

# Expanding Contraceptive Choice: Findings from Brazil

**Margarita Díaz, Ruth Simmons, Juan Díaz, Carlos Gonzalez,  
Maria Yolanda Makuch, and Debora Bossemeyer**

*This article presents findings from a participatory action research project in a municipality in southern Brazil that models a new and holistic approach to broadening women's contraceptive choices. The project encourages a collaborative process between researchers, community members, and public health managers to diagnose service-delivery problems, to design and implement interventions, and to evaluate their effectiveness. Findings from the baseline evaluation revealed major constraints in availability of and access to family planning and reproductive health services for women, as well as severe deficiencies in quality of care. Interventions designed to address these weaknesses, bound by the limited resources of the public sector, focused on training, restructuring of providers' roles and service-delivery patterns, the management process, the creation of a referral center, and the introduction of injectables, vasectomy services, and a program for adolescents. Evaluation results show the project's considerable impact in broadening reproductive options, although not all issues, especially those related to sustainability, have been resolved. (STUDIES IN FAMILY PLANNING 30[1]: 1-16)*

Contraceptive choice is a central element of quality of care in the provision of family planning services. It is also an important dimension of women's reproductive rights. Consequently, the introduction of new fertility-regulation technology into family planning programs often is advocated as a means of expanding women's options. The history of introducing contraceptive methods, however, has proved that a narrow focus on technology is not beneficial to women. Although in recent years considerable progress has been made in understanding the

complexities involved in expanding method choice (Snow and Chen 1991; Bruce 1987; Hull 1996), the importance of placing contraceptive introduction within a social and organizational context is still not widely appreciated. The aim of this article is twofold: first, to demonstrate the need for improving reproductive health services in a municipality in southern Brazil and second, to present results from a project that has sought to address these needs by modeling a new approach to contraceptive introduction and the broadening of reproductive choice.

The project is part of an effort initiated by the World Health Organization and currently being carried out in nine countries to implement a participatory strategy based on quality of care for the introduction of fertility-regulation methods (Spicehandler and Simmons 1994; Simmons et al. 1997). This approach shifts attention from an exclusive emphasis on new technology to a holistic view of factors relevant for method introduction, including a concern for the social context of method choice, the currently available method mix, and the organizational capability of programs to ensure quality of care. Within this framework, the central policy issue is not only whether or not a new contraceptive method should be introduced within a given setting, but on how reproductive choice can be ensured.

---

*Margarita Díaz is Director, Department of Education, Training and Communication, CEMICAMP, Caixa Postal 6181, 13081-970, Cidade Universitária, Campinas, SP, Brazil. Ruth Simmons is Professor, Department of Health Behavior and Health Education, University of Michigan School of Public Health, Ann Arbor. Juan Díaz is Senior Program Associate, Population Council, Brazil. Carlos Gonzalez is Coordinator, Program for Integrated Assistance to Women's Health, Brazil. Maria Yolanda Makuch is Research Assistant, CEMICAMP, Brazil. Debora Bossemeyer is Clinical Training Advisor for Latin America and the Caribbean Office, JHPIEGO Corporation.*

The strategic approach suggests three stages of work, beginning with a nationwide assessment of the need for contraceptive introduction and followed by introductory research and by deliberate efforts to foster the use of assessment and research results for policy and program development. In Brazil, the nationwide assessment showed that public-sector availability and access to contraceptive services were highly constrained (Formiga et al. 1994). Few public-sector health facilities provided the range of government-approved contraceptive methods, which included the pill, the intrauterine device (IUD), barrier methods, lactational amenorrhea, and periodic abstinence, or attended to all elements of quality of care. Provider bias against such underused methods as the IUD was found to be widespread, and technical competence and counseling were weak. Rather than increasing options and access, clinic-level education for users often served to control demand for scarce supplies and for appointments. In some service settings, women were required to schedule a series of appointments—for an educational session, a Pap smear, receipt of the Pap-smear result, and a consultation with a specialist—before they finally obtained an IUD. Tubal ligation, for which demand is high, was provided in a limited number of public facilities and only under special circumstances. Vasectomy services were similarly constrained.

Overall, the assessment showed that implementation of family planning services, a component of Brazil's Program for Integrated Assistance to Women's Health (PAISM), was weak. Therefore, adding new technology was not a priority (Formiga et al. 1994). Instead, improvement in access, availability, and the quality of services for methods already approved was urgently needed, and managerial conditions that would make these improvements possible had to be created. The assessment also noted considerable demand for injectables, reflected in the use of a high-dose once-a-month brand, Perlutan<sup>®</sup>,<sup>1</sup> which women obtain primarily through pharmacies. Because Perlutan is of unknown safety, the assessment recommended that after injectables receive Ministry of Health approval, research should be conducted to assess the service-delivery implications of adding injectables with proved safety and efficacy to the range of methods available.

As a result of the assessment and of these recommendations, research was initiated in the municipality of Santa Barbara d'Oeste, in the state of São Paulo, to test a participatory approach to the expansion of reproductive choice that emphasizes organization development, as described below. The characteristics of this project, referred to here as the Santa Barbara Project, differ from standard introductory studies. (For a discus-

sion of these, see Simmons et al. 1997.) The project was undertaken within a reproductive health framework that directs attention not only to contraceptive services but also to related elements of reproductive health. It has replaced the conventional emphasis on the acceptability and continuation rates of a particular contraceptive method with an investigation of means for improving the delivery system to enhance access, availability, and quality of care in the provision of all contraceptive methods—that is, those currently provided within a service-delivery setting and those added through the project.

## Background and Framework

The Santa Barbara Project draws on three intellectual traditions, "organization development" (French and Bell 1994), "action research" (Whyte 1991; Chisholm and Elden 1993; Israel et al. 1993), and "participatory research" (Cornwall and Jewkes 1995; Tandon 1981; Parker et al. 1998). Organization development entails collaborative diagnosis of organizational problems, identification of possible interventions and of ways of facilitating implementation, and evaluation of effectiveness. Sharing several of the characteristics of organization development, action research and participatory research are egalitarian in focus. The project represents a collaboration<sup>2</sup> between the municipality of Santa Barbara d'Oeste, the Center for Maternal and Child Health Research (CEMICAMP—a nongovernmental organization linked to the University of Campinas),<sup>3</sup> and members of the local community.

In the wake of nationwide decentralization in Brazil, public health services have been placed under municipal jurisdiction for financing and funding allocations. Federal and state authorities establish policies and operational guidelines but do not have control over services. The project site, the municipality of Santa Barbara d'Oeste, located in the central-western region of the state of São Paulo, 30 kilometers (18.6 miles) from Campinas, was selected because of severe deficiencies in its family planning services, its location near CEMICAMP and its previous collaboration with CEMICAMP in the area of training, and because of the health secretary's and the mayor's strong commitment to improved services.

At the initiation of the project in September 1994, the municipality had an estimated population of 170,000. The region has experienced rapid population growth in the past two decades as the result of a high birth rate and heavy internal migration. The municipality is almost entirely urban. The majority of the population is poor and employed in the sugar-cane industry. Eighty-eight

percent of the population lives within walking distance of a health facility. Municipal health services are provided through 11 facilities: Nine primary-care facilities (health posts) are responsible for pediatric care, immunization, basic curative care, therapeutic nursing care, gynecology, and dentistry; two secondary-care facilities (health centers) have the same responsibilities as the health posts but benefit from a more favorable staffing pattern. Health centers can rely on the regular presence of a gynecologist for at least one four-hour session every weekday and may also have a resident specialist in cardiology or radiology. Auxiliary nurses and attendants in these municipal service sites have limited training: Typically, they have completed a six-month paraprofessional course, whereas attendants have been exposed only to brief training. In 1993, 113,166 people, of whom 79 percent were female, received some care at these facilities.

