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## Memorandum

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From Visiting Scientist, Epidemiologic Studies Branch, Division of Reproductive Health (DRH), Center for Health Promotion and Education (CHPE)

Subject Foreign Trip Report (AID/RSSA): London, England, September 26-October 2, 1982; Colombo, Sri Lanka, October 3-7, 1982. New Delhi, India, October 8, 1982.

To  
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Director, Centers for Disease Control  
Through: Dennis Tolsma  
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- I. PLACES, DATES AND PURPOSE OF TRAVEL
- II. PRINCIPAL CONTACTS
- III. ACCOMPLISHMENTS
- IV. RECOMMENDATIONS

I. PLACES, DATES AND PURPOSE OF TRAVEL

London, England, September 26-October 2, 1982  
Colombo, Sri Lanka, October 3-7, 1982  
New Delhi, India, October 8, 1982

In London, I consulted with officials at the International Planned Parenthood Federation (IPPF) about CDC/IPPF Global Survey of Physicians on the Mortality Assessment of Sterilization Procedures.

In Colombo, I presented a report on "Knowledge and Use of Male and Female Sterilization in Latin America" to an International Conference on Vasectomy, sponsored by the World Federation of Health Agencies for the Advancement of Voluntary Surgical Contraception (WFHA/AVSC).

In New Delhi, India, I consulted with the regional office of the World Health Organization regarding surveillance on Mortality and Morbidity associated with sterilization procedures in Bangladesh.

II. PRINCIPAL CONTACTS

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III. ACCOMPLISHMENTS

- A. IPPF, London. Data from the IPPF/CDC Survey of Physicians Assessing the Mortality Associated with Sterilization Procedures was discussed. The survey was done by mailing a questionnaire to IPPF affiliated physicians in 88 countries around the world. Fifty-four tubal sterilization and one vasectomy-associated sterilization deaths were identified by the survey. Clinical information on these 55 deaths will be used to do recommendations to make the sterilization procedures even safer. It was decided not to compute mortality rates from this data because of a high possibility of important underreporting and unavailability of appropriate denominator data.
- B. Colombo, Sri Lanka. I participated in a Vasectomy Conference as a resource person. The report on Knowledge and Use of Male and Female Sterilization in Latin America was presented in a plenary session of the conference. (Copy of the paper is attached.) This report was prepared using contraceptive prevalence survey data from selected Latin American countries, and show that knowledge and use of male sterilization are very low compared with that of female sterilization. The data also show that the potential demand for sterilization is very high in Latin America. My paper concludes that many couples need more education, specifically about vasectomy, to make a final decision and to select the most convenient method of surgical contraception. I suggested that further studies are needed to assess the knowledge and attitudes toward vasectomy in order to develop strategies to increase the rate of acceptance of this method of contraception. Apparently my paper was well received. Several participants and resource persons requested copies of it.

In addition, I participated in a technical workshop on the decision-making process and implications of counseling for the acceptance of vasectomy, and in a discussion group to plan an I & E program to educate couples about the benefits of smaller families and birth control methods, including vasectomy.

The conference had 76 participants from 28 countries. Its goal was to examine program experiences and to stimulate new efforts in providing vasectomy services; I think that it was achieved through the paper presentations, technical workshops and discussion meetings.

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- C. New Delhi, India. On October 8, I consulted with the staff of the Human Reproduction Programme of the Regional Office of the World Health Organization about a surveillance system on sterilization morbidity and mortality to be implemented in Bangladesh starting January, 1983.

Carlos Huezo, M. D.

KNOWLEDGE AND USE OF MALE AND FEMALE STERILIZATION IN  
LATIN AMERICA

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

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## KNOWLEDGE AND USE OF MALE AND FEMALE STERILIZATION IN LATIN AMERICA

### SUMMARY

Contraceptive prevalence survey data from selected Latin American countries show that knowledge and use of male sterilization is very low compared with that of female sterilization. These data also show that the majority of couples with at least one living child do not want more children and of those not wanting more children, the majority are interested in sterilization. Thus, the potential demand for sterilization is very high. However, many couples need more education, specifically about vasectomy, in order to make a final decision and to select the most convenient method of surgical contraception.

## INTRODUCTION

Voluntary surgical sterilization, as a part of family planning programs, was introduced in Latin America with the practice of female surgical sterilization in the late 1960's. In the recent years the number of acceptors has increased dramatically in this region of the world as a result of expanding the availability of services, and liberalizing the requirements for obtaining elective surgical sterilization. However, sterilization is still illegal in a few countries, and available only through private institutions in others (1,2).

The first public program of vasectomy in Latin America was started in Bogota, Colombia in February 1970 by PROFAMILIA, the Colombian family planning association (3). This initiative was followed closely by other countries, especially in Central America, such as Costa Rica in 1971, El Salvador in 1972 and Guatemala in 1973.

