RESOURCE SUPPORT SERVICES AGREEMENT

ANNUAL REPORT

FISCAL YEAR 1980

to

Agency for International Development
Development Support Bureau (DS)
Office of Population (POP)
Family Planning Services Division
Washington, D.C.

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FPED/CDC
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I. BACKGROUND

A. Introduction

The Resource Support Services Agreement (RSSA) between the Agency for International Development (AID) and the Department of Health and Human Services (DHHS), Centers for Disease Control (CDC), supports services provided by the CDC for the improvement of family planning programs in the less developed countries (LDCs). When requested and with the agreement of AID, CDC will conduct evaluations, provide necessary information and data to AID and participating countries, and assist in the implementation of recommendations and innovative program strategies.

Since program initiation in February 1974, CDC personnel have made 240 trips to 46 LDCs to provide consultation and evaluation services directed toward improving the management and operations of family planning programs and organizations. During FY 1980, 59 person-trips to 15 LDCs were accomplished, and reports were submitted to the Agency for International Development (AID), Family Planning Office of Population (POP), Family Planning Services Division (FPSD). Technical assistance has included: 1) design, implementation, and analysis of contraceptive prevalence surveys; 2) logistics evaluation of contraceptive distribution systems, including community-based programs; 3) studies on the epidemiology of fertility control and pregnancy outcome; 4) evaluation of the completeness of and quality of family planning data systems; 5) demographic analysis; 6) development and/or improvement of management information and logistics systems; 7) design and implementation of a patient flow analysis model; 8) training programs for LDC personnel involved in maintaining service statistics and contraceptive logistics system; 9) health and demographic impact of family planning activities and other fertility control behavior; 10) contraceptive continuation studies; and 11) adolescent fertility.

B. Scope of Work

The Centers for Disease Control will provide evaluation information and actionable recommendations concerning family planning programs and will assist in the collection of data on contraceptive prevalence or service statistics suitable for analysis and planning purposes. As problem areas hindering goal achievement are identified, on-site technical assistance will be furnished, and alternative strategies or corrective measures will be presented to appropriate host country personnel as feasible. AID will be provided with technical reports detailing the scope of technical assistance provided, the nature of existing problems, and specific program needs. (See Section IIIC.-RSSA Reports).

During FY 1980, CDC will provide technical support services to 15 countries. During these visits, specific areas of concern will be addressed, in-country progress will be analyzed to determine the levels of contraceptive prevalence, and assistance will be given in collecting data on active users of contraceptives, new acceptors, number of clinics, commodities, and other statistics required for program evaluation and management purposes. If accurate reporting

systems do not exist, the data may be gathered by survey or site visits to family planning facilities. CDC will assure that the required data are assembled and analyzed according to program needs and that information on contraceptive commodities is analyzed in terms of volumes received and dispensed. Stock imbalances, bottlenecks in the distribution system, or other supply deficiencies will be reported so that corrective action can be taken. In addition, clinic activities will be studied to improve efficiency of operations and program acceptance. Followup visits will be arranged as needed. Community-based distribution and other innovative programs will be evaluated on request. These evaluations will include accuracy of active-user reporting, logistics management, contraceptive sales and revenue collection procedures, agent effectiveness, and overall management of program.

The safety of reproduction and fertility control is usually not studied among populations in developing countries, yet real and perceived harmful effects of fertility control methods markedly affect their acceptability and use. FPED will continue to apply epidemiologic techniques so that attributable risks of fertility control can be reduced and/or compared to maternal mortality in developing countries.

C. Technical Assistance Activities

CDC shall provide evaluative information on programs, training, and services to improve family planning programs and organizations in LDCs. In consultation with DS/POP/FPSD, CDC/Family Planning Evaluation Division (FPED) undertakes the following activities:

1. Determine prevalence of contraceptive use using service statistics or other record systems, analysis of existing survey data, or by conducting prevalence surveys;

2. Develop and/or evaluate logistics systems for distributing family planning supplies and services;

3. Assist in the development, implementation, and evaluation of family planning service statistics systems, including continuation studies as appropriate;

4. Assist in the development, implementation, and evaluation of community-based distribution programs and other innovative program strategies, including the service statistics and logistics components;

5. Define demographic goals and determine measurable, specific program targets related to these goals;

6. Evaluate epidemiology of maternal health and reproductive loss to improve family planning strategies and reduce health problems;

7. Assess health and/or demographic impact of family planning programs and activities;

8. Provide consultation and/or technical assistance to improve international agency and host government policies on fertility control;

9. Identify and propose solutions for administrative and/or management problems;

10. Conduct, arrange, or evaluate family planning evaluation training activities;

11. Provide assistance to USAID Missions regarding the determination of future contraceptive commodity requirements, including the use and interpretation of survey and service statistics for the preparation of contraceptive procurement tables;

12. Perform evaluations and analyses of family planning-related activities as appropriate; and

13. Participate in Population Officers' Conferences upon request.

D. Other

1. Workshops and Conferences

Workshops for program personnel are arranged as needed, either in-country or regionally, on collecting and recording contraceptive use data, dispensing contraceptive commodities, good logistics practice, and various other aspects of family planning evaluation, including the use of contraceptive prevalence data for program planning and policy considerations.

2. In-House Training and Consultation

AID will arrange short-term visits to CDC/Atlanta for host country and family planning program personnel to improve program evaluative skills.

3. Collaborative Work with Other Population/Family Planning Organizations

Collaborative work should continue with other organizations such as the World Health Organization (WHO), the International Planned Parenthood Federation (IPPF), Population Council, International Fertility Research Program (IFRP), International Project of the Association for Voluntary Sterilization (IPAVS), Columbia University Center for Population and Family Health (CPFH), and the Center for Population Activities (CEFPA).

II. PROGRAM HIGHLIGHTS - FY 80

A. Family Planning/Maternal-Child Health Surveys

1. Survey Activities in FY 1980

During Fiscal Year 1980, results of two family planning/maternal-child health (FP/MCH) surveys conducted during calendar year 1979 in Piaui State, Brazil, and Panama were submitted to AID/Washington and respective USAID Missions. A Portuguese language report for the Piaui Survey is in press and will be issued by BEMFAM, the Brazilian IPPF affiliate. The second draft of the Spanish language report for Panama, to be issued by the Ministry of Health, has been reviewed, and the final draft should be available for review in February 1981. In addition, the United State-Mexico Border FP/MCH Survey was conducted in 1979. Results of the U.S. side were presented at the United States-Mexico Border Public Health Meeting in April 1980. Coordination of data processing requirements has continued with our Mexican counterparts, and comparative data for the Mexican side will be available in February 1981.

Technical assistance was provided to BEMFAM in Fiscal Year 1980 for the design and implementation of a community-based distribution (CBD) evaluation survey in Northeast Brazil (in collaboration with Columbia University and IFRP). The four states included in the survey are Rio Grande do Norte, Paraiba, Pernambuco, and Bahia. Results are currently under analysis for Pernambuco and Rio Grande do Norte, and some data are presented here. A preliminary report has been scheduled for April 1980. Data from Paraiba and Bahia State are currently in the data processing stage, and edited tapes should be available in May 1980.

Contraceptive prevalence data have now been collected for a number of populations in Latin America. The status of contraceptive prevalence information for Latin America is shown in Table 1. Results are now available for 14 of 24 countries with a population of at least 500,000. Surveys have been conducted in three additional countries, but results were not published by the end of 1980. Westinghouse Health Systems has provided technical assistance to the agencies conducting prevalence surveys in Costa Rica, Mexico, and Colombia; CDC has provided technical assistance to the agencies conducting surveys in Mexico, El Salvador, Guatemala, Panama, Brazil, and Paraguay.

2. Relationship of Fertility to Contraceptive Prevalence

Technical assistance has been provided to the Ministry of Health, Demographic Association, and/or universities in several Latin American countries in the development of a survey method and questionnaire that can be inexpensively and quickly applied to obtain representative data for program evaluation and planning purposes. These family planning maternal-child health surveys,

also known as Contraceptive Prevalence Surveys (CPS), document current use of contraception as well as obtain fertility data. Short questionnaires are used, and an emphasis is placed on rapidly producing results relevant to program evaluation and planning. Information of this kind can be used to define categories of women in special need of services, to estimate total numbers of women in need of services, and to identify specific barriers to contraceptive use which can be addressed by the program, for example, through information and education campaigns. Surveys have included items of direct interest to the programs involved such as questions on the acceptability of surgical sterilization or questions on whether respondents had heard specific family planning announcements on radio or television. The principal objectives of contraceptive prevalence surveys are listed in Table 2.

CPSs are household probability samples of women of childbearing age (15-44 or 15-49) in a national or state population. The stages involved in conducting a CPS are similar to those of other household surveys. A sample of households is selected using an existing sampling frame, typically a census listing or a national labor force survey. Approximately equal numbers of households are selected in two or three strata, usually the capital city and the remainder of the population or the capital city, other urban areas, and rural areas. Preliminary results are usually available within 6 months of the completion of field work with the final report being available within 1 year. Costs for field work for surveys conducted between 1977 and 1980 in Guatemala, El Salvador, Panama, Paraguay, and 6 States in Brazil have ranged from $40,000 to $90,000. Field work costs for these CDC-assisted surveys have been borne by USAID Missions, local agencies and/or the International Fertility Research Program.

Fertility surveys, such as those sponsored by the World Fertility Survey (WFS), have much longer questionnaires than CPSs. Fertility surveys tend to be designed for a broader, more "scientific" study of fertility determinants than CPSs, which have a more narrowly defined program orientation. In CPSs, for example, women have been asked about the total number of live births they have had, the number of living children, and the date of their last live birth. (Recent surveys have added a question on date of first birth.) The total number of abortions and stillbirths are obtained as well as current pregnancy status.

A standard WFS questionnaire, on the other hand, records each pregnancy in the respondent's history by date of occurrence and outcome. Thus, a WFS questionnaire may be 50 pages long compared to 10-15 pages for a CPS questionnaire. A WFS data file may contain over 1,000 characters of information compared to 250-400 for a CPS.

This difference in the amount of information involved is what allows the CPS to be more timely than larger scale surveys, since less time is required at each stage of the survey for field work,

coding, punching, and especially in editing and correcting data. Further savings of time are gained through use of a standard questionnaire format, which allows computer programs used in editing and analysis to be used on each survey with a minimum of modification. Of course, the analysis possible with a CPS cannot be as detailed as with larger scale surveys, but the information collected can be produced soon after field work is completed. Thus, the information is more likely to reflect the current status of fertility and family planning rather than the status 2-3 years earlier making it more relevant and effective on program evaluation and planning.

The percent of currently married women using a contraceptive method varies widely among the 16 of 19 Latin American populations surveyed since 1975: from 18 percent in Guatemala to 64 percent in Sao Paulo State, Brazil, and Costa Rica (Table 1). As shown in Table 3, (13 of the 16 populations surveyed), sterilization was the most prevalent method in six of these populations: Panama, Dominican Republic, El Salvador, Piaui State and Pernambuco State, Brazil, and Guatemala. In all other areas, with the exception of Peru, the most frequently used method was oral contraceptives. In Peru, rhythm was the most prevalent method.

Because CPSs are surveys of all childbearing women in a population, it is possible to estimate standard fertility measures from the survey data (Table 3). Data aggregated from CPSs can be used to examine the empirical relationship between CBR and contraceptive prevalence.

Figure 1 compares the percent of married women 15-44 using contraception with estimated CBRs for 15 subregions of the six Latin American surveys for which CDC/FPED has provided technical assistance. The national totals for the surveys are not included, only the subregions: capital city and remainder; capital city, other urban and rural areas or, in the case of Guatemala, capital city, Ladinos, and Indians. The dashed line in the Figure represents the regression for 29 countries presented by Nortman and Hofstatter based on data from a variety of sources including service statistics, surveys, and censuses. In general, the CPS data show a higher CBR at a given level of contraceptive use than the data from the 29 countries. What are the reasons for this difference?

First, it should be noted that not only do the CPS data points tend to lie above data for the 29 countries, but the slope of the regression line based on CPS data points is steeper. There are a number of possible explanations for these differences:

a) Since CPS data include all contraceptive use regardless of source, it may be expected that contraceptive use levels would be higher, all else being equal, in the CPS data than

in the other data, at least some of which is based on program records only. This would shift the points upward relative to the other data.

b) The data for 29 countries are for national populations while the CPS data are for subnational units, which are primarily urban or rural in character. The proportion married tends to be substantially higher outside the capital cities. Thus, at a given level of prevalence for married women, a higher percent of women would be at risk for pregnancy in areas outside the capital cities. The percent in union may vary less between national populations than between urban and rural segments within national or state populations in which rural areas tend to be homogenous and unmarried females tend to migrate to the cities. This could account for the steeper slope in the CPS data.

c) There are other variables that may offset the relationship between crude birth rate and overall contraceptive use among married women. Among these are the age-sex distribution of the population, average age at marriage, the age distribution of users, the relative effectiveness and continuation rates of the methods employed, the existence of fertility outside of marital unions, incidence of abortion, breastfeeding patterns, the practice of postpartum abstinence, and seasonal migration of males for employment in agriculture.

These factors, then, may explain why relationships found in CPS data may be somewhat different than one might expect based on other sources of data. While the simple relationship between CBR and contraceptive prevalence cannot be considered a refined demographic model, there is interest in the general level of fertility associated with a given level of contraceptive use as a kind of rule of thumb in situations in which data are lacking. As CPS data accumulate, they can contribute to a better understanding of the empirical relationship between CBR and contraceptive prevalence.

3. Fertility Differences and the Need for Family Planning Services in Latin America

Contraceptive prevalence surveys conducted in 1977-1979 in five Latin American countries--El Salvador, Guatemala, Panama, Paraguay, and two states of Brazil--show that the unmet need for family planning services among sexually active, fecund women who did not wish to become pregnant and were not using contraceptives, ranged from about 9 percent in the heavily urbanized, industrialized Brazilian State of Sao Paulo to 27 percent in Guatemala (Table 4). However, the unmet need was heavily concentrated among women living in rural areas with about 90 percent of the women in need of contraceptive services in Paraguay and the largely rural Brazilian State of Piaui living outside the capital cities in largely rural areas; similarly, 74 percent of the women in need in El Salvador and 67 percent in

Panama live in rural areas. In view of these levels of unmet need for family planning services, it is not surprising that relatively high fertility was also found among more rural women, and especially among rural women with less than a primary school education. Whether the major goal of family planning programs in these countries is to reduce birth rates, to provide services to women in need, or to do both, the importance of expanding programs beyond urban centers is clear.

a. Fertility Comparisons

As Table 5 shows, there are clear differences in fertility between areas within each country or state by whatever measure is used to determine fertility--mean number of live births, total fertility rate (TFR) or crude birth rate (CBR). Women in the capital cities and other urban areas have a lower mean number of live births than rural women. Thus, in El Salvador and Paraguay, where overall fertility as measured by mean number of births is high, regional fertility differences are quite large. In Panama and Sao Paulo State, Brazil, where the mean numbers of children born are lower (2.3 and 1.9, respectively), the urban-rural differences are somewhat smaller. It should be noted that the Ladino and Indian populations outside of the Department of Guatemala have almost the same mean number of children born (3.2 and 3.3, respectively), much higher than the average number born to women living in the Department of Guatemala (2.2).

For fertility measures such as the TFR and the CBR (estimated for the 12 months prior to the survey), the same regional differences exist.* In El Salvador, for example, the TFR averages 6.3 lifetime births per woman but ranges from 2.6 in San Salvador to 8.4 in rural areas. The CBR averages 43 births per 1,000 population but ranges from 27 to 51. In Panama, such differences are smaller but still observable: the average TFR is 3.5 lifetime births per woman but varies between 2.4 in urban areas and 4.9 in rural areas; the CBR averages 25 births per 1,000 population but ranges from 21 in the urban areas to 29 in rural sections.

* The fertility rates have been estimated from survey data which are subject to sampling variations. Estimated 95 percent confidence intervals for the CBR are relatively wide; the intervals for the six surveys are: Paraguay, 42-50; El Salvador, 40-45; Guatemala, 42-49; Sao Paulo State, 21-26; Piaui State, 38-45; and Panama, 23-28. The estimated fertility rates are not precise enough to be compared with previous estimates to measure trends, since quite a large change in fertility would be needed to produce a significant difference. However, urban-rural and/or regional differences and patterns of variation between the surveys have been distinct and consistent and closely related to such factors as contraceptive use, abortion experience, and nuptiality.

Because of the possibility of sampling error mentioned above, it is difficult to compare fertility rate estimates based on CPS data with past estimates to identify fertility trends.

However, comparing fertility in the most recent year with cumulative fertility can indicate whether there have been any recent changes in fertility. In order to make this comparison, the observed mean distribution of live births, by the woman's age, is divided by the estimated number of children who would have been born if the CPS-based age-specific fertility rates were to remain constant over a woman's lifetime. If the resulting ratio is greater than one, then current fertility is lower than past fertility (assuming that the date of last live birth is accurately reported).

The data in Table 6 are consistent with fertility declines in each of the regions surveyed except for Paraguay, where there has apparently been no change (average ratio of 1.00). In the four high fertility regions--El Salvador, Guatemala, Paraguay, and Piaui State--only the urban areas show fertility declines (ratio greater than 1.10). In Panama (1.25) and Sao Paulo State (1.31), there have been fertility declines in all areas and in all age groups over 20 years of age. (Age breakdowns are not shown in Table 6.) In almost all of the areas surveyed there are signs of at least slight fertility decreases. This is particularly interesting in the case of El Salvador where, despite a strongly supported family planning program that has been successful in recruiting new acceptors, there has been no sign of a downturn in fertility from the national vital statistics data; however, ratios of 1.39 for San Salvador and for other urban sections provide some evidence for a substantial fertility decline in these areas, even though there is no evidence of fertility decline in rural areas.

b. Contraceptive Use and Abortion Experience

Data on contraceptive practice reveal regional patterns similar to the fertility patterns discussed earlier; levels of contraceptive use are consistent with the fertility differences found both within and between populations. Table 3 showed that the proportion of currently married women using a contraceptive method ranges from 18 percent in Guatemala to 64 percent in Sao Paulo State. The high levels of use in Sao Paulo State and in Panama approach the levels found in the United States and other developed nations. (Panama and Sao Paulo State also have fertility levels which are closer to those of developed countries.)

Wide differences in contraceptive use by residence, except in low fertility regions such as Panama and Sao Paulo State, are documented in Table 7. The range of regional differences in

contraceptive use levels is much greater in Paraguay and El Salvador than it is in Sao Paul State, for example. In Paraguay, 46 percent of the women living in greater Asuncion used contraceptives, but only 20 percent of the women in the remainder of the country do so. Likewise, while 42-56 percent of the women who live in urban El Salvador use contraceptives, only 26 percent of the rural women do so. In contrast, contraceptive use in Sao Paulo State is nearly uniform--63-66 percent of the urban women and 59 percent ofthe rural women use contraceptives. Of all groups, Guatemalan Indian women have by far the lowest levels of use--only 4 percent say that they practice contraception.

Women participating in interview surveys generally do not report the incidence of illegally induced abortion accurately. For example, in the six CPS surveys, the women were asked whether they had had any spontaneous or induced abortions and, if so, how many. Table 8 shows that from 13 to 29 percent of married women in each of the regions surveyed admitted having had at least one spontaneous or induced abortion. It was then estimated from the total number of abortions reported that from 5 to 11 percent of pregnancies to women in each of the surveys ended in a spontaneous or induced abortion.

The level of combined abortions is apparently underreported. The reported percent of all pregnancies ending in abortions of both kinds (Table 8) is lower than the percent expected for spontaneous alone, based on prospective studies, perhaps 10 to 15 percent. Only the figure for Sao Paulo State, 10.9 percent, falls in this range. It is difficult, therefore, to infer anything regarding induced abortion from these data.

Abortion morbidity is frequently seen as a major health problem in Latin America, one on which family planning programs have a positive effect. Thus, evidence of abortion complications in a community can be seen as an indication of need for contraceptive services. Despite the apparent underreporting of abortion as previously mentioned, a fairly high percentage (20 percent or more in all surveys except Guatemala (13 percent)) of married women reported at least one abortion (Table 8). Of those reporting abortions, about half or more received medical attention, and a fairly high percentage ranging from 36 percent to 61 percent were hospitalized. The survey data indicate, then, that abortion-related morbidity is a fairly common experience among women in the populations surveyed, even though the figures are probably underestimates.

c. Women in Need of Services

The definition of "women in need of family planning services" corresponds fairly closely to formulas used in the United States to define need in local areas. Women in need are

defined as those not currently pregnant, not currently desiring to become pregnant, who are using an ineffective method (douche or herbs), or who are not using any method for reasons not related to pregnancy, subfecundity, or sexual activity. Definitions of this kind in the United States have been based on data from various sources such as census data,local estimates, and national survey data. The CPS allows one to easily define the proportion in need based on data from a single source. (This definition is based on just four items in the survey: current pregnancy, current desire for pregnancy, current use, and reasons for non-use by nonusers.) By this definition, need ranges from 9 percent of all women 15-44 in Sao Paulo State to 27 percent in Guatemala as shown in Table 4. Need is greater in the more rural strata where contraceptive use was found to be lowest. The highest level of need was found for the group with the lowest level of contraceptive use--Guatemalan Indians. Among this group, 37 percent of all women 15-44 were in need of services.

This method can be used to define in more detail the family planning target population as shown in Table 9 for the Guatemala Survey. For example, this Table shows, that Ladino and Indian women outside the capital are both important program targets with need being spread fairly uniformly across age groups. Women in need in this population are overwhelmingly in marital unions. Although women of all parities above zero are important targets, high parity women are particularly important; women with six or more children constitute 1 of 4 women needing services. Finally, in Guatemala the majority of women in need are without formal education.

The percentages in Table 9 can be combined with population estimates to estimate the actual numbers of women in need in the various categories. Of an estimated 1,400,000 women aged 15-44 in Guatemala in 1978, 26.8 percent were in need by this definition, yielding 375,200 women in need of services. Of these, 39,000 women reside in the Department of Guatemala, and in the Interior, 159,100 were in the Ladino group and 177,100 were Indians; 33,800 were aged 15-19, 69,800 were 20-24; etc. Thus, estimates of the number of women in need in various categories can be made from the survey with only one additional piece of information: an estimate of the number of women 15-44.

d. Correlation Analysis

A comparison of the regional differences in the six surveys by means of a correlation analysis shows strong associations among a number of the variables included in the earlier tables. Simple correlations and regressions were obtained for fertility, contraceptive use by married women and percentage of women in need, using the 15 regions of the six surveys as units of analysis (estimates for total populations

were excluded). Correlations of contraceptive use with percentage in need and of CBR with contraceptive use explained 86 and 85 percent, respectively, of the variance between regions (Figures 2 and 3). Correlation of CBR with percentage in need accounted for 77 percent of the regional variations, and correlation of TFR with contraceptive use explained 72 percent of the variance. The regression slopes associated with these correlations were all significantly different from zero at $p = 0.001$.

