

**A COMPARISON OF THREE MODELS OF POSTABORTION
CARE IN MEXICO**

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A Comparison of Three Models of Postabortion Care in Mexico
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Hospital Gineco-Pediatría 3A
"Magdalena de las Salinas"

Hospital Gineco-Obstetricia
"Tlatelolco"

Hospital Gineco-Obstetricia
"Luis Castelazo Ayala"

Hospital Gineco-Obstetricia No 60
"Tlalnepantla"

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"Troncoso"

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"El Molinito"

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Executive Summary

Throughout Mexico, an estimated 140,000 women each year seek care in public sector hospitals for treatment of abortion complications. The Mexican Institute for Social Security (IMSS, *Instituto Mexicano del Seguro Social*) provides services to more than one-half of these patients. As part of its ongoing work to improve postabortion care (PAC) services to women nationwide, the Maternal, Infant and Reproductive Health Division of the IMSS undertook the project presented in this report, "A Comparison of Three Models of Postabortion Care in Mexico." The primary goal of this operations research project is to determine what kind of service delivery model is most advantageous to patients, providers, and the health care system. Findings will be used to guide strategies aimed at improving PAC services in IMSS facilities.

The general objective of the study is to compare three models of care that now exist in the IMSS to assess differences regarding a variety of outcomes and, ultimately, to determine which model offers the most advantages to both patients and providers. Outcomes include

- Clinical safety and effectiveness
- Information and counseling provided to patients
- Patients' perceptions of pain throughout the process of care
- Resources utilized and overall cost
- Acceptance of contraceptive methods and prevalence of use up to six months post-discharge
- Physician evaluations of the model of care implemented

Model 1 (MVA PAC) employs manual vacuum aspiration (MVA) in the treatment of abortion in its various forms¹ and offers general counseling as well as specialized postabortion family planning counseling and services to patients. It is currently practiced in some hospitals that have participated in IMSS/Ipas training and service projects to improve the quality of PAC. Model 2 (SC PAC) utilizes sharp curettage (SC) as the clinical technology used to treat abortion in its various forms and, like Model 1, offers general counseling as well as specialized postabortion family planning counseling and services to patients. It is found in hospitals that adapted their SC services to include general counseling and postabortion family planning services after participating in the IMSS/Ipas projects. Model 3 (Conventional SC) utilizes SC for the treatment of abortion complications and provides postabortion family planning information and methods to patients. General counseling is not a standard part of services. This model of postabortion care is the most prevalent in IMSS hospitals.

The study employed a quasi-experimental design without random assignment of hospitals. Six IMSS hospitals with similar infrastructural characteristics were purposefully assigned to Models 1, 2 and 3 based on their existing PAC practices and the

¹ In this project, women with septic abortion, abortion in evolution and inevitable abortion were excluded from the sample for methodological reasons outlined in the report. However, both MVA and SC can be used to treat these types of abortions.

willingness of staff to participate in the project. Thus, each model was comprised of two hospitals. Refresher trainings were held with participating staff in each hospital during which the clinical treatment of abortion complications, whether with MVA or SC, was reviewed. Staff in hospitals implementing models 1 and 2 also reviewed the various components of general counseling and postabortion family planning services. Criteria for provider participation in the study were standardized in order to control for variation in skill level, prior training and experience. Patient inclusion criteria were also strictly defined so that differences among the models could be attributed to the service delivery approach and not to the specific characteristics of the patients.

Two teams of data collectors--social workers, who served as interviewers, and retired IMSS nurses, who worked as observers—each attended one week of intensive training during which all of the research instruments were pre-tested and finalized, in collaboration with the research team. Data were collected over a 10-month period using the following instruments in each of the hospitals:

- Observation guide to document the time spent by the patient during the care process (before, during and after the procedure),
- Observation guide to document the time spent by hospital staff with the patient and the resources (supplies, drugs and equipment) used during the process of care,
- Observation guide to document patient counseling and physical manifestations of pain,
- Structured interview with patients at the time of discharge from the hospital,
- Structured follow-up interview with patients at 7-days (in hospital, home or by phone) and 6-months (in home or by phone) post-discharge.

In addition, data were collected through a

- Medical case record form completed on each patient by the attending physician after the uterine evacuation procedure,
- Structured, self-administered questionnaire completed by physicians participating in the project.

Throughout the field period the principal investigator (Dr. J. Fuentes) and a research coordinator visited each of the sites one to two times per week in order to ensure that providers were putting the models into practice and to review the work of the data collectors.

