




IUD Use Dynamics in Egypt

Final Report

Egyptian Fertility Care Society

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EXECUTIVE SUMMARY

Contraceptive prevalence in Egypt has increased from 24% in 1980 to 47. 1% in 1992. This remarkable increase has been achieved by substantially expanding the capacity of the national family planning service delivery system. The composition of the method mix has changed during this same period. The 1980s saw a shift toward use of the IUD: "The percentage of married women using the IUD doubled between 1984 and 1988 (from 8 percent to 16 percent), reached 24 percent in early 1991 and 28 percent in late 1992. Over the same period, there was a small decrease in the percentage using the pill (from a peak of 16 percent in 1984 to 13 percent in 1992)." (DHS, 1992) Currently almost three out of every five women who use contraceptives in Egypt use the IUD.

During the period of rapid program expansion and changes in the method mix of contraceptives the national family planning program required large inputs of commodities. In the early 1990s there were signs that IUD supply system might be malfunctioning. The most compelling indication was a discrepancy between the amount of IUDs distributed by the EPTC and EFPA/CSMP and the number of IUD users as reported by community prevalence surveys.

A companion report by a team of logistic management experts was prepared during the early phase of this study's work that effectively laid to rest concerns about this discrepancy by drawing attention to the service expansion efforts and the corresponding need to establish inventories of IUDs in the newly opened family planning service outlets. This same report identified the potential of provider and client behaviors that could contribute to an ineffective use of IUDs and, hence, a smaller yet persistent discrepancy between the number of IUDs distributed and IUD prevalence levels from community surveys.

This study examined physicians' technical knowledge and clinical practices related to IUDs in detail, and the results are exhaustive. The principal findings suggest that there has not been a good record in disseminating new technical information during the past few years. Evidence of this serious weakness is provided by overall lack of accurate knowledge by physicians about the use duration of the Copper T380A IUD. Relatively few physicians received the technical update concerning changes in the recommended use duration. The presentation of the update itself was observed to be flawed as it combined potentially confusing information about extensions in shelf life and use duration in a single note using photocopies of correspondence from donor agencies.

A second vehicle for transmitting new technical information - - in-service training programs - - has not had a positive impact on physician knowledge about the use duration of the Copper T 380A IUD either. Although the training programs have been highly successful in improving the clinical skills of family planning providers in a number of areas the results from this study suggest a persistent gap in the physicians knowledge about the use duration of the

Copper T380A IUD and their practice of this knowledge. Weaknesses in counseling clients, and accurate knowledge about side effects and follow-up schedules were also observed.

A substantial proportion of family planning clients who have a history of IUD use clearly intend to use the method for a relatively short time. The ratio of Limiters to Spacers was 2:1 for IUD users, which was significantly lower than the same ratio for other contraceptive methods. When asked the principal reason for requesting the removal of their IUD approximately one third of the clients stated that they desired a pregnancy. The finding that the IUD is the contraceptive method most commonly used for birth spacing is significant

The study also probed into the possibility of inappropriate repeated use of IUDs and found some evidence of IUD removal followed by reinsertion (approximately one third of the clients reported using 2 or more IUDs during the past 4 years), but this finding is not conclusive and should be investigated further.

ABBREVIATIONS

CIIS:	Contraceptive Inventory and Information System
CSI:	Clinical Services Improvement Project
CYP:	Couple Year Protection
DHS:	Demographic and Health Survey
EDHS:	Egyptian Demographic and Health Survey
EFCS:	Egyptian Fertility Care Society
EFPA:	Egyptian Family Planning Association
EPTC:	Egyptian Pharmaceutical Trading Company
FP:	Family Planning
HIO:	Health Insurance Organization
IUD:	Intrauterine Device
KAP:	Knowledge, Attitudes and Practices
MOH:	Ministry of Health
MOSA:	Ministry of Social Affairs
NPC:	National Population Council
OMS:	Organization of Medical Services
PHCU:	Primary Health Care Unit
PPFPP:	Private Practitioners Family Planning Project
RCT:	Regional Center for Training
SDP:	Service Delivery Point
USAID:	United States Agency for International Development
UNFPA:	United Nations Fund for Population Activities

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I. INTRODUCTION

Contraceptive prevalence in Egypt has increased from 24% in 1980 to 47.1% in 1992'. This remarkable increase has been achieved by substantially expanding the capacity of the national family planning service delivery system. The composition of the method mix has changed during this same period. The 1980s saw a shift toward use of the IUD: "The percentage of married women using the IUD doubled between 1984 and 1988 (from 8 percent to **16** percent), reached **24** percent in early 1991 and 28 percent in late 1992. Over the same period, there was a small decrease in the percentage using the pill (from a peak of 16 percent in 1984 to 13 percent in 1992)"² Currently almost three out of every five women who use contraceptives in Egypt use the **IUD**.

Statement of the Study's Problem

During the period of rapid program expansion and changes in the method mix of contraceptives the national family planning program required large inputs of commodities. In the early 1990s there were signs that IUD supply system might be malfunctioning. The most compelling indication was a discrepancy between the amount of IUDs distributed by the EPTC and EFPA/CSMP and the number of IUD users as reported by community prevalence surveys, (Tables 1, 2 and 3).

Table 1: Amount of Copper T380A IUD USAID Donated to EPTC and FOF, 1988-1991

CY Year	EPTC	FOF	Total
1988	476,200	774,000	1,250,200
1989	576,400	342,000	919,200
1990	777,600	806,200	1,583,800
1991	1,383,000	282,600	1,665,600
Total	3,213,200	2,205,600	5,418,800

¹ Demographic and Health Survey in Egypt (DHS), 1992 Fatma H. El-Zanaty, Hussein A.A. Sayed, Hassan H. M. Zaky, Ann A. Way, The National Population Council, Cairo, Egypt; Macro International, Claverton Maryland, USA. Published November 1993 (Full Report).

² (DHS, 1992 page 71)

Calendar Year	EPTC	FOF	Total
1988	282,000	316,000	598,600
1989	465,900	409,000	874,900
1990	643,020	468,600	1,111,622
1991	860,310	471,600	1,331,900
Total	2,251,832	1,665,200	3,917,032

Table 3: Comparison of the Number of IUD Users From Survey Data Between 1988 and 1991

Year	Approximate Number of Married Women of Reproductive Age (MWRA)	Percent of IUD Users from Survey Data	Estimated Actual Number of MWRA Using IUDs
1988 (DHS)	7.63 million	15.7 percent	1.20 million
1991 (EMCHS)	8.16 million	24.1 percent	1.97 million

Tables 1, 2 and 3 show that during the three years 1989 and 1990 the number of IUDs distributed was 2.6 times greater than the addition to IUD users during the same period. Specifically, 1,986,522 Copper T380A IUDs were sold or distributed by the EPTC and FOF during the years 1989 and 1990, yet only 770,000 IUD users were added into the pool of current users during this same period³. The trend in providing large inputs of commodities continued in 1991 (1,331,900 IUDs were distributed in that calendar year) even though a reasonable assumption would have the pool of eligible women shrinking over time as demand was met. The source of the discrepancy between the number of IUDs distributed or sold and the number of current users was an enigma that pre-occupied senior program managers and donors concerned with IUD use in Egypt.

³ Hawkins, Carl and Noury, Turhan, "Logistic Management Study" USAID, January 1993; page 10; USAID/Egypt Population Office Fact Sheet, unpublished.

Several factors were identified as potential sources of weakness, including the forecasting procedures for future commodity needs, the system of distribution and storage, provider knowledge and practices, and client behaviors. The present study was developed to examine these factors.

During the preparation phase of the present study (January, 1993) a **USAID** supported logistics management study was conducted by Carl Hawkins and Turhan Noury that examined, among other issues, this apparent "IUD Gap". This study found the following explanation for the observed phenomenon.

"The **30%** increase of **IUDs** issued centrally each year from 1989 to 1992 is explained in part by an expanding pipeline due to the number of new projects receiving supplies from the EPTC.. In addition, since 1989, the **MOH..**has greatly expanded and improved family planning services in government operated facilities.. It is estimated that only 1,500 MOH units offered complete family planning services before 1989. This number has increased to nearly 3,200 with the upgrading of 1,700 units under the highly successful Systems Development Project. **As** these units were provided with trained family planning practitioners and dedicated upgraded space and equipment, they necessarily **needed additional contraceptives not only for client use but to establish needed stock on hand.**"⁴

This report presented a convincing rationale for a major contributing factor to the '**IUD** Gap': the creation of stock inventories for newly opened / upgraded centers, (combined with an increased use of IUDs due to training activities for new service providers) produced a temporary need to bring in larger quantities of IUDs than were being used by clients. Once the newly opened SDPs inventories were created the amount of IUDs donated by **USAID** could be reduced to replacement levels for continuing users with modest additions for projected numbers of new **IUD** users. This adjustment was

⁴ **Hawkins** and Noury, 1993; page 12.

recommended by Hawkins and Noury and acted upon by the USAID and the Ministry of Health.

Factors associated with IUD use dynamics attributable to provider and clients' practices might also exist that, although posing a relatively minor contribution to the 'IUD Gap' examined by Hawkins and Noury, could be an important source of IUD mis-use that unless fully understood and resolved will negatively affect the effective use of IUDs in Egypt. The utility of the present study is therefore not diminished by the existence of the Hawkins and Noury report, but rather its results are a necessary complement for a full understanding of the "IUD Gap" in Egypt.

11. STUDY OBJECTIVES

Long Term Objective

The results from this study will ultimately lead to improvements in the use of IUDs in Egypt, through increases in the continuity and effective use of the contraceptive method.

Short Term Objectives

The study examines issues of IUD supply, storage and use dynamics at the central, governorate and district level, as well in the country's service delivery points (SDP). The results of the study will have an immediate impact on the following points:

1. The system of IUD storage and distribution at the Central, Intermediate and Periphery levels will be improved.
2. Physician IUD related knowledge and practices will be enhanced.
3. Client knowledge, attitudes and behaviors surrounding IUD use will be strengthened.

III. METHODOLOGY

A. Study Design

A non-experimental cross sectional study design was utilized to examine several elements of IUD service provision. The study employed multiple

research methods which are described in a following section. Field work was conducted during the period July - December, 1993.

B. Sampling

The study adopted a purposive sampling strategy in order to focus data collection in precise geographic areas of Egypt where the discrepancy between the amount of IUDs distributed and the number of actual users was largest. The sampling strategy highlights the importance of studying all the different types of family planning service delivery systems while focusing on service delivery points (SDPs) that reported high levels of IUD use.