Project activities were implemented by an executive committee including members of the health secretariat of Santa Barbara d'Oeste, service providers, collaborators from CEMICAMP, and representatives from a local women's organization established to participate in the project. The executive committee began its work in September 1994. Researchers from CEMICAMP acted as outside catalysts in the project, using their expertise to stimulate service-renewal processes. CEMICAMP also assumed special responsibility for the conduct of research, receiving technical support from the Population Council and the University of Michigan.

Because a key objective was to test realistic solutions for service improvements within current institutional constraints, the project was undertaken primarily within the budget limitations of the municipal health services. Exceptions included support for facilitating project initiation: for training; for development of information, education, and communication (IEC) materials; for computer equipment; and for initial supplies of contraceptives.

## Baseline Diagnostic Research

Baseline diagnostic research in Santa Barbara d'Oeste, conducted to provide detailed information for the development of interventions, was undertaken between November 1994 and March 1995 to assess: (1) the perspectives of community members, of users of clinic facilities, and of providers and administrators; (2) quality of services and patient flow; (3) physical and human resources; and (4) the management system. The various methods employed for this diagnostic research are discussed below.

## Methods

Ten community-based focus-group discussions ascertained the perspectives of both users and nonusers of services. Six focus-group discussions were conducted with women, four with men. A total of 68 women participated in the groups. Their ages ranged from 17 to 49; 83 percent were married or living in union; the majority had one or two children; about three-fourths had no more than four years of education; none had been in school for more than 11 years; 76 percent had ever used or were using a contraceptive method, mainly tubal ligation or the pill. In these communities, many women work as maids in other households or secure income through home-based production. The 28 male participants were similar to the female participants in terms of marital status, number of children, and contraceptive use. However, they were slightly older (ranging from 22 to 57) and, on average, were better educated.

Participating women were selected through their contacts with community-based organizations such as day-care centers, neighborhood associations, or church groups. Women living both near and far from a municipal health facility were included. Male participants were selected from among employees of two municipal departments: water and sewage, and transport and maintenance. Although some of the male participants were administrators in the water and sewage department, most worked on repair or cleaning crews; primarily, they represented the population that seeks access to public services. Male participants came from different parts of Santa Barbara d'Oeste and were interviewed at their place of work.<sup>4</sup>

### *Clinic-based Interviews*

Two sets of interviews were conducted at the clinic level: 95 exit interviews with individual women<sup>5</sup> who received care from a gynecologist and interviews with 75 users of other clinic services who were questioned either before or after receiving services. These interviews provided information on users' reactions to reproductive health care at municipal facilities. Twenty-eight percent of the gynecology patients were antenatal cases, 31 percent were seen in connection with a Pap smear, 6 percent sought family planning services, and 30 percent had received other gynecological care.

### *Interviews with Providers and Administrators*

The perspectives of providers and administrators were assessed through group or individual interviews with staff from all 11 municipal health facilities, as well as with supervisors and administrators. Altogether, 31 providers or administrators were interviewed concerning such

topics as their roles and functions within PAISM; the difficulties encountered in their work; training; the need or demand for contraceptive services; method availability and demand for methods; and men's role in family planning. In addition, in-depth interviews were conducted with five officials from the federal, state, and regional levels. These interviews focused on decisionmaking authority within PAISM and on each level's role in providing contraceptive and other supplies to municipalities. Substantial information was gathered from the participants about the service system and its managerial constraints.

#### *Patient-flow Analysis*

Patient-flow analysis is a technique for tracking the exact amount of time patients spend in a health facility from the moment they arrive until they leave. This analysis was undertaken in all nine health posts and involved 107 visits with patients. These data provided information on waiting times and on the amount of time patients spent with each staff member at the clinic.

#### *Observation*

Information on quality of care was based on observation of the clinics' functioning and of the care provided by the five municipal gynecologists during 42 consultations with patients.<sup>6</sup> Each physician was observed during one clinic session that typically lasted 90 minutes. A detailed observation guide was used to assess interpersonal relations and the technical competence of the provider during the consultation.<sup>7</sup> Drug-storage facilities, informational displays, and cleanliness were also evaluated. In addition, the variety of diagnostic activities undertaken at clinic sites provided an extended opportunity for informal observation of the clinics' functioning.

#### *Findings*

Overall, the diagnostic study revealed basic problems with the availability and accessibility of women's health services. According to the Brazilian constitution, women have a right to receive care within the public sector, but the availability of physicians, especially of gynecologists, was found to be extremely limited. Availability of services was further curtailed because physicians working for the municipality are paid extremely low salaries<sup>8</sup> and therefore are eager to keep their clinic service to a minimum. Instead of attending 16 patients during a four-hour clinic session, they often saw fewer than 16 women and completed consultations in two hours or less. Pregnant women were given priority in obtaining appointments, leaving few slots for those in need of gynecological care or family planning services. Observers

also noted inefficient use of medical personnel and underuse of attendants. As many as 51 percent of gynecologists' consultations were consumed with collecting Pap smears or with giving patients their Pap-smear results. When providing family planning services, physicians' limited time was devoted to routine dispensing of contraceptives, which could have been performed by auxiliary personnel.

Faced with physicians' time constraints and a great demand for services, clinic staff resorted to a complex process of appointment scheduling that discouraged women from seeking care. Appointments were scheduled on a limited number of days during the week for as long as one or two months in advance. Women had to arrive at the health post in the middle of the night and stand in line for several hours to obtain care or to make an appointment. Often, after waiting in line, they were told that the appointment schedule was filled, and sometimes they were blamed for not arriving earlier. As a consequence of these scheduling patterns, the rate of no-shows was high.

The difficulty of gaining access to reproductive health services emerged as the central theme of focus-group discussions. The complex process of appointment scheduling was perceived as a major hardship:

*Woman 1:* It is hard; we have to stand in line for a very long time. It is very hard. I came here the first day of the month and I only got [an appointment] for the 16th day of the next month.

*Woman 2:* Well, for me it was even harder; it took three months to get my consultation. Yes, that's about it: between two and three months, sometimes more. It takes so long, and sometimes you come and you don't get your consultation.

The problematic nature of access to care was also reflected in a sarcastic comment made in response to the question of where women seek family planning services:

*Woman 1:* If she has the right conditions, she can go to a private doctor, but if she doesn't, then she goes to the health post.

*Woman 2:* She can even have two children before she gets the consultation. (*Everybody laughs*)

Focus groups with men confirmed women's difficulties in obtaining appointments at health facilities. Sometimes men help their wives with the time-consuming task of standing in line. One man commented: "I go there at three in the morning, and at seven my wife comes and she stays in line and I go to work."

The problems associated with accessing reproductive health care were poignantly summarized in the

statement that getting an appointment “is like winning the lottery.” Heavy time, energy, and transportation costs were involved in this gamble to obtain access to care. As a result, women felt they could not take care of their own health. One focus-group participant remarked: “We didn’t take care in the right way; because to go to the health post is so far, we don’t have the money to go; women cannot have time to go.”

### *The Quality of Services*

Quality of care is defined by “the way clients are treated by the system, or the actual process of care giving, and by a focus on the client’s or user’s perspectives of services” (Hull 1996: 11). The project diagnosed quality of care based on the six-element framework outlined by Bruce (1990): choice; information giving; technical competence; interpersonal relations; an appropriate constellation of services; and continuity of care. This diagnostic research showed that improvements were necessary, particularly in the technical dimensions of care and in the information provided to users. However, in contrast to the consensus that access to care constituted a massive problem, findings on the quality of services showed mixed results.

Only two of the 42 observations<sup>9</sup> of patient–provider interactions were family planning consultations. These two consultations, both with IUD users, reflected a good level of technical quality of care. However, in other consultations, gynecologists revealed poor knowledge of contraception or neglected attention to family planning even when such a service was clearly indicated. In one case, the gynecologist advised a woman to rest for a period of two years from her use of the pill and in another, suggested that withdrawal was a poor method of family planning, but because the patient was 42 years old and “could not become pregnant any longer,” continuing with this practice would be appropriate.