These programs were described in the beginning as successful in gaining acceptors: for example during the first year of the Colombian program in Bogota, 100 men obtained voluntary surgical sterilization. In the second year the program was expanded to include nine other Colombian cities and a total of 560 men were vasectomized.

Studies were conducted in the early 1970's in Colombia, Costa Rica and El Salvador, focused on the characteristics of vasectomy clients and their attitudes prior to and following the operation. These studies concluded that

vasectomy can be an acceptable method of contraception for Latin American men if they are adequately informed about it and the procedure is readily available (4,5).

This report presents data on the current knowledge and use of vasectomy compared to female surgical sterilization and the potential demand for sterilization services in selected Latin American countries.

#### METHODOLOGY

This report was prepared using published and unpublished data from Contraceptive Prevalence Surveys conducted in Brazil, Colombia, Costa Rica, El Salvador, Guatemala, Mexico and Panama by national (private or official) institutions, with technical assistance from The Family Planning Evaluation Division of the Centers for Disease Control, Atlanta, Georgia; or the Westinghouse Health Systems, Columbia, Maryland. Data for the Dominican Republic was obtained from the World Fertility Survey. Details on the sources of data are shown in Table 1.

A Contraceptive Prevalence Survey is a regional or national survey designed primarily to collect information on the knowledge and use of contraception, attitudes concerning contraceptive methods and sources of contraceptive supplies and services. It is done through standardized interviews with a representative sample of women of reproductive age. Details on the methodology of CPS have been published previously (6).

## RESULTS

### Knowledge of sterilization

Table 2 shows the percentage of women in reproductive age, married or in consensual union, who knew about female and male sterilization. Knowledge of female sterilization was very high in most countries, more than 80% in the three represented regions of Brazil, in Costa Rica, Dominican Republic, El Salvador and Panama; and more than 60% in Colombia, Guatemala and Mexico. In the countries where the data were available by residence, the difference between urban and rural rates was very small. The one exception was in Guatemala where a large non-contracepting, rural Indian population accounted for a larger urban-rural differential (7).

In contrast with knowledge of female sterilization, knowledge of male sterilization was very low in most of these countries (30-46%), except in Costa Rica (62%), El Salvador (82%), and Panama (71%). Knowledge of male sterilization was significantly lower in rural compared to urban areas in all the countries.

### Use of Sterilization

The percentages of couples who used female sterilization as their method of contraception ranged from 5.9 percent in Guatemala to 29.3 percent in Panama (Table 3). Comparing the data in tables 2 and 3, it can be seen that in those countries in which knowledge of female sterilization was higher, the use of the method was also higher.

The use of male sterilization was very low in all the countries, including El Salvador, Costa Rica and Panama, although knowledge about the method in these 3 countries was the highest. The highest level of use of vasectomy was observed in the urban area of Guatemala (1.0%); this may be the result of the vasectomy program of APROFAM, the family planning association, in Guatemala City. However, no use of vasectomy was detected in rural areas. In Brazil, Sao Paulo was the only state that showed any use of male sterilization.

#### Potential Demand for Sterilization

Certain parameters such as the number of living children and age of spouse, have been used to define target populations for surgical sterilization services. However, the desired number of children, as well as the age of the woman when this number is achieved, may be different from one couple to another. As an indicator of the potential demand for sterilization, CPS data of Brazil, El Salvador, Guatemala and Panama were used to estimate the proportion of couples at risk of pregnancy who already have all the children they want, and of these couples, the proportion who are interested in sterilization.

The percentage of currently married women aged 15-44 with at least one living child who do not want any more children (excluding women who are already using sterilization as a contraceptive method and subfecund women) range from 49.3% in Guatemala to 70.8% in Sao Paulo State, Brazil (Table 4). In Panama the percentage was higher in rural area (61.9) than in urban areas (50.7), while in Parana State, Brazil, the percentage was higher in urban areas (63.9) than in rural areas (52.9). In the other regions of Brazil and in Guatemala and El Salvador the difference between urban and rural areas was small.

Of those women not wanting any more children, and who were not sterilized or subfecund, the majority in Brazil, El Salvador and Panama, and 36.5% in Guatemala, stated they were interested in sterilization (Table 5).. The difference between urban and rural areas was small.

The percentage of women interested in sterilization with knowledge about where to obtain service or information about the operation ranged from 40.8 in the northeast states, Brazil to 88.8 in El Salvador (table 6). In the 3 represented regions of Brazil and Guatemala this knowledge was higher in urban compared with rural areas, while in El Salvador and Panama there was no difference.

#### DISCUSSION

This report is based on the responses of samples of married women. As knowledge about vasectomy may be different between women and men, this data should be considered only as an approximation of the proportion of couples who know about this method.