1) Governorates

The four largest urban governorates in Egypt were purposively selected: Greater Cairo (Cairo, Giza and Kalyoubia), Alexandria, Dakahlia (in Lower Egypt) and El-Minia (in Upper Egypt). The principal criteria for selection is the existence of a discrepancy between the IUD share of CYP (a proxy for the number of IUDs distributed or sold) and the prevalence of IUD use (a proxy for the number of IUD users), (Table 4, below).

Table 4: IUD Share in CYP and Contraceptive Prevalence by Governorate

Governorate	IUD share in CYP (NPC, 1990)	Percent of IUD Users Among Contracepting Women (EDHS, 1988).
1. Greater Cairo: Cairo Giza Kalyoubia	57.6% 55.6% 71.6%	49.4% 48.3% 49.1%
2. Alexandria	77.7%	46.0%
3. Dakahlia	65.6%	45.5%
4. El-Mina	52.9%	26.1%

2) Physicians

Exact information on the percentage of physicians who perform unnecessary IUD removals was unavailable and anecdotal evidence ranged widely. Using standard statistical techniques for calculating a sample size where the observed phenomenon is not previously described an assumption was made that approximately 50% of the physicians in Egypt removed IUD

prematurely (i.e., before the 8 year placement life duration was complete and in the absence of medical indications or client request for removal). This estimate indicated that a sample of 400-500 physicians is required to accurately describe clinical practices and clinicians' knowledge concerning IUDs.

Because of variations in the number of physicians that provide IUD services, and the quality of the services approximately 250 family planning SDPs were required to capture a sample of 500 physicians. The number of SDPs chosen in each governorate is proportionate to the number of IUDs distributed and the number of IUD users in each governorate. **Thus** 50 SDPs were selected for each of the three governorates of Greater Cairo (Cairo, Giza and Kalyoubia) and Alexandria; 30 SDPs were selected in Dakahlia and 20 SDPs were selected in El-Mina. Up to 5 physicians who provide IUD services in each of these SDPs were requested for interviews (if less than 5 physicians provide IUD services in the SDP then all of them were interviewed).

3) Service Delivery Points

The selection of the SDPs proceeded by identifying the SDPs which reported the highest levels of IUD distribution. Up to date listings were obtained from the MOH, the **MOSA** and the EFPA that indicated the number of IUDs distributed for each SDP during the months of February, March and April, 1993. Selection was made from these list that included all categories of family planning SDPs: MOH (Teaching, Central and District Hospitals, PHCU); EFPA and MOSA including the Clinical Service Improvement project SDPs (CSI); Health Insurance Organization clinics (HIO), Organization of Medical Services (OMS), and Private Practitioners Family Planning Project (PPFPP).

A purposive selection of a small number of University Hospitals was also included in the study's sample, as this was the single category of family planning SDPs that was not included following the above procedure.

4) IUD Clients

The reasons for a client's visit to an SDP for IUD use were listed (IUD insertion or removal (for any reason), follow - up with no complaints, follow-up with complaints, past use of IUD but currently using another method, and IUD

removal and insertion during same visit). In each of the SDPs up to 8 clients were interviewed with an even distribution across these categories. The interviews were conducted upon the client's exit from the clinic after the interviewer had obtained the informed consent of the client.

C. Research Methods and Data Sources

The study employed three types of research methods: standardized interviews, structured observations and service statistics. Copies of the data collection instruments are available from the Egyptian Fertility Care Society offices in Cairo.

1) Standardized Interviews

Open ended questionnaires were developed for interviewing program managers at each level of the family planning service delivery system in Egypt. These questionnaires featured probing into largely qualitative data gathering techniques, and targeted indicators related to commodity distribution and procurement.

Structured questionnaires were also developed for conducting highly standardized interviews with physicians and clients of IUD services.

2) Structured Observations

An observation checklist was developed that collected information on IUD services at each of the SDPs selected for study. One observation form was filled out by a trained researcher for each SDP. Information was collected on IUD insertion and removal activities, including counseling related to IUD services, the physical characteristics of the SDP (e.g., appropriateness of the waiting area, lighting, cleanliness, etc.). Criteria for evaluation was extensively discussed and standardized prior to beginning the observations in order to reduce the observer bias / subjectivity in the results.

3) Service Statistics

Statistics were obtained on IUD distribution targets for the SDPs in the study, and the quantities of IUDs distributed by the SDPs during the calendar years of 1991 - 1993. The following data sources were used to collect this

information: Statistical reports for NPC, MOH and EPTC, and a short form on IUD administrative aspects that was filled out by the research team leader and the physician responsible for the SDP administration and management. One such form was filled out for each SDP.

D. Study Population

Type of Family Planning Service	Governorate						
	Cairo	Kalyoubia	Giza	Alex.	Dakahlia	Minia	Total
University Hospital	4	0	1	1	1	1	8
MOH Teaching Hospital	3	0	0	0	0	0	3
District/Central Hospital	35	6	7	7	5	6	66
PHCU	26	8	24	26	14	5	103
Private Physicians	8	2	5	5	4	4	28
EFPA	5	1	0	0	3	2	11
CSI	0	2	3	4	2	1	12
MOSA units	0	0	8	2	0	4	14
Health Insurance	4	1	0	7	1	0	13
OMS	0	0	2	0	0	0	2
Total	85	20	50	52	30	33	260

Table 5 shows the distribution of each type of family planning services by the governorates. A total of 260 **SDPs** were included in the study. The majority of the **SDPs** were from Greater Cairo (Cairo, Giza and Kalyoubia) as its population exceeds the population of the other governorates. It is noted that the primary health care units are over-represented in the study.

Table 6: Total Number of Physicians by Type of Service and Governorate

Type of Family Planning Service	Governorate						
	Cairo	Kalyoubia	Giza	Alex.	Dakahlia	Minia	Total
University Hospital	9	0	2	2	2	3	18
MOH Teaching Hospital	4	0	0	0	0	0	4
District/Central Hospital	70	9	21	12	15	11	138
PHCU	36	13	48	46	30	14	187
Private Physicians	8	2	5	5	4	5	29
EFPA	5	1	0	0	4	2	12
CSI	0	2	5	5	3	3	18
MOSA units	0	0	13	2	0	4	19
Health Insurance	6	3	0	10	2	0	21
OMS	0	0	3	0	0	0	3
Total	138	30	97	82	60	42	449

Table 6 shows the total number of physicians that are included in the study by the type of service they work in and the governorate where the service is located. The sample included a total of **449** physicians. A little more than two thirds of the physicians (73.3%) of the study's physicians worked in either MOH hospitals or PHCU facilities.

Table 7: Total Number of Clients by Type of Service and Governorate

Type of Family Planning	Governorate						
	Cairo	Kalyoubia	Giza	Alex.	Dakahlia	Minia	Total
University Hospital	34	0	8	8	8	8	66
MOH Teaching Hospital	22	0	0	0	0	0	22
District/Central Hospital	283	49	62	55	42	50	541
PHCU	218	67	190	214	123	42	854
Private Physicians	63	16	40	40	24	29	212
EFPA	40	8	0	0	24	15	87
CSI	0	14	24	33	20	8	99
MOH	0	0	65	17	0	27	109
Health Insurance	29	10	0	51	10	0	100
	0	0	16	0	0	0	16
	689	164	405	418	251	179	2,106

Table 7 shows the distribution of clients by governorate and type of family planning service. A total of 2,106 women were interviewed in the study. The majority are from Greater Cairo (Cairo, Giza and Kalyoubia) as its population exceeds the population of the other governorates. Clients of the MOH services form the majority of the clients who were interviewed (67%) while those from the private sector account for only 10% of the total sample.

Table 8: Socio-Demographic Characteristics of Clients

Characteristic	Governorate (Percent)						
	Cairo (n=689)	Kalyoubia (n=164)	Giza (n=405)	Alex. (n=418)	Dakahlia (n=251)	Minia (n=179)	Total (n=2,106)
Age							
<20	1.9	2.4	9.6	1.7	1.6	0.0	3.2
20-29	45.0	37.2	48.1	40.0	45.0	42.5	43.8
30-39	39.0	45.1	34.6	47.1	43.8	40.8	41.0
40-50	14.1	15.2	7.7	11.2	9.6	16.8	12.1
Parity							
Primipara	0.1	0.0	0.2	0.0	0.0	0.6	0.1
1 - 3	73.0	62.8	72.3	71.8	68.1	46.9	69.0
4 - 6	24.1	30.5	24.7	27.0	27.9	43.6	27.4
7 - 10	2.8	6.7	2.7	1.2	4.0	8.9	3.4
Education							
Illiterate	31.5	50.6	51.9	40.0	47.4	58.1	42.7
No Certificate	12.0	7.3	12.1	14.4	12.0	12.3	12.2
Primary Certificate	10.4	7.9	5.7	5.0	3.2	2.8	6.7
Preparatory Certificate	9.9	7.9	5.7	6.5	3.6	3.4	6.9
Secondary Certificate	27.9	23.2	20.5	26.3	26.7	21.2	25.1
University or Higher	8.3	3.0	4.2	7.9	7.2	2.2	6.4
Employment Status							
Housewife	73.4	75.0	83.5	79.9	74.5	79.9	77.4
Working	26.6	25.0	16.5	20.1	25.5	20.1	22.6

Table 8 shows the socio demographic characteristics of the study's clients. The majority (84.8%) are between 20 - 39 years old, have 1 - 3 living children (69%). Also, 42.7 are illiterate (77.4%) are housewives. There are no great disparities or differences in the socio-demographic characteristics of the study's clients across the governorates.

IV. FINDINGS

This section of the final report reviews the principal findings from the ***Study of the Use of the IUD in Egypt***. A complete analysis of the data is not presented in the interest of keeping the Final Report short and of readable length. For the reader who is interested in the background data to the findings presented here, or the study's data collection instruments, the Egyptian Fertility Care Society offices in Cairo will be able to provide the more detailed information sought.

Throughout the following sections the tables and figures **will** refer to the "IUD". This will mean that results pertaining to the Copper T380A IUD which are being presented, as this is the most common IUD in Egypt. Where the results combine findings related to other types of IUDs, or where they relate solely to another type of IUD, the table or figure will take note.