SUMMARY OF RESULTS

Pre-discharge interviews were completed with 803 patients in the 6 study hospitals, 610 patients completed the 7-day follow-up interview and 353 were interviewed once again at 6-months post-discharge. A sub-sample of 91 patients was followed in the hospital to observe a variety of components of the care process. A total of 75 physicians completed a structured questionnaire in which they evaluated a variety of components of the model of care they had put into practice.

The profile of postabortion care patients included in the samples of all three models of care is similar in terms of socioeconomic characteristics and reproductive history. Most were between the ages of 20-34, were married or cohabiting, had a high level of education, and defined themselves as housewives. Women, in general, had been pregnant twice and the abortion for which they were seeking care was their first.

Overall, the hypotheses proposed at the beginning of this project were supported by the data. MVA was found to be as safe and effective as SC for uterine evacuation. When pain control was excluded from the analysis of effectiveness, MVA scored significantly better than SC. Patients treated in models 1 and 2, in which counseling was systematically included as part of the services, rated the information and counseling they received more highly than did those treated in model 3. In some areas, such as possible complications and return to normal life, women treated with SC PAC (model 2) received more information than did women treated in the other models. More women treated in model 1 received information about the uterine evacuation itself due, in part, because patients are conscious during the procedure. No differences were seen in providers' evaluations of the models. Patients' perceptions of the intensity of pain throughout the postabortion care process subsided more rapidly for women treated with MVA in model 1 than it did for women treated with SC in models 2 and 3. More patients treated in MVA and SC PAC models (1,2) accepted and continued to use a contraceptive method postabortion than did those treated in model 3. More specifically, prevalence was highest among those patients treated in model 1. Further analysis is needed to discuss the differences in cost and resource use in depth. The data presented in this report indicate that patients treated in the three models spend a comparably short amount of time in the hospital regardless of the clinical technique used and whether or not counseling is provided.

CONCLUSIONS

MVA is a safe and effective clinical alternative to SC for the treatment of abortion complications. The time spent by patients in the process of care was similar in each of the models, signifying that effective counseling of patients can be accomplished without significantly increasing the total time of the postabortion care process. High quality services as well as a greater acceptance and prevalence of contraceptive use can be attained when general counseling and family planning services are systematically included in the model of postabortion care practiced by providers.

Based on these findings, we conclude that models 1 and 2 provide the most advantages to patients, although model 1 results are slightly higher. Further analysis is needed to determine which model is best for physicians and the health care system. It is clear that model 3 services need to be modified in order to improve their quality and effectiveness.

BACKGROUND

Postabortion Care in the Mexican Social Security Institute

The Mexican Social Security Institute (*Instituto Mexicano del Seguro Social*, IMSS) provides health care to more than one-half of the Mexican population and is considered to be a model for health systems throughout Latin America. Most women who seek medical treatment for abortion complications at hospitals within Mexico arrive at IMSS facilities. Hospital records show that an average of 60,522 women received care in IMSS hospitals for abortion complications between 1993 and 1997 [1]. In addition, the IMSS is the most important source of family planning services in Mexico, attending 44 percent of all users in the country [2]. From 1993-1997, an average of 31,568 or 52.2 percent of women treated for abortion complications left the hospital with a contraceptive method [1].

Various models of care are employed within IMSS hospitals when treating women with abortion complications. The most prevalent is one in which sharp curettage (SC) is used to treat abortion in its various forms and information is provided to postabortion patients before they leave the hospital. However, staff at a number of IMSS hospitals have participated in an ongoing IMSS / Ipas training and services project aimed at improving the quality of care of services offered to women. Subsequently, health care providers at various hospitals have put into practice a more comprehensive concept of *postabortion care* (PAC), a package of services that includes [3]

- 1 Emergency treatment services for abortion complications,
- 2 Postabortion family planning counseling and methods,
- 3 Links between emergency abortion treatment services and comprehensive reproductive health services to improve women's overall health

In some of these hospitals, manual vacuum aspiration (MVA) is used in a significant proportion of uterine evacuation procedures, in others SC continues to be the clinical technique of choice. Regardless of the clinical procedure, general counseling as well as specialized postabortion family planning counseling and services are offered by health care providers to women. Since mid-1992, over 3,000 IMSS health care personnel have participated in PAC trainings that emphasize clinical MVA skills, general counseling, and family planning services [4].

