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EXPANDING FAMILY PLANNING OPTIONS

Research on the Introduction and Transfer of Technologies for Fertility Regulation

AN ASSESSMENT OF THE NEED FOR CONTRACEPTIVE INTRODUCTION IN BRAZIL

WORLD HEALTH ORGANIZATION
GENEVA

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AN ASSESSMENT OF THE NEED FOR CONTRACEPTIVE INTRODUCTION IN BRAZIL

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Foreword

This document is the second of a series from the Special Programme of Research, Development and Research Training in Human Reproduction's Task Force on Research on the Introduction and Transfer of Technologies for Fertility Regulation.

The first document entitled "Contraceptive introduction reconsidered: a review and conceptual framework" described a three-stage strategy developed by the Task Force to assist family planning programmes in developing countries in decision-making on whether to introduce a new method of fertility regulation, reintroduce or improve utilization of currently available methods, or remove an existing method. This document is a report on an assessment of the need for contraceptive introduction in Brazil and represents the first application of the new strategy. The assessment was undertaken as a participatory exercise based on a national research institution, Centro de Pesquisas e Controle das Doenças Materno-Infantis (CEMICAMP), linked to the University of Campinas in the State of Sao Paulo. The participants in the assessment represented the Coordenadoria Materno-Infantil of the Ministry of Health, the WHO Task Force, CEMICAMP and two women's organizations, Colectivo Feminista Sexualidade e Saúde and União Brasileira de Mulheres.

The report gives the main findings from this Stage I Assessment, draws conclusions on the existing method mix, and makes recommendations for further research and dissemination of research findings. It is hoped that the report and subsequent activities will assist the Government of Brazil in expanding family planning options and in improving the quality of care of reproductive health services.

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List of Acronyms

ABEPF	Associação Brasileira de Entidades de Planejamento Familiar
AIDS	Acquired imuno-deficiency syndrome
BEMFAM	Sociedade Civil Bem-Estar Familiar no Brasil
CBD	Community based distribution
CEMICAMP	Centro de Pesquisas e Controle das Doenças Materno-Infantis
CEPARH	Centro de Pesquisas e Assistência em Reprodução Humana
COMI	Coordenadoria Materno-Infantil, MOH
DHS	Demographic and Health Survey
DIPROD	Divisão de Produtos, MOH
DMPA	Depot medroxyprogesterone acetate
FEBRASGO	Federação Brasileira de Sociedades de Ginecologia e Obstetrícia
HMO	Health maintenance organization
HRP	Special Programme for Research, Development and Research Training in Human Reproduction
IEC	Information, education and communication
IMIP	Instituto Materno Infantil de Pernambuco
INAMPS	Instituto Nacional de Assistência Médica e Previdência Social
IPPF	International Planned Parenthood Federation
IUD	Intrauterine device
MIS	Management and information system
MOH	Ministry of Health
NET-EN	Norethisterone enanthate
NGO	Non-governmental organization
PAISM	Programa de Assistência Integral à Saúde da Mulher
PAHO	Pan American Health Organization
PNAD	Pesquisa Nacional por Amostragem Domiciliar
SAS	Secretaria de Assistência à Saúde-MOH
SEADE	Sistema Estadual de Análise de Dados
STD	Sexually transmitted disease
SUS	Sistema Único de Saúde
TFR	Total fertility rate
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WHO	World Health Organization
WB	World Bank

Introduction

This report presents results from a contraceptive introduction needs assessment for Brazil undertaken as part of the new strategy for contraceptive introduction developed by the World Health Organization's Task Force on the Introduction and Transfer of Technologies for Fertiltiy Regulation (Spicehandler and Simmons, 1994). This new approach is based on a three stage process that begins with an initial broad-based assessment of country needs (Stage I Assessments), and where appropriate is followed by a subsequent research phase (Stage II) and policy dialogues about the utilization of research findings for programme planning and implementation (Stage III).

The first Stage I Assessment was undertaken for Brazil in October and November of 1993 as a collaborative effort between the Ministry of Health of Brazil, WHO, Centro de Pesquisas e Controle das Doenças Materno-Infantis (CEMICAMP) and representatives from two women's organizations. This report summarizes key findings from the assessment.

The purpose of this assessment was to answer three central questions: 1) Is there a need to introduce new contraceptive methods? 2) Is there a need to reintroduce or appropriately introduce existing methods? and 3) Is there a need to remove any existing methods from a given setting? We are aware that this report does not present new data, however, it does review available data as well as information obtained during field visits and identifies needs for action and research.

Objectives and Framework of the Stage I Assessment

Previous introductory efforts have typically focused on a single, new contraceptive method. A key step in this type of introductory process has been to explore the introduction of a method through research which is primarily intended to allow professionals, researchers and policy makers gain experience with the new technology. Such introductory studies tend to produce recommendations about how the new method could be introduced into a country programme, but may not provide an indication of the overall feasibility of the introduction or an indication of the likely impact of introduction on overall quality of care in the family planning system.

The new WHO strategy for contraceptive introduction is based on the principle that introductory research or decisions about using a new technology should be preceded by an assessment of a country's method mix, its service delivery capabilities, and user perspectives and needs. This approach has been adopted to assure that introductory efforts arise out of the real needs of countries for new methods, and are considered only in those settings where service delivery capabilities exist to introduce new methods with appropriate levels of quality of care. Such contraceptive

introduction needs assessments (Stage I Assessments), which are intended to provide answers to the three central questions referred to above.

When these three questions are emphasized, the focus of introductory efforts shifts from attention to one particular new method to the examination of the method mix as a whole. The method mix focus in this approach to contraceptive introduction derives from a concern for quality of care, especially for choice. The argument is that the goal of contraceptive introduction is to increase the meaningful rather than theoretical contraceptive options available to women. Methods should be available to "serve significant subgroups as defined by age, gender, contraceptive intention, lactation status, health profile and- where cost of method is a factor - income groups" (Bruce, 1990). In other words, the assessment should determine whether there are satisfactory choices for those men and women who wish to space, those who wish to limit, those who cannot tolerate hormonal contraceptives, and so forth. It is in this context that addition of new methods, strengthened delivery of available methods or elimination of outmoded or potentially unsafe methods should be considered.

Using this method mix approach, attention moves from an exclusive focus on the introduction of new methods to also including an examination of existing methods. This shift in focus is important for a number of reasons. There are many examples of programmes where methods which could meet identified needs are physically available within the service delivery system but which have never been properly introduced, or, for a variety of reasons, are inappropriately utilized or underused. In addition to providing information on ways to improve the utilization of currently available methods, examining the quality of care given for existing methods will help a programme to anticipate the impact of the introduction of a new method on the method mix and overall quality of care. To provide an example, WHO sponsored research on the introduction of Cyclofem in Indonesia highlighted the need for attention to the service delivery of existing injectables, depot medroxyprogesterone acetate (DMPA) and norethisterone enantate (NET-EN), and raised questions about the appropriateness of introduction of a new method before problems with the available injectables had been addressed (Simmons et al., 1994; Lubis et al., 1994).

When examining the method mix, it is also necessary to consider which methods, such as high dose oral contraceptives, may no longer be appropriate given advances in technology, or research which questions the safety of a previously accepted formulation. Thus, in examining the broader contraceptive method mix of a country, Stage I Assessments should ascertain whether a programme provides methods that should be withdrawn from a service delivery system in addition to addressing questions about the need for contraceptive introduction or reintroduction.

The three central questions can be answered through an analysis of the method mix, the quality of care with which methods are provided, service delivery capabilities, and the needs and

perspectives of actual or potential users.

The method mix: demand, availability and accessibility: The Stage I Assessment for Brazil studied method mix from the perspective of demand, availability, and accessibility. Need or demand for methods is reflected in patterns of use. This was examined through an analysis of available contraceptive prevalence surveys and direct observation and discussions with family planning managers and service providers. Availability refers to the physical presence of methods at various service delivery points, while accessibility focuses on the time, money and distance involved in gaining access to the method as described by users and providers. These issues were evaluated both in public sector and private/commercial settings.

Quality of care in contraceptive service delivery: In a general sense, quality of care can be defined as "the way individuals and clients are treated by the system providing services" (Jain and Bruce, 1989). Analysis of how people are treated by service delivery systems implies a judgement about the goodness of services or of their various dimensions (Donabedian, 1980). Bruce (1990) identified six elements of quality of care, namely: 1) choice of methods; 2) information given to clients; 3) technical competence; 4) interpersonal relations; 5) mechanisms to encourage continuity; and 6) appropriate constellation of services.

Service delivery capabilities: A focus on service delivery capabilities is unusual in most contraceptive introduction efforts. Previous efforts have assumed that service delivery capabilities would be adequate to provide the new technology or could be improved where necessary. However, many public sector programmes are severely constrained in their resource base, in the technical skills and competence of their staff, and in the availability of physical facilities, logistics and supplies systems, administrative and technical supervision, etc. It is increasingly recognized that introducing new contraceptive methods adds burdens and complexities to the service delivery, training, and administrative/ operational systems which may act to reduce rather than improve quality of care. If addition of new technology is to improve the quality of care, it is not adequate to focus only on training and guaranteeing supplies of the newly introduced method. There must be some certainty that the service delivery system has the necessary human and physical resources, and commitment to put in place the support systems which make it possible for new methods to be provided with an appropriate level of quality of care and for quality to be maintained for the full method mix.

User perspectives and perspectives of women's groups: Contraceptive use patterns are a necessary but not sufficient component in the analysis of user perspectives and needs. It is equally important to understand users' attitudes towards, and experience with particular methods. Such examination of user perspectives, based on available research on and user knowledge of contraceptive practices, beliefs, and needs are an important component of Stage I Assessments. Additional valuable information can be obtained through dialogues with women's groups about their experiences with and

perspectives on contraceptive technology.

Information obtained from an analysis of each of these areas was used to answer questions on the need for contraceptive introduction in Brazil. A further discussion of method mix, quality of care, service delivery capabilities and user perspectives are provided in the following chapters.

Government of Brazil and WHO collaboration in the Stage I Assessment

Brazil is a large country with a high contraceptive prevalence, a low total fertility rate (TFR), and a highly skewed method mix. The vast majority of women in Brazil rely on only two methods of fertility regulation: oral contraceptives and tubal ligation (BEMFAM/IRD, 1986; Demographic and Health Survey (DHS), 1992; World Bank, 1991). Indicators of underserved or unmet need include high levels of illegal abortion, rising adolescent pregnancy rates, and an increase in the frequency of post-sterilization regret and requests for reversal (Pinotti et al., 1986; Bahamondes et al., 1992).

Concern about these indicators and with the persistent levels of maternal mortality and morbidity led the WHO Task Force on Research on the Introduction and Transfer of Technologies for Fertility Regulation to conclude that Brazil would be an appropriate candidate country for a Stage I Assessment. Strong interest by the Ministry of Health (MOH) in the assessment process made the choice of Brazil both possible and desirable. It is hoped that the Stage I Assessment will be a step towards strengthening women's reproductive health services in the public sector.

The MOH has for many years recognized the need for attention to reproductive health as part of an integrated approach to women's health. This recognition continues even though institutional instabilities and resource scarcities weaken these efforts. The chief of the MOH Programa de Assistência Integral à Saúde da Mulher (PAISM) (integrated programme for women's health) participated in the assessment team, was instrumental in the selection of assessment sites, and facilitated the participation of other health authorities in the assessment. In each of the sites, the assessment was undertaken in collaboration with officials from the state and municipal secretariats of health.

Methodology

This assessment is based on information from field visits to sites in three states and the Federal District, and an analysis of the most recent data published on women's reproductive health, including the 1986 and 1991 DHS, other surveys, and reports published by donor agencies, women's groups and researchers. Special acknowledgement must be made of the usefulness of the 1991 World Bank document, "Brazil. Women's Reproductive Health".

A number of sites were chosen that would provide some representation of the broad regional variation in socio-economic development, programme effort (both duration and degree of implementation) and access to external resources. With these in mind, the states of São Paulo, Mato Grosso, Ceará and the Federal District (DF)

were selected. Within these states, activities were focused in São Paulo and Campinas, Cuiabá and Chapada dos Guimarães, Fortaleza and Maranguape, and Brasília.

The state of São Paulo in the southern region is an affluent state with a well established programme and moderate access to external resources. Mato Grosso, which is located in the west, is a state with a generally poor population, no formal family planning programme and no significant donor attention. Ceará, in the northeast, is a poor state with a newly created women's health programme, Viva Mulher, substantial family planning experience, and a significant donor focus. The Federal District is in the central region, with a wealthy capital and strong programme effort given its proximity to federal resources and donor access. These states were also selected on the basis of expressed willingness and interest to collaborate in the assessment process and follow-up activities.

As described above the unit of observation of this assessment was not Brazil but a sample of municipalities in four of the nine Brazilian States. The report is not intended to provide an exhaustive description of women's reproductive health in Brazil nor to produce new research findings. No effort was made to meet with all individuals or organizations conducting programmes or research in women's reproductive health. However, sufficient contacts were made to provide a picture of the state of the family planning programme within the context of reproductive health and women's health in general.