In the provision of antenatal care, gynecologists attended only to the medical aspects of pregnancy and neglected emotional, psychological, and informational needs. In one case, a 15-year-old woman was given no information about her pregnancy although she had never been pregnant before. Gynecological exams were sometimes incomplete or of poor quality: Half of the physicians omitted a breast examination, and when one was performed, it was not always thorough. Providers washed their hands or used gloves only intermittently prior to examining a patient. Referrals, although indicated, were not always given, and frequently, pertinent information was not recorded.

Interpersonal relations were relatively cordial during the observed interactions. Physicians established a

friendly relationship with patients. Their style, however, was authoritarian and provided little opportunity for women to ask questions. Patients’ privacy was not maintained. Consultations tended to be rapid, lasting, on average, five to six minutes within a range of one to 15 minutes. Waiting time for a consultation ranged from two and a half to four hours. Records to allow continuity of care were not kept.

Focus-group participants mentioned issues relating to quality of care less frequently than they did problems related to access, and when they spoke of these, they expressed various opinions. Some women were satisfied, reporting good care and supportive relations with staff. For example: “I have nothing to complain [about]; once you get the appointment, the treatment is good.” Another participant mentioned that she herself was well attended, but that the quality of services depends “a lot on the circumstances and on the doctor who will attend you.”

Other women had complaints, primarily concerning the limited amount of information they received, about the lack of equipment, or about poor interpersonal relations with the attending staff. Some women commented both favorably and unfavorably within the same session and even within the same sequence of exchanges. For example:

*Woman 1:* I have not found, up till now, anything bad. I have been well attended . . . educated.

*Woman 2:* I always go there, to the [health post]. I go there, but I don’t like the doctors there very much. They don’t pay attention to us. We talk and talk, and they don’t say anything about the exam. They only say it’s good and give a prescription.

*Woman 3:* They also make mistakes. There are some that don’t say the right thing . . .

Nurses received mixed reports as well. Some were perceived as gentle and accommodating, others as unhelpful and rude, failing to assist women with their problems. When women came to the health post because they felt ill, they were sometimes told they did not have a problem or that they could only receive care in case of major illness. Examples were given of women with serious health conditions who could not obtain services.

Even when women were asked specifically about the quality of the attention they had received, their conversation returned spontaneously to their difficulties in obtaining care. When access to care is a major barrier, the question of its quality becomes moot.

Because men do not generally seek care at municipal facilities, they discussed the quality of attention less

than women did. One commented that the doctors were good; the problem was the long wait to get appointments. A few of the other comments were extremely critical of the doctor and the attention received. Men also raised an issue that was not mentioned by women: the costs associated with medical examinations, which can be considerable even at public clinics.

The exit interviews revealed more favorable user reactions than might have been predicted from the comments made in the focus-group discussions. Almost all respondents said that they had received the attention they requested, considered the care to have been good, and felt well treated. Clearly, women who have just "won the lottery" and seen a gynecologist are more likely to express satisfaction than are community women who are reflecting upon a history of experience dominated by lack of access. These findings also reinforce the widely noted tendency for exit interviews, based on structured questions, to reveal positive reactions to services obtained (Simmons and Elias 1994). Overall, findings from the community and from clinic patients show that once the problem of access is resolved, women tend to be grateful for the care they receive.

Even the exit interviews, however, pointed to problem areas. Three-fourths of the respondents complained of long waiting times, and almost half considered the consultation too short. Women did not feel encouraged to ask questions; when they did, typically they received no answers.

#### *The Status of Family Planning within Municipal Services*

The diagnostic study in Santa Barbara d'Oeste confirmed what had been observed in the nationwide assessment: Although family planning services had lowest priority within an overall weak public health system, the community perceived a strong need for such services. Family planning existed at these facilities as a small, incidental part of gynecological care, for which providers had little preparation, a limited range of technological options, and almost no time. Provision of contraceptive services was extremely low. Facilities offered oral contraceptives, IUDs, and condoms, but the supply was irregular. Limited supplies of Depo Provera had been made available immediately prior to the inception of the project. Women using the pill received a one-month supply with no provision for follow-up. Only two of the gynecologists were trained in IUD insertion. Diaphragms were physically present at some posts, but they were neither discussed with nor offered to patients. Physicians had not received family planning training during their medical education, and paramedical clinic staff also were untrained and did not dispense contraceptives. No informational materials designed for providers or for cli-

ents were available. With the exception of nutritional education for pregnant women, no educational activities for family planning or other dimensions of reproductive health were undertaken.

Because of the low availability of services, many community women did not know that contraceptive services could be obtained at public facilities. Seventy percent of the women who had just visited a gynecologist did not know that the health post offered family planning services, even though half of them already used a method of fertility regulation. Of those who practiced contraception, fewer than 9 percent obtained care from municipal health services. Most went to pharmacies, private physicians, or unspecified other sources. In interviews, men pointed out that many people, especially the poor, were not practicing family planning because of the difficulty in obtaining appointments for services at municipal facilities:

If they want to get family planning at the post, it takes a long time; they have to be in line; they have to go very early, so they don't go.

My wife, she goes to the gynecologist. She usually gets up at four in the morning to get a place in line. But usually women don't go. They stay six months, for more than a year or two years without going to the doctor. How can you do family planning without going to the doctor? Sometimes they take the "remedy" [the contraceptive pill], but they don't know if this medicine is good, if it is effective, or if it isn't good for their health, because they don't go to the doctor.

Men also referred to the inadequate availability of contraceptive supplies at the health post:

How do they expect us to do family planning to control births when they don't have methods? I have never seen methods or condoms given at the health posts. . . . There are women who don't have the money to buy these medicines. And it is the poorest ones that have more children, because they don't have the conditions to prevent [having them].

#### *The Management System*

The major problems with the provision of municipal reproductive health care were clearly systemic. In addition to those already discussed, several additional weaknesses in the overall management system were identified during the diagnostic research. Above all, technical oversight of municipal facilities and supportive supervision were lacking. Some administrative control was exercised, but it was not directed toward solving the press-

ing problems of service availability or quality of care.

A management information system was in place, but it did not discriminate among the various elements of reproductive health, thereby making the tracking of contraceptive-service provision impossible. As a result, these data were not adequate to aid in effective supervision, and full reimbursement from the Sistema Unico de Saúde (SUS), the national institution that reimburses health institutions for services they provide, could not be obtained.

## Interventions

Are conditions such as those described in this study amenable to interventions undertaken within the resource and institutional constraints of the public sector? If so, what strategies are likely to succeed? Two basic premises informed the Santa Barbara Project from its inception: First, public institutions are subject to improvements through a rational process of diagnosis, intervention, and evaluation. Clearly, conditions cannot be transformed miraculously, but incremental change is feasible. Second, leadership commitment and a participatory process are essential ingredients of success.

A first step toward implementing change was to institute collaboration among municipal health authorities, CEMICAMP staff, and community representatives. Although such collaboration constituted a dramatic departure from standard administrative procedure, it was created with relative ease, in large measure because of Santa Barbara's health secretary's genuine desire to bring about change, and because of his long-standing relationship with CEMICAMP. The involvement of community representatives was stimulated with the help of the municipal coordinator of PAISM, who informed various community groups of the new project and supported the formation of a local women's organization, SOS Mulher. Members of this local group participated regularly in the project's executive committee meetings, representing the community perspective in the committee's decisionmaking process. After they had received basic training, they also provided health education at service sites.<sup>10</sup>

Even before the detailed diagnostic research was completed, some areas for intervention had been identified and discussed in the executive committee meetings: training, the management information system, contraceptive supplies, recruitment of additional personnel, and the system of appointment making and service delivery at health facilities. Some interventions—training, for example—were initiated prior to the completion of the diagnostic research. Interventions were further discussed by the executive committee in light of the find-

ings from the diagnostic evaluation. Interventions were started sequentially, and new initiatives continue to be undertaken.

