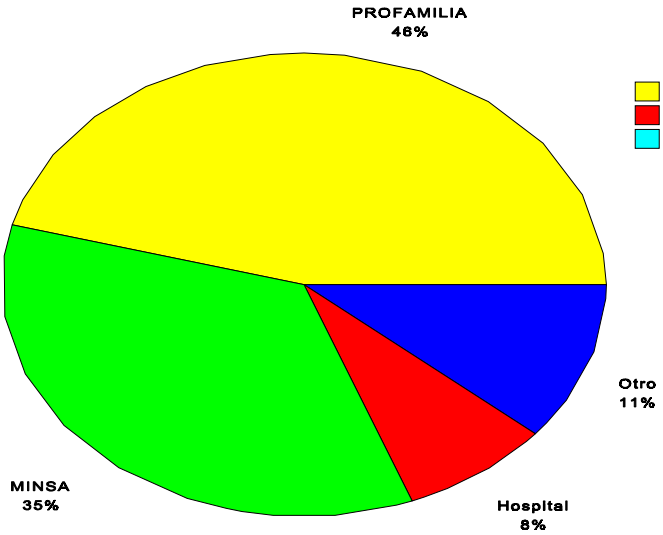


Figure 40

Lugar de referencia



Forty-six percent of the women were referred to PROFAMILIA's clinics, 35% to MINSA's health care facilities, 8% to hospitals, and 11% to other health care centers (Figure 40).

When comparing referral sites according to reasons for referral, it is evident that the majority of the women who requested surgical sterilization were sent to PROFAMILIA. However, the same percentage is found among clients who requested a Pap smear, due to a gynecological disease, and a very similar percentage was noted for other reasons (Figure 41).

Figure 41

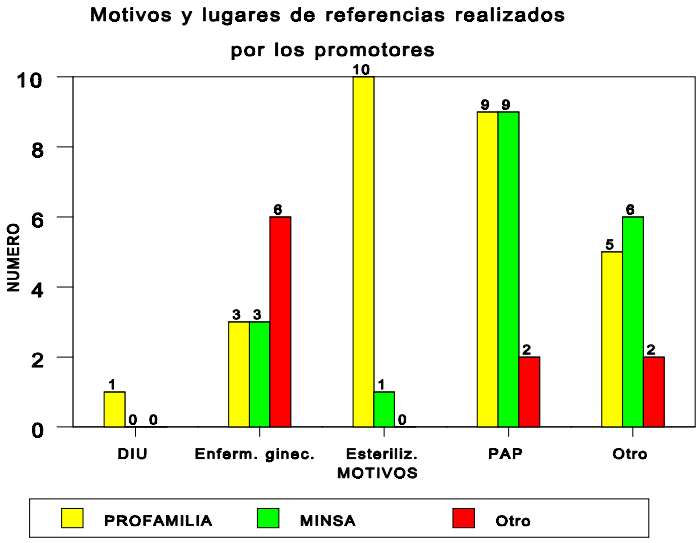
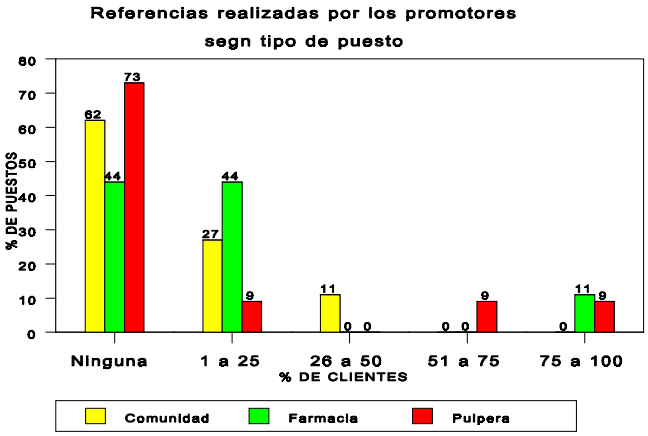


Figure 42



Most (73%) of the promoters whose health posts were located in grocery stores reported no client referral; the highest number of referrals was made by pharmacies and community posts (Figure 42).

With respect to knowledge about reasons for referral, 37% of responses were heavy bleeding, followed by gynecological problems, Pap smears, and intense abdominal pain; the least frequent responses were pregnancy, loss of vision/blurred vision, breast lumps, and IUD insertion/withdrawal. Warning signals, such as chest pain accompanied by breathing difficulties, severe headaches, swelling of the legs or severe leg pain, were not mentioned.

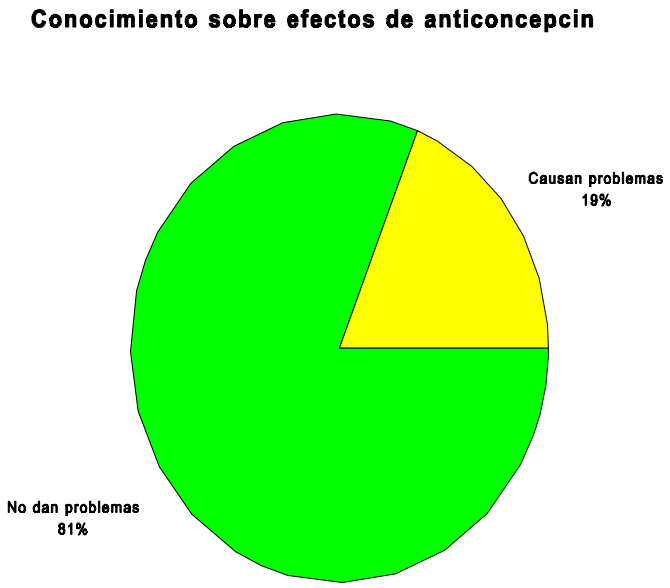
Figure 43

One third (33%) of the promoters gave at least six logical/correct responses about the reasons for referring a client to a clinic, 27% mentioned five responses, 20% gave four responses, and only 7% mentioned only two responses (Figure 43).

No data could be collected with respect to those clients who needed or did not need to be referred to other health care facilities; however, there was a low percentage of women who were referred.

It is very important to have a referral and counterreferral system that allows the promoters to record the number of clients who are referred and the reasons for referral in order to determine whether or not they are correct, as well as having a logbook system which facilitates evaluating the types of clients and their individual needs. All this information would also allow supervisors and community promoters to analyze clients' characteristics, with the objective of improving the services they offer.

Figure 44

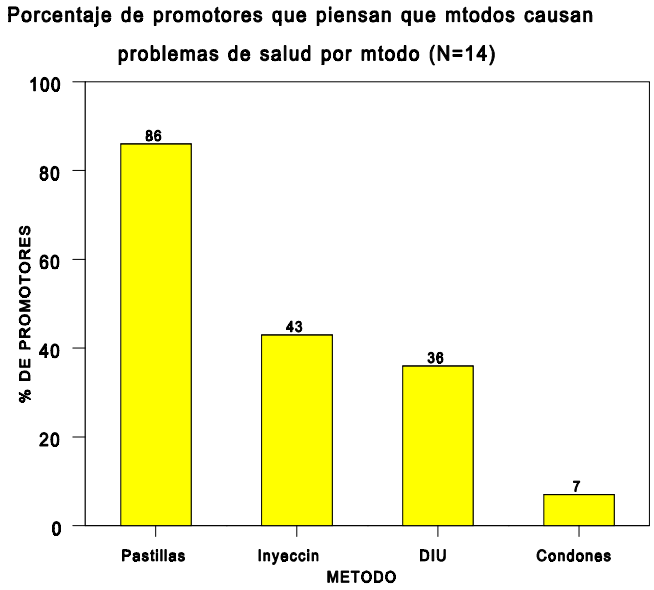


The topic of reasons for referral to other health care levels should be included during supervisors' training of promoters.

Promoters' Knowledge

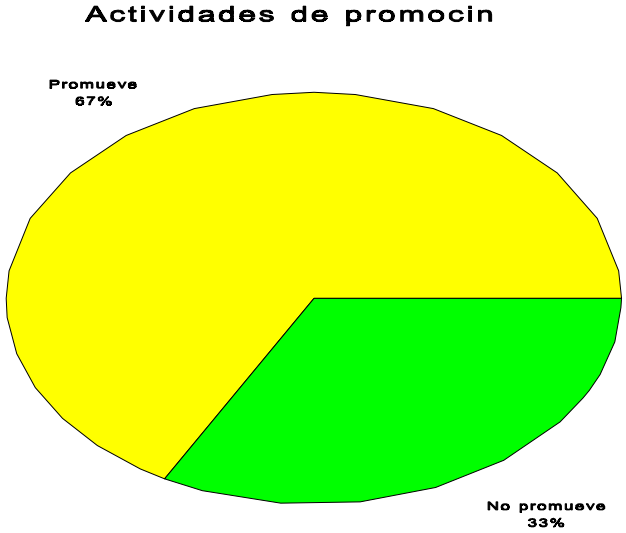
Nineteen percent of promoters interviewed reported that all contraceptive methods cause health problems. These responses may refer to side effects; however, the question asked was not able to document this information (Figure 44).

Figure 45



Of those promoters who believe that contraceptives cause problems, a high percentage (86%) reported pills, 43% reported injectables, followed by 36% who reported IUDs and 7% reporting condoms (Figure 45).

Figure 46



Side effects or adverse reactions resulting from different methods, along with suggestions for overcoming them, are topics that must always be included in the diverse training activities of promoters, as well as in the orientation activities

offered by supervisors during their visits to the health posts. Promoters can help avoid method discontinuation by providing their clients with correct information about the side effects that can result from using contraceptive methods.

It is very important to inform clients about potential side effects because a client who is warned will not be surprised and will not worry if she suffers these side effects; she will be able to accept them naturally or find out how to deal with them in such a way that the use of her method is not interrupted. Written information may also be useful to those clients who know how to read.

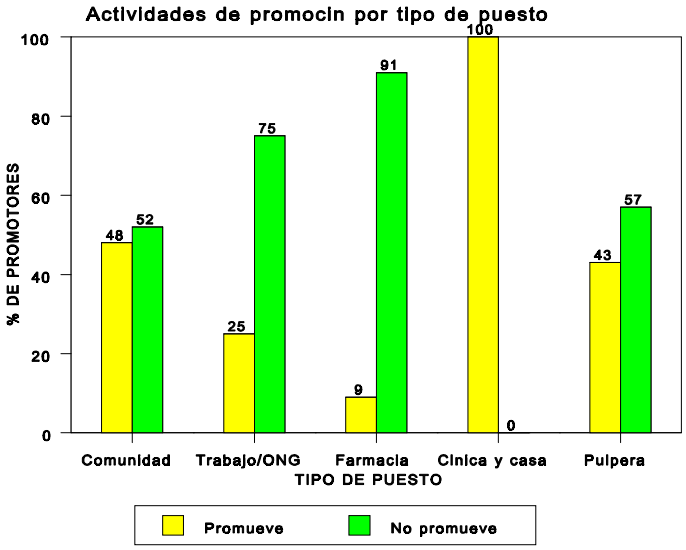
B. PROFAMILIA

Interactions with the Clinic

Activities to promote the use of clinics

Thirty-three percent of promoters reported that they do not conduct activities to promote the services offered at PROFAMILIA's clinics (Figure 46) .

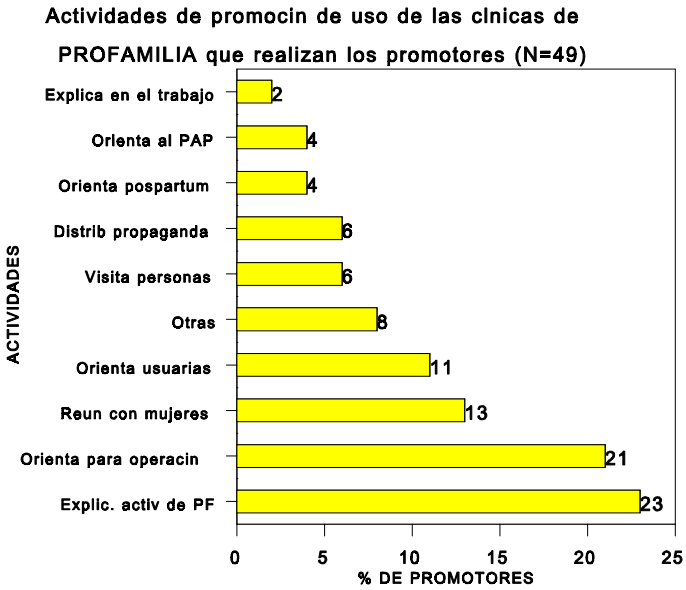
Figure 47



Based on the health post type, 75% of those located in work centers perform activities to promote the use of PROFAMILIA's clinics, the same percentage (75%) of posts located in the community, 64% of posts located in pharmacies, and 50% of posts located in grocery stores (Figure 47).

Promotion activities most frequently mentioned were: explaining PROFAMILIA's activities, providing counseling for surgical sterilization, and organizing women's meetings; the ones least frequently mentioned were: providing counseling for Pap smears, providing postpartum counseling, and providing information in the promoter's work center (Figure 48).

Figure 48



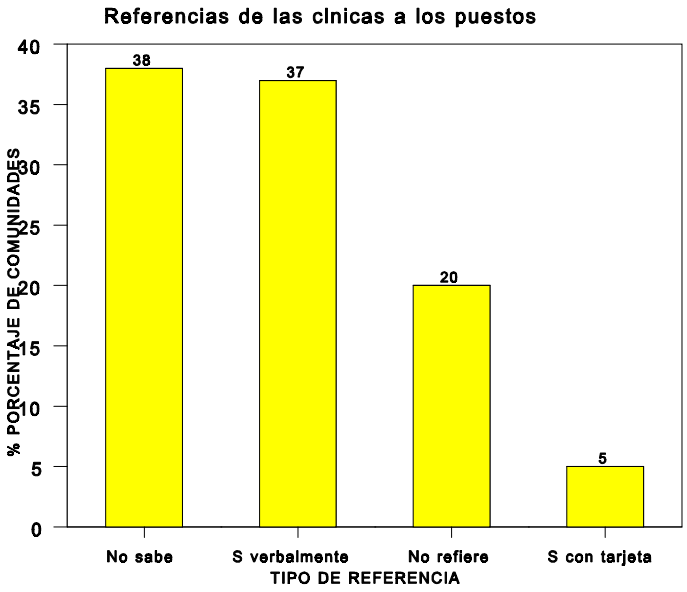
According to the information provided by the promoters, one could say that, to a certain extent, they are promoting the use of family planning clinics; however, this study was not able to determine to what extent. Nonetheless, a high percentage of women (14%) reported that they have not heard about PROFAMILIA's promoters, and another group of women mentioned that they are not aware of the existence of CBD posts in their community (11%).

This aspect needs to be strengthened. Not only should clinics be promoted as places where surgical sterilizations are performed, but also as places where women and men are offered comprehensive care, including counseling and laboratory tests.

To increase clients' demand of services offered by PROFAMILIA's health posts, promoters would have to provide more services and improve the quality of care, which involves not only having an adequate supply of diverse methods available at all times and at all levels (health posts, and regional and central offices), but also conducting a massive campaign to promote services, as well as having the supervisors prepare, monitor and follow up with the promoters, and improving conditions for client care.

Client referral from clinics to heatlh posts is very poor. In 38 % of the communities, the supervisors reported that, to their knowledge, it does not happen. In 37 % of the communities, they reported it happens verbally. In 20%, they confirmed that they do not refer clients, and it was only in 5% of the communities that the supervisors reported providing written referrals. Clearly, the network of promoters currently does not have a referral and counterreferral system that will allow it to monitor clients' evolution and support their particular needs (Figure 49).

