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MEMORANDUM

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DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CENTER FOR DISEASE CONTROL

TO : William H. Foegen, M.D.
Director, Center for Disease Control (CDC) DATE: May 13, 1980
Through: Philip S. Brachman, M.D.
Director, Bureau of Epidemiology (BE) _____

FROM : Leo Morris, Ph.D., Chief
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Program Evaluation Branch
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SUBJECT: Foreign Trip Report (AID/RSSA): Brazil, February 23-March 8, 1980

SUMMARY

- I. PLACES, DATES, AND PURPOSE OF TRAVEL
 - II. PRINCIPAL CONTACTS
 - III. SURVEY REPORT-PIAUI CBD BASELINE SURVEY
 - IV. PLANNING FOR 1980 PROGRAM IMPACT SURVEY-NORTHEAST BRAZIL
 - V. SERVICE STATISTICS
- ATTACHMENT A: SELECTED TABLES - PIAUI CBD BASELINE SURVEY REPORT

SUMMARY

This consultation was a follow-up to previous consultations concerning the baseline contraceptive prevalence survey for the community-based distribution program in Piauí State, Brazil. Previous consultations took place in January, July, and September 1979 for planning, implementation, and data processing of the survey, respectively. The main purpose of this consultation was to assist the Sociedade Civil Bem-Estar Familiar do Brasil (BEMFAM - the planned parent-hood affiliate) in preparing the Portuguese language survey report. A draft report for the Piauí survey was prepared in both Portuguese and English, and a final draft of the Portuguese language report will be reviewed in May. In addition, consultation was provided to USAID/Brazil, BEMFAM, and state agencies on a program impact evaluation survey scheduled for 4 states in northeast Brazil in 1980. This Program Impact Survey in northeast Brazil will include 3 states (Rio Grande do Norte, Paraíba, and Pernambuco), which have had extensive community-based contraceptive distribution (CBD) programs operating during the past 6 years, plus a fourth state (Bahia) in which organized family planning services have not been available to date but will be in the near future.

Although CBD programs have been in operation in the northeastern states for 6 years, they did not have the benefit of a baseline survey prior to the initiation of field operations as did Piauí. With the exception of an acceptor follow-up study in Rio Grande do Norte, there has been no overall program impact evaluation in which contraceptive prevalence can be documented both within the program as well as in the private sector. In addition, vital statistics are incomplete in northeast Brazil, and there has been no adequate measurement of fertility levels at the state level since the 1970 Census.

Site visits were made to each of the 4 states named above, and participating local organizations to act as co-sponsors of the surveys were obtained in each state. Discussions on dates of field work, recruitment and training of interviewers, and survey content were held. In addition, a meeting was held at the National Brazilian Census Organization (IBGE) to discuss the availability of 1980 Census data and maps for these states to serve as a sampling frame. The data and maps are scheduled to be ready by mid-April 1980.

The BEMFAM community-based distribution program in 6 states has now registered 707,030 new clients from 1974-1979. For the year 1979, 56% of these new clients were 20-29 years of age, and an additional 16% were less than 20 years of age. Fifty-two percent had less than 3 living children indicating a desire to space children rather than limit childbearing. However, 23% of new clients had 5 or more living children and may be candidates for surgical contraception. It is estimated that about 194,000 women were active users in CBD programs as of December 1979, and 116,000 women were active users of contraception in the clinic program as of June 1979.

BEMFAM has requested a follow-up consultation in May 1980 to: 1) assist them in reviewing the final draft of their Portuguese report on the results of the Piaui baseline survey, 2) conduct the sample selection for the 1980 program impact survey, and 3) make site visits to those states that will take part in the survey.

I. PLACES, DATES, AND PURPOSE OF TRAVEL

Rio de Janeiro, February 23-28, and March 8, 1980, Recife, February 29-March 4, 1980, and Salvador, March 5-7, 1980, at the request of USAID/Brazil, and AID/POP/FPSD, and AID/POP/LA to: 1) provide technical assistance to the Sociedade Civil Bem-Estar Familiar de Brasil (BEMFAM), the IPPF affiliate, in preparing the Portuguese language report for the 1979 CBD baseline survey in Piaui State (see Morris trip reports dated August 3 and December 27, 1979), and 2) consult with USAID/Brazil, BEMFAM, and state agencies on the program impact evaluation surveys for states in Northeast Brazil with community-based distribution programs. Travel was performed in accordance with the Resource Support Services Agreement (RSSA) between the Office of Population/AID/Washington and CDC/BE/FPED.