Women's Reproductive Health, Family Planning Policy and the Service Delivery System

Demographic factors

The total population figure for 1990 as indicated in World Population Prospects: 1990 (UN, 1990) was 150,368,000. The population figure from the 1991 census was 146,000,000 (Ministério da Economia, Fazenda e Planejamento, 1991). The population density is 18/km² and 75% of the population lives in urban areas. In 1985, the crude birth rate was 26.1 per thousand, and the crude death rate 7.5/1000. The current total fertility rate is estimated to be 2.5 (Berquó, 1994). The infant mortality rate is 57/1000. The life expectancy at birth is 66.3 (World Bank, 1991).

Women's reproductive health indicators

A recent World Bank report on women's reproductive health in Brazil indicates that although there has been progress in some areas over the past years, major problem areas continue to exist with regard to women's reproductive health. Key problem areas identified in the report are: severely limited choice of available contraceptive products and information, high rates of unsafe abortion, high rates of cervical cancer, large numbers of women with virtually no prenatal care, the world's highest rate of caesarean section deliveries, and a growing threat to women's and men's well-being from sexually transmitted diseases (STDs) and other reproductive tract infections (World Bank 1991). These six areas as well as maternal mortality are discussed below.

Choice of contraceptive methods: In Brazil, high contraceptive prevalence and a decreasing TFR have occurred despite the very narrow range of contraceptive options available to most women. Multiple factors including economic difficulties and increasing female participation in the work force have contributed to high rates of use of the oral contraceptives and sterilization even among women who express dissatisfaction with the method they have chosen. Decreasing age at first pregnancy and increasing adolescent fertility, related to societal changes, have not been supported by appropriate educational efforts or services tailored to the needs of adolescents.

Induced Abortion: According to the 1991 World Bank report, the lifetime induced abortion rate has been estimated at over two abortions per woman. The official 1992 MOH estimate places the total annual number of abortions between 800,000 and 1.2 million. This estimate is based on extrapolations from the number of abortion related hospitalizations treated under the Sistema Único de Saúde (SUS). Because abortion is illegal, there is no full information on the health impact of abortion in Brazil, and official figures may underestimate the magnitude of the problem if a larger than expected number of women avoid seeking care or withhold information about their abortion experiences. The poor and the uneducated are exposed to the greatest risks of mortality and morbidity related to abortion. Instituto

Nacional de Assistência Médica e Previdência Social (INAMPS) figures for 1988 indicated that admissions for complications of abortion were 2% of all hospital admissions (World Bank, 1991); MOH figures for 1992 show that 1.7% of the hospital admissions covered by SUS were for post-abortion complications. Rates of admission for abortion complications approached 40% in one hospital in the Northeast, and similar rates are found in other tertiary care centres.

Cervical cancer: Deaths from cervical cancer constitute the number one cause of cancer deaths among Brazilian women (World Bank, 1991). A great deal of attention has been given to the performance of Papanicolau smears for the early detection of cervical cancer, but coverage is still low and uneven (MOH, 1990).

Access to prenatal care: Although overall coverage for prenatal care is approximately 75%, almost half of rural and poor women are excluded from prenatal care and access to hospital deliveries (Ross, et al, 1992; World Bank, 1991; MOH, 1990). Much of the prenatal care delivered is limited in scope, and effective mechanisms for referral of women with complications are often lacking.

Caesarean section: Between 1970 and 1980, caesarean rates in Brazil increased from 15% to 31% of hospital births (Faúndes and Cecatti, 1991). In 1992, 32.7% of all hospital births covered by SUS were by caesarean section. In several states, the proportion of births delivered by caesarean has increased to over 50%. Rates in individual regions and in many private hospitals are substantially higher (Berquó, 1993).

According to the World Bank report, "More than half of these caesareans are unnecessary; this high rate of unnecessary surgery is largely a reflection of sociocultural factors, the way obstetrics is organized and practised, and in institutional, financial and legal factors, including the fact that multiple caesareans provide a justification for a sterilization under the present Medical Code of Ethics" (World Bank, 1991). The extreme medicalization of deliveries and the complete absence of midwives in Brazil exacerbates this situation. Because caesarean section is closely tied to access to tubal ligation, and physicians profit directly or indirectly from the performance of caesareans, there is little pressure from the public or medical community to reverse the trend towards increasing reliance on this procedure.

Sexually transmitted diseases: In 1991, 17,400 acquired imuno-deficiency syndrome (AIDS) cases had been reported (World Bank, 1991). By October 1993 this number had increased to 43,455. Although the ratio of male to female cases has been 6 to 1 over the entire period of reporting, data from 1993 show that this ratio has decreased to 4 to 1 (MOH, 1993). In the state of São Paulo, where over 60% of all Brazilian AIDS cases have been reported, recent data released by Sistema Estadual de Análise de Dados (SEADE) identify AIDS as the 1st cause of death for women between 20 and 35 in the state of São Paulo (SEADE, 1994). AIDS is an increasingly important cause of female mortality particularly for women with lower educational achievement and income.

Maternal mortality: For a country with a low TFR and high contraceptive prevalence, maternal mortality is disproportionately high (United Nations Population Fund (UNFPA), 1991). The 1989 official MOH estimate of the maternal mortality rate in Brazil is 72/100,000 live births. Significant underreporting has led to consistent underestimation of the true values for maternal mortality. Research led Laurenti to conclude that in São Paulo maternal mortality was 2.4 times higher than initially reported, or approximately 100/100,000 live births (Laurenti, et al. 1986; Laurenti, 1988). The necessary adjustments for other areas of Brazil which were subsequently calculated by Laurenti vary significantly by region, and range from 3.5 in the Northeast to 1.5 in the South, with the national average adjustment being 2.4. The MOH has accepted and now uses the Laurenti corrections.

The poor attention pregnant women receive is also reflected in the statistics on maternal mortality recently published by the MOH. Of the four main causes of maternal death, abortion, haemorrhage, toxaemia and infection, 3 are related to the quality of care received during the prenatal period and delivery (Costa, 1992; MOH, 1990).

The policy environment of family planning

Population/family planning: A formal population policy for Brazil was prepared in connection with the 1984 World Population Conference, but has not been widely disseminated. The government does not have a policy to regulate or control population growth. The 1988 constitution states explicitly that based on the principle of human dignity and responsible parenthood, family planning is a free decision of each couple. Any form of coercion on the part of public or private institutions is forbidden. Within its broader commitment to the improvement of women's health and status, the PAISM programme supports family planning because of its contribution to the reduction in high risk pregnancy, maternal mortality, and infant mortality.

While government policy supports the use of contraception, the legal status of sterilization and abortion is complex. Surgical sterilization (male as well as female) is not included in the guidelines for family planning developed by the MOH, because of its ambiguous legal status. Despite this exclusion, tubal ligations are widely performed both in the public and private sector usually in association with caesarean section. Several proposed guidelines for liberalising surgical sterilization (particularly postpartum or interval tubal ligation) have been brought before the Brazilian Congress and are being debated, but no conclusion has been reached. Abortion is illegal except in cases of rape and where the pregnancy threatens the life of the woman. Access to even legal abortion is often difficult.

National drug policy with regard to contraceptives: The Government of Brazil has made a long-standing commitment to stimulate local production of drugs and devices, including contraceptive products. Heavy import tariffs imposed on products not produced within the country have led in the past to high costs for some contraceptives, such as imported condoms, and intrauterine devices (IUDs). Many of these

restrictions are currently being relaxed as part of the government's free market policies. Contraceptive donations must be authorized by or be reported to the MOH in order to avoid the sale or inappropriate distribution of donated supplies.

The Secretaria de Assistência à Saúde (SAS) division of the MOH has developed two drug lists: 1) the list of essential drugs that must be provided by the MOH and 2) the list of drugs that are approved for purchase but for which there is no government obligation to purchase or reimburse via SUS. In 1992 and 1994 respectively, spermicides and OCs were moved from list two to list one. This decision reflects increased emphasis on ensuring the availability of contraceptive supplies. Recent changes allow reimbursement by the SUS for IUD and diaphragm supplies as well as the consultations and insertion or fitting procedures. Condoms are provided through the STD/AIDS prevention programme.

Current research on new methods of family planning and national plans for contraceptive introduction: There is no national plan for introducing new contraceptive products, but some research is being conducted by Brazilian research institutions and pharmaceutical companies. Pharmaceutical companies in Brazil are actively involved in the introduction of new contraceptive products, particularly new oral contraceptive formulations, and regularly introduce their newest products into the private sector. Inclusion of these products into the public sector is dependent on cost and the incorporation of new formulations or methods into the MOH family planning norms.

Several research institutions with extensive capability and significant activity in the area of reproductive health (Centro de Pesquiasas e Controle das Doenças Materno-Infantis, CEMICAMP; Centro de Pesquisas e Assistência em Reprodução Humana, CEPARH; Instituto Materno Infantil de Pernambuco, IMIP; Maternidade Escola Assis, Chateaubriand) are involved in testing and introduction of contraceptive methods into the public and private sector. CEPARH is undertaking trials of Uniplant (a single rod implant containing nomegestrol), gossypol (a male method), vaginal use of oral contraceptives, 60%-dose Perlutan (a once-a-month injectable), and has plans for a study on a levonorgestrel-releasing IUD. CEMICAMP has recently conducted trials on different formulations of the CuT IUD and is coordinating the recently initiated introductory trial of Cyclofem, a once-a-month injectable.

The role of donor agencies with regard to method choice: In previous years, the United States Agency for International Development (USAID) and the International Planned Parenthood Federation (IPPF) funded BEMFAM, a non-governmental organization (NGO) involved with community-based distribution of methods, emphasizing the oral contraceptive, but since 1985 there has been no strong donor agency influence on government policy for the purchase of specific methods. The government has strong relationships with UNFPA and the Pan American Health Organization (PAHO) which have supported PAISM, but neither UNFPA nor PAHO have had a particular focus on specific methods.

The influence of the Catholic church on family planning: Although the

government has no official link to the Catholic church, the government has been influenced by the church's position on individual methods like the IUD and tubal ligation. This influence is not expressed as a clear opposition to family planning.

The family planning service delivery system

At the federal level, the MOH is responsible for family planning. The World Bank report on women's reproductive health summarized the role of the Ministry of Health as follows:

"The MOH is primarily responsible for providing basic health services for the rural poor and for disease control...., Recognizing the importance of basic reproductive health, the MOH in 1984 created the Integral Programme for Women's Health (PAISM), to be carried out in the basic public health network of the MOH and the State and Municipal Secretariats of Health. The PAISM programme is more comprehensive than the traditional, narrow maternal-child health framework; it includes family planning education and services, prenatal care, delivery and postpartum care, infertility services, breast and cervical cancer screening, sexually transmitted disease testing, and treatment of reproductive tract infections. The programme covers women of all ages, including adolescents." (World Bank, 1991)

The public sector in Brazil has had a limited role in the provision of family planning services, but is currently moving in the direction of accepting wider responsibility. Responsibility for family planning within the MOH rests with Coordenadoria Materno-Infantil (COMI), a unit within the programme division. Reimbursement for family planning services and supplies is provided through the Sistema Unico de Saúde (SUS) which is directly responsible to the Secretary of Health.

The Ministry of Health is responsible for the development and dissemination of family planning guidelines, referred to as norms, and for technical supervision and training. In connection with this responsibility the MOH provides materials and resources for family planning training to 70 reference centres that have been identified by it as centres with the potential or existing capacity to act as a training and resource facility for public sector service delivery points.

State and municipal authorities in Brazil are autonomous and therefore not under the direct control and supervision of the MOH. Currently, a process of decentralization is underway that intends to shift responsibility and authority for the delivery of health services to the municipal level. It is expected that "municipalization" will allow the health system the flexibility to be responsive to local needs.

Family planning services are provided through a variety of service delivery points in the public sector that include municipal and state level primary and secondary health care centres and hospitals. The previous BEMFAM experience with community-based distribution (CBD) is still viewed with a considerable degree of criticism. This criticism is tied to a long-standing public debate over the objectives of the public sector's role in family planning. Religious groups and the women's movement have opposed particular methods of contraception as well any indication that family planning services

might serve the objective of population control.

Public sector clinics provide oral contraceptives, condoms, IUDs, diaphragms, and contraceptive jellies, although actual service provision is severely constrained by limited supplies and frequent stock outs. The provision of IUDs and diaphragms is additionally constrained by the lack of personnel trained in the management of these methods. Tubal ligations are performed in public sector hospitals, many of which have independently developed age and parity criteria which women must meet in order to obtain approval for the procedure. Many women who meet these criteria have access to tubal ligation only during a caesarean section. Almost 80% of all tubal ligations in Brazil are performed during a caesarean section (Barros et al., 1991; Faúndes and Cecatti, 1991).