Figure 49

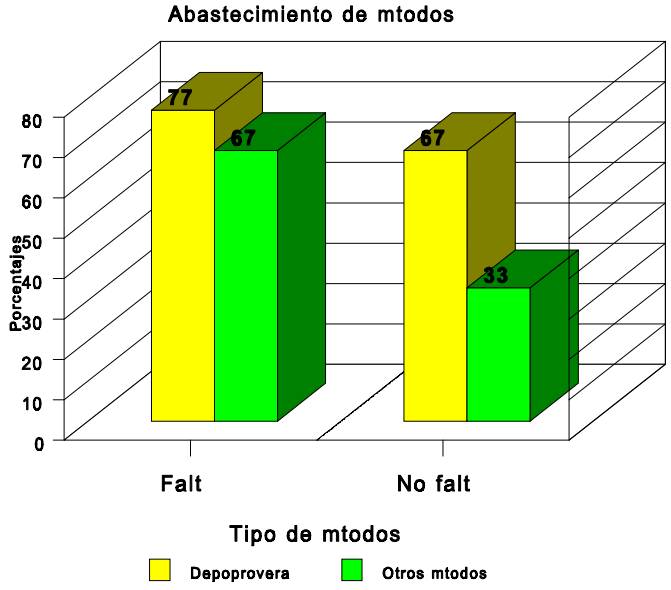


A referral and counterreferral system would provide the opportunity to document valuable information about the reasons for referral and about clients' characteristics. It would also allow promoters to participate in client follow-up to determine whether they complied with the recommendations they were given and to monitor the problems for which they were referred.

Network Management

Method Supply

Figure 50



Seventy-seven percent of the health posts that were included in the study reported ocasionally lacking Depo-Provera, and 67% mentioned lacking other methods (Figure 50).

Figure 51

The majority (59%) of the health posts lacked Depo-Provera supplies for a period of 1-2 months, a third of them for 3-4 months, and 5% reported not having Depo-Provera for 5-6 months (Figure 51).

Another method that was frequently unavailable in 57% of the health posts, for a mean period of 3.4 months, was Neogynon. In second place was Microgynon, which was unavailable in 23% of the posts, for an average of 4.7 months. Neosampon was not available for 5.5 months in 3% of the posts. Other unavailable methods were mini-pills (6%), Eugynon (4%), Lo-Femenal (4%), and condoms (3%) for a period of 1.5 to 2.7 months (Figures 52 and 53).

Figure 52

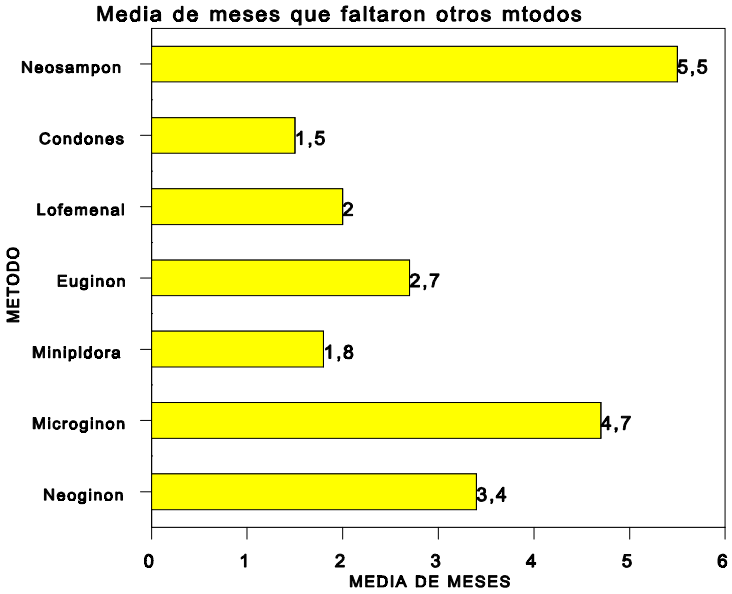
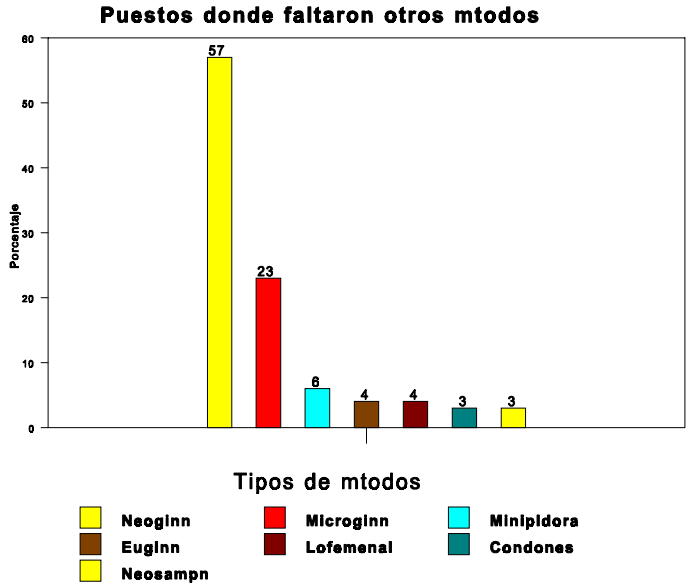


Figure 53



The health posts' lack of supplies generates not only credibility problems among promoters, but also insecurity among clients, loss of continuity in method use, and, even worse, repeat unwanted pregnancies. Given that the supply of methods may be interrupted at any moment, systematic plans must be developed to promote alternative methods.

Supervisors explain that the health posts lack family planning methods because they are unavailable at the regional centers. They suggest other sources of supply, as well as more frequent resupply visits to the health posts, as possible solutions.

Educational Materials

The majority (90%) of the promoters report having written, educational materials (Figure 54), (i.e., brochures); however, only 21% of those have been given to clients (Figure 55).

Figure 54

Puestos que tienen materiales educativos

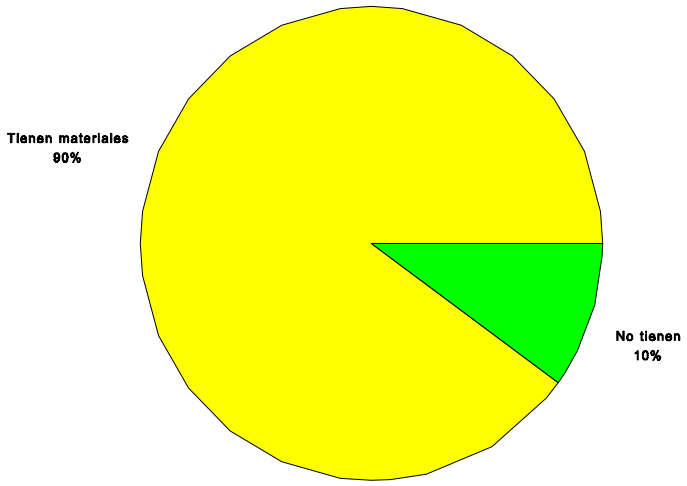
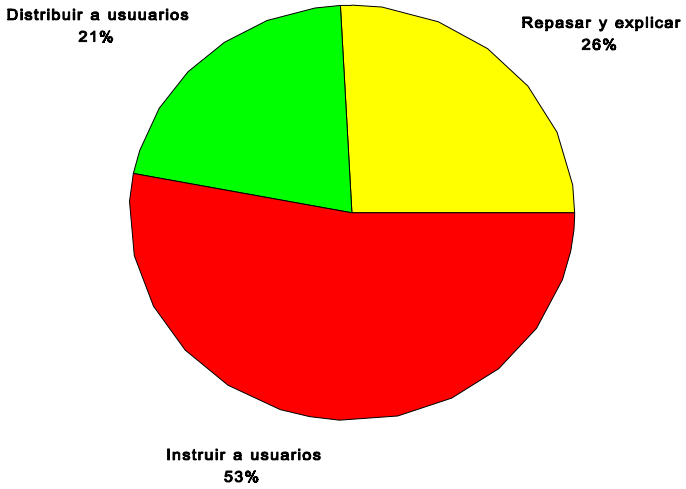


Figure 55

Uso de materiales educativos



While most of the promoters use them to educate clients, one fourth of them keep them so they can review them and have a better understanding of their contents. More than 90% of the promoters received these materials from PROFAMILIA. Other sources include Project Hope, MINSA, and other NGOs.

Supervision

Both promoters and supervisors were asked about the number and duration of supervisory visits to the health posts. Twenty-six percent of the promoters were not satisfied with the number of visits, and 14% of them were not satisfied with their duration (Figures 56 and 57).

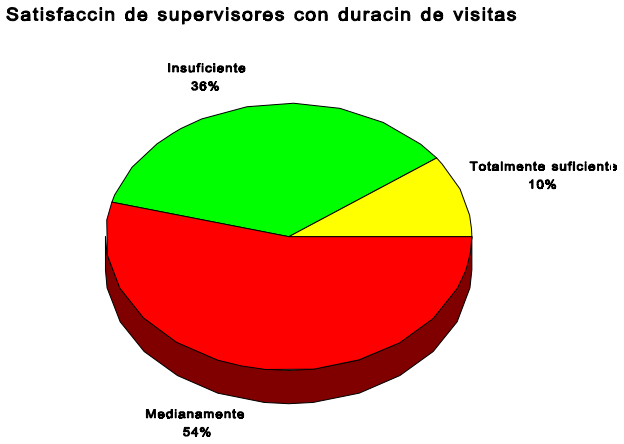
Figure 56

Figure 57

Supervisors expressed dissatisfaction with the number of visits in 13% of the communities and with the duration of the visits in 36% (Figures 58 and 59).

Figure 58

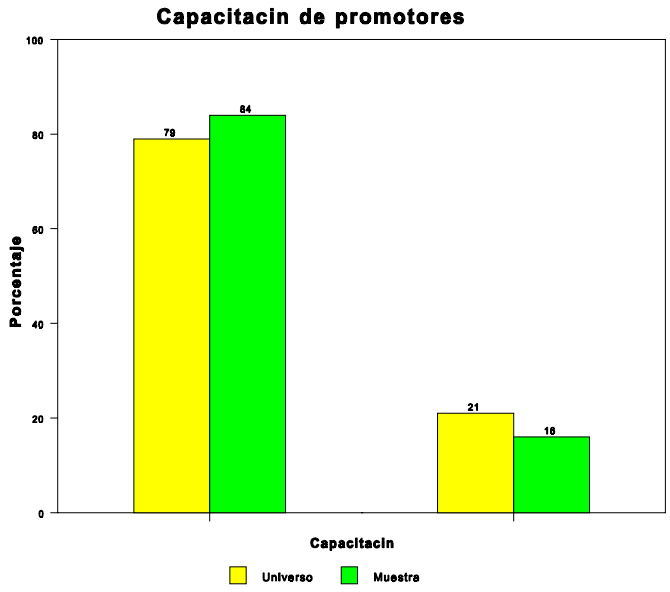
Figure 59



This difference in percentages may be due to the fact that promoters are more likely to view the resupply of methods as the primary activity, while supervisors would like to extend the duration of the visit in order to develop other activities besides resupply. In 23 communities, supervisors also mentioned the importance of having more time to provide guidance and individual attention to each promoter. They also mentioned the need to have transportation available to conduct more visits.

Training

Figure 60



Of the promoters in the study, almost 80% of them were trained in family planning (Figure 60).

Of the sample, 84% of the promoters reported having received family planning training. Every promoter who had five or more years of experience had received training; in contrast, the twelve promoters who had not received any training had less than four years of experience working as promoters. Ninety-two percent of the trainings were provided by PROFAMILIA; less frequently mentioned were Project Hope and SILAIS. According to the promoters, the topics addressed in the different trainings were: family planning in general, the different contraceptive methods, and, to a lesser degree, counseling, reproduction, STDs/HIV, other diseases, and first aid.

The high percentage of promoters who have received some training can be considered as one of the network's strengths; however, the subjects which the promoters remember as having been addressed show some weaknesses with respect to client care within the current context, where a comprehensive approach to reproductive health should be contemplated based on PROFAMILIA's new mission, because family planning is only one of its components. It will be necessary to incorporate additional, reproductive health components, using a gender-approach to care, communicating, addressing adolescents, and using IEC means and techniques.

On the other hand, there are inadequacies with respect to the promotional and educational work that is currently being performed by the promoters. This may be, in part, an expression of the training needs about subjects related to the importance of promotion and the educational strategies and techniques that will provide them the necessary tools to develop these types of activities.

Figure 61

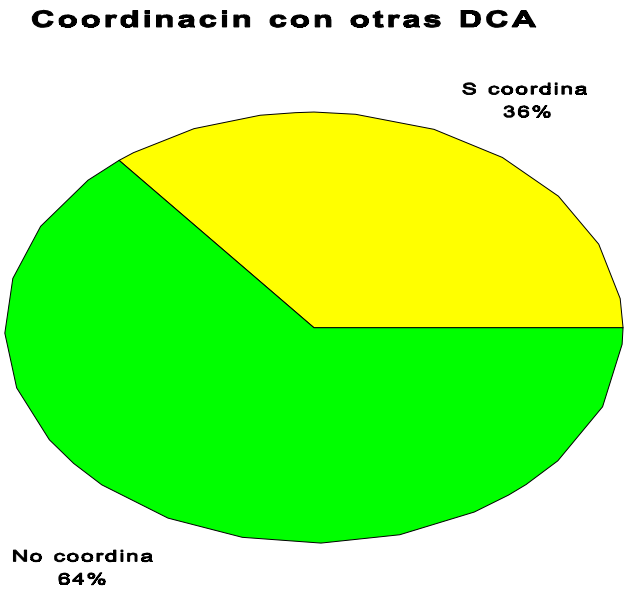
When asked what type of training they would like to receive in the future, 26% reported being most interested in contraceptives. Some specified sterilization, Depo-Provera, IUDs, breastfeeding, and natural methods. Twelve percent specified pregnancy risks, and 7% specified sexual education. Some general health topics were also mentioned, such as training on diseases (8%), and first aid (7%). Finally, 8% were most interested in receiving training on communication (Figure 61).

Coordination

Relationships established among promoters in the same community or with neighboring

communities are poor, given that only 36% of the promoters reported some type of coordination, mainly to exchange contraceptive methods (67%); only 25% reported coordinating their work with other promoters to conduct promotion activities, and 8% to provide support (Figures 62 and 63).

Figure 62



Coordination among promoters in the same community or with neighboring communities is very important because it could contribute toward strengthening the promotional and educational work targeted to groups of people in different places, including work centers, educational centers, religious groups, and community groups.

Figure 63

Satisfaction and Suggestions

All the promoters (100%) who were intereviewed reported feeling satisfied with the work they perform, mentioning

as the primary reasons learning and being able to help others.

Sixty percent of the promoters indicated that they would like to conduct more activities than they are currently performing, which reflects a great potential for the future. While 6% said they could sell medications, a total of 78% spoke about community meetings and other educational activities. Another 10% would like to conduct community development activities, which implies an active role in their communities (Figures 64 and 65).

Figure 64

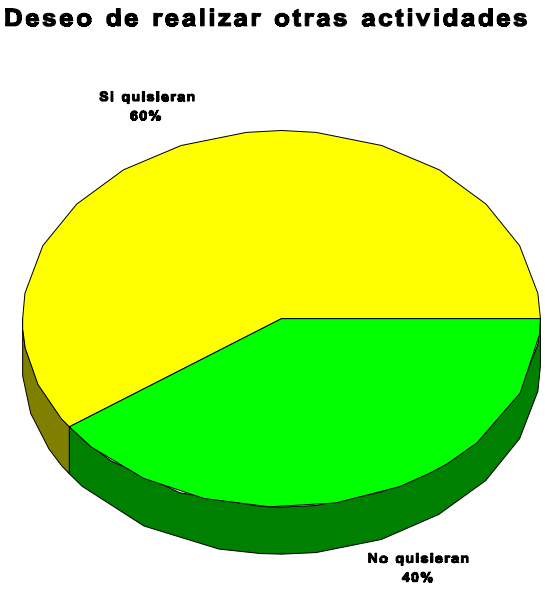
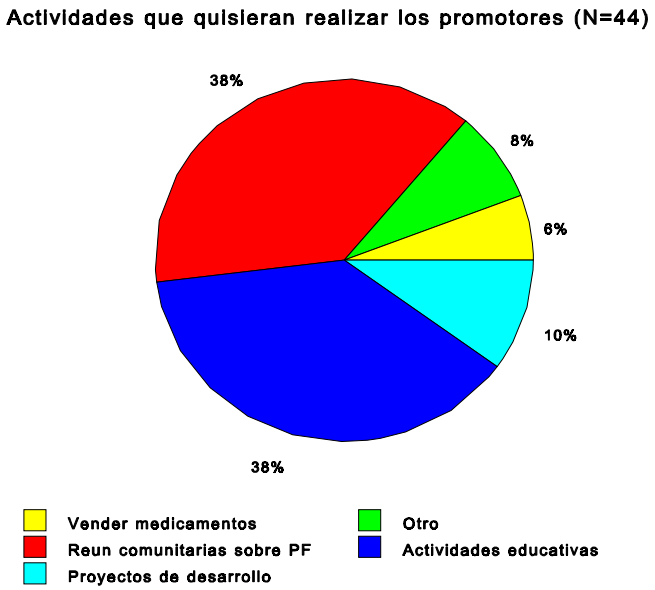


Figure 65



By type of post, 70% of the community post promoters, 75% of those in posts located in work centers/NGOs, and 100% of those whose posts are located in clinics and households would like to conduct more activities. However, only 45% of the promoters whose posts are located in pharmacies and 38% of those with posts in grocery stores would like to perform additional activities.

