

# PROFIT

- *Private Health Care Providers*
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- 

**Promoting Financial Investments and Transfers**

**PROJECT PERFORMED FOR**  
**U.S. Agency for International**  
**Development** *(Office of Population)*

**Deloitte &  
Touche**



Deloitte Touche Tohmatsu International

In association with

Boston University Center for International Health

Multinational Strategies, Inc

Development Associates, Inc

Family Health International

# PROFIT

Promoting Financial Investments and Transfers

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**STRATEGIES FOR INCLUSION  
OF LOWER SOCIO-ECONOMIC  
STATUS WOMEN IN AN HMO  
SERVICE DELIVERY SYSTEM  
IN NORTHEAST BRAZIL**

by

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Submitted to:  
A.I.D./Office of Population  
Family Planning Services Division

Contract No.: DPE-3056-C-00-1040-00

October 12, 1994

**Deloitte Touche  
Tohmatsu**



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## ABSTRACT

PROFIT is a USAID, Office of Population, project designed to encourage private, commercial sector engagement in family planning and complementary reproductive activities in developing countries.

In 1993, PROFIT entered a joint venture with UNIMED to implement a service delivery project in Maceio, Alagoas, a state of the northeastern of Brazil and one of the poorest in the country.

To define the potential outcome and outline the best approach for project implementation, the authors studied the socio-economic and family planning environment of this project. Findings from a household survey conducted in December 1993 (Farrell and Kaplan, 1994) of the UNIMED female population in the 15-49 age group, were compared to the findings of a 1991 Northeast Regional Study of the women in the same age group in the general population.

While use of two different data bases always present problems of comparability, most of the information could be used to demonstrate that sharp differences exist between the private sector UNIMED population and the urban populations in Northeast Brazil in general, regarding socio-economic status, reproductive profile and family planning knowledge and practice.

As a result of the analysis of these data it was decided that to have a meaningful family planning impact, the project should focus not only on the UNIMED population, but also on the lower economic strata of Maceio as a whole. A strategy was designed to increase access to family planning of the lower economic strata of Maceio while bearing in mind the economic interests of UNIMED physicians and the commercial, for-profit nature of this venture. The principal elements of this strategy were: Training in family planning methods and counselling techniques; Increased availability of family planning methods, especially IUDs; Cross-subsidization of IUD services from other income sources; Involvement of physicians in clinical follow-up studies; and a low cost family planning consultation scheme directed toward lower income women and the consequent enhancement of UNIMED's public image.

## **INTRODUCTION**

**PROFIT is a USAID project aimed to encourage private commercial sector engagement in family planning and complementary reproductive health activities in developing countries.**

**In 1993, PROFIT entered a joint venture with UNIMED to implement a service delivery project in Maceio, the capital city of Alagoas, a state in northeastern Brazil, which is one of the poorest regions of the country. UNIMED is the largest HMO and physicians' cooperative in Brazil. In Maceio, from a population of 700,000, only about 10% have access to health services through private insurance companies. From those, 44,193 were UNIMED policy holders in December 1993. UNIMED is also the largest provider of private health services in the country. The PROFIT-UNIMED joint venture has two components:**

- **A general medical facility which offers a full range of health services, including inpatient, diagnostic, and emergency services.**
  
- **An adjacent clinic dedicated to family planning and maternal-child health services.**

**All services are marketed to current insured of UNIMED, insured of other HMOs with whom the facilities have a contract, and non-insured clients on a fee-for-service basis. The**

venture aims to attain consistent financial profitability to support the achievement of its family planning goals, which are:

- To expand the provision of family planning services through the private sector,
- To maximize access to family planning,
- To achieve a high-quality standard of service provision in the MCH/FP clinic and UNIMED service providers in general, by:
  - providing the full range of contraceptive methods available in Brazil,
  - enhancing the technical competence of providers,
  - increasing the number of women who are accurately informed about all methods available in Brazil,
  - increasing the correct use of and satisfaction with the contraceptive method chosen
- Prevention of unwanted and/or high-risk pregnancies

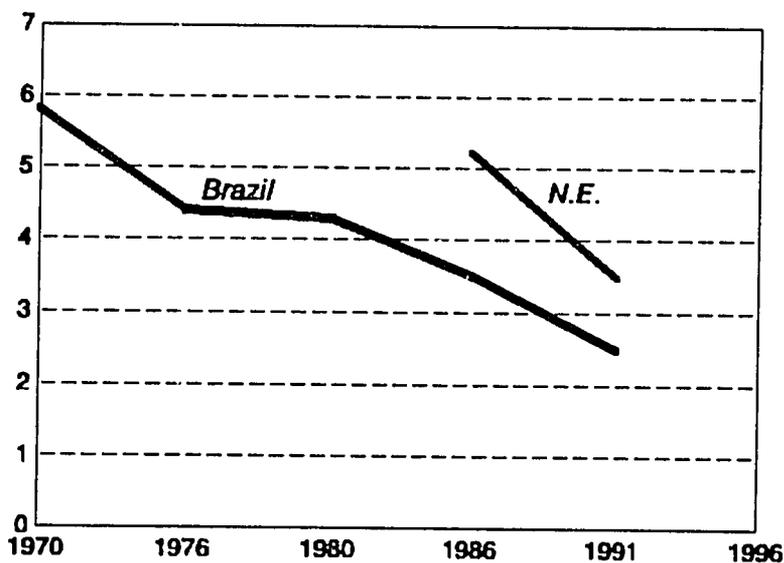
To define the potential outcome and outline the best approach to achieve PROFIT's family planning goals, the authors studied the socio-economic and family planning environment of this subproject.