II. PRINCIPAL CONTACTS

A. USAID/Brazil

1. Mr. Sam Taylor, Health, Population and Nutrition Advisor, U.S. Embassy, Brazil (meeting in Salvador, Bahia)

B. Sociedade Civil Bem-Estar Familiar do Brasil--BEMFAM (IPPF affiliate), Rio de Janeiro

1. Dr. Walter Rodrigues, Executive Secretary
2. Dr. Jose Maria Arruda, Technical Advisor
3. Ms. Eliane Reis, Coordinator, Department of Information
4. Lic. Marcio Ruiz Shiavo, Coordinator, Department of Information

C. Fundacao Instituto Brasileiro de Geografia e Estatistica (IBGE)

1. Renato Galvao Flores, Jr., Chief, Department of Methodology (Rua Equador 558; tel: (021) 243-3287)

D. Pernambuco State

1. BEMFAM State Program
 - a. Sra. Maria Vilma de Oliveira, State Coordinator
2. Federal University of Pernambuco
 - a. Faculdade de Medicina
 - 1) Dr. Iremar Falcone, Titular de Clinica Obstetrica, Centro de Ciencias da Saude
 - 2) Dra. Martha Carneiro Wanick, Clinical Professor
 - b. Faculdade de Sociologia (Pos-Graduacao)
 - 1) Henrique Levy, Population Studies
 - 2) Solange Souto, Sociologist
3. Instituto Joaquim Nabuco (Ministerio de Educacao, Secretaria de Assuntos Culturais)
 - a. Sebastiao Vilanova, Sociologist
4. Superintendencia do Desenvolvimento do Nordeste (SUDENE)
 - a. Valter de Carvalho, Director, Department of Human Resources

E. Paraiba State

1. BEMFAM State Program
 - a. Marta Horstmen, State Coordinator
 - b. Dr. Francisco Salles, Medical Director
 - c. Maria da Penha Manezes, Chief, Statistics Department
2. Federal University of Paraiba-Health Sciences Center
 - a. Dr. Noberto Nogueira, Director
 - b. Dr. Walderedo Nunes de Brito, Coordinator, Medical School
 - c. Dr. Atilio Rota, OB-Gyn Department
 - d. Profa. Regina Targino Souto, Coordinator, Nursing School
3. Other Agencies/Schools
 - a. Profa. Marlene Camara, Curso de Saude Publica, Escola de Enfermagem Santa Emilia de Rodat
 - b. Sr. Inacio Tavares, Superintendente, Fundacao de Instituto de Planejamento do Paraiba (FIPLAN)

F. Bahia State

1. Universidade Federal da Bahia
 - a. Dr. Elsimar Coutinho, Department OB/Gyn, Medical School
 - b. Profa. Maria Nogueira, Director, Nursing School
 - c. Profa. Maura Almeida, Director, Department of Community Nursing
 - d. Profa. Iracy Silva Costa, Department of Community Nursing

2. Universidade Católica da Bahia
 - a. Profa. Líliliana Almeida, Social Service School
3. Other Agencies
 - a. Dr. Alfredo Souza da Tavares, Clinical Director, BEMFAM
 - b. Dr. José S. de Códés, County Representative, Pathfinder
 - c. Dr. Tarcio, Malaria Control Program, Ministry of Health

III. SURVEY REPORT - PIAUI CBD BASELINE SURVEY

This consultation was a follow-up to previous consultations concerning the Contraceptive Prevalence Survey which served as a baseline for the CBD program in Piauí State. These previous consultations took place in July 1978, January 1979, and July 1979 for planning and implementation of the survey (see CDC RSSA Reports dated August 2, 1978 and August 3, 1979) and September 1979 to certify that field work had been adequately completed and to provide training to local personnel in the coding phase of the project (see CDC RSSA Report dated December 27, 1979). One of the tasks of this consultation was to assist BEMFAM personnel in preparing the Portuguese language report describing the survey results.

Field work was completed during the third week of August as scheduled, and coding of household questionnaires was initiated on September 17 as scheduled in the timetable for processing and analysis activities as shown below (see CDC RSSA Report dated August 3, 1979). Data processing and analysis proceeded on schedule through February, and a draft of the preliminary report (Portuguese and English) was prepared during this consultation.

July-August 1979	Field Work
September-October 1979	Coding
November 1979	Key punching
November-December 1979	Editing
January-February 1980	Data Analysis
March 1980	Preliminary Report
April 1980	Final Report and Presentation in Piauí

The only change in the above timetable concerns the final report and presentation in Piauí. A draft of the final report will be reviewed in May rather than April, and a presentation will be made in Piauí in late June or early July. The delay in presentation is at the request of the Governor of the State of Piauí who wants to chair the program when the data are presented locally.