Figure 66

When asked why they are not currently performing other activities besides distribution, 36% said due to lack of time and organization, 34% due to lack of resources, 5% due to lack of support from PROFAMILIA, and 5% due to lack of support from other institutions. Twenty percent of the promoters who expressed wanting to conduct other activities explained that they have not done so for lack of interest, which seems to be contradictory (Figure 66) .

A high percentage of promoters have a great potential to develop other activities besides the simple distribution of methods, and the reasons they have mentioned as obstacles to implementing them may be overcome through motivation and guidance, and with a minimum of technical support and material resources from PROFAMILIA.

Figure 67

With respect to promoters' performance in the communities, the supervisors reported that they are completely satisfied with 33% of the communities, fairly satisfied with 59%, and dissatisfied with only 8% (Figure 67).

Their perception is that only 33% of the communities in the study have an insufficient number of promoters (Figure 68).

However, in this case they were talking about their subjective impressions, because they have no knowledge about the total number for the target population, based on the population census, nor are they familiar with the unmet needs of this population group.

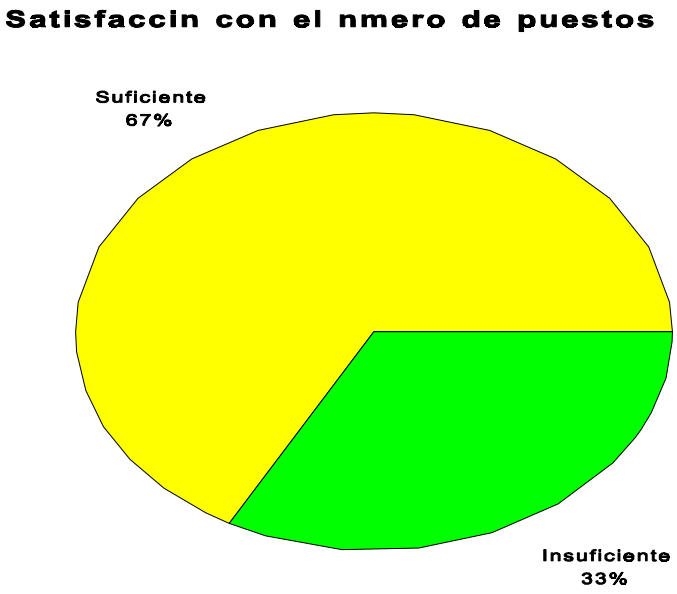


Figure 69

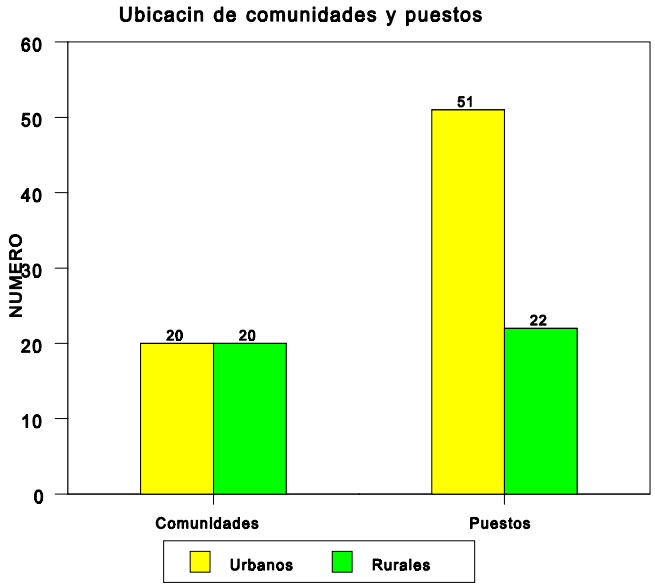
With the objective of improving promoters' work, the supervisors suggested providing counseling, education, follow-up, supervision of promoters, publicity (posters) and billing in the health posts. To accomplish these things, they spoke about the need to educate the community, follow up with the promoters, and have more time to work with them (Figure 69).

C. Communities

Description

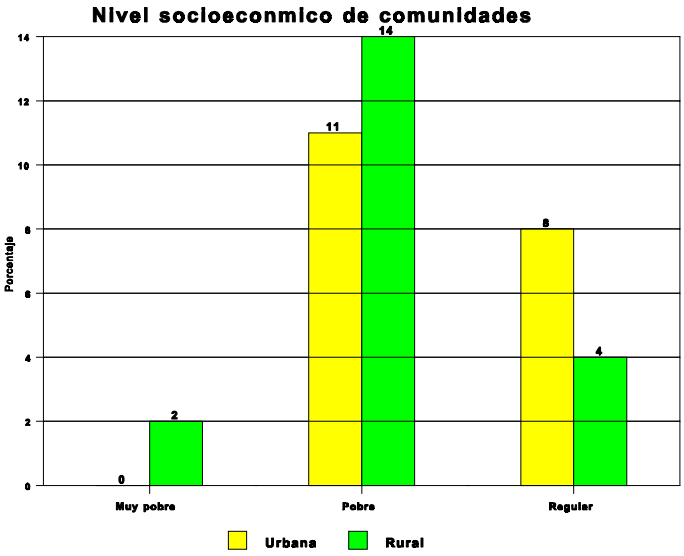
Location and socioeconomic status

Figure 70



The sample consisted of 20 rural communities and 20 urban communities. Given that generally there are more health posts in urban communities, a greater percentage (70%) of promoters from this area participated in the study (Figure 70) .

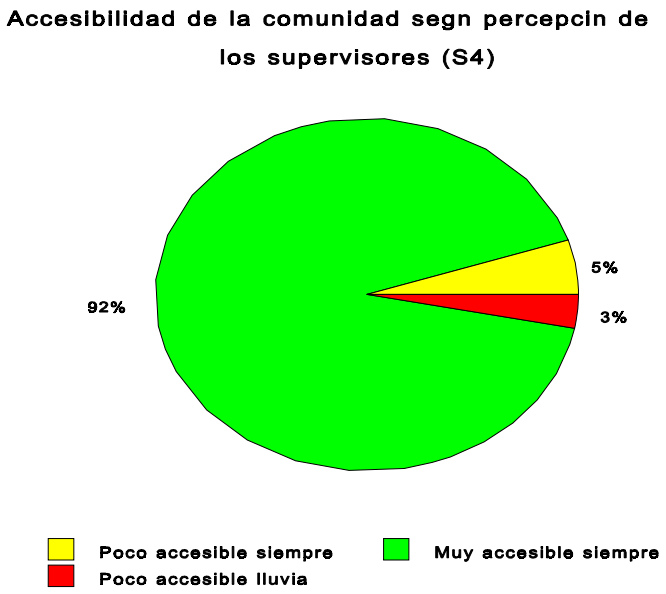
Figure 71



Based on the criteria that were established in the study to rank the communities' socio-economic status, the supervisors categorized 2 communities as very poor, 25 as poor, and 12 as regular . One community was not ranked. None of the health posts in urban areas are located in communities ranked as very poor; 58% are located in communities designated as poor; and 42% in communities designated as regular. Of the rural communities, only 20% were ranked as regular and the majority of them (70%) were designated as poor (Figure 71).

Accessibility

Figure 72



According to the supervisors' perceptions, 92% of the communities in the study are described as very accessible during the whole year, that is, always; 5% as not very accessible always; and 3% as not very accessible during the winter. Given that the sample of communities was selected for convenience and not randomly, the level of accessibility cannot be interpreted as being representative of the communities in which it is located (Figure 72).

Figure 73

With respect to the distance from the communities to the PROFAMILIA clinics, the promoters reported that 74% of the communities are closer to one of MINSA's health care facilities, and only 13% are close to a PROFAMILIA clinic. In 13% of the communities, the distances are almost the same, both for visiting MINSA's facilities and PROFAMILIA's clinics (Figure 73)
.

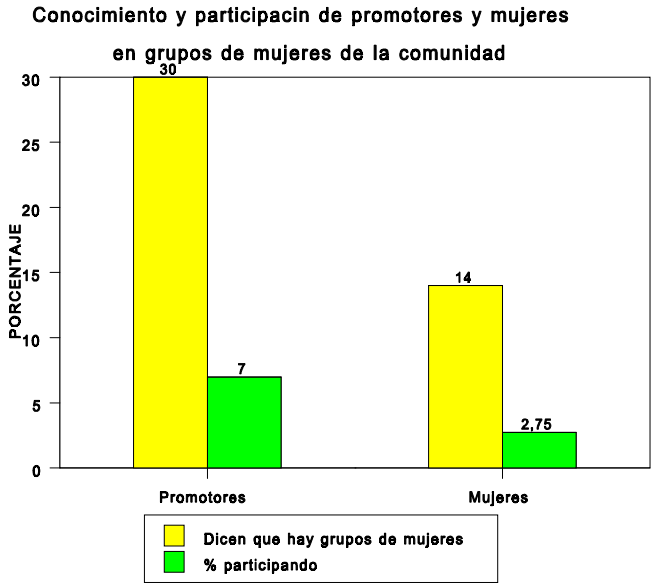
These data may indicate that PROFAMILIA should consider making distinctions between rural and urban communities, taking into account the clinics' socioeconomic status and accessibility. This may help them determine what type of health post is

more appropriate based on the type of community.

Organizational level

As part of the study, 20 women were interviewed in each of the 40 communities. Each one was asked about the existence of organizations in the community, in order to investigate whether the organizational level affects promoters' activities. Fourteen percent of them expressed that there are active, women's groups, and 29% that there are community groups in their communities. At least two women responded that there are organizations in each community, but there was no unanimous opinion in any of the communities. Only 22 (3%) of the 800 women interviewed participate in women's groups, and 45 (6%) in community groups. Those communities with community or women's organizations are: Tola, Güisgüiliapa, Las Banderas, El Paraíso, Las Pilas, Sébaco, El Rosario, San Antonio de Nueva Guinea, and San Miguelito.

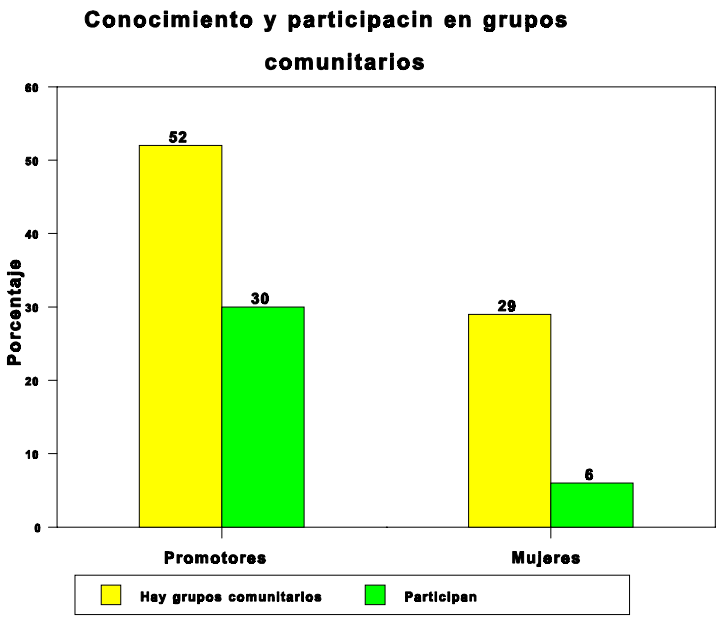
Figure 74



With respect to promoters' knowledge about the existence of community groups or women's groups in their communities, 30% of them expressed that there are active women's groups, and 52% that there are community groups. However, only 7% participate in women's groups, and 30% in community groups (Figures 74 and 75).

Figure 75

The analyses did not reflect the effect of the organizational level reported by the women as to the variables that express the effectiveness of promoters' performance. This may be due to the reduced number of communities incorporated in the study and/or the quality of the variables on the organizational level. However, we suggest that PROFAMILIA take into account how a community's organizational level may influence decisions about the way to attract clients, educate the community, and interact with other providers, promoters and organizers.



Characteristics of the Women Surveyed

The sample was restricted to women aged 15-29, because they constitute the most important population stratum with respect to family planning services.

Although the women surveyed in this study were selected for convenience, the age percentage distribution was proportional for each age group, 38% of the women being between 20-24 years old, 35% between 15-19 years of age, and 27% between 25-29 years of age (Figure 76) .

Figure 76

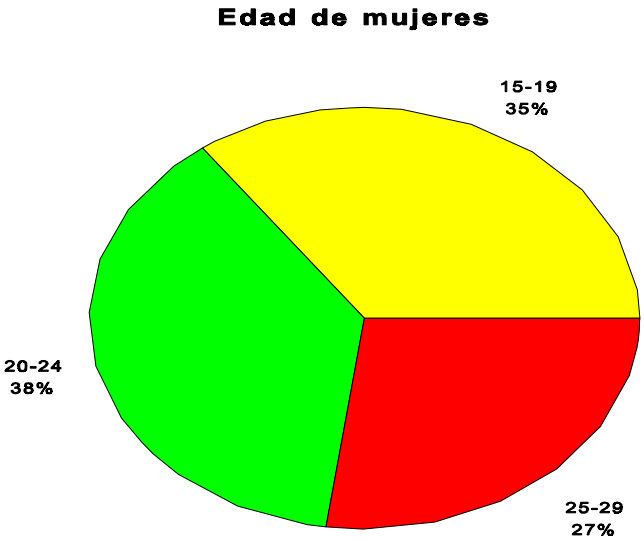
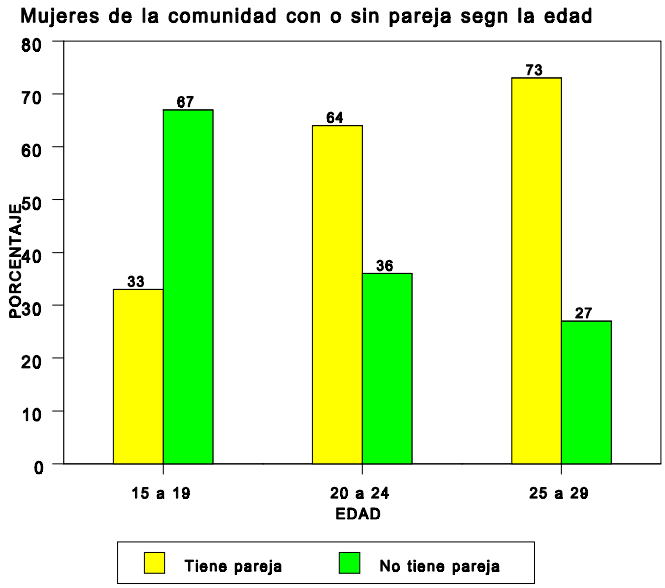


Figure 77



Fifty-five percent of the interviewees had partners, and were thus users or potential users. Sixty-seven percent of the women who were younger than 20 years of age did not have partners, but only 27% of the women between the ages of 25-29 did not have partners (Figure 77).