## BACKGROUND

### *Trends in Total Fertility Rate*

Since 1970 Brazil's total fertility rate\* has been dramatically declining. Between 1986 and 1991 the total fertility rate declined almost 30% in the Northeast\*\* (NE) region of Brazil, reaching 3.7 children per woman. The DHS from 1991 showed that in Brazil as a whole this value is close to 2.5 children per woman. This marked fertility decline has induced a deceleration in the population growth from 2.89% in the 1960's to present values around 1.6%.

TRENDS IN TOTAL FERTILITY RATE



*The TFR has declined dramatically in Brazil. In the Northeast, the drop has been specially steep.*

Adapted from PSFNE 1986 and 1981

\*Total fertility rate is the average number of children a woman would bear if today's age-specific fertility rates remained constant throughout her child-bearing years.

\*\*Northeast is the name given to the nine state region in the northeast section of Brazil (Maranhao, Piaui, Ceara, Rio Grande do Norte, Paraiba, Pernambuco, Alagoas, Sergipe, and Bahia) which share similar demographic and socio-economic characteristics.

### *Trends in Contraceptive Prevalence Rate*

From 1986 to 1991, the contraceptive prevalence rate (CPR)<sup>\*\*\*</sup> increased 11% (from 53% to 59%) in the Northeast and the use of modern methods increased 23% (from 44% to 54%). By contrast, in 1986 the CPR in the southern states and in the cities of Rio de Janeiro was already 75%. In Brazil as a whole there was no marked change in the number of children wanted which declined only slightly from 2.8 to 2.7 per woman and is the same across the country.

### *Contraceptive Mix*

Though the CPR is today above 65% in Brazil as a whole, and 59% in the Northeast, the method mix is very poor: female sterilization is the most common method and in 1991 accounted for 38% of the married women using contraception; the second most frequently used method is oral contraception (13%), though its use diminished between 1986 and 1991. About 50% of pill users discontinue this method during the first year for reasons other than a wanted pregnancy. A study done in 1984 in the slums of Rio de Janeiro revealed that about 23% of pill users were using the pill incorrectly.

Northeastern states show a high incidence of female sterilization. In most of these states there is a positive correlation between the prevalence of sterilization and maternal mortality. The sterilization rate is higher where income and educational levels are lower. The health

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<sup>\*\*\*</sup>Contraceptive prevalence rate (CPR) is the percentage of women using contraceptives in a given country or region. This variable refers very often only to women in union or couples.

departments in the Northeast are not usually provided with means to supply adequate obstetrical care.

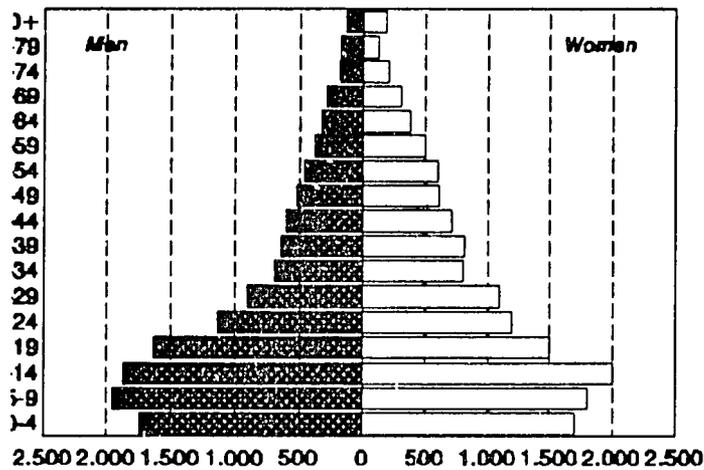
According to Dr. André Medici, Chief of Department of Health Economics, Brazil, sterilization and high maternal mortality, are the result of the inaccessibility of family planning services. There is no state-run family planning program and private care is too costly for large segments of the population. Female sterilization has in fact been the family planning method adopted on large scale by the low-income population. Lacking access to information about family planning services and methods, sterilization is often taken as a solution after several unwanted pregnancies. Abortion is also used as a solution when women face an unwanted pregnancy. In 1991, 2.3% of all inpatients in the Brazilian national health system - *Sistema Unico de Saude* (SUS) - hospitals were due to post-abortion complications.