Prior IMSS Studies Focused on Postabortion Care

Studies comparing clinical technologies have documented that MVA is safer than and equally as effective as SC in the treatment of incomplete abortion in the first trimester [5]. A recent study conducted in IMSS facilities in Sonora, Mexico found MVA to be a "simple, efficacious, and economical procedure, with very low risk" [6]. Additionally, research carried out in 1991 in five IMSS hospitals showed that the average cost of care for incomplete abortion patients treated with MVA in a hospital was approximately 54 percent lower than that of patients treated with SC [7]. A significant

percentage of the savings was associated with a reduced length of patient stay when MVA was used

Since 1985, the IMSS has implemented a program of ambulatory surgery (*Cirugia de Corte Estancia*) that has modified the way in which patients in general are managed throughout the care process. With this program, the delivery of postabortion care services was reorganized, regardless of the clinical technique used for uterine evacuation, such that women are now served on an outpatient basis. The average length of stay is now approximately eight hours, rather than 12 to 30 hours [8]. It is important to note that while all of the studies cited above focus on the use of MVA in the treatment of incomplete abortion, since 1993 providers in the IMSS have utilized this technology in other cases as well, including missed abortion, hydatidiform mole and endometrial biopsy [4].

Lastly, IMSS statistics and a pilot study conducted in four IMSS tertiary level facilities indicate that significantly more women treated with MVA receive a family planning method before leaving the hospital than those treated with SC [4,9,10].

PROBLEM STATEMENT

Since 1992, the IMSS and Ipas have worked to train service providers in the use of MVA. Recently, the focus of training has shifted to emphasize the delivery of a comprehensive model of postabortion care, one which incorporates the treatment of abortion complications with MVA, general counseling and specialized family planning counseling and services. Counseling is defined as a process of interaction between the provider and patient/client through which the patient is able to understand her condition and to make decisions according to her needs and expectations. This differs from information provision whereby such needs and expectations may not be taken into account as the provider directs a pre-structured message to the patient.

Some IMSS hospitals have implemented a postabortion care model that contains MVA, general counseling and specialized family planning counseling and services. Others have incorporated counseling into their standard services but have maintained their use of SC, while others have retained the traditional service delivery model of care--SC with family planning information and methods offered to women.

Given the varied experiences in IMSS facilities as well as findings from the studies cited above, IMSS policymakers decided to undertake this current operations research project to determine which of the three models of postabortion care is most advantageous to patients, providers and the health care system. Findings will be used to guide strategies for improving postabortion care services in IMSS facilities. A summary of the three service delivery models of care is presented in Table 1.

Table 1 Three Service Delivery Models of Postabortion Care in IMSS Hospitals

<i>Model</i>	<i>Clinical Technique</i>	<i>General Counseling</i>	<i>Family Planning Services</i>	<i>Organization of Services</i>
Model 1 MVA PAC	MVA	<ul style="list-style-type: none"> • Identification with the patient her emotional state and specific needs • Information about her health status • Information about the clinical procedure • Pain management through emotional support and local anesthesia • Information about possible complications after the procedure, follow-up and return to normal life activities 	<ul style="list-style-type: none"> • Inquire about reproductive intentions • Information and counseling about reproductive risk, return to fertility and family planning methods available • Methods offered and given according to the needs and desire of the patient 	Ambulatory services/ early discharge / short stay
Model 2 SC PAC	SC	<ul style="list-style-type: none"> • Identification with the patient her emotional state and specific needs • Information about her health status • Information about the clinical procedure • Pain management through regional or general anesthesia • Information about possible complications after the procedure, follow-up and return to normal life activities 	<ul style="list-style-type: none"> • Inquire about reproductive intentions • Information and counseling about reproductive risk, return to fertility and family planning methods available • Methods offered and given according to the needs and desire of the patient 	Ambulatory services/ early discharge / short stay
Model 3 SC Standard	SC	<p>General counseling is not a component of Model 3 services Instead</p> <ul style="list-style-type: none"> • Information about health status and procedure • Pain management through regional or general anesthesia 	<ul style="list-style-type: none"> • Information about reproductive risk and family planning methods available • Methods offered and given according to the needs and desire of the patient 	Ambulatory services/ early discharge / short stay

OBJECTIVES AND HYPOTHESES

The goal of this study is to compare three models of postabortion care service delivery, according to the research objectives and hypotheses outlined below. The overarching hypothesis for the study is that significant differences exist between the three models of postabortion care.