It is not surprising that fertility, contraceptive use, and unmet need are all highly associated, but the high correlations are worth noting. These relationships, particularly between fertility and unmet need, have great program importance. Many family planning programs do not set demographic goals; these findings suggest that areas of high fertility can be considered to be areas of high need for family planning services, whether or not program goals are given in terms of fertility reduction. Low levels of contraceptive use and high fertility can be due to such factors as higher desired family size, but these data suggest that high fertility is at least partially the result of women's lack of control over their own fertility. Thus, it may be possible to use fertility and contraceptive use data to help direct program efforts.

e. Concluding Comments

The contraceptive prevalence surveys have proven to be useful tools for gathering data for family planning program evaluation and planning, providing estimates of the proportion of women practicing contraception and their main sources of contraceptives. From CPS data, estimates can be made that help set family planning program targets and priorities as well as validate service statistics. Because the populations surveyed often lack adequate vital registration systems, the fertility estimates made from these surveys can be of great interest. The surveys cannot be expected to produce estimated fertility rates which are substitutes for rates generated by good vital statistics systems, since they are small-scale surveys subject to sampling variations. However, the estimates can be used in conjunction with other data to help show where program targets should lie.

In the six surveys described, variations in overall fertility were found to be quite consistent with variations in such underlying factors as breastfeeding and contraceptive use. The residential and educational differences in fertility were substantial in the four regions with the highest fertility--El Salvador, Guatemala, Paraguay, and Piaui State. Higher fertility in more rural areas was found to be associated with a higher level of unmet need for family

planning services. In all four high fertility regions, the vast majority of women in need resided outside of the capital city; for example, nine-tenths of the unmet need was concentrated among women living outside of the capital cities of the region. Thus, whether family planning program goals are stated in terms of reducing birthrates or of serving women who are in need of family planning services, it is clearly very important to expand these programs beyond the major urban centers of high fertility countries.

4. Contraceptive Questions added to Nutrition Surveys:

By adding a small number of demographic and family planning questions to a nutrition status survey, a great deal of data of use to family planning programs can be generated. Information can be available on the prevalence of contraception, variation in contraceptive use, source and method of contraception soon after the completion of field work, and at little cost to the program. In addition, a survey containing both data on contraceptive use of mothers has the potential for studying the links between family planning use and child health.

In the 1978 Arab Republic of Egypt Nutrition Status Survey, about 1 in 5 mothers interviewed was found to be contraceptive users; there was wide variation in use by area of residence and socioeconomic status. A positive association was found between current contraceptive use and measures of child health, an association that was maintained when residence, social status, and other background variables were controlled statistically. With the addition of a small number of questions relating to fertility in future surveys, it will be possible to study further the relationship between family planning use and one important program goal--improved child health (See Tables 10-11).

The demographic and family planning questions were added to the nutrition survey by the Family Planning Evaluation Division in collaboration with the Nutrition Program of CDC. Results from a similar survey in Yemen in 1979 showed that spacing of children was related in a positive manner to a lower percentage of children found with anemia (Table 12).

B. Logistics Assistance

One of the problems that managers of family planning programs face is assuring continuing availability of contraceptive commodities in service outlets. In fact, evidence from several programs in Latin America and Asia shows that continuous availability does have a substantial positive effect on acceptance and continuation of contraceptive use; however, field visits to many programs around the world show that imbalances in contraceptive supplies exist in almost all programs. These imbalances range from outlets being frequently out of some contraceptives (stock-outs) to others either stocking items they cannot use (such as IUDs in outlets with no trained

personnel for their insertion) and/or holding several years supplies (based on past distribution patterns). These situations result in clients unable to continue in the program and/or some supply items deteriorating due to either age or the extent that they cannot be used.

Since 1975, CDC/FPED has evaluated and/or provided technical assistance to 22 programs in efforts to correct logistics-related problems (see Table 13). These efforts have included assistance in forecasting needs, problem definition and recommendations to improve systems, establishment of the logistics component of community-based distribution programs, and the establishment of comprehensive supply systems designed to meet the needs of the total program. While some consultancies have been brief, single-issue tasks, others have required continued input over long periods of time such as Bangladesh and several Central American countries. In FY 80, logistics assistance was provided to 10 countries compared with an annual average of four during the previous 2 fiscal years.

Some of the problems identified that contribute to supply imbalances include supply systems (1) that are not clearly stated and/or documented; (2) that are so complicated that program personnel, particularly at lower levels, are unable to follow them; (3) that are incomplete; and (4) that are not properly supervised or supported by program managers.

The most frequently occurring problems encountered by FPED in providing technical assistance to family planning programs have been:

1. Maldistribution of supplies, in which some clinics have more than others and in which most of the contraceptives are stored at central levels instead of at field levels where they would be more accessible to users.

2. Poor storage conditions and the resulting deterioration of supplies because of water, heat, insect, or other damage. Even though the contraceptives might be usable, they might not be attractive. To address this problem in Bangladesh, FPED collaborated with UNFPA to produce the "Guidelines for Proper Storage" shown in Figure 4. These guidelines were printed, placed in plastic envelopes, and posted in every storeroom in the country. Some of this same information was summarized into the drawing shown in Figure 5 which was first used in Haiti.

3. No policy as to the quantities of contraceptives to be maintained at the different program levels. This also contributes to maldistribution of supplies. The simplest solution is to establish a maximum and minimum of month's supply to be maintained in the warehouse with a month's supply being defined as the running average of the most recent 6 months distribution to users.

4. Unscheduled or ad hoc transportation systems. Some programs distribute supplies to field level offices by having personnel from these offices come to the warehouse to receive their supplies. Problems arise because these commodities usually must be transported back to the office by public transportation, and insufficient resources are budgeted for travel.

5. Failure to practice FIFO (first-in, first-out). It is not unusual to find contraceptives in central warehouses that are older than those found in clinics or other outlets. The implications of this are obvious.

6. The lack of data from this supply system on quantities being dispensed and quantities on hand. The result of this is that historical data are of poor quality or do not exist so that changes in demand are not evident. This causes a serious problem when forecasts of future needs are being prepared.

7. Poor documentation of transactions within the system making troubleshooting more difficult when problems arise.

8. In too many instances the management of the logistics component of the program is relegated to a low-ranking official with insufficient experience or authority to correct problems.

9. The logistics component is frequently low on the priority list for the allocation of funds to assure efficient and effective service to the outlets. This is related to all of the above problems, but particularly to 6 and 8.

During FY 1980 technical assistance on logistics was provided to family planning programs in Colombia, Honduras, Guatemala, El Salvador, Panama, Jamaica, Dominican Republic, Haiti, Paraguay, and Bangladesh. Details of these consultancies are given in the country report section (II-E). In addition, CDC/FPED has cooperated with AID/Washington in efforts to design a system for logistics reporting by the major donor agencies and has worked on the preparation of logistics guidelines for use by those responsible for population activities in AID-supported family planning programs. The guidelines are to be completed in FY 1981.

C. Epidemiology of Fertility Control and Pregnancy Outcome

1. Collaborative Studies with IPPF

The epidemiology of reproduction and fertility control or the study of safety of pregnancy, childbearing, and controlling fertility has not been widespread in developing countries.

During FY 80, we published estimates that about 425,000 women died worldwide in 1977 as a result of complications of pregnancy or childbirth (Table 14). Since 91.0 percent of these deaths occurred in Asia and Asia had the highest maternal mortality

rate, we recommend that Asian countries give higher priority to preventing maternal deaths. However, we recognize that these estimates of maternal mortality are based on limited studies from few countries and recommend that all countries give higher priority to the epidemiology of pregnancy and childbearing.

We collaborated with IPPF to estimate regional variation in the use of abortion and its impact on mortality of women of childbearing age (Table 15). We estimated that from 14,000 to 137,000 women died in 1977 in 59 developing countries because of induced abortion. The highest abortion rate was in Latin America and the lowest in Africa. Epidemiologic data are limited for all areas, but it is clear that unwanted pregnancies are a major cause of maternal mortality in many parts of the world.

2. Maternal Mortality and Sterilization-Related Morbidity and Mortality in Bangladesh

A detailed investigation of maternal mortality in Bangladesh showed that 498 (25.8 percent) of 1,933 pregnancy-related deaths were due to abortion (Table 16). This study was conducted in collaboration with the Bangladesh Institute for Statistical Research and Training (ISRT) and the Ford Foundation. Trained interviewers visited 901 health facilities to interview health workers to identify case reports of maternal deaths and abortion complications. The proportion of pregnancy-related deaths due to abortion exceeded 30 percent for 6 of 19 districts (see map). Overall, eclampsia was the most common cause of maternal mortality, but family planning (PCFP) facilities reported more deaths from abortion than other causes (Table 17).

The abortions were performed primarily by dais (traditional birth attendants) and traditional doctors chiefly by inserting tree roots and sticks into the uterus (Table 18). The relatively infrequent medical procedures had the lowest case-fatality proportion (Figure 6).

The demographic characteristics of women dying from abortion are similar to those dying from other maternal causes (Table 19). However, for married women 418 (23.0 percent) of 1,820 died from abortion whereas for unmarried women 75 (87.2 percent) of 86 died from abortion. This difference is consistent with the social prescription against premarital pregnancy and may explain, in part, why 79 percent of the physicians interviewed approved of abortion for premarital pregnancy (Table 20). Virtually all physicians (95 percent) also approved of abortion for health reasons, and over 60 percent approved for rape (66 percent), pregnancy while breastfeeding (65 percent), and pregnant grandmothers (61 percent).

Many physician respondents not only approved of abortion for specific reasons, but acknowledged they had performed abortion or menstrual regulation during the previous year (Table 21).

Because of concerns about the high rate of population growth, the Government of Bangladesh has implemented a vigorous family planning program with a primary focus on surgical contraception. Concerns about the safety of sterilization procedures led them to offer compensation (5,000 taka) to families for deaths from sterilization. This compensation led to a marked increase in reporting of deaths, and CDC was asked to investigate these deaths. Of 28 deaths, 21 were female and 7 male (Figure 7). The mortality rate for tubectomies was 19.3 per 100,000 and for vasectomies 31.1 per 100,000 (Table 22). The chief causes of death were anesthesia overdose and infection. A summary registry of each death shows that 10 deaths occurred prior to, during, or within 10 hours following the procedure (Table 23). However, nine deaths occurred more than 10 to 47 days after the procedure and would be missed in any followup study investigating immediate complications during the 7-10 days following the operation.

In early 1980, CDC collaborated with local organizations in a prospective study of immediate complications following sterilization procedures in about 40 centers. Trained interviewers determined whether health complaints were present before and after the operation (Table 24). The high ratio of those with complaints after or before the surgery suggests that urinary complaints are specifically associated with the procedure while dizziness and weakness are common non-specific complaints, which increase markedly in prevalence with the surgical procedure. These data are still being analyzed to determine the severity of the complaints and the associated risk factors.

D. Training

1. Center for Population Activities (CEFPA) CDC Workshop

During the period, May 25-30, 1980, FPED,CDC consultants presented a workshop in Antigua, Guatemala, on the analysis and use of contraceptive prevalence survey data for program evaluation and planning and policy development. The workshop was developed and conducted in collaboration with the Center for Population Activities (CEFPA) and the International Planned Parenthood Affiliate in Guatemala (APROFAM). Twenty-eight participants, representing six different Central American and Caribbean countries, attended the workshop. Participants were principally directors of programs, either in the private or public sector, and also included key personnel from the Ministry of Planning for several countries. The principal purpose of the workshop was to examine survey data available for each country and, through the application of a problem-solving process, identify problem areas and their alternative solutions. The five steps in the problem-solving process included: (1) definition of the problem, (2) hypothesize the cause of the problem, (3) develop a solution, (4) implement the solution, and (5) evaluate the solution. The four high fertility countries represented at the workshop, Guatemala, Honduras, El Salvador,

and Dominican Republic, defined high fertility in rural areas as their problem and worked on a plan for extension and improvement of services in rural areas. Costa Rica defined adolescent fertility as their principal problem, and Panama identified logistics coordination as well as adolescent fertility as problems.

During the workshop, we were impressed with the enthusiasm of the participants in working with survey data. We also feel that the workshop had a positive influence on the Costa Rican and Honduran delegations in that they identified important program evaluation variables to include in their contraceptive prevalence survey (CPS) scheduled for 1981. In addition, the Dominican Republic delegation expressed interest in technical assistance in the planning and conducting of a CPS late in 1981 or in early 1982. Costa Rica and Guatemala expressed interest in using our Patient Flow Analysis system to improve clinic efficiency.

In addition to working with survey data, additional sources of data were discussed. These included census data, vital statistics, service statistics, logistics data, and financial data. An exercise on the use of logistics and financial data to estimate active users was part of the workshop content. Mini-workshops were also held on technical subjects requested by the participants. The mini-workshops included: (1) logistics, (2) improvement in clinic efficiency--Patient Flow Analysis (PFA), (3) adolescent fertility, and (4) primary health care.

Following the workshop, a cable was sent to the field requesting that Missions query the attendees regarding the value of the activity in order to determine the advisability of a similar workshop for South America/Mexico. Five of the six participating countries have responded, and all messages were very favorable. A sample of responses follows. El Salvador: "The workshop was relevant in providing useful tools to technicians who want to make changes in strategies and orientation of family planning programs . . . . It was not just 'another seminar' but a very useful effort directed to effective and rational changes in family planning programs." Dominican Republic: "DR attendees to subject workshop favorably impressed by its contents and insights provided." Guatemala: "The workshop provided opportunity for mid-level and top-level officials from the MOH and two private Associations to share views with resulting better understanding of each other's role."

2. Visiting Scholars Program

In 1979, the Rockefeller Foundation and the Centers for Disease Control implemented a new family planning training program. Its objective is to provide health professionals from all over the world with a strong foundation in the practice of family planning evaluation and epidemiology. The training will supplement academic instruction and clinical training in human reproduction

by providing practical experience in applied epidemiology, program planning, and program evaluation techniques to assess whether particular health delivery services are meeting defined objectives and whether different approaches to fertility control are effective and safe. The AID/CDC RSSA supports CDC staff that train and supervise these trainees. Moreover, these trainees are occasionally chosen to assist CDC staff conduct international consultations.

The first trainee, Dr. Hani Atrash of the American University of Beirut, entered the program in July 1979. He completed a 1-year assignment to the Tennessee State Health Department at the end of June and was reassigned to the Abortion Surveillance Branch in Atlanta. During his year in Tennessee, Dr. Atrash completed several projects: study of the actual vs. desired fertility in Tennessee, fertility trends in Tennessee, and a study of the effects of family planning and abortion on fertility. Four articles have been written for the Medical Association Journal and two have already been published ("Legal Abortion in Tennessee" and "Nurse Practitioners as Family Planning Clinicians"). Since July, Dr. Atrash has been working on several fertility control projects, including an analysis of U.S. data on abortion and concurrent sterilization. Following the completion of his training at CDC in June 1981, Dr. Atrash will return to Lebanon and become an Assistant Professor of Obstetrics and Gynecology at the University of Beirut as well as the Director of a Community Health Center in rural Lebanon.

In July 1980, two additional trainees, Dr. Carlos Huezo of El Salvador and Dr. Marwan Barbir of Lebanon, were admitted to the Rockefeller program. Dr. Huezo is currently working on the analysis of contraceptive prevalence survey data from Panama and on patient flow analysis data from El Salvador. Dr. Barbir has been assigned to the Colorado State Health Department in Denver and is working on an analysis of fertility trends in Colorado.

CDC has received 22 applications from persons interested in the Rockefeller program beginning in July 1981. Sixteen of these applications have been completed, and more than half are considered to be extremely competitive.

In addition to the Rockefeller programs, international trainees have attended training programs at FPED/CDC under the auspices of either WHO, UNFPA, or AID. During 1980, trainees have included the health professionals shown in Table 25.

3. Other

The FPED/CDC has participated in the training of two Chinese physicians during the past year. Dr. Wang Shao-Xian has received intensive training in the area of medical demography under the preceptorship of Dr. Charles Chen. She has written a paper entitled "Demographic Implications of Family Size Alternatives in

the People's Republic of China," which will be presented at the Population Association of America Meeting in March 1981. Dr. Wang will be appointed Director of the newly established Institute of Medical Demography at Beijing Medical College.

Prior to Dr. Wang's departure from CDC, she drafted a protocol for collaboration in medical demography between the Institute of Medical Demography in Beijing (IMD/BMC) and FPED/CDC. This would involve exchanging personnel and jointly undertaking research work. IMD/BMC has recommended two faculty members for CDC training in the Rockefeller Fellowship Program. BMC plans to invite Dr. Chen to Beijing in the late Spring of 1981. The purpose of this visit would be to help them establish a data system for the experimental area as well as to discuss future training needs and research programs for China.

Dr. Qui-Shu-Hua has received training in epidemiology under the preceptorship of Dr. Howard Ory. She has developed a research protocol to investigate the relationship between long-acting oral contraceptives and thromboembolic disease in Beijing. Dr. Qui will work at the Institute of Family Planning, Office of Family Planning Leading Group, State Council, upon her return to China.

A work-study assignment at the World Fertility Survey headquarters during FY 1982 is being considered for John Anderson, our Senior Demographer. A number of research topics have been proposed for the work-study assignment as shown below:

1. Improving measurement of fertility rates using contraceptive prevalence surveys (CPS) data.

2. Measuring the effects of breastfeeding and postpartum amenorrhea with CPS data.

3. Comparative analysis of the need for family planning services: CPS and World Fertility Survey (WFS) data.

4. Analysis of trend data for populations where both CPS and WFS surveys have been conducted.

5. Measuring the impact of public family planning programs on fertility using CPS data.

Completion of this research will greatly improve the understanding of CPS data and the ability to use it to measure program impact and derive relevant program policy implications from it. In addition to the specific research topics, efforts to compare results of the various CPSs, such as those published in Population Reports, will continue with additional surveys as the data become available.

E. Country Reports

1. Bangladesh

During FY 1980, CDC provided assistance to Bangladesh in five major areas. First, Rosenberg and Rochat collaborated with Bangladeshi and Ford Foundation staff in completing analysis of three reports on maternal mortality, health problems related to induced abortion, and physician attitudes of approval of abortion under different circumstances.

Second, Gold and Rochat explored the feasibility of conducting a sample survey of imams (religious leaders) to determine their attitudes toward several development issues including cooperatives, role of women, family planning, and abortion. Despite a keen interest in such a study by several key organizations including the Bangladesh Ministry of Health, the Bangladesh Department of Education chose not to approve the survey for the Institute of Statistical Research and Training (ISRT) for current political considerations.

Third, Rosenberg and Gould collaborated with Bangladeshis in a multi-center study of complications occurring within 7-10 days following surgical sterilization. The results of that study are being analyzed.

More details on these studies have been presented in the section on Epidemiology of Fertility Control and Pregnancy Outcome (II.c.2.).

Fourth, Grimes and Peterson investigated a cluster of sterilization-associated deaths and with Fishburne, an anesthesiologist-obstetrician consultant, made recommendations to modify surgical and anesthesia practices. A summary of their findings follows:

From January 1, 1979 to March 31, 1980, 28 sterilization-related deaths were identified in Dacca and Rajshahi Divisions, Bangladesh. We investigated these deaths at the thana or facility level. Two temporal clusters of deaths occurring in the summer of 1979 were identified, one cluster of three deaths from vasectomy, and the other of five deaths from tubectomy. The leading cause of death from tubectomy was anesthesia overdose; from vasectomy, scrotal infection. Overall, the sterilization-related death-to-case rate was 21 deaths per 100,000 procedures, with the risk of death associated with vasectomy 1.6 times higher than that with tubectomy ($p > .05$).

Adherence to sterile technique for vasectomy should reduce the number of deaths due to infection. More appropriate use of analgesic agents, closer supervision of patients, and increasing capabilities for resuscitation should reduce the number of deaths due to complications of anesthesia for tubectomy. We estimate that approximately 1,000 maternal deaths are averted for every 100,000 tubectomies performed. Thus, the net health impact of voluntary sterilization is strongly favorable. Recommendations include:

a. All instruments used for vasectomy and tubectomy should be sterile. The patient's skin should be disinfected, and the surgeon should wear sterile gloves after thorough handwashing with an antiseptic soap. Masks should cover both nose and mouth. Gowns should be sterile.

b. Vital signs should be monitored frequently after tubectomy. A protocol might include observing the patient and recording vital signs in this manner on a standardized form:

Place	Observation	Frequency
Recovery room	Color, tone, respiratory excursion and rate, pulse, blood pressure	Every 5-15 minutes until reactive
Ward	Symptoms, color, pulse, respirations, blood pressure	Every hour (twice) Every 2 hours (twice) Then, if stable, every 4 hours until discharge
Ward	Patient temperature	Every 4 hours

Any abnormality should be called to the attention of the surgeon immediately.

c. If prophylactic antibiotics are used, the first dose should probably be given prior to operation. Prophylactic antibiotics should not be considered a substitute for strict sterile technique.

d. Strict sterile technique and avoidance of crushing tissue offer the most practical means of reducing the risk of tetanus after operation. Definitive prophylaxis by means of active immunization should also reduce the risk of tetanus.

e. A maximum acceptable ambient temperature and humidity for allowing elective operations should be determined. Until acceptable temperature and humidity limits have been determined, we suggest that operating conditions for patients and staff are suboptimal when temperature in the operating theatre exceeds 38°C (100.4°F). Elective sterilization could be delayed until more favorable conditions exist.

f. An active surveillance system to identify, investigate, and classify sterilization deaths should be established in Bangladesh. Because of limited written documentation of complications and their management, prompt on-site investigation appears important to gain needed information.

Fifth, Graves continued to assist with the development and implementation of the contraceptive supply system during October and November 1979, and assistance to this project is summarized below.

Logistics assistance was first provided to the Bangladesh Population Control and Family Planning Program (PCFP) in 1975. At that time an evaluation of the logistics system was conducted, and the contraceptive supply position of the program was determined. It was found that supplies were not being managed in a systematic way and, as a result, serious imbalances existed at the outlets. The director of the PCFP decided that a new supply system should be devised and installed; this was done by CDC/FPED in cooperation with UNFPA and the PCFP in 1976. As part of the new supply system, a supply manual was developed including all procedures, documentation, and reporting required to operate a contraceptive supply system. It is adaptable to include other items in the system. The manual is written in four sections with each directed toward the four program levels: Central, District, Thana, and Field.