Family planning outside the public sector

Most contraceptive service delivery occurs outside the public sector, through: 1) the commercial sector; 2) NGOs; and 3) private providers.

Contraceptive service delivery in the commercial sector: The vast majority of all contraceptive supplies are provided through the commercial sector. The 1986 DHS reports that 90% of oral contraceptives are provided through pharmacies. Of these, approximately 85% are sold over-the-counter without prescription. In many, although by no means all of these cases, women have had some previous consultation with a physician. Condoms, spermicides, and once-a-month injectable contraceptives are widely available. Depo-provera is available in a limited number of pharmacies.

Non-governmental organizations: Several non-governmental organizations, ranging from smaller organizations including feminist health centres, to larger organizations that receive funds from international donor agencies (e.g. Sociedade Civil Bem-Estar Familiar no Brasil, BEMFAM; Associação Brasileira de Entidades de Planejamento Familiar, ABEPF) play a role in contraceptive service provision. BEMFAM currently plays a role in the public sector in the Northeast where it provides not only all the methods approved by the MOH, but also technical assistance and training in the health posts in which it has contracted for these services with the municipality. Also, BEMFAM provides information, education and communication (IEC) materials used in these health posts during educational sessions. In addition to family planning services, BEMFAM offers infertility services, pre-natal care, early detection of cervical cancer and other educational activities related to sexual and reproductive health.

Health maintenance organizations (HMOs): HMOs or other group medical plans providing or reimbursing services to members on a prepaid monthly capitation fee are emerging as an important health care institution in the urban sector. In general, these organizations have not focused on family planning. One of these organizations, Promedica, has conducted a study demonstrating the cost effectiveness of including family planning as part of routine service delivery and is currently engaged in collaborative research with the

Population Council on the provision of postpartum family planning services.

Private practice: Physicians in private practice are a main source of contraceptive services for the more privileged socio-economic classes. These physicians primarily provide tubal ligations in private hospitals, and prescribe oral contraceptives. Relatively few IUDs are provided by private physicians due to the widespread lack of training. This problem is compounded by the fact that training typically focuses on the CuT, while the Multiload is more readily available through the commercial sector. With few exceptions, barrier methods are not emphasized by private providers. The resulting private practice method mix is skewed similarly to that in the public sector.

Services for men

Very few public sector service delivery points provide family planning services to men. This situation is largely a function of the integration of family planning into the women's health programme (PAISM), and also due to the fact that family planning is considered a part of gynaecological care. Men rarely utilize public sector service delivery points to obtain contraceptive supplies. Condoms are primarily provided to women or are purchased by men or women in the pharmacies. In some of the more progressive health centres, men are encouraged to attend educational sessions with their wives, but sessions are not often provided at times that are convenient for working men.

Although access to vasectomy is still limited, it has become increasingly available over the past 10 years in the private sector. In São Paulo, the non-profit clinic Pro Pater has been instrumental in increasing awareness of and access to vasectomy, and has also been an important source of vasectomy training. Access in the public sector is extremely limited. Secondary health clinics in the public sector have a referral system for vasectomy. However, with very few exceptions, such referral is not part of standard family planning service delivery.

Contraceptive Method Mix: Patterns of Use, Availability and Accessibility

Patterns of contraceptive use

Prevalence rates: Brazil is characterized by high levels of contraceptive use, variation in use patterns by region and socio-economic status, and considerable evidence of unwanted fertility, but relatively low levels of unmet need for contraception among married women. The total fertility rate in Brazil has declined rapidly and has fallen to 2.5 children per woman (Berquó, 1994).

A high level of contraceptive use is confirmed by several data sources, two national surveys, the 1986 BEMFAM/ IRD Demographic and Health Survey and the 1986 Pesquisa Nacional por Amostragem Domiciliar (PNAD), as well as the 1991 BEMFAM/DHS survey conducted only in the Northeast. The 1986 survey reports a contraceptive prevalence rate for women of reproductive age and living in union of 65.8% (BEMFAM/IRD, 1987). The somewhat lower rate of 59.8% reported by PNAD is largely a function of the fact that the latter sampled an older age group (PNAD, 1986). These prevalence rates place Brazil, together with Colombia, at the top of Latin American countries and are at a level that approaches patterns in countries of the North (DHS, 1993).

Regional variation is clearly apparent in Table 1 prepared from the 1986 DHS data, which shows the relatively wealthy state of São Paulo with a prevalence rate of 74% and the poorer Northeast at the lower end of 53%. By the time of the 1991 BEMFAM/DHS survey for the Northeast, this figure had increased to 59.2%. Contraceptive prevalence is higher in urban than in rural areas, and varies by education, although these differences are not as marked as they are in Latin American countries with lower prevalence rates such as Bolivia, Guatemala, Ecuador, and Peru (DHS, 1993).

Unwanted fertility and unmet need for contraception: The level of unwanted fertility for the year preceding the 1986 survey was 58%, with 32% of women who had a pregnancy during the previous year stating that the pregnancy was not wanted, and 26% stating they would have preferred to wait until later. Figures for unwanted pregnancy based on data of the 1991 survey of the Northeast indicate similarly high levels. Thirty percent of currently pregnant women did not want the pregnancy at all, and 34.6% felt their pregnancy was earlier than desired (BEMFAM/DHS, 1992). The level of unmet need for contraception, defined as women not using contraception, who are married and fecund, and do not want any more children, or do not want a child within the next two years was 13% in 1986 for the country as a whole (BEMFAM/IRD, 1987).

Education is related to unmet need. In the Northeast 78% of women of

Table 1. Contraceptive prevalence (for married women, or women living in union, age 15-44) in selected states or regions (Source: BEMFAM/IRD, 1987)

Area	Total CP	Oral contraceptive	Sterilization	Other
Brazil	65.8	25.2	26.9	13.7
Sao Paulo	73.5	24.3	31.4	17.8
Northeast	52.9	17.3	24.6	11.0
North-Central West	62.1	12.4	42.0	7.7
Central-East	63.7	23.5	25.7	14.5
South	74.4	41.0	18.3	15.1

reproductive age who do not want additional children but are not practising contraception have a primary school education or less (DHS 1992). The high level of unwanted fertility or pregnancy and underserved need for contraception are also suggestive of contraceptive failure.

Studies of special populations also provide evidence of unwanted fertility. Ferraz et al. (1992) report that 58% of single mothers aged 15-19 in three cities stated that their first pregnancy was unwanted. The decreased age at first birth reported between 1970 and 1986, and the fact that a large percentage of sexually active adolescents between 15-19 years of age do not use contraception at the time of first intercourse (Arruda et al., 1992) are also suggestive of unmet need for contraception. An additional indication of unmet need for contraception is the high rate of abortion discussed in the previous chapter.

Patterns of method use: Data from the DHS confirm the widely known pattern of limited method use for Brazil with its emphasis on two dominant methods, sterilization and the oral contraceptive. Forty-two percent of current by married users (representing 26.9% of all married women of reproductive age) were using sterilization according to the 1986 DHS (BEMFAM/DHS, 1987). In Latin America, only the Dominican Republic and Guatemala have higher sterilization rates. Moreover, Brazil is characterized by high oral contraceptive use, in fact by the highest percentage of oral contraceptive use among users reported for any country in Latin America (DHS, 1993). Use of other modern or traditional methods is extremely low. The 1986 DHS reports 1.7% for condoms, 1% for IUDs, 0.6% for injectables, 0.8% for male sterilization, 4% for rhythm and 5% for coitus interruptus (BEMFAM/IRD, 1987). Because of the attention given to the condom as part of AIDS campaigns, sales of condoms have increased in Brazil. There is some regional increase in the use of IUDs, reflecting the impact of special projects focusing on contraceptive choice. In those clinics or regions where IUD services are implemented with a high level of quality of care, the prevalence of the IUD has increased, but there is no

general trend towards an increased use of the IUD (CEMICAMP, 1991).

Evidence of sterilization regret and problems associated with method use: Data from the 1991 DHS for the Northeast indicate that 13.9% of all women who are sterilized or whose husbands had a vasectomy now regret the decision (BEMFAM/DHS, 1992). In a study conducted in 1986 in Campinas, sterilization regret amounted to 27% overall and was particularly high for women under 25 years of age (Pinotti et al., 1986). In the Northeast, problems associated with method use were most frequent for users of the oral contraceptive (23%), the condom (19%), and sterilization (13%). Side-effects and health problems were predominantly reported for the oral contraceptive and sterilization, and inconvenience or dislike for the condom (BEMFAM/DHS, 1992).

Availability of contraceptive technology in the public sector

In discussing the availability of contraceptive methods we refer to the presence of methods within either the public or the private sector. Within the public sector we distinguish between methods which are included in official policy guidelines and in that sense are "theoretically" available, and the actual, physical presence of methods at service delivery points.

Methods included in the official MOH guidelines: These include periodic abstinence, lactational amenorrhea, barrier methods, IUDs, combined and progestogen-only oral contraceptives. Tubal ligation, vasectomy, injectables and implants are not included in these guidelines. Formal norms for tubal ligation were prepared at one point, but were dropped due to the controversial nature of the issue and the ambiguous legal status of the procedure. Current bills before Congress request changes in the law for tubal ligation, and the establishment of formal guidelines for inclusion in the official norms for contraceptive service delivery (MOH, 1992).

Availability of methods at service delivery points: There is extensive variation in the availability of contraceptive methods at service delivery points within the public sector. An internal survey conducted by the MOH in part of Brazil established that 32% of public sector service delivery points offer no contraceptive methods, 49% offer some methods, and 19% offer the full range of methods approved by the MOH guidelines (MOH, 1990). A small number of service delivery points, particularly those involved in contraceptive research, also offer methods which are not included in the official guidelines.

At most public sector service delivery points which offer family planning, the supply of contraceptive methods is extremely limited, and available supplies are not adequate to meet the demand. Where methods are available, there usually is a limited and variable range of formulations in stock. IUDs tend to be less widely available than oral contraceptives or condoms. Almost all services offer condoms only as a short-term method while users are waiting for another method. When supplies of a specific oral contraceptive are not available, physicians will give women prescriptions to purchase the oral contraceptives at a pharmacy or, when available, offer women a product

of a different formulation. In 1993, international donations for the purchase of oral contraceptives were adequate to supply approximately 200,000 women for one year, which is approximately 2% of oral contraceptive users in Brazil.

The limited access to reversible contraceptive methods other than oral contraceptives is one of the most important factors explaining the increased incidence of tubal ligation. For example, many of the women health workers interviewed in connection with our visits had had a tubal ligation. They explained their decision to opt for this method in terms of the absence of adequate options for reversible contraception.

In the public sector, tubal ligations are provided in hospitals only. Because tubal ligation is generally performed with epidural or general anaesthesia, it is not provided on an outpatient basis. In response to the highly controversial status of this particular method, many hospitals have locally established restrictions for the performance of tubal ligations. These tend to be age and parity related. In many public sector settings, tubal ligation is available to women in connection with a gynaecological operation. In 80% of cases, tubal ligation is performed in association with caesarean section (Berquó, 1993); the limited number of interval or postpartum tubal ligations performed are disguised by other surgical procedures including hysteropexy and removal of ovarian cysts (J.N. Formiga Filho, personal communication, 1994). Vasectomy services, usually provided through urology departments, are extremely limited in the public sector.

There is significant regional variation in the availability of contraceptive methods. This variation depends on the history of political or individual commitment to women's health and family planning, the wealth of the region or the local and donor resources available for health, and the proximity of individual service delivery points to central, regional or state facilities.

Availability of contraceptive technology in the private sector

Private hospitals: In general, private hospitals in Brazil do not have outpatient clinics and do not offer family planning services as part of a formal family planning programme. Individual physicians working in these hospitals do provide family planning, particularly tubal ligation, and in a few cases vasectomy. Tubal ligations are mainly performed in connection with caesarean section deliveries, which are widely available to women and may be negotiated during pregnancy.

NGOs: Oral contraceptives, IUDs, condoms, diaphragms and spermicides are typically available through non-governmental organizations. A few NGOs offer tubal ligation. The only major NGO providing vasectomy is Pro Pater which offers outpatient vasectomy with local anaesthesia.

Pharmacies: Oral contraceptives, condoms and spermicides are widely available through pharmacies. Smaller pharmacies stock only two or three main brands but most offer a wide range of oral contraceptive formulations and brands. Most pharmacies also sell once-a-month injectable contraceptives and provide the injections. It was observed that pharmacists had minimal

knowledge of contraceptive methods and no written information for themselves or for users.

Four groups of products available in the commercial sector - some oral contraceptives, produced by small companies with inadequate quality control, sequential oral contraceptives, currently available once-a-month injectables which have not been adequately tested for safety and efficacy, and poor quality spermicides with inadequate spermicidal action - pose unacceptable health or pregnancy risks.