A. COMMODITY DISTRIBUTION AND PROCUREMENT

USAID provides most of Egypt's requirements for IUDs to both the MOH and the **MOSA**. The MOH distributes the IUDs through the EPTC whereas the **MOSA** distribution proceeds through the EFPA/CSMP. The system for estimating the commodity needs is interactive and involves feedback from all levels of the family planning service delivery system (central, intermediate and peripheral).

■ Five Year Procurement Estimates

Decisions on quantities of IUD supplies to be provided to the central level are determined on a number of indicators, including demographic data, contraceptive prevalence surveys, dispensed to user data and issues data (movement of commodities from one storage area to another). Previously contraceptive forecasting in Egypt was based primarily on "issues data" and not on user data. This was because the family planning service delivery system was expanding rapidly and user data was uncertain because of the rapid growth in the number of SDPs. Now that the commodity pipeline is full

the system will turn towards an increased reliance on up to date dispensed user data for preparing future IUD commodity procurement estimates.'

■ ***Annual Commodity Needs and Distribution***

From 1983 through November 1993, all the USAID funded projects received contraceptives free. Starting December 1993, the graduated projects from AID support were changed to a "nominal fee" basis. In addition, annual limits of commodity supply were introduced at the same time, which can not be exceeded without USAID prior written approval. A list of these categories of projects is available from EFCS.

Estimations of IUD commodity requirements for each of these organizations is made annually using data from the periphery that is aggregated for the organization as a whole. The requirements are based upon an estimate of the existing IUD commodity stock (inventory) plus a previously agreed upon increase (or target) of new IUD users. Commodities are distributed monthly and each SDP is expected to maintain a three month supply of IUDs at all times (more is considered overstocking, less is under stocking). Monthly reporting procedures and forms have been created for this system operations.

The study conducted open-ended interviews with senior and mid-level managers of the commodity procurement and distribution system at the Central, Intermediate and Periphery levels. The results of these interviews revealed the following points.

1) Inventory Control Systems

In general the system for inventory checking was reported to be very meticulous and well controlled wherever the study examined it. The following are major strengths of this system:

- ✓ The inventory control system is well regulated and monitored

- ✓ A comprehensive reporting system is in place with forms reported well understood and evidence existing of their use

⁵ Hawkins and Noury, 1993; page 6.

- ✓ At the governorate and district level a six month supply of IUDs was observed, and in the SDPs a three month supply was found in all cases except one

These laudable results need to be placed within a context that indicates areas for reinforcement, however. Among the actual and potential weaknesses of the inventory control system the following points are emphasized.

- ✓ The Inventory and Control System is not fault proof and will require sustained and careful monitoring to ensure its operations
- ✓ The Inventory and Control System is based upon the timely completion and submission of reports
- ✓ Problems were observed at both the district and SDP levels (mainly these were associated with the length of time it takes to prepare a report and the level of accuracy that is required by the reporting forms)
- ✓ Currently the system is computerized only at the central level for the MOH and the EPTC

2) Storage Systems

As with the Inventory Control Systems, the Storage System for IUD commodities was found to be strong and functioning at a high level of effectiveness. The following points are among the study's main findings in this area.

- ✓ **Good** storage conditions were observed throughout the system
- ✓ Problems in the storage system (e.g., water / humidity causing damage to stored contraceptive supplies) were recently addressed
- ✓ Past evidence of oxidation of the Copper T380A IUD was addressed by the MOH
- ✓ The MOH has acted upon recent directives from the manufacturer of the Copper T380A IUD on increases in the shelf and placement life duration
- ✓ There were no reports of expired or damaged IUDs in the past three years by any of the SDPs visited

The review of the storage system indicated a weakness in the dissemination of newly published technical information from the central to the other levels of the family planning service delivery system in Egypt. Specifically problems were observed to have occurred as a result of using letters, or copies of English language communications received from donor agencies, without a proper briefing in Arabic as a preface or a complete translation. This occurred on notices about extensions of the duration of **IUD** shelf and placement life.

This weakness **is** not relevant only to the functioning of the storage system but also relates to the functioning of other sub-systems that have an effect on the technical competence of physicians, the content of IEC activities and smooth clinic operations.

3) Training of Providers

The MOH has training centers in almost all of the Egyptian governorates. Service providers receive basic training in family planning, management of clinic operations, management of information systems and in family planning counseling techniques. The following achievements were recorded as findings of this review

- ✓ There has been a tremendous training effort in Egypt during the past five years: 9,000 physicians and 11,000 nurses received technical training from 262 trainers in courses organized by the MOH
- ✓ The MOH has produced a comprehensive training manual for use during the instruction by trainers and **as** reference material at the clinic (each trainee receives a personal copy of the reference material)
- ✓ Continued training is provided through information updates circulated by the MOH to service providers via the health directorates / districts
- ✓ There was evidence of corrective measures being taken by the MOH in cases where frequent removal and reinsertion of **IUDs** was reported
- ✓ Performance of service providers is monitored by MOH officials at the intermediate and central levels through the existing

reporting system on service statistics and by periodic scheduled and unscheduled visits to SDPs by supervisors

- ✓ A new system for improving the quality of care that evaluates providers not only on the basis of achieving "targets" but also through assessment of other indicators of improved health care (e.g., quality of interaction between clients and providers, physical appearance of the SDP, adoption of aseptic techniques, etc.).

The results of the interviews with program managers revealed the following areas surrounding the training and supervision of family planning service providers that deserve attention.

- ✓ There is out of date and inaccurate information on the recommended duration of IUD use in circulation. This out of date information exists in earlier versions of the training manual that were not recalled, and which still are used for training programs in the governorates.
- ✓ The most recent training manual (published in 1990) states the recommended duration of the Copper T380A IUD as 6 years (8 years is currently recommended).
- ✓ The dissemination of updates on technical information is not systematic and confusing. Information on extensions on the shelf life of the Copper T380A IUD was included in the same circular that announced changes in the duration of the placement life. The two changes were not translated into Arabic and were not discussed in the circular notes.
- ✓ There has not been a systematic training program organized to improve the counseling skills of providers, particularly physicians
- ✓ The use of routine clinic supervision and management techniques has not been exploited fully.

B. CLINIC OPERATIONS AND ADMINISTRATION

This section presents findings based upon the results of the structured observations of clinic operations and administration in the 260 SDPs included in the study. Nearly all of the SDPs were found to have adequate waiting room area (chairs and / or benches present) ventilation, lighting and general

cleanliness. The waiting time was judged reasonable in the majority of the **SDPs** as the average waiting time was observed to be approximately 19 minutes.

At least 90% of the **SDPs** provided **IUDs**, pills and condoms; approximately 70% of the **SDPs** also provided injectables and local methods (foaming tablets, jelly and vaginal diaphragm). Other complementary services are not so widespread. For example, pregnancy tests were available in **56.2%** of the **SDPs**, cautery was available in 61.5% and management of infertility was available in 58.1% of the **SDPs**.

A mean number of 4 physicians were employed in each family planning **SDP** visited by the study, and a mean physician male / female sex ratio of 1:2 existed.

1) Counseling

Family planning counseling was judged to exist in the **SDP** if information was routinely provided on any of the contraceptive methods during the consultation (note: this is not the same indicator as the number of clients who receive counseling),

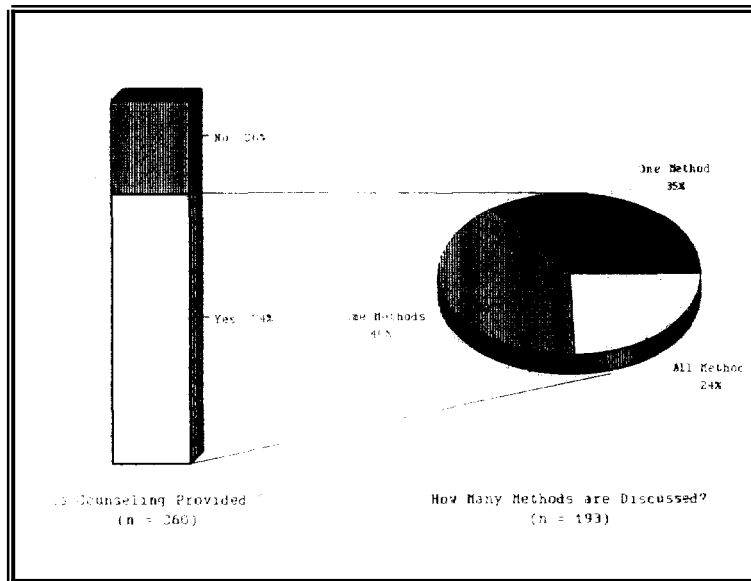


Figure 1: **SDPs** where Family Planning Counseling is Provided and the Content of the Counseling

(see Figure 1). In 25.8% of the **SDPs** no counseling is provided to the clients. Three quarters of the **SDPs** visited do provide some measure of counseling, although the exact content of counseling is weak. Only one quarter of the **SDPs** where counseling is provided discuss all of the available contraceptive methods, and in the remaining 75% of the **SDPs** providers concentrate the Counseling on one or some of the contraceptives available to the client.

Criteria used by the observers to evaluate the suitability of the duration of the counseling was based on allowing time for information given on each method, questions by clients and answers by providers. The duration was judged suitable in 83.9% of the SDPs.

The content of pre-insertion counseling on IUDs included **IUD** duration of use in 86% of the SDPs, side effects in 88.1%, threatening signs in **86.5%**, follow - up schedule in 91.7% and self-examination of IUD threads in **86.5%** of the SDPs visited by the observers.

The content of post-insertion counseling is weaker than the pre-insertion counseling for IUD users in the study, (Figure 2). Post-insertion counseling is defined as a review of the follow-up schedule, explanation of the procedure for

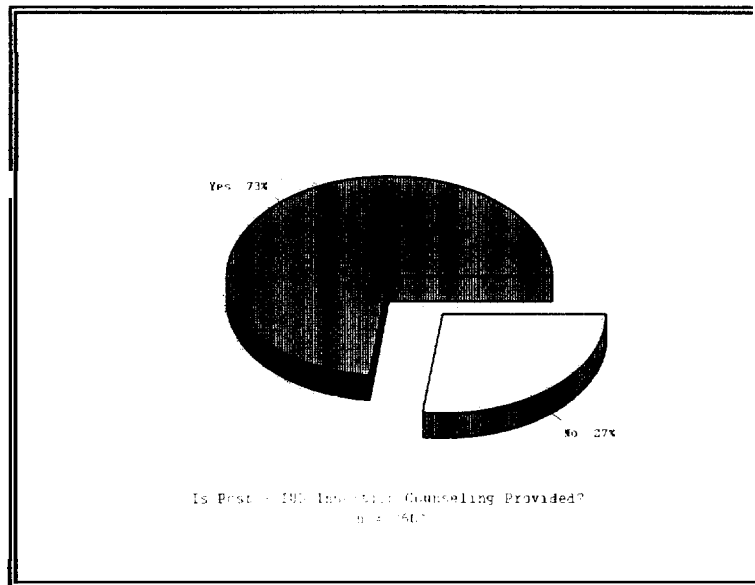


Figure 2: Post-IUD Insertion Counseling

conducting a self examination of threads and a discussion of possible side effects and their management. This type of counseling was not provided after inserting an IUD in approximately 30% of the SDPs.