According to this data, the knowledge and use of vasectomy in Latin America are very low, especially in rural areas, compared with the knowledge and use of female sterilization. This fact and the observation that the use of female sterilization is higher in those countries where knowledge is also higher, suggests that differences in knowledge of female and male sterilization contribute toward the differences in the use of both methods. However, the fact that the use of vasectomy was also very low in El Salvador, Costa Rica

and Panama, where knowledge about the method is relatively high, indicates that other important factors are involved in the acceptance of vasectomy. The quality of the information about vasectomy is also very important. People may associate vasectomy with castration, or consider that it induces impotency, interferes with ejaculation or affects other aspects of the health and sexual life of men. If this is the case, the rate of acceptance will be very low. On the other hand, if people have the right information about vasectomy, but the operation is not easily available, the rate of use will also be low.

The high proportion of women in the samples from Brazil, El Salvador, Guatemala and Panama who reported that they do not want any more children, represent couples who recognize the importance of limiting the size of the family. Although the majority of these women expressed interest in sterilization, most of them, and their husbands, may be in need of more information about the procedure in order to make a final decision. They may also need easier access to surgical services.

Providing adequate information about vasectomy is a difficult task in Latin America. In some countries a large percentage of the population is illiterate, especially in the rural areas; printed material can not be used to reach these people. Although radio and television may be used to broadcast family planning messages, these media cannot provide information about the effects of vasectomy on health and sexual function in sufficient detail to clarify misinformation people may have. Interpersonal communication such as individual education, group meetings, and home visits is perhaps the most practical way, in this region of the world, to educate people about vasectomy.

Further studies are needed in Latin America to obtain more accurate information on the proportion of men who know about vasectomy. It is also important to evaluate the concept and attitudes toward vasectomy of those who know about it. This information would be very useful in developing strategies to increase the rate of acceptance of this highly effective and safe family planning method.

TABLE 1

SOURCE OF DATA ON KNOWLEDGE AND USE OF MALE AND FEMALE STERILIZATION IN  
SELECTED LATIN AMERICAN COUNTRIES.

<u>Country</u>	<u>Source of Data (Year)</u>
Brazil	
NE States	CPS: Sociedade Civil de Bem-Estar Familiar no Brasil, CDC and IFRP (1980).
Paraná	CPS: Sociedade Civil de Bem-Estar Familiar no Brasil, CDC and IFRP (1981).
São Paulo	CPS: Pontificia Universidade Catolica de Campinas, CDC, and IFRP (1978).
Colombia	CPS: Coordinación Centro Regional de Población and WHS (1978).
Costa Rica	CPS: Asociación Demográfica Costarricense and WHS (1981).
Dominican Republic	National Fertility Survey: Consejo Nacional de Población y Familia, and World Fertility Survey (1975).
El Salvador	CPS: Asociación Demográfica Salvadoreña and CDC (1978).
Guatemala	CPS: Asociación Pro-Bienestar de la Familia de Guatemala and CDC (1978).
México	CPS: Coordinación del Programa Nacional de Planificación Familiar and WHS (1978).
Panamá	CPS: Ministry of Health and CDC (1979).
	CPS Contraceptive Prevalence Survey
	CDC Centers for Disease Control, Atlanta, Georgia, U.S.A.
	IFRP International Fertility Research Program, Research Triangle Park, N.C., U.S.A.
	WHS Westinghouse Health Systems, Columbia, Maryland, U.S.A.

TABLE 2  
 PERCENTAGE OF CURRENTLY MARRIED WOMEN AGE 15-44  
 WHO KNOW ABOUT FEMALE AND MALE STERILIZATION, BY RESIDENCE  
 SELECTED LATIN AMERICAN COUNTRIES

COUNTRY	(YEAR)	FEMALE			MALE			UNWEIGHTED NO. OF WOMEN
		TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	
BRAZIL								
NE STATES	(1980)	93.7	96.2	90.1	29.9	38.6	18.1	(5,140)
PARANA	(1981)	92.8	95.0	89.2	45.4	53.7	32.1	(1,821)
S. PAULO	(1978)	80.9	82.4	71.3	45.6	48.8	26.0	(2,534)
COLOMBIA	(1978)*	72.0	77.0	62.0	27.0	33.0	15.0	(2,086)
COSTA RICA	(1981)*	97.0	**	**	62.0	**	**	(2,593)
DOMINICAN								
REPUBLIC	(1975)*	94.8	**	**	30.3	**	**	(2,256)
EL SALVADOR	(1978)	96.9	98.1	96.1	82.1	92.5	75.7	(1,476)
GUATEMALA	(1978)	62.4	80.7	50.7	34.4	56.6	20.3	(1,915)
MEXICO	(1978)*	67.5	**	**	30.0	**	**	(4,492)
PANAMA	(1979)	95.6	96.5	94.8	70.7	79.7	63.0	(1,774)