The original research objectives and hypotheses, as specified in the project proposal, are:

- 1 To measure differences in clinical outcomes, in terms of safety and effectiveness of the clinical technique

Hypothesis: MVA is safer and more effective than SC for uterine evacuation in the treatment of incomplete abortion, missed abortion, hydatidiform mole and cases where the embryo is absent.²

- 2 To document differences in provider and patient perceptions about information and counseling delivered and received during the process of postabortion care

Hypotheses: Providers delivering services with the MVA and SC PAC models (1,2) will rate the information and counseling provided to women more highly than will those delivering services in the conventional SC model (3). Providers delivering services with the MVA PAC model (1) will rate the information and counseling provided to women more highly than will those delivering services with either SC PAC or conventional SC models (2,3).

Patients receiving services with the MVA and SC PAC models (1,2) will rate the information and counseling they received more positively than those receiving services with the conventional SC model (3). Patients receiving services with the MVA PAC model (1) will rate the information and counseling they received more positively than those receiving services with either the SC PAC or the standard SC models (2,3).

- 3 To measure differences in patients' perceptions of pain throughout the postabortion care process

Hypothesis: Pain experienced after the uterine evacuation procedure by patients treated with MVA PAC (1) will subside more quickly than will the pain experienced by those treated with SC PAC or conventional SC (2,3).

- 4 To measure differences in postabortion family planning acceptance at time of discharge from the hospital as well as prevalence of contraceptive use at 7 days and 6 months post-treatment

Hypothesis: Women treated with MVA and SC PAC models (1,2) will be more likely to both accept and continue to use a contraceptive method postabortion than those treated with the conventional SC model (3).

² All were types of abortion included in the study

- 5 To compare costs and resource utilization in the delivery of postabortion care services

Hypotheses The provision of MVA PAC (1) services is less expensive and utilizes fewer resources than SC PAC (2) The cost of and resources used in both PAC models (1,2) will be somewhat greater (because of counseling received by the patient), but not significantly so, than those used in the conventional SC model (3)

MATERIALS AND METHODS

Study Design

In general, the study employs a quasi-experimental design with six IMSS hospitals purposefully assigned to one of the models of care based on existing PAC practices and the willingness of staff to participate in the project. A team consisting of physicians, nurses, and social workers conducted refresher trainings with participating providers in all six hospitals in order to standardize the various components of the models. Providers in all six hospitals received refresher training in the clinical technique to be used in the model during the study, in infection prevention and relevant pain control protocols. Refresher training for providers in the MVA PAC and SC PAC models also included a review of general counseling and postabortion family planning counseling and services.

In order to test the range of hypotheses proposed in this project, a variety of specific research designs were implemented.

Objective 1 To assess differences regarding the safety and effectiveness of each clinical procedure, attending physicians in each of the models completed a case record form on each patient in the study subsequent to completing the uterine evacuation procedure. On this form, the physician documents the patient's reproductive health history, prior use of family planning methods, procedural and post-procedural complications, pain control regime used, evaluation of its adequacy, and the patient's emotional state. A strictly clinical (case-control) design was not implemented in this part of the study although patient inclusion characteristics were standardized across all hospital sites. All models are compared in the analysis and MVA sites are contrasted with SC sites in terms of safety and effectiveness.

Objectives 2 and 3 Evaluation of information, counseling and pain was accomplished by interviewing all patients fulfilling the selection criteria and providing informed consent to participate in the study prior to their discharge from the hospital during a 23-week field period. Observations of information and counseling throughout process of care, as well as physical manifestations of pain were also conducted during 10-week field period with patients fitting the criteria of the model. This is a sub-sample of the pre-discharge interview sample. In both cases data collectors were stationed at the hospitals throughout the field period.

Objective 4 Data for the follow-up study of family planning method prevalence were collected through pre-structured interviews conducted with women at 7-days and 6-

months after their discharge from the hospital. In each case, patients completing a pre-discharge interview were asked to participate in a 7-day follow-up interview. If she agreed, she made an appointment with the interviewer and was given a card with the follow-up date as well as information about possible complications and ways to take care of herself once at home. Women who returned to the hospital received a medical check-up and then participated in the interview. Women who did not return to the hospital were also interviewed in their homes or by phone. Only those giving their consent during the pre-discharge interview were contacted for the 7-day follow-up interview. Six-month follow-up appointments were then made with women upon completion of the 7-day interview. The brief 6-month interview was conducted either by phone or in women's homes, only after contacting them prior to the interview to remind them of the date and to elicit their informed consent once again.