There is concern about certain oral contraceptives manufactured by certain small Brazilian companies. Products produced by these labs are not subjected to rigorous quality control, and may contain high or extremely variable doses of steroids (P. Hall, personal communication). Furthermore, sequential oral contraceptives are still available in many pharmacies. Responding to women's needs for low cost contraception and to some extent to the greater profit margins earned on these brands of oral contraceptives, despite price controls on pharmaceutical products, pharmacies sometimes offer these slightly less expensive oral contraceptives to women with prescriptions for other formulations. Although the market share for these oral contraceptives is generally low, women without a prescription, and those with limited financial resources may be particularly vulnerable to the risks implied in the use of these brands.

While the larger pharmaceutical companies are in the process of voluntarily withdrawing older, high dose formulations, the legal mechanism for forcing the removal of oral contraceptives produced by these smaller laboratories has not been effective. The market share of these oral contraceptives is kept small primarily by the limited price differentials between these and the low cost, low dose formulations produced by the major pharmaceutical companies.

The commercially available once-a-month injectables, Perlutan, Unicyclo and Unovular, are provided on a reinjection schedule which increases women's exposure to steroids. Following the companies' directions, these injectables are usually given at every bleeding episode rather than at monthly or regularly scheduled intervals. This may result in women receiving up to 16 injections per year. MOH efforts to block the production and sale of these injectables have been thwarted by legal action taken by the manufacturers. These injectables are not included in the MOH norms and are, with few exceptions, provided without prescription.
Several products advertised as contraceptive spermicides contain ineffective active ingredients or inadequate levels of spermicide. While these products do kill some sperm in vitro, no studies are available that demonstrate that the spermicidal action is adequate for contraceptive protection.

Private physicians: Oral contraceptives are widely prescribed by private physicians, injectables less frequently. Tubal ligations are performed in private and public sector hospitals. Only a small percentage of private providers insert IUDs or perform vasectomies. Most private

physicians have had no formal training in family planning and receive information on family planning primarily from the pharmaceutical companies. Possibly as a result of such exposure, there is a tendency for private physicians to prescribe more expensive oral contraceptives containing third generation progestogens without any long term epidemiological evidence that these products are necessarily safer.

Accessibility of family planning services

Time: There are three elements to the question of how much time users must spend to get a method: 1) travel time; 2) waiting time; and 3) the number of visits before a woman receives a method. Data from the 1991 DHS from the Northeast show that more than 50% of rural women must travel more than one hour to reach a public sector service delivery point which offers family planning (DHS, 1992). Often women cannot attend the nearest health post because family planning services are either not available or doctors and nurses attend the clinic very infrequently and do not carry supplies. In urban areas, the majority of women are within half an hour of a family planning service delivery point. When non-users are asked why they are not using, a relatively small percentage indicate that distance to the clinic is a major problem (DHS, 1992).

Waiting times are often long and women must often make several visits to a service delivery point before obtaining a method. The first time a woman comes to the clinic, she is usually scheduled for an educational session, which may be available only once or twice a week. Attendance at educational sessions is typically a prerequisite for receiving a method, although there are exceptions to this rule. In some municipalities, more than one educational session is required and/or women are scheduled to see a social worker before their first medical consultation. After the educational session, women attend a consultation first with a nurse and then with a physician usually on the same day. During this visit, a gynaecological exam is performed and a Papanicolau smear is taken. Whether a woman receives a method on this day depends on the method selected.

A woman who has selected an IUD must wait for Papanicolau smear results prior to insertion, and is instructed to schedule an appointment for insertion during the first menses following the expected availability of results. Women who select the oral contraceptive may receive the method during their consultation with the physician, but in some clinics they are required to be rescheduled for an appointment following the receipt of Papanicolau smear results. Women choosing the condom, spermicides or the diaphragm usually receive their method at the time of their visit with the physician. Having followed the prescribed steps women may be unable to receive the method of their choice because of a lack of supplies. If these women are unable to purchase the method in a pharmacy, they may be referred to another clinic where the process of waiting begins again.

Oral contraceptive users are generally given one, and occasionally two cycles when they initiate use in a clinic. On return visits, they receive two or three cycles and in exceptional cases more. If supplies are limited, women must

return to the clinic more frequently. If the physician is not present on a day when women are scheduled, another appointment is scheduled, incurring lengthy delays during which women may be without a contraceptive method.

In the private, NGO and certainly in the commercial sector, much less time is involved in obtaining access to contraceptives. In the private sector, waiting time is reduced by a formal scheduling procedure. Access to pharmacies is generally good even in small towns, although in remote rural areas, access to contraceptive supplies through the commercial sector can also be difficult.

Costs to the user of obtaining contraceptives: The costs for time lost, child care, and transportation implied in the process of obtaining access to contraceptives in the public sector are considerable. To the extent that supplies are available in the public sector, they are free. Because supplies are often not available, women are given prescriptions to purchase supplies in the private sector. While the absolute cost of some oral contraceptives is not high, the relative cost of the method may be excessive for individual women.

Although 14 procedures covered by SUS are used to disguise interval or postpartum tubal ligation, the vast majority of tubal ligations continue to be performed in association with caesarean section. While SUS reimburses the costs of the caesarean, women pay varying levels of informal charges directly to the performing physicians. The exact amounts are, for obvious reasons, difficult to identify. The legal ambiguities associated with tubal ligation encourage and contribute to this practice of requesting informal payments. In part because of the profitability of this situation, there is little movement on the part of the obstetrics and gynaecology community to regularize tubal ligation and separate it from the practice of unnecessary caesarean section.

Thus, for women who seek contraceptive methods in the public sector, access is not easily obtained, and is often gained only after the significant expenditure of time and money. Because of the difficulties involved in obtaining public sector services, it may be cheaper for women to purchase supplies in the private sector than to pay the indirect costs of multiple visits to a system which may in the end not have supplies.

In pharmacies, the older generation of oral contraceptives cost approximately US$2, although there is usually a small discount for products produced by small local companies. The new generation of oral contraceptives cost between US$7 and US$9 per cycle. Once-a-month injectables cost approximately US$4. There is an additional small charge for the needle and syringe. In many pharmacies injections are given free, in others a small (20-30 cent) fee is charged. The cost of condoms ranges from US$1-3 for 3 condoms depending on the brand, and product characteristics. Spermicides are generally available although access may be limited in very small pharmacies. IUDs are not sold through pharmacies.

Women are typically asked for a prescription when requesting oral contraception at a pharmacy, but approximately 40% of women obtain

oral contraceptives without a medical prescription, and a larger percentage do not have a current prescription. Women frequently select, and pharmacy staff usually recommend, one of the least expensive brands when women come without a prescription or indicate that they cannot afford to pay for the formulation prescribed. Pharmacy prices are controlled and new price lists are issued twice monthly by the Brazilian Association of Pharmacists.

Costs are a major factor in limiting women's access to private sector services. The cost of consultations with obstetrics and gynaecology specialists range from US$25-100 depending upon region, size of the city and the prestige of the physician. Additional charges are made for a Papanicolau smear and colposcopy (US$25), and for insertion of the IUD (US$50-200 including the device). Some private physicians recommend removal and replacement of the IUD every 2 years; the more usual practice is four years. Official norms or guidelines recommend replacement of the CuT 380A every 8 years, and the Multiload 375 every 5 years. Earlier than necessary removal implies additional costs to the user, plus an increased risk of PID and other complications.

The cost of tubal ligation in the private sector is difficult to document because it is either embedded in the cost of other gynaecological surgery or is charged unofficially.

Quality of Care in Family Planning Service Delivery in the Public Sector

Mechanisms for assuring quality of care at the policy level

The 1992 MOH guidelines (norms) governing the delivery of family planning services in public sector service delivery points clearly affirm the importance of voluntarism and free choice in contraceptive service delivery. These norms also emphasize the value of providing culturally appropriate educational and clinical services which include understanding cultural beliefs and myths pertaining to contraceptive use.

The MOH guidelines identify two components of family planning service delivery: educational activities and clinical services. Educational activities are explicitly required and are intended to be focused on women's health as well as contraception. Clinical components are spelled out in considerable detail in the contraceptive guidelines. According to these guidelines, all contraceptive service delivery is to be initiated with an educational session and followed by a clinical consultation with a physician which includes a medical history, a gynaecological examination and a Papanicolau smear. Although focused more on the medical and technical dimensions of service delivery than interpersonal and counselling issues, these guidelines emphasize quality of care.

The interests of policy makers and managers are focused on the immediate need for human resources, training and supplies. Concern for the availability of services currently overshadows an emphasis on the quality of services provided. In a severely constrained system, this focus on the provision of services is to be expected. In some settings where resources and services are limited, technical and particularly educational requirements are consciously imposed as a way of restricting access to services which are inadequate to meet existing demand.

A lack of commitment to family planning is at times concealed in discussions of the importance of education, free choice and the broader context of women's health. In other cases, these same arguments may be used to make controversial services more acceptable to the groups who oppose increases in women's access to contraception. Acknowledging these situations does not diminish the importance of the genuine commitment to improving family planning and women's health that has emerged in some circles in the last decade.

Quality of care at service delivery points

Choice and information given: Although there is an official emphasis on free choice and individual provider commitment to the concept, the limited availability of family planning services and the narrow range of methods available at most clinics severely limits choice. Educational sessions typically

present the full range of methods approved under the MOH guidelines. In practice, however, choice is limited to the one or two methods available in most clinics. Incomplete information or provider bias may further reduce women's ability to make an informed choice among the methods available. Many providers are not adequately trained in family planning or have insufficient experience to dispel client fears or misconceptions and may directly or indirectly communicate their own biases. The medicalization of family planning, and power or gender imbalances between provider and client also contribute to a reduction in client choice when physician directed method choice is passively accepted by the client.

The emphasis on education in the public sector must be recognized as evidence of an increasing awareness of the importance of education in family planning services. It is also necessary to acknowledge that because of the structure of educational activities, this well intentioned service may act as a barrier rather than facilitate women's access to contraception. When women seeking a contraceptive method are assigned to educational sessions and cannot receive a method on their first visit, and when the information given in these sessions does not enable them to answer questions they may have about the characteristics of the different methods of contraception, education reduces rather than improves the quality of care. In addition, if educational sessions take the place of, rather than complementing, individual counselling, a woman or man who receives a method may not leave with adequate information on how to use that method properly.

Although it is important to continue providing education to women seeking contraceptive methods, it is necessary to ensure that these educational activities do not interfere or delay method choice and actual initiation of use. In some of the clinics visited, the requirement of participation in educational sessions prior to starting use of methods acts as a barrier to contraceptive use. Some potential users are unable to go through this whole process which sometimes lasts for three or four educational sessions. Some providers recognized that this system is maintained in part because it reduces the number of new acceptors, making the demand for contraception more adequate for the limited resources available.

Technical competence: Studies conducted at the University of Campinas (UNICAMP), and during a 1989 vaccination campaign, indicated that as many as 50% of the women interviewed were using oral contraceptives with contraindications regardless of whether they had obtained them with a physician's prescription or directly from pharmacies (Faúndes et al., 1986; Pinotti et al., 1990). The high percentage of women using oral contraceptives with contraindications is evidence of poor screening during initial and follow-up visits. It must be considered that this situation may also reflect the limited range of reversible contraceptive options available. In this context, the compromise of use with contra-indications may be viewed as reasonable or necessary by physicians, women or both. Furthermore, in many services the list of contraindications has not been updated to reflect current medical knowledge. Because of this, the process of screening may be used to

incorrectly exclude some eligible women.

The indirect evidence of high failure rates for oral contraception suggested by high rates of illegal abortion and unwanted fertility are a source of significant concern among providers, policy makers and women's groups. Frequent observations of incorrect oral contraceptive use, indicate that women do not have enough information about the appropriate use of oral contraceptives. Some women choose to use the oral contraceptive in a way they feel reduces the risk of unwanted side effects with the knowledge that it may increase their risk of pregnancy, but for many women incorrect use results from a lack of formal knowledge. Although this may result more from a lack of counselling than from the communication of incorrect information, there is evidence that some providers are unclear about how to use oral contraceptives correctly.

Attention to asepsis is generally good, and MOH norms for sterilization and high level disinfection are usually well followed. Awareness of the risk of AIDS transmission has increased provider attention to asepsis, and problems with inappropriate reuse of equipment or needles are very rarely reported. Basic supplies and equipment for conducting routine gynaecological exams are usually available, but shortages of equipment like speculums combined with appropriate attention to asepsis limit the number of women who can be seen for family planning in many clinics. Some misunderstandings of the proper asepsis procedures for IUD insertion have been encountered and may reflect the limited training that providers receive.

The very short consultation times observed in many clinics suggest that in many cases thorough gynaecological exams including breast examination are not conducted for family planning clients (or for women seeking other reproductive health care services). Time for individual counselling concerning method choice and instructions on method use is similarly limited when consultations are very brief. In many clinics physicians see 16 women in less than two hours rather than in the allotted four hours.