#### *Unmet Demand*

Despite the relatively high CPR in Brazil, there is still a high unmet demand for contraception. This unmet demand today is higher for permanent than temporary methods. As the population grows older and the number of women in childbearing age increases (see population pyramid), the demand for temporary methods also increases. Temporary methods allow mothers to space births and thereby reduce high-risk pregnancies.

### Population Pyramid of the Northeast

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*The large group between 5 and 19 years of age in 1991 should benefit from the use of spacing FP methods and thereby reduce the number of high-risk pregnancies.*

The effects of the increased CPR and consequent reduction in the total fertility rate is probably the reason for the less number of children born in the last 4 years previous to the DHS of 1991 and shown in the population pyramid as an indentation.

According to BEMFAM\*\*\*\* (Sociedade Civil do Bem Estar Familiar), the total demand for contraception in the Northeast is 85% of the married women in childbearing age which means that an unmet need of 26% still exists.

#### *The Role of Government in Family Planning*

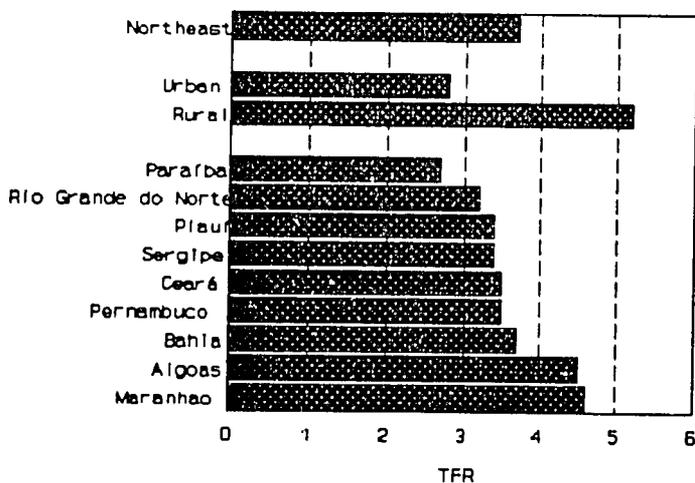
The rise in CPR and consequent decline in fertility in Brazil occurred in the absence of a governmental family planning program and with a prevalent role of the private sector, both

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\*\*\*\*BEMFAM is a Brazilian non-profit family planning organization, affiliated with IPPF.

commercial and non-commercial. In fact, though in 1974 the Brazilian government stated the importance of a state regulated/run program to give access to lower income population to information and means to exercise fertility control, only in 1988 the National Congress ratified in the Constitution that "family planning is a free decision of the couple, and the state must provide educational and scientific means to exercise this right". In January 1986, the Ministry of Social Security and Social Assistance announced the availability of family planning services in its medical units, including private clinics under contract. However, these programs have strong managerial and personnel training deficiencies and lack promotion to local communities. Furthermore, all social programs have received severe budget cuts since 1990, leading to a worsening in both the provision of family planning services and commodity distribution.

TOTAL FERTILITY RATE BY RESIDENCE AND STATE  
Women 15-49 Years



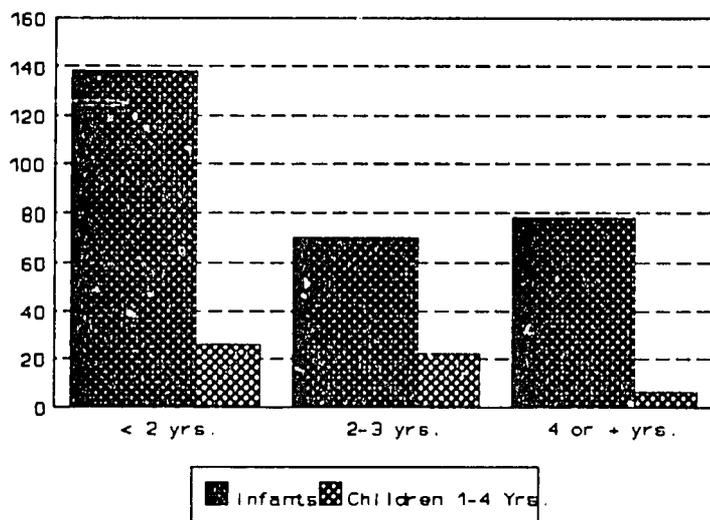
*In Alagoas, where PROFIT's sub-project is located, the total fertility rate is 4.5 children per woman.*

### High Risk Pregnancy

About 63% of pregnancies in the Northeast are high-risk due mainly to the short intergenetic interval, the mother's age (younger than 18 or older than 35), and the number of prior pregnancies (three or more). In fact, in this region at 19 years of age, about 17% of women have already had one live child and 5% have had two or more children.