Objective 5 Cost and resource utilization data were collected utilizing a modified version of the PAC cost methodology instruments developed by Ipas [11]. Trained observers followed patients throughout the process of care to document the resources, medications and supplies used, the time that each patient spent at the hospital (by stage of care: pre-procedure, procedure, post-procedure), and the time spent by each type of hospital staff by stage of care. These data were collected with the same sub-sample of patients who were observed regarding information, counseling and pain manifestations.

Sample

Hospitals Included in the Study

Hospitals included in the study had to fulfill the following criteria:

- Abortion complication caseload of at least 120 patients per month (in order to garner a sufficient sample size within the timeframe of the project)
- Serve patients with similar socio-economic and obstetric characteristics
- Secondary or tertiary level facility
- Classification as an obstetrics-gynecology or general services hospital
- Located within the Mexico City metropolitan area
- Well-respected within the IMSS system
- Interested in participating the study
- Prior participation in the IMSS / Ipas PAC training and services programs (for Models 1 and 2)

Model 1 Providers in both hospitals have received PAC training using MVA, have used MVA since 1993 and currently treat approximately 20 percent of women with abortion complications with this technique.

- Hospital Gineco-Pediatria 3A "Magdalena de las Salinas" Tertiary Level
Caseload 1,089 abortion cases in 1996
- Hospital Gineco-Obstetricia "Tlatelolco" Secondary Level
Caseload 1,378 abortion cases in 1996

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Model 2 Some providers in both hospitals have received PAC training using MVA but almost all abortion patients are treated with SC

- Hospital Gineco-Obstetricia “Luis Castelazo Ayala” Tertiary Level
Caseload 1,822 abortion cases in 1996
- Hospital Gineco-Obstetricia No 60 “Tlalnepantla” Secondary Level
Caseload 1,175 abortion cases in 1996

Model 3 Providers in both hospitals have not received PAC training with MVA and abortion patients are treated with SC

- Hospital General de Zona 2-A “Troncoso” Secondary Level
Caseload 1,899 abortion cases in 1996
- Hospital General de Zona No 194 “El Molinito” Secondary Level
Caseload 898 abortion cases in 1996

Relative to the patient sample selected for the study (see below), the technology and protocols for emergency treatment services did not differ among the hospitals included in the study

Health Care Providers Included in the Study

Obstetrician-gynecologists who participated in the study are members of the hospital’s attending staff. In model 1, participants have training in both MVA and SC and treated approximately 20 women with each technique three months prior to the beginning of the study. Physicians participating in models 2 and 3 had treated at least 20 women with SC in the three months prior to the study. In addition to obstetrician-gynecologists, anesthesiologists, nurses, social workers, and admissions personnel who work during the morning and afternoon shifts participated in refresher trainings and in the study.

Patients Included in the Study

Patients participating in the study fulfilled the following criteria:

- Informed consent provided to the observer and/or interviewer for patient participation in the study,
- Admission for treatment of complications of either an induced abortion performed outside the hospital or for a spontaneous abortion,
- Admission for treatment of abortion in its various forms: incomplete, complete (when endometrial tissue remained in the uterus), missed, absent embryo, and hydatidiform mole. Cases of septic abortion, abortion in evolution or inevitable abortion were excluded from the sample,
- Uterine size equivalent to 12 weeks gestation or less,
- Less than 45 years of age³, and
- Treated in morning and afternoon shifts (when providers included in the refresher trainings worked)

³ Women older than 45 years of age are at higher risk for cardiovascular and other complications with any evacuation treatment technique and, therefore, are not included in the study.

Data Collector Training

Prior to conducting interviews and observations in the hospital sites, two teams of data collectors participated in intensive one-week training sessions. Interviewers, all social workers, reviewed the objectives and methodology of the study, reviewed all instruments (which had been pre-tested at an earlier date by the trainers), piloted the instruments once again in the six hospital sites, role-played each of the instruments, and suggested final modifications. Retired IMSS nurses who worked as observers participated in a separate one-week training that followed the same process. Thus, all of the data collectors were familiar and comfortable with the research instruments by the time they reached the field.

Research coordinators consistently monitored the work of the data collectors by making visits twice a week to each of the hospitals to review completed interviews and observations with the data collectors. Inconsistencies and questions were addressed immediately in the field before passing completed instruments on to the data entry team.

Data Collection

Subsequent to the refresher trainings and general orientation meetings regarding the goals and objectives of the project in the study hospitals as well as interviewer and observer training, the same data collection activities were conducted concurrently in all six hospitals. Instruments used included

Structured Interviews

- With patients at the time of discharge from the hospital. Interviews were conducted with all women who fit the criteria for inclusion in the study over a 23-week period,
- Follow-up interview with patients at 7-days (in hospital, home or by phone) and 6-months (in home or by phone) post-discharge.