The contents of the Piauí report and selected tables are included in Attachment A. At least 1 table is shown from each of the 11 or 13 chapters with tabular data. The number of each table included in the attachment and subject matter is listed below:

- | | |
|----------|---|
| Table 1: | Interview Status by Residence |
| Table 6: | Recent Estimates of Fertility Rates, Piauí State and Northeast Brazil |

Table 16:	Source of Medical Care When Ill
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Table 35:	Current Use of Contraception by Household Income
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Table 56:	Percent of Women in Need of Family Planning Service

IV. PLANNING FOR 1980 PROGRAM IMPACT SURVEY--NORTHEAST BRAZIL

Dr. Martin Corosh of Columbia University, Dr. Barbara Janowitz of IFRP, Sam Taylor of USAID/Brazil, and Leo Morris of CDC met with BEMFAM personnel in September 1979, to initiate planning for a Program Impact Survey during 1980 in northeast Brazil. Although CBD programs have been in operation in 4 northeastern states for 6 years, they did not have the benefit of a baseline survey prior to the initiation of field operations as did Piaui. Thus, with the exception of an acceptor follow-up study in Rio Grande do Norte, conducted by Columbia University (Corosh, Ross, Rodrigues, and Arruda. Community-based Distribution in Rio Grande do Norte. International Family Planning Perspectives 1979 Dec;5(4):150), there has been no overall program impact survey in which contraceptive prevalence can be documented both within the program as well as in the private sector. The other factor that becomes important, because of results from the Sao Paulo and Piaui surveys, is that surgical contraception is an important component of contraception in Brazil and has to be measured to refine the denominator of women eligible for the CBD program, who may be seeking nonpermanent methods of contraception. In addition, vital statistics are incomplete in Northeast Brazil so that there has been no adequate measurement of fertility at the state level since the 1970 census.

The consensus of this working group was "to include 3 northeastern states, which have had extensive CBD programs operating for the past several years, plus a fourth state in which organized family planning services have not been available to date but will be in the near future." The 3 states which have had CBD programs operating, are Rio Grande do Norte, Pernambuco, and Paraiba. The non-program state is Bahia.

A tentative schedule for the conduct of the survey was developed covering all key tasks, including financing, timetable questionnaire development, sample design, contacts with IBGE (Brazilian Institute of Geography and Statistics), site visits to State Health Departments (and potential participating local organizations such as universities or research institutes), questionnaire pretest, recruitment and training of interviewers, survey field work, data

processing, and data analysis (see CDC RSSA Report dated December 27, 1979). The questionnaire used in Piauí was modified to reflect the experience gained in that northeastern state and to include specific program impact questions that deal with community-based distribution programs that would not normally be used in a contraceptive prevalence survey. In addition, BEMFAM will include some questions on the Family Planning Communication and Information Program as this module has been used successively in El Salvador and Guatemala. Also, at the request of the State Health Department in Rio Grande do Norte, the immunization status of children less than 5 years of age will be obtained. The immunization module has also been used in Panama.

During this consultation 3 of the 4 states were visited with Jose Maria Arruda of BEMFAM, and the fourth (Rio Grande do Norte) was visited by Arruda alone. In each state, participating local organizations to act as co-sponsors of the surveys were obtained, and discussions on dates of field work, recruitment, and training of interviewers and survey content were held. The institutions that will be collaborating with BEMFAM are shown below by state:

<u>State</u>	<u>Institution(s)</u>
Rio Grande do Norte	Secretaria da Saude
Paraíba	Centro de Ciencias da Saude do Universidade Federal do Paraíba
Pernambuco	Instituto Joaquim Nabuco and Faculdade de Medicina do Universidade Federal de Pernambuco
Bahia	Escola de Servico Social, Universidade Catolica/Bahia

As in Piauí, overall responsibility and coordination will be handled by BEMFAM in cooperation with the State Health Department or local institutions listed above. The administrative support and infrastructure provided by BEMFAM during the Piauí survey was excellent and will be strengthened by the addition of Lic. Eliane Reis to the Evaluation Staff of BEMFAM. Sr. Angelo Costa, Field Coordinator for both the Sao Paulo and Piauí surveys, will be the Field Coordinator for the Northeast survey. All technical advisory services will be provided by the joint CDC-Columbia-IFRP Group with CDC having primary responsibility for the support of the surveys in Bahia and Pernambuco, IFRP in Rio Grande do Norte, and the Columbia University Resident Advisor will have responsibility for technical support for the survey in Paraíba. Paraíba would also be used to strengthen the capability for local support of surveys so that BEMFAM will be assigned the responsibility for data processing and analysis for that state. The division of responsibility has been set up to ensure timeliness of data processing and subsequent survey results. However, even with this geographic division of responsibility, all training, questionnaires, field work methodology, codebooks, and analysis plans will be coordinated to be uniform.