The Bangladesh system was initially designed to manage contraceptives with flexibility built in to accommodate other items such as drugs, vaccines, IE&C materials, etc., after it became operative. Followup consultations were provided in 1977 and 1978 to work out problems identified in the system and to prepare for the addition of other items of supply. Work started on the integration of other items of supply in FY 1980.

This Fiscal Year's consultancy was conducted in October and November 1979. The supply position was much improved over previous visits in that contraceptives were present in outlets in better quantities and balance than on previous visits; this was also true at the district level. The program was in the midst of a new CBD initiative, and plans are to ultimately have field workers distribute orals and condoms in all areas of the country. Supply data analyses, however, show that the program is not making progress in attracting new oral and condom users. Figures 8 and 9 show that the distribution of condoms and orals to users almost doubled in 1977, the first year the new logistics system was in place. However, from 1977 through mid-1979 the distribution patterns were erratic and declining slightly. The PCFP hopes to reverse this direction in program trends by introducing the CBD program.

Although the supply system is much improved, certain areas continue to require attention. For example, the new central warehouse completed in June 1979 is already overloaded, and storage problems persist at district and field levels. Logistics reporting from districts is almost complete with 97 percent of reports from January through September 1979 being submitted; however, reports from field levels are only 63 percent for the same period. While this creates problems with forecasting, the situation is not nearly as serious as before when little or no data were available.

At the time of this last visit, 284 different items were being stored in the central warehouse. These items were not being managed as well as the contraceptives, and this was the main reason for the warehouse being overloaded. A number of recommendations were made to alleviate this situation, including:

a. Improve the system for moving supplies from district to thana levels;

b. Increase storage capacity at thana level;

c. Establish a routine supervisory procedure;

d. Improve reporting and supply data analysis;

e. Establish a logistics training course; and

f. Improve vehicle maintenance.

A followup consultancy is planned for March-April 1981 in conjunction with consultants from UNFPA to further improve the system.

2. Brazil

During Fiscal Year 1980, results of the CBD baseline survey in Piaui State, Brazil, were submitted to AID/Washington and USAID/Brazil. In addition, two papers from the Sao Paulo Survey were published. The first, in Studies in Family Planning, described contraceptive use and fertility levels in that State and has been used by USAID/Brazil and nationals as supporting data in the process of making national family planning policy decisions. The second paper (International Family Planning Perspectives) dealt with availability of contraceptive and sterilization services with program directors meant to be the principal audience.

Technical assistance was provided to BEMFAM in Fiscal Year 1980 for the design and implementation of a CBD evaluation survey in Northeast Brazil (in collaboration with Columbia University and IFRP). The four states included in the survey area are Rio Grande do Norte, Paraiba, Pernambuco, and Bahia. Results are currently under analysis for Pernambuco and Rio Grande do Norte, and some data are presented here. A preliminary report has been scheduled for April 1980. Data from Paraiba and Bahia are currently in the data processing stage, and edited tapes should be available in May 1980.

Field work during the Fiscal Year took place from July 10 through October 4 as shown below. The first of three training sessions began on July 4.

State:	Pernambuco (PE)	R.G. do Norte (RN)	Paraiba (PB)	Bahia (BA)
Local Sponsor:	Medical Schl/UFPE	State Health Dept.	State Health Dept.	Nursing Schl/ UFBA
Interviewer-				
Recruitment:	May/June	May/June	May/June	June
Selection:	July 2	June 30	July 12	July 23
Training-				
Dates:	July 4-9	July 4-9	July 17-22	July 24-29
Location:	Medical Schl/UFPE	Medical Schl/UFPE	SESPI/PB	Nursing Schl/ UFBA
Survey Hdqts:	BEMFAM/PE	BEMFAM/RN	BEMFAM/PB	BEMFAM/BA
State Coordin.:	Elizabeth	Marcos	Zizeuda	Angelo
Field Work:	7/10-8/30	7/14-8/30	7/24-9/13	7/30-10/4
Coding:	9/15-10/3	10/6-10/24	10/27-11/14	11/17-12/5
Data Procg:	CDC	IFRP	CDC	BEMFAM/Columb:

Preliminary results indicate that 41.4 percent and 47.4 percent of currently married women are using contraception in Pernambuco and Rio Grande do Norte, respectively. Sterilization is the most prevalent method in Pernambuco while oral contraceptives and sterilization are used about equally in Rio Grande do Norte. Contraceptive use is shown below by method:

% Currently using:	R.G. do Norte 47.4	Pernambuco 41.4
Sterilization	17.2	18.9
Orals	17.8	12.5
Rhythm	6.3	3.5
Condom	0.5	0.7
IUD	0.2	0.6
Other Methods	5.4	5.3

In Pernambuco, 63 percent of pill users obtain supplies from the CBD program. In rural areas, 86 percent of pill users obtain supplies from the program. Currently, 9 percent of currently married women are active users in the program. In addition, 5 percent of women who are current non-program users, had been in the program at one time, and 9 percent of nonusers have had contact with the program. Thus, a total of 23 percent of currently married women in the State (almost 1 of 4) have had contact with the program. These and other findings suggest an important role for the program in introducing women to family planning, providing effective methods for women who initiated family planning elsewhere, and offering services for child-spacing for women who proceed to sterilization at some future time.

Plans for Fiscal Year 1981 call for detailed analysis of the 1980 CBD evaluation survey and assisting the Rio Grande do Sul State Health Department implement a maternal-child health/family planning survey. In addition, we have been requested to do a patient flow analysis at the CPAIMC clinics in Rio de Janeiro.

3. Colombia

At the request of the Colombia Ministry of Health (MOH), USAID/Colombia and AID/Washington, Drs. Mark Oberle and Mark Speckhard of CDC/BE/FPFD/PEB, visited Colombia April 21-May 3, 1980, to evaluate surveillance of the MOH sterilization program. In May 1979, the Colombian Ministry of Health (MOH) initiated a training program for minilap and endoscopic sterilizations with the assistance of the Johns Hopkins Program for International Education and Gynecology and Obstetrics (JHPIEGO) and the United States Agency for International Development (USAID). With the onset of the program, the Division Materno-Infantil (DMI) of the MOH requested that regional hospitals report female sterilization procedures on reporting forms prepared for this program. During the first 7 months of the program, 351 reports of sterilization were received. The MOH perceived that either relatively few procedures were being performed or there was substantial unreporting. To evaluate the surveillance system, Drs. Oberle and Speckhard visited the DMI in Bogota, the DMI Regional Coordinators in 5 regions, and 10 Regional Hospitals in northern and southern Colombia.

Seven of the Regional Hospitals estimated that they had performed a total of 486 sterilization procedures during the first quarter of 1980. However, these seven hospitals had officially reported only 99 (20 percent) of these procedures. This suggests that there is substantial underreporting of sterilization procedures, although it would take a more extensive study to define precisely the level of underreporting. The MOH had noted that on the basis of procedures reported to them, 52 percent of sterilizations were being done by endoscopy. On the basis of estimates obtained at these seven regional hospitals, 9 percent of sterilizations in these hospitals were accomplished by endoscopy. One cannot generalize this percentage to the entire program, but it appears that endoscopy makes up a much smaller proportion of total sterilizations than that suggested by the reports to the MOH.

Evaluation of the surveillance system revealed three factors which influence reporting of sterilizations. The chief factors are: 1) Currently, the MOH requires hospitals to submit sterilization reports directly to the central DMI office to reduce lag time. However, the success and effectiveness of the surveillance system depends on active supervision at the regional level, most appropriately by the DMI Regional Coordinator. We recommended that this procedure be amended so that hospitals send sterilization reports directly through the DMI Regional Coordinator to allow him to monitor and actively manage the sterilization program in his region. A checklist was developed to assist the DMI Regional Coordinator in reviewing hospital sterilization programs. 2) We found that the need to report all sterilizations is not

widely known. The reporting requirement was generally thought to refer to endoscopic procedures only. The MOH should clarify reporting requirements to each hospital so that each knows all sterilization procedures are to be reported. A sterilization monitor, who is in the best position to tabulate all the surgical sterilizing procedures, should be appointed in each hospital.

3) The current reporting form for female sterilization contains detailed questions about the person receiving sterilization and about the procedure. The information gathered permits the MOH to evaluate the characteristics of the population receiving sterilization as well as the procedures utilized. To increase efficiency in analyzing data from this form, we recommend that it be precoded and that the form be changed to clarify the choices for type of sterilizing procedure and include source of payment. While the information on the sterilization reporting form is of marked interest to the MOH, the length of the form will likely be a deterrent to completion and contribute to underreporting. We recommended that an additional precoded form be used providing a simple line-listing of patient name, age, parity, and type of procedure. An example of such a form was provided. At present, sterilization reporting is requested from each regional hospital where a laparoscopist has been trained and laparoscopic equipment has been installed. In order to more fully assess the current status of sterilization in MOH hospitals and to provide a baseline for measuring the effect of sterilization programs, surveillance should be extended to all MOH hospitals with a physician and operating room to include regional, university, and the local hospitals.

During a previous trip to Colombia in October 1979 to review the Ministry of Health surgical contraception program, Dr. Oberle evaluated the impact of sterilization on Colombia's population growth. To estimate an upper and lower limit, it was assumed that sterilized women would have experienced the marital or age-specific fertility rates, respectively, of the general population. He estimated these women would have had 42,000 to 65,000 births if they had not been sterilized.

However, after the trip report was issued, data from the 1978 Colombia National Contraceptive Prevalence Survey (1978 CPS) became available. This survey offers more recent estimates of fertility, including age-specific data. Using these data, an estimated 37,000 to 45,000 births would have occurred in 1978 to sterilized couples if they had not been sterilized and had experienced the marital or age-specific fertility rates of the general population. This estimate corresponds to a decrease of 5-6 percent in the crude birth rate (1.4 to 1.7 births per 1,000 population).

If the maternal mortality ratio is assumed to be 200/100,000 live births in Colombia, between 74 and 90 maternal deaths would have been averted by sterilization programs in 1978. However, caution must be used in interpreting these estimates since Colombian sterilization acceptors probably marry at younger ages than the general population and have more surviving children than the general population.

Demand for sterilization services will apparently remain high. According to the 1978 CPS, 15.5 percent of women of childbearing age (WCA) would choose sterilization as a method of contraception. This translates into 1 million potential sterilization acceptors. In 1978 an estimated 280,000 WCA were protected by sterilization. Thus, at most, about one-quarter of potential demand has been met. Demand may be even greater if the proportion of women not wanting any more children is considered. When respondents were asked whether they would like to become pregnant and have another child sometime, 76 percent of exposed* women said that they would not. This proportion represents 2.4 million women. Not all of these women would prefer a permanent method, but the potential demand exists.

Colombia's recent decrease in fertility has been dramatic both in urban and rural areas. Between 1965 and 1978, the total fertility rate (TFR) in rural Colombia dropped from 7.7 to 5.4, a decrease of 30 percent. In urban areas the TFR dropped from 4.7 to 3.1, a decrease of 34 percent in the same period. The prevalence of use of contraception has increased from 31 percent of women age 15-49 currently in union in 1968 to 46 percent in 1978. However, the unmet need for contraceptive services continues to be large. In 1978 approximately 1,075,000 women desired no more children but were not using contraception. Compounding this need is the fact that the number of women of childbearing age will increase by 17 percent over the next 5 years. The unmet need for family planning services in Colombia may continue to be substantial unless program efforts improve availability of contraceptive services.

4. Dominican Republic

FPED/CDC provided technical assistance to the Dominican Republic in FY 1980 to evaluate the national contraceptive logistics system and to provide technical assistance to the Consejo Nacional de Poblacion y Familia (CONAPOFA) in logistics management. Although there are several organizations in the country that provide contraceptive services, distribution of supplies is managed by CONAPOFA.

An infrastructure for distribution of contraceptive supplies was found to exist. However, several deficiencies were encountered including the lack of adequate stocks in the regional warehouses and distribution points. Although large quantities of family planning supplies are stored in the central warehouse in Santo Domingo, no more than a 3 month supply is ever stored in the regional warehouses. Movement of supplies from the regional warehouses to distribution points rapidly depletes the 3-months supply. In other words, safety stocks are not maintained in these warehouses. Safety stocks are also not maintained by the distribution points. Thus, any increase in demand for contraceptive or delays in regular dispatches of supplies would likely lead to stock-outs.

*Exposed women were defined as those living in union during the year prior to the survey, excluding those currently pregnant.

In addition, there were no formal procedures for storing, ordering, invoicing, and accounting of contraceptive supplies at these levels. Thus, quantities of contraceptives to be requested and issued are made more or less arbitrarily. If supply data were routinely reported, supply imbalances in the logistics system could be detected and addressed accordingly. A review of supply records maintained in CONAPOFA's central office revealed that 417,000 more cycles of oral contraceptives and 288,000 fewer condoms were issued from the central warehouse during 1979 than were reported to USAID/Dominican Republic. Several recommendations were made for improving the logistics system, which included larger maximum and minimum stock levels to be maintained at each level in the system, forms to be used for inventory control, types of reports that would document the status of supplies at all levels of the program, and proper warehouse management.

Patient Flow Analysis was discussed briefly with CONAPOFA staff.

5. El Salvador

Technical assistance was provided to the Ministry of Health (MOH) in the interpretation and analysis of the graphical and statistical output from Patient Flow Analysis (PFA) studies which were conducted in 24 MOH clinics during August-September 1979. The results indicated that patients in almost all the clinics have very long waits for services. Times in clinic of 5 hours and more were not uncommon. Problems that led to these long waits included patients not being served on a "first-come,first-served basis" and patients being served in numerous short-duration contacts. The MOH will use results of the PFA study to recommend change in clinic procedures.

FPED/CDC consultants also discussed implementation and evaluation plans for a community-based distribution (CBD) program with the staff of the Asocacion Demografica Salvadorena (ADS) and USAID/El Salvador personnel. It was proposed that the CBD program be monitored through two mechanisms: a user reporting system and a logistics reporting system. Forms were designed for these purposes. A questionnaire for a baseline evaluation survey for the CBD area was also designed and sample points selected from the 1978 Labor Force Survey sampling frame.

Technical assistance was also provided to the:

(a) ADS on its clinic program user reporting system which is scheduled to be computerized. Type of computer output and data analysis were discussed.

(b) Ministry of Health MCH/FP Division on an IUD study: FPED/CDC assisted the MCH/FP Division by reviewing the IUD study design currently being used to compare the Copper T and Lippes Loop. FPED/CDC will provide technical assistance in the analysis of the IUD study. Results of the study will be used by the MOH to determine which IUD they will procure in the future.

(c) USAID/El Salvador on a general evaluation of the national family planning program the Mission has proposed. A questionnaire developed by the Mission was reviewed and observations and suggestions were given to the mission.

(d) ADS on the feasability of a study to examine why women desiring sterilization have not obtained a sterilization procedure. Specifically, women interviewed in FESAL-78 would be followed up if they had expressed a desire for sterilization, knew where to obtain information or services, but had not obtained a sterilization. Because the upcoming baseline CBD evaluation survey could provide answers to this question at considerably lower cost, a followup study will not be conducted.

6. Guatemala

In 1976 the Ministry of Health (MOH) and the Asociacion Pro-Bienestar de la Familia (APROFAM) entered into a temporary agreement in which APROFAM assumed the responsibility for supplying MOH health posts, centers, and other rural locations with contraceptive supplies. FPED/CDC provided technical assistance to APROFAM in the design and implementation of a system (called the Direct Distribution of Contraceptive Materials Program, DDP) to provide these services. At the time of its establishment the DDP was providing services to 162 MOH locations, and plans were to increase this number to 608 by the end of the year. One of the results of this project is that the number of users of family planning services has dramatically increased (see Figure 10). FPED/CDC continued to provide assistance to the DDP in the evaluation and improvement of the system.

In FY 1980, FPED/CDC participated in an evaluation of the status of the DDP, which is now being transferred to the MOH under a new agreement with APROFAM and USAID/Guatemala. An important part of the evaluation was to estimate the number of women active in the DDP prior to program responsibilities being shifted from APROFAM to the MOH. User statistics were found to be incomplete, and it was recommended that sales and supply data be used to monitor program performance. Reporting forms were drafted for MOH use that can provide data on users and contraceptive inventory levels required by AID's quarterly and annual reports.

In conjunction with the transfer of the DDP to the MOH, an assessment of the MOH logistics system was made. Several problems were encountered including:

- The budget for medicine purchases is inadequate and has not increased sufficiently to compensate for inflation and expanding health facilities.

- The same fixed dollar value of medical supplies is allotted each year to each health center ($3,200/year) and health post ($800/year). The dollar value does not depend on the size and characteristics or health problems of the popula ons served in their catchment area.

- Stock-outs and/or low inventory levels frequently occur at the medicine warehouse.

- The medicine warehouse is small and physically separated from the system's two other warehouses.

- Supply delivery is frequently delayed by lack of transport.

FPED/CDC consultants also determined the status of APROFAM's oral contraceptives currently in the warehouse. As of November 1979 APROFAM had large stocks of oral contraceptives with manufacture dates of 1974-75. The warehouse also contained 329,617 cycles of Norinyl 1+80 with 1974-75 dates of manufacture. It was recommended that APROFAM maintain better records in order to insure that older stocks be issued first and that excess supplies of Norinyl 1+80 be shipped to another country.

7. Haiti

PEB/FPED consultants evaluated the logistics system of the Division d'Hygiene Familiale (Division of Family Health-DHF), Ministry of Public Health and Population, during a 3-week period in January/February 1980, with special attention on the distribution of USAID-supplied contraceptives. They found the Haitian Ministry of Health and Population to be in the process of decentralizing its administrative structure. Five administrative autonomous health regions will be created and regional directors will be appointed who will be responsible for all public health activities, including family planning. Since this reorganization is being initially implemented in 2 of the 5 regions only, the chain of command and supply is not uniform throughout the country. Nevertheless, the system functions reasonably well. The general conclusions reached were:

a. The distribution system to health facilities managed by the DHF were generally functioning well and should be strengthened and not changed. The administrative procedures used to order contraceptives from the central level by regions and districts, and from regions and districts by dispensaries, were practical and reasonably efficient. At the dispensary level, personnel responsible for distribution to users seemed to have a good knowledge of correct storage and distribution procedures.

b. The transport of contraceptive supplies from the central level to regions and districts did not seem to cause any particular problems at present. Vehicles, or in some cases boats, were used.

c. In general, all storage facilities seen were structurally sound, clean, dry, and well-kept. Although no major storage problems were

found, it was suggested that the following recommendations be implemented as soon as possible in order to improve supply management and prevent possible spoilage:

1) The FIFO (First-In, First-Out) system of accounting and distribution be put into practice at all levels. In this way, no contraceptive supplies should remain in storage any longer than their maximum shelf life.

2) At least once a year, and preferably every 6 months, a physical inventory should be done at the central warehouses and the two functioning regional warehouses. Until the three remaining regional offices become functional, physical inventories should also be done at similar intervals in the main district hospitals of these three regions.

3) In order to avoid spoilage due to restricted air circulation and impregnation with moisture in a high humidity climate, all cartons should be: (a) stacked on palettes at least 10 cm (4") from the floor; (b) stacked at least 35 cm (1 ft) away from any wall; and (c) kept in a storeroom whose roof and walls are not subject to water leakage. In addition, no stacks of cartons should be more than 2.5 meters (8 feet) high.

d. Service statistics showed a dramatic increase in new acceptors since 1975. Nevertheless, service statistics data for active users are not accurate enough to be the sole basis for determining user rates or supply requirements. Since the WFS was conducted in 1977 and represents "aged" data, we recommended that a Contraceptive Prevalence Survey be conducted in Haiti in 1982 to update program needing information for planning and evaluation purposes.

e. Based on future projections, service statistics, current inventories, and warehouse distribution amounts, CDC personnel assisted the USAID Mission in planning future family planning commodity requirements. Supply requirements were calculated to eventually have approximately 1 year's supply on hand at the end of each year. At the end of 1980 a review must be made of stocks on hand and consumption rates to determine whether changes are required in the amounts ordered.

8. Honduras

Two trips were made to Honduras in FY 1980. The purpose of the first trip was to assist the Asociacion Hondurena de Planificacion de Familia (AHPF) in the evaluation of its community-based distribution (CBD) program of contraceptives. During the evaluation FPED/CDC consultants found that the AHPF had implemented most of the recommendations that were made in February 1979 when the first evaluation of the CBD program took place. These recommendations were designed to make the data system a better tool for program management and to improve the efficiency and effectiveness of the program in recruiting and maintaining users in the program. For example, overreporting of active users had decreased from 46 percent to 9 percent. During the consultation further improvements

in the data system were recommended, including a reduction in the number of forms used by promoters from 10 forms to 2 forms. In addition, assistance was provided to the AHPF in studying alternate ways of increasing the coverage of the CBD program. Discussions were also held with the Vice-Minister of Health and officials from the Bureau of Statistics and Census regarding a contraceptive prevalence survey. We learned that a sampling frame based on the 1974 census was available.

The purpose of the second consultation was to assist the AHPF in preparing a proposal for an Operational Program Grant (OPG) for submission to USAID/Honduras for funding of AHPF's CBD program for FY 1981. Five proposals were reviewed and consolidated into a single proposal that reflected AHPF's priorities and the Mission's policy on family planning in Honduras. The proposed project would extend the coverage of the CBD program throughout the country with the potential to increase the number of active users of contraception from 23,060 in May 1980 to 54,000 by December 1981.

Other activities during the second trip included meetings with the Westinghouse Health Systems (WHS) representative regarding the contraceptive prevalence survey to be conducted during the first quarter of 1981. FPED/CDC consultants reviewed the WHS questionnaire and recommended that questions on abortion hospitalization and planning status of last pregnancy be included. MOH and AHPF representatives expressed interest in these questions.

9. Jamaica

To follow up recommendations made to the Jamaica Family Planning Association by a previous APHA consultant, a PEB/FPED consultant was asked to design a record-keeping system for the outreach and clinic-based programs of the Jamaica Family Planning Association (JFPA). Recommendations were also made to the National Family Planning Board (NFPB) on the national data and records system.

Deficiencies previously noted in the JFPA record-keeping system included: (1) a lack of means to identify the number of Continuing Active Users, (2) a lack of means to regularly monitor user followup; (3) a lack of regular and consistent tabulation of service statistics; and (4) a lack of in-depth analysis of service statistics because of the weaknesses of the records and data systems.

A new system was designed from which staff can accurately tabulate the number of new acceptors and continuing active users as well as providing a means for accurate followup. The system is compatible with the proposed island-wide system to be put into use in Ministry of Health and Social Security (MOHSS) clinics as well as with the data requirements of the International Planned Parenthood Federation (IPPF).

The new system will be taught to the teenage outreach workers (Youth Associates) whom the JFPA will soon employ and train to distribute contraceptives to their peers, as unplanned teenage births are a major problem in Jamaica. It can also be used in JFPA and MOHSS clinics.