Limited provider ability or confidence in clinical diagnosis of STDs or other reproductive tract infections results in inappropriate reliance on Papanicolau smear results for the diagnosis of common infections. As a result many reproductive tract infections go untreated. In addition, many providers have misconceptions about the causes of vaginal discharge which they communicate to clients. Even though some regional and local variation in technical competence was observed, significant problems with technical competence exist even in places where training has been conducted.

Interpersonal relations: Although the PAISM programme has integrated interpersonal relations into its training for medical and non-medical personnel, the majority of family planning providers have received little or no formal training in communication and counselling skills. Gender, race and social imbalances act to further reduce the probability that providers engage in a meaningful and supportive counselling process and increase women's comfort with requesting information.

Communication skills are not incorporated into the curricula of medical and nursing faculties, and few providers have the opportunity to receive specialized training in these areas. The medicalization of family planning services makes physicians who are not trained to value listening and counselling skills, responsible for the majority of one-on-one discussions of method choice and use. Nurses are frequently observed to be interested in, and to the extent possible, involved in family planning counselling, but also expressed a need for formal training. Preserving family planning as part of a medical speciality may reduce interpersonal quality of care, particularly in those settings where provider time is limited.

It is currently being suggested by some women's groups and some health services that domestic violence be considered when women are being counselled on the choice of contraceptive methods. Once questions are asked, it becomes evident that many women have experienced violence surrounding the use of contraceptive methods. In general, it is thought that interpersonal relations and the overall quality of family planning services could be improved if providers were more aware of the reality lived by their clients.

Privacy during physical examinations is not always maintained. The lack of privacy in areas where medical histories are taken may inhibit women's discussions of reproductive intentions and sexual patterns which influence contraceptive choice.

Mechanisms for continuity: Most settings have no formal mechanism for ensuring continuity of family planning care. Established systems for contacting clients who do not return for follow-up visits are rare, and in many clinics the scheduling system itself is insufficient. Clients with scheduled appointments may not be guaranteed attention, and there is little ability or willingness to schedule emergency consultations for clients with complaints. Women who attend emergency room services for contraceptive complaints often receive instruction to discontinue the method rather than counselling or discussion of alternative method choices. If these women are unable to receive family planning attention within a reasonable time, their risk of unintended pregnancy is increased.

Weak or absent record keeping systems do not allow continuity of attention to women's reproductive health or family planning histories. The high turnover of providers decreases the continuity of care for women and increases the demands on individual providers to solicit the information necessary to maintain appropriate quality of care. In addition, because of a lack of a comprehensive approach to women's health, family planning is not usually discussed when women attend for other medical reasons. Apart from the need to consider potential drug interactions or other medical issues which could affect a woman's use of family planning or the effectiveness of her chosen method, the opportunity to provide family planning support, counselling or supplies is lost.

For centres that lack the ability to provide contraceptive services or supplies, appropriate referral mechanisms are important to assure access to a choice of contraceptive methods. In many areas, however,

there are no centres within a reasonable distance which provide the services or methods unavailable locally. Because tubal ligation is not included in the MOH guidelines, formal referral criteria for the majority of women seeking access to tubal ligation do not exist.

Appropriate constellation of services: While situating contraceptive service delivery within the women's health programme establishes a service delivery context that is convenient and acceptable to women, this location does not make services readily available to men. In some of the more progressive programmes, men are allowed and encouraged to attend educational sessions, but in most locations these sessions are not tailored to men or couples, and are not provided at times when men employed in the formal sector are willing or able to attend.

Even though family planning services are included in the integrated women's health care system, women looking for contraception do not have wide access to other reproductive health services. Cervical cancer screening through Papanicolau smears reaches a small proportion of users and cases needing follow-up usually do not receive adequate treatment. Breast cancer screening is almost non-existent and services for the prevention of reproductive tract infections are either not available or poorly implemented. Attention to sexuality is completely neglected. Other preventive activities are not implemented and the referral system is very weak.

Service Delivery Capabilities

Previous chapters have noted that the family planning situation in Brazil is characterized by a high level of demand for contraceptives, as well as by considerable evidence of unmet need, unwanted pregnancy and fertility (DHS, 1992). Availability and accessibility of methods in the public sector is limited, and major weaknesses in the quality of contraceptive care have been observed. In this chapter we identify some of the broader characteristics of the public sector family planning programme in Brazil that shape the conditions of service delivery.

Weak political commitment and resource constraints: A long-standing history of controversy over the objectives of contraceptive service delivery has left the public sector in a weak position to focus on family planning even when presented in the context of women's reproductive health. Moreover, while there is some evidence of increasing commitment to contraceptive service delivery within the public sector, resource scarcities resulting from the country's economic crisis constitute major constraints in the public sector's capacity to provide such services, and reduce the priority given to family planning. Strong linkages between the women's movement and public health institutions are a source of strength in the system and have helped to focus attention on women's health.

Collaborative efforts between representatives of women's groups and public sector institutions have produced innovative attempts to address a variety of dimensions of women's reproductive health. However, these links are not institutionalized, vary with local political and social conditions, and do not necessarily survive changes in political administration.

Medical orientation in contraceptive service delivery: The public sector family planning effort in Brazil is characterized by a strong medical orientation to contraceptive service delivery, and limited consciousness of the broader social implications of family planning. The lack of non-medical personnel, such as nurses or nurses' aids, seriously restricts access to family planning because of the limited availability of physician time in many clinics.

There also is unwillingness to delegate service delivery functions to those non-medical professionals who are available. The provision of relatively routine and uncomplicated services, such as IUD insertions, have been treated as a medical speciality within obstetrical and gynaecological care rather than as part of primary care. This fact removes services from the context in which most women's needs arise and limits access to care. Integration of family planning into obstetrics and gynaecology care allows their absence to be ignored if other gynaecological services are being provided.

Furthermore, the majority of health centres do not have gynaecologists, but are staffed by general practitioners who are unprepared to provide family planning. PAISM has attempted to change this orientation, supporting the training of a broad range of professionals in family planning. These efforts have met with strong resistance on the part of the medical profession.

Although contraceptive services are considered a medical function, the medical profession in Brazil does not place a priority on the provision of these services. When resources are scarce, family planning is often the first service to be eliminated or the last to be implemented. Prenatal care, cancer prevention and general gynaecological care take priority both on a practical and a philosophical basis, although the quality of care with which these services are provided is also often poor. Doctors who provide a limited number of consultations in the public sector, may see family planning as secondary to treatment of routine or emergency obstetrical and gynaecological problems. Together these situations point to an important lack of commitment to family planning within the medical community.

Insufficient or weak family planning training: Information on family planning does not form a significant part of training for medical and nursing students. Although a family planning curriculum has been developed by Federação Brasileira de Sociedades de Ginecologia e Obstetrícia (FEBRASGO), there is no information on the extent to which it has been implemented in schools of medicine and nursing. The virtual exclusion of family planning from most medical and nursing curricula is a strong indicator of the low priority given to these services by the medical profession. As a result, technical competence in the area of contraception is weak, and the importance of choice, information and counselling is not communicated to medical and nursing students.

Specific training in family planning is provided by COMI as part of the PAISM programme. The MOH budget for training in family planning is allocated to states and municipalities. Reference centres for family planning were created in an effort to standardize training and to maintain family planning and PAISM norms. Although trainers from the reference centres are uniformly prepared, there is no evaluation or monitoring of the training as it is replicated in the centres, and little communication between reference centres on the type and content of training provided by other centres.

Beyond this effort to provide these reference centres for training, COMI does not coordinate family planning training among states and regions. The decentralized approach to training, with responsibilities resting largely with the state and the municipal level, implies that training is variable in quality and scope, depending upon the priorities and resources of the state, or region. States with strong commitment to PAISM (like São Paulo) have stronger training programmes. Trained professionals interviewed confirmed that they were trained mainly on methods including medical intervention, leaving in a secondary level interpersonal communication techniques, counselling and user controlled methods, such as periodic abstinence and barriers. This partly explains the lack of emphasis given to

users perspectives, especially choice of methods.

Problems with training are exacerbated by the high turnover of physicians and nurses within the public sector. Although large numbers of providers have been trained through the PAISM or other programmes, many have subsequently left the public sector for the private sector, or have been moved to administrative positions. For example, in the clinic Grande Terceiro, a reference centre in Cuiabá, there are no physicians trained for IUD insertion. This situation was also observed in Ceará which has received strong external support for a considerable period of time.

Good physical facilities - limits in human resources: Physical facilities are generally well maintained and clean and in no sense restrict the ability to provide family planning services. A major constraint, however, exists in the area of human resources. In addition to the already mentioned shortage of trained personnel, there are problems with the overall number of staff, the types of staff, and in the management of human resources.

São Paulo lost 25,000 health workers as a result of reductions in salaries and deterioration of conditions following a change in administration. Human resource shortages may be exacerbated by the process of municipalization, because poorer or less committed municipalities may allocate insufficient resources to hold trained providers in the public sector. Moreover, the unusually high physician to nurse ratio of 8-10 physicians per nurse makes it unlikely that nurses will play a major role in contraceptive service delivery in the near future. Overall morale among public sector staff is low due to changes in political commitment to public health, resource scarcities, and low salaries.

Supervision and monitoring of family planning services are weak. Technical supervision tends to be resisted by the medical community. Even the organization of a special commission of maternal mortality to address high rates of mortality faced significant resistance. Administrative supervision in turn focuses on quantity rather than on quality of care. The orientation of the management and information system (MIS) towards recording services provided for reimbursement by SUS rather than facilitating the management of services restricts its usefulness for improving logistics or the provision of care.

Complex reimbursement mechanisms and underdeveloped public sector procurement, logistics and supply systems: Two funding mechanisms have in the past covered the cost of contraceptive service delivery. The social security system (INAMPS) allowed reimbursement of services for those employed in the formal sector of the economy. The second mechanism was a separate public health budget at the federal level. With the recent integration of the social security system into the Ministry of Health to form the SUS the ultimate aim is to cover all expenses through reimbursement mechanisms. However, at the present time, states and municipalities continue to receive budget allocations for public health on a per capita basis.

The earlier social security system, and now the SUS are strongly curative in their orientation. In the past only 2% of the INAMPS budget was available for

preventive services including vaccination, training and education. This amount has increased under SUS to 5% at present, but is not expected to grow significantly. While the 1988 constitution calls for more emphasis on preventive services, this orientation is not reflected in the current pattern of resource allocation.

There has been a gradual expansion in the availability of reimbursement mechanisms for family planning. However, these mechanisms are not widely understood, and therefore remain largely underutilized. The resulting shortage of resources to purchase even basic contraceptive supplies reduces the ability or inclination of many service delivery points to focus on contraceptive service delivery. Mechanisms like the inclusion of contraceptive methods in the list of essential drugs, or approval of SUS reimbursement for contraceptive devices like the IUD and the diaphragm have only recently been implemented. In the past, municipalities received a budget for health through the state. A portion of these funds could be used to request essential drugs and to purchase drugs not on this list. These budgets, which were separate from reimbursement payments, were not determined objectively and were subject to political bargaining.

As of the end of 1993, municipal health budgets will be calculated on a per capita basis. Each municipality will be allocated a total of US$42 per capita including reimbursement payments. It is anticipated that a new system will be operational in 1994 whereby all essential drugs (including contraceptive products) will be purchased by the MOH with moneys outside the municipal budgets. Based on estimated needs, municipalities will receive an initial shipment of essential drugs, which will be replaced according to use.

Once implemented, this system of essential drug provision and the complementary reimbursement of devices through SUS should allow municipalities to ensure more regular supplies of contraceptive methods. Logistics and procurement systems will have to be strengthened at the federal, state and municipal levels. Weak or non-existent systems for tracking and ordering contraceptive supplies at the clinic and municipality level will, however, need to be implemented before available supplies can be efficiently and effectively channelled to the points of need. Simply increasing the opportunities for obtaining supplies will not alone address the inadequacy of family planning. Training of administrators to encourage efficient use of these mechanisms, the development of logistics and supply procurement systems, and employment of sufficient numbers of adequately trained staff will be necessary if these changes are to have significant impact on contraceptive choice.

User Perspectives and the Social Context of Method Choice

Previous sections of the report have presented evidence on patterns of method use and on the service delivery context within which contraceptives are provided. We now turn to a discussion of user perspectives on method choice and of the broader social context of contraceptive decision making including the positions of women's groups.

User perspectives and the social context of method choice

As Hardy (1993) has recently documented, little research has been undertaken on user perspectives of method choice in Brazil. Even less is known about how method choice and contraceptive use more generally have affected women's lives. The few research studies that exist are limited, and often linked to special introductory efforts (Díaz, 1990). Only a few studies assess the attitudes and orientation of both users and non-users. Moreover, available studies tend to focus on women and not on men, and to concentrate on single methods rather than on the method mix (Araújo et al., 1993; Hardy et al., 1991). Finally, whatever research on user perspectives exists tends to be quantitative in orientation, missing the rich contextual data and insight that can be derived from more qualitatively oriented work. Nonetheless, there is sufficient evidence from demographic surveys, user perspective research and from the experience of professionals in the field to arrive at some very general conclusions.