Based on information gathered on the site visits to Bahia, Pernambuco, Paraiba, and Rio Grande do Norte, the following schedule has been proposed through the coding phase of the survey, by state:

<u>State</u>	<u>Final Selection of Interviewers</u>	<u>Training</u>	<u>Field Work</u>	<u>Coding</u>
Pernamubuco	July 2	July 4-9	July 10-Aug. 29	Sept.15-Oct. 19
R.G. do Norte	July 12	July 17-22	July 24-Sept.12	Oct. 13-Oct. 31
Paraiba	July 12	July 17-22	July 23-Sept.12	Oct. 27-Nov. 14
Bahia	July 23	July 24-29	July 30-Sept.30	Nov. 10-Nov. 28

Prior to making these site visits, a meeting was held with Sr. Renato Galvao Flores of IBGE to confirm the availability of 1980 census data and maps to serve as a sampling frame. The 1980 census data and maps for these states will in fact be ready by mid-April 1980. Leo Morris will return to Brazil in May to assist BEMFAM in the first-stage sample selection for each state. Maps of the census enumeration districts and listings selected in the first stage of the sampling process will be provided by IBGE, and these maps will be used to make the second stage selection of households and, of course, for actual field work. During this upcoming trip, site visits will again be made to Recife, Joao Pessoa, Natal, and Salvador to make final arrangements for training sites, interviewer recruitment, and field work.

V. SERVICE STATISTICS

We last reported on service statistics available on the BEMFAM program through June 1979 (see CDC RSSA Report dated December 27, 1979). During this trip, I was able to update CBD acceptor data through December 1979. The CBD program in 6 states (Rio Grande do Norte, Piaui, Paraiba, Pernambuco, Alagoas, and Parana) has now registered 707,030 new clients from 1974 through December 1979 as shown below (a new client is defined as a person attended for the first time in the program and excludes revisits):

<u>Year</u>	<u>Number New Clients</u>
1974	32,137
1975	66,087
1976	137,011
1977	142,819
1978	161,329
1979	167,647

A 10% sample of all new CBD clients is forwarded each month to the BEMFAM Evaluation Office and includes data on age and number of living children at time of acceptance. The percent distribution for each of these acceptor characteristics is shown below for 1979:

<u>Age Group</u>	<u>Percent</u>	<u>Number of Living Children</u>	<u>Percent</u>
15	0.4	0	8.1
15-19	16.1	1	23.6
20-24	31.6	2	20.6
25-29	24.0	3	14.4
30-34	13.9	4	10.2
35-39	9.6	5+	<u>23.1</u>
40-44	3.7		
45+	<u>0.7</u>		
		TOTAL	100.0
TOTAL	100.0		

More than half (56%) of new clients are 20-29 years of age, and an additional 16% are less than 20 years of age. Fifty-two percent of new clients have less than 3 children and probably reflects a desire to space children rather than limit their childbearing. However, 23% of new clients have 5 or more living children and may be candidates for surgical contraception if available.

Data is also available for 1,789 women for the period January-September 1979, who were referred to backup physicians by CBD distributors because of possible contraindications to pill use. This number represents 1.9% of total first visits made to distributors. The principal reasons given for possible contraindications were "accentuated nervousness" (24%), intense headache (22%), painful varicose veins (22%), high blood pressure (12%), and amenorrhea (9%). Another 1,663 women, who discontinued pill use and were referred to program physicians, gave the following principal reasons for discontinuation: intense headache (22%), "nervousness" (21%), nausea (16%), and amenorrhea (10%).

After reviewing the number of cycles distributed in the CRD program during the 3-month period ending December 1979, I have estimated that about 194,000 women were active users as of December 1979, 27% of the cumulative number of new clients over the past 6 years. The 1980 Program Impact Survey will yield data on the percentage of program dropouts that have switched to nonprogram methods, including sterilization. This number of active users represents an increase of 19,000 active users over my estimate 175,000 for September 1978.

In addition, 23,743 new clients were registered during the first 6 months of 1979 in 67 BEMFAM clinics in 13 states. Annual data from the past 3 years show 8,677, 71,122, and 61,544 new clients in 1976, 1977, and 1978, respectively. Based on cycles distributed (the clinic program was 93% pill use in 1978), I estimate 116,000 active users of contraception in the clinic program as of June 1979.