The combined results from Figures 1 and 2 are confirmed by other studies of family planning client - provider interactions in Egypt. Although these results suggest that almost three quarters of the SDPs provide counseling, this is not the same as a finding suggesting that three quarters of all family planning clients are counseled. The consistency with which the SDP provides counseling is not indicated, and should be the subject of a more in-depth study on counseling practices by family planning service providers in Egypt.

The results presented in these two figures show that 26% of the SDPs do not provide family planning counselling whereas, 27% of the SDPs do not provide post IUD insertion counselling. This finding, combined with the possibility of an unsystematic approach to counseling in SDPs where some counseling is provided, indicates a need for continued attention to counseling practices in family planning clinics.

Where counseling exists the content of IUD specific information appears to be sufficient in most of the SDPs. The large majority of IUD clients in the study receive services in SDPs where information is provided on follow-up, self examination, threatening signs and side effects

2) IUD Supply Dynamics

The results from the observation of clinical procedures and administration clearly indicate that very few of the SDPs experience problems in obtaining IUD commodities. Only 5 of the 260 SDPs visited did not have any IUDs available at the time of the study. 4 of these 5 SDPs were University Hospitals and private physicians in Giza, Dakahtia and El-Minia governorates. Each of these 4 SDPs reported that clients are routinely requested to purchase the IUD elsewhere prior to consultation for its insertion. The fifth SDP that reported having no IUDs was experiencing a stock-out due to a an error that caused the clinic not to process a replenishment order in time.

Of the 255 SDPs visited that had a three month of supply of IUDs available (no overstocking was observed) approximately one half (**50.4%**) had only the Copper T380A IUD available. 47.7% of the SDPs had a combination of the Copper T380A and other IUDs, (e.g., Lippes Loop, Nova T, Graviguard, Multiload, Cu 7). The remaining 3 SDPs did not have any Copper T380A IUDs available but did possess other types of IUDs, (these SDPs were private physician clinics).

	Mean Number IUDs (any type) Inserted by SDP	Mean Price for the Copper T380A IUD by SDP (LE)
Governorate		
Cairo	213.8	3.0
Kalyoubia	290.1	3.7
Giza	190.2	5.4
Alexandria	248.4	2.4
Dakahlia	221.0	2.8
El-Minia	109.3	4.1
Type of Family Planning SDP		
University Hospital	209.6	4.9
MOH Teaching Hospital	393.3	0.0
District/Central Hospital	261.2	2.0
PHCU	257.8	2.0
Private Physicians	22.9	16.3
EFPA	212.4	3.3
CSI	166.2	2.0
MOSA units	143.4	3.9
Health Insurance	117.3	3.2
OMS	151.0	5.0
Total	214.0 (n=260)	3.1 (n=131)

The results presented in Table 9 indicate a large variation in the average number of IUDs inserted during the past three months across governorates, and categories of SDPs). Overall the SDPs in the study inserted an average of 214 IUDs during the past three months. Kalyoubia and Alexandria were the most active governorates showing means of 290.1 and 248.4 IUDs inserted during the past three months respectively. Teaching Hospitals, District and Central Hospitals, and PHCU SDPs inserted a larger mean number of IUDs during the past three months than the other types of

SDPs. Private physicians probably under-reported the number of insertions they provided for a number of reasons, including anxiety concerning possible taxation.

C. PHYSICIAN TECHNICAL KNOWLEDGE AND CLINICAL PRACTICES

The study interviewed a total of 449 physicians selected from the 260 SDPs. The physicians age ranged from 24 to 72 years, the average age is 34.5 years. More than one half of the physicians in this study completed their medical studies sometime during the 1980s (60.8%). Approximately one half of the physicians were general practitioners (51.9%); the remainder possess either a diploma (30.7%), Master's Degree (17.1%) or a Doctorate in Family Planning, Public Health or Gynecology and Obstetrics (0.2%). The average duration of experience with family planning services among the physicians included in this study is 5.5 years.

1) Physicians' Technical Knowledge

Despite the intensive effort during the past five years devoted to upgrading providers skills through in-service training, the results presented here indicate that approximately 16% of the 449 physicians interviewed reported having received no formal in-service training in family planning. Although this is a relatively small group of physicians, this result is indicative of the need for sustained attention to training in family planning.

Of those physicians who reported having been trained the results presented in Figure 3 (next page) show that approximately 51.6% have attended more than one training program. Approximately 92% of the physicians reported that their training included both theoretical and clinical courses (results not shown).

The use of the Copper T380A IUD for a duration of 8 years was recommended in late 1991 in Egypt. Training programs subsequent to that change in duration should have reflected this new information, thus the results presented in Figure 3 separate the training history into two categories: before 1992, 1992 and after (i.e., 1992 and Jan-Sept 1993).

Among the physicians who reported attending at least one training session, approximately 41% were trained before 1992, (see Figure 3). When this group is combined with the additional 16% of the study's

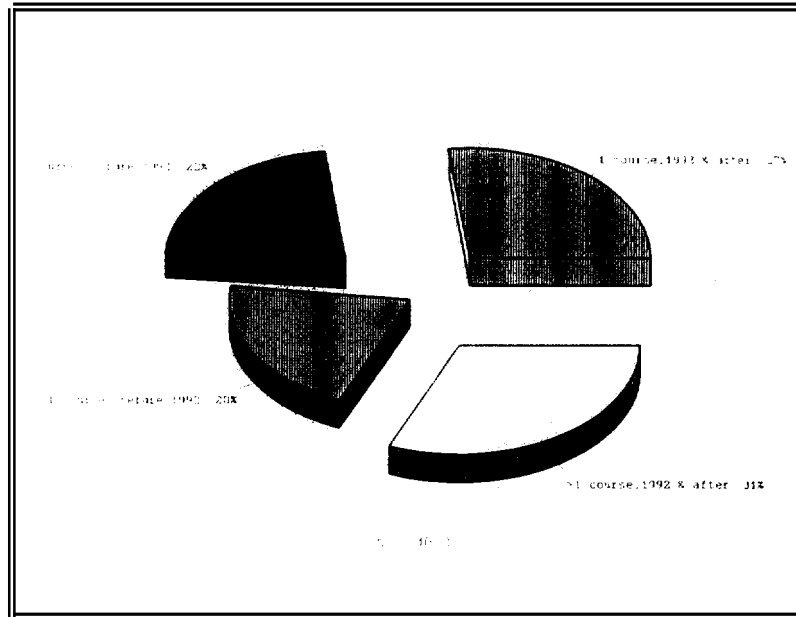


Figure 3: Physicians' Training Status (Date of Most Recent Training and Number of Courses)

sample of physicians who reported that they have not participated in any in-service training program it is clear that a fairly sizeable group of physicians exist who need to be informed about a change in recommendations for IUD use duration.

The location of the most recent training course was requested during the interviews with physicians. The training sessions were mainly organized by the MOH, and correspondingly 84.6% of the physicians reported

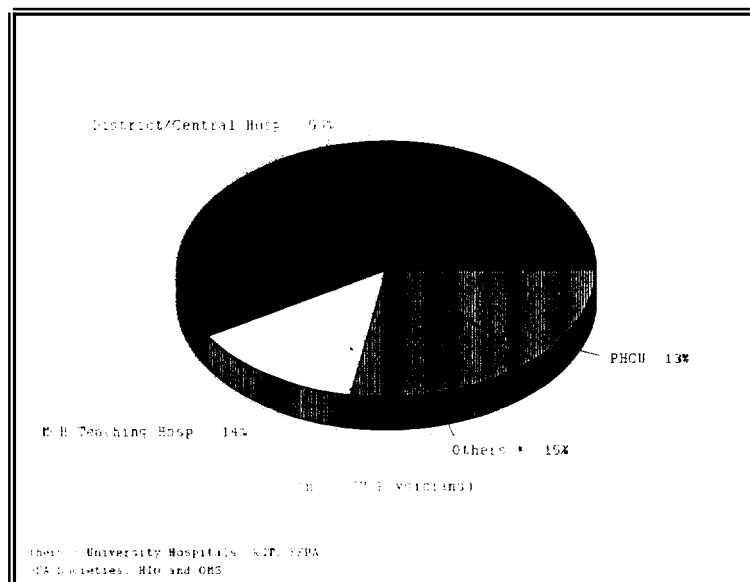


Figure 4: Location of the Most Recent Family Planning Training Course

that they received their training at the MOH service delivery outlets. An additional 15.4% were trained at other service delivery sites, including

University Hospitals, RCT, EFPA, **MOSA** societies, HIO and **OMS**.

Physicians were requested to cite up to 3 rumors heard from their clients. Rumors in this sense clearly meant unsubstantiated beliefs about the mechanism of the IUD, side effects and/or adverse health consequences of its

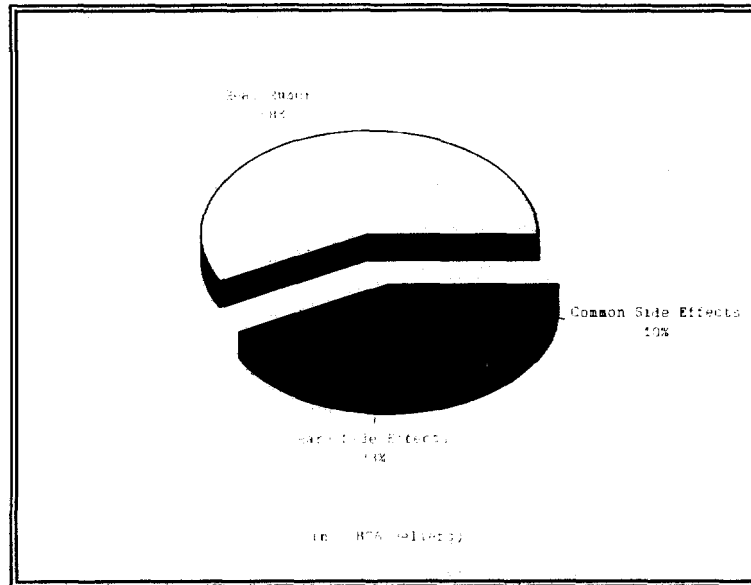


figure 5: Clients' Beliefs Reported as Unsubstantiated Rumors by Physicians

use. As Figure 5 shows, 57.5% of the "rumors" provided by physicians are in fact rumors (i.e., real rumors). The most common rumors are the following: the IUD can move around the body, the IUD can cause cancer or congenital anomalies to the fetus.