Oral Contraceptives: Findings from the major national and regional surveys indicate that almost all women in Brazil know about the oral contraceptive and many use it in the course of their lives, obtaining it in the large majority of cases through the commercial sector. For many women, the oral contraceptive appears to be synonymous with contraceptive use - that is to say it is viewed as the one option available to women who wish to avoid pregnancy - until they are ready for tubal ligation.

Oral contraceptives are not only widely used, they are also often incorrectly used (Pinotti et al., 1990; Petta, 1992). Incorrect use puts women's health at risk, leads to contraceptive failure, and undoubtedly contributes to the high rate of abortion in Brazil. Based on clinical experiences discussed during the assessment, interviews with users, and on research conducted by Centro de Pesquisas de Assistência Intregrada a Mulher e a Criança, CPAIMC, in favelas in Rio de Janeiro, there is evidence that a significant percentage of women who classify themselves as using the oral contraceptive are not using the method according to recommended regimes (Costa et al., 1990).

A study undertaken by Costa and Chaloub (1992) in three cities reveals that a large number of women, both users and non-users, attribute negative

characteristics to oral contraceptives. More than half believe that the oral contraceptive is annoying and difficult to take on a daily basis, that it is harmful, causes weight gain, headaches and dizziness, and is not an effective method. It was further stated that oral contraceptives cause cancer and are expensive.

Interviews with family planning users during our assessment visits also indicated that women have concerns about using the oral contraceptive for long periods of time and that side-effects are a significant worry. While there are also positive views about the oral contraceptive, these findings give the impression that on the whole, women believe that use of the oral contraceptive implies hardship and damage them. Given the living conditions of most Brazilian women, the expense is indeed significant, and side-effects are made more troublesome by limited access to health services. Some of the negative attitudes towards the oral contraceptive are likely to be related to the fact that many women purchase the oral contraceptive from the pharmacy without a prescription, and generally do not receive instruction on the use and characteristics of this method. Similar problems are experienced by women who attend some public and private sector services where complete information or counselling are not provided.

Other temporary modern methods: These methods of contraception are less widely known, and women are less likely to be familiar with sources of access to these methods. This is particularly true for the IUD, and vaginal methods. The IUD was known by about half of married women in the 1991 DHS survey in the Northeast, but only 20% knew where they might obtain this method. Vaginal methods were known by 39% but only 21% knew where they could obtain these methods. Injectable methods were known by 85% of women and 59% knew of a location where they could obtain the method.

A set of focus group discussions undertaken by CEMICAMP found that women have a wide range of concerns about IUDs and injectables. They were concerned about the IUD's position and possible mobility within the body, and the strangeness of having a foreign object inside them. It was also mentioned during our visits that women fear the IUD. For example, a community health agent in Fortaleza pointed out that many women do not have the "courage" to use the IUD, because they think it is not good for them. Concerns about injectables included menstrual irregularities, weight gain, irritability, headaches, changes in libido, and other undesirable effects.

While there is evidence of fear and concern about many temporary methods, carefully conducted introductory studies have shown that when methods are properly introduced, there is demand and many women tend to be satisfied with the method (Costa Paiva, 1993; Díaz et al., 1992). This has been shown to be true even for those methods which are widely believed to be unacceptable to women. In an introductory study of the diaphragm in Brazil (Araújo et al., 1993), it was shown that the diaphragm can be an effective and acceptable method for some women when provided by trained personnel, with appropriate attention to counselling. Other clinical studies

have shown that whenever a broader range of methods is made available with adequate quality of care, there is considerable demand for these methods. However, for most women in Brazil, temporary methods other than the oral contraceptive do not figure prominently in their decisions about contraceptive use.

Even the widely known condom is not frequently used. Condoms are thought to reduce sexual pleasure, and according to the findings from a study by Berquó and DeSouza (1991), they are not utilized because, as respondents put it "we are not in the habit of using them". This statement reflects the reality that condoms are not considered an important method of contraception. Condoms are used almost only as a transient method while waiting for the method chosen. More importantly still, this statement also suggests that many women are not in a position to negotiate shared responsibility in the burdens of fertility control.

A recent action research project with poor urban women also found that women's attitudes towards condoms are predominantly negative (Goldstein, undated). Women feared interference with sexual pleasure, breakage, the association of condom use with prostitution, and infection resulting from pieces of the condom remaining inside the vagina. Men's attitudes were similarly negative. Another recent study of low-income female adolescents found that non-use of condoms was explained by the fact that respondents did not know how to obtain them, thought condoms an insecure method and did not know how to use them (Vasconcelos et al., 1993).

Prejudice about certain methods is shared by providers, and may be communicated intentionally or unintentionally to women during the course of educational or counselling sessions. It has also been argued by Araújo et al. (1993) that medical schools and providers associate contraception with hormonal methods only, and are not familiar with, or supportive of, other methods. Negative opinions about some contraceptive methods are reinforced by the Catholic church, and opposition to all methods is expressed by some of the more fundamental Protestant organizations. Such negative opinions increase the difficulty of informed and comfortable contraceptive choice for women.

Sterilization: The prevalence of sterilization has increased markedly over the past years and is associated with lower ages than in the past. An increasing percentage of women under the age of 25 are sterilized and the median age of sterilization has decreased by seven years in both São Paulo municipality and the Northeast between 1986 and 1991/92 (Berquó, 1993a). While demand for sterilization is high across all educational groups, much of the demand may be poverty driven, responding to the cost of childbearing and rearing, the expense of oral contraceptives, the need for employment, and the fact that in some settings employment is tied to sterilization. A “culture” of sterilization has developed from necessity and lack of choice. In a recent article comparing data from the Northeast and from São Paulo, Berquó writes:

> "the process of sterilization in Brazil has followed its course as if it were part of a culture, leading cohorts of women every year to put an end to

> their ability to reproduce ..... In São Paulo, 52% of sterilized women are daughters or sisters of other sterilized women, and there are cases of families where the mother and two or three of her daughters have had tubal ligations." (Berquó, 1993b)

Sixty-five percent of respondents in São Paulo who had undergone tubal ligation would recommend the method to others, and justified this position in terms of the financial difficulties of raising many children and the safety of the method. Confidence in tubal ligation as a secure method of contraception was frequently expressed by the women we interviewed during our visits to the four regions.

While there is strong evidence that there is real demand for sterilization, including the fact that some women refer to it as "liberation", sterilization regret and desire for reversal is an increasingly important problem, and may become more important as the large numbers of relatively young women who have been sterilized in recent years grow older. Sterilization regret reported for the Northeast in 1991 was 13%, and 11% for São Paulo, where such regret was associated with "death of children, new marriages, wanting to have more children, and health problems"(Berquó, 1993b).

A case control study undertaken at CEMICAMP (Hardy et al., 1993) found that the request for reversal of tubal ligation came frequently from women who had chosen sterilization because of difficult marital relations, husbands' drinking problems or wife beating. Women who did not regret the decision had opted for tubal ligation more frequently because of health related problems. Moreover, sterilization regret was associated with the operation being performed in women under 25 years of age, with a lack of knowledge that the procedure was being performed, with a change in partners, with death of a child, and with a lack of discussion about the permanence of the procedure (Hardy et al., 1993). These findings raise concerns about the conditions under which tubal ligations were performed, and about the extent to which women had the opportunity to consider the implications of this choice.

There is evidence that good counselling prior to tubal ligation dramatically reduces the incidence of post-sterilization regret (Bahamondes et al., 1992). The fact that 10% or more of all sterilized women regret the decision also reflects the reality that for those who want to limit childbearing and do not want the oral contraceptive, tubal ligation is not a choice, but an inevitability. This is particularly true for the poorer Northeast where the prevalence of tubal ligations has increased from 47.2% of users in 1986 to 62.9% in 1991 (Berquó, 1993b). An appreciation of the broader context of sterilization must also take into account that, in Brazil, the culture of sterilization is closely linked to a culture of caesarean sections. Large numbers of women and physicians believe that caesarean sections are indicated and desirable in cases where medical evidence suggests that they are not (Faúndes and Cecatti, 1991; World Bank 1991).

Moreover, given the legal ambiguities of surgical sterilization, and the lack of straightforward reimbursement mechanisms for this procedure, both women and physicians believe that caesarean sections are necessary to justify a tubal ligation. The costs of

tubal ligation are much higher than indicated by the informal payments women must make. There are significant infant and maternal morbidity and mortality risks associated with the performance of unnecessary caesarean sections (Faúndes and Cecatti, 1991; World Bank, 1991).

The social and financial costs implied in unwanted childbearing must also be considered. Women who already have their desired number of children may 'choose' to become pregnant again and to negotiate a caesarean delivery in order to obtain access to surgical sterilization (Faúndes and Cecatti, 1991). Finally, there are the social and political costs and the risks of manipulation implied when women must approach their employers or candidates for political office to gain access to free surgical sterilization.

Position of women's groups on contraceptive introduction

Given the fact that women's groups in Brazil have for a long time expressed their concern for the broader context of reproductive choice, we include a brief reference to positions from women's groups related to contraceptive introduction. The intent here is not to summarize the position of the women's groups in Brazil on the subject of women's reproductive health. These positions are stated in the Carta de Itapecerica (1993), the Carta de Brasília (1993) and an unpublished paper by Araújo and Diniz (1993). The objective is merely to identify key points that are particularly relevant to an assessment of the need for the introduction or reintroduction of contraceptive technology. The following principles appear most relevant:

"Considerations of the need for contraceptive technology must be anchored in the concern for women's reproductive health, as well as their general health and well-being." This focus leads to a general desire for contraceptive methods that minimize interference with the menstrual cycle. Concern exists for the longer health effects of hormonal methods. From within this perspective there also arises an emphasis on linking the prevention of AIDS and STDs with family planning, and a focus on methods that protect both against AIDS/STDs and unwanted pregnancy (Araújo and Diniz, 1993). This perspective leads members of women's group to be concerned about the fact that currently available, very effective, "high tech" methods do not protect women against HIV, and may instead lead them to ignore the need to protect themselves against such infections.

This broad focus on women's health has led to extensive involvement with, and support for PAISM (the integrated programme for women's health), as well as to a position of opposition to demographically oriented policies, and patriarchal institutions of service delivery that are not committed to the goals of enhancing women's health. This position also suggests a preference for methods such as condoms and the diaphragm which can be discontinued without the aid of a physician or other service providers.

"Considerations about the need for contraceptive introduction must be woman centred rather than medically oriented or technology centred." This principle leads to a priority for the

proper introduction of existing methods through education, information and counselling within a context of quality of care. New methods are evaluated from the perspective of women's needs and concerns rather than from an exclusive focus on the technology itself. It also suggests a preference for methods and modalities of introduction that empower women to gain better understanding of, and control over their bodies.

"Considerations of the need for contraceptive technology must be placed into the context of gender relations." Here, the critical concern is with the imbalance in gender relations in society, and with the unequal sharing of the burden of fertility regulation. Because of their low status in society, women have difficulties negotiating sexual relationships and the use of contraceptive technology with their partners. Although many women know that condoms protect them from HIV and other STDs, given the prevailing gender relations they are not in a position to negotiate their use. While women have always lacked the ability to negotiate sexual relations and contraceptive use, the AIDS crisis means that this inability significantly increases their health risks. This has led to an increasing emphasis on the importance of providing education and counselling that is focused on self-protection and the ability to negotiate. Focusing on the need for new contraceptive technology from a gender perspective thus implies that one should ask more questions than whether or not a method is effective. It clearly leads to a focus on male methods to assure a fairer balance in the burdens of contraceptive use; and on mechanisms for empowering women to negotiate a situation where they can use contraceptive methods that protect their health. A gender perspective also implies attention to men's responsibility in contraceptive use.

"Considerations of contraceptive technology must be placed within the context of women's rights as citizens." The right to fertility control and free choice of methods without coercion is guaranteed by the 1988 Constitution. Beyond the rights guaranteed in the Constitution there is a belief that women should have the right to abortion, the right to sexuality in whatever expression or form they choose, freedom from sterilization abuse, and freedom from undue interference on the part of the medical profession or other providers in the exercise of reproductive choice.

"Considerations of contraceptive technology must be placed within the context of class, race and ethnicity." There is great concern that the poor, and racial or ethnic minorities suffer disproportionately from demographically oriented population policies. In terms of contraceptive technology, this concern leads to uneasiness about high technology and medicalized approaches to contraception. This perspective on the relationship between social structure and contraceptive use also produces an emphasis on linking access to contraception to other social rights, such as the right to education, health, and employment.

Sexuality and gender relations in the social context of method choice

Although providers are increasingly aware of the influence of sexuality and gender relations on women's

contraceptive choices, very few have received formal sensitization or training in these areas. Adopting a focus on sexuality and gender may require a physician or other provider to go against their own socialization. For this reason, changes in the service delivery environment which strengthen women's ability to take an active and positive role in contraceptive decision making may be slow even when providers have been trained.