Figure 78

Eighty percent of the women surveyed do not have salaried jobs. In the youngest group, that percentage increases to 88%, while for women aged 20-24 it is 79%, and for those aged 25-29 it is 72% (Figure 78).

It is to be expected that younger women do not work, given that they are still going through an academic process; however, the high percentages found among women older than 20 years of age reflect the elevated unemployment rates currently existing in Nicaragua.

In the group of unemployed women, 57% have partners, while 53% do not. More importantly, there are 272 women (34%) in the sample who neither have jobs nor partners.

Figure 79

In total, 78% of the women surveyed expressed knowing how to read and write well, 13% read and write a little bit, and 9% do not know how to read and write. This means that more than 20% of them know how to read and write a little bit or not at all (Figure 79).

Upon relating this to age, we find that 6% of adolescents cannot read nor write, compared with 12% of the women between the ages of 20-24 and 8% of the women between the ages of 25-29.

The elevated percentage of women who know how to read and write is a positive aspect for promoters' implementation of IEC activities. For those women who do not know how to read and write, other types of activities--which make use of materials with a high graphic content, as well as audiovisual means such as videos, role-plays and puppets--must be designed.

With respect to the parity of the women surveyed, 41% do not have any children, attributed mainly to the adolescents given that 77% of them do not have children, 19% of them have one child, and 5% have 2-3. On the other hand, 1% of the entire sample has 6 or more children, and 7% have 4-5 children (Figure 80).

Figure 80

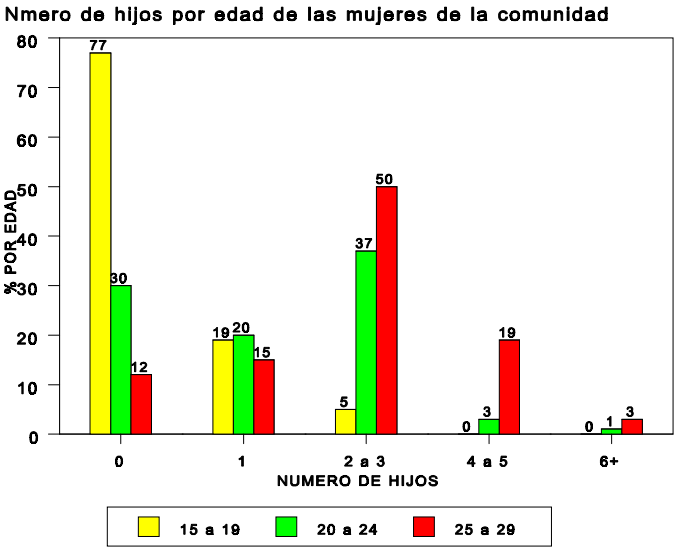
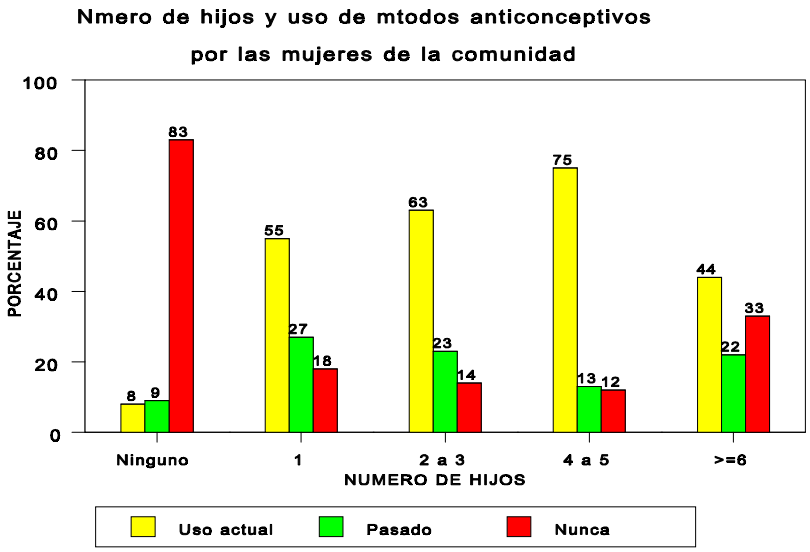


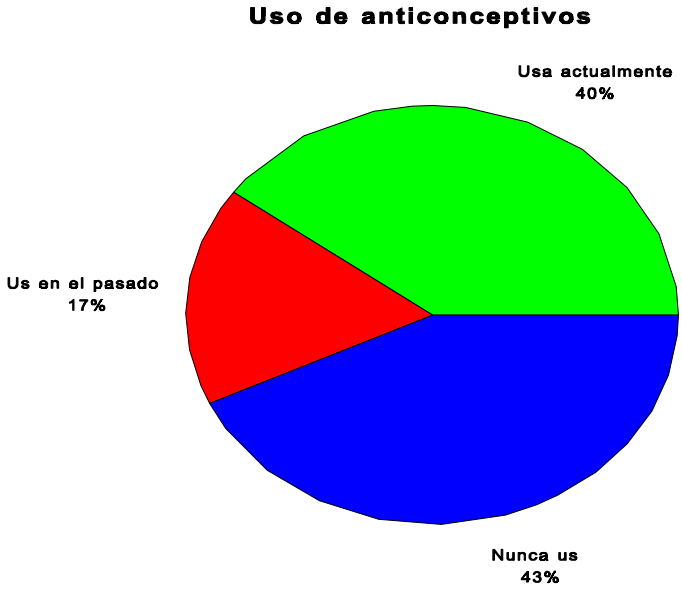
Figure 81



Of those who have six or more children, more than 30% never used a family planning method. It may be that the non- use of methods in this last group was due, among other reasons, to lack of information about the importance and benefits of family planning (Figure 81).

Use of Family Planning

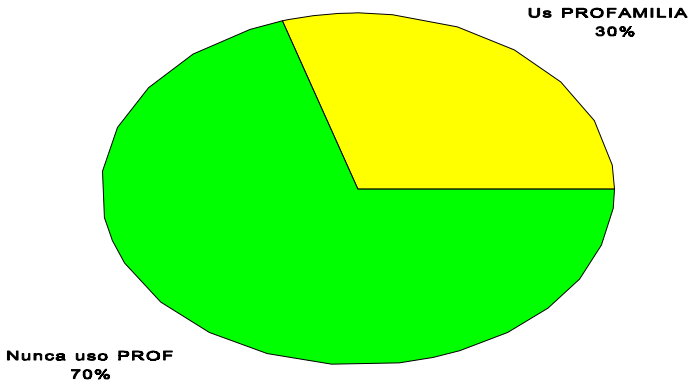
Figure 82



Forty-three percent of the 800 women surveyed had never used a method to prevent pregnancies. At present, 40% of them are using a method. Seventeen percent of them used a method in the past, but are not using one currently (Figure 82).

Figure 83

Asistencia a PROFAMILIA

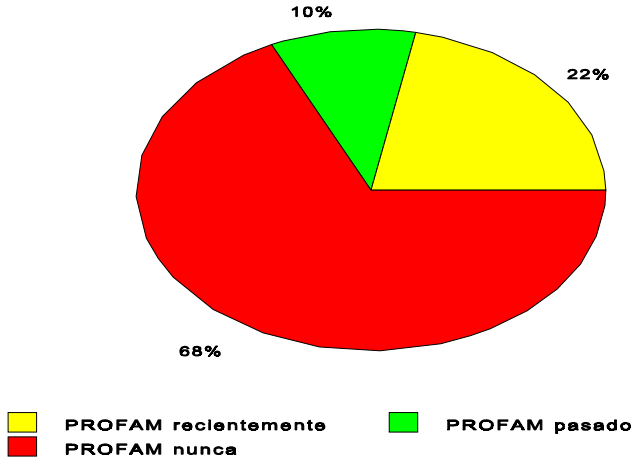


Of those women who are currently using a family planning method or used one in the past, only 30% have received care from PROFAMILIA (Figure 83).

A study conducted by PROFAMILIA and CDC in Nicaragua, from 1992-1993, found that 34% of the women aged 14-49 were using a contraceptive method at the time of the survey. Although the group of women who were interviewed in this study were between the ages of 15-29, lived in communities with CBD posts, and the study covered only one portion of the country (for which reason they are not comparable), the percentages of contraceptive method use, both in 1992-93 and 1997, do not show significant differences. This indicates that there is much work to be done in terms of promoting the use of methods by Nicaraguan women, and that it is necessary to reexamine the strategies that are currently being implemented.

Figure 84

Mujeres de la comunidad que usan actualmente anticoncepcin y asistencia a PROFAMILIA

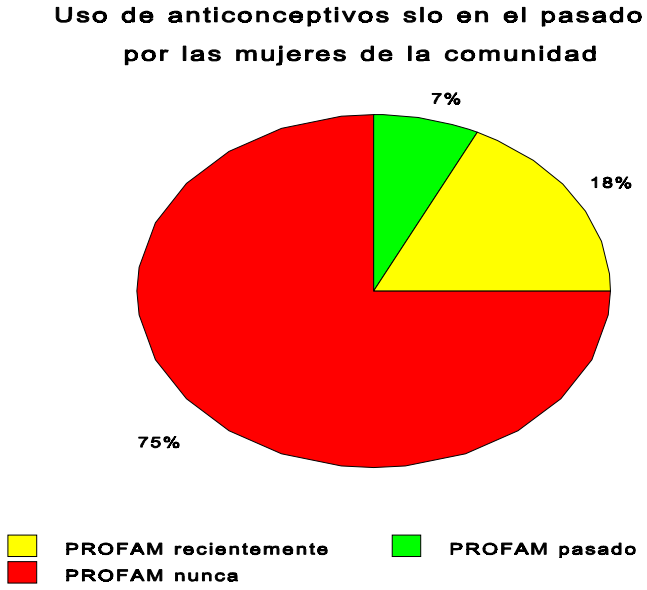


Of the current users, 22% obtained their last contraceptive method supply from PROFAMILIA; 10% went to PROFAMILIA in the past, but mire recently resorted to another establishment. Sixty-eight percent never went to PROFAMILIA (Figure 84).

The percentage of women who are clients of PROFAMILIA is still low. This may be related to factors such as method cost and lack of information and promotion (publicity) of the existence of the health posts, as there was a group of women (25%)

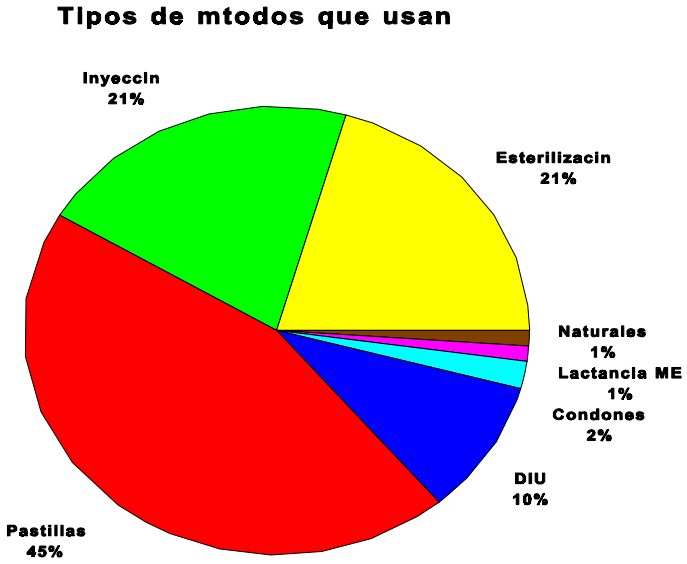
who reported not knowing these posts exist in their communities. Only one, two, or three women had not heard about the promotores in: Matagalpa, Matiguás, Teustepe, Wiscoyol, Tola, Sota Caballo, and Las Banderas. However, in Waswalí, El Salto, or Barrio Oswaldo, less than half of the women in the sample knew about the existence of promoters in their communities.

Figure 85



Of those women who only used methods in the past, only 7% resorted to PROFAMILIA the last time. Eighteen percent recently went; and 75% never went (Figure 85).

Figure 86



Of those women who are currently using a family planning method, 45% of them are on the pill, 21% are sterilized, and 21% use Depo-Provera. Of the women who have used a method but are not using one currently, 65% were on the pill (Figure 86).

Figure 87

Based on the percentages of women who are currently using Depo-Provera, it appears that it is widely accepted among users, probably because, in comparison with other methods, it has fewer adverse reactions, and because of its application interval in between doses. This presents another reason to ensure an ongoing supply of Depo-Provera.

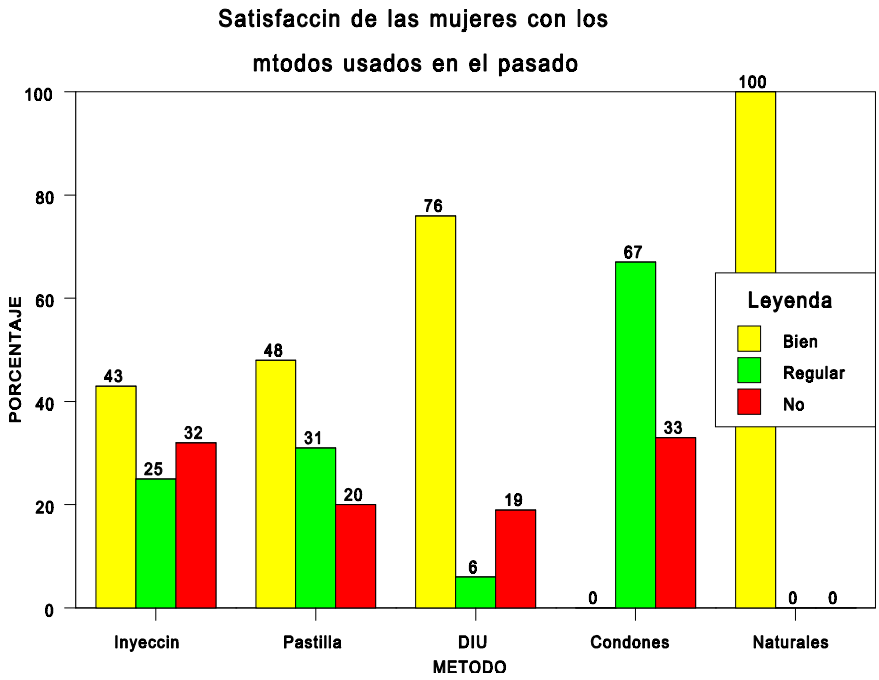
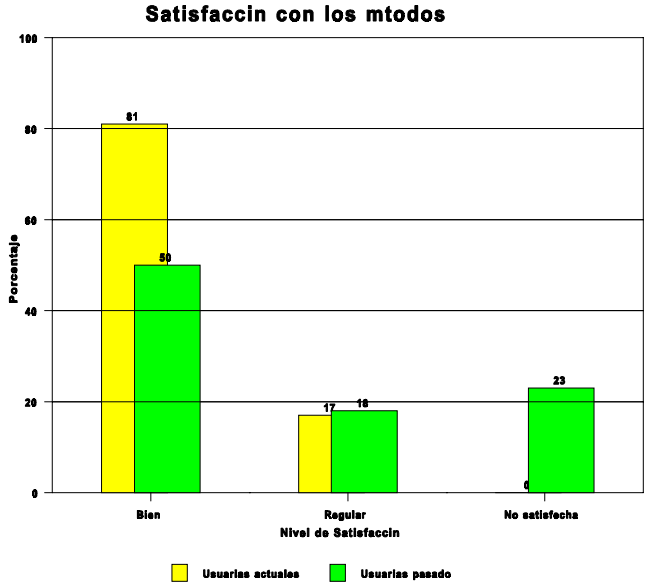


Figure 88



Over 80% of current users are very satisfied with the type of family planning method they use, and only 1% reported being dissatisfied.