Training manuals were written in order to instruct outreach and clinic staff in the use of the new system.

A followup visit is recommended in early 1981 to evaluate the Youth Associates Program, including the implementation of this new record-keeping system.

10. Mexico

Consultation continued during this Fiscal Year to the Coordinacion Nacional de Planificacion Familiar (CNPF) so that data processing and data analysis requirements for the U.S.-Mexico Border Family Planning/MCH Survey could be coordinated. Results of the survey conducted on the U.S. side of the border were presented at the U.S.-Mexico Border Health Association Annual Meeting in April. Results of the border survey are shown in Table 26 compared with national data from both countries. Contraceptive prevalence is higher in the six Mexican States on the border (49.8 percent) than the national level of 40.0 percent. The basic reason for this difference is the greater use of pills along the border. Otherwise, use of other methods does not differ significantly.

The higher prevalence seen on the U.S. side of the border is due to greater use of male sterilization and condoms. Pill and IUD use are very similar on both sides of the border.

11. Panama

During FY 1980 technical assistance was provided to the Ministry of Health (MOH) in two areas. The first was in regard to the contraceptive prevalence survey (CPS) the MOH conducted during the latter half of 1979. In October 1979, an FPED/CDC consultant traveled to Panama to assess the status of the CPS. Field work had been terminated in October with only 86 percent of the sample households contacted. Insufficient funds attrobited in part to increased gasoline costs during the survey period was the reason cited for not completing all households in the sample. The failure to complete the survey and the lower-than-expected proportion of households contacted in rural areas would have affected the representativeness of the data as well as limited detailed statistical analysis for some subgroups. Thus, the FPED/CDC consultant recommended that the survey be completed with an additional input of $6,350 representing less than a 10 percent cost overrun. The field work was completed in January, and the coding and other data processing stages initiated in February. Interviews were completed for 2,347 women or 92.8 percent of the total number of possible respondents. In Atlanta FPED/CDC staff assisted MOH personnel in editing and analyzing the CPS data. A preliminary report was written by the end of Fiscal Year 1980, which would be reviewed in Panama in December 1980.

The second area in which FPED/CDC provided technical assistance to the MOH was in an evaluation of the MOH family planning logistics system. The facilities and systems for the management of drugs, medicines, and contraceptives of the MOH and the Social Security Institute (CSS) were

examined in detail. In addition, extensive consultations with USAID, MOH personnel, and Pan America Health Organization (PAHO) logistics consultants, were held. In view of the facts that the MOH and the CSS are scheduled for total integration of their operations, including logistics, and that the CSS has a complete, modern, and functioning system for the distribution of drugs, FPED/CDC consultants recommended that the CSS be given responsibility for the management of contraceptive supplies throughout the country.

12. Paraguay

In May 1979 the Government of Paraguay decided to discontinue contraceptive distribution through Ministry of Health (MOH) facilities and requested that USAID/Paraguay remove existing bilateral stocks of contraceptives from the country. AID/W and USAID/Paraguay requested that FPED/CDC assess the condition of these contraceptives and, thus, the advisability and means of shipping them to another country. The majority of the MOH commodities, oral contraceptives, and condoms, were in suitable condition for shipment. The FPED consultant recommended that the Dalkon Shield IUDs still in inventory be destroyed rather than shipped. In addition, it was recommended that diaphragms and vaginal methods be shipped only if they were in high demand in the recipient country.

The suspension of the MOH program will have its greatest impact in the interior of the country where, in 1977, 57 percent of all users relied on the MOH as their source of contraception. Users in Greater Asuncion will be less affected, since 53 percent of all users in the metropolitan area relied on the commercial sector as their source of contraception. It was reported that efforts were being made to encourage government officials to reconsider the decision that was made in May 1979.

III. SUMMARY OF ACTIVITIES

A. FPED/CDC INTERNATIONAL TRAVEL FISCAL YEAR 1980

Dates(s)	Country (Person(s)	Purpose of Travel
9/21-10/12/79	Honduras (Monteith, Oberle)	Followup evaluation of Demographic Association CBD program; review implementation of recommendations made in February 1979.
9/28-10/12/79	Brazil (Rosenberg)	Technical assistance to CEMICAMP, Campinas, Sao Paulo, in study of epidemiology of oral contraceptives and risk factors of breast cancer.
10/1-2/79	Guatemala (Morris)	Assist APROFAM in preparation of second draft of Spanish version of 1978 CPS final report.
10/3-5/79	El Salvador (Morris)	Assist ADS in preparation of final draft of Spanish version of 1978 CPS final report.
10/9-11/10/79	Bangladesh (Graves)	Followup logistics assistance including expansion of system.
10/14-18/79	Mexico (Rochat, Smith, Warren)	U.S.-Mexico Border Family Planning/ MCH Survey.
10/22-25/79	Paraguay (Monteith)	Assess condition of bilateral contraceptive supplies for trans-shipment.
10/26-31/79	Panama (Monteith)	Assess status of 1979 CPS and discuss logistics assistance with MOH.
10/28-11/1/79	Colombia (Oberle)	Review MOH surgical contraception program and discuss surveillance system for monitoring program performance.
11/1-9/79	Guatemala (Monteith, Oberle)	Evaluation of Direct Distribution of of Contraceptive Materials Program.
11/5-7/79	Mexico (Rochat, Smith, Warren)	U.S.-Mexico Border Family Planning/ MCH Survey.

11/5-8/79	Phillippines (Tyler)	WHO Task Force Steering Committee on Oral Contraceptives (Non-AID funding).
11/9-11/79	Singapore (Tyler)	Consultation regarding oral contraceptives, abortion, and sterilization studies (Non-AID funding).
11/22-12/5/79	India (Ory)	Study group to develop protocols to study development of contraceptives and contraceptive safety (Non-AID funding).
11/25-30/79	El Salvador (Hudgins)	Followup assistance to MOH on Patient Flow Analysis.
12/12-16/79	Colombia (Oberle, Cates, Mhango)	Participate in the International Seminar on "Methodologies for the Study of Abortion."
1/18-2/18/80 1/18-2/21/80	Bangladesh (Rosenberg) Bangladesh (Gould)	Institute a prospective study for monitoring immediate complications of sterilization procedures.
1/12-2/1/80	IPPF/London (Kramer)	Assist IPPF in evaluating the relationship between pelvic inflammatory disease and contraception.
1/13-27/80	IPPF/London (Rochat)	Provide consultation for the International Study on Safety and Acceptability of Contraceptive Methods (Non-AID funding).
1/16-18/80	Thailand (Rosenberg,Gould)	Confer with Dr. Tony Bennet of MOH concerning Bangladesh sterilization morbidity study.
1/17-2/14/80	WHO/Geneva (McCarthy)	Provide consultation on WHO low birth weight program and high risk family planning/MCH program in developing countries (Non-AID funding).
1/20-2/4/80 1/26-2/8/80	Haiti (Ewen) Haiti (Friedman)	Evaluate family planning supply/ logistics system of national program.

1/21-27/80	Guatemala (Monteith, Oberle)	Followup on the implementation of user reporting (Service Statistics) in MOH family planning program and initial assessment of MOH logistics system.
1/22-25/80	Mexico (Smith, Warren)	Coordinate data processing requirements for the U.S.-Mexico Border Family Planning/MCH Survey with CNPF.
1/28-31/80	Lebanon (Rochat)	Interview candidates for the Rockefeller Foundation Fellowship to the Centers for Disease Control International Training Program in Family Planning Evaluation and Epidemiology (Non-Aid funding).
2/18-29/80	Dominican Republic (Monteith, Hudgins)	Review CONAPOFA family planning logistics system and make recommendations for improvement.
2/19-24/80	IPPF/London (Rosenberg)	Consultation on sterilization surveillance in United States and sterilization surveillance program in Bangladesh.
2/20-21/80	Panama (Morris, Anderson)	Consultation to MOH on editing and data processing stages of 1979 Panama CPS.
2/22/80	Colombia (Morris, Anderson)	Discuss findings of CPSs conducted by FPED/CDC (at Corporacion Centro Regional de Poblacion).
2/23-3/10/80 2/23-3/5/80	Brazil (Morris) Brazil (Anderson)	Assist BEMFAM in preparation of Portuguese language report on 1979 Piaui CBD baseline survey; plan for 1980 CBD evaluation survey in Northeast Brazil.
3/12-20/80	El Salvador (Monteith, Oberle)	Assist USAID and ADS in planning for "Oriente" CBD program; make preparations for baseline survey and logistics system.
3/13-21/80	Brazil (Rosenberg)	Followup technical assistance to CEMICAMP, Campinas, Sao Paulo, in study of epidemiology of oral contraceptives and risk factors of breast cancer.

3/18-4/26/80	Bangladesh (Gold)	Develop protocol and field test questionnaire for study of family planning attitudes of religious leaders.
4/3-7/80	IPPF/London (Graves)	Discussions regarding contraceptive commodity donor reporting system (with T. Boni).
4/9-26/80	WHO/Geneva (McCarthy)	Followup consultation to WHO on High Risk Maternal/Child Health Care--family planning program in developing countries (Non-AID funding).
4/13-5/2/80	Panama (Graves, Monteith)	Logistics assistance.
4/21-24/80	U.S.-Mexico Border Health Meeting-Saltillo (Rochat, Smith, Warren)	Present results of U.S.-Mexico Border Family Planning/MCH Survey.
4/21-5/3/80	Colombia, (Oberle, Speckhard)	Improve reporting system for surgical contraception program and implement surveillance system for monitoring immediate complications of surgical procedures.
4/22-26/80	Tobago (Kramer)	Present paper on Epidemiology of Legal Abortion in the United States to Western Region IPPF Meeting (Non-AID funding).
4/22-30/80	Netherlands (Cates, Grimes)	Present papers to International Conference on Epidemiology of Second Trimester Abortions (Non-AID funding).
4/28-5/14/80	Bangladesh (Rosenberg)	Followup technical assistance to prospective study for monitoring immediate complications of sterilization procedures.
5/3-20/80	Brazil (Morris)	Sample selection and field work plans for 1980 CBD evaluation survey in Northeast Brazil.
5/4-23/80	Colombia (Oberle)	Participated as team member of AID/W/HEALTH team evaluating health loan (Non-RSSA funding).

5/21-31/80 5/24-31/80	Guatemala (Hudgins) Guatemala (Monteith, Morris)	CEFPA/CDC Workshop: Use of Contraceptive Prevalence Survey data to evaluate and manage family planning programs.
5/21-6/6/80	Jamaica (Friedman)	Evaluate record keeping system of Family Planning Association and develop data system for adolescent outreach program.
6/11-7/5/80	Bangladesh (Grimes, Peterson)	Review sterilization morbidity/mortality data and devise plan of action to reduce morbidity/mortality associated with sterilization.
6/25-7/5/80	IPPF/London, WHO/Geneva (Tyler)	Finalize agreement for assignment of CDC Medical Epidemiologist (Kramer) to IPPF for 1 year; Meet with Steering Committee of OC Task Force of WHO Special Program for Human Reproduction (88 percent Non-AID funding).
6/29-7/28/80 6/29-8/1/80 6/29-9/20/80	Brazil (Harrison) Brazil (Morris) Brazil (Shaw)	Training of interviewers and implementation of 4-state Northeast Brazil CBD evaluation survey.
7/5-7/15/80	England (Anderson)	World Fertility Survey Conference.
7/21-8/1/80 7/27-8/6/80	Honduras (Monteith) Honduras (Dalmat)	At request of USAID/Honduras, assist AHPF (IPPF affiliate) in preparing a proposal for an operational Program Grant for CBD program (Mission funds).
8/18-9/5/80	Guatemala (Oberle)	Followup on the implementation of transfer of contraceptive commodity system from APROFAM to MOH logistics system.
8/25-9/15/80	Bangladesh (Rosenberg)	Followup technical assistance to prospective study for monitoring immediate complications of sterilization procedures.
9/21-10/5/80	Brazil (Morris)	Data processing and coding phase of of 1980 Northeast Brazil CBD evaluation survey.

9/24-9/30/80	Italy (Tyler)	Provided training in the application of epidemiology to family planning program planning (Rome) and the study of abortion (Bologna) (Non-AID funding).

B. TRAVEL OF FOREIGN NATIONALS TO CDC
FISCAL YEAR 1980

Date(s)	Person(s)	Country	Purpose
10/14-20/79	Dr. Carlos Huezo	El Salvador	Patient Flow Analysis--analyze data and prepare preliminary report in Spanish.
2/4-6/80	Dr. Jorge Michelsen Dr. Luis Ponton Dr. Oscar Henao	Colombia Colombia Colombia	Review activities at the Family Planning Evaluation Division, CDC, and discuss future collaboration between the MOH and CDC.
3/4-30/80	Dr. Ying-Chi Tsui	China	Training (Non-AID funding).
3/4-6/30/80	Dr. Qiu Shuhur Dr. Wang Shaoxian	China China	Training (Non-AID funding). Training (Non-AID funding).
5/11-22/80	Lic. Raul Batista Lic. Felix Mascarin	Panama Panama	Data Processing Stage of 1979 Panama Contraceptive Prevalence Survey.
6/9-30/80	Dr. Ike Oyeka	Nigeria (travel from U. of Mich.)	Prepare report on fertility/contraceptive use for survey data available from Nigeria.
7/7-25/80	Dr. Mateja Kozuh-Novak, Family Planning Institute, Ljubljana, Yugo.	Yugoslavia	Training (WHO funding).
7/18-8/9/80	Dr. Sabwa Matanda	IPPF/Kenya	Develop studies on safety of fertility control in Africa; discuss IPPF Workshop on FP Management and evaluation to be held in Kenya late November.
7/7-9/80	Roberto Ferraro	Mexico	Data processing stage of 1979 Mexico Contraceptive Prevalence Survey.
7/28-8/5/80	Ms. Brenda Grey, Executive Director Family Planning Assoc.	Jamaica	Training (USAID Mission funding).

C. RSSA REPORTS COMPLETED FISCAL YEAR 1980

Date of RSSA Report	Country/Project	Travel Date(s)	Person(s)
11/5/79	Honduras: Followup evaluation of Demographic Association CBD program	9/21-10/12/79	R. Monteith M. Oberle
11/9/79	Brazil: Technical assistance to CEMICAMP in study of epidemiology of oral contraceptives and risk factors of breast cancer	9/28-10/12/79	M. Rosenberg
11/13/79	Korea: Fourth International Conference on Voluntary Sterilization: Task force on "Current and Future Male Sterilization Technology"	5/4-11/79	J. Greenspan
11/27/79	Mexico: U.S.-Mexico Border Family Planning/MCH Survey	10/14-18/79 11/5-7/79	R. Rochat J. Smith C. Warren
11/30/79	Paraguay: Assess status of bilateral contraceptive supplies for transshipment	10/22-25/79	R. Monteith
12/3/79	Panama: Assess status of 1979 CPS and discuss logistics assistance with MOH	10/26-31/79	R. Monteith
12/12/79	Colombia: Review MOH surgical contraception program and discuss surveillance system to monitor program performance	10/28-11/1/79	M. Oberle
12/20/79	Guatemala: Evaluation of Direct Distribution of Contraceptive Materials Program	10/31-11/9/79	R. Monteith M. Oberle
12/27/79	Brazil: Training and quality control for coding phase of Piaui CBD baseline survey and planning for 1980 CBD evaluation survey	9/16-30/79	L. Morris
12/24/79	India: U.S.-India Science and Technology Agreement: Meeting on Reproduction and Contraceptive Research (Non-AID funding)	11/22-12/3/79	H. Ory

1/2/80	Colombia: International Seminar on "Methodologies for the Study of Abortion"	12/13-15/80	W. Cates M. Oberle C. Mhango
2/7/80	Bangladesh: Followup logistics assistance including expansion of contraceptive supply system	10/9-11/10/79	J. Graves
2/19/80	Mexico: Coordination with CNPF on data processing requirements for U.S.-Mexico Border Family Planning/MCH survey and U.S.-Mexico Border Health Meeting presentation	1/22-25/80	J. Smith W. Warren
2/20/80	IPPF/London: Assist IPPF in evaluating the relationship between pelvic inflammatory disease and contraception	1/12-2/1/80	D. Kramer
3/3/80	Guatemala: Initial assessment of MOH logistics system	1/21-27/80	R. Monteith M. Oberle
3/14/80	IPPF/London: Consultation with IPPF on strategies to study acceptability and safety of fertility control methods in developing countries (Non-AID funding)	1/13-27/80	R. Rochat
3/14/80	Lebanon: To identify and interview candidates at the American University in Beirut for the Rockefeller-CDC International Training Program in Family Planning Evaluation and Epidemiology (Non-AID funding)	1/28-31/80	R. Rochat
3/28/80	Brazil: Followup technical assistance to CEMICAMP, Campinas, Sao Paulo, in study of epidemiology of oral contraceptives and risk factors of breast cancer	3/14-19/80	M. Rosenberg
4/9/80	El Salvador: Followup assistance to MOH on patient flow analysis	11/25-30/79	A. Hudgins

4/22/80	Bangladesh: Prospective study for monitoring immediate complications of sterilization procedures	1/12-2/21/80	P. Gould M. Rosenberg
4/9/80	Haiti: Evaluation of family planning supply/logistics system of national program	1/20-2/8/80	N. Ewen J. Friedman
6/11/80	Dominican Republic: Review CONAPOFA family planning logistics system and make recommendations for improvement	2/18-29/80	A. Hudgins R. Monteith
5/13/80	Brazil: Assist BEMFAM in preparation of Portuguese language report on 1979 Piaui CBD baseline survey; planning for 1980 CBD evaluation survey in Northeast Brazil	2/23-3/10/80	J. Anderson L. Morris
5/8/80	El Salvador: Assist USAID and ADS in planning for "Oriente" CBD program	3/12-20/80	R. Monteith M. Oberle
5/14/80	Colombia: Surgical contraception program and demographic impact	Followup to RSSA Report of 12/12/79	M. Oberle
5/15/80	Panama: Logistics Assistance	4/13-5/2/80	J. Graves R. Monteith
6/4/80	Bangladesh: Develop protocol and field test questionnaire for study of family planning attitudes of religious leaders	3/18-4/26/80	J. Gold
6/4/80	Colombia: Improve reporting system for surgical contraception program and implement surveillance system for monitoring immediate complications of surgical procedures	4/21-5/3/80	M. Oberle M. Speckhard
7/3/80	Bangladesh: Followup technical assistance to prospective study for monitoring immediate complications of sterilization procedures	4/28-5/14/80	M. Rosenberg

7/11/80	Guatemala: CEFPA/CDC Workshop on use of contraceptive prevalence survey data to evaluate and manage family planning programs	5/21-31/80	A. Hudgins R. Monteith L. Morris
7/22/80	Jamaica: Develop data system for adolescent outreach program and evaluate clinic record keeping system of Family Planning Association	5/21-6/6/80	J. Friedman
9/9/80	Honduras: Assist AHPF (IPPF affiliate) in preparation of proposal for an operation program grant for CBD program	7/21-8/6/80	R. Monteith M. Dalmat
9/16/80	Bangladesh: Investigation of sterilization-related deaths	6/11-7/4/80	D. Grimes H.B. Paterson

D. Other Reports/Projects

November 27-30	Patricia McGrath worked at CDC/FPED on TDY at request of Bob Corno, AID/Latin America/Health, to obtain teenage data tabulations from contraceptive prevalence surveys conducted in Paraguay, El Salvador, and Guatemala
November -	Working Paper - Use of Model Breastfeeding Schedules with Contraceptive Prevalence Survey data (Anderson)
December 5 -	Letter from Dr. Joseph Speidel, Acting Director, AID/POP, requested continued CDC/FPED collaboration with Grady Hospital in the study of Depo-Provera users
December 28 -	Participation in AID/POP/DEMO organized session at Allied Social Sciences Association meeting in Atlanta (Morris, Graves, and Monteith)
February -	Working Paper: Demographic Measurement - Guatemala Contraceptive Prevalence Survey, 1978 (J. Anderson)
March -	Tables for report on 1979 CBD Baseline Survey, Piaui State, Brazil, prepared in collaboration with BEMFAM (L. Morris, J. Anderson and C. Chen)
March -	Working paper: Demographic Measurement - Piaui CBD Baseline Survey, 1979 (J. Anderson)
April -	Population Association of America: Data bases for assessing the levels of contraceptive use in developing countries (J. E. Anderson)
April -	Population Association of America: Contributions of surveys to Family Planning Programs: The Case of Surveys on the United States/Mexican Border (R.W. Rochat)
April -	Centers for Disease Control, April 25, 1980. Assessment of Family Planning--U.S./Mexico Border MMWR Vol 29, No. 16:181-183
April -	U.S.-Mexico Border Health Association. Family Planning Services and Fertility Among Anglo and Hispanic Women on the U.S.-Mexico Border (R.W. Rochat, J.C. Smith, C.W. Warren)
August -	Demographic Measurement: Panama Contraceptive Prevalence Survey, 1979 (Anderson)
August -	Preliminary Data: Panama Contraceptive Prevalence Survey, 1979 (Monteith, Anderson, and Chen)

E. CATEGORIZATION OF INTERNATIONAL ACTIVITY UNITS[1] BY ACTIVITY AND CONTINENT

Activity	Continent					
	Total	Latin America	Asia	Europe[3]	Africa	Other
A. Fiscal Year 1980: Oct. 1979-Sept. 1980						
TOTAL	86	66	10	10	0	0
Logistics	19	17	1	1	0	0
Epidemiology of fertility control and pregnancy outcome	16	5	7	4	0	0
Estimation of contraceptive prevalence, including surveys	14	14	0	0	0	0
Service statistics	8	8	0	0	0	0
Meeting/workshops	8	7	0	1	0	0
Design and/or evaluate innovative programs[2]	8	8	0	0	0	0
Demographic analysis	5	5	0	0	0	0
Consultant to other agencies	4	0	0	4	0	0
Overall program evaluation/management	3	2	1	0	0	0
Population policy	1	0	1	0	0	0
B. Cumulative: July 1974-Sept. 1980						
TOTAL	428	295	66	41	18	8
Logistics	89	59	20	3	7	0
Estimation of contraceptive prevalence	70	65	5	0	0	0
Service statistics	67	56	10	0	1	0
Design and evaluate innovative program[2]	46	44	0	0	2	0
Meeting/Workshops	36	14	3	8	3	8
Epidemiology of fertility control and pregnancy outcome	33	11	16	4	2	0
Overall program evaluation/management	28	18	8	0	2	0
Consultant to other agencies	26	1	0	25	0	0
Demographic Analysis	21	18	2	0	1	0
Population policy	12	9	2	1	0	0

[1]Defined as an activity conducted by an FPED consultant while overseas and described in their consultant's RSSA report; most consultants performed more than one activity per trip and most trips were funded by AID. Some meeting and consultant travel was funded from other sources (WHO, IPPF).