### Northeast:

INFANT MORTALITY RATE BY INTERGENESIC INTERVAL  
Deaths per 1,000 Live Births



*In the Northeast, 41% of the births have less than two years of intergenetic interval which is one important factor in the high rate of infant mortality.*

The factors described above and the fact that the indicators for socio-economic status were the lowest in the Northeast, attracted several programs of social and medical assistance as well as family planning programs.

## **METHODOLOGY AND RESULTS**

This paper tests the assumption that the UNIMED population differs substantially from the general population of Maceio, Alagoas regarding its socio-economic characteristics and family planning status.

As no data were available to determine the family planning status and socio-economic characteristics of the UNIMED population, PROFIT conducted a survey of the UNIMED female population between the ages of 15 - 49. These data were essential to design the most appropriate approach to achieve the subproject family planning objectives described previously.

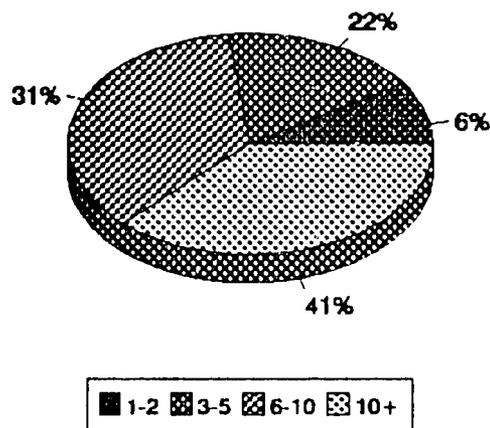
To evaluate similarities and differences between this population and the general population from Maceio, the findings of the UNIMED study were compared to those of the Demographic and Health Survey (DHS)1991 from the Brazilian Northeast (in some cases disaggregation was possible in urban and rural samples). While data from both the DHS and UNIMED survey do not contain comparable information on several variables, as for instance household income, they do contain most of the information needed to test the authors' assumption and allow them to have a comprehensive overview of the family planning status and socio-economic characteristics of the population from Maceio/Alagoas vis-a-vis the UNIMED population.

*Socio-Economic Characteristics*

Though both UNIMED and DHS samples were between 15-49 years of age, the latter was a younger population - with 22% of respondents (the larger group) between 15-19 years of age. The UNIMED sample was older, with a mean age of 33.5 and with 21.7% in the group between 26 to 30 and 21% in the group 31-35. The percentage living in union was about 57% for the DHS sample and 62% for the UNIMED sample.

NUMBER OF MONTHLY MINIMUM SALARIES PER HOUSEHOLD  
UNIMED Population

*The UNIMED population is mainly in the middle and upper middle classes.*



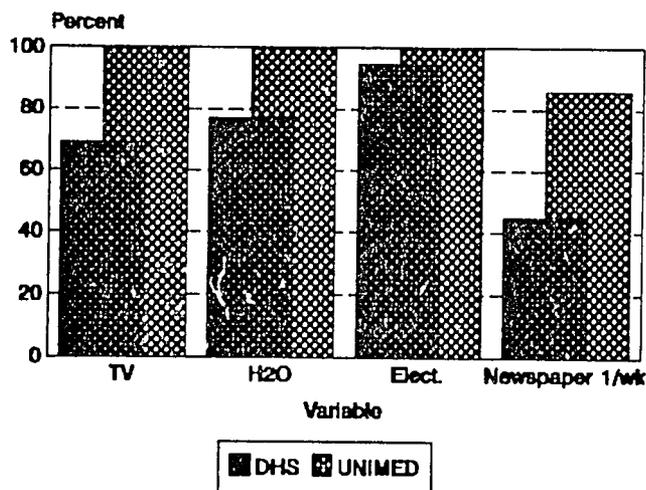
Keightley & Ferrall, PROFTT 1994

The UNIMED population, part of those 10% that have private health insurance in the Northeast is composed mainly of affluent people, as shown in the chart. In fact 72% of households in the sample has an income of six or more minimum wages per month, putting this population in the middle and upper-middle classes. This contrasts with the population from the Northeast in which only about 10% of the households have this level of income.

(IBGE - 1992)\*\*\*\*. The difference of income is also reflected in the socio-economic variables shown in the next chart.

All households from the UNIMED sample had electricity, running water, and television sets. By contrast, 95% of the general population from Maceio (DHS) had electricity, only 77% had running water and 60% had a television set. The number of people per household was 4.7 for the general population and 3.9 for the UNIMED sample. The percentage of women reading the newspaper once a week was 42% for the general population and 82% for UNIMED. These variables have an impact on all aspects of primary health care, including maternal mortality, child mortality, and family planning. The differences in the socio-economic characteristics between these two populations correspond to the dramatic differences in educational levels.