## *Systems Development and Quality of Care*

Although the expansion of contraceptive options was a major project goal, both the nationwide assessment in Brazil and diagnostic research in Santa Barbara d'Oeste revealed that systems development was a prerequisite for working on these issues. When services are severely limited and family planning is largely unavailable, the first priority should be the development of a service system that has the capacity to broaden contraceptive choice and attend to related reproductive health needs. Specific interventions undertaken to accomplish these objectives are discussed below.

## *Training*

All medical, auxiliary, and attending staff of the 11 health facilities received training that was interactive in nature and that aimed to update technical information, improve attitudes toward the patient's role in decision-making, and enhance communications skills. The training program used a five-step quality-of-care and participatory approach. It covered four broad areas: (1) the philosophy of reproductive health, with a focus on women's needs; (2) the characteristics of a high-quality family planning service-delivery system, including job descriptions, definition of functions, scheduling, and patient flow; (3) information about contraceptive methods, including injectables, which were introduced into municipal services as part of the project; and (4) counseling and communications skills. Training included a theoretical section, with role playing, case-study discussions, group activities, and learning games, followed by practical training for all personnel. The theoretical training was evaluated through a pre- and post-training questionnaire that showed significant improvement in technical knowledge and attitudes related to free choice and counseling.

The physicians' formal training lasted for five days and was supplemented by one week of individualized practical training at the CEMICAMP family planning clinic. The latter included IUD insertion and follow-up, contraceptive screening, and management of complications and side effects. The acquisition and implementation of skills were reinforced by subsequent monitoring and supervision by trainers. Auxiliary nurses and attendants received three days of classroom training, supplemented by a one-day practicum on Pap-smear collec-

tion and breast examination, followed by monitoring. Some community members who wished to volunteer to provide health education in the municipal health service participated in a training session covering family planning, breastfeeding, sexuality, and gender relations. A one-day workshop for all staff of health posts and centers on the topics of sexuality, sexually transmitted diseases, and HIV / AIDS completed the overall training intervention.

The experience of presenting the training sessions taught several lessons. The inadequate and often outdated knowledge about contraceptives that physicians revealed during the sessions reaffirmed the need for this training. The training alone did not suffice to change the practice of service delivery, however. For example, physicians who had been instructing women for years to begin the pill on the fifth day of their menstrual cycle were hesitant to give them newer guidelines. They were also reluctant to provide information about the newly ascertained and approved duration of IUD effectiveness, fearing that patients might believe they were being given incorrect information. Changes in technical norms must be supplemented with written materials, preferably those bearing the stamp of approval of a credible institution such as the World Health Organization. Modifying authoritarian attitudes of providers was difficult, especially those of physicians, as was moving toward a style of interaction in which patients' perceptions and rights predominate. By contrast, suggestions about the need to improve interpersonal relations were more readily accepted by both medical and attending staff.

The long-term impact of training has remained limited because of the major turnover in personnel. Whereas three of the trained gynecologists working at the newly created referral center (discussed below) were still in place by mid-1997, only one of the original four trained gynecologists remained at the other municipal health sites. Similarly, only four of the 11 trained receptionists remained in service, and six of the 24 trained auxiliaries/attendants left. Some additional training has been undertaken for replacement staff. However, this high turnover threatens the sustainability of change in public-sector health services. Currently, the referral center is beginning to address this problem by providing on-the-job training to newly recruited gynecologists at the other health-care facilities.

### *Changes in Scheduling and Service Delivery*

Opening up the appointment scheduling system and improving the efficiency in the use of the gynecologists' time were steps that followed the completion of training courses. According to the new procedures, women

could schedule appointments any day of the week. Pap-smear collection no longer required an appointment and could be performed during clinic hours by attending nurses and auxiliary staff. Women using oral contraceptives could be resupplied for as long as one year without seeing a gynecologist. Job functions of the auxiliary staff were expanded and clarified, allowing them to collect Pap smears and inform patients of normal results; to perform breast examinations on a routine basis; and to provide family planning education and follow-up care for pill and condom users, employing the IEC materials made available by the project. As a result, the doctors had more time for consultations in gynecology, antenatal care, and family planning.

Changes in appointment scheduling and service delivery were welcomed by the staff. That dysfunctional scheduling patterns persisted for so long is surprising in view of the general positive response to these changes. Staff members were frustrated with the previous appointment scheduling process because they witnessed the distress of women struggling to gain access to care. Staff did not have the confidence or the authority to undertake changes in what they perceived to be an unsatisfactory system. The patient-centered philosophy of care emphasized during training, as well as ongoing support from the project, encouraged a shift.

As time elapsed, however, physicians exerted pressure to return to previous patterns. Although dysfunctional from the patient's point of view, the old system served the physician's interest in limiting the time devoted to public service. Clearly, an additional level of innovation was needed.

### *Personnel, Supplies, and the Management Information System*

Some service modifications were easier to accomplish than the planners had anticipated, although difficulties arose in areas where none had been expected. The dearth of gynecologists in health facilities had appeared as a major gap from the earliest contact with the Santa Barbara d'Oeste municipal health system, and the fear was expressed that the resources for additional recruitment could not be generated. The extremely low level of remuneration for municipal service suggested that qualified physicians and nurses would not be interested in these assignments. In fact, both the resources for recruitment and the medical personnel were found, making possible the addition of five gynecologists to the staff. With the project's emerging success increasingly visible, more positions were made available. Again, the critical factor facilitating this change was the commitment of the health secretary, because with increasing decentraliza-

tion, the authority for recruitment has shifted to municipal officials. Budget cuts recently instituted by the new municipal government, however, threaten previous gains.

The supplies bottleneck was solved with relative ease. Although the nationwide assessment and diagnostic research showed that irregularity and inadequacy of contraceptive supplies were major problems, requests for supplies from the Ministry of Health and for local purchases, using municipal budget-line items, were approved without great difficulty. A focus on these issues, the strong support of the health secretary, and input from CEMICAMP produced the necessary changes. Moreover, having endorsed and participated in the nationwide assessment in Brazil, the Ministry of Health was eager to support projects resulting from the assessment.

Efforts to improve the management information system in order to assure detailed tracking of family planning services and to obtain a higher level of reimbursement from SUS met with only partial success. The original plan had been to adapt the family planning management information system from the University of Campinas for use in Santa Barbara d'Oeste. The university hospital developed an elaborate and well-functioning system that allows reimbursement from the national program for a variety of contraceptive services.

Relevant staff were trained and a system was put in place. The new system now provides useful information about family planning services; however, several factors prevent its use for reimbursement from the SUS. First, the entire municipal health information system would have to be changed, not just the family planning information system. Although the university model could have been used for a total system change, the resources for doing so were unavailable. Second, the municipality of Santa Barbara d'Oeste was already approaching its ceiling for SUS reimbursement, and therefore, a more accurate system lost its potential for adding substantially to the level of resources. Third, reimbursement patterns are subject to prior negotiation between the municipality and the SUS. For example, when the municipality of Santa Barbara d'Oeste began to provide previously unavailable vasectomy services, reimbursement could occur only if the new services had been registered and approved by the SUS. Although such negotiations with the SUS are theoretically feasible, they require substantial investment in time and effort, which did not seem warranted financially.

### *Instituting a Family Planning Referral Center*

Although the interventions described above made a difference, they could not, by themselves, produce substantial change in service availability. The quantity of con-

traceptive services increased during the first months of the project, but subsequently reached a plateau. A more basic structural innovation was required. It took the form of a specialized center for women's health care with an emphasis on family planning and other reproductive health care. Because of municipal resource constraints, such care could not be provided at all facilities. Adding a reproductive health referral center to one of the health centers was feasible, however, as was identifying sufficient gynecological medical staff to ensure regular availability of services throughout the week.