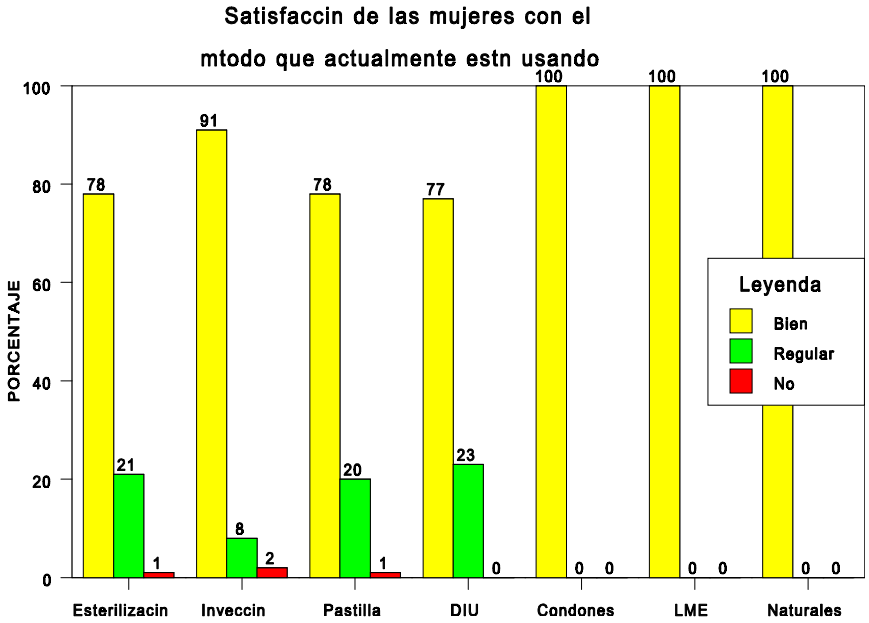
Of those women who used a method in the past but currently are not using one, 23% were not satisfied with the last method used (Figure 89). These methods were injectables (32%), condoms (33%), pills (20%), and IUDs (19%) (Figure 88).

This group represents women who may benefit from adequate counseling.
Of the 32 women who are current users, have received PROFAMILIA services in the past, and now resort to another facility, 26 gave a reason for switching methods.

Of those, 14 explained that it was due to cost, and 8 said it was for convenience.

As for user satisfaction with the family planning method they are currently using, 91% of those who are using injectables are satisfied. This percentage decreases among the women who have been sterilized and those who are on the pill (78% respectively). A similar percentage (77%) of women expressed their satisfaction with the use of IUDs. All the women who are using condoms, exclusive breastfeeding, and other natural methods are equally satisfied (Figure 89.)

Figure 89



A Family Health Survey conducted by PROFAMILIA in Nicaragua, from 1992-1993, found that the women who had been sterilized were 89.5% satisfied. In this study, there was a lower percentage of satisfied women. Thus, further investigation is needed to determine which factors are influencing these findings..

Depo-Provera users are the most satisfied; however, those who use the pill and IUD are the least satisfied. This may be related with the frequency of adverse reactions, given that oral contraceptives and IUDs are more likely to cause side effects such as nausea, vomiting, headaches, and, in the case of IUDs, heavy bleeding. For this reason, users of these methods must be offered more thorough counseling on correct usage, as well as suggestions to reduce side effects.

Sixty percent of the women who currently are not using a family planning method have a valid reason for doing so. Some of the reasons expressed were lack of a partner or the desire to become pregnant. Of those who have never used a method, 81% have a valid reason. One

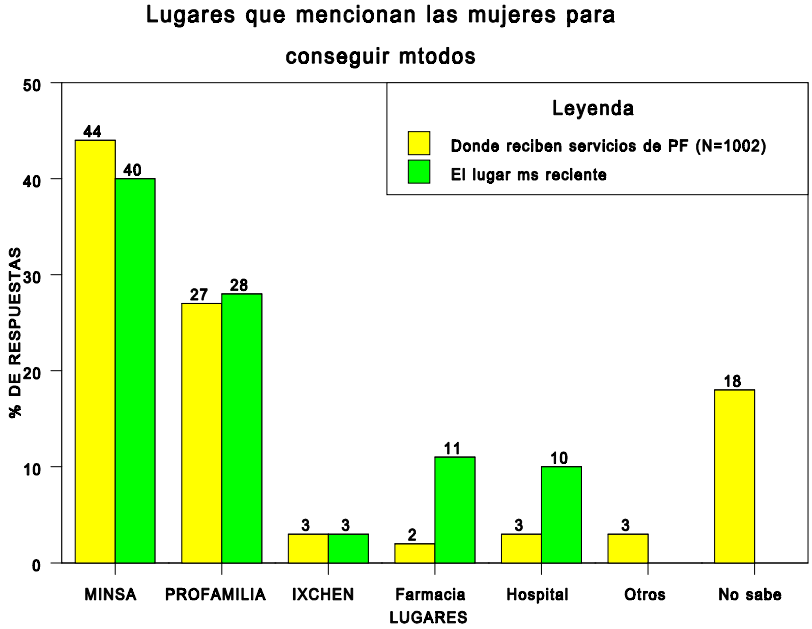
hundred twenty-three (16%) of them may be classified as women who "should" use a method, be it because they are not using one currently, they have partners, and/or they are not pregnant and do not want to become pregnant.

This group is very important as potential users of PROFAMILIA's services. Also, of the 484 women who are not using a method currently (including those who "should" use one), almost 80% plan to use family planning in the future, which makes them another source of potential users.

Sites Where Women Obtain Methods

Figure 90

The women interviewed reported that the sites they visit to obtain methods are firstly MINSA (44%) and PROFAMILIA (27%). Eighteen percent expressed not knowing where to go, and the sites least mentioned were hospitals (3%), IXCHEN (3%), and pharmacies (2%). The sites where women most recently have obtained methods are MINSA (40%), PROFAMILIA (28%), pharmacies (11%), and hospitals (10%) (Figure 90).



For the most part, female users were satisfied with the sites where they obtained methods, which can be seen in the similar percentages between PROFAMILIA (94%) and other services (93%) (Figure 91).

Figure 91

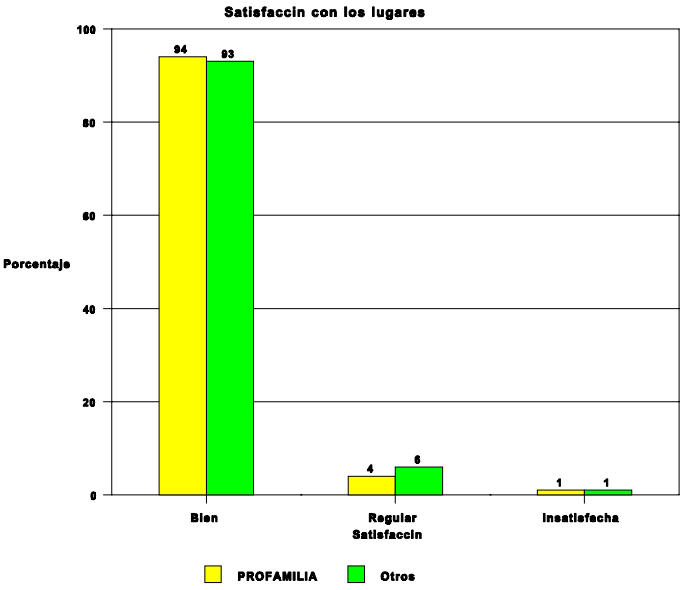
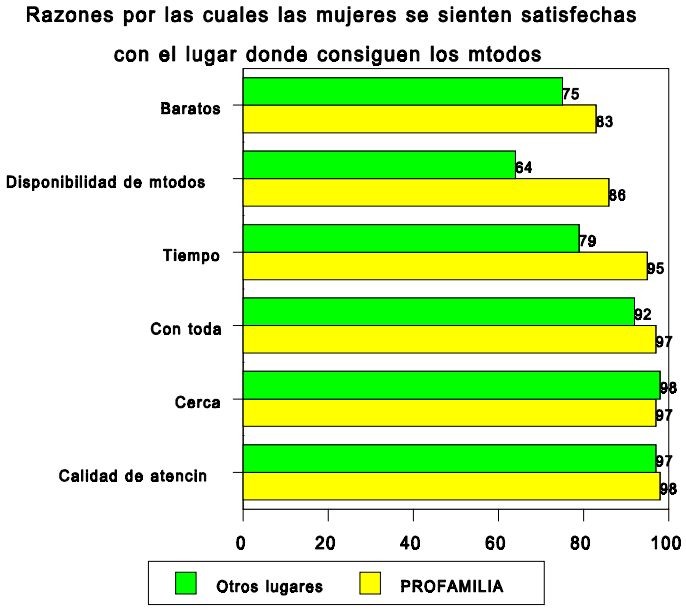


Figure 92



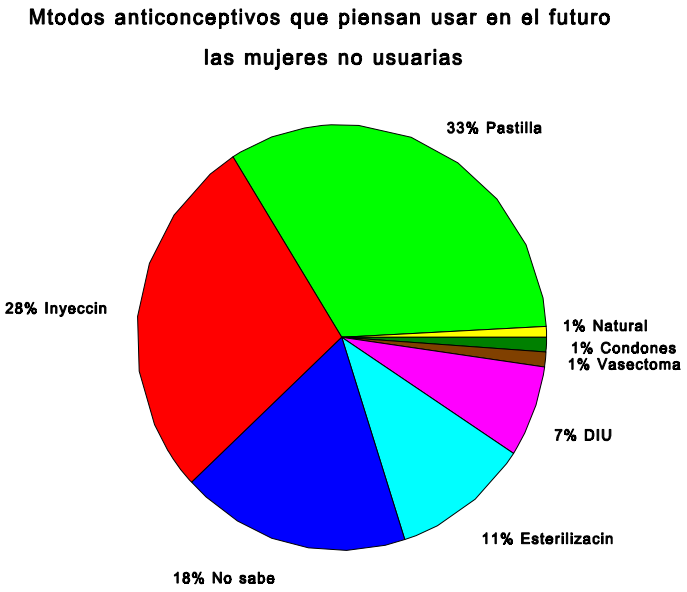
Among the reasons for which women feel satisfied with the sites where they obtain methods were: firstly, high quality of care, followed by proximity of the site to their homes, time it took to be attended, availability of methods, and low cost. These reasons were mentioned by a greater percentage of the women who had resorted to PROFAMILIA (Figure 92).

Future Use

Seventy-seven percent of female non-users want to use a method in the future to prevent pregnancy, and 11% do not know whether they want to use a method (Figure 93).

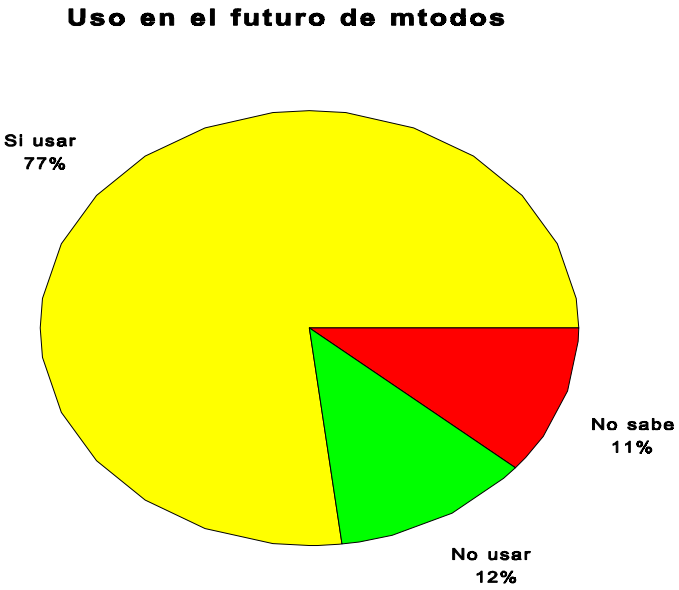
The majority of the women (39%) plan to go to MINSA to obtain methods, and, in second place, to PROFAMILIA (28%) (Figure 94). These groups of women (77% who want to use a method, and 11% who do not know) constitute future, potential demand, and PROFAMILIA's service providers should target their information and promotional strategies to attract these clients.

Figure 94



The methods they would like to use in the future are: the pill (33%), injectables (28%), and sterilization (11%) (Figure 94).

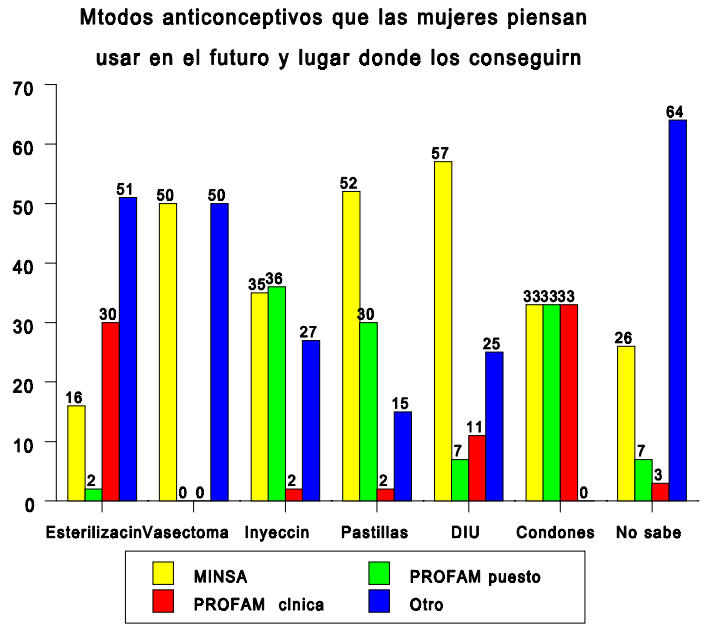
Figure 93



This information reflects women's potential acceptability primarily of these three

types of methods, which should be offered in sufficient quantity and quality to satisfy demand. However, it may also indicate that the women are not aware of the importance of the use of condoms to prevent sexually transmitted diseases.

Figure 95

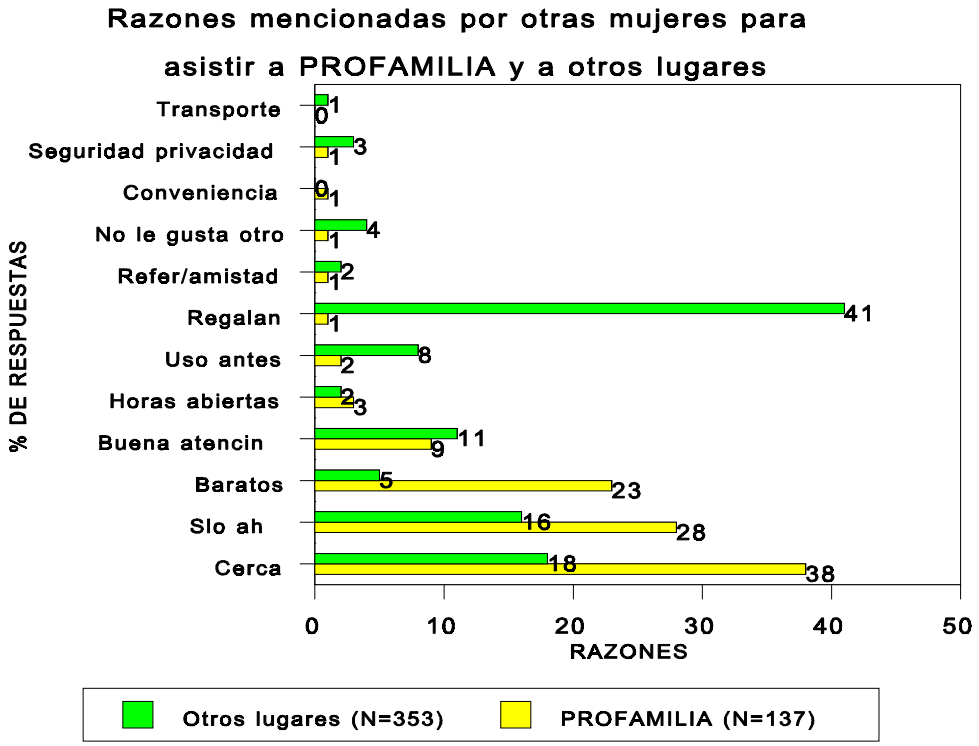


Based on the type of method, demand was mentioned as follows: the percentages of women who wish to use condoms and plan to obtain them through MINSA and in PROFAMILIA's health posts and clinics are the same, 33%. MINSA was mentioned, for the most part, as the place for IUD insertion (57%) and for resupply of oral contraceptives (52%). For female sterilization, 51% of the women reported that they plan to resort to other places where there are private hospitals and clinics (Figure 95.)