Sexuality: Issues of sexuality influence women's choice, continuation and proper use of contraceptive methods. In a study conducted in Campinas, 50% of women having sexual complaints believed that these problems were related to the contraceptive method that they were using. After a sex education programme, only 5% of these women attributed sexual problems to the contraceptive method (Díaz, 1992).

Women who do not receive counselling which addresses sexuality may be potential discontinuers if sexual problems coincide with the use of contraceptives. Providers who have not had adequate training may be unable to dispel women's misconceptions about the influence of different methods on their sexuality, and may hold many of these beliefs themselves. Furthermore, provider discomfort with discussions of sexuality may lead them to intentionally or unintentionally constrain women's choice of methods which require a discussion of sexuality (particularly coitus dependent methods) and to focus on technological solutions to women's complaints (e.g. switching methods rather than discussing the range of factors which influence libido).

Gender relations: Gender relations exert a strong influence on women's decision making about contraception and family planning. The imbalances in decision making power between men and women, and often between provider and client may seriously limit women's ability to exercise their right to free choice unless education and counselling are focused on empowering women to make contraceptive decisions. Providers may need sensitization and training to allow them to break out of their own position in the gender and power hierarchy before they can provide women with the full information and support they need to select and negotiate use of a contraceptive method.

Stereotypical, domestic images of women are perpetuated in IEC materials, and are reflected in the organization of family planning services. The limited number of clinics which offer evening hours are an important sign of the influence of gender stereotypes on women's access to family planning services. Although an increasing number of women are employed in the formal sector and cannot attend normal clinic hours without significant sacrifice, clinics have not adapted to meet the needs of these women. This failure to acknowledge or respond to the changes in women's realities increases women's difficulty in accessing important services.

Increasing provider sensitivity to and confidence in the areas of sexuality and gender perspectives is an important component of improving quality of care in family planning services. Training and dissemination of information on these issues may be necessary to support the changes that will allow

services to provide more balanced attention to women's contraceptive needs.

Conclusions and Recommendations

This report has presented findings from an assessment of the need for contraceptive introduction in Brazil, undertaken in collaboration with the MOH and CEMICAMP utilizing WHO'S new strategy for contraceptive introduction. The objective of this assessment was to identify relevant areas for introductory research that would broaden contraceptive options within a context of quality of care. The assessment has been guided by three central questions: 1) Is there a need to introduce new contraceptive technology? 2) Is there a need to reintroduce or appropriately introduce existing methods? and 3) Is there a need to remove any existing methods?

Conclusions

This assessment has confirmed the widely noted pattern of contraceptive use in Brazil, whereby the high demand for spacing and limitation is predominantly channelled into the use of either the oral contraceptive or tubal ligation. Despite widespread use, there are major constraints on the availability and accessibility of these two major methods particularly in the public sector. These limitations are more severe for the other methods that have been approved as part of official policy guidelines. This assessment also identified weaknesses in quality of care and significant public sector service delivery constraints. A limited number of centres were observed which provide a broad range of methods with excellent quality of care, however, a strong, socially oriented family planning programme is not widely implemented. While family planning is considered a basic human right by the Brazilian Constitution, the overall conclusion was that the necessary political commitment to implement this right does not currently exist.

There is a critical need for public sector family planning services which can provide women with a broader range of contraceptive options, and that encourage greater use of male methods. Research on contraceptive introduction or reintroduction as defined in the WHO strategy has the potential to play a catalytic role by stimulating related research on strategies for broadening contraceptive options in constrained public sector settings. Increased donor support for such public sector research will be necessary to realize this goal. In the following sections of the report, research priorities are defined and specific recommendations made for the type of projects to be undertaken.

Priority must be accorded to better and more appropriate utilization of existing methods

Given the constraints within the public sector programme, priority should be given to research related to improved utilization of existing methods rather than to introduction of new technology. This will require: 1) the introduction (or "reintroduction") of underutilized methods, such as the IUD, barrier methods, the lactational amenorrhea method (LAM) and periodic abstinence; and 2) the appropriate utilization of

methods for which there is extensive demand, such as the oral contraceptive and tubal ligation. In light of the AIDS epidemic condom use requires special attention; strengthening services for men is essential to attaining such an objective.

Programme officials and service providers interviewed in connection with this assessment emphasized the need for adequate supplies of existing methods, and for training to increase their ability to provide education and services for methods which at present are only theoretically available. It was generally considered that if the full range of methods approved by the MOH could be effectively provided within the public sector, many of the client population's needs would be met. We concur with these views and conclude that introductory research should focus on the question of how methods currently approved for use within the public sector can be more appropriately and widely introduced.

Research must also be undertaken on the two methods which currently dominate the method mix, the oral contraceptive and tubal ligation. The public sector programme has an important role in promoting the appropriate use of the oral contraceptive and assuring the availability of trained providers who can deliver oral contraceptives with adequate quality of care. With appropriate mechanisms for and a basic commitment to the provision of regular supplies of oral contraceptives, women's options for safe contraception would be enhanced.

Moreover, the public sector programme can play an important role in designing educational strategies that reach out to those women who purchase the oral contraceptive through the commercial sector and use it without appropriate information and guidance. Applied research studies, designed to test public sector strategies for assuring the appropriate utilization of oral contraceptives are an important focus for introductory research.
Research on tubal ligation has contributed much towards understanding of the social and service delivery context within which utilization of this method occurs. Continued research attention to these issues could strengthen the case for clarification of the legal status of tubal ligation and inclusion of this method in the family planning norms. The appropriate reintroduction of tubal ligation in Brazil would make an important contribution towards improving the quality of care with which this method is delivered. Similar research should be undertaken on vasectomy.

Removal of some methods from the commercial sector is desirable

All methods currently provided in the public sector meet recognized safety standards. There are, however, four types of contraceptive methods on the commercial market which should be subject to greater control. Sequential oral contraceptives, oral contraceptives produced by small laboratories with inadequate quality control, currently available once-a-month injectables which have not been adequately tested for safety and efficacy, and some products inaccurately advertised as spermicides, should be removed from the commercial market until their safety and efficacy are assessed according to internationally recognized standards.

Removal should be accompanied by appropriate information to users and recommendations about appropriate substitutes. Although the government has made an effort to remove some of these products from the market, there is no effective legal mechanism for prohibiting their production and distribution, and the MOH has little control over the availability of these products. Nonetheless it is recommended that continued attention be given to alternative mechanisms for removal of these methods including strengthening of the regulatory process. Broader provision of safe oral contraceptives within the public sector, and eventual introduction of new, low-dose injectables has great potential for directing women toward safer alternatives.

Limited introduction of new methods should await MOH inclusion into the family planning norms and the development of greater service delivery capabilities

If appropriately introduced, a method like Depo-provera has the potential to meet identified needs for reversible, highly effective, long-acting methods which may be used during the postpartum period. However, unless consistent availability and quality of care in service delivery can be assured, the addition of such a method would not increase contraceptive choice or improve women's options, and should not be considered.

The appropriate introduction of one of the appropriately tested, low-dose, once-a-month injectables could have a positive impact on contraception and health by increasing women's options and reducing demand for the available once-a-month injectables that are of unknown safety. Market competition may be successful in removing less safe products where legal action has not succeeded. This supports the recommendation that introduction of alternative once-a-month injectables be considered for the private and commercial sector as soon as these products have received MOH approval.

While introduction of once-a-month injectables should be considered a priority for the private and commercial sectors, it is our conclusion that widespread introduction of these or other injectables into the public sector cannot be recommended at this point in time. It is essential that overall service delivery capabilities be improved before the public sector programme assumes the additional burden of introducing new methods.

However, as once-a-month injectables receive MOH approval, and as Depo-provera is approved by Divisão de Produtos-MOH (DIPROD) for contraceptive use, it would be appropriate to conduct introductory research to assess the service delivery implications of adding these new methods to the public sector. In fact, such research may be helpful in identifying concrete, operational strategies for introducing new methods in ways that maximize the limited resources within the public sector programme.

Recommendations

It is recommended that the WHO Task Force on Research on the Introduction and Transfer of Technologies for Fertility Regulation support research endeavours in Brazil which are consistent with the priorities identified by this assessment. Such research should have two main objectives: 1) to

produce evidence on whether and how contraceptive options for both women and men can be broadened; and 2) to determine the extent to which research institutions with experience in providing a broad range of contraceptive methods can help to stimulate the process of contraceptive introduction and reintroduction within the public sector.

Multiple research approaches are suggested whose results would become available at different points in time. For this reason, we suggest that a process of simultaneous research and dissemination of research findings be initiated. This approach is particularly important since what is suggested is not only dissemination of research findings for operational and policy development, but also dissemination of information on a research process which can be used to encourage new approaches to contraceptive introduction. It is anticipated that dissemination will encourage collaborations between innovative research or service institutions and public sector programmes.
The WHO framework for contraceptive introduction proposes a three stage process whereby an assessment of the need for contraceptive introduction is followed, where appropriate, by a research stage (Stage II), and by a subsequent series of policy dialogues that focus on the utilization and dissemination of research findings (Stage III). What follows are specific recommendations for research, and for processes that are intended to ensure the dissemination and utilization of research findings on a larger scale.

Recommendations for research

A variety of research strategies will be required for the study of how currently underutilized or poorly utilized methods can be more widely and appropriately introduced into public sector delivery settings in Brazil. In the broadest sense, research should be undertaken to understand 1): user perspectives on contraceptive methods and users' attitudes towards and experience with the institutions of service delivery; and 2) the service delivery environment, with a focus on how the management of services, client-provider interactions, and larger operational factors influence the method mix and the quality of care with which methods are provided.

Both qualitative and quantitative research methods are necessary for the research suggested below. We recommend that qualitative approaches be given emphasis because of the value of such research for understanding the process of service delivery and the user perspective. Research drawing upon ethnographic approaches makes it possible to provide in-depth and contextual understandings of contraceptive use and the service delivery setting.

The following specific recommendations for research have the potential for rapid impact on the provision of family planning services.

Demonstration projects: There is a need to explore how currently underutilized methods, such as the IUD and barrier methods, can be more broadly introduced in the public sector while at the same time assuring that the quality of care for the two most widely used methods, oral contraceptives and tubal ligation, is improved. Moreover, as other methods,

specifically injectables, are approved it will be appropriate to conduct research directed at assessing the service delivery implications of the addition of these new methods to the public sector programme. Since the introduction of additional methods imposes managerial and service delivery burdens, differentiated approaches to introduction should be researched. Such strategies might imply full introduction of new or underutilized methods in some settings, and an emphasis on education and referral in others.

We recommend that research be undertaken as collaborative demonstration projects between research centres with successful experience in the delivery of a broad range of contraceptive options and municipal secretariats of health. The collaboration of community groups, especially members of relevant women's organizations should be actively pursued.
Demonstration projects should utilize a process of diagnostic assessments, interventions and evaluations with the objectives of broadening the method mix, assuring regular supplies, and increasing focus on the quality of services. Such projects must operate within the existing institutional arrangements for service delivery at the municipal level in order to provide information on the requirements for broadening contraceptive choice within the public sector.

Collaboration with research centres with relevant service delivery experience is intended to encourage the transfer of knowledge to the public sector, while at the same time assuring appropriate attention to the research component of such projects. Research from Bangladesh has shown that collaborative action research projects between established research institutions and the public sector programme can make significant contributions to improvements in service delivery and facilitate programme and policy development (Simmons et al; 1987).

The proposed demonstration projects should have research, intervention, and information dissemination components. Research should consist of: 1) diagnostic studies to guide activities including baseline assessments where necessary; 2) studies documenting the experience of specific interventions undertaken; and 3) overall evaluation of project impacts. Research undertaken within the demonstration project would be expected to include some of the issues and approaches which are discussed below as separate research activities.

User perspective research: We recommend a series of studies on user perspectives related to contraceptive choice and experience with service delivery systems. Recommended areas for research include: user attitudes about contraceptive methods, perceptions of health and other concerns relevant for method use, and experience with service providers and health care facilities and its impact on method choice. Special emphasis should be given to user attitudes towards male methods especially condoms and to research exploring attitudes of young people might be emphasized. Such research is essential for the design of service delivery and educational approaches that would increase confidence in, and provide more appropriate information about currently underutilized methods. When new methods are introduced in

demonstration projects, user perspective research can provide insights into users' experience with the method and with the service delivery institutions which subsequently can be used to improve services.

Studies of client provider interactions and quality of care: Documentation and analysis of client-provider interactions should be undertaken to improve understanding of the existing conditions of service delivery. Studies should focus on indicators pertaining to the quantitative dimension of the interaction (service coverage, frequency and duration of the exchange), indicators pertaining to quality of care (choice, technical quality of care, interpersonal quality of care) and indicators measuring the nature of the services provided.
Some attention should also be devoted to provider attitudes and perspectives and to questions of how differences in status, power and culture between providers and clients affect the process of service delivery. This area could also include research on the appropriateness of family planning service provision by medical and non-medical personnel. Research on client-provider exchanges under conditions of routine service delivery can identify training needs and can identify opportunities for introducing a broader focus on method choice. Such observational studies can also be a helpful tool in evaluating change in service delivery and quality of care over time.