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ATTACHMENT A

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AND SELECTED TABLES

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TABLE 1

Interview Status by Residence, Family Planning/MCH Survey
Piauí State, Brazil, 1979

<u>Household Selection</u>	<u>Total</u>	<u>Teresina</u>	<u>Interior</u>
Total Households			
Number	3045	1545	1500
Percent	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Eligible Respondent Identified	71.3	75.1	67.4
No Eligible Respondent Identified	19.7	18.1	21.3
Vacant Household	5.1	4.1	6.1
Total Refusal	0.5	0.9	0.1
No Contact after 3 Visits	1.7	0.8	2.6
Other	1.7	0.9	2.5
 <u>Individual Selection</u>			
Total Possible Respondents*			
Number	2238	1187	1051
Percent	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Complete Interview	91.1	91.7	90.4
No Contact after 3 Visits	2.3	1.1	3.7
Total Refusal	0.7	1.2	0.1
Respondent Refusal	1.5	2.8	0.1
Respondent Not at Home	4.4	3.3	5.7

* Includes households with identified eligible respondent plus households with total refusal or no contact which may have had an eligible respondent

TABLE 6

Recent Estimates of Fertility Rates
Piauí State, 1970 and 1979 and
Northeast Brazil, 1970, 1972, and 1976

A. Piauí State1970 Census^a

	<u>Total</u>	<u>Urban</u>	<u>Rural</u>
TFR	6.0	5.1	6.4
CBR	39	37	40

1979 Family Planning/MCH Survey

	<u>Total</u>	<u>Teresina</u>	<u>Interior</u>
GFR	196	109	215
TFR	5.9	3.4	6.5
CBR	40	25	42

95% Confidence

Interval, CBR	37-42	22-28	38-47
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B. Northeast Brazil1970 Census^b

	<u>Total</u>	<u>Urban</u>	<u>Rural</u>
TFR Unadjusted	5.6	-	-
TFR Adjusted	7.4	-	-

1972 (PNAD)^c

	<u>Total</u>	<u>Urban</u>	<u>Rural</u>
GFR	172	141	202
TFR	5.5	4.5	6.5
CBR	36	33	39

1976 (PNAD)^c

	<u>Total</u>	<u>Urban</u>	<u>Rural</u>
GFR	159	129	180
TFR	5.2	4.0	6.2
CBR	33	30	34

^aEstimated at CDC from IBGE, Censo Demografico Piauí, VIII Recenseamento Geral, 1970, Table 31.

^bJ.M. Rodriguez R., Brasil: Mortalidad y Fecundidad en las Regiones Nordeste y Sudeste, 1970. CELADE, Serie C, No. 1005, San Jose Costa Rica, 1977, Tables 8a and 9a

^cEstimated at CDC from published PNAD tables.

TABLE 16

Source of Medical Care When Ill by Residence, Women 15-44
Years of Age, Piauí State, Brazil, 1979
(Percent Distribution)

<u>Source of Medical Care*</u>	<u>Total</u>	<u>Residence</u>	
		<u>Teresina</u>	<u>Interior</u>
State/municipal hospital	30.5	10.7	34.8
Health post/center	24.2	13.0	26.6
INPS	17.8	43.2	12.3
FUNRURAL	3.5	0.9	4.1
IAPEP	3.3	9.2	2.1
Drugstore	6.5	4.6	6.9
Private doctor/hospital	4.6	8.8	3.7
Others	2.7	2.8	2.6
Don't go/stay home	6.8	6.6	6.8
Unknown	3.1	0.2	0.1
Total	100.0	100.0	100.0
Number of Cases (unweighted)	(2,038)	(1,088)	(950)

*INPS : National Institute of Social Welfare
FUNRURAL: Rural affiliate of INPS
IAPEP : State affiliate of INPS

TABLE 18

Place of Last Childbirth, and Postpartum Care by Residence:
 Women Having Had at Least One Live Birth, Piauí State, Brazil, 1979
 (Percent Distribution)

<u>Place of Last Birth</u>	<u>Total</u>	<u>Residence</u>	
		<u>Teresina</u>	<u>Interior</u>
State/Municipal Hospital	35.6	50.8	34.5
INPS Medical Facility	4.7	17.7	2.7
Health Center	2.8	0.4	3.1
Private Hospital	1.7	6.2	1.0
Own Home with Midwife	44.2	17.0	48.2
Own Home with Other Person	6.1	2.8	6.4
Midwife's Home	0.3	0.0	0.4
Others	2.5	1.9	2.6
Unknown	1.0	2.2	1.0
Total (Unweighted Number of Cases)	100.0 (1,270)	100.0 (598)	100.0 (672)
<u>Postpartum Checkup</u>			
Yes	29.9	48.2	27.2
No	69.7	51.3	72.4
Unknown	0.4	0.5	0.4
Total (Unweighted Number of Cases)	100.0 (1,270)	100.0 (598)	100.0 (672)
<u>Months Postpartum When Checked Up*</u>			
1 month	23.7	19.0	25.0
1 month	22.0	36.0	18.3
2 months	13.3	22.1	17.3
3 months	13.3	7.1	14.9
4 months	3.7	3.2	3.9
5 months	1.9	1.7	1.9
6-8 months	10.4	6.1	11.5
9-11 months	0.9	0.5	1.0
>12 months	4.6	3.9	4.8
Unknown	1.2	0.5	1.4
Total (Unweighted Number of Cases)	100.0 (461)	100.0 (279)	100.0 (182)

*Includes only those who had postpartum checkup.