[2]Chiefly community-based distribution (CBD) or direct distribution of contraceptives.

[3]Activities related to IPPF (London) and WHO (Geneva) rather than government programs.

Source: RSSA reports reviewed by Jim Shelton in March 1977 and updated by Leo Morris in October 1980

IV. BUDGET DATA

A. Estimated Person-Weeks of CDC Staff Time Used for International Family Planning Activities Consistent with AID/CDC RSSA October 1, 1979-September 30, 1980

Staff	Scheduled Weeks	Total Weeks Worked	Types of Activity
Rochat (RSSA Project Director)	30	35	A, DA, IC, PIC, M, S, T
Morris (Deputy RSSA Project Director)	39	45	A, DA, IC, PIC, M, S, T
Tyler (Director, FPED, CDC)	12	20	A, S, M, PIC
Medical Staff			
McCarthy	13	5	IC, T
Mhango	52	48	DA, PIC, IC
Oberle	39	47	A, DA, IC, PIC, T
Ory	12	12	IC, T
Medical Epidemiologist (composite)	52	72	DA, IC, PIC, T
Demography/Management Staff			
Anderson	39	46	DA, S, T, PIC, IC, M
Chen	52	52	DA, T
Dalmat	52	23	A, DA, IC, PIC
Friedman	52	34	DA, IC, PIC, T
Goldberg	39	9	DA
Graves	26	19	DA, IC, PIC, M, T
Hudgins	8	16	
Monteith	43	52	DA, IC, PIC, T, M
Other Management Staff	0	24	DA, IC, PIC
Statistical Staff			
Flock	17	21	DA, S
Gould	21	24	DA, IC, PIC
Smith	8	31	A, DA, IC, PIC, S, T
Strauss	13	20	DA, IC, PIC
Warren	31	29	DA, IC, PIC, M
Other Statistical Staff	103	49	DA, IC, PIC
Administrative Staff			
Friel	13	15	A
Hall	22	28	A
Riley	30	33	A
Secretarial Staff	159	191	O
Other Staff	47	52	O, T
	1,024	1,052	

Legend:
- A = Administration-related to RSSA
- DA = Data analysis and report writing
- IC = International consultation
- PIC = Preparation for international consultation
- M = Professional Meetings, organizational activities (e.g., IPPF, APPP, EIS, AID)
- S = Supervision and training of CDC staff
- T = Consultation to AID/W, AID/M, or internationals at CDC
- TR = Training course taken
- O = Other Activities

IV. BUDGET DATA

B. Expenditure Report, AID/CDC RSSA
October 1, 1979-September 30, 1980

Budget Category	Amount Budgeted	Estimated Expenditures
Personnel (including benefits)	$522,584	$536,694
Travel	134,500	125,412
Rent, Communication, Utilities	12,500	12,500
Printing and Reproduction	11,000	12,000
Other Services*	45,000	4,021
Supplies	2,200	3,498
Equipment	5,000	7,800
Equipment Rental	3,600	3,600
Direct	$736,384	$705,525
Indirect (20%)	147,277	141,105
TOTAL	$883,661	$846,630

*Includes consultants, contracts, and purchase orders

V. ACTIVITIES PLANNED FOR FY 1981

- Latin America

1. Brazil: Analyze data and finalize reports on CBD evaluation surveys conducted in Northeast Brazil where CBD program was initiated in 1975. Provide consultancy to BEMFAM (Brazilian IPPF affiliate) to conduct survey to evaluate CBD program in Piaui state. Assist the State University of Campinas, Sao Paulo (CEMICAMP) in analysis of oral contraceptive study in Sao Paulo State. Logistics assistance upon request. Special training at CDC in epidemiology and family planning evaluation for Obstetrician from Sao Paulo (non-AID funding).

2. Colombia: Continue assistance to MOH surgical contraception programs with regard to development of surveillance activities, including reporting system, and health impact of program; logistics assistance upon request.

3. Costa Rica: As followup to CEFPA/CDC management training workshop, provide technical assistance to Family Planning Association and Social Security Institute in the implementation of patient flow analysis to improve clinic efficiency.

4. Dominican Republic: Provide followup assistance to CONAPOFA for the improvement of family planning logistics system; assistance in service statistics reporting and determining contraceptive requirements. Preliminary discussions concerning contraceptive prevalence survey (tentatively scheduled to be conducted in FY 82).

5. El Salvador: Continue review of data systems development and evaluation and analysis of current data collection as requested by AID. Provide USAID Mission with assistance in establishing baseline data for proposed CBD program in the Eastern Region of the country. Assist Salvador Demographic Association (ADS) in implementation and evaluation of proposed CBD program, including development of management data system and determination of contraceptive requirements. Assess development of logistics system as requested by Mission; continue to provide the Ministry of Health assistance in analysis of data relating to surgical contraception. Make recommendations based on analysis of patient flow study completed in FY 80. Special training at CDC in epidemiology and family planning evaluation for MOH physician.

6. Guatemala: Provide followup assistance as may be requested by USAID Mission and AID/W to further support the Asociacion Profamilia (APROFAM) logistics system for distributing family planning supplies. Followup on the implementation of user reporting in MOH programs and continue assessment and development of MOH logistics system for distribution of family planning supplies. Continue to assist Mission with the collection, evaluation, and analysis of service statistics data as requested by AID. Implement patient flow analysis in MOH clinics.

7. Haiti: Provide followup assistance to the MOH with further development and evaluation of family planning supply/logistics system.

8. Honduras: Provide assistance as requested in the extension of the IPPF affiliate CBD program and the development of other non-clinic-based distribution programs. Conduct study on the epidemiology of adverse reproductive health outcomes.

9. Jamaica: Provide followup assistance to family planning association in the evaluation of record-keeping system and development of data system for adolescent outreach program. Provide logistics assistance as requested by USAID.

10. Mexico: Complete analysis and final report for the family planning/maternal child health survey in the U.S.-Mexico Border Area to assess the need for and knowledge of the availability of family planning services; this survey will provide baseline data for future measurement of program outcome; and obtain information essential for future planning.

11. Panama: Continue service statistics data collection, evaluation, and analysis as requested by AID. Complete report on 1979 Contraceptive Prevalence Survey and continue consultations on program and logistics management.

12. Peru: Provide logistics assistance as requested by USAID Mission. Discuss plans for contraceptive prevalence survey in 1982.

13. Other: Collaborate with AID designated training agency and Westinghouse Health Systems in the planning, organization, and presentation of a South American Workshop on logistics management and use of contraceptive prevalence survey data to influence management and evaluation of programs as well as policy decisions.

B. Asia

1. Bangladesh: Followup CDC-devised logistics system. Complete reports of onsite field review to characterize mortality and epidemiology of abortion and study of health impact of sterilization.

2. Peoples Republic of China: During FY 1980, three physicians from the Peoples Republic of China spent 7 months at FPED/CDC receiving training in epidemiology and family planning evaluation under the support of the Rockefeller Foundation and UNFPA. Dr. Qiu Shuhur, one of the trainees, has officially recommended to the Minister of Health of China (Suhua memo of August 13, 1981) collaboration with CDC to bring about further improvement of program effectiveness and family health in China. A

collaborative study between the National Office of the Family Planning Leading Group of the State Council of China and CDC has been proposed to (1) evaluate the national family planning program, including estimation of contraceptive prevalence, and (2) detect health problems associated with population and fertility control As specific proposals for collaboration are developed, they will be presented to AID management to determine whether RSSA funds might appropriately be used for providing technical assistance for such activities.

3. Indonesia: Review status of epidemiologic studies (PIACT, IFRP) dealing with reproductive health and safety of fertility control methods with University of Indonesia and BKKBN medical personnel.

4. Philippines: Complete report on the fertility impact on contraceptive acceptors of outreach CBD program using data provided by International Institute of Rural Reconstruction.

5. Singapore: Review status of fertility control-related safety and effectiveness studies with Singapore University medical staff.

6. Thailand: At USAID request, provide technical assistance to Government of Thailand on logistics management and forecasting of contraceptive requirements. Consult regarding feasibility of implementing patient flow analysis. Review Thai fertility control-related safety studies.

C. Near East-North Africa

1. Egypt: Consult with medical personnel at Cairo University and Alhaza University regarding the development of an African edition of Contraceptive Technology. Provide logistics assistance upon request.

2. Lebanon: Special training at CDC in epidemiology and family planning for physicians from the American University of Beirut.

3. Morocco: Consult with medical personnel at MOH regarding the development of an African edition of Contraceptive Technology.

D. Africa

1. Cameroon: Consult with medical personnel at MOH regarding the development of an African edition of Contraceptive Technology; provide technical assistance on epidemiology of infertility.

2. Ghana: Consult with medical personnel at University of Ghana and at Family Planning Association regarding the development of an African edition of Contraceptive Technology.

3. Kenya: Provide technical assistance to Regional Office of IPPF in the organization and presentation of family planning management workshop for English-speaking countries. Consultation with medical personnel at IPPF Regional Office regarding the development of an African edition of Contraceptive Technology.

4. Mali: At request of Deputy Director of Health, provide technical assistance in evaluation of family planning activities and explore feasibility of epidemiologic study to better morbidity and mortality associated with illegal abortion.

5. Somalia: Provide technical assistance in overall evaluation of AID-supported population projects.

6. Sudan: Provide technical assistance in overall evaluation of AID-supported population projects. Consultation with medical personnel at MOH and Khartoum University regarding the development of an African edition of Contraceptive Technology.

7. Tanzania: Consult with MOH medical personnel regarding the development of an African edition of Contraceptive Technology.

E. Contraceptive Technology-Africa Edition

1. At the end of FY 1980 funds were provided for the development of an African edition of Contraceptive Technology. During FY 1981, the 1980-1981 English edition of Contraceptive Technology will be revised, adapted, and localized to reflect the contraceptive programs and practices of the African continent, including discussion of the specific contraceptive drugs and devices currently in use, selected reproductive health problems, and indigenous maternal child health/family planning delivery systems. In this connection, several new themes/subjects have been identified for treatment because of their central interest to a broad African audience. For example, infertility is an important problem in many African countries and should be given appropriate consideration as a separate chapter. The history, probable causes, and geographical pattern of this reproductive health problem will be examined. Similarly, female circumcision markedly affects reproductive health due to immediate morbidity and subsequent pelvic inflammatory disease and possible infertility. It is recognized that this is a sensitive subject which will require extensive consultation with knowledgeable individuals both here and in Africa. An introductory chapter dealing with traditional forms of contraception, their use effectiveness and related health risks, as well as traditional patterns of sexual activity, is also being considered.

2. The research staff will investigate the above subjects and others to be ascertained, in addition to the majority of topics already

covered in former editions of Contraceptive Technology, within the context of Africa. This will be done by conducting a focused review of available data sources--as WFS data--and current research in the field of reproductive health in Africa; by visiting a number of African countries for on-site research and investigation; by interviewing experienced and knowledgeable practitioners and program managers in Africa to identify and clarify areas of concern and need felt by specific countries; and by actively soliciting suggestions which might be used in revising Contraceptive Technology to make it more relevant for Africa.

3. The development of an African edition of Contraceptive Technology will be the result of a collaborative effort including CDC staff members, Dr. Robert A. Hatcher, principal author of previous editions of this publication, two of his former associates, and four or five African researcher/co-authors. The African edition is to be published in English and French and is intended to be used as a major reference work by African medical students and faculty members, public health nurses and officials, physicians, maternal child health/family planning program managers, and international technicians working on maternal and child health issues relating to family planning in Africa.

F. AID/Washington

1. Provide assistance to DS/POP/FPSD in the evaluation and modification, if necessary, of the quarterly and annual service statistics reporting forms, including guidance to the field on completing the forms.

2. Provide assistance to DS/POP/FPSD in completing guidelines for USAID Missions on management of contraceptive logistics systems and development of commodity data systems, with a view toward improving supply conditions and coordination among international donor agencies.

3. Ad hoc studies and/or literature reviews on subjects such as the health impact of family planning programs and the success of vertical versus horizontal health programs.

4. Provide technical assistance and input into the design and implementation of population/family planning training programs on a regional or county-specific basis for AID population/health personnel and other cognizant staff. As this activity develops, supplemental RSSA funding may be required.

ATTACHMENT I

A. INTERNATIONAL VISITORS TO FPED/CDC
October 1, 1979-September 30, 1980

Date(s)	Name	Country	Title
10/3/79	Dr. Ah-Yen Wong	Mauritius	Minister of Health
11/2/79	Dr. Gustavo Corrales	Honduras	Chief of Planning, Ministry of Public Health
2/4-6/80	Dr. Jorge Michelsen	Colombia	Vice Minister Ministry of Health
2/4-6/80	Dr. Luis Ponton	Colombia	Chief, International Division Minister of Health
2/4-6/80	Dr. Oscar Henao	Colombia	Maternal Child Health/Family Planning, Ministry of Health
2/25/80	Dr. Georgette Thomas	Seychelles	Secretary of Health
3/4-3/30/80	Dr. Ying-Chi Tsui	China	Dept. of Obstetrics/Gynecology Capital Hospital Peking (Beijing)
3/4-9/30/80	Dr. Qiu Shuhur	China	Chinese Academy of Medical Sciences, Peking (Beijing)
3/4-9/30/80	Dr. Wang Shaoxian	China	Dept. of Medical Statistics Peking Medical College (Beijing) (Designated Chief of Evaluation for Family Planning Program)
3/10/80	Dr. Claude Aguillaume	New York (IPAVS)	Director, Africa Region International Project, Association for Voluntary Sterilization
3/26/80	Dr. Ashid de Clervoux	Luxembourg	Ministry of Health
4/1-3/80	(International PID Conference held at CDC)		
	Dr. S. Firoza Begum	Bangladesh	Prof. Ob/Gyn Dacca Medical College
	Dr. El Fadil Omer	Sudan	Ministry of Health

	Dr. Hamid Rushwan	Sudan	Prof. Ob/Gyn University of Khartoum
	Dr. Wm. Botero	Colombia	Dept. Ob/Gyn University Medellin
	Dr. Alfonso Jubiz H.	Colombia	Dept. Ob/Gyn University Medellin
	Dr. Jaime Garcia Martinez	Colombia	Dept. Ob/Gyn University Medellin
	Dr. Samir Hajj	Lebanon	Chairman, Dept. Ob/Gyn AUB
	Dr. Ratnam	Zambia	Ministry of Health
	Dr. Anne Retel-Laurentis	France	Maitre de Recherche University Paris
	Dr. Pramilla Senanayake	IPPF/London (Sri Lanka)	Medical Program Advisor
	Dr. Mark Belsey	WHO/Geneva	Special Program for Research in Human Reproduction
4/7/80	Om Prakash Sethi, M.S.	India	Statistical Officer Directorate of Health Service Haryana, India
4/7/80	Choto Ranjan Sinha, M.A.	India	Family Planning Analyst Ministry of Health & Family Welfare New Delhi, India
4/7/80	S.K. Dhawan, M.A.	India	Research Officer Ministry of Health and Family Welfare New Delhi, India
5/11-22/80	Lic. Raul Batista	Panama	Chief, Statistics and Computer Services, Ministry of Health
5/11-22/80	Lic. Felix Mascarin	Panama	Population Studies Office, Ministry of Health
6/9-30/80	Dr. Ike Oyeka	Nigeria	Demographer, Enugu University Enugu, Nigeria
6/13/80	Dr. Qian Xinzhong	People's Republic of China (PRC)	Minister of Health

6/13/80	Dr. Cheng Keru	PRC	Deputy Director, Bureau of Foreign Affairs
6/13/80	Dr. Liu Shilian	PRC	Chinese Academy of Medical Sciences
6/17/80	Dr. Rene Charles	Haiti	Minister of Health
6/24/80	Seminar for Health, Population/Family Planning and Social Service Personnel from University of Connecticut Course in Critical Training, Management, and Leadership Skills.		
	Dr. Jahir Uddin Ahmed	Bangladesh	Population Control and Family Planning Division Azimpur, Dacca, Bangladesh
	A.K.M. Abdul Hamid	Bangladesh	Training Officer Population Control and Family Planning Division Azimpur, Dacca, Bangladesh
	Rejaul Hossain Khan	Bangladesh	Instructor National Institute of Population Research and Training Azimpur, Dacca, Bangladesh
	Dr. Sadek Mohamed Afify	Egypt	Rural Health Director Health Department Menofia, Egypt
	Dr. Afaf Abbas Ismail	Egypt	Director of MCH & Family Planning Dept. Ministry of Health Minya, Egypt
	Abdel Shafi Fawzy	Egypt	Ministry of Social Affairs Kafer Elsheik Department
	Gertie Williehe Avery	Liberia	Supervisor & Trainer of Midwives Ministry of Health & Social Welfare Monrovia, Liberia
	Elizabeth Effua Dadzie	Ghana	Senior Nursing Officer & Clinical Instructor Ministry of Health (MCH) Korle-Bu Teaching Hospital Korle-Bu-Accra, Ghana
	Mrs. Miriam W. Maina	Kenya	Hospital Matron Ministry of Health Nairobi, Kenya

	Mrs. Michal Akoth Odipo	Kenya	Nursing Officer Ministry of Health National Family Welfare Centre Nairobi, Kenya
	Jane Penina Ogada	Kenya	District Public Health Nurse Ministry of Health Nairobi, Kenya
	Joan W. Wainaina	Kenya	Midwifery & Maternal Child Health Family Planning Ministry of Health Nairobi, Kenya
	Agnes Tenin Abubakar	Nigeria	Ministry of Health The Commissioner for Health Minna Niger State, Nigeria
	Mrs. Damazia Yentertunde Kuteyi	Nigeria	Deputy Chief Nursing Officer (Public Health) Federal Ministry of Health Ikoyi, Lagos, Nigeria
	Eileen Beresford-Cole	Sierra Leone	Clinic Supervisor Planned Parenthood Association Freetown, Sierra Leone
	Nongnuch Boonyakiat	Thailand	Nurse Trainer & Supervisor Family Health Division, Dept. of Health Ministry of Public Health Tewase Palace, Bangkok
	Mrs. Chusie Sujpluem	Thailand	Chief of Training, Supervision & Education Section Family Health Division Ministry of Health Tewase Palace, Bangkok
6/28/80	Dr. Mike D'Lamini	Swaziland	Director, Medical Services
6/30/80	Dr. Rosario Famaron	Philippines	Evaluation Division Ministry of Health
7/7/80	Dr. Sinon Khosa	South Africa	Medical Officer City Health Department Soweto, Johannesburg
7/7-25/80	Dr. Mateja Kozuk-Novak	Yugoslavia	Family Planning Institute Ljubljana, Yugoslavia

7/11/80	Dr. Muriel Richter	South Africa	Medical Officer City Health Department Dunban
7/14/80	Dr. Khalid A. Shami	Jordan	School of Medicine Amman
7/18-8/9/80	Dr. Sabwa Matanda	Zaire	IPPF Regional Office Nairobi, Kenya
7/14/80	Dr. Huda Zuragh	Lebanon	Associate Professor of Biostatistics American University of Beirut
7/7-9/80	Roberto Ferraro	Mexico	Computer Programmer National Family Planning Coordination
7/7/80	Dr. Juan Almerdates	Honduras	Director, National Autonomous University of Honduras
7/28-8/5/80	Ms. Brenda Grey	Jamaica	Executive Director Family Planning Association
7/28-8/5/80	Dr. Fancesco Taroni	Italy	Regional Medical Epidemiologist Public Health Institute - Rome
7/28/80	Batil Abri Abdullah Al-Ruwaiz	Saudi Arabia Saudi Arabia	Students, Central Michigan University
8/8/80	Dr. Jacque Diouf	Senegal	Minister of Science and Research Dahar, Senegal (Sponsor: AID)
8/19/80	Sandoussi Konate	Mali	Deputy Director Ministry of Health
9/22/80	Ms. Dorothy Gilbert	Zaire	Educational Associate Associated Missions Medical Officer Kinshasha, Zaire

B. INTERNATIONAL VISITORS BY COUNTRY
July 1979-September 1980

LATIN AMERICA

Persons

(6) Colombia
(1) El Salvador
(1) Guatemala
(1) Haiti
(3) Honduras
(1) Jamaica
(1) Mexico
(2) Panama

ASIA

(3) Australia
(6) Bangladesh
(4) India
(6) People's Republic of China
(2) Singapore
(1) Sri Lanka
(2) Thailand
(1) The Philippines

EUROPE

Persons

(1) England
(2) France
(1) Italy
(1) Luxembourg
(1) Netherlands
(1) Switzerland
(1) West Germany
(1) Yugoslavia

AFRICA

Persons

(4) Egypt
(1) Ghana
(5) Kenya
(2) Liberia
(1) Mali
(3) Nigeria
(1) Senegal
(1) Seychelles
(1) Sierra Leone
(2) South Africa
(2) Sudan
(1) Swaziland
(2) Tunisia
(1) Zaire
(2) Zambia

MIDDLE EAST

Persons

(1) Jordan
(4) Lebanon
(2) Saudi Arabia

Total Persons - 86

(Carlos Huezo & Shao-Xian Wang each had 2 separate visits)

ATTACHMENT II

THE FAMILY PLANNING EVALUATION DIVISION PUBLICATIONS 1979 and 1980

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
Centers for Disease Control
Center for Health Promotion and Education
Family Planning Evaluation Division
Atlanta, Georgia 30333

1979

Aly HE, Dakroury AH, Said AK, Hussein MA, El-Ghorab MI, Anderson JE, Miller DC, Brink EW, Shaheen FM, Ghoneme FM. Use of nutrition surveys for family planning program evaluation; the case of the Arab Republic of Egypt nutrition status. The Journal of the Egyptian Public Health Association 1979; 54:291-312. (FAMILY PLANNING PROGRAM EVALUATION; EGYPT)

American College of Obstetricians and Gynecologists. Methods of midtrimester abortion. ACOG Technical Bulletin No. 56, December, 1979 (Grimes D and Brenner WE, authors). (ABORTION MORBIDITY)

Anderson JE. Differences in U.S. marital fertility, 1970-73, by planning status of births. Public Health Rep 1979;94:319-325. (FERTILITY)

Brann EA. A multivariate analysis of interstate variation in fertility of teenage girls. Am J Public Health 1979;69:661-666. (FERTILITY; ADOLESCENT FERTILITY/PREGNANCY; FAMILY PLANNING PROGRAM EVALUATION; ABORTION)

Brann EA, Edwards L, Callicott T, Story ES, Berg PA, Mahoney JE, Stim JL, Hixson A. Strategies for the prevention of pregnancy in adolescents. Advances in Planned Parenthood 1979;14:68-76. (ADOLESCENT FERTILITY/PREGNANCY; FAMILY PLANNING PROGRAMS)