Women's Opinion about Quality of Services

The reasons mentioned by the women for resorting to PROFAMILIA included: it is near my home (38%), only there can we obtain those methods (28%), they are inexpensive (23%), and they provide good care (9%). Those least mentioned (1% each) were: safety/privacy, convenience, does not like any other place. Among the reasons for obtaining methods in other places, those most frequently mentioned included the fact that methods are offered at no cost (41%) and that the facility is not far (18%) (Figure 96).

Figure 96



Actions to improve the quality of care offered by PROFAMILIA's services should be implemented, particularly to improve clients' privacy, one may consider the use of dividers/curtains and closed places.

Although most of the women mentioned that the quality is good when they were asked about other elements such as privacy, safety, and cost, there is still work to be done to improve the quality of care.

Thorough client-provider interaction is important for supplying all contraceptive methods. Research indicates that the quality of interpersonal communications between clients and health care providers, that is, client-provider interactions, influence both the initiation and continuation of the use of different methods.

In the future, it will be of utmost importance to conduct periodic research to evaluate different aspects, particularly those related to quality of care, including duration of care, method choice, explanations given to clients about the advantages, disadvantages, adverse reactions, warning signs and symptoms, usage, providers' perceptions with respect to the care they provide and users' perceptions.

Assessing the comprehensive quality of the CBD network's performance, including other aspects such as availability and adequate supply of methods, coordinating with other health care services, sanitation of the facility or health post, privacy during care, delivery of information and counseling services, waiting time, mechanisms to promote consistent and effective use of methods, is relevant in that it would allow for early detection of potential faults being committed, as well as suggestions for early corrections that will contribute toward improving the system.

Knowledge about Promoters' Existence and Tasks

Figure 97

Seventy-five percent of the women interviewed said that they knew about promoters' existence; 14% stated that they do not exist; and the rest indicated that they did not know. Of those who knew about promoters, only 39% reported knowing what their tasks are (Figures 97 and 98).

Figure 98

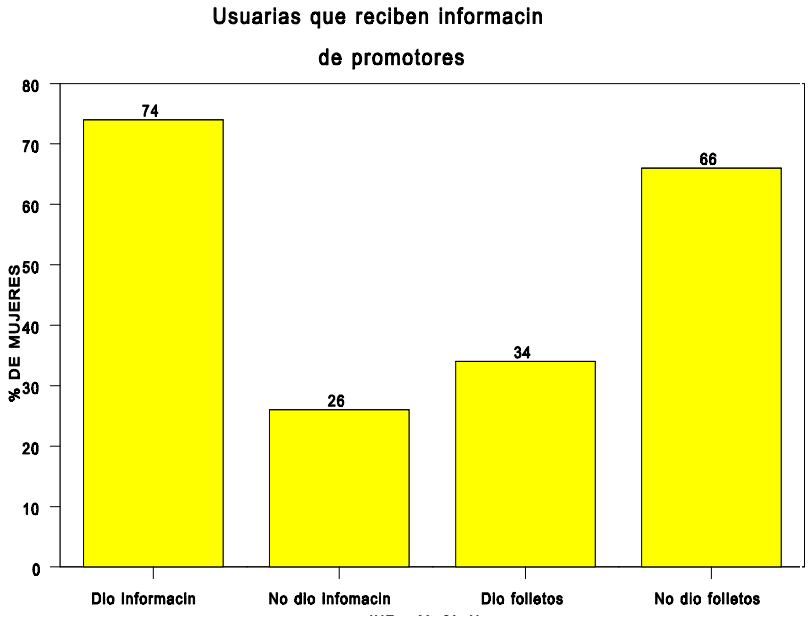
Figure 98

Of the women who had been to a CBD health post, 74% mentioned that they had received

some information from the promoters, but only 33% had received brochures (Figure 99).

This means that PROFAMILIA can improve dissemination not only about the importance of method use but also about promoters' roles in the communities. These are factors that inevitably influence the effectiveness of promoters' performance and can affect current users' demand for PROFAMILIA's services.

Figure 99



D. Health Care System and Family Planning

Women

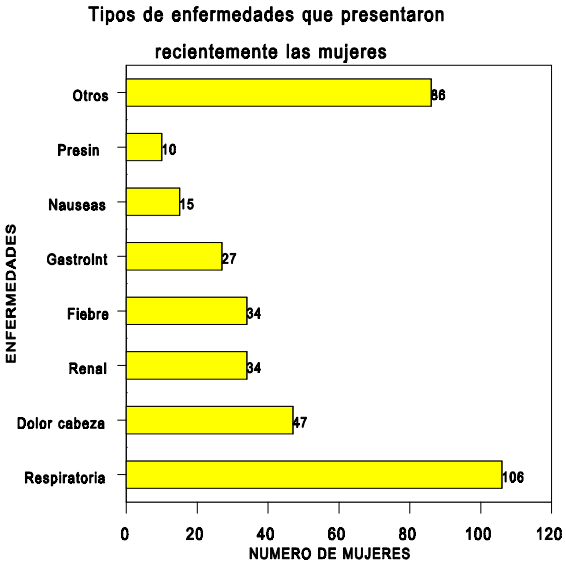
With respect to the women's state of health, the majority (69%) of those interviewed reported that they were in good health, and only 10% expressed having poor health in the last fifteen days prior to the survey (Figure 100).

Figure 100

Thirty-five percent of the women expressed having been sick recently; their most frequent illnesses were respiratory conditions, headaches, renal infections, and, less frequently, blood pressure problems (Figures 101 and 102).

Figure 101

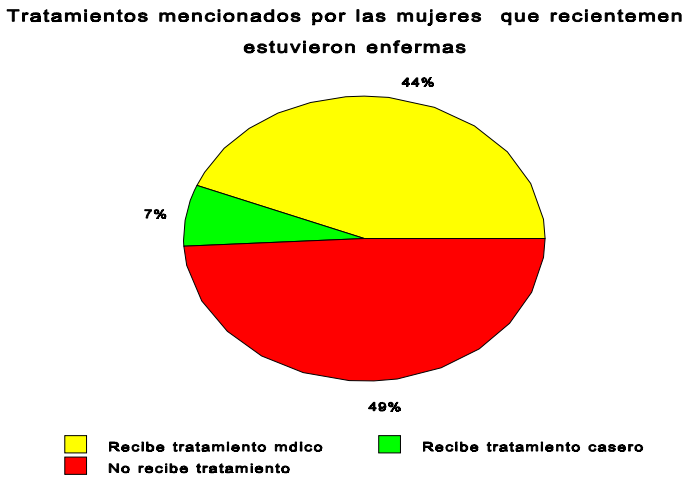
Figure 102



Of the women who reported having been sick, 49% stated that they did not receive treatment. A fair number of women (44%)

received medical treatment. Home remedies were the least used, by only 7% of the women (Figure 103).

Figure 103



The pathological profile of the women interviewed is characteristic of developing countries, where infectious diseases are predominant. In this case, respiratory conditions were the primary cause of morbidity in the country.

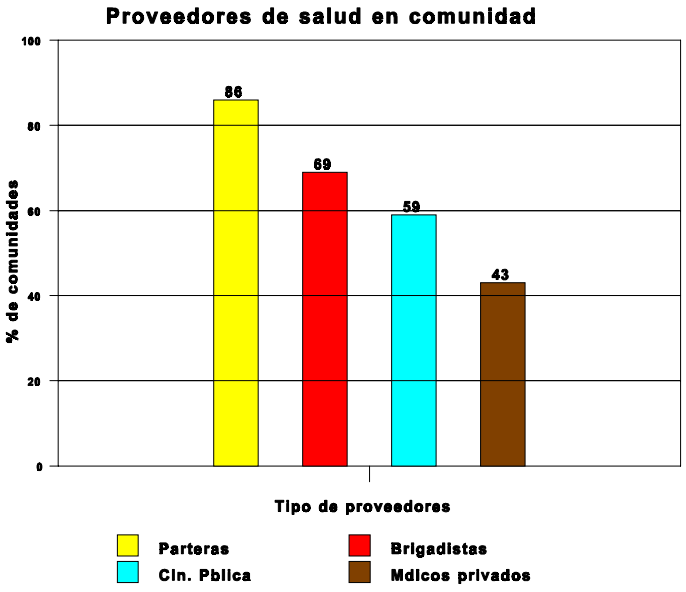
Services

Figure 104

Forty-eight percent of the women had been to a health care facility in the past year, and only 21% in over a year (Figure 104).

The group of midwives, also considered health care providers, is the group with the strongest presence in the various communities. The second most important group is that of health care promoters. Public clinics and private physicians, to a lesser degree, also form part of the group of health care providers in the different communities. (Figure 105).

Figure 105



A study conducted in the different SILAIS in Nicaragua, on midwives' attitudes and practices, found that almost all of the midwives made house visits with the objective of making recommendations related to hygiene and nutrition.

It is important to highlight this fact to support the feasibility of house visits as a strategy for client follow-up.

The group of midwives, in particular, has a great potential to support promoters because midwives play a key role in the community. They are recognized and trustworthy. They are thought of as community leaders and widely respected by the population, who believes they are the most knowlegeable providers in terms of women's health care during childbirth. Thus, incorporating midwives with the network of promoters may result in numerous benefits for the population. In other countries this is an experience that has developed as a strategy to bring health care closer to women.

Only 30% of the promoters conduct activities with other health care providers (Figure 106).

Figure 106

Establishing links and interrelationships with other providers in a community allows promoters to strengthen their work and maximize the impact of activities among the target population, thus increasing the program's effectiveness. Coordination not only among promoters but also with other providers, community leaders, and community groups of any nature may be a strategy that will facilitate information dissemination, as well as the work necessary to educate the population and promote general health care.

Before presenting conclusions and recommendations, we will present a description of a multivariate analysis and of qualitative information that the women in the communities have offered about the survey in general.

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E. Multivariate Analyses (See Annex C for a more in-depth discussion)

This evaluation study is primarily descriptive. The sample of communities and promoters is relatively small, while the number of variables is large. The subjects were chosen for convenience rather than randomly; and, since the study was exploratory, it was not feasible to generate hypotheses and justify one model against another. Another drawback was the large number of dichotomous variables in the study, which are less sensitive than are continuous variables in a linear regression. Therefore, the strategy used to look at multivariate relationships was informal and meant to suggest relationships that could be further explored rather than to definitively describe a predictive model.

Analyses were done separately for promoters and communities. Variables were grouped in sets. Dependent variables represented effective services; independent variables were grouped according to promoters' personal characteristics, promoters' practices, PROFAMILIA's organizational chart, community profiles based on geographic information and on the sample of 20 women surveyed in each community, and the characteristics of the health care system.

Variables within a dimension were correlated, and, for each dimension, sets of relatively unrelated variables that reflected variation were then regressed against dependent variables. Due to the small size of the samples, models were relatively unstable, meaning that the significance level of the independent variables changed, sometimes radically, with the addition or subtraction of other variables. For that reason, it was decided to use simple backward regression to identify variables from each dimension for each dependent variable that would then be pooled into a multidimensional model. This strategy capitalizes on chance and on linear correlation and is, therefore, not a satisfactory technique when seeking to develop explanatory or causal models. However, since in this case we are looking for guidance and suggested relationships, it provides a strategy that is consistent and that produces some intuitively reasonable results.

Perhaps the strongest conclusion that can be drawn from these results is that effective performance, to the extent that we were able to measure it, is not easily predicted. Results are not consistent across the different measures of performance, nor are they particularly strong for each dependent variable by itself. We interpret this to support our hypothesis that there is no simple way to improve effectiveness: it is not dependent only on the personal qualities of the promoter, their service arrangements and experience, PROFAMILIA's interactions with promoters, their communities, or the health care system. Rather, each of these dimensions is probably of some importance, and their interactions are also relevant. While this does not provide a blueprint for action, it could lead to a search for better outcome measures and better strategies for evaluation—ones that are based on specific goals and strategies for the CBD network.

We anticipated that the usefulness of this study would be derived more from its descriptive analyses than from multivariate analyses and are, therefore, not disappointed by these analyses. We still suspect that some combination of factors can lead to better outcomes. However, we think that the type of community, other available resources, personal and service traits of promoters, and the level of institutional support from PROFAMILIA all interact, and that it will be necessary

to particularize plans based on specific profiles. Some communities are better organized than others; some have more alternative services available; some have more knowledge of and experience with family planning. Pharmacists see more clients but community-based distributors can give more individualized care and do more outreach and follow-up. Supervisors can be more or less successful based on the distance they must travel, the number of promoters with whom they work in a community, and the receptiveness of those promoters. All of this is to say that the provision of CBD services is not a cookie-cutter business. One size does not fit all.

It is also to say that quantitative or survey methods by themselves may not be the best way to evaluate certain activities. This study provides much useful general information on providers, services, and the communities in which PROFAMILIA has sites. But it also generates as many questions as it answers. To better understand supervisor satisfaction, in-depth interviews with supervisors can serve as follow-up activities to this survey. To better understand why clients decide to use MINSA services (probably related to cost, lack of knowledge about CBDs, or dissatisfaction with a given promoter) versus CBD promoters (probably related to convenience, possible friendship, and better availability of certain methods), discussions with groups of users could further explore some of the information from this study. To understand why promoters see a certain number of clients (few or many), interviews and observations would be useful.

PROFAMILIA is a large, national organization and must, of course, develop broad policies. However, those policies can take variation into account and can reflect our findings that no simple strategies, such as selecting one type of provider or just improving distribution of supplies, will lead to high-quality services. Rather, all of the factors are probably important. Equally important are some clear definitions of service quality, since neither number of clients seen, nor number of methods distributed, nor follow-up and referrals, nor supervisor satisfaction, nor community recognition fully capture this dimension. It will, of course, remain multidimensional, but the establishment of standards will facilitate future measurement and evaluation.

F. Qualitative Summary

Following is a brief summary of comments and suggestions made by the women interviewed in the community, with respect to family planning, health care services, and health in general.

Among the reasons why the women interviewed believe they should use contraceptive methods, those most frequently mentioned were as follows:

- to avoid having many children, especially because life is very difficult due to the economic situation, and they would want to be able to take care of their children;
- to preserve their own well-being;
- to allow them to plan the number of children they would like to have and to be able to give them a good education;
- to prevent sexually transmitted diseases;
- to be able to decide how many children they would like to have;
- to help the family situation;
- to be able to continue working;
- to be able to watch their children grow and to decide when to have another child;
- to have only as many children as they can support and to be able to space them;
- to prevent AIDS.

Considering the above-mentioned comments, the importance women give to the different family planning methods is based essentially on the benefits these methods provide as far as preventing the birth of many children whom they cannot support, due to the difficult economic situation currently afflicting the country. Also, these responses reflect the women's lack of knowledge with respect to the methods' ability to prevent sexually transmitted diseases, particularly AIDS, which could be dangerous given that only condoms, when used correctly, have this ability.

With respect to family planning methods in general:

- Some women believe that IUDs produce stomachaches; other women reported that they do not produce any type of problem. "They like IUDs because it is the only method that does not give them any trouble".
- Some women believe that none of the methods are harmful.
- Some women believe that pills produce many adverse reactions; other women believe that they don't produce any problems. "Pills interfere with the production of breast milk; thus, the infant hardly eats and becomes sickly".
- With respect to sterilization, one woman reported "**I have my doubts**, because I know women who have undergone sterilization, and, consequently, they have experienced headaches, weight loss, backaches, loss of menstrual period, and loss of sex drive, and other women have become pregnant."
- "Many women have become pregnant while using Depo-Provera."
- "Family planning methods produce many diseases."

- There is a lack of knowledge about the different methods: "Sometimes women have unwanted pregnancies or abortions because they lack knowledge about the different methods.