One of the two health centers, located centrally within Santa Barbara d'Oeste, was so designated. It was remodeled, additional staff (one gynecologist, two psychologists, and one nurse) were recruited, and staff members were trained. Since July 1995, women have received contraceptive and other reproductive health services at this center without enduring the long waiting times for appointments that were typical in the past. A broadened range of contraceptive options is consistently available: Depo Provera, the IUD, the pill, diaphragms, and condoms. In addition, vasectomy services have been organized, including individual and couple counseling and screening sessions, clinic services, and follow-up. By April 1998, more than 300 vasectomies had been performed by a gynecologist who had received training by CEMICAMP in vasectomy provision. The referral center also provides reproductive health services for adolescents. By mid-1998, on average, 60 adolescents were seen for antenatal care each month and 130 adolescents were consulting for "other" reasons, including family planning. Adolescent health agents meet regularly with program and CEMICAMP staff and perform educational and peer counseling services in schools and in the community.<sup>11</sup> In addition to providing family planning services for adult women, the referral center offers care in cervical pathology and in breast and cervical cancer prevention.

Both structural and motivational factors explain the success of the referral center. Restructuring, designed to identify a referral center with emphasis on family planning, elevated these services to the level of a medical specialty and created both the physical and organizational space to implement innovations in this designated setting. The creation of the center, together with the health secretary's support, made it possible to find committed gynecologists motivated to work in the field of family planning within the context of reproductive health. Physicians providing care in the referral center spend the required amount of time at a clinic session rather than following the usual practice of staying only briefly and attending 16 patients hurriedly.

The implementation of the referral center legitimates the concept of family planning services within the con-

text of municipal health care. Further work is required, however, to strengthen the referral mechanisms from health posts to the center.

As with some of the other successful interventions, this center was funded within the resource constraints of the public sector. The additional resources required were limited and could be mobilized once the value of this intervention became apparent and high-level commitment existed to proceed. An exception is the adolescent health agent program, which was organized with more intensive input from CEMICAMP than were the other services.

## Findings from the Evaluation

The results discussed above are based on observations obtained in the course of the implementation process, from executive committee meetings and referral center service statistics. Toward the end of the second project year, between July and September 1996, a formal evaluation was conducted using the same instruments and approaches as the baseline diagnostic study.<sup>12</sup> Findings from this evaluation and results from an analysis of management information system data for 1995–97 are presented below.

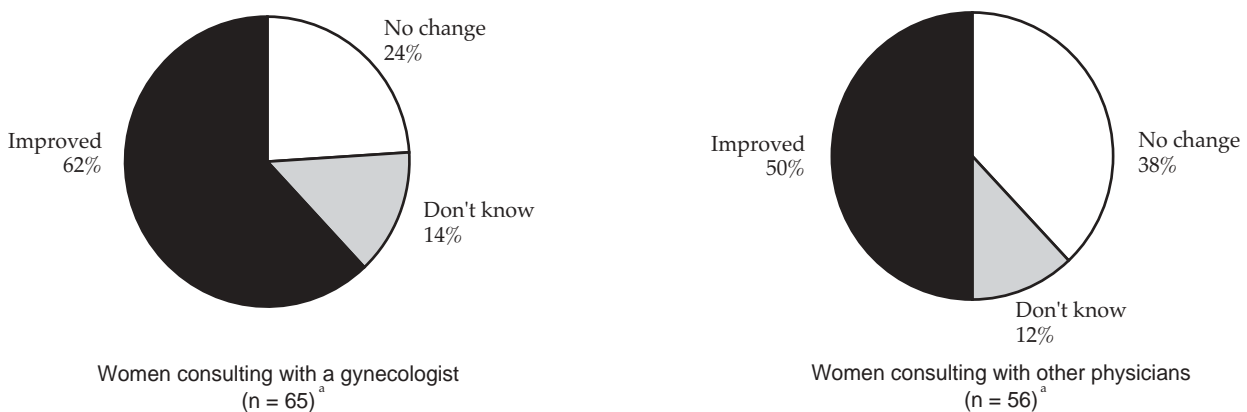
The evaluation confirmed that, overall, the innovations undertaken in the municipality of Santa Barbara d'Oeste were well received by the community. More than half of the women who had used municipal facilities for more than one year felt that services had improved. As major interventions were focused on women's health, satisfaction was greatest among those who had consulted a gynecologist (see Figure 1). The most frequently noted improvements were related to appointment scheduling, waiting times, and the availability of

gynecologists. Such positive response was also evident from the community-based focus-group interviews.<sup>13</sup> In each of the four women's focus groups, referral center services were mentioned, although not all participants were aware of them. Members of one of the two male groups were aware of their existence as well. On the whole, referral center services were considered to be of good quality. Other municipal facilities were also more favorably evaluated than they had been in baseline focus groups. Overall, physicians received more favorable comments than they had previously. However, some of the old complaints remained, including long waiting times for appointments or consultations and unfriendly attendants.

Direct observation of service delivery showed the deleterious consequences of the turnover in gynecological staff. The technical competence of the doctors recruited to replace those who had been trained and had left the municipal services was weak. Of the two gynecologists who remained, one demonstrated good technical competence; the other did not, although both established good interpersonal relations. Attendants trained to perform breast examinations and Pap smears executed these tasks well. Receptionists were found to have improved their relations with patients. The quality of group education was good; however, because of staff shortages, educational activities were often interrupted.

Figure 2 shows a considerable increase in the number of consultations provided by gynecologists. Average monthly reproductive health consultations at the 11 municipal health service sites increased by almost 50 percent between 1995 and 1997. The 1995 figure probably reflects some project impact, because by the time the new management information system (which made such tracking possible) was put into place, other interventions

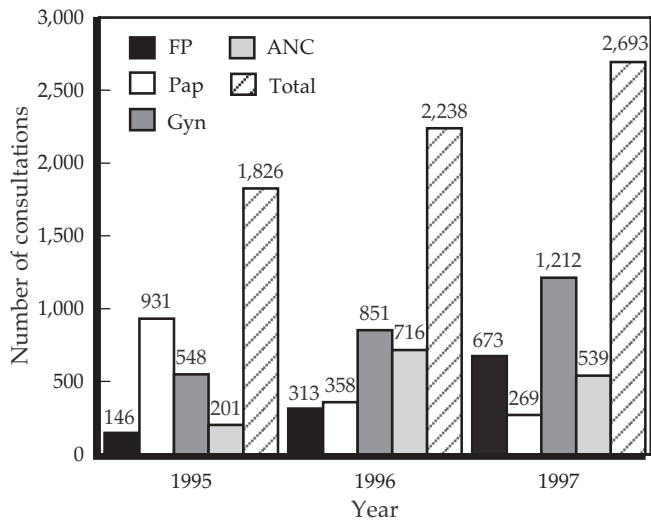
**Figure 1** Users' perception of quality of care 18 months after initiation of the interventions, Brazil, 1996



<sup>a</sup>Women who had been using the municipal health facilities for one year or more.

Source: Exit interviews with women consulting a gynecologist and clinic-based interviews with women consulting other physicians.

**Figure 2** Average monthly consultations provided by gynecologists at 11 municipal health facilities, Brazil, 1995–97



**Source:** Management information system data from consultations provided by gynecologists for a six-month period (from April to September each year), in family planning (FP), Pap-smear collection (Pap), general gynecological services (Gyn), and antenatal care (ANC).

were already under way. These data also demonstrate a greater than fourfold increase in attention to family planning between 1995 and 1997.

Figure 3 confirms that increased efficiency in the use of the gynecologists' time allowed them to pay greater attention to family planning matters. The data distinguish between visits that were related exclusively to Pap-smear collection or return of Pap-smear results and visits to obtain other gynecological care that may or may not have included a Pap smear. As noted above, at the beginning of the project, gynecologists spent most of their time collecting Pap smears rather than providing care that

required a specialist. As a result of project interventions, gynecologists devoted more attention to family planning, general gynecological services, and antenatal care.