TABLE 23

Complications Following Most Recent Abortion for Women Aged 15-44
with History of Abortion, by Residence
Piauí State, Brazil, 1979

<u>Region</u>	<u>% Receiving Medical Attention</u>	<u>% Hospitalized</u>	<u>Unweighted No. of Cases</u>
TOTAL	50.8	38.9	386
Teresina	51.7	40.4	180
Interior	50.0	38.3	206

TABLE 25

Planning Status of Last Pregnancy by Residence, Parity, and Education
 Work Status and Household Income: Currently Married Women
 Aged 15-44, Piauí State, Brazil, 1979
 (Percent Distribution)

<u>Characteristics</u>	<u>Planned</u>	<u>Mistimed</u>	<u>Unwanted</u>	<u>Unknown</u>	<u>Total</u>	<u>No. of Women (Unweighted)</u>
TOTAL	48.7	15.7	34.4	1.1	100.0	(1,208)
<u>Residence</u>						
Teresina	54.4	15.9	28.5	1.2	100.0	(563)
Interior	47.9	15.7	35.3	1.0	100.0	(645)
<u>Parity</u>						
0	75.6	21.5	0.0	2.9	100.0	(60)
1	80.7	15.1	3.7	0.5	100.0	(166)
2	57.1	26.1	16.7	0.0	100.0	(167)
3	54.2	14.3	31.3	0.1	100.0	(151)
4-5	42.0	20.9	35.0	2.1	100.0	(246)
6+	33.8	9.8	55.1	1.3	100.0	(418)
<u>Education*</u>						
None	43.6	13.4	41.3	1.7	100.0	(450)
<Primary Complete	50.5	16.6	32.4	0.6	100.0	(282)
Primary Complete	54.9	14.8	30.3	0.0	100.0	(214)
>Primary Complete	55.9	22.9	20.0	1.2	100.0	(260)
<u>Work Status**</u>						
Working	52.7	16.8	29.9	0.6	100.0	(282)
Not Working	47.3	15.4	36.0	1.3	100.0	(920)
<u>Household Income***</u>						
<1 times Min. Wage	48.8	12.6	37.6	1.0	100.0	(376)
1-2 times " "	45.5	16.6	37.1	0.8	100.0	(290)
2-4 times " "	55.9	17.4	26.5	0.3	100.0	(179)
4 times & more	63.3	10.4	25.6	0.6	100.0	(155)

*excludes two women with unknown education.

**excludes six women with work status unknown.

***excludes 208 women with household income unknown.

TABLE 29

Percentage of Currently Married Women Aged 15-44 Currently Using
Contraception by Residence and Method
Piauí State, Brazil, 1979

<u>Current Use and Method</u>	<u>Total</u>	<u>Residence</u>	
		<u>Teresina</u>	<u>Interior</u>
<u>Currently Using:</u>	<u>30.9</u>	<u>44.9</u>	<u>28.8</u>
Sterilization	15.4	28.2	13.5
Oral Pill	10.0	11.7	9.8
Rhythm	2.6	3.4	2.5
Withdrawal	2.5	0.7	2.8
Other*	0.3	0.9	0.3
<u>Not Currently Using:</u>	<u>69.1</u>	<u>55.1</u>	<u>71.2</u>
TOTAL	100.0	100.0	100.0
Number of Cases (Unweighted)	(1,270)	(595)	(675)

*Other methods include injection, foam, jelly, tablet,
diaphragm, and condom

TABLE 35

Percentage of Currently Married Women Aged 15-44 Using
Contraception by Levels of Household Income and Method,
Piauí State, Brazil, 1979

Current Use And Method	Levels of Household Income (Minimum Salaries)*			
	<1 Time Min.Wage**	1-2 Times	2-4 Times	4 Times or More
<u>Currently Using</u>	25.1	30.5	42.6	57.0
Sterilization	9.9	14.9	25.5	34.1
Orals	9.3	10.5	12.7	17.1
Rhythm	2.0	2.2	2.4	5.6
Withdrawal	3.0	2.9	1.8	0.0
Other	0.8	0.0	0.2	0.2
<u>Not Currently Using</u>	74.9	69.5	57.4	43.0
TOTAL	100.0	100.0	100.0	100.0
Number of Cases (Unweighted)	(395)	(301)	(187)	(167)

*Excludes 216 women with unknown household income; contra-
ceptive use among this group was 25.1%.