#### COMPARISONS BETWEEN URBAN NE AND UNIMED SAMPLES



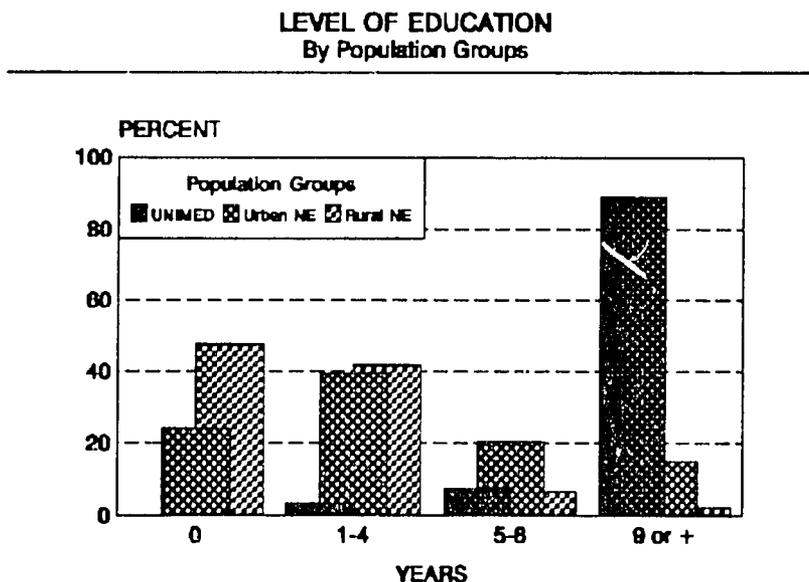
Edgelm & Farnell, PRECETT 1994

\*\*\*\*IBGE- Instituto Brasileiro de Geographia.

### *Educational Level*

As mentioned above, there are also substantial differences in educational levels: For the UNIMED sample the mean number of years of education is 13 compared to 3.7 and 1.1 among the general urban and rural population of Alagoas, respectively. About 30% of the UNIMED women in reproductive age define themselves as "professionals." Education levels and income are important factors in the decision making process, therefore influencing the access to and use of family planning.

As in the DHS sample, the women in the UNIMED sample have on average more years of education than their spouses.



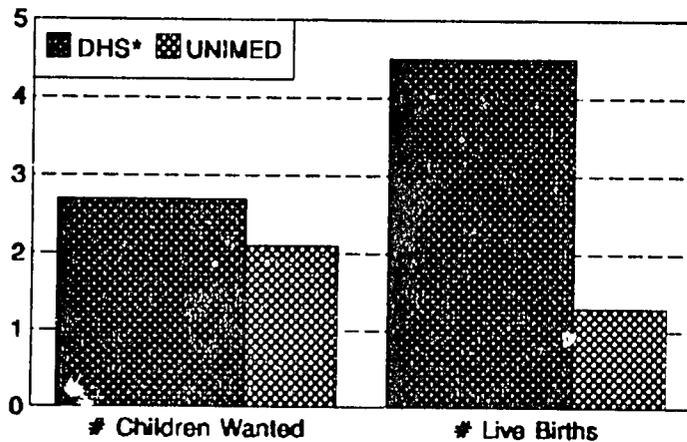
Maplan & Ferraz, INCIPT 1994

*30% of the UNIMED sample refer to themselves as professionals.*

### *Reproductive Profile*

The number of children wanted per woman was slightly higher in the DHS sample than in the UNIMED sample (2.7 versus 2.1.) Nevertheless, in the general population, the number of children wanted decreases from 3.1 children per woman with no education to 2.5 children in women with nine or more years of education. In the UNIMED sample, there were no significant differences with respect to years of education, probably because of the high level of education in the whole sample.

**REPRODUCTIVE PROFILE**  
Mean Scores on Selected Variables



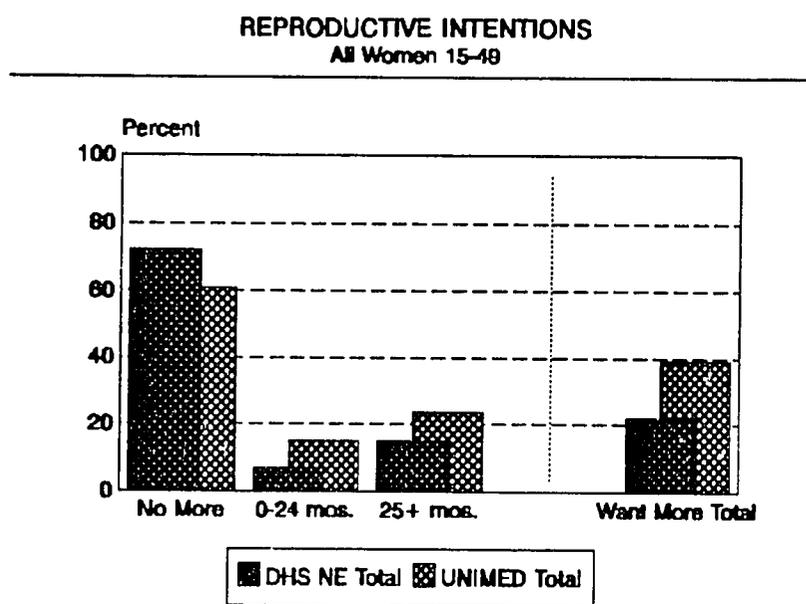
*In Alagoas, women have an average two more children than wanted.*

\* Alagoas Only

Kaplan & Farrell, PROFT 1994

There is a significant difference between the general population in Alagoas and the UNIMED sample regarding the number of children wanted and the number of children that they actually have: Women in Alagoas have on average two more children than wanted; in the UNIMED sample women have on average one child less than the total wanted.