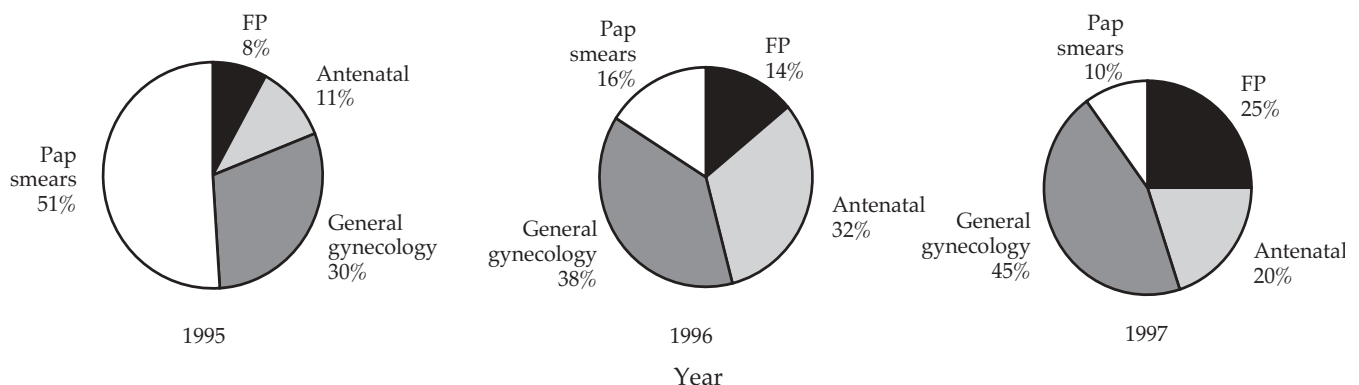
The changes in consultations devoted to antenatal care over the three-year period are surprising. Antenatal care increased in comparison with its level at the beginning of the project period, but the number of such consultations was lower in 1997 than in 1996. The relatively low proportion of attention given to those requiring antenatal care is surprising, because the dominant impression among providers, auxiliary staff, and service administrators is that gynecologists give priority to pregnant women. No clear explanations are apparent for this decrease in antenatal consultations during 1997.

Figure 4 demonstrates the important contribution of the referral center to the overall increase in service availability. In comparison with 1995, gynecologists provided on average 358 additional monthly consultations at the referral center in 1997. Increases were seen in each area of reproductive health care, with family planning in the lead, followed by "other" care, which includes primarily antenatal care and attention to cervical pathologies. At the beginning of the project, a monthly average of only 36 consultations was provided at the referral center for family planning; in 1997 this figure had risen to 271.

These results show that family planning services, which at the beginning of the project period were almost nonexistent in municipal health care, had become more widely available in 1997. Simultaneously, with the introduction of family planning, other components of reproductive health care were expanded. Thus, overall, reproductive choice was broadened, and many women who had not been able to obtain such services from municipal institutions are now able to do so.

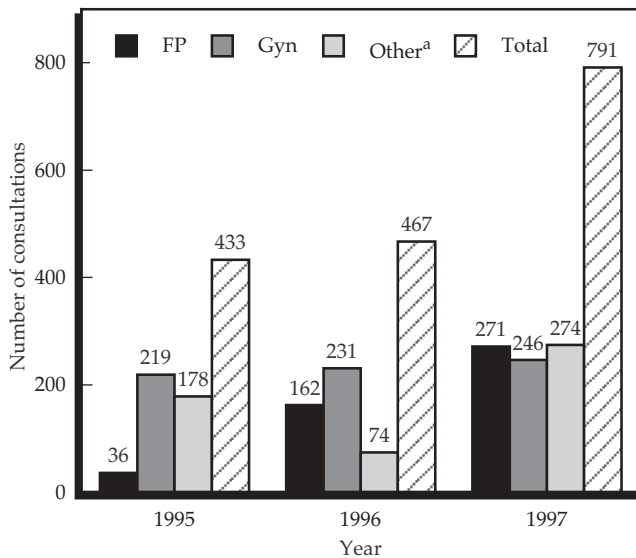
To what extent has method choice been expanded?

**Figure 3** Type of consultations with gynecologists at 11 municipal health facilities at the beginning of interventions and at one and two years later, Brazil, 1995–97



**Source:** Management information system data: consultations provided by gynecologists for a six-month period (from April to September each year).

**Figure 4** Average monthly consultations provided by gynecologists at the referral center, by type of service, Brazil, 1995–97

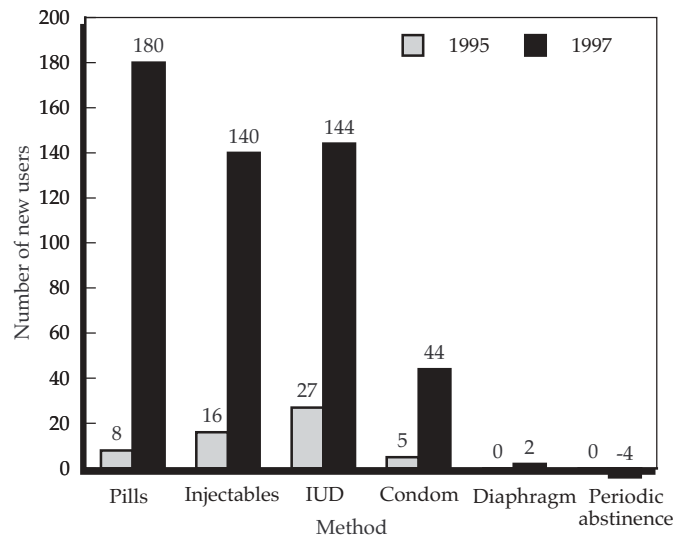


<sup>a</sup>Includes antenatal care, postpartum visits, colposcopy, and cervical cancer care. **Source:** Management information system data: consultations provided by gynecologists in municipal services for a six-month period (from April to September each year).

Management information system and referral center service statistics reveal that women and men have more options than they did before the project was initiated. The clearest evidence is the vasectomy program, which introduced this method for men. By April 1998, two years after the program began, 310 vasectomies had been performed at the referral center, and a hundred men were on the waiting list. These figures are not included in the management information system data, because the system does not compile information on services for men. Vasectomy procedures in the private sector are costly and not readily obtainable. With the introduction of these services at the referral center, men's ability to participate effectively in fertility regulation has increased substantially. In addition, condom distribution at the center has increased considerably. Condoms are now provided to men and to women, whereas in the past, only women could obtain them. Condoms provided to men are not reflected in the management information system data, and therefore, condom distribution through the municipal health services appears limited.

The increase in availability and accessibility of family planning services in the municipal system is associated with an increase in the number of women who leave the health facility with a contraceptive method (see Figure 5). The greatest increase has occurred in the number of new users of oral contraceptives, reflecting women's strong preference for this method in Brazil. When

**Figure 5** Number of new users of contraceptive methods who first consulted with a gynecologist in a municipal health facility for a six-month period (April–September), by method, Brazil, 1995 and 1997



**Source:** Management information system data.

family planning services become more widely available, women opt for those methods that are most in demand. When method availability was constrained, prior to the initiation of the project, IUD acceptors constituted the largest number of new users. When services are difficult to obtain, women will use them for methods that they cannot find elsewhere at an affordable price. Pills and even injectables can be procured through pharmacies; IUD insertion, however, requires the services of a trained provider. The numbers for pills, injectables, and the IUD for 1997 in Figure 5 show that these three methods are well represented in terms of new users, providing indirect evidence that women have the option to choose among these three methods. Injectables, which were introduced as part of the project's interventions, are clearly a significant component of service delivery.

Whether counseling about periodic abstinence and withdrawal and barrier methods improved as a result of the interventions is not clear. Information about these methods was provided during training and tends to be discussed in a balanced way during educational sessions, but provider bias against these methods appears to persist. Only two new users of diaphragms were recorded for a six-month period, and four women discontinued periodic abstinence after consulting with a gynecologist, perhaps reflecting both low demand for this practice as well as such a bias.