Burr WA, Falek A, Strauss LT, Brown SB. Fertility in psychiatric outpatients. Hosp Community Psychiatry 1979;30:527-531. (FERTILITY; ATLANTA, GEORGIA)

Cates W Jr. Abortions in obese women. Sexual Medicine Today 1979 May:30-31. (ABORTION)

Cates W Jr. D&E after 12 weeks: safe or hazardous? Contemporary OB/GYN 1979;13:23-29. (ABORTION MORBIDITY)

Cates W Jr. Evaluating the quality of abortion services by measuring outcomes. Advances in Planned Parenthood 1979;14:13-20. (ABORTION)

Cates W Jr. IUD in pregnant uterus. Med Aspects Hum Sex 1979;13:117-118. (INTRAUTERINE DEVICES)

Cates W Jr. Late effects of induced abortion - hypothesis or knowledge? J Reprod Med 1979;22:207-212. (ABORTION MORBIDITY)

Cates W Jr. Late effects of induced abortion. Letter - J Reprod Med 1979;23:78 (ABORTION MORBIDITY)

Cates W Jr, Gold J, Selik RM. Regulation of abortion services--for better or worse? N Engl J Med 1979;301:720-723. (ABORTION)

Cates W Jr, Selik RM. Regulating abortion services. Letter - N Engl J Med 1980;302:1094 (ABORTION)

Cates W Jr, Jordaan HF. Sudden collapse and death of women obtaining abortions induced with prostaglandin F2a. Am J Obstet Gynecol 1979;133:398-400. (ABORTION MORTALITY)

Cates W Jr, Kimball AM, Gold J, Rubin GL, Smith JC, Rochat RW, Tyler CW Jr. The health impact of restricting public funds for abortion, October 10, 1977-June 10, 1978. Am J Public Health 1979;69:945-947. (ABORTION, PUBLIC POLICY)

Cates W Jr, Ory HW. IUD complications: infection, death, and ectopic pregnancy. In: Moghissi KS. Controversies in contraception. Baltimore: Williams and Wilkins Company, 1979:187-201. (INTRAUTERINE DEVICES)

Cates W Jr, Schulz KF, Gold J, Tyler CW Jr. Complications of surgical evacuation procedures for abortions after 12 weeks' gestation. In: Zatuchni GI, Sciarra JJ, Speidel JJ, eds. Pregnancy termination: procedures, safety and new developments. Maryland: Harper and Row, 1979:206-217. (ABORTION MORBIDITY)

Cates W Jr, Schulz KF, Grimes DA. Midtrimester abortion procedures. Letter - Am J Obstet Gynecol 1979;133:934-936. (ABORTION MORBIDITY)

Cates W Jr, Schulz KF, Grimes DA, Tyler CW Jr. Short-term complications of uterine evacuation techniques for abortion at 12 weeks' gestation or earlier. In: Zatuchni GI, Sciarra JJ, Speidel JJ, eds. Pregnancy termination: procedures, safety and new developments. Maryland: Harper and Row, 1979:127-135. (ABORTION MORBIDITY)

Center for Disease Control. Abortion-related mortality - United States, 1977. Morbidity and Mortality Weekly Report 1979;28:301-304. (ABORTION MORTALITY)

Center for Disease Control. Abortion surveillance 1977. Atlanta, Ga.: Center for Disease Control, 1979. (ABORTION SURVEILLANCE)

Center for Disease Control. Abortion Surveillance - United States, 1977. Morbidity and Mortality Weekly Report 1979;28:381-383. (ABORTION SURVEILLANCE)

Center for Disease Control. Health effects of restricting federal funds for abortion - United States. Morbidity and Mortality Weekly Report 1979;28:37-39. (ABORTION, PUBLIC POLICY)

Center for Disease Control. Surgical sterilization surveillance; tubal sterilization 1970-1975. Atlanta, Ga.: Center for Disease Control, 1979. (STERILIZATION)

Center for Disease Control. Tubal sterilization - United States, 1970-1975. Morbidity and Mortality Weekly Report 1979;28:169-171. (STERILIZATION)

Center for Disease Control. Underreporting of neonatal deaths - Georgia, 1974-1977. Morbidity and Mortality Weekly Report 1979;28:253-254. (INFANT/NEONATAL HEALTH/MORTALITY; GEORGIA)

Gold J, Cates W Jr. Restriction of federal funds for abortion: 18 months later. Am J Public Health 1979;69:929-930. (ABORTION, PUBLIC POLICY)

Gold J, Smith JC, Cates W Jr, Tyler CW Jr. The epidemiology of abortion in the United States. In: Zatuchni GI, Sciarra JJ, Speidel JJ, eds. Pregnancy termination: procedures, safety and new developments. Maryland: Harper and Row, 1979:387-393. (ABORTION)

Grimes DA, Cates W Jr. The comparative efficacy and safety of intraamniotic prostaglandin F2a and hypertonic saline for second-trimester abortion - a review and critique. J Reprod Med 1979;22:248-254. (ABORTION MORBIDITY)

Grimes DA, Cates W Jr. Complications from legally-induced abortion: a review. Obstet Gynecol Surv 1979;34:177-191. (ABORTION MORBIDITY; ABORTION MORTALITY)

Grimes DA, Cates W Jr, Ziskin LZ, Kreitzker MS, Gregory M. Maternal death at term as a late sequela of failed attempted abortion. Advances in Planned Parenthood 1979;14:77-79. (ABORTION MORTALITY; NEW JERSEY)

Grimes DA, Schulz KF, Cates W Jr, Tyler CW Jr. Local versus general anesthesia: which is safer for performing suction curettage abortions? Am J Obstet Gynecol 1979;135:1030-1035. (ABORTION MORBIDITY)

Guidotti RJ, Grimes DA, Cates W Jr. Amniotic-fluid embolism and abortion. Letter - Lancet 1979;II:911-912. (ABORTION MORTALITY)

Layde PM, Goldberg MF, Safra MJ, Oakley GP Jr. Failed intrauterine device contraception and limb reduction deformities: a case-control study. Fertil Steril 1979;31:18-20. (INTRAUTERINE DEVICES)

Maruchi N, Brian D, Ludwig J, Elveback LR, Kurland LT. Cancer of the pancreas in Olmsted County, Minnesota, 1935-1974. Mayo Clin Proc 1979;54:245-249. (OTHER; MINNESOTA)

McCarthy BJ, Abbott B, Terry JS. Teenage pregnancy in Georgia: defining the problem. J Med Assoc Ga 1979;68:373-378. (ADOLESCENT FERTILITY/PREGNANCY; GEORGIA)

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TABLE 1

Status of Contraceptive Prevalence Information for Latin America[1]
December 1980

	Year of Survey Fieldwork			Percent of Married Women 15-44 Using Contraception[2]			Population Estimate (millions)	
	WFS	CPS1	CPS2	WFS	CPS1	CPS2	1979	CBR[3]
Caribbean								
Cuba							9.8	18
Dominican Republic	1975	(1982)		33			5.6	36
Haiti	1977	(1982)					5.7	43
Jamaica	1976	1979		41			2.2	27
Puerto Rico		1974	(1982)		61*		3.4	23
Trinidad and Tobago	1977						1.1	25
							27.8	
Middle America								
Costa Rica	1976	1978	(1981)	64**	64		2.2	29
El Salvador		1975	1978		22	34	4.7	40
Guatemala		1978			18		6.8	44
Honduras		(1981)					3.6	46
Mexico	1976	1978	1979	30*	38	39	65.8	36
Nicaragua							2.4	46
Panama	1976	1974	1979	54**	31	61	1.9	28
							87.4	
South America								
Argentina							27.2	26
Bolivia							5.2	46
Brazil (States)							119.1	32
Sao Paulo		1978			64		23.2	24
Piaui		1979			31		2.2	39
Bahia		1980					9.3	
Paraiba		1980					2.9	
Pernambuco		1980			41		6.4	
Rio Grande do Norte		1980			45		2.1	
Amazonas		(1981)					1.2	
Other States							71.8	
Chile							10.8	23
Colombia	1976	1978	1980	42	46		26.2	29
Ecuador	1979						7.8	42
Guyana	1975			32			0.8	30
Paraguay	1979	1977			26		3.1	46
Peru	1977	(1982)		25			17.2	41
Uruguay							2.9	21
Venezuela	1977						14.5	36
							234.8	
							350.0	

*Ever married women 15-49
**Women 20-49

[1]Includes countries with 500,000 or more population
[2]Includes women in consensual union
[3]Crude birth rate available for year of contraceptive prevalence data; if no contraceptive prevalence data or contraceptive prevalence data not yet available, the crude birth rate is for the most recent year available.

WFS = World Fertility Survey
CPS = Contraceptive Prevalence Survey

TABLE 2

Principal Objectives of
Contraceptive Prevalence Surveys

1. To estimate fertility levels in at least 2 strata (urban and non-urban) since birth registration is not accurate or complete in most developing countries.

2. To describe levels of knowledge about contraceptives and past and current use of contraceptives in each stratum by age group, education level, and marital status.

3. To estimate the proportion of women who have had unplanned pregnancies.

4. To define the percentage of the population of women 15-44 years of age that are in need of family planning services. To be counted as "in need of family planning services," a woman had to be sexually active, fecund, not currently desiring pregnancy, and either using ineffective means or no contraception for reasons unrelated to being pregnant or infertile.

5. To describe the method and source of contraception for women currently using contraception. For women not currently using contraception, to find out why not.

6. For nonusers wanting to space or limit the number of children they will have, to determine what method of contraception is preferable and their knowledge of availability of these services.

7. To determine what proportion of women not wanting any more children would consider surgical contraception as a permanent method of limiting fertility, as well as what proportion of women would use contraceptives distributed through a community-based distribution program.

8. To determine the proportion of women with a history of abortion, including the percentage needing medical care or hospitalization or both following abortion.

9. To determine the pattern of utilization of maternal and child health services, including prenatal care, postpartum care, and well-baby services, as well as immunization levels.

10. To evaluate IE&C programs.

TABLE 3

PERCENTAGE OF CURRENTLY MARRIED WOMEN AGE 15-44 USING CONTRACEPTION BY METHOD, SELECTED AREAS IN LATIN AMERICA WITH CONTRACEPTIVE PREVALENCE SURVEYS OR WORLD FERTILITY SURVEYS SINCE 1975

Current Use and Method	Sao Paulo State, Brazil (1978)	Costa Rica (1978)	Panama (1979)	R.G. do Norte State Brazil (1980)	Colombia (1978)	Pernambuco State Brazil (1980)	Mexico (1978)	Dominican Republic (1975)	El Salvador (1978)	Piaui State, Brazil (1979)	Paraguay (1977)	Peru (1977)	Guatemala (1978)
Currently Using	63.9	63.9	60.6	47.4	47.0	41.4	39.5	33.0	34.4	30.8	24.0 [1/9]	25.4	18.2
Orals	27.8	23.2	19.0	17.8	17.2	18.5	14.0	8.4	8.7	10.0	10.1	4.2	5.4
Sterilization	16.1	14.6	29.7	17.2	7.5	18.9	7.0	12.4	18.0	15.4	2.9	2.7	6.4
IUD	0.4	5.1	3.7	0.2	7.7	0.6	7.0	3.0	3.3	0.0	3.4	1.4	1.3
Condom	6.6	8.4	1.7	0.5	1.4	0.7	1.0	1.6	1.5	0.1	1.8	1.1	0.8
Rhythm	5.2	8.0	2.9	6.3	8.7	3.5	2.9	1.3	1.7	2.6	1.6	10.9	2.6
Other Methods	7.8	4.6	3.6	5.4	4.5	5.3	7.6	6.3	1.2	2.7	4.1	5.1	1.7
Not Currently Using	36.1	36.1	39.4	52.6	53.0	58.6	60.5	67.0	65.6	69.2	76.0	74.6	81.8
Number of Married Women (in sample)	1,880	2,037	1,528	1,301	2,085	1,252	2,663	1,808	1,476	1,269	1,208	5,076	1,915
Reported or Estimated Crude Birth Rate (per 1,000 population)	23.9	29.8	28.9	NA	29.0	32.9	36.0	36.0	40.0	39.0	46.0	41.0	44.8
National Agcy:	PUCC	DGEC	MOH	IPPF	CCRP	IPPF	CNPF	CNPF	IPPF	IPPF	MOH	DGEC	IPPF
Technical Assistance Provided by:	CDC IFRP	W	CDC	CDC IFRP	W	CDC IFRP	W	WFS	CDC	CDC CU	CDC	WFS	CDC

National Agencies:

PUCC: Catholic University of Campinas
DGEC: National Statistics/Census Agency
MOH: Ministry of Health
IPPF: Planned Parenthood Affiliate
CCRP: Regional Population Center of Colombia
CNPF: National Coordination of Family Planning Office

Technical Assistance

CDC: Centers for Disease Control (FPED)
IFRP: International Fertility Research Program
W: Westinghouse Health Systems
WFS: World Fertility Survey
CU: Columbia University

Fig. 1 CONTRACEPTIVE USE AND CRUDE BIRTH RATE, 15 SUBREGIONS, 6 CONTRACEPTIVE PREVALENCE SURVEYS

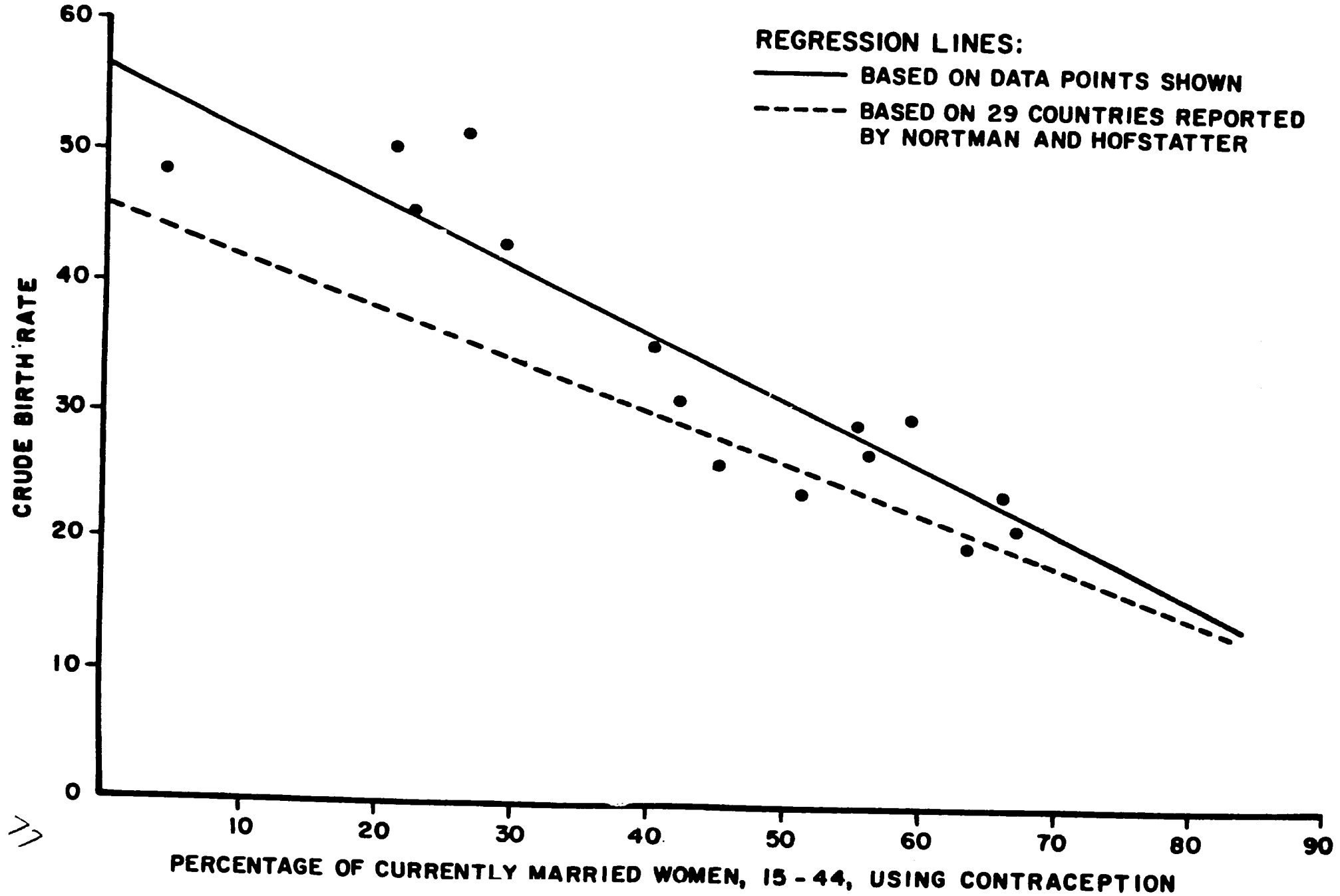

TABLE 4

Percent of Women 15-44 in Need of Family Planning Services*
Six Recent Contraceptive Prevalence Surveys

A. Paraguay 1977	Total	Asuncion	Interior	
	24.9	*11.0*	*28.8*	
B. Sao Paulo State 1978	Total	Sao Paulo City	Other Urban	Rural
	8.6	*8.4*	*8.2*	*10.8*
C. El Salvador 1978	Total	Metro San Salvador	Other Urban	Rural
	16.2	*6.5*	*12.6*	*20.6*
D. Guatemala 1978	Total	Dept. of Guatemala	Interior	
			Ladino	Indian
	26.8	*13.3*	*25.0*	*37.4*
E. Piaui 1979	Total	Teresina	Interior	
	20.3	*11.2*	*22.3*	
F. Panama 1979	Total	Urban	Rural	
	12.3	*7.7*	*17.7*	

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

TABLE 5

Mean Number of Live Births to Women Aged 15-44, Total Fertility Rate (TFR) and Crude Birth Rate (CBR) in Six Latin American Regions, by Residence

Region and Residence	Mean No. of Children	TFR	CBR
El Salvador (1978)	2.8	6.3	43
Metro San Salvador	1.9	2.6	27
Other Urban	2.6	4.1	31
Rural	3.2	8.4	51
Guatemala (1978)	3.0	6.1	45
Dept. of Guatemala	2.2	4.1	35
Rest of Country			
Ladino	3.2	6.5	45
Indian	3.3	6.7	48
Panama (1979)	2.3	3.5	25
Urban	1.7	2.4	21
Rural	3.0	4.9	29
Paraguay (1977)	2.8	6.8	46
Metro Asuncion	1.3	2.7	24
Rest of Country	3.2	8.2	50
Piaui State, Brazil (1979)	2.9	6.2	41
Teresina	2.0	3.5	26
Rest of State	3.1	6.8	43
Sao Paulo State, Brazil (1978)	1.9	2.8	24
Sao Paulo City	1.6	2.5	20
Other Urban	1.9	2.7	24
Rural	2.7	4.2	30

TABLE 6

Ratios of Mean Number of Live Births for Women Aged 15-44 to the Number of Live Births Expected Based on Fertility Rates in the Previous Year, by Residence

Region and Residence	Ratio
El Salvador	1.04
Metropolitan San Salvador	1.39
Other Urban	1.39
Rural	0.93
Guatemala	1.10
Department of Guatemala	1.17
Rest of Country:	
Ladinos	1.12
Indians	1.05
Panama	1.25
Urban	1.37
Rural	1.14
Paraguay	1.00
Metropolitan Asuncion	1.15
Rest of Country	0.97
Piaui State, Brazil	1.11
Teresina	1.49
Rest of State	1.05
Sao Paulo State, Brazil	1.31
Sao Paulo City	1.38
Other Urban	1.31
Rural	1.28

NOTE: Observed and expected numbers of live births were calculated for each 5-year age group; the ratios shown are the average ratios for age groups 20-24 through 40-44.