42.5% of the "rumors" that physicians cited are real side effects that can in fact occur. Of these "rumors" that physicians mis-understood the majority are considered rare (e.g., method failure, uterine perforation, husband discomfort, abdominal and back pain, infertility, etc.). Approximately 10% of the physicians misclassified fairly common side effects (e.g., uterine bleeding, pain on insertion) as "rumors".

These results indicate that physicians' technical knowledge about IUD side effects, and their management, is an area of concern. A little less than one half of the physicians's list of unsubstantiated rumors were in fact distinct side effects, even though some are rare. Approximately 10% of the physicians misclassified such common side effects as increased bleeding as rumors.

The updated recommendation on the duration of the Copper T380A IUD use to 8 years was received in Egypt in late 1991. During the next two years this information was to be disseminated throughout the family planning service

The finding that approximately one half of the physicians did not receive a copy of the new guidelines for Copper T380A IUD use suggest that the system for monitoring and supervision is not functioning as a conduit for new information, and that the in-service training program has not been responsive to incorporating new technical information.

Among those physicians who reported receiving the **MOH** regulations on the duration of the Copper T380A IUD use, recall of the information is weak (Figure 7). Approximately one third (32.5%) correctly stated 8 years. The **low** level

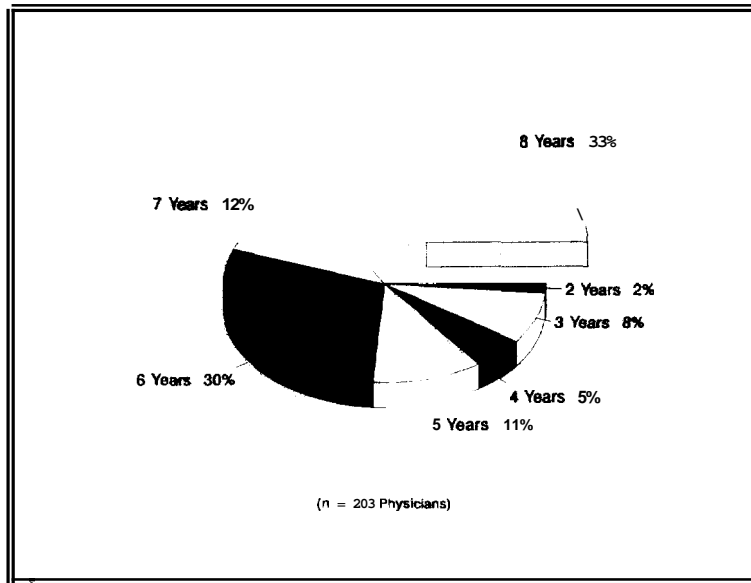


Figure 7: Physicians' Recall of the Recommended Duration of Use for the Copper T380A IUD

of recall may be attributable to the confusing nature of the circular note (that mixed together shelf life and duration life information).

2) Physicians Clinical Practice

Physicians were asked when they would advise their clients to change the Copper T380A IUD, (Figure 8, below). Only 2.1% stated they **do** not actually advise removal of the IUD except after 8 years. About one third (31.9%) stated that they do so after 3 years, 22% stated after 5 years, and the remainder reported advising their clients to remove the IUD in 4 years or less.

Given the low level of accurate knowledge about the recommended use duration of the Copper T380A IUD it is not surprising that very few of the physicians recommend an 8 year duration of use.

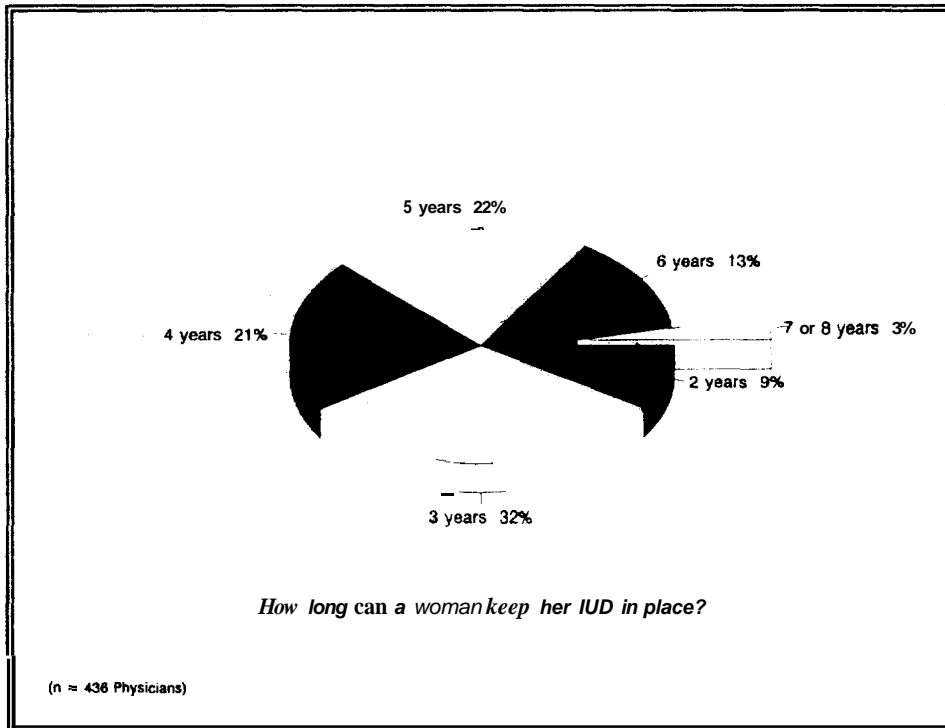


Figure 8: Physicians' Actual Practice of Copper T380A IUD Duration of Use

Revenue from the sales of the **IUDs** (all types) is routinely sent to the Health Directorate on a monthly basis. A small portion of this revenue (**3%**) is deducted as accounting charges at the Health Directorate. The remaining **97%** of the revenue is returned to the **SDP** for distribution among clinic staff as a monetary incentive. Physicians will receive 50% of these incentives, nurses receive 30% and the remaining clinic personnel will receive the balance. This system of providing small amounts of monetary incentives to clinic staff by the **MOH** is not systematically applied in all SDPs. It is fairly common for an SDP to receive the rebate from the Health Directorate sporadically (e.g., once or twice a year), although there has not been a comprehensive analysis of the system of incentive payments in public sector family planning clinics in Egypt to date. Clinic staff are often reluctant to discuss the monetary incentives and other benefits they receive and hence there will be under-reporting of this phenomenon in a survey.

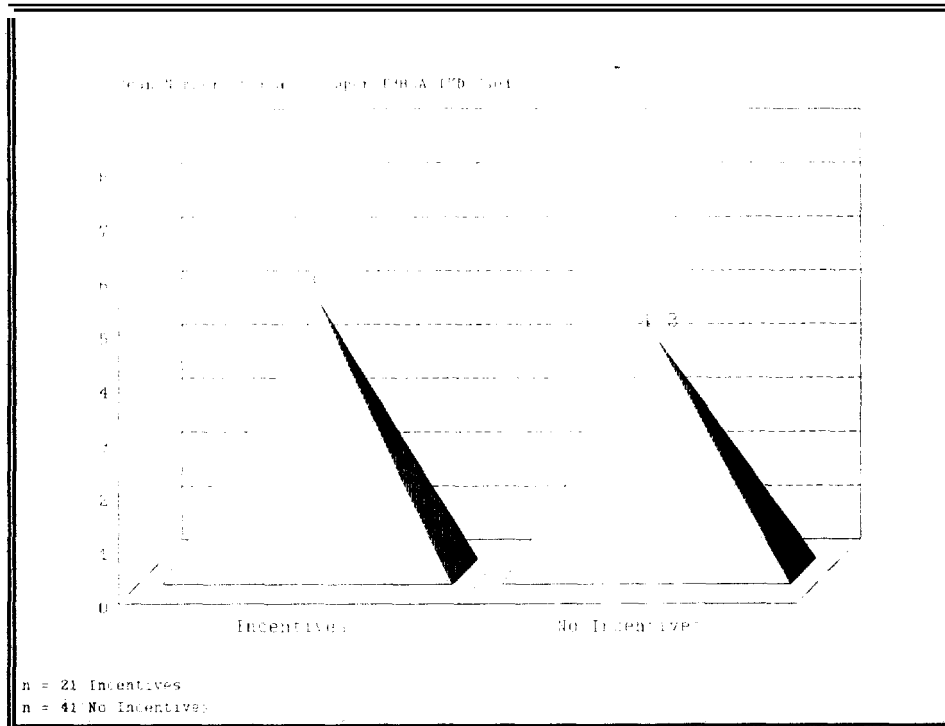


Figure 9: Mean Duration of Copper T380A IUD Use for Physicians who Receive and Don't Receive Monetary Incentives

Figure 9 presents results that compare two groups of physicians who acknowledged receiving the regulation on the duration of use for the Copper T380A IUD: those who reported receiving incentives and those who reported that they did not receive incentives. There was no significant difference in the mean number of years a physician keeps an IUD in place (in the absence of medical contraindications or client request for removal) between physicians who reported receiving incentives and those who did not ($P = >0.05$).