Table 1 provides a summary of problems identified, project interventions, and results. The latter are based

**Table 1** Summary of problem areas, project interventions, and intervention results in municipal reproductive health services, Santa Barbara d'Oeste, Brazil, 1995–98

Problem area	Project intervention	Intervention result
<b>Availability</b>		
Inadequate or no services in family planning (FP)/reproductive health (RH) for women or adolescents; and no FP for men	Created referral center (RC) with special emphasis on FP; services for men; counseling; health education; and adolescent services Upgraded responsibilities of auxiliary nurses Provided staff with training in FP and RH	Greatly increased availability and access to FP and related RH services at RC Some increase at other municipal sites; sustainability is a problem Pap-smear collection performed primarily by auxiliaries Auxiliary nurses perform breast examinations, although not consistently
No counseling or educational activities	Recruited two psychologists at RC Trained all staff	Group education and counseling for women, couples, and adolescents available at RC; weak at other sites Education and peer counseling by adolescent health agents in schools and in the community
Insufficient number of gynecologists	Recruited additional gynecologists	Some increase in availability of services; turnover of physicians and budget cuts reduce availability again
Gynecologists fail to spend required time at sites	Increased motivation through creation of RC	Four gynecologists at RC work full shifts Gynecologists at other sites continue old pattern
No referral from health posts to RC	Introduction of referral slip	Referral system still not working
<b>Access</b>		
Long waiting times to obtain appointment Long delays at time of appointment Restrictive appointment scheduling Pressure from gynecologists to keep number of appointments low Inappropriate use of gynecologists' time	Revised scheduling procedures Opened scheduling system Shifting of Pap-smear collection and delivery of normal results from gynecologists to attending staff	Open access to FP consultation and short waiting times at RC; some improvements at other facilities Increased number of consultations; some continued pressure from physicians outside of the RC to restrict appointments Increased availability of appointments
<b>Quality of services</b>		
Deficiency in technical quality of care Deficiency in interpersonal quality of services Lack of training Lack of RH orientation	Theoretical and practical training of all medical personnel, attending staff, and administrators in contraception, counseling, and related RH services Training of community members in health education	Improved quality of care at RC (better counseling, more contraceptive options, more humane treatment) Attendants perform Pap-smear collection adequately; improved interpersonal relations Problems continue at other sites due to turnover of gynecologists and lack of supervision
Limited method choice	Increased provision of methods approved by Ministry of Health (MOH) Introduction of Depo Provera and vasectomy	Depo Provera and other contraceptive methods offered in RC and at other sites with gynecologists No resistance to such broadening of services
<b>Supplies</b>		
No or inadequate contraceptive supplies	Local purchase through municipality and MOH allocations	Contraceptive supplies now regularly available at RC Greater availability at other sites; some inconsistencies
No or inadequate information, education, and communication (IEC) materials	Provided by project New development of IEC materials	Available and regularly used at RC Also available at other sites; lapses occur IEC materials not always provided to users
<b>Management</b>		
Weak supervision	Recruited new, more capable, and better-motivated supervisor	Supervision focused on problem solving and quality of care now in place; some problems remain
Weak staff motivation	Creation of RC Training	Motivation increased, mainly among RC physicians and all auxiliary and attending staff
Staff turnover		Remains a problem
Weak management information system	Instituted new system	New system allows detailed tracking of RH services for women; fails to track all health services
<b>Community participation</b>		
No participation of community representative in municipal health-service programs	Creation of SOS Mulher, local women's organization for project participation	Regular input from two community members at executive committee meetings; educational activities organized by community members at health facilities; input not as intensive as hoped

on several sources of information and time periods: qualitative and quantitative evaluation results for July–September 1996; management information system data for 1995–97; referral center service statistics; and observations from monitoring visits and participation in the executive committee through April 1998.

## Conclusion

The Santa Barbara Project modeled a new approach to contraceptive introduction emphasizing quality of care, working within a framework developed by the World Health Organization. For anyone unfamiliar with this framework and its rationale, the use of the term “contraceptive introduction” within this context may appear startling. So much was accomplished in the Santa Barbara Project—expanding and improving service delivery not just in family planning but in other areas of reproductive health—that a recapitulation explaining why this project is fundamentally about contraceptive introduction and expansion of choice is useful.

Conventionally, contraceptive introduction has been defined as the point at which a new contraceptive product is made available on the market or added to family planning services. The introduction often includes training and the provision of supplies and information. Introduction may involve recently developed products as well as methods that have been available for some time elsewhere but not in a particular setting. Although a variety of motives may drive the introduction of new methods, from a reproductive health perspective, the purpose is to increase people’s options. Past approaches to introduction have concentrated on making new technology available and ignored other aspects of service delivery. The Santa Barbara Project sought to demonstrate how these other aspects must be addressed while simultaneously adding new methods. Although important, availability of contraceptive technology alone is insufficient. We are challenged to expand our notion of what is required to broaden contraceptive choice.

In the municipality of Santa Barbara d’Oeste, systematic introduction of contraceptive methods—even in the conventional sense—had never taken place. Although a strong policy commitment exists in Brazil to deliver integrated reproductive health care, including family planning, this commitment had not been translated into practice. Contraceptive services existed as a minuscule component of gynecological care, which was extremely limited, and functioned in a service-delivery system characterized by resource scarcities and lacking attention to good management practice. In such a set-

ting, the capacity to address weaknesses creatively must be increased within existing resource constraints. This program was accomplished through the adoption of a participatory approach that systematically called existing weaknesses to program managers’ and providers’ attention and initiated a process of productive problem solving. This process assured that the necessary prerequisites for the expansion of reproductive choice were put into place: increased availability and access; a restructured service system; improved motivation, morale, and supervision; adequate supplies; and enhanced technical and interpersonal competence of providers.

Within the context of systems renewal, family planning services could be increased and method choice broadened. The departure from conventional method-introduction approaches lay in the project’s emphasis on all methods, avoiding a narrow focus on a particular technology. Thus the training program covered the range of available modern and traditional contraceptive technologies, including training in injectables and vasectomy, which were added to the service system. The concept and practice of high-quality services had to be introduced, or re-emphasized, because the meaning of patient-centered quality of care and its importance in service delivery was not well understood.

Establishment of a specialized referral center for family planning services provided an environment that attracted motivated gynecologists who treated contraceptive services as a priority. The referral center substantially improved availability and access for adult women and made possible the organization of a program for adolescents who had received little or no attention. The addition of vasectomy services within the referral center and the provision of Depo Provera throughout the entire municipal health system would conventionally be termed method introduction. Such introduction would not have succeeded without the broader changes in management practice and service organization.

Attention to broadened contraceptive choice occurred with simultaneous attention to other reproductive health services. Access to antenatal and general gynecological care was increased, and antenatal care for adolescents and referral for cervical pathologies and breast and cervical cancer prevention were instituted. The importance placed on patient-centered care and counseling in turn affected all women’s health services, not only those concerned with family planning. The need for implementing family planning within a philosophy and context of reproductive health has been widely discussed in connection with the International Conference on Population and Development in Cairo in 1994 (Elias 1994; Garcia-Moreno and Claro 1994; ICPD 1994). The

Santa Barbara Project has shown how this goal can be translated into practice.

The participatory organization development approach, with a focus on government ownership, was essential to achieving these results. So was the emphasis on mobilizing public resources for these interventions. These project characteristics provided a basis for assuring the sustainability of results. Although at the end of a four-year period of collaboration, a sense of government ownership of project innovations is clearly evident, not all service-delivery and managerial weaknesses have been remedied and not all concerns about long-term sustainability have been eliminated. Continued attention is required to address such issues as improvements in supervision to ensure that the system does not revert to its previous inertia; effective use of the management information system for supervision; expansion of educational activities and counseling; training of newly recruited medical and auxiliary staff; and institutionalizing the participation of women's groups.