\* WOMEN AGE 15-49

\*\* DATA NOT AVAILABLE BY RESIDENCE

TABLE 3  
 PERCENTAGE OF CURRENTLY MARRIED COUPLES WITH WOMEN AGE 15-44  
 WHO USE FEMALE OR MALE STERILIZATION AS METHOD OF  
 CONTRACEPTION, BY RESIDENCE  
 SELECTED LATIN AMERICAN COUNTRIES

COUNTRY	(YEAR)	FEMALE			MALE			UNWEIGHTED NO. OF WOMEN
		TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	
BRAZIL								
NE STATES	(1980)	14.0	18.9	7.2	0.0	0.1	0.0	(5,140)
PARANA	(1981)	17.1	18.6	14.7	0.0	0.0	0.0	(1,821)
SAO PAULO	(1981)	10.1	10.1	9.7	0.2	0.2	0.3	(2,534)
COLOMBIA	(1978)*	8.0	9.0	5.0	0.2	**	**	(2,086)
COSTA RICA	(1981)*	17.3	**	**	0.5	**	**	(2,537)
DOMINICAN								
REPUBLIC	(1975)*	14.3	**	**	0.1	**	**	(2,256)
EL SALVADOR	(1978)	17.8	22.9	14.6	0.2	0.4	0.1	(1,476)
GUATEMALA	(1978)	5.9	10.9	2.7	0.4	1.0	0.0	(1,915)
MEXICO	(1978)*	7.4	**	**	0.1	**	**	(4,492)
PANAMA	(1979)	29.3	28.6	30.0	0.4	0.4	0.4	(1,774)

\* WOMEN AGE 15-49

\*\* DATA NOT AVAILABLE BY RESIDENCE

TABLE 4  
 PERCENTAGE OF CURRENTLY MARRIED WOMEN AGE 15-44 WITH AT LEAST ONE LIVING  
 CHILD WHO DO NOT WANT MORE CHILDREN, BY RESIDENCE  
 SELECTED LATIN AMERICAN COUNTRIES\*

<u>COUNTRY</u>	<u>TOTAL</u>	<u>URBAN</u>	<u>RURAL</u>
BRAZIL			
NE STATES	62.2	62.9	61.4
PARANA	59.8	63.9	52.9
SAO PAULO	70.8	70.8	70.6
EL SALVADOR	57.2	60.8	55.4
GUATEMALA	49.3	49.7	48.9
PANAMA	56.7	50.7	61.9

\*EXCLUDES WOMEN WHO ARE ALREADY USING STERILIZATION AS A CONTRACEPTIVE  
 METHOD AND SUBFECUND WOMEN

TABLE 5  
 PERCENTAGE OF CURRENTLY MARRIED WOMEN AGE 15-44 WHO DO NOT WANT MORE  
 CHILDREN, WHO ARE INTERESTED IN STERILIZATION, BY RESIDENCE  
 SELECTED LATIN AMERICAN COUNTRIES\*

<u>COUNTRY</u>	<u>TOTAL</u>	<u>URBAN</u>	<u>RURAL</u>
BRAZIL			
NE STATES	55.0	57.9	51.7
PARANA	59.7	63.9	52.5
SAO PAULO	57.5	58.2	54.2
EL SALVADOR	52.0	55.4	50.0
GUATEMALA	36.5	42.2	32.3
PANAMA	71.9	68.9	74.1

\*EXCLUDES WOMEN WHO ARE ALREADY USING STERILIZATION AS A CONTRACEPTIVE  
 METHOD AND SUBFECUND WOMEN.

TABLE 6  
 PERCENTAGE OF CURRENTLY MARRIED WOMEN AGE 15-44 WHO DO NOT WANT MORE  
 CHILDREN AND ARE INTERESTED IN STERILIZATION WHO KNOW WHERE TO OBTAIN  
 SERVICE OR INFORMATION ABOUT THE OPERATION, BY RESIDENCE  
 SELECTED LATIN AMERICAN COUNTRIES\*

<u>COUNTRY</u>	<u>TOTAL</u>	<u>URBAN</u>	<u>RURAL</u>
BRAZIL			
NE STATES	40.8	43.0	37.9
PARANA	56.4	61.8	45.2
SAO PAULO	64.1	66.5	52.9
EL SALVADOR	88.8	88.3	89.2
GUATEMALA	54.8	63.3	44.0
PANAMA	73.3	75.0	72.2

\*EXCLUDES WOMEN WHO ARE ALREADY USING STERILIZATION AS A CONTRACEPTIVE  
 METHOD AND SUBFECUND WOMEN.

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