**Includes those who received payment in kind.

TABLE 39

Source of Contraception for Current Users of Sterilization and Orals:
 Currently Married Women 15-44: Piauí State, Brazil, 1979
 (Percent Distribution)

<u>Source of Contraception</u>	<u>Total</u>	<u>Sterilization</u>	<u>Oral</u>
Secretary of Health	40.4	68.1	19.9
INPS	13.1	24.8	2.4
Community Distributor	5.3	0.0	16.0
Drugstore	19.2	0.0	55.8
Private Physician	4.1	6.2	3.1
Other Source	1.4	0.9	2.8
Not Applicable*	16.5	0.0	0.0
TOTAL	100.0	100.0	100.0
Number of Cases (Unweighted)	(443)	(242)	(134)

TABLE 41

Percent of Non-Users that Desire to Use a Contraceptive Method and Knowledge of Availability, Currently Married Women Aged 15-44, Piauí State, Brazil, 1979

<u>Respondents Characteristics</u>	<u>% of Non-Users that Desire to Use a Contraceptive Method</u>	<u>% of Those Who Desire to Use and Know Where to Obtain Method</u>
TOTAL	49.7 (827)*	57.2 (413)
<u>Region</u>		
Teresina	48.8 (343)	57.9 (169)
Interior	49.8 (484)	57.1 (244)
<u>Age</u>		
15-19	52.2 (76)	51.7 (42)
20-24	55.5 (178)	57.2 (98)
25-29	64.0 (175)	68.4 (105)
30-34	52.0 (167)	59.0 (95)
35-39	42.9 (121)	52.9 (52)
40-44	24.8 (110)	26.9 (21)
<u>Education</u>		
None	44.8 (368)	50.4 (171)
< Primary Complete	52.4 (197)	54.3 (102)
Primary Complete	57.8 (119)	61.6 (62)
> Primary Complete	58.2 (142)	82.4 (78)
<u>Work Status</u>		
Working	48.3 (181)	62.4 (92)
Not Working	50.3 (642)	55.5 (313)
<u>Income Level</u>		
< 1 times Min. Wage	50.6 (291)	53.7 (146)
1-2 times	53.6 (195)	58.9 (106)
2-4 times	47.8 (107)	65.2 (52)
4 times & more	54.1 (71)	85.1 (35)
<u>Contraceptive Experience</u>		
Never Used Before	43.3 (597)	50.4 (265)
Past Users	69.4 (230)	70.2 (148)

* Figures in parentheses are unweighted number of cases

Note: For some respondents' characteristics, the sum of cases observed may not add to the total figure because of the exclusion of unknown cases.

TABLE 43

Percent of Currently Married Women Aged 15-44 Not Wanting
Anymore Children That Are Interested in Sterilization
by Residence, Number of Living Children, Education,
and Household Income: Piauí State, Brazil, 1979

<u>Characteristics</u>	<u>% Interested in Sterilization</u>
Total	42.0 (634)
<u>Residence</u>	
Teresina	51.2 (247)
Interior	41.1 (387)
<u>No. of Living Children^a</u>	
1	48.4 (62)
2	51.6 (97)
3	49.5 (107)
4-5	48.6 (142)
6 and above	44.9 (225)
<u>Education^b</u>	
None	38.8 (212)
<Primary Complete	38.5 (157)
Primary Complete	46.6 (89)
>Primary Complete	73.7 (74)
<u>Level of Household Income^c</u>	
<1 Times minimum wage	45.1 (220)
1-2 Times " "	42.1 (158)
2-4 " " "	49.5 (79)
4 Times & more min. wage	60.1 (50)

NOTE: Women who have already had surgical contraception
are excluded. Figures in parenthesis are unweighted
number of women.

^a1 case with no living children was excluded.

^b2 cases with education unknown were excluded.

^c127 cases with household income unknown were excluded.

TABLE 48

Interest in CBD Program by Residence, Age Group, Education,
Work Status, and Household Income--Currently Married Women Aged 15-44,
Piauí State, Brazil, 1979 (Percent Distribution)