Some of the beliefs women hold can influence their decision to use contraceptive methods; for example:

- "When pills are dissolved in the woman's mouth, she becomes pregnant."
- "I don't like any of the methods, because even though I do not want to have children, that is the promise God made to women, that of having all His children."

All these aspects that have been mentioned by the women interviewed point out, once again, women's need to receive counseling that will allow them to become better informed about the use of the different methods and the adverse reactions they may produce.

With respect to PROFAMILIA:

- They suggest that pills not be sold anywhere and that they not have expired "because the women become pregnant even while they are on the pill."
- The sterilization procedure is too expensive, and there are no discounts.
- They suggest establishing clinics or posts in the bigger towns.
- Assistance should be offered to women without financial resources.
- Promoters should honor the promises they make to the women.
- There should be more publicity on the sites (e.g., activities to inform the community about PROFAMILIA's purpose).
- Couples should be informed about family planning.
- PROFAMILIA workers should pay more frequent visits to the community.
- PROFAMILIA should have more clinics/sites in the community.
- They should give community talks on family planning methods, their effects and reactions, to prevent the birth of so many children.
- Women should receive more counseling on pregnancy prevention, the different contraceptive methods, and sexually transmitted diseases.
- Promoters should keep confidential any information they have about the women and their use of contraceptive methods.
- Promoters should provide more health education to the community, especially to adolescents.
- Promoters should be provided with a dispensary.
- They should make household visits to promote PROFAMILIA.
- There should be more publicity to improve health care services.
- There should be more communication and information about the work performed at each site.
- The sites should be appropriately stocked, "I have heard that the sites never have any supplies" commented one of the women.

- The site should have better ventilation.
- Promoters should conduct counseling and promotion activities on family planning methods.
- Methods should be given at no cost to those women who cannot purchase them.
- Promoters should visit schools and coordinate such visits with community physicians.
- Promoters should make house-to-house visits, because there are very poor families that have many children and perish for lack of knowledge about family planning.
- Promoters should offer talks, counseling and education on contraceptive methods.

The women's comments with respect to PROFAMILIA point out the importance they give to the cost of the methods, particularly sterilization, and to the need for more publicity that will allow the population to become informed about the existence and purpose of PROFAMILIA's sites and clinics.

With respect to the Ministry of Health:

Comments most frequently mentioned were:

- Women believe that medications, especially children's medications, should be given at the health centers. "I don't like the health care provided at the health center because they don't have any medications available".
- The health care personnel should provide better care to the population, and especially to the women; the same goes for the health care provided in the hospitals.

They also mentioned the following:

- They should open up more health posts because the communities are growing.
- They should provide more information to the population about prenatal care, and they should provide maternal-child health assistance.
- They should improve their interactions with the population and provide care without showing favoritism because we all have needs.
- They should do follow-up of female adolescents who are younger than 15 years of age and sexually active.
- They should disseminate more information about sexually transmitted diseases.
- They should train health care personnel to provide better health care.
- The staff at the health center should explain the problems that may arise from taking the pill.
- Members of the health care staff should work at the posts daily.
- Care should be provided more promptly, with fewer delays and more compassion.
- The posts' physical state needs improvement.
- Physicians should visit those places where it is difficult for the population to have access to health care.

- There should be more publicity about the services offered.
- The health centers are too untidy.

Most of the comments the women made to MINSA addressed the care provided at the health facilities, particularly the affordability of medications and the actual quality of care offered to clients.

Other comments and suggestions:

- The health care facilities should have higher sanitation standards.
- They should fumigate the health care facilities, because they are full of mosquitoes.
- The community is not organized; that is why the projects initiated don't succeed.
- Latrine projects should be established, given that people defecate in the open air and this affects the health of the community.
- There is an economic crisis, a lack of food, and no jobs.
- The community should have an organization dedicated to educating the women about family planning methods and the prevention of unwanted pregnancies.
- Women should not have many children, because they and their children are the ones who suffer.
- Family planning education should be promoted through mass media.
- Women with economic problems must be helped.
- Disposal of trash is one of the main problems.
- The streets need to be repaired.
- Information should be provided directly to adolescents.

IV. CONCLUSIONS

Promoters' Descriptions:

1. The CBD network consists primarily of promoters aged 30-40, a low percentage of them being younger than 20 years of age.

2. Most of the promoters are females, and the percentage of health posts that are managed by male promoters is extremely low.

3. More than half of the promoters have 2-4 years of experience working as distributors of family planning methods for PROFAMILIA.

Network Structure:

4. The CBD network functions as two different systems: one consists of pharmacies and grocery stores, which eminently sell products; the other consists of community promoters from the work centers and clinics, who in addition to distributing methods perform informational and marketing activities.

Promoters' practices:

5. More than half of the promoters receive help from other people for method distribution, for the most part from one or two people, mainly their children and spouses.

6. Almost all of the health posts provide care seven days a week and at least 10 hours a day.

7. One of the network's weak points is client follow-up conducted by the promoters. Almost half of the promoters do not do client follow-up, and a third of them do not do anything when their clients do not return for a follow-up appointment.

8. Almost half of the health posts have inadequate sanitary conditions; most of them don't have access to a private place where the promoters can attend their clients, and a few of them don't have well-marked signs.

9. The contraceptive methods that sold the most during the study were the pill and Depo-Provera.

10. The CBD network does not have a referral and counter-referral system guided by PROFAMILIA, which explains the low percentage of client referrals to other health care services, primarily for Pap smears, gynecologic diseases, and sterilization. The main sites to which clients were referred were PROFAMILIA's clinics.

11. One third of the promoters do not conduct activities to promote the services at PROFAMILIA's clinics.

12. Most of the promoters have written, educational materials (brochures); however, a low percentage of them distribute these materials to their clients.

Demand for PROFAMILIA's Services:

13. There is a low demand for the services offered by PROFAMILIA: each promoter attended an average of 12 clients in a 23-day period.

14. Adolescents and men were the ones who least frequently demanded the health care services offered by the CBD promoters.

Regional Centers' Activities:

Supply:

15. Most of the health posts experienced a lack of supplies of the different family planning methods, for a period of 1-2 months, and a third of them for 3-4 months.

Supervision:

16. The percentage of supervisors who were not satisfied with the duration of their visits to the promoters was higher than the percentage of supervisors who were not satisfied with the number of visits.

Training:

17. The majority of the promoters had received training, primarily on family planning, through PROFAMILIA; however most of them expressed the need to receive more training in the future.

Collaboration:

18. The relationship among promoters in the same community or between neighboring communities is poor, being that they mainly interact with each other when they need to borrow a family planning method.

19. Few promoters coordinate their activities with other health care providers in the community.

Job Satisfaction:

20. All the promoters are satisfied with their work, primarily because they can help others and learn at the same time.

21. More than half of the promoters are willing to carry out more activities than what they currently perform.

22. The promoters suggest that their supervisors support them with technical resources and materials to conduct other activities in addition to method distribution.

23. The supervisors are satisfied with the promoters' work in one third of the communities, and they believe that only one third of the communities have an insufficient number of promoters.

24. The supervisors request more time to spend with the promoters on follow-up, publicity, supervision and counseling.

Communities:

25. Most of the communities included in this study are closer to MINSA's facilities than to PROFAMILIA's clinics.

26. Promoters' participation in community organizations and women's groups is poor; less than half of them participate in community work.

27. The health care providers with the strongest presence in the community are midwives and health promoters.

Women Interviewed:

28. Less than half of the women interviewed were using a family planning method and only a small percentage resorted to PROFAMILIA to obtain a method.

29. The methods that are most frequently used by the women are the pill, female surgical sterilization and Depo-Provera, and the majority of the women are satisfied with the method they use.

30. Depo-Provera users are more satisfied than IUD and pill users.

31. Most of the non-users plan to use a family planning method in the future. Some of the methods they mentioned as potential future methods are the pill, injectables and sterilization. They would like to obtain these methods primarily at the MINSA and PROFAMILIA facilities.

32. The sites where the women most recently obtained their family planning methods are MINSA's and PROFAMILIA's facilities, and most of the women said they were satisfied with these facilities.

33. Most of the women who visited PROFAMILIA's clinics reported being satisfied with these facilities because they provide high-quality, prompt health care, they are closer to their homes, and the contraceptive methods are available and affordable.

34. A high percentage of the women interviewed, including PROFAMILIA users and non-users, knew about the existence of the promoters. However, of these, only one third of them knew what they did. A high percentage of PROFAMILIA users had received some information from the promoters, but few of them received written information (brochures, pamphlets).

Strengths and Weaknesses of the CBD Network

35. The network's strengths are as follows. The majority of the health posts are located in the promoters' homes, and most of them have educational materials. The majority of the promoters are trained and have 2-4 years of experience. They are available to attend their clients at any time of the day. Most of the appointments scheduled with the clients are indicated correctly. More than half of the promoters wish to perform more activities than they are currently conducting, and they wish to receive more training. A high percentage of the women are aware of the promoters' existence.

36. The network's weaknesses are as follows. Almost half of the health posts have inadequate sanitary conditions. Most of them do not have a private place where the promoters can attend their clients, and they had no contraceptive methods for a period of 1-2 months. Almost half of the promoters do not conduct client follow-up, and a third of them do not do anything when their clients do not return for a follow-up visit. Thus, house visits, as a follow-up mechanism, are inadequate. There is a lack of development of activities to educate the community. One third of the supervisors are not satisfied with the duration and number of visits they make to the promoters. There is a lack of coordination among promoters and other health care providers in the community, and only very few of the women know what the promoters' role is.

V. RECOMMENDATIONS

Mission:

1. Redefine the institutional mission in terms of offering comprehensive care to the community with respect to family planning and sexual and reproductive health.

Network Structure:

2. Implement two distribution systems. One would target the community health posts located in the homes of the promoters, who would function as distributors of contraceptive methods and promoters not only of services but also of sexual and reproductive health. The other system would target the health posts located in the pharmacies and grocery stores, which would perform distribution activities only. Each one should have different follow-up, monitoring, and evaluation mechanisms.

Promoters' Selection:

3. Emphasize the importance of incorporating adolescents and those who are younger than 30 years of age into the promoters' network, as well as of males who could attract more clients with these characteristics.

4. Design a strategy that will incorporate establishing some health posts staffed by male promoters and others by female promoters within the same community, with the objective of promoting men's use of family planning methods.

5. Emphasize the importance of incorporating midwives and health promoters into the CBD network, while it is health care providers who have the strongest presence in the community.

6. Establish criteria to select and incorporate new promoters into the network, and consider community involvement in this selection so these new promoters will be accepted and supported by the community.

Promoters' Activities:

7. Train promoters in conducting house-to-house visits as a mechanism to attract new clients and to identify those who don't seek services.

8. Promoters should provide more counseling to clients on the correct way to use contraceptives, as well as suggestions to reduce the side effects of different methods.

9. Design and implement a client follow-up system that includes the use of postcards to remind them of their next visit, the use of a logbook to record care provided to clients and household visits to clients who do not return for follow-up.

Quality of Care:

10. Conduct operations research that allows insight into the personal characteristics of the people who help the CBD promoters, as well as into their performance, knowledge and practices with respect to family planning and sexual and reproductive health, and their willingness to receive future training.

11. Design and implement a system of care, training, follow-up, and evaluation directed towards the distributors' helpers.

12. Conduct operations research to identify and implement strategies for improving the health posts' conditions, according to the characteristics of each health post.

13. Design and implement a referral and counter-referral system that allows monitoring and evaluation of causes /reasons for referral, as well as the evolution of clients who are referred from the health posts to the clinics and from the clinics to the health posts.

14. Design and implement a strategy that allows improving the different elements of quality of care provided by the network to those clients who seek its services (including client-provider interaction, confidentiality, accuracy of the information provided, quality of method indication, and client's waiting time).

15. Conduct periodic research to evaluate quality of care, exploring diverse aspects of care itself.

16. Define indicators that will help measure the promoters' and supervisors' performance, as well as indicators to measure the impact of the network in general, in accordance with PROFAMILIA's goals.

Supervision:

17. Reduce the number of posts that need to be supervised, so the supervisors can conduct more frequent visits to the promoters and thus reduce the number of tasks they perform in the regional centers. This, in turn, would free up their time and allow them to develop other community activities in addition to supplying methods.

18. Include in supervision and training activities those aspects that refer to the importance of hygiene and privacy as elements of high-quality care. Also, assess the possibility of installing curtains where feasible as an alternative to improve clients' privacy.

19. Improve the visibility of the health posts' signs, because this would contribute toward informing the population of the posts' existence and would strengthen PROFAMILIA's image in the community.

Identifying unmet need for services:

20. Conduct qualitative research that will allow identifying strategies to attract, care for and follow up with specific target groups, such as adolescents and male clients.

21. Design and implement programs to promote family planning services targeted particularly toward these groups.

22. Conduct local censuses that will allow defining a target population that could potentially demand family planning services, in order to improve the assessment of actual needs for family planning methods in each community and to prevent the lack of commodities.

Publicity:

23. Design and implement a publicity campaign to disseminate and emphasize the change in PROFAMILIA's mission, with the objective of increasing demand.

Costs:

24. Conduct a cost-benefit analysis of current prices of family planning methods, with the objective of increasing demand.

25. Consider the need to establish sliding scale prices and fees for the diverse contraceptive methods and services offered at the clinics, so that those groups most in need (very poor or extremely poor) may also have access to the services provided by PROFAMILIA.

Community Education:

26. Design and implement an educational campaign that will target all the communities, to be conducted by the promoters and directed by the supervisors.

27. Design and reproduce large quantities of educational materials and emphasize to the promoters the importance of distributing those materials in the community, both to users and non-users.

Incentives:

28. Establish promoter incentives, for referring clients to the clinics, performing Pap smears, inserting IUDs, performing surgical female and male sterilization procedures, and so forth.

29. Motivate promoters to become involved in community organizations or groups so they will participate in community activities, thus facilitating the potential to promote and disseminate information about the roles of the health posts and PROFAMILIA's clinics.

30. Establish a communal identity among PROFAMILIA promoters, using caps, T-shirts and educational materials with PROFAMILIA's logo.

Training:

31. Train the network of promoters on the role of PROFAMILIA's clinics and provide guidance on how to conduct different information and dissemination activities directed toward the general population.

32. Conduct an operations research study to identify a range of potential training strategies, according to the needs of the communities and the promoters' characteristics.

33. Train the network of promoters on aspects such as: reasons for referrals to other health care levels; client follow-up, counseling and community education techniques, the importance of publicity, educational strategies and techniques; ways to use educational materials; diverse components of sexual and reproductive health, gender focus, client-provider interaction, ways to address adolescents' needs; and collecting and adequately using client information. At the same time, there should be ongoing monitoring of the different tasks performed by the promoters in order to control the quality of services.

Coordination:

34. Train promoters on the importance of strengthening coordination among themselves and with other health care providers in their community or neighboring communities, and promoting publicity and educational activities at the same time.

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VII. ANNEXES

A. Glossary

CDC: Centers for Disease Control

CBD: Community-Based Distributors

KAP: Knowledge, Attitudes and Practice

MINSA: Ministry of Health

PROFAMILIA: Asociación Pro-Bienestar de la Familia Nicaragüense

B. List of Variables

The following is a list of the variables collected and their source.

Dependent Variables

The following variables related to the services were used to represent the effectiveness of the CBD promoters:

- Method mix (S2)
- Number of new users in one month (S2)
- Number of subsequent users in one month (S2)
- Number of referrals and reasons for referral (S2)

The following variables related to the perceptions and attitudes of current and potential users were collected from a sample of 20 non-pregnant women, aged 15-29, in each community. These variables were used to provide additional information on the effectiveness of the CBD promoters and were collected through both quantitative and qualitative questions:

- Knowledge about CBD promoters (S5)
- Attitudes towards CBD promoters (S5)
- Experiences with CBD promoters (S5)
- Satisfaction with CBD promoters, if applicable (S5)

Independent Variables

The independent variables represent four dimensions: the individuality of the CBD promoter, the community, PROFAMILIA, and the community's health care system.