TABLE 7

Percent of Currently Married Women 15-44 Using Contraception, by Residence, Six Recent Contraceptive Prevalence Surveys

A. Paraguay 1977	Total	Greater Asuncion	Interior
	24.0	*45.8*	*19.6*

B. Sao Paulo State, 1978	Total	Sao Paulo City	Other Urban	Rural
	63.9	*63.4*	*66.0*	*58.6*

C. El Salvador 1978	Total	Metro San Salvador	Other Urban	Rural
	34.4	*56.4*	*41.9*	*26.2*

D. Guatemala 1978	Total	Dept. of Guatemala	Interior	
			Ladino	Indian
	18.1	*40.4*	*21.6*	*4.0*

E. Piaui State 1979	Total	Teresina	Interior
	30.9	*44.9*	*28.8*

F. Panama 1979	Total	Urban	Rural
	60.6	*67.1*	*55.0*

TABLE 8

Various Indicators Related to Abortion (Spontaneous and Induced)
Six Recent Contraceptive Prevalence Surveys

	Percent of Reported Pregnancies Ending in Abortion	Percent of Married Women with at Least One Abortion	Percent Receiving Medical Attention at Last Abortion	Percent Hospitalized at Last Abortion
Paraguay, 1977	7.4	24.0	60.4	42.7
Sao Paulo State, 1978	10.9	21.9	43.1	35.7
El Salvador, 1978	6.1	19.9	54.0	40.8
Guatemala, 1978	5.4	13.2	56.7	36.5
Piaui State, 1979	8.5	28.9	60.8	38.9
Panama, 1979	7.4	19.7	73.8	61.3

TABLE 9

Percent Distribution of Women Aged 15-44 Who Are in Need of Family Planning Services* by Region/Ethnic Group and Selected Characteristics
Guatemala, 1978

Characteristics	Total	Dept. of Guatemala	Interior	
			Ladino	Indigena
TOTAL (684 cases)**	100.0	10.4	42.4	47.2
Age Group				
15-19	9.0	0.3	4.5	4.2
20-24	18.6	1.7	7.3	9.6
25-29	19.1	2.4	7.9	8.8
30-34	20.6	2.6	8.7	9.3
35-39	18.0	1.2	9.1	7.7
40-44	14.7	2.2	4.9	7.6
Marital Status				
Currently Married	92.3	9.3	39.1	43.9
Previously Married	3.8	0.7	1.6	1.5
Never Married	3.9	0.4	1.6	1.9
Parity				
0	4.4	0.2	1.8	2.4
1	11.9	1.1	4.7	6.1
2	13.3	1.9	5.4	6.0
3	18.1	1.7	7.6	8.8
4	14.4	1.6	4.7	8.1
5	12.5	0.8	4.9	6.9
6+	25.3	3.1	13.3	8.9
Education				
None	70.5	5.3	23.7	41.4
Primary Incomplete	23.7	2.9	15.6	5.3
Primary Complete or More	5.8	2.2	3.1	0.5

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

**Unweighted number of women in sample who are in need of family planning services.

Fig. 2 CONTRACEPTIVE USE BY PERCENTAGE OF WOMEN IN NEED OF FAMILY PLANNING SERVICES, 15 SUBREGIONS, 6 CONTRACEPTIVE PREVALENCE SURVEYS

Fig. 3 CRUDE BIRTH RATE, BY PERCENTAGE OF WOMEN IN NEED OF FAMILY PLANNING SERVICES

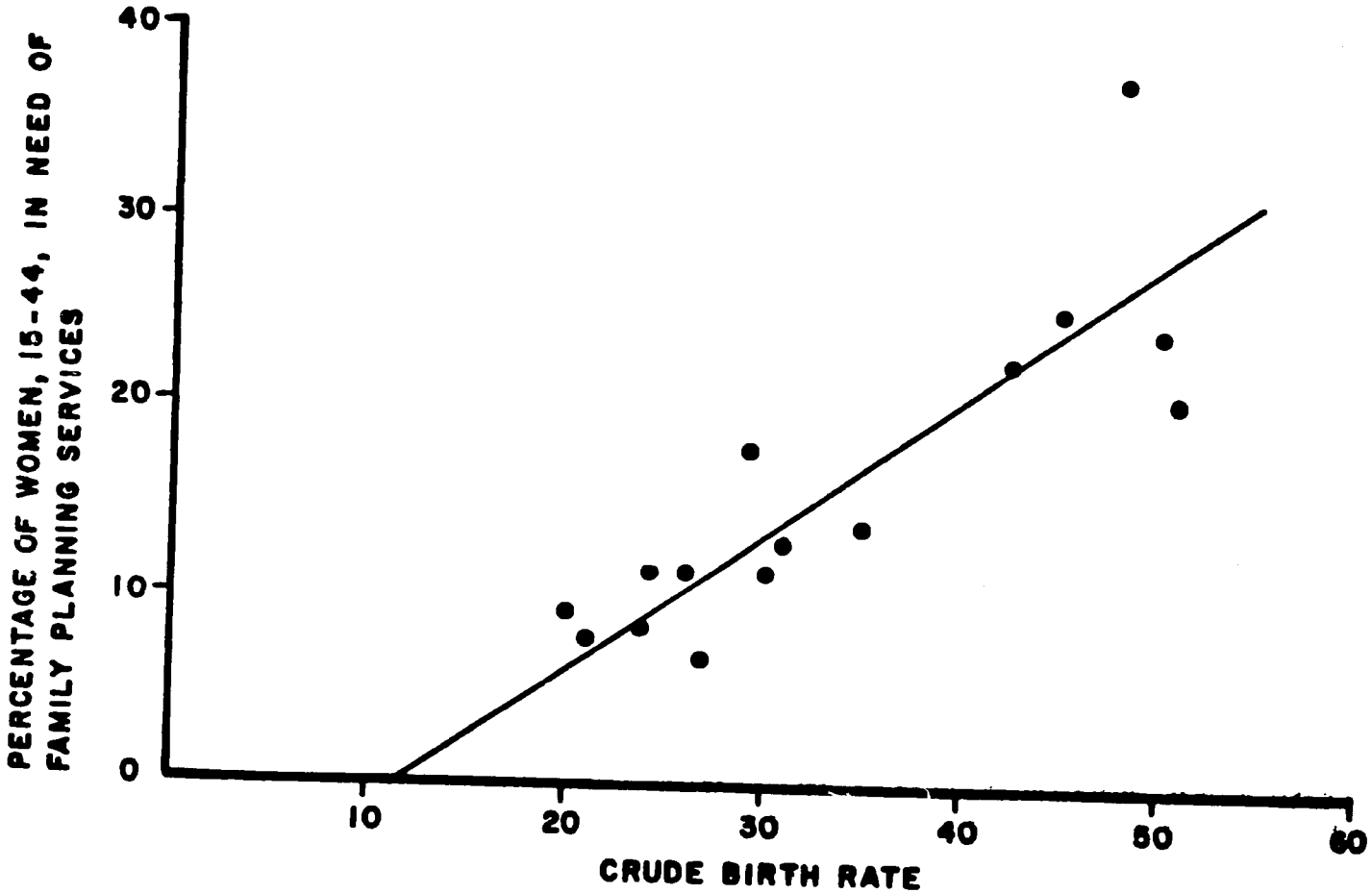

TABLE 10

Egypt: Contraceptive Status of Mother by Area of Residence
1978 Nutrition Survey
(Percent Distribution)

	Total	Rural	Urban <50,000	Low Socioeconomic Areas, Cairo & Alexandria	Urban 50,000+ Except Cairo & Alexandria
Current Users	19.6	11.7	15.5	26.0	50.6
Non-Users	79.1	87.1	83.8	72.7	46.7
Pregnant	15.7	16.1	16.4	19.0	11.7
Lactating (Not pregnant)	46.1	53.2	48.7	36.4	22.2
Other Non-Users	17.2	17.8	18.7	17.3	12.8
Unknown	1.3	1.2	0.7	1.3	2.8
TOTAL	100.0	100.0	100.0	100.0	100.0
Unweighted No. of Cases	1980	1080	358	362	180

TABLE 11

Egypt: Percent of Children with Chronic Undernutrition and Anemia by Contraceptive Use of Mothers, 1978 Nutrition Survey

A. Chronic Undernutrition[a]	Unadjusted Percent	Adjusted Percent[b]	Unweighted No. of Cases
TOTAL	*22.7*	--	1945
Using Family Planning	*13.8*	*18.6*	375
Not Using	*24.7*	*23.5*	1541
B. Anemia[a]			
TOTAL	*26.7*	--	1967
Using Family Planning	*17.3*	*22.7*	374
Not Using	*29.4*	*28.0*	1530

[a]Chronic undernutrition less than 90% of the median of reference population; anemia, defined as hemoglobin less than 10.0 grams for children under 2 years, less than 11.0 grams for children 2 years and older

[b]Adjusted for area of residence, plumbing, literacy, cooking, age of child in multiple classification analysis

TABLE 12

Percent of Children 3 to 60 Months Anemic by Length of Interval Between Previous Birth and Child's Birth, by Age and Sex of Child, Children of Order 2 and Above, Rural Areas, Yemen Nutrition Survey, 1979

Closed Interval Prior to Birth	Total	Age		Sex		Electricity in Home	
		≤ Months	>18 Months	Male	Female	Yes	No
TOTAL	*49.4*	*55.6*	*42.0*	*49.6*	*49.1*	*37.7*	*56.9*
<15 Months	*60.4*	*64.1*	*53.5**	*69.2*	*41.2**	*43.5**	*70.1*
>15 Months	*46.5*	*52.7*	*39.7*	*43.3*	*50.7*	*36.3*	*53.3*
Unweighted No. of Cases							
TOTAL	208	112	96	123	85	68	139
<15 Months	47	27	20	31	16	15	32
>15 Months	161	85	76	92	69	53	107

*<25 cases

TABLE 13

Logistics Assistance Provided by CDC/FPED
Fiscal Years 1975-1980 by Year

COUNTRY	75	76	77	78	79	80
Africa:						
Botswana			X*			
Cameroon			X*			
Ghana			X*			
Kenya			X*			
Lesotho			X*			
Tanzania			X			
Asia:						
Afghanistan				X		
Bangladesh	X	X	X	X		X
Pakistan			X			
Philippines	X	X				
Latin America:						
Colombia						X
Costa Rica			X*			
Dominican Republic						X
El Salvador			X		X	X
Guatemala		X	X	X		X
Haiti						X
Honduras				X	X	X
Jamaica						X
Nicaragua		X	X	X		
Panama			X			X
Paraguay			X			X
Near East:						
Egypt			X		X	

*Assistance provided exclusively to USAID Missions in the preparation of contraceptive procurement tables.

FIGURE 4

GUIDELINES FOR PROPER STORAGE

1. CLEAN ROOM AND WHITE WASH WALLS.
2. CHECK ROOF FOR WATER LEAKAGES.
3. NO DIRECT SUNLIGHT ON THE SUPPLIES.
4. STOREROOM NOT SUBJECT TO WATER PENETRATION.
5. SUPPLIES TO BE STACKED AT LEAST 4"(10 cm) FROM FLOOR (Arrange dunnage of wood or steel).
6. SUPPLIES TO BE STACKED AT LEAST 1'ft. (35 cm) FROM ANY WALL.
7. SEPARATE STACKS ACCESSIBLE FOR "FIRST IN FIRST OUT" (FIFO), COUNTING AND GENERAL MANAGEMENT.
8. STACKS NOT MORE THAN 8' ft. HGH (2·5 m).
9. IDENTIFICATION MARKS AND OTHER LABELS VISIBLE.
10. ISSUE SUPPLIES BY CARTON OR BOX LOT IF POSSIBLE.
11. WELL VENTILATED.
12. WELL LIGHTED.
13. FIRE EXTINGUISHERS NOT BLOCKED.
14. VACCINES AND SERAS MUST BE STORED IN REFRIGERATOR.
15. OLD FILES, INFORMATION MATERIAL, OFFICE SUPPLIES ETC SHOULD BE STORED SEPARATELY.
16. INSECTICIDES AND OTHER CHEMICALS NOT TO BE STORED TOGETHER WITH CONTRACEPTIVES AND MEDICAL SUPPLIES.
17. THE STOREROOM TO BE DESINFECTED AND SPRAYED AGAINST INSECTS EVERY THIRD MONTH.
18. DAMAGED AND CONDEMNED SUPPLIES TO BE SEPARATED AND DISPOSED OF WITHOUT DELAY.
19. STORE KEYS MUST BE AVAILABLE AT ALL TIMES.
20. DAILY CLEANING OF STORE ROOM.

THE MANAGEMENT
UNFPA/UNICEF PROJECT
BGD/74/P06

FIGURE 5: MODEL WAREHOUSE
FOR
CONTRACEPTIVE SUPPLIES

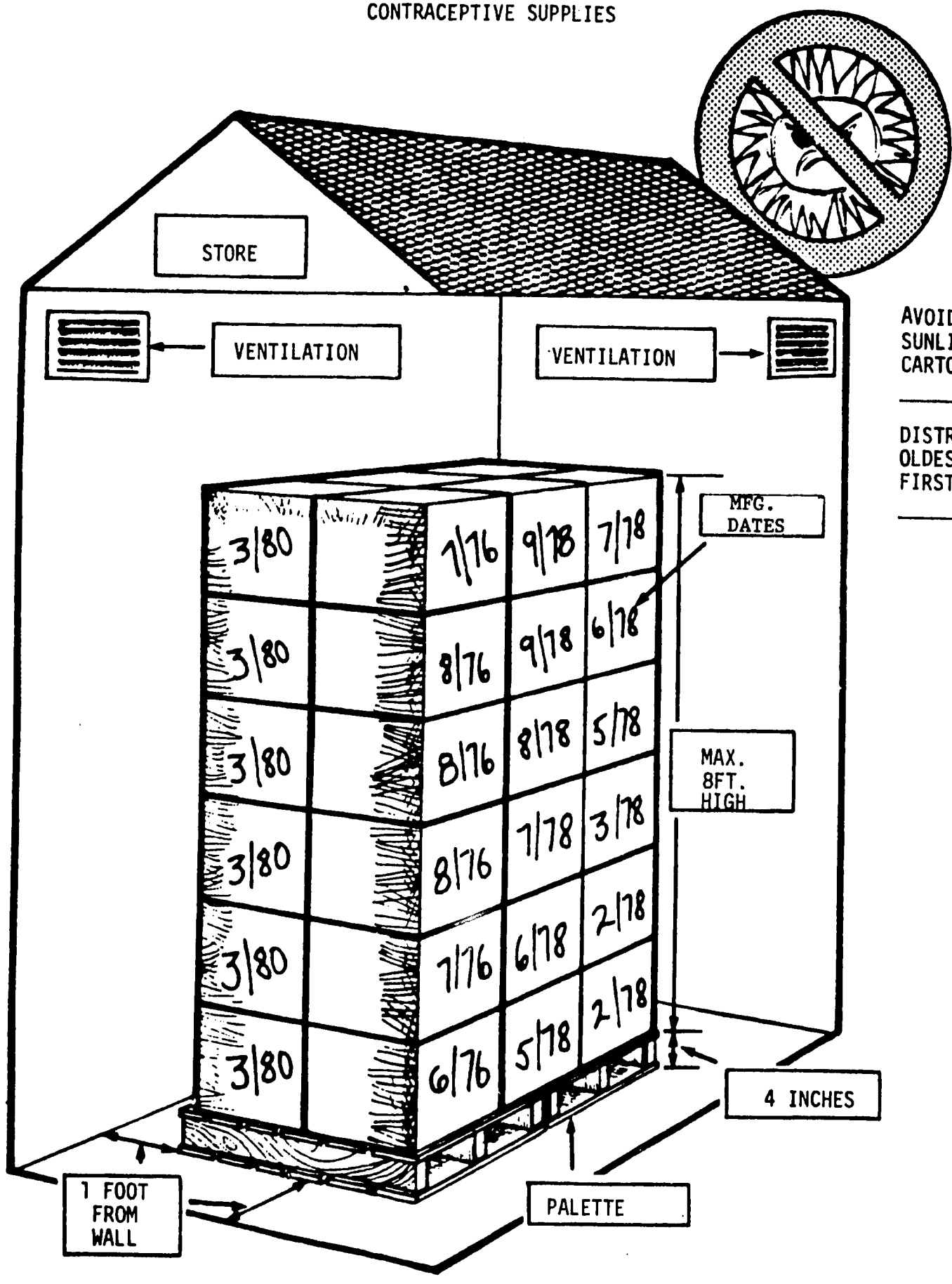

TABLE 14

Estimated Maternal Mortality (the World and Each Region, 1977)

	Countries*	Countries with Data**	Population in Countries with Data (%)	Births*** (000,000)	Deaths** (000)	Rate****
World	160	66	*42.1*	122.5	426.6	348
Africa	52	5	*21.2*	19.0	19.5	103
Asia	43	13	*44.7*	74.4	388.4	522
North America	2	2	*100.0*	3.6	0.4	11
Latin America	31	19	*56.1*	12.1	14.4	119
Europe	27	25	*99.4*	7.2	2.3	32
USSR	1	0	*0.0*	4.7	1.5	32
Oceania	6	2	*77.7*	0.5	0.1	12

*All United Nations members and all geopolitical units with a population larger than 200,000.

**From World Health statistics annual report Vol. 1, Geneva, 1977: 1975 Demographic Yearbook, United Nations, New York, 1976: Bose, A., et al: Population in India's development, 1947-2000, Delhi, 1974, Vikas; Chen L., et al.: Stud. Fam. Plann. 5:334, 1974; Government of Afghanistan: National demographic and family guidance survey of the settled population of Afghanistan, Vol. 1, 1975 (all death data for years between 1965 and 1975).

***1977 World population data sheet, Population Reference Bureau, Washington, D.C., 1977.

****Per 100,000 live births.

TABLE 15

Regional Estimates of Level of Induced Abortions and Associated Deaths in IPPF Regions*
(IPPF Unmet Needs Survey, 1977)

Region	No. of Countries	Births (x 1000)	Estimated Abortions (x 1000)	Ratio**	Percent Illegal***	Estimated Annual Abortion Deaths Assuming Death-to-Case Ratio 0.001	0.005	0.01
Africa:								
West	8	5421	116	21.4	*100*	116	580	1160
East	9	5117	456	8.9	*100*	456	2280	4560
Middle East and North Africa	12	5714	537	94.0	*95*	537	2685	5370
Indian Ocean	6	29901	7568	253.1	*99*	7568	37840	75680
E. & S.E. Asia, & Oceania	6	10064	1778	176.7	*96*	1778	8890	17780
Caribbean	4	389	66	169.7	*80*	66	330	660
Latin America	15	9814	3192	325.2	*100*	3192	15960	31920
TOTAL	60	66420	13713	206.5	*99*	13713	68565	137130

*Excludes Europe, USA, Canada, Australia, New Zealand, Japan, South Korea, Hong Kong, Singapore countries with fewer than 1 million population, and countries lacking IPPF affiliates.
**Per 1000 live births.
***Median value for these countries.

TABLE 16

Reported Maternal And Abortion-Related Deaths, By Type of Health Facility, Bangladesh, 1978-1979

	No. Deaths Reported	Non-Hospital				Hospital			
		PCFP	Thana Health Complex	MCW-MCH	Other	Medical School	Sub-Division	District	Other
Total	1,933	790	298	57	9	423	152	159	45
Maternal	1,435	571	239	39	8	313	108	136	21
Abortion	498	219	59	18	1	110	44	23	24
Percentage from Abortion	*25.8*	*27.7*	*19.8*	*31.6*	*11.1*	*26.0*	*29.0*	*14.5*	*53.3*
95% Confidence Intervals		*24.6-30.8*	*15.3-24.3*	*19.9-45.2*	*0.3-48.3*	*22.1-30.7*	*21.9-35.3*	*9.4-20.9*	*37.9-68.3*

Table 17

Frequency Distribution of 11 Most Frequently Reported Causes of Pregnancy-Related Deaths, By Health Facilities, Bangladesh, 1978-1979

Causes	Total	Non-Hospitals				Hospitals			
		PCFP	Thana Health Complex	MCW-MCH	Other	Medical School	Sub-Division	District	Other
Number of Deaths	1,933	571	239	39	8	313	108	136	21
Eclampsia	528	187	89	12	3	126	42	68	1
INDUCED ABORTION	498	219	59	18	1	110	44	23	24
Obstructed Labor	224	99	37	1	0	34	17	34	2
Ante-patrum Bleeding	172	71	28	13	1	32	16	10	1
Post-partum Bleeding	153	73	23	4	1	30	12	8	2
Retained Placenta	141	78	24	8	1	13	10	4	3
Uterine Rupture	86	30	18	2	1	26	4	5	0
Post-Partum Fever	65	40	5	0	0	16	1	3	0
Spontaneous Abortion	34	21	5	2	0	1	5	0	0
Tetanus	18	1	1	0	0	4	0	0	12
Ectopic Pregnancy	17	3	2	0	0	7	3	1	1
Other	153	57	32	2	2	30	17	13	0

NOTE: Sum of columns may be greater than number of deaths because multiple causes of maternal deaths (excluding abortion) were attributed to same deaths.

TABLE 18

Methods Used to Induce Abortions Leading to Complications
Bangladesh, 1978-1979

Method	Number	Percent
Insertion of foreign body into uterus	797	50.1
Root	745	46.9
Catheter or stick	28	1.8
Root or stick and other drug (herb, injection, or oral)	19	1.2
Catheter and other drug (saline or herb)	5	0.3
Oral Preparations	185	11.6
Homeopathic	85	5.3
Other	100	6.3
Intravaginal applications (saline, herbs, plants, douche)	164	10.3
Medical procedures (menstrual regulation, D&C)	144	9.1
Injection, with or without oral preparation	53	3.3
External pressure on abdomen	27	1.7
Vigorous Activity	9	0.6
Unknown	211	13.3
TOTAL	1590	100.0

TABLE 19

Known Characteristics Of Women Dying From Maternal And Abortion-Related Complications As Reported By Health Workers, Bangladesh, 1978-1979

	Overall		Married		Unmarried[1]	
	Maternal[2]	Abortion[3]	Maternal	Abortion	Maternal	Abortion
Number of Women	1,435	498	1,402	418	11	75
Characteristics						
Usual Residence						
Percentage Rural	*82.7*	*73.4*	*83.2*	*72.3*	*70.0*	*79.5*
Age (Years)						
< 20	19.8	16.1	19.9	9.9	36.4	50.7
20-29	42.4	46.0	42.2	49.2	36.4	30.1
30-39	32.4	34.0	32.4	36.6	27.3	17.8
40+	5.3	3.9	5.5	4.4	-	1.4
Mean	26.5	26.7	26.5	27.5	21.6	21.6
Number Living Children						
0	28.9	23.3	28.6	11.0	71.4	76.2
1-2	19.1	21.5	19.0	23.2	28.6	14.3
3-4	24.8	30.7	25.0	35.7	-	9.5
5+	27.1	24.5	27.4	30.2	-	
Mean	2.8	2.9	2.8	3.4	0.4	0.5
Number Living Sons						
0	40.9	31.9	40.4	19.5	95.7	79.0
1-2	40.2	47.0	40.4	53.8	14.3	21.0
3+	19.0	21.1	19.1	26.7	-	
Mean	1.3	1.5	1.3	1.8	0.1	0.3
Number Living Daughters						
0	45.3	38.6	44.9	26.3	85.7	85.6
1-2	37.8	45.0	38.1	38.1	14.3	12.9
3+	16.9	16.4	17.0	17.0	-	1.6
Mean	1.2	1.3	1.2	1.2	0.3	0.2

[1]Unmarried includes single, widowed, separated, divorced.
[2]Includes 22 deaths of women with unknown marital status.
[3]Includes 5 deaths of women with unknown marital status.

TABLE 20

Questions and Responses on Attitudes Toward Abortion, Bangladesh, 1978-1979
(n = 376)

Situation	% Approval
1. Suppose a woman is pregnant but this pregnancy could be very dangerous to her health. In this circumstance do you approve abortion or not?	95
2. If by chance a woman becomes pregnant before her marriage, do you approve of abortion or not?	79
3. If a woman is raped and as a result of this she becomes pregnant, do you approve of abortion for her or not?	66
4. If a woman is breastfeeding a very young baby and has not resumed menstruation and becomes pregnant, do you approve of abortion for her or not?	65
5. If a woman becomes pregnant after her oldest daughter is married and has children, do you approve of abortion for her (the pregnant grandmother) or not?	61
6. If a married woman with many children becomes pregnant and wants an abortion, do you approve of abortion or not?	32
7. If a widow with many children becomes pregnant after her husband's death and wants an abortion, do you approve of abortion for her or not?	31
8. Now suppose a married woman asked for an abortion for reasons acceptable to you but has not obtained agreement from her husband, do you approve of the abortion or not?	12

TABLE 21

Reproductive Services Provided by Physician Respondents in Past Year, Abortion Attitude Survey, Bangladesh, 1978-1979
(n = 376)

Service	% Providing Service*
One or more services below	92.0
Deliveries	82.1
Referrals for pregnancy termination	45.2
Pregnancy termination (abortion at 12 or more weeks gestation)	45.2
Menstrual regulation (abortion up to 12 weeks gestation)	31.6
IUD insertion	10.9

*Totals do not add to 100 because of multiple responses.