This may be explained in part by the number of women in the UNIMED sample, who despite being older than the women in the DHS sample, do not have children (31.2%). However, most of these women intend to have children in the future. This fact also reinforces the concept that more educated women tend to start their reproductive life later. The next chart shows that among UNIMED subscribers about 40% of the women of reproductive age want to postpone their first or next pregnancy one or more years, contrasting with the DHS sample which shows only 20% wanting more children.



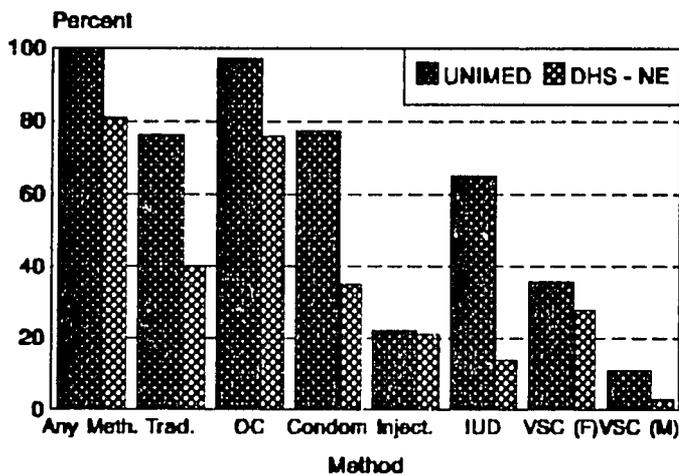
*In the Northeast the vast majority of women 15-49 years old do not want more children.*

In both samples the vast majority of women do not want more children. These represent the demand (met and unmet) for sterilization or long-term methods depending on age among other factors. The group that wants more children represents the target group for temporary, spacing methods.

*Family Planning Knowledge and Practice*

The spontaneous knowledge about at least one modern contraceptive method was almost universal in the UNIMED sample while it was about 80% in the DHS sample. The best known method by both groups was the pill followed by traditional methods and condoms. One interesting finding was the low response given about female sterilization as shown in the chart, since this is the most common used method in Brazil. Apparently, female sterilization is seen a way "not to have more children" rather than a way "to plan one's family".

**KNOWLEDGE OF CONTRACEPTIVES**  
All Women 15-49



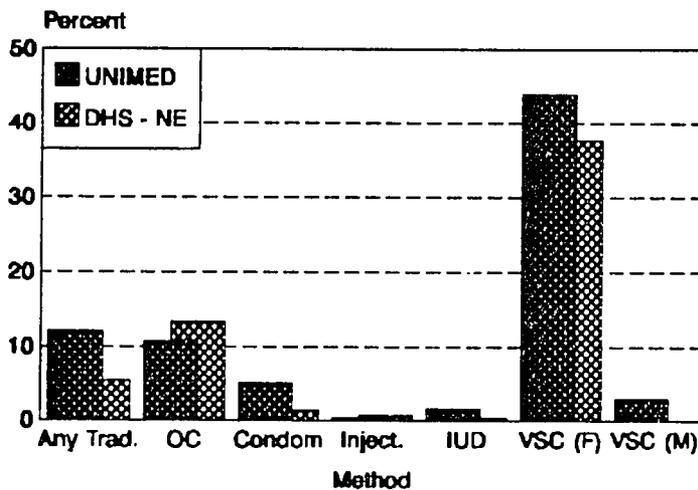
*In both samples the best spontaneously known modern method is the pill. Note the low response about V.S.C.*

Maplen & Ferrell, MIOFIT 1994

In both samples, over 85% of the women in union, using contraception (75% in the UNIMED sample and 59% in the DHS sample), use a modern method. Female sterilization is, by far, the most commonly used, accounting for about 45% in the DHS sample and 38% in the UNIMED sample. Considering the high level of education of UNIMED subscribers it

is interesting to verify that female sterilization is still the most commonly used family planning method.