CBD Promoters

Personal

Demographics

- Age (S3, S1)
- Sex (S3, S1)
- Marital Status (S3, S1)

Educational level (S3, S1)
Involvement in community activities (S3, S1)
Occupation/socioeconomic status (S3, S1)
Use of contraceptives (S3, S1)

Services

Quality of data as an indicator to quality of care (S2)
Service experience as a CBD promoter (S3)
Why and how s/he became a CBD promoter (S3)
Hours available to attend clients (S3)
Days available per week (S3)
Visibility of the facilities' signs (S3)
Quality of the facility: sanitation, privacy (S3)
Responses to the questions on knowledge about sanitation, referral, side effects (S3)

PROFAMILIA

Logistics between the community and the clinic (S3)
Supervision (S3)
Past training experience (S3, S1)
Knowledge about services (S5)
Use of services (S5)
Satisfaction with service, if s/he is a client (S5)
Distance and accessibility to the PROFAMILIA clinic (S4)

Community Context

Rural/urban – stratification variable (PROFAMILIA, secondary data)
Socioeconomic status of the community (S3, S4)
Level of community organization/women's organizations in the community (S3, S4, S5)
Geographical accessibility of the community (S3, S4)
Family planning history among women aged 15-29 in the community

- Current contraceptive users
  - Method (S5)
  - Satisfaction with method (S5)
- Current non-users
  - Why a non-user? (S5)
  - Previous use (S5)

History of use of health care services among women aged 15-29 in the community

- Last time health care services were used: when, how, where (S5)

Family planning/Health Care System

Other health care and family planning services available in the area (S3, S4)
Distance to other services (S4)
Other health care promoters based in the community (S4, S5)

Current and previous users of contraceptive methods

- Source (S5)
- Why do they use that source? (S5)
- Satisfaction with the source (S5)

C. Multivariate Analyses

Methods

This evaluation study is primarily descriptive. The sample of communities and promoters is relatively small while the number of variables is large. The subjects were chosen for convenience rather than randomly; and, since the study was exploratory, it was not feasible to generate hypotheses and justify one model against another. Another drawback was the large number of dichotomous variables in the study, which are less sensitive than are continuous variables in a linear regression.

Analyses were done separately for promoters and communities. Variables were grouped in sets. Dependent variables represented effective services; independent variables were grouped according to promoters' personal characteristics, promoters' practices, PROFAMILIA's organizational chart, community profiles based on geographic information and on the sample of 20 women surveyed in each community, and the characteristics of the health care system.

Variables within a dimension were correlated and, for each dimension, sets of relatively unrelated variables that reflected variation were then regressed against dependent variables. Due to the small size of the samples, models were relatively unstable, meaning that the significance level of the independent variables changed, sometimes radically, with the addition or subtraction of other variables. For that reason, it was decided to use simple backward regression to identify variables from each dimension for each dependent variable that would then be pooled into a multidimensional model. This strategy capitalizes on chance and on linear correlation and is, therefore, not a satisfactory technique when seeking to develop explanatory or causal models. However, since in this case we are looking for guidance and suggested relationships, it provides a strategy that is consistent and that produces some intuitively reasonable results.

Results and Discussion

Perhaps the strongest conclusion that can be drawn from these results is that effective performance, to the extent that we were able to measure it, is not easily predicted. Results are not consistent across the different measures of performance, nor are they particularly strong for each dependent variable by itself. We interpret this to support our hypothesis that there is no simple way to improve effectiveness: it does not depend solely on the personal qualities of the promoter, their service arrangements and experience, PROFAMILIA's interactions with promoters, their communities, or the health care system. Rather, each of these dimensions is probably of some importance and their interactions are also relevant. Although this does not provide a blueprint for

action, it could lead to a search for better outcome measures and better strategies for evaluation—ones that are based on specific goals and strategies for the CBD network. Results are presented in tables and followed by discussion. The first section contains promoter-level analyses and the second community-level analyses.

Each table has a column for each dependent variable and a row for each independent variable entered into the first set of regressions where each dimension was looked at separately for each dependent variable. Each table lists those variables that, using a selection level of P<=1, were entered into the final multidimensional model. All variables selected by this criteria are indicated with an '*'. In some cases, independent variables were not included in a regression because their high correlation with the dependent variable distorted the results. For example, in the community-level analysis, the number of helpers and the total number of promoters in a community was highly related to the total number of users seen in that community, so those variables were not used in that regression. If a variable was also significant at the P<=1 level in the final model, the direction of the coefficient is indicated. Due to missing values, the number of cases varied across regressions. The number given in the first row of these tables reflects the number of cases in the final multidimensional regression.

Promoter-Level Analyses

Selected Variables- Promoter-Level Analyses

Dependent	**# clients intake form (S2, N=62)**	**# clients self-reported (S3, N=64)**	**# methods (S2, N=63)**	**% of appoint-ments given correctly (S2, N=55)**	**# community talks self-reported (S3, N=72)**
Independent					
Promoter: personal					
Age					
Sex					
Has spouse/ partner					
Education					
Community Participation			*		* +
Other employment					* +
Use of contraceptives (current or				*	

previous)					
Promoter: services					
Experience	* +				
Time post open		* -	* +	* -	
Knowledge about referrals		* +			*
Community posts		* -			
Pharmacy posts					
Grocery store posts	*				
Client follow-up					*
# of helpers			* -		
Sanitation					
Had training	* -				
Wants to do more					
PROFAMI-LIA					
Months without Depo-Provera					
# posts in the community					
Lack of other methods					
Educational materials					
Satisfied with duration of supervisor's visits					
COMMUNITY					
Urban					* -
Knowledge about community groups					

HEALTH CARE SYSTEM					* +
# of midwives				* +	
Coordinates with other providers					

We have used two different measures for number of clients: the first comes from the intake forms completed by the promoters over a 23-day period. We have no way of knowing how accurate and complete these were, and we expect that there was variability in the quality of the data. On the other hand, we asked the promoters to estimate the number of clients that they saw in the previous week. This has the obvious weakness of relying on recall and possibly capturing a subject's desire to please and to appear busy.

None of the variables that we selected to represent personal qualities of the promoter were related to either measure of number of clients seen. Length of time as a promoter was positively related to the first measure and knowledge of reasons for referral to the second. Previous training is negatively related to the first, and the amount of time a post is open, as well as being a community post, are negatively related to the third. These results indicated that pharmacists are dominating the other types of posts in terms of number of clients seen. Pharmacists are less likely to have received training in the role of promoters, and their posts are not open the same number of hours and days that community posts are. When the same regressions are rerun without pharmacists, the significant variables are experience, in the first case, and knowledge about referrals, in the second case. (Having helpers is negatively related in the first case.)

Although it is important to PROFAMILIA that promoters see a reasonable number of clients, it is not clear that community promoters should compete with pharmacies as to the number of clients seen. Community promoters are available at most times, except when they have other tasks to fulfill. As expected, they are providing a different type and quality of service than is possible in a commercial environment.

None of the variables related to PROFAMILIA as an organization were significantly related to either of the "quantity" measures. Among the women, there was a negative relationship with respect to the community's knowledge about community groups. This negative relationship should, to some degree, reflect the activity level of groups in the community, even though our sample of 20 women is very small. The same issue was studied in the community analyses, and no relationship was found between the organizational level of a community and the total number of users recorded. The number of midwives in a community was related to the reported number of clients, and a promoter's report that s/he coordinated with other providers in the community was positively related to the first measure. This may give some slight indication that some communities are more "organized" in terms of health and family planning, but this would need further investigation.

Another measure of quality of services is the provision of a variety of methods, since age, gender, and health status affect method choice. Although we do have a measure of this for each provider, based on the information from the intake forms, this variable is somewhat confounded by the number of clients seen, because a promoter who saw only one client could only distribute one method and, with two clients, only two methods. Although this is only 12 percent of our sample, the opportunity for the provision of a variety of methods obviously increases with the number of clients seen. Only these variables were significant in the final analysis and all three came from the promoter service dimension. The amount of time that a post was open and the desire to do more activities were positively related to the outcome. The number of helpers was negatively related. Thus there may be some relationship between a promoter's personal efforts and a variety of methods.

From the intake forms, we captured some information about setting follow-up visits, and we calculated the percent of visits for pills or for Depo-Provera that indicated a follow-up visit within a reasonable length of time (1 packet of pills, 30 days; 2 packets, 60 days). This was also negatively related to the amount of time a post was open and positively related to the number of midwives in the community. It is not clear how useful this variable is, because it does not seem to be related to the measure of follow-up that we used. However, once the promoters are more accustomed to completing an intake form and have received some training in the importance of documenting follow-up plans, this measure might provide better information.

Finally, we used promoters' self-report of community talks as a measure of effectiveness. This was positively related to their community participation and to their other jobs. This may speak to the advantage of recruiting promoters who are outgoing and spend time outside of their homes, fulfilling their responsibilities.

Community-Level Analyses

Selected Variables – Community-Level Analyses

Dependent	**# of clients (S2, N=40)**	**Promoters' knowledge (S5, N=38)**	**# of current users (S5, N=38)**	**# of current or previous PROFAMILIA users (S5, N=39)**	**Supervisors' satisfaction (S4, N=39)**
Independent					
PROMOTER					
# of hours	**NA**				
# of helpers	**NA**				*
# of talks					
PROFAMILIA					
Supply (supervisor)					

Supervisors' satisfaction with promoters		* +		* +	* +
# of posts	**NA**				* --
Supervisors' satisfaction with duration of visits				* +	
Median of months without Depo-Provera					
COMMUNITY					
# of women unemployed					*
# of women with knowledge about community groups					
# of midwives					
Urban	* +				
Socioeconomic status			*		
Accessibility	* -				
Other promoters					
# of women satisfied with their method		* +			
COMMUNITY WOMEN					
# of ex-users without good reason					
# of women who never used without good reason	* +				
# of illiterate women	*				
# of women with no children					

HEALTH STATUS HEALTH CARE SYSTEM					
# of women ill (in last 2 wks.)					
# of women who did not receive health care in the last year	*	*	* -		
# of women who acquired their latest method in a FP post		* +		**NA**	
Time it takes to reach MINSA facility		* +			
Accessibility of MINSA facilities					
# of promoters in the community	**NA**		* -		

We also looked at five dependent variables with the community as the level of analysis. Given that there were only 40 communities in our study, these regressions were more unstable than were the promoter analyses, but possibly more reliable since each of the cases is truly independent. In the provider analyses, providers from the same community had, of necessity, the same information for all variables except the provider personal and service characteristics. The first variable is the sum for the community of the individually reported number of clients seen from the intake form information. Three variables are derived from the interviews with community women and must be looked at as based on very small samples (N=20).

We asked women if they knew whether there were PROFAMILIA CBD promoters in their community, whether they presently used contraception, and whether they had ever used PROFAMILIA's CBDs as a contraceptive source. We also treated the supervisor's level of satisfaction with the work of the promoters in the community as an outcome.

Given that the number of clients seen is clearly related to the number of promoters in a community, it is no surprise that urban communities had more total clients. Also, communities that were less accessible, as defined by the supervisor, had more clients, possibly indicating that it was more difficult for them to use other sources of service. There was also a positive relationship

between the number of users and the number of women who had never used contraception but probably should have (i.e., they had no "good" reason for not using). We have no explanation for this last relationship.

Women were more likely to know about the promoters in communities where: the supervisors were satisfied with the number of promoters, the women were satisfied with their present method, women were more likely to have received their contraceptive method most recently from a CBD post, and distances to the nearest MINSA clinic were longer than to the nearest promoter. These results speak positively for a certain density of services, particularly where alternatives are not nearby.

Very few variables were related to the number of current users, which may be due primarily to the small samples. The fact that there were more users was positively related to the number of women who received health care in the past year, negatively related to the number of women who did not receive care, and negatively related to the number of promoters in the community. The communities with the largest number of users often had only one promoter. This may indicate that other hidden factors are more important or, as we suspect, that the sample was too small to yield useful information on this relationship.

Communities that had more CBD users were also more likely to be ones where supervisors were satisfied with the number of promoters. Supervisors were slightly more likely to be satisfied in communities with five promoters in the study (83%), but 61 percent were satisfied with those communities with only one promoter.

Thus, their satisfaction is probably related to the promoters themselves and/or the fit between the size of the community and the number of promoters. Communities in which supervisors were satisfied with the duration of their supervisory visits also had more CBD users, although the two satisfaction indicators were not associated.

Finally, supervisor satisfaction was only positively related to their satisfaction with the number of posts and negatively related to the actual number of posts in the study. (In communities with more than five promoters, only five were surveyed. Thus, five posts in the study actually indicate five or more posts in the community.) It must be remembered that these are not direct relationships, but are weakened or strengthened by other variables in the regression. Therefore, given supervisors' satisfaction level with the number of promoters in the community, they are more likely to be generally satisfied with communities with fewer promoters.

Conclusions

We anticipated that the usefulness of this study would derive more from its descriptive analyses than from multivariate analyses and are, therefore, not disappointed by these analyses. We still suspect that some combination of factors can lead to better outcomes. However, we think that the type of community, other available resources, personal and service traits of promoters, and the level of institutional support from PROFAMILIA all interact, and that it will be necessary to

particularize plans based on specific profiles. Some communities are better organized than others are; some have more alternative services available; some have more knowledge of and experience with family planning. Pharmacists see more clients but community-based distributors can give more individualized care and do more outreach and follow-up. Supervisors can be more or less successful based on the distance they must travel, the number of promoters with whom they work in a community, and the receptiveness of those promoters. All of this is to say that the provision of CBD services is not a cookie-cutter business. One size does not fit all.

Quantitative or survey methods by themselves may not be the best way to evaluate certain activities. This study provides much useful general information on providers, services, and the communities in which PROFAMILIA has sites, but it also generates as many questions as it answers. To better understand supervisor satisfaction, in-depth interviews with supervisors can serve as a follow-up to this survey. To better understand why clients decide to use MINSA services (probably related to cost, lack of knowledge about CBDs, or dissatisfaction with a given promoter) or to use CBD promoters (probably related to convenience, possible friendship, and better availability of certain methods), discussions with groups of users could further explore some of the information from this study. To understand why promoters see a certain number of clients (few or many), interviews and observations would be useful.

PROFAMILIA is a large, national organization and must, of course, develop broad policies. However, those policies can take variation into account and can reflect our findings that no simple strategies, such as selecting one type of provider or just improving distribution of supplies, will lead to high-quality services. Rather, all of the factors are probably important. Equally important are some clear definitions of service quality, since neither number of clients seen, nor number of methods distributed, nor follow-up and referrals, nor supervisor satisfaction, nor community recognition fully capture this dimension. It will, of course, remain multidimensional, but the establishment of standards will facilitate future measurement and evaluation.

D. List of Communities in the Study

Matagalpa

Urban:

01 Sébaco
02 La Calabaza
03 Matagalpa
04 La Dalia

Rural:

05 Waswalí
06 El Jocote
07 Susulí
08 El Tuma

Boaco

Urban:

09 Matiguás
10 Bo. Tierra Blanca de Matiguas
11 Teustepe
12 Boaco

Rural:

13 Wiscoyol
14 El Tule Central
15 El Paraiso
16 La Cruz de Teustepe

Juigalpa

Urban:

21 Juigalpa
22 Nueva Guinea
23 Acoyapa
24 La Libertad

Rural:

17 San Miguelito
18 La Esperanza de Nueva Guinea
19 La Batea
20 San Antonio de Nueva Guinea

Rivas

Urban:

25 Moyogalpa (Altagracia)
27 Buenos Aires
28 Tola
31 El Rosario

Rural:

26 Pueblo Nuevo
29 Las Pilas de Tola
30 Guisquiliapa
32 Sota Caballo

Managua

Urban:

37 Monseñor Lezcano/Edgar Lang
38 Barrio 19 de Julio
39 Barrio Riguero Norte
40 Barrio Oswaldo Manzanarez

Rural:

33 Las Banderas
34 Buena Vista Norte
35 El Salto
36 Los Cedros

E. Data Collection Instruments