Studies of IEC strategies: An important area of work concerns research on how educational and informational materials can best be disseminated within and beyond the clinic setting to assure that easily understandable and user friendly materials on method choice, appropriate use, sources of access etc. reach a broad range of actual and potential users. One specific area which will require research is how to effectively incorporate information on the need to protect against STDs/AIDS as well as pregnancy. Research on IEC should also include attention to the question of how appropriate educational materials can reduce provider bias against underutilized methods.

Service delivery research: Research should be undertaken on the organizational, management and policy context within which services are provided to assess how these could be utilized to support broader method choice and quality of care. For example, projects might assess mechanisms through which municipalities can utilize new opportunities to obtain contraceptive supplies for the public sector. Operational research might also be undertaken on how municipalities can maximize their limited resources by broadening method choice in some of their service delivery points, while assuring appropriate referral mechanisms in the remaining clinics. Greater attention to service delivery strategies for men must also be investigated.

It is important to document the constraints on the ability of the system to deliver currently available methods and identify factors such as staffing, provider morale, and supply systems which would need to be modified or strengthened to assure broader method choice and quality of care. Documentation and analysis of success

stories within the public sector would also be relevant.

Studies should also focus on how the highly medical and curative focus of contraceptive service delivery could be shifted towards a greater emphasis on a preventive and social focus that includes attention to sexuality and gender. In addition, research should explore how the clinic-based focus of current public sector services could be expanded to incorporate closer links with the community.

Recommendations for Dissemination of Information

Dissemination of research findings to local communities, policy makers, political leaders, service providers, managers, donor agencies and the media. Broad dissemination of research findings is an essential element of the proposed collaborative demonstration projects. This will require new approaches to the presentation of data with a strong emphasis on effective and efficient communication with diverse audiences. Dissemination should include the development of short briefing papers on specific findings written in a style and language that are easily understood by lay audiences. Press releases intended for utilization by the media are another important mechanism for dissemination of accurate information. Workshops should be arranged for presentation and review of findings. Broad-based participation of programme officials, providers and community representatives should be encouraged.

Development of a support and dissemination network. A network consisting of programme officials, providers, researchers, university professors, members of women's groups or other relevant community organizations including state and municipal councils from various regions and states in Brazil should be stimulated. The purpose of such a network would be to assist in the development of a group of professionals with common goals of broadening contraceptive options and assuring quality of care. Members of this network would learn from each other through: 1) sharing of written documents including scientific papers, briefing papers, and reports; 2) participation in special workshops focused on the review of relevant experience among members of the network; 3) collaborative projects; and 4) first hand observations of innovative projects in other regions. It is hoped that this group will facilitate the utilization of findings from the demonstration projects in other municipalities.

Dissemination of research findings to the scientific community. Presentation of papers at conferences and seminars should be encouraged. While such dissemination is important, these mechanism have limited influence on the utilization of research for policy and programme development, and must therefore be supplemented by a variety of other approaches, some of which have been discussed above.

Concurrent information dissemination activities are intended to initiate Stage III discussions for the utilization of research findings for programme planning and implementation. It is hoped that simultaneous research and information dissemination will reduce

the time between the start of project activities and the application of findings within and beyond the chosen municipalities. On completion of Stage II research, formal Stage III activities should be conducted, including the preparation of a strategic plan for the broader utilization of research findings.

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References

Arruda J, Rutemberg N, Morris L, Ferraz EA. Pesquisa sobre saúde e sexualidade do jovem: Rio de Janeiro, Curitiba e Recife em 1989-1990. Rio de Janeiro: BEMFAM and U.S. Department of Health and Human Services, 1992.*

Araújo M and Diniz S. (unpublished). Mulher, Sexualidade e AIDS: a epidemia e as novas responsabilidades dos programas de planejamento familiar, 1993.*

Araújo M, Ferreira A, Regina C, Díaz M, Grillo C, Faúndes A. Avaliação clínica do diafragma vaginal em três contextos brasileiros. Femina, 21:463-72, 1993.*

Bahamondes L, Petta C, Faúndes A, Bedone A. Significado do recente aumento do número de solicitantes de reversão de laqueadura em um serviço de esterilidade. Femina, 20:360-362, 1992.*

Barros FC, Vaughan I, Victoria C, Hutthy S. Epidemic of caesarean sections in Brazil. Lancet, 338:167-169, 1991.*

BEMFAM and Demographic and Health Surveys/Macro International Inc., Pesquisa Sobre Saude Familiar No. Nordeste Brasil, 1991. BEMFAM, Rio de Janeiro, 1992.*

BEMFAM/IRD. Pesquisa Nacional Sobre Saude Materno - Infantil e Planejamento Familiar Brasil 1986. Rio de Janeiro, 1987.*

Berquó E, De Souza M. Conhecimento e uso de condom: Anticoncepção e prevenção de doenças sexualmente transmissíveis. NEPO/UNICAMP texto Nº 20, 1991.*

Berquó E. Brasil um caso exemplar. Anticoncepção e partos cirúrgicos a espera de uma ação exemplar. Seminário "A situação da mulher e o desenvolvimento". NEPO/UNICAMP, 1993a.*

Berquó E. Brasil um caso exemplar. Anticoncepção e partos cirúrgicos a espera de uma ação exemplar. Seminário "A situação da mulher e o desenvolvimento". Estudos Feministas, CIEC/ECO/UFRJ/Vol.1, Nº 2, 1993b.*

Brasil. Constituição da República Federativa do Brasil, 1988.*

Bruce J. Fundamental elements of the quality of care: A simple framework. Studies in Family Planning 21,2:61-91, 1990.

Carta de Brasília. Encontro Nacional de Mulher e População. Nossos Direitos para Cairo. Brasília, DF, Setembro 1993.*

Carta de Itapecirica. Encontro Nacional de Mulher Negra e População. Itapecirica, São Paulo, Agosto 1993.*

CEMICAMP. Reavaliação do Programa de Assistência Integral à Saúde da Mulher no Estado de São Paulo. Relatório I, 1991.*

Costa A. O PAISM: uma política de assistência integral à saúde da mulher a ser resgatada. Comissão de cidadania e reprodução. São Paulo, 1992.*

Costa M, Chaloub R.. Anticoncepção oral. Uso e rumores. Fortaleza, Recife, Salvador. CEPPD, Rio de Janeiro, 1992.*

Costa Paiva L. Avaliação da performance do acetato de Medroxiprogesterona injetável como anticoncepcional e efeitos sobre o peso corporal, pressão arterial, ciclo menstrual e histologia endometrial. Dissertação de Mestrado, UNICAMP, 1993.*

Costa S, Martins I, Freitas S, Pinto C. Family planning among low income women in Rio de Janeiro: 1984-1985. International Family Planning Perspectives, 16:16-22, 1990.

Demographic and Health Surveys/Macro International, Inc. Population and Health Data for Latin America. USAID, Washington, D.C., 1993.

Díaz J, Bahamondes L, Díaz M, Marchi N, Faúndes A, Marini M. Evaluation of the performance of the Copper T380A IUD up to ten years. Is this IUD a reversible but potentially permanent method? Advances in Contraception, 8:275-280, 1992

Díaz M. Return for removal of NORPLANT after five years of use. Assessment of the spontaneous rate and strategies for its improvement. Technical Report. The Population Council, New York, 1990.

Díaz M. Implementation of a sex education programme in a family planning clinic: its contribution to quality of care. Presentation at a Meeting on "Family Planning Counseling: The International Experience", Turkey, 1992.*

Donabedian A. The definition of quality and approaches to its assessment. Health Administration Press, Ann Arbor. 1980.

Faúndes A, Díaz J, Díaz M, Pinotti J. Frequência e adequação no uso nos métodos contraceptivos por mulheres de Campinas. Revista Paulista de Medicina, 104:44-46, 1986.*

Faúndes A and Cecatti J. A operação cesárea no Brasil. Incidência, tendências, causas, consequências e propostas de ação. Cadernos de Saúde Pública, RJ, 7:150-173, 1991.*

Ferraz E, Ferreira J, Soares M, Morris L. Pesquisa sobre saúde reprodutiva e sexualidade do jovem: Rio de Janeiro, Curitiba e Recife em 1989-1990. Rio de Janeiro: BEMFAM and U.S. Department of Health and Human Services, 1992.*

Goldstein D. The cultural, class, and gender politics of a modern disease: Women and AIDS in Brazil. Report-in-Brief. Women and AIDS Research Programme. Undated.*

Hardy E, Coutinho M, Goodson P, Andrade R, Bonfim S. Percepção das usuárias de NORPLANT a respeito da informação recebida sobre o método. Reprodução, 6:38, 1991.*

Hardy E, Bahamondes L, Osis M, Rodrigues T, Alves G, Pádua K, Vera S. Arrependimento após esterilização cirúrgica. Estudo caso-controle. Relatório apresentado à Fundação Carlos Chagas, 1993.*

Hardy E. Users perceptions of different contraceptives. The Brazilian experience. The International Council of Scientific Unions. November, 1993.*

Jain, AK., and Bruce, J. Quality: the key to success. People, 16,4:6-8, 1989.

Laurenti R et al. Mortalidade materna: causas basicas e associades de morte em quatro municipios do Estado de São Paulo, 1983. Analise de atestados de obitos. Relatório final, 1986 (Mimeo). OMS, Sao Paulo, 1986.*

Laurenti R. Marcos referenciais para estudos e investigações em mortalidade materna. Revista de Saúde Pública 22:507-12, 1988.*

Lubis F, Fajans P, Simmons R. Maintaining technical quality of care in the introduction of CYCLOFEM® in a national family planning programme: findings from Indonesia. Contraception, 49(5):527-541, 1994.

Ministério da Economia, Fazenda e Planejamento. Instituto Brasileiro de Geografia e Estatística. Censo Demográfico, 1991. Rio de Janeiro, 1992.*

Ministério da Saúde. Divisão Nacional de Saúde Materno-Infantil. Relatório de atividades. Brasília, 1990.*

Ministério da Saúde. Secretaria Nacional de Assistência à Saúde. Departamento de Programas de Saúde. Coordenação de Saúde Materno Infantil. Assistência ao Planejamento Familiar. Brasília, 1992.*

Ministério da Saúde. Boletim mensal sobre epidemiologia da AIDS. Brasília, Outubro, 1993.*

Ministério da Saúde. Programa de Assistência Integral à Saúde da Mulher. Bases para uma ação programática. Brasília, 1983.*

Pesquisa Nacional por Amostra de Domicílios. Supplement on contraceptive use. Secretaria de Planejamento da Presidência da República. Fundação Instituto Brasileiro de Geografia e Estatística (IBGE), 1986.*

Petta CA. Associação entre o uso do anticoncepcional combinado oral e prevalência de fatores que contribuem para o risco de complicação durante seu uso. Dissertação de Mestrado, UNICAMP, 1992.*

Pinotti J, Díaz A, Díaz M, Hardy E, Faúndes A. A identificação de fatores associados à insatisfação após esterilização cirúrgica. Revista de Ginecologia e Obstetrícia Brasileira, 9:304-309, 1986.*

Pinotti J, Petta C, Pastene L, Faúndes A. Avaliação da adequação de uso de anticoncepcionais orais pela população feminina do Estado de São Paulo. Revista de Ginecologia e Obstetrícia, 2:110-116, 1990.*

Ross J, Mauldin W, Green S, Cooke R. Family Planning and Child Survival programs as assessed in 1991. The Population Council, New York, 1992.

SEADE. AIDS primeira causa de morte entre as mulheres. Ano 1; Nº 2, Janeiro, 1994.*

Simmons R, Phillips J, Koenig M, Huque A. Implementation based policy development in Bangladesh. Paper prepared for the annual meeting of the Population Association of America. Chicago, April 30-May 2, 1987.

Simmons R, Fajans P, Lubis F. Contraceptive introduction and the management of choice: the role of CYCLOFEM® in Indonesia. Contraception, 1994, 49(5):509-525.

Spicehandler J, Simmons R. Contraceptive introduction reconsidered: A review and conceptual framework. WHO, Geneva, 1994. (Document no: WHO/HRP/ITT/94.1 available from HRP, World Health Organization, 1211 Geneva 27, Switzerland.)

UNFPA. Brazil. Programme review and strategy development report. UNFPA, New York, 1991.

United Nations Population Division. World population prospects. UNDP, New York, 1990.

Vasconcelos A, Acioli N, Valença A, Braga C, Pacheco M, Dantas S, Simonetti V, Garcia V. AIDS and sexuality among low income adolescent women in Recife, Brazil. Report-in-Brief, Women and AIDS Research Programme. September 1993.*

World Bank. Brazil. Woman's Reproductive Health. Report no. 8215 - BR. World Bank, Washington D.C., 1991.

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