**DISTRIBUTION OF CONTRACEPTIVE USE**  
**Women in Union, 15-49**



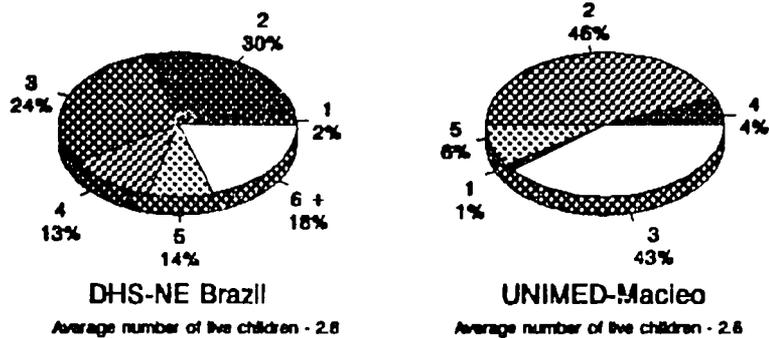
Maple & Farrel, PROFIT 1994

*Female sterilization is the most commonly used modern method, followed by oral contraception.*

Concerning modern temporary methods of contraception, the most widely used is the pill accounting for slightly over 10% of women in union using contraception in both samples. As already mentioned elsewhere in this paper the number of drop-outs in the first year of pill use is about 50% in the DHS sample. Though no data concerning this variable are available for the UNIMED sample, the number of users compared to the number of women that ever used this method is about 50% in this group.

## STERILIZATION BY PARITY

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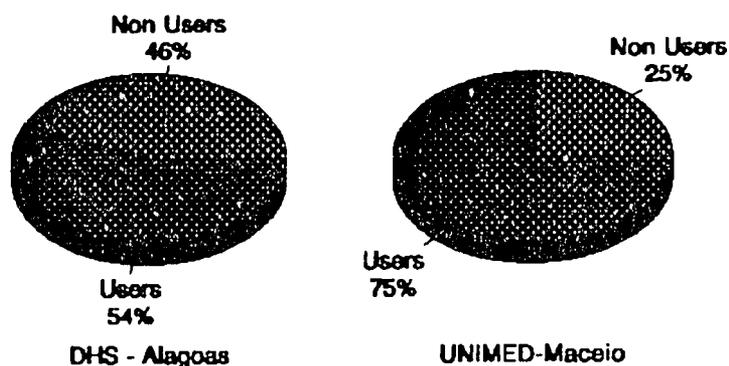
Kaplan & Ferrell, PROFIT 1994

Concerning female sterilization, the main difference between both samples is the "timing" regarding the number of children. While sterilization is performed after the second or third birth in 89% of UNIMED sterilized respondents, only 54% of the sterilized women in the DHS sample undergo this procedure after the second or third child, and 45% after the fourth or more.

## CONTRACEPTIVE PREVALENCE Women in Union, 15-49

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*The contraceptive prevalence rate is much higher among UNIMED subscribers.*



Kaplan & Farrell, PROFIT 1994

According to BEMFAM, the total demand for contraception in the Northeast is 85%.

Considering the data previously shown there is still a unmet demand for contraception, both for spacing and limiting. The unmet demand is higher in the DHS sample, since 54% of women in union in Alagoas use contraceptives when compared with the women in union in the UNIMED sample with a contraceptive prevalence of 75%.

### DISCUSSION AND CONCLUSION

The data presented showed that in fact the two populations were different in both socio-economic and family planning grounds: The socio-educational-economic level of the

Maceio/Alagoas population is much lower than that of UNIMED subscribers. The contraceptive prevalence, as expected follows the same pattern. The unmet demand for contraception is 31% for the general population contrasting with 10% for the UNIMED population. The most dramatic difference between these two samples is in the number of children wanted versus the number of children they actually have. However, some similarities were observed mainly concerning the total number of children wanted and the distribution in contraceptive use (method mix).

These data provided an opportunity for PROFIT to reassess the subproject's family planning outreach. In Maceio, Alagoas, of a population of 700,000 people, only about 70,000, or 10%, have access to health services through private insurance companies. UNIMED had about 44,193 policy holders in December 1993. Of these, 10,543 were women of reproductive age (15-49 years), and about 72% of the households had an income higher than six minimum wages, belonging therefore to the middle and upper-middle classes. By contrast, a large part of the uninsured population (about 600,000) of Maceio, has a lower income (less than five minimum wages for 85% of the households, IBGE, 1992) and use the free health services of the National Health System (SUS). Because SUS is disorganized and has little budget to face its expenses and therefore unable to provide adequate services, much of the less affluent population is without access to primary health care and family planning.

As a result of analysis of these data, it was decided that to have a meaningful family planning impact the project should focus not only on the UNIMED population, but also on the lower income population of Maceio as a whole, increasing its access to family planning.

After several meetings with physicians and management of UNIMED, PROFIT became aware of several obstacles to achieving this objective. These obstacles can be summarized as follows:

- The unwillingness of UNIMED physicians to decrease the price of their services in order to be more affordable to lower-income persons.
- Physicians' preconceptions that poorly educated women are incapable of making an informed choice about family planning methods.
- Physicians' lack of training in family planning in general and counseling in particular.
- Fear that receiving low-income clients in the MCH/FP clinic would keep away higher income and UNIMED clients.
- Unavailability and high costs of IUDs.
- Lack of interest of the UNIMED management in outreaching a lower income population.