The effect of the training on the physicians use of IUDs is explored in Figure 10. The number of years that physicians reported keeping a Copper T380A IUD in place (in the absence of any medical conditions or client request for removal)

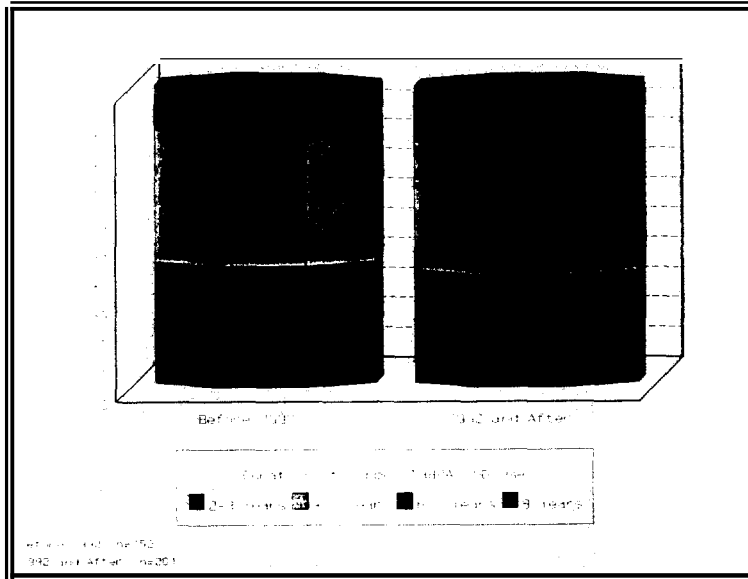


Figure 10: Duration of IUD Use Among Physicians who Received Training by the Date of Their Most Recent Training

is examined by the date of the physicians last training program. Physicians who reported participating in one or more in-service family planning training programs before 1992 (i.e., prior to the change in the duration of the Copper T380A to 8 years use) are compared to physicians who received their most recent training since 1992.

The results indicate no discernable difference *exists* in the physicians' practice of IUD use according to the date of their last training program. This finding is not entirely surprising given the observation that the most recent training manual does not reflect the updated use duration information for the Copper T380A IUD, and that earlier family planning training manuals which contain even more out-dated information are still in use in some Health Directorates' training program.

Physicians who reported receiving information about the duration of the Copper T380A IUD use were asked about their customary practice for the IUD's use duration. The results presented in Figure 11 (below) show that majority of physicians (69.3%) used the Copper T380 A IUD for duration less than the recalled duration (in the absence of medical contraindications or client request for removal).

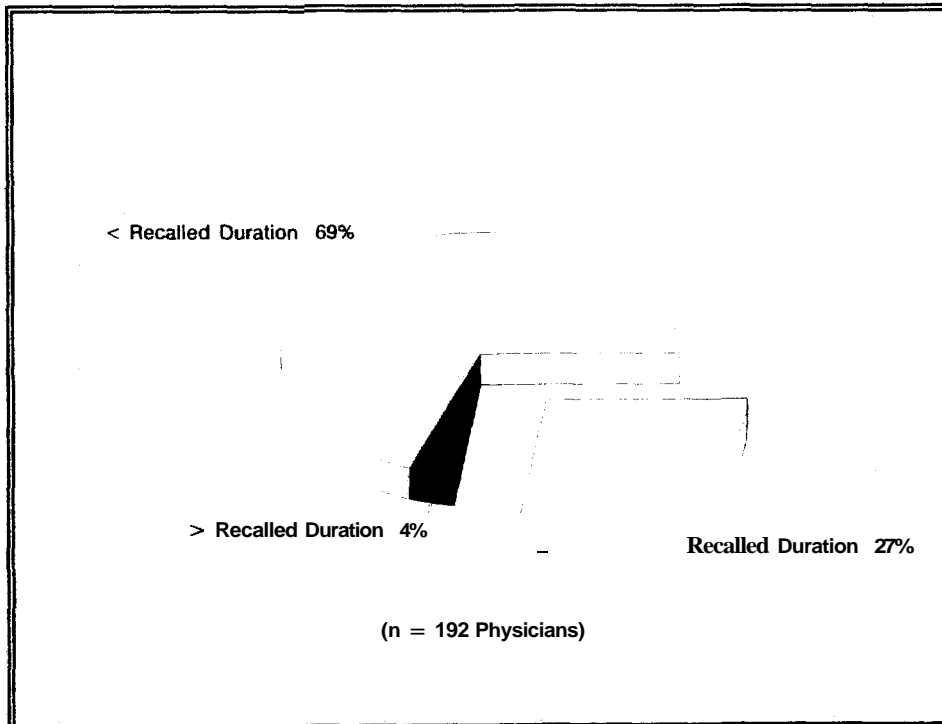


Figure 11: Actual Practice of cu T380 A use by the Recalled duration

A little more than one quarter of this group of physicians adhere to the recalled duration of use for the Copper T380A IUD.

These results indicate that the receipt of the new technical **information** concerning the duration of use for the Copper T380A IUD have not had a positive impact on physicians' practices. By and large most physicians in the study do not use the Copper T380A IUD to its full effective life. This could be due to a number of factors, including a lingering confusion between the Copper T200 and the Copper T380A IUDs duration, a poor comprehension of the **MOH** recommendation (e.g., confusing shelf life with 'placement life guidelines), or simply physicians may be responding to client requests for early removal.

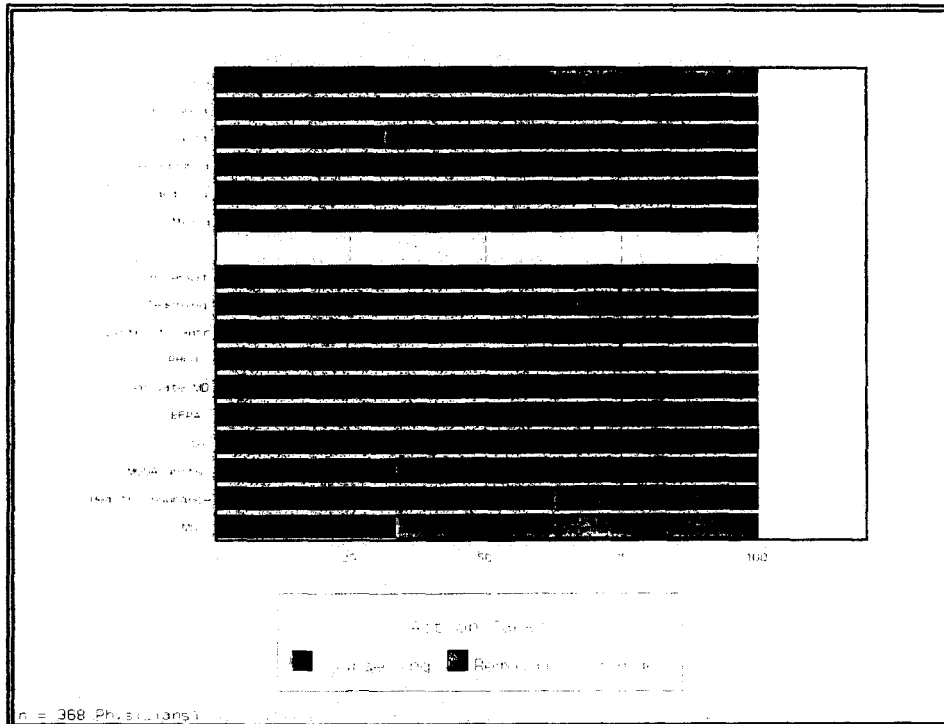


figure 13: Physicians Response to Client Request for IUD Remova

Physicians were asked what they do when a client requests that her IUD be removed. Their responses are grouped together into two general categories in Figure 13: (a) Counseling (in which the physicians explains the side effects that the client is experiencing fully and encourages her to continue to use the method for a little while longer in order to see if the side effects will subside), or (b) Removal of the IUD, which may be followed by either a reinsertion of another IUD or switching the client to another contraceptive method.

Approximately 58% of the physicians reported that they routinely try to counsel clients who request early removal; the rest of the physicians reported that they remove the IUD immediately without counseling and either reinsert another IUD (32%) or may switch the client to another contraceptive method (10%) according to the client's request.

D. CLIENTS' KNOWLEDGE AND BEHAVIORS

The study interviewed a total of 2,106 IUD clients upon their exit from the family planning SDP. The clients visited the clinic for any of a number of IUD related reasons, including first time users and all categories of continuing users. The interviews were conducted in private and after the interviewer had obtained the clients voluntary consent. This section of the report presents the major findings from the client interview data collected by the study. As with the other types of data, the reader is referred to the EFCS offices for a full listing of the indicators included in the study, as well as copy of the data collection instrument.

The results presented in this section refer to IUD in reference to any type of IUD. Unlike the results from the physician interviews, the use of the label IUD does not specifically mean the Copper T380A IUD in this section. This is because most clients do not know the exact type of IUD they currently use.

1) Clients contraceptive Practices and Intentions

The study selected clients who came to the SDP for an IUD related reason or clients who had used an IUD in the past but were no longer using it, (i.e., some clients may have switched from an IUD to another method during the visit preceding the

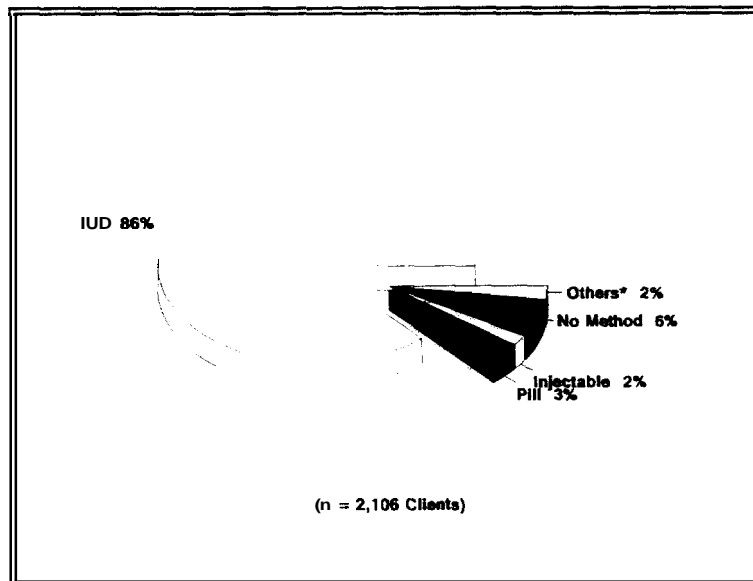


Figure 14: Type of Contraceptive Method Currently Used by Clients

interview). The results presented in Figure 14 show that approximately 13% of the clients interviewed in the study either were using another method after

having used an IUD in the past, or stopped using contraceptives during the referenced visit. The large majority (86.5%) of the clients in the study, however, are currently using an IUD.

Clients who are currently using an IUD were asked about any methods that they had used previously to the current IUD. The results presented in Figure 15 show that the majority of the IUD users in this study have used an IUD before (58.8%), and an additional one third of the IUD users switched from oral contraceptives to the IUD (35.2%).