Fig. STERILIZATION-RELATED DEATHS BY SEX, PROBABLE CAUSE OF DEATH, AND MONTH OF OPERATION, DACCA AND RAJSHAHI DIVISIONS, BANGLADESH, JANUARY 1, 1979 – MARCH 31, 1980

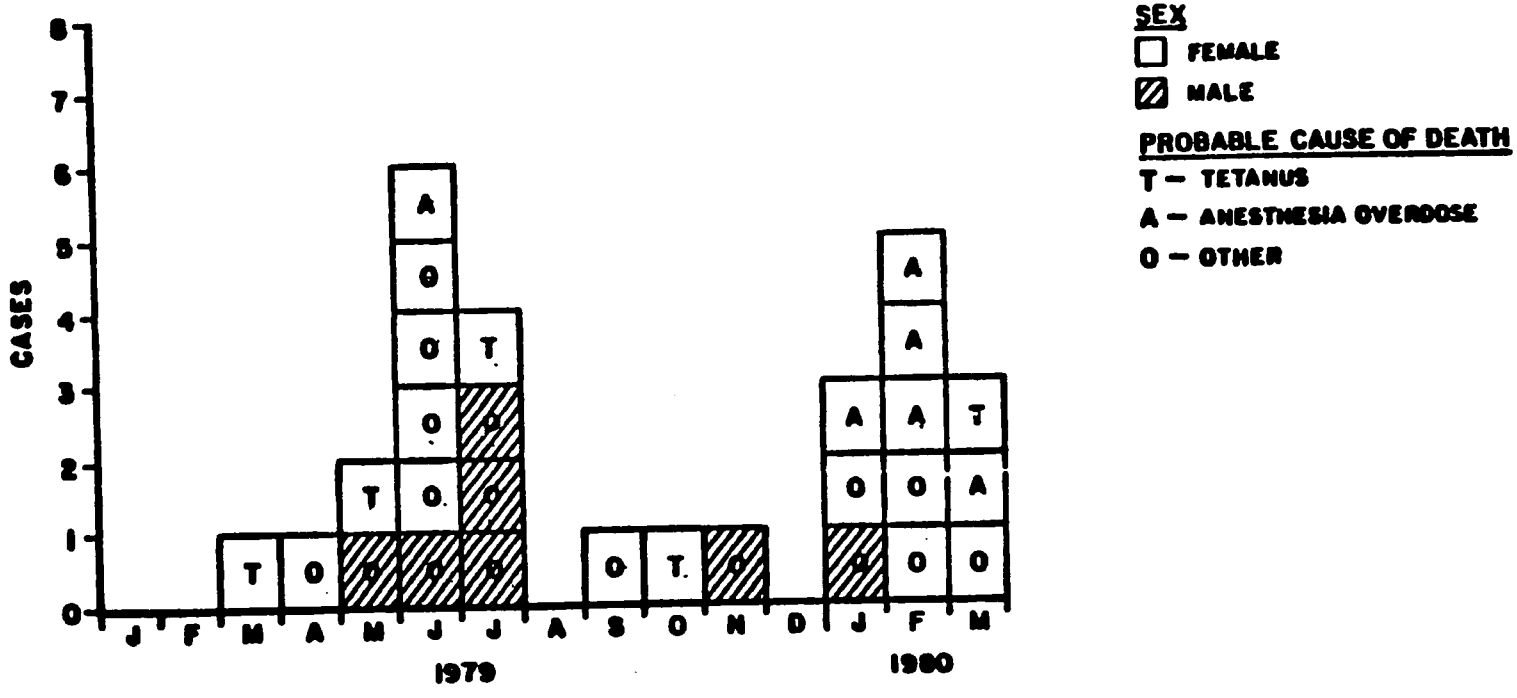

TABLE 22

Death-To-Case Rates for Tubectomy and Vasectomy,
Dacca and Rajshahi Divisions, Bangladesh,
Jan. 1, 1979 to March 31, 1980

Type of Procedure	No. of Deaths	No. of Procedures	Rate[1]	Relative Risk[2]
Tubectomy	21	108,875	19.3 (11.9-29.5)	1.0
Vasectomy	7	22,526	31.1 (12.4-64.0)	1.6
TOTAL	28	131,401	21.3 (14.2-30.8)	

[1]Deaths per 100,000 procedures (with 95% confidence interval by Poisson distribution)
[2]Based on an index rate for tubectomy of 19.3 per 100,000 procedures

TABLE 23

Registry Of Sterilization-Related Deaths, By Sex And Procedure-To-Death Interval, Dacca And Rajsh Divisions, Bangladesh, January 1, 1979-March 31, 1980

Females

Date of Procedure	Date of Death	Interval	Age	Parity	Type Anesthesia	Probable Cause of Death
19/4/79	19/4/79	Prior to operation	30	3	None	Anaphylaxis from anti-tetanus serum
24/1/80	24/1/80	Prior to operation	35	3	Parenteral[123]/ local	Anesthesia overdose
26/2/80	26/2/80	Prior to operation	26	5	Parenteral[123]/ local	Anesthesia overdose
10/3/80	10/3/80	Prior to operation	28	2	Parenteral[123]/ local	Anesthesia overdose
27/6/79	27/6/79	During operation	36	7	Parenteral[123]/ local	Anesthesia overdose
25/2/80	25/2/80	During operation	32	6	Parenteral[13]/ local	Anesthesia overdose
24/3/80	24/3/80	During operation	29	7	Parenteral[123]/ local	Aspiration of vomitus
5/6/79	5/6/79	< 4 hr.	33	3	Parenteral[123]/ local	Hyperthermia
17/2/80	17/2/80	< 6 hr.	35	8	Parenteral[123]/ local	Anesthesia overdose
5/6/79	5/6/79	<10 hr.	32	5	Parenteral[123]/ local	Pulmonary embolism
14/6/79	15/6/79	1 d	30	6	Parenteral[123]/ local	Intraperitoneal hemorrhage
16/2/80	18/2/80	2 d	35	3	Parenteral[123]/ local	Intraperitoneal hemorrhage
17/1/80	21/1/80	4 d	22	3	Parenteral[123]/ local	Intraperitoneal hemorrhage
9/2/80	13/2/80	4 d	35	4	Parenteral[123]/ local	Peritonitis
26/9/79	4/10/79	8 d	30	7	Parenteral[123]/ local	Pulmonary embolism

(continued)

Date of Procedure	Date of Death	Interval	Age	Parity	Type Anesthesia	Probable Cause of Death
17/10/79	26/10/79	9 d	30	5	Parenteral[123]/ local	Tetanus
19/3/79	30/3/79	11 d	28	5	Parenteral/ local	Tetanus
3/7/79	14/7/79	11 d	29	6	Parenteral[23]/ local	Tetanus
16/5/79	31/5/79	15 d	27	3	Parenteral[123]/ local	Tetanus
29/3/80	18/4/80	20 d	25	4	Parenteral[123]/ local	Tetanus
5/6/79	17/7/79	42 d	36	5	Parenteral[123]/ local	Small bowel obstruction

MALES

Date of Procedure	Date of Death	Interval	Age	Parity	Type Anesthesia	Probable Cause of Death
12/11/70	19/11/79	7 d	35		Local	Scrotal infection
23/6/79	4/7/79	11 d	32		Local	Scrotal infection
28/5/79	9/6/79	12 d	42		Local	Scrotal infection
2/7/79	16/7/79	14 d	35		Local	Scrotal infection
24/1/79	8/2/80	15 d	35		Local	Scrotal infection
19/7/79	31/8/79	43 d	40		Local	Scrotal infection
19/7/79	4/9/79	47 d	40		Local	Scrotal infection

[1]Meperidine [2]Promethazine [3]Diazepam

TABLE 24

Health Complaints Before And After Surgical Sterilization
For 3,354 Women, Bangladesh 1980

COMPLAINT	PERCENTAGE		RATIO[1]
	Before	After	
Painful urination	1.6	40.1	25.1
Shaking chills	0.5	10.2	20.4
Bleeding from incision	0.2	3.3	16.5
Fever $\geq$ 2 days	2.9	46.3	16.0
Urinary frequency	0.6	8.7	14.5
Urinary urgency	0.5	5.2	10.4
Sore with pus	0.7	5.0	7.1
Cough	3.6	23.9	6.6
Skin red and tender	0.7	3.2	4.6
Dizziness	15.1	63.2	4.2
Weakness	18.0	74.2	4.1
Diarrhea	4.4	8.2	1.9
Rash, itching	4.9	8.8	1.8

[1]Percentage with complaints 7-10 days after the procedure divided by the percentage with complaints before the procedure.

TABLE 25

Family Planning Evaluation Division

International Trainees
By Length of Stay
1980

NAME-COUNTRY	STATUS/SPONSOR
1 Week	
Brenda Grey - Jamaica	USAID Mission
Francesco Taroni - Italy	WHO
2 Weeks	
Raul Batista - Panama	AID RSSA
Felix Mascarin - Panama	AID RSSA
Antonieta Pineda - Guatemala	AID RSSA
Judy Stratton - Australia	Private Person
3 Weeks	
Terry McCarthy - Singapore	WHO
Ike Oyeka - Nigeria	AID RSSA
Sabwa Matanda - Zaire	AID RSSA
1 Month	
Ying Chi Tsui - China (PRC)	Guest Researcher/UNFPA
2 Months	
Mateja Kozuh Novak - Yugoslavia	Guest Researcher/WHO
Maurine Tsakok - Singapore	Guest Researcher/WHO
6 Months	
Qiu Shu Hua - China (PRC)	Guest Researcher/UNFPA
Wang Shao-Xian - China (PRC)	Guest Researcher/UNFPA
Marwan Barbir - Lebanon	Guest Researcher/Rockefeller
Carlos Huezo - El Salvador	Guest Researcher/Rockefeller
Ben Sachs - England	Visiting Scientist
Eliane Franco - Brazil	Private Person
1 Year	
Chisale Mhango - Zambia	Visiting Associate/AID RSSA
1 Year +	
Hani Atrash - Lebanon	Guest Researcher/Rockefeller
Hsi-o Chang Chen (Charles) - Taiwan	Visiting Associate/AID RSSA
George Rubin - Australia	Visiting Associate/EIS

Figure 8. Monthly Distributions of Condoms to Users—Bangladesh Main Program & Social Marketing Program January 1974—August 1979.

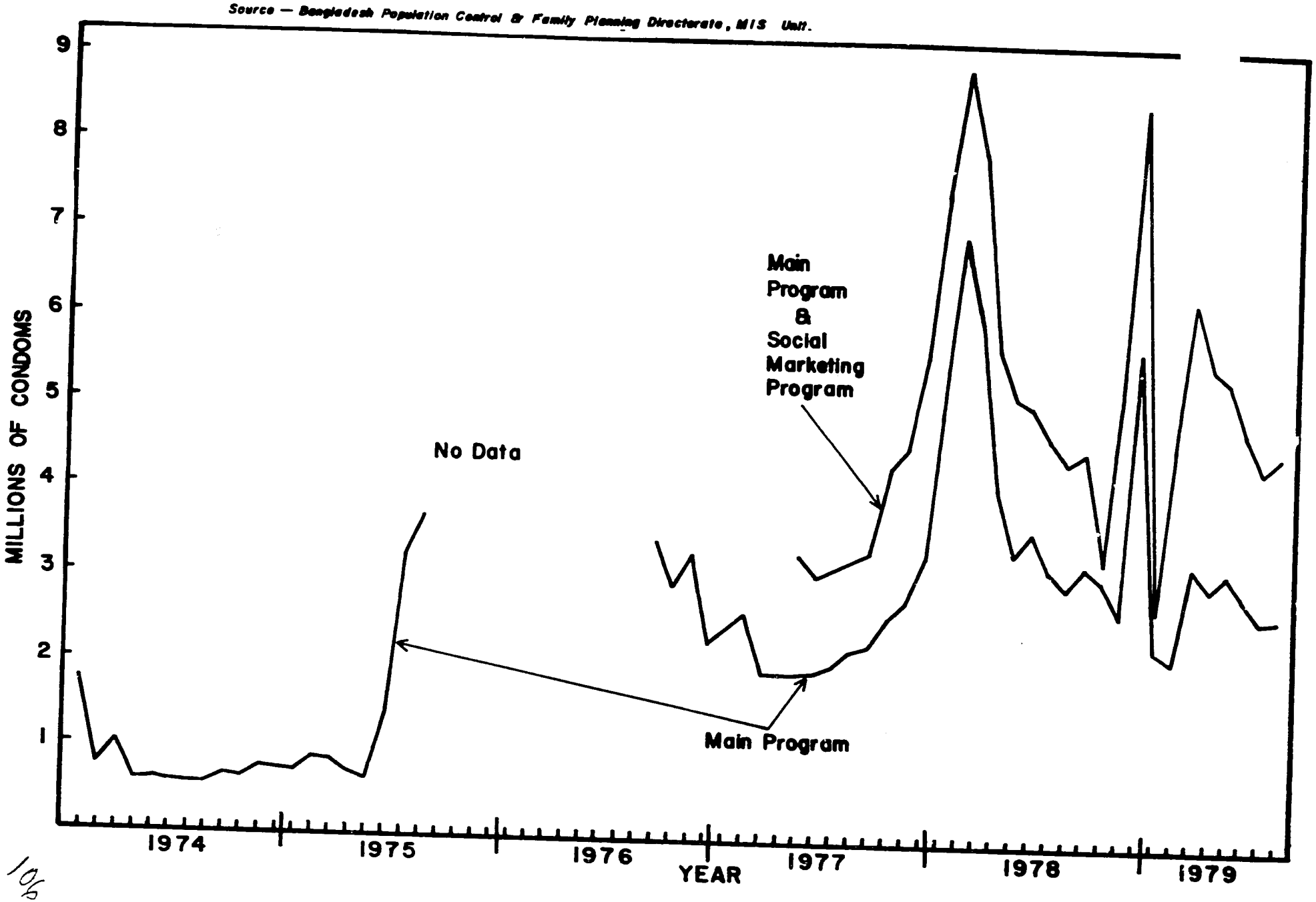

Figure 9. Monthly Distributions of Oral Contraceptives to Users — Bangladesh Main Program & Social Marketing Program — January 1974 — August 1979

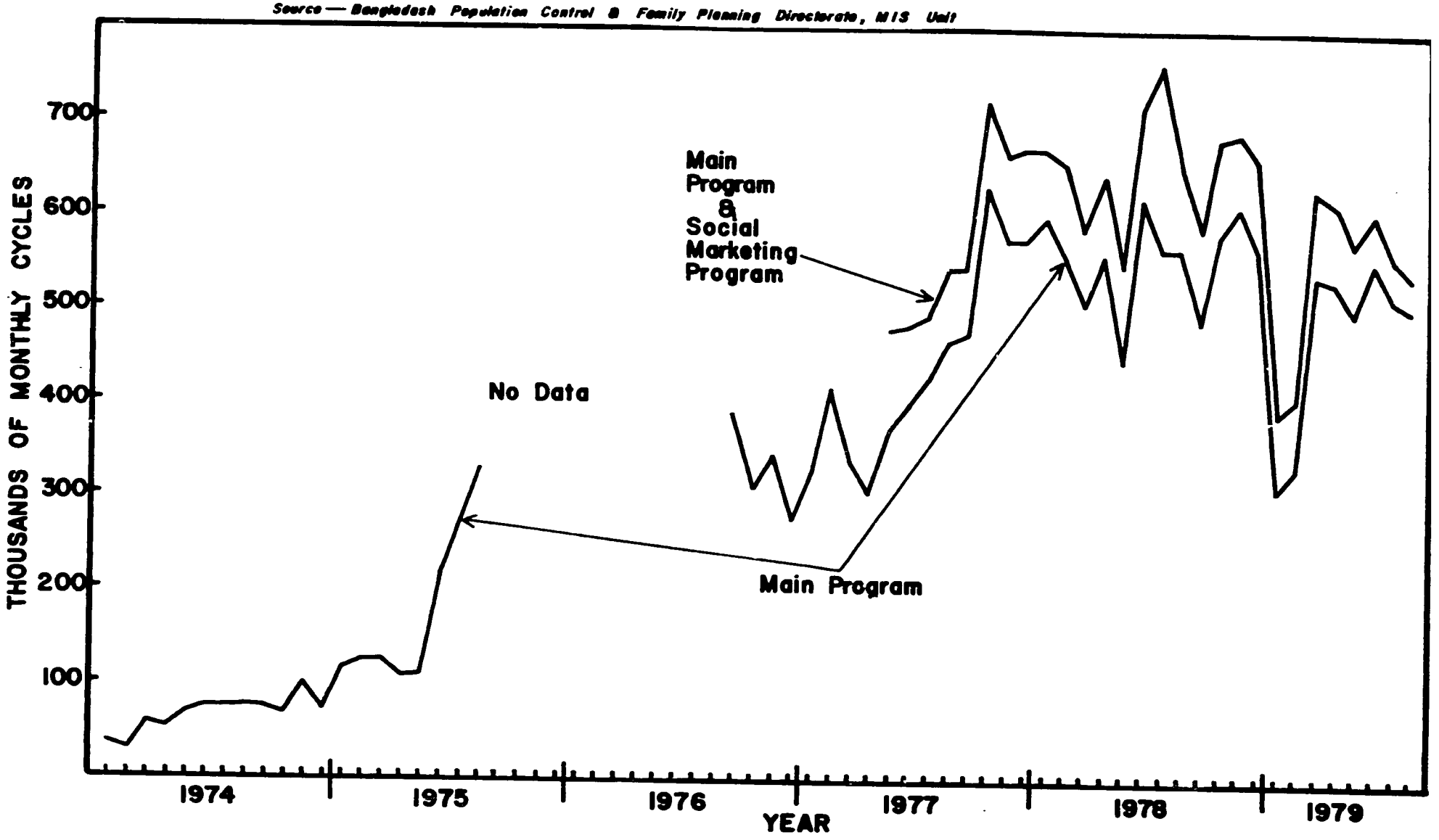

FIGURE 10

CONTRACEPTIVES ISSUED TO OUTLETS & SOLD TO USERS
COUPLE YEARS OF PROTECTION EQUIVALENTS
GUATEMALA DIRECT DISTRIBUTION PROJECT
JULY 1, 1976 — JUNE 30, 1979

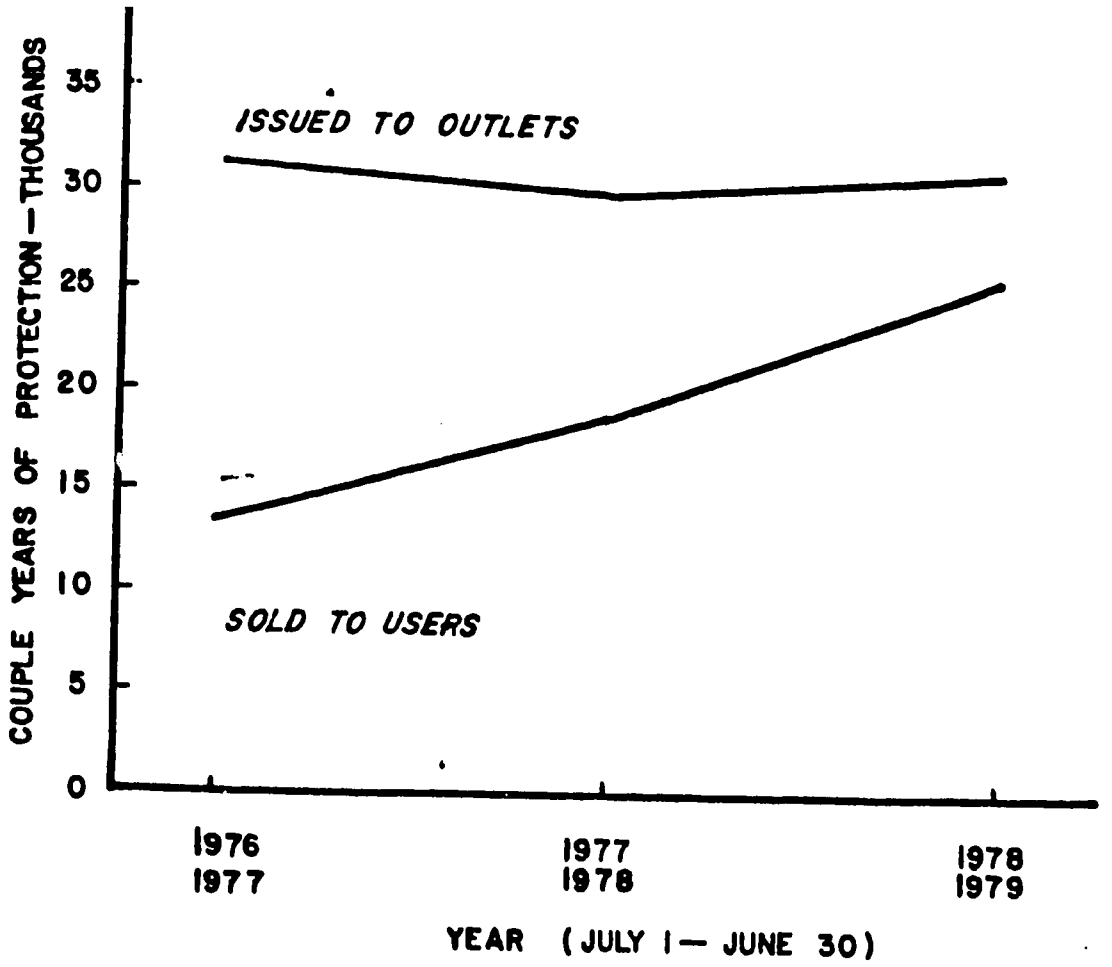

TABLE 26

Percentage of Currently Married Women 15-44 Years of Age Using Contraception by Method, United States and Mexico: National Data and Border Area Data

Current Use and Method	U.S. 1976 NSFG (1) White*	U.S.-Mexico Border, 1979 Anglo	U.S.-Mexico Border, 1979 Hispanic**	Mexico 1979 National	Mexico 1979 6 Northern States
Currently Using	69.1	75.2	65.4	40.0	49.8
Sterilization	20.1	31.2	16.7	9.3	10.4
Male	10.5	17.6	4.1	0.2	0.2
Female	9.6	13.6	12.6	9.1	10.2
Pills	22.5	20.6	20.9	13.4	21.3
IUD	6.1	5.3	7.4	6.6	6.3
Condom	7.4	8.1	7.5	0.9	1.5
Other***	12.8	10.0	12.9	9.8	10.3
Not Currently Using	30.9	24.8	34.6	60.0	50.2
TOTAL	100.0	100.0	100.0	100.0	100.0
Unweighted Number of Respondents	4811	572	791	8825	2399

*Women of Hispanic origin or descent were included in totals for white if they were identified as such by the interviewer.
**Includes Hispanics of Mexican origin or descent.
***Includes: Injection, Diaphragm, Foam, Rhythm, Withdrawal, and Other Methods.

References:
(1) NCHS: Advance data No. 36, Aug. 18, 1978, "Contraceptive Utilization in the United States: 1973 and 1976," by Kathleen Ford