A strategy was designed to increase access to family planning of the lower economic strata of Maceio while bearing in mind the economic interests of UNIMED physicians and the other obstacles expressed above. This strategy includes the following approaches:

Training in Family Planning methods and counselling techniques;  
Increased availability of Family Planning methods, especially IUDs;  
Cross-subsidization of IUD services from other income sources;  
Involvement of physicians in clinical follow-up studies; and  
A low cost family planning consultation scheme directed toward lower income women  
and the consequent enhancement of UNIMED's public image.

*Training in Family Planning Methods and Counselling Techniques.*

A training course was designed composed of a series of 10 workshops. This course includes education and hands-on training in family planning methods and techniques including interval and post-partum IUD insertion. The workshops were conducted mainly by well-known Brazilian physicians. The importance of counselling and interpersonal communication skills development were also addressed through this course. Special emphasis was put on the relevance of the couples/women informed choice of the family planning method.

The workshops were implemented in UNIMED and open to all UNIMED physicians. Each series had 15 trainees. A course certificate was given to the physicians who attended the whole series.

***Increased availability of family planning methods, especially IUDs.***

IUDs are not usually available in public or commercial outlets in Maceio. Patients who decide to use this family planning method are sent by their physicians to purchase their IUD in a pharmacy in a town about 250 km from Maceio. Because of the unavailability of IUDs, most physicians are unfamiliar with IUD insertion or removal techniques, indications, contraindications, benefits and risks. The overall use of this method is therefore very low (about 1% of contraceptive users).

To increase access to IUDs in Maceio, the MCH/FP clinic introduced them to its operations. The IUDs are bought directly from the distributor, stored in the clinic, and distributed by the clinic coordinator to UNIMED physicians.

***Cross-Subsidization of IUD services from other income sources.***

In order to make IUDs available to lower-income women who use the clinic on a fee-for-service basis (non-UNIMED policy-holders), the price has to be lower than the regular commercial price in Brazil. To make this possible, two mechanisms were implemented: 1) the cost of the IUDs were cross-subsidized with other services provided by the clinic; and 2) the lower-income women would be able to pay for their IUD in two or more installments and their first follow-up examination after the IUD insertion would be free.

***Involvement of physicians in Clinical Follow-up Studies.***

UNIMED physicians are very eager to publish clinical follow-up studies. This fact was used as a mechanism to increase interest in both providing IUDs and delivering services to lower income groups (to increase caseload). As a result, UNIMED physicians were interested in creating a low cost family planning consultation at the MCH/FP clinic. Many UNIMED physicians also work part-time as government employees in SUS hospitals. The MCH/FP clinic implemented a post-partum IUD program for lower -income women through these physicians. The follow-up consultation for these women is done at the clinic free of charge for the first consultation and at low cost for the following ones. The IUDs can be purchased on an installment plan.

The IUD clinical follow-up studies are backed up by one or more of the workshop trainers who help develop protocols, deal with complications, and control the quality of the study. The involvement of well-known physicians also permits easier publication of the data.

***A low-cost family planning consultation scheme directed toward lower income women and the consequent enhancement of UNIMED's public image.***

A low-cost organized family planning consultation was implemented. The counselling and first screening of patients is done by trained nurses. This procedure decreases significantly the time spent by the doctor with the patient. An organized family planning consultation also allows for easier implementation of screening and follow-up protocols, as well as mechanisms for monitoring and controlling quality of care.

Since the assisting nurse takes care of counseling, basic questions and exams, the doctor can see more patients in the same period of time. As clients pay on a fee-for-service basis and the physicians are paid also per procedure, the more clients they see per hour, the more their income. Moreover, this strategy permits a decrease in the price of the consultation.

Another benefit of allowing low-income patients to use the MCH/FP services is the increased caseload for clinical follow-up studies.

In addition, low-cost family planning consultation promotes the role and importance of UNIMED as social player in the community of Maceio. This fact is emphasized through UNIMED marketing campaigns. The UNIMED medical community reacted in a very positive and enthusiastic fashion to our explanation of the benefits of this model for the less affluent.

### ***Observation***

Though discussions started by the end of April 1994, agreement on all issues and action steps of this strategy was only reached by the end of August 1994. Two factors were crucial in order to change the physicians attitude towards lower income groups: 1) the training, and 2) the perspective of doing clinical follow-up studies. The training course started in June 1994 with an attendance of 20 UNIMED Ob-Gyns. During the workshops on IUDs, protocols for follow-up studies were presented and discussed. The MCH/FP clinic is still under renovation and expected to open in January 1995. However, the so-called "IUD program" started in the

beginning of September, when soon as the first series of workshops was completed and the first cases of IUDs arrived in UNIMED. In this phase, the "IUD program" is implemented mainly through the private offices of UNIMED physicians and at the hospitals (from SUS network) where they do deliveries to lower income women. In the first one and a half month, about 30 IUDs were inserted and all this cases are following pre-established clinical protocols.

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