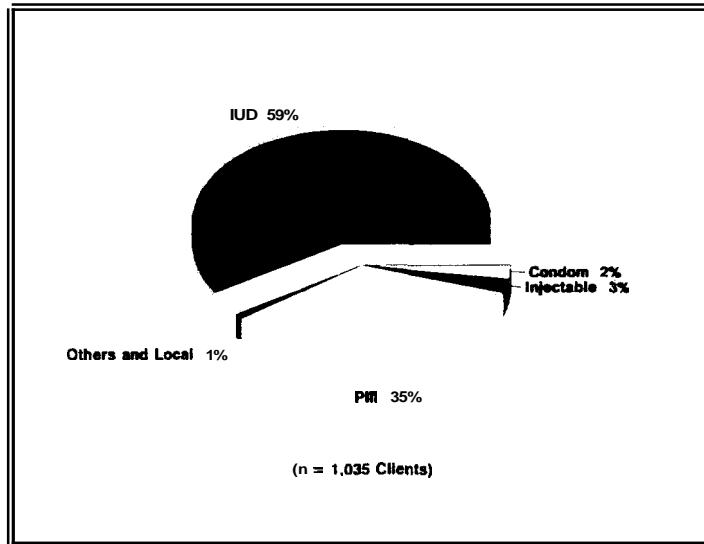


Figure 15: Previous Contraceptive Use Prior to Current IUD

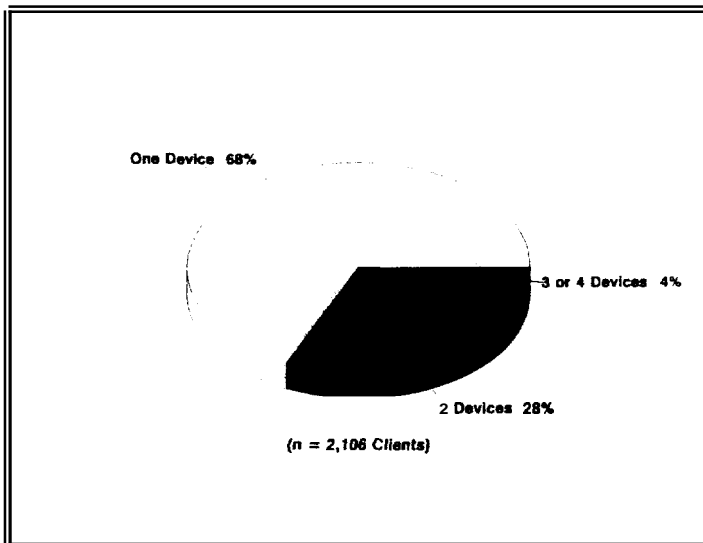


Figure 16: Number of IUDs Used by Clients During the Past Four Years

Clients were requested to recall the number of IUDs that they used during the past four years. This includes clients who were using an IUD prior to and had it replaced during the reference period (perhaps at the end of an 8 year use duration)

as well as clients who began using an IUD within the past four years and had it replaced during that period. It is a rough indicator of the prevalence of reinsertion of IUDs during a four year recall period. The results indicate that approximately two thirds of the clients recalled having used only one IUD

during the past four years (68.2%). An additional 27.6% of the clients stated that they have used 2 IUDs during that period, and a small percentage (4.2%) of the 2,106 clients stated that they have used 3 or 4 IUDs.

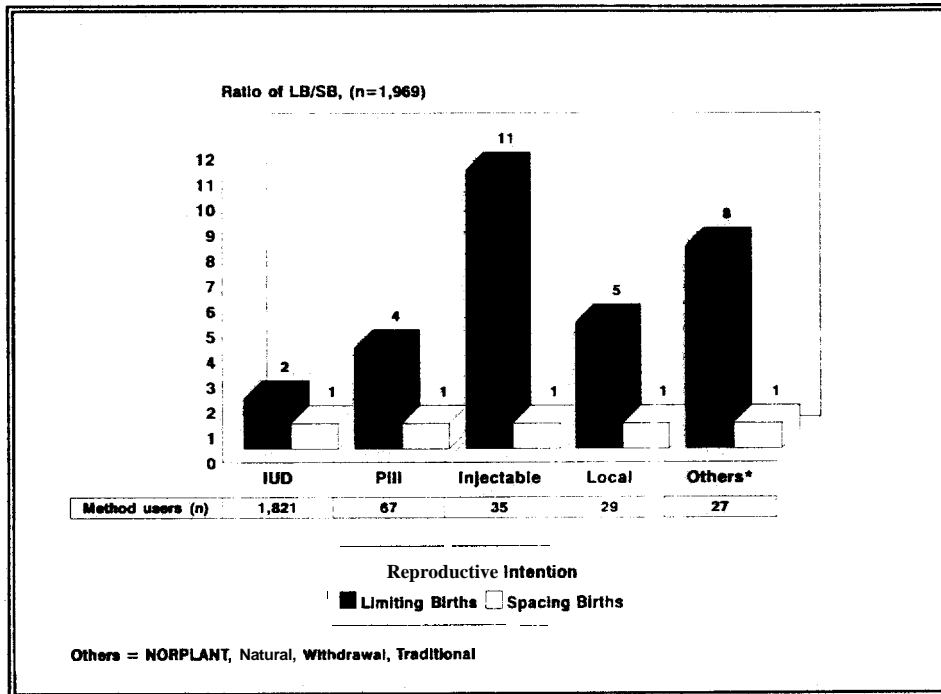


Figure 17: Ratio of Users who Seek to Limit Births to Users who See to Space Births, by Contraceptive Method Used

Clients were asked when they desired to become pregnant (again). Their responses were grouped into two categories: clients who stated that they did not desire any more children (Limiters) and those who gave a period of time during which they desired to wait until becoming pregnant again (Spacers). It is generally assumed that women in Egypt use contraceptives for limiting births rather than for spacing. Recent results from this study and other surveys indicate that this situation may be changing. For example, the 1992 DHS reports that 54% of women at the time of first use of family planning began using a contraceptive method for spacing births as opposed to limiting.

The results presented in Figure 17 show the ratio by contraceptive method of the number of users who are Limiters to the number of users who are Spacers. The ratio of Limiters to Spacers is shown to be 2:1 for IUD users, 4:1 for pill users, and 11:1 for injectable users. These results reveal that among the study's sample of clients the IUD is by far the method most

frequently used for birth spacing. The difference between the reproductive intentions of IUD users as compared to users of all other methods grouped together is highly significant, ($X^2 = 12.5$, $p = 0.0004$).

The finding that ratio of users who seek to limit their births to users who seek to space is lowest for IUD users when compared to other methods is an important finding. The comparison of this finding with the ratio of ‘Limiters’ to ‘Spacers’ for users of other specific methods should be done with caution, however, due to the small sample size for the other methods (e.g., only 25 injectable users were included in the sample).

The intended duration of IUD use is examined according to the clients’ reproductive intentions in Figure 18. A large majority of clients (79.7%) who seek to space their births stated that they intended to use the IUD for no more than 3 years. It is

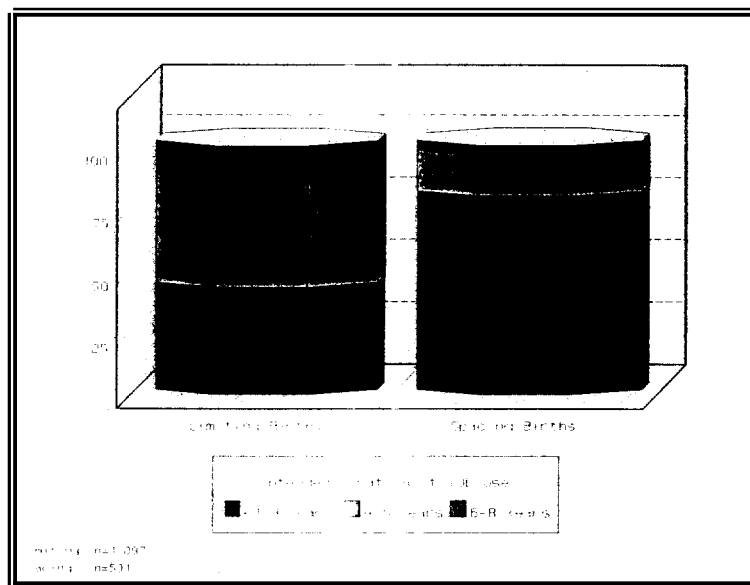
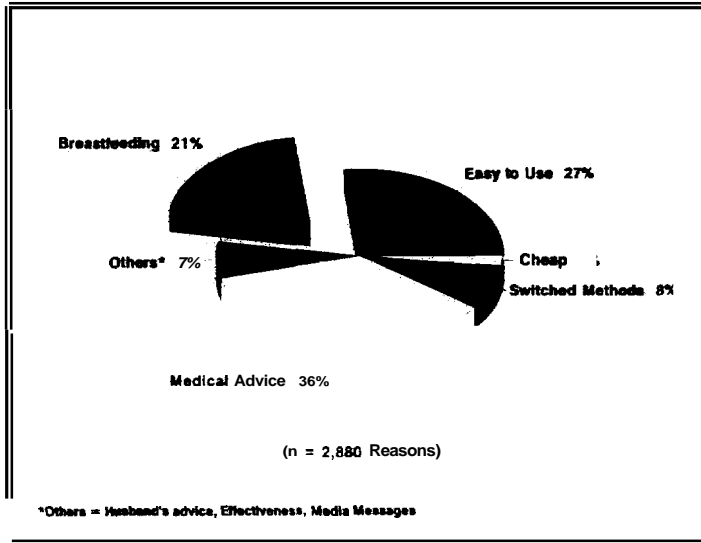


Figure 18: Duration of IUD Use Among Clients by their Reproductive Intentions (Limiting or Spacing Births)

interesting to note that among clients who do not desire any more children (‘Limiting Births’) approximately equal numbers intend to use the IUD for 1 - 3 years and 4 - 5 years, and only a small percentage intend to use the IUD for 6 - 8 years.

The principal reasons that clients selected the IUD as opposed to other contraceptive methods are presented in Figure 19 (below). These results indicate that approximately one third (35.9%) of the clients chose the IUD based on medical advice. An additional one quarter (26.7%) of the clients selected the IUD because of its ease of use, and approximately one fifth (20.6%) of the clients stated it was because they are breastfeeding.

It is interesting to note that very few (1.9%) of the clients cited the low price of IUDs as a reason for choosing the method.