The Santa Barbara Project illustrates a central lesson related to the introduction of contraceptive technology: Efforts to broaden reproductive choice must be built on a thorough understanding of the service-delivery system and should incorporate mechanisms to enhance its capacity to provide high-quality services for all methods. Unless appropriate service-delivery conditions exist to ensure access and at least minimally adequate quality of care, the addition of contraceptive technology fails to have the desired effect. Key findings from the Santa Barbara Project demonstrate that considerable enhancements in service-delivery capacity are possible. Once such improvements have been made, the strengthening of family planning services and the broadening of the method mix and of reproductive choice more generally can be attained.

## Notes

- 1 This high-dose, once-a-month injectable, containing 150 milligrams of dihydroxyprogesterone acetate and 10 micrograms of estradiol enanthate, is produced in Brazil.
- 2 For a discussion of the participatory methodology employed by this project, see Díaz and Simmons (1999).
- 3 CEMICAMP chose to undertake this project because of its commitment to the implementation of a reproductive health approach to family planning; its previous association with the WHO-funded nationwide assessment in Brazil; its extensive experience in women's health research, including introductory studies related to the IUD, injectables, and Norplant®; and its efforts toward ensuring high-quality contraceptive services at the family planning clinic of the University of Campinas. This clinic, which works closely with CEMICAMP staff, is one of the referral centers designated by the Ministry of Health for providing training and related technical assistance to health centers.
- 4 Focus groups were not stratified by age. They lasted for one and a half to two hours. Moderators used a detailed interview guideline, and each session was taped and transcribed. Focus-group discussions with women were initiated with general questions about what reproductive health meant to the informant, the availability of reproductive health services in the community, and participants' health-care-seeking behavior. These questions were followed by more specific inquiries about the availability and accessibility of municipal health services and respondents' attitudes toward their experience with these services. The final questions related to their knowledge of and attitudes toward service availability in family planning. Men's focus groups began with general questions about their health-care-seeking behavior and that of their wives or women generally; their knowledge of, attitude about, and experience with municipal health services; their knowledge of and attitude toward family planning; and their knowledge of family planning service availability. Finally, they were asked about men's role in family planning and the availability of services for men. A separate adolescent initiative with a separate needs-assessment methodology was undertaken within the project. Detailed analysis of the adolescent component of the project is not included in this paper.
- 5 Respondents' ages were: <19, 14 percent; 20–24, 20 percent; 25–29, 17 percent; 30–34, 18 percent; and ≥35, 32 percent.
- 6 Observations were conducted by two professional family planning trainers, one of them a midwife and the first author of this article and the other a nurse and the last author of this article. A formal observation guideline was used.
- 7 The assessment of interpersonal relations covered such areas as: greeting behavior; nonverbal communications, including posture, eye contact; and verbal communication, including listening, adequacy of information giving, supportiveness, use of clear language, use of visual material, and privacy. The technical competence portion of the observation included evaluation of record keeping, the physical examination, the breast examination, equipment used during exams, information giving, use of IEC materials, referral, contraceptive choice, and technical accuracy of contraceptive information and service provided.
- 8 Physicians' salaries vary by municipality; in Santa Barbara d'Oeste salaries are particularly low.
- 9 Numbers of observations, by kind of interaction, were: general gynecology (9), Pap-smear related (14), family planning (2), postpartum (1), antenatal care (16).
- 10 For a detailed analysis of the participation of community representatives in this project, see Díaz and Simmons (1999).
- 11 The vasectomy and adolescent programs will be discussed in greater detail in separate papers.
- 12 This evaluation of project impact included six focus groups (two with men, four with women); 21 observations of patients' consultations with a gynecologist; 65 exit interviews with patients who had seen a gynecologist; 56 interviews with patients who had seen other medical providers; 15 interviews with providers (nurses, attendants, supervisor of posts, and PAISM coordinator); and assessment of waiting times.
- 13 Focus-group guidelines for the evaluation included specific questions about whether people perceived changes in the municipal health services.

## References

- Bruce, Judith. 1987. "Users' perspectives on contraceptive technology and delivery systems." *Technology in Society* 9: 359–383.
- . 1990. "Fundamental elements of the quality of care: A simple framework." *Studies in Family Planning* 21(2): 61–91.
- Cornwall, Andrea and Rachel Jewkes. 1995. "What is participatory research?" *Social Science and Medicine* 41(12): 1,667–1,676.
- Chisholm, Rupert F. and Max Elden. 1993. "Emerging varieties of action research: Introduction to the special issue." *Human Relations* 46(2): 121–142.
- Díaz, Margarita and Ruth Simmons. 1999. "When is research participatory? Reflections on a reproductive health project in Brazil." *Journal of Women's Health* 8(2): 175–184.
- Elias, Christopher. 1994. "A puzzle of will: Responding to reproductive tract infections in the context of family planning programs." In *Reproductive Health Approach to Family Planning*. Presentations from a panel held on Professional Development Day at the USAID Cooperating Agencies Meeting, 25 February 1994. Washington, DC. Compiled by the Population Council, New York, 5–23 December.
- Formiga, José Noble et al. 1994. "An Assessment of the Need for Contraceptive Introduction in Brazil." Geneva: World Health Organization. Publication number WHO/HRP/ITT/94.2. Monograph.
- French, Wendell and Cecil Bell. 1994. *Organization Development*. Fifth edition. Englewood Cliffs, NJ: Prentice Hall.
- García-Moreno, Claudia and Amparo Claro. 1994. "Challenges from the women's health movement: Women's rights versus population control." In *Population Policies Reconsidered: Health, Empowerment, and Rights*. Eds. Gita Sen, Adrienne Germain, and Lincoln C. Chen. Boston: Harvard University Press.
- Hull, Valerie J. 1996. "Improving Quality of Care in Family Planning: How Far Have We Come?" *The Population Council South and East Asia Regional Working Papers* No. 5. Jakarta: Population Council.
- International Conference on Population and Development. 1996. "Programme of Action adopted at the International Conference on Population, Cairo, 5–13 September 1994." New York: United Nations Population Fund.
- Israel, Barbara A., S.J. Schurman, and M.K. Hugentobler. 1993. "Conducting action research: Relationships between organization members and researchers." *Journal of Applied Behavioral Science* 28(1): 74–101.
- Parker, Edith, Amy Schultz, Barbara A. Israel, and Rose Hollis. 1998. "East side village health worker partnership: Community-based lay health advisor intervention in an urban area." *Health Education and Behavior* 25(1): 24–46.
- Simmons, Ruth, Peter Hall, Juan Díaz, Margarita Díaz, Peter Fajans, and Jay Satia. 1997. "The strategic approach to contraceptive introduction." *Studies in Family Planning* 28(2): 79–94.
- Simmons, Ruth and Christopher Elias. 1994. "The study of client-provider interactions: A review of methodological issues." *Studies in Family Planning* 25(1): 1–17.
- Snow, Rachel and Lincoln Chen. 1991. "Towards an Appropriate Contraceptive Method Mix: Policy Analyses of Three Asian Countries." *Working Paper Series* No. 5. Cambridge, MA: Harvard Center for Population and Development Studies.
- Spicehandler, Joanne and Ruth Simmons. 1994. "Contraceptive Introduction Reconsidered: A Review and Conceptual Framework." Geneva: World Health Organization. Document Publication number WHO/HRP/ITT/94.1. Monograph.
- Tandon, Rajesh. 1981. "Participatory evaluation and research: Main concepts and issues." In *Participatory Research and Evaluation*. Eds. Walter Fernandes and Rajesh Tandon. New Delhi: Indian Social Institute. Pp. 15–34.
- Whyte, William F. 1991. *Participatory Action Research*. Newbury Park, CA: Sage Publications.

## Acknowledgments

The Santa Barbara Project was supported by funds from the World Health Organization's Strategic Unit for the Introduction and Transfer of Technologies for Fertility Regulation, UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP), Geneva. The authors gratefully acknowledge research support from Eliana Hebling and Laura Ghiron, and wish to thank the people of the Santa Barbara d'Oeste municipality who graciously gave their time to this project.