<u>Characteristics</u>	<u>Percentage Interested</u>				<u>Total</u>	
	<u>Yes</u>	<u>No</u>	<u>Do Not Know</u>	<u>Unknown</u>		
TOTAL	39.9	56.4	3.4	0.4	100.0	(1,028)
<u>Residence</u>						
Teresina	37.5	59.8	2.0	0.7	100.0	(438)
Interior	40.2	56.0	3.5	0.3	100.0	(590)
<u>Age</u>						
15-19	55.0	44.0	.8	0.3	100.0	(89)
20-24	41.2	55.4	3.3	0.1	100.0	(227)
25-29	46.2	50.8	2.1	0.9	100.0	(235)
30-34	36.6	55.8	6.9	0.7	100.0	(207)
35-39	41.4	56.5	2.0	0.0	100.0	(143)
40-44	23.8	73.2	3.0	0.0	100.0	(127)
<u>Education *</u>						
None	38.0	58.3	3.2	0.6	100.0	(418)
<Primary Complete	39.5	55.8	4.7	0.0	100.0	(235)
Primary Complete	41.5	56.0	2.5	0.0	100.0	(156)
>Primary Complete	46.7	50.5	2.4	0.4	100.0	(217)
<u>Work Status **</u>						
Working	40.5	54.8	4.5	0.1	100.0	(232)
Not Working	39.6	57.0	3.0	0.4	100.0	(791)
<u>Income Level***</u>						
<1 time Min. Wage	46.9	49.1	4.1	0.0	100.0	(346)
1-2 times	39.9	56.5	3.6	0.1	100.0	(238)
2-4 times	34.2	62.0	3.7	0.0	100.0	(134)
4 times & more	33.3	63.3	2.5	0.9	100.0	(118)

NOTE: Table excludes women who already have surgical contraception.

* Excludes two cases with unknown education.

** Excludes five cases whose work status was unknown.

*** Excludes 193 cases with unknown income.

TABLE 55

Contraceptive Status Prior to CBD Program and Percentage in CBD Program
for Users of Oral Contraceptives in July/August 1979:
Currently Married Women Aged 15-44
Piauí State, Brazil

Contraceptive Status Prior To CBD Program	Pill Users in July/August 1979					
	% Distribution by Residence			% in CBD Program by Residence		
	Total	Teresina	Interior	Total	Teresina	Interior
User of Oral Contraceptives	65.0	65.6	64.9	26.8	1.6	31.2
User of Other Method	4.3	13.5	2.7	53.2	0.0	100.0
Did not Use Contraception	30.7	20.8	32.4	52.9	5.0	58.3
TOTAL	100.0	100.0	100.0	36.0	2.1	41.9

NOTE: CBD program initiated in April 1979

Number of Cases (Unweighted)	134	67	67
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TABLE 56

Percent of Women 15-44 Who Are In Need of
Family Planning Services* by Residence and Selected Characteristics
Piauí State, Brazil, 1979

<u>Characteristics</u>	<u>Total</u>	<u>Residence</u>	
		<u>Teresina</u>	<u>Interior</u>
TOTAL	20.3 (2,038)	11.2 (1,088)	22.3 (950)
<u>Age Group</u>			
15-19	5.4 (498)	5.7 (294)	5.3 (204)
20-24	19.6 (401)	8.6 (230)	22.4 (171)
25-29	24.2 (354)	16.3 (182)	25.6 (172)
30-34	27.4 (341)	15.3 (166)	29.2 (175)
35-39	29.0 (246)	17.9 (116)	30.7 (130)
40-44	35.7 (198)	18.6 (100)	39.0 (98)
<u>Marital Status</u>			
Currently Married	31.0 (1,270)	21.3 (595)	32.4 (675)
Separated/Divorced/ Widowed	14.4 (90)	7.3 (57)	16.7 (33)
Never Married	4.2 (678)	3.6 (436)	4.4 (242)
<u>No. of Living Children</u>			
0	4.0 (780)	3.0 (497)	4.4 (283)
1	25.9 (231)	18.1 (106)	27.0 (125)
2	25.1 (229)	25.7 (122)	25.0 (107)
3	27.2 (172)	20.7 (86)	28.3 (86)
4	32.4 (178)	14.6 (95)	36.0 (83)
5	25.7 (115)	11.3 (43)	27.2 (72)
6+	42.7 (333)	30.2 (139)	44.3 (194)
<u>Education**</u>			
None	31.7 (581)	28.0 (174)	31.9 (407)
<Primary Complete	21.5 (490)	15.6 (206)	22.2 (284)
Primary Complete	15.4 (310)	12.8 (190)	16.1 (120)
>Primary Complete	5.8 (655)	5.4 (516)	6.1 (139)
<u>Income Level***</u>			
<1 times min. wage	26.2 (533)	24.7 (169)	26.3 (364)
1-2 times	23.0 (420)	17.4 (226)	24.0 (194)
2-4 times	11.5 (312)	9.6 (212)	12.2 (100)
4 times & more	8.1 (341)	4.4 (300)	12.9 (41)
Unknown	21.6 (412)	12.7 (169)	22.5 (243)

*In need of services is defined as women not currently pregnant and not currently desiring pregnancy, who are not using any contraceptive method for reasons not related to pregnancy, subfecundity, or sexual activity.

**Two cases with education unknown were excluded.

***Twenty cases with income level unknown were excluded; in multiples of minimum salary.

Figures in parentheses are unweighted number of cases.