Among the clients who had an IUD removed during the past four years the leading reason was a desire to become pregnant (32.3%), (Figure 20).

This is an important finding and it relates to the relatively low ratio of Limiters to Spacers: clearly many women who are using the IUD intend to

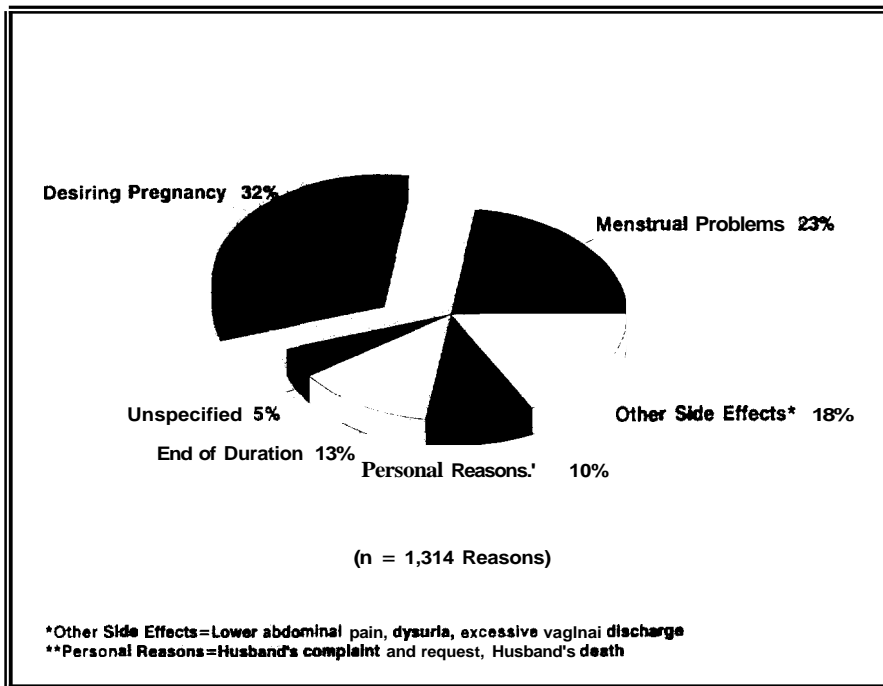


Figure 20: Reasons for the Removal of an IUD Used Within the Past Four Years

become pregnant again within a few years.

Side effects were a common reason for requesting the IUD to be removed: approximately 40% of the clients in the study cited either menstrual problems

(22.8%) or other types of side effects (17.6%) such as lower abdominal/ back pains, dysuria, or excessive vaginal discharge as reasons for removal. Relatively few clients requested the IUD to be removed because they thought it was the end of the duration of use (13.0%).

2) Clients' Knowledge

Figure 21 shows the reported source of information about family planning in general and about IUDs in particular prior to the visit for the IUD insertion. Approximately 46% of the clients in the study stated that they did not receive any such information prior to the

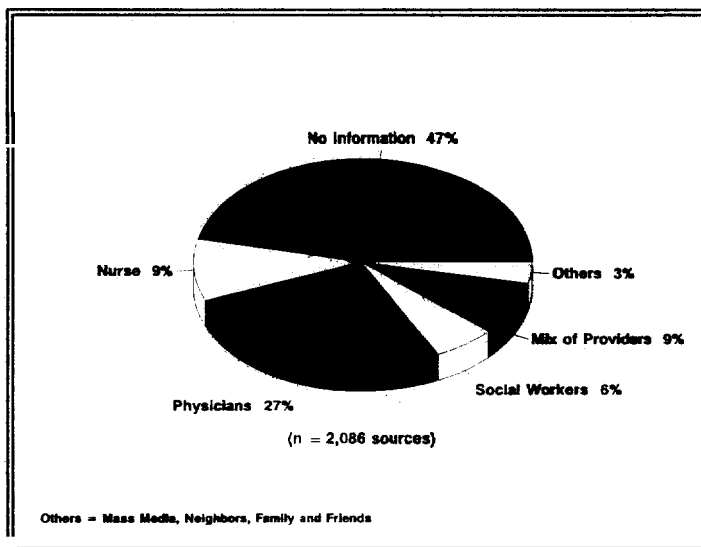


Figure 21: Source of Family Planning Information as Reported by Clients

visit for the IUD insertion. The leading source of family planning information is physicians (26.5%). Nurses are the next most common source (9.4%) followed by a combination of service providers (8.5%) and social workers (5.9%). It is interesting that relatively few clients (3.2%) cited the mass media as their only source of information about family planning or IUDs.

Table 10: Side Effects from IUDs Reported by Clients

Side Effects that are not Dangerous	Percent (n=4,397)
Dysmenorrhea	23.4
Excessive menstrual bleeding	45.4
Back pains	20.3
Increased vaginal secretions	4.9
Other related side effects (e.g., spotting, husband complaints, etc.)	1.3
Do not know any minor side effects	4.7

Side Effects that Necessitate Medical Consultation	Percent (n=4,621)
Un retrieve able thread	33.3
Delayed menstruation	18.8
Severe abdominal colic	10.9
Continuous bleeding	30.2
Offensive vaginal secretions	2.8
Other related side effects (IUD Expulsion, severe backache, pregnancy)	0.6
Do not know any serious side effects	3.3

Clients were asked to cite up to three possible side effects of IUD use that they do not consider dangerous and three possible side effects that indicate they should seek medical care. The results presented in Table 10 (above) indicate that very few of the clients with a history of IUD use do not know any side effects (either minor or dangerous). The most commonly known benign side effect is menstrual/bleeding problems (45.4%). Approximately equal numbers of clients cited the loss of the threads (33.3%) or continuous bleeding (30.2%) as indications they should seek medical care. These results indicate that although there is clearly room for improving the level of client knowledge about side effects, overall clients with a history of IUD use do report a fair knowledge of the two types of side effects that they may experience.

V. CONCLUSIONS AND RECOMMENDATIONS

The Study of IUD Use in Egypt was developed during a period when there was a large discrepancy between the amount of IUD commodities that were being distributed or sold and the number of IUD users identified in community prevalence surveys. A companion report by a team of logistic management experts was prepared during the early phase of this study's work that effectively laid to rest concerns about this discrepancy by drawing attention to the service expansion efforts and the corresponding need to establish inventories of IUDs in the newly opened family planning service

outlets. This same report identified the potential of provider and client behaviors that could contribute to an ineffective use of IUDs and, hence, a smaller yet persistent discrepancy between the number of IUDs distributed and **IUD** prevalence levels from community surveys

The results from this study's review of the commodity distribution and inventory control systems confirms previous reports (using data from a larger sample of SDPs) that the inventory system is well regulated and monitored and that there was no evidence of under- or over-stocking of IUDs. Reporting procedures are generally well understood by front line clinic staff yet their manual preparation of statistical reports is time consuming and the potential for errors exists.

The study examined physicians' technical knowledge and clinical practices related to IUDs in detail, and the results are exhaustive. The principal findings suggest that there has not been a good record in disseminating new technical information during the past few years. Evidence of this serious weakness is provided by overall lack of accurate knowledge by physicians about the use duration of the Copper T380A IUD. Relatively few physicians received the technical update concerning changes in the recommended use duration. The presentation of the update itself was observed to be flawed as it combined potentially confusing information about extensions in shelf life and use duration in a single note using photocopies of correspondence from donor agencies.

A second vehicle for transmitting new technical information - - in-service training programs - - has not had a positive impact on physician knowledge about the use duration of the Copper T 380A IUD either. Although the training programs have been highly successful in improving the clinical skills of family planning providers in a number of areas such as insertion techniques. The results from this study suggest a persistent gap in the physicians knowledge about the use duration of the Copper T380A IUD and their practice of this knowledge. Weaknesses in counseling clients, and accurate knowledge about side effects and follow-up schedules were also observed.

A substantial proportion of family planning clients who have a history of

IUD use clearly intend to use the method for a relatively short time. The ratio of Limiters to Spacers was 2:1 for IUD users, which was significantly lower than the same ratio for other contraceptive methods. When asked the principal reason for requesting the removal of their IUD approximately one third of the clients stated that they desired a pregnancy. The finding that the **IUD** is the contraceptive method most commonly used for birth spacing *is* significant. It is worth noting that these results coincide with the prevailing negative attitudes among physicians towards use of hormonal methods during lactation or for birth spacing, and their preference of use of the IUD instead. **Further** research **is** therefore needed to study whether women's knowledge **of** the possible delayed return of fertility after use of long-acting hormonal **methods** stands behind their choice of the IUD as a method for spacing their pregnancies.

The study also probed into the possibility of inappropriate repeated use of IUDs and found some evidence of IUD removal followed by immediate or later reinsertion (approximately one third of the clients reported using 2 or more IUDs during the past **4** years), but this finding is not conclusive and should be investigated further.

Recommendations

Based on the results presented in this Final Report, and the experience of analyzing the complete data set of the study's results, the following recommendations are proposed for consideration and action.

1. Consideration should be given to the ways and means of **simplifying** and streamlining the inventory control system, with particular attention to reducing the paper work at the SDP level. **A** simplified manual **might** be developed to guide the production of the routine reports.
2. To the extent that it is possible, and in a deliberate manner, the computerization of the inventory control system should proceed **from** the Central to the District and, ultimately, to the Periphery levels of the public sector's family planning service delivery system.

3. Immediate and concerted attention should *be* given to the system ~~for~~ disseminating new technical information to front line family planning physicians and staff from the central level. A feedback system should be developed to ensure that information conveyed out is received and understood. The roles and responsibilities of clinic supervisors and managers should be reassessed in this light
4. The mechanism for incorporating newly introduced concepts into existing training manuals should be reviewed. Alternative approaches for strengthening the revision process should be explored. For example, a loose leaf folder that could accommodate new pages as replacements of out-dated sheets could be employed. Existing training materials should be carefully examined to ensure that they contain up to date information in as clear a manner as possible ~~on~~ the use duration ~~of~~ the Copper T380A IUD.
5. Physicians require continued education about IUDs, as their knowledge of side effects and the use duration is incomplete and **generally** inaccurate. The role ~~of~~ counseling as an integral part ~~of~~ the **clinical** practice needs to be emphasized and encouraged.
6. Clients need to receive more information concerning the variety of the IUDs that are commonly available to them, particularly the Copper T380A IUD. Information on the 8 year use duration and the LE 2 price should be widely diffused. Clients should be aware that other IUDs that cost more need not be understood to be of a better quality.