Observation of Patient Care

Observations were conducted with a sub-sample of the patients interviewed prior to their discharge from the hospital during a 10-week period.

- Observation guide to document the time spent by the patient during the care process (before, during and after the procedure),
- Observation guide to document the time spent by hospital staff with the patient and the resources (supplies, drugs and equipment) used during the process of care,
- Observation guide to document patient counseling and physical manifestations of pain.

Other Instruments

- Medical case record form completed on each patient by attending physicians after the uterine evacuation procedure, and
- Structured, self-administered questionnaire completed by physicians participating in the project.

RESULTS

Sample of Postabortion Care Patients

A total of 803 pre-discharge patient interviews were conducted in the six study hospitals, resulting in 84 percent of the expected sample size of 960 patients (Table 2). Six hundred and ten women (76.0%) were successfully re-interviewed at 7-days post-discharge, four points short of the 80 percent follow-up rate originally proposed. A third interview was conducted at 6-months post-discharge with women who had completed both the pre-discharge and 7-day follow-up interviews. Data collectors were able to obtain a total of 353 six-month follow-up interviews, accounting for 44 percent of the original sample size or 58 percent of the 7-day follow-up sample (vs. an expected 80 percent of the latter sample). This lower than expected rate occurred, in part, because of the need to shorten the field period by two months given the end date of the INOPAL contract.

Table 2 Patient Interviews by Model and Stage of Follow-up

<i>Type of Interview</i>	Model 1 (N) %	Model 2 (N) %	Model 3 (N) %	Total (N) %
Discharge	(251) 100	(270) 100	(282) 100	(803) 100
7-day follow-up	(225) 89.6	(189) 70.0	(196) 69.5	(610) 76.0
6-month follow-up	(97) 38.6	(126) 46.7	(130) 46.1	(353) 44.0

Postabortion care patients included in the samples of all three models of care were similar in terms of socioeconomic characteristics (Table 3) and reproductive history (Table 4). The majority of women were between the ages of 20 and 34 years of age, had a steady partner (married or cohabiting), had a high level of education (preparatory school and beyond, technical school), and defined themselves as housewives. For most women in all three models, the present abortion experience was their first.

Less than one-half noted that the pregnancy ending in abortion had been planned (M1=43.4%, M2=49.3%, M3=44.7%) and a comparable proportion indicated that they had become pregnant while using a contraceptive method. Yet more than 70 percent of women treated in all three models stated that the current pregnancy that ended in an abortion was desired (M1=75.3%, M2=73.3%, M3=84.6%). Over 70 percent of all women responded that they would like to become pregnant again, but most would wait more than six months, thereby indicating a need for effective postabortion family planning.⁴

⁴ 30.6% want to wait 6-11 months before becoming pregnant again, 38.0% want to wait 12-23 months, and 27.1% want to wait 24 months or more.

Table 3 Socioeconomic Characteristics of Postabortion Patients

<i>Characteristics</i>	Model 1 (n=251) %	Model 2 (n=270) %	Model 3 (n=282) %
<i>Age</i>			
< 20 years	8.4	8.5	5.7
20-34 Years	77.7	81.5	82.6
≥ 35 years	13.9	10.0	11.7
<i>Marital Status</i>			
Married/ Cohabiting	86.0	88.9	87.9
Single/ Separated /Divorced	14.0	11.1	11.3
<i>Education*</i>			
None	6.0	6.3	7.8
Low	20.7	17.4	21.3
Intermediate	27.1	29.3	30.8
High	46.2	46.7	40.1
<i>Occupation</i>			
Housewife	45.4	44.8	44.7
Paid Employee	39.0	43.3	28.7
Professional	3.6	3.3	4.6
Other**	11.2	7.8	21.2

Source pre-discharge interview with patients

*None never attended or did not complete primary school, Low completed primary or did not complete secondary school, Intermediate completed secondary school, High preparatory school or more, technical school

**Includes students, manual laborers and small business owners

Table 4 Reproductive History of Postabortion Patients

<i>Reproductive History</i>	Model 1 (n=251) mean (range)	Model 2 (n=270) mean (range)	Model 3 (n=282) mean (range)
Number of pregnancies	2.4 (1-11)	2.2 (1-9)	2.4 (1-8)
Number of abortions*	1.3 (1-5)	1.3 (1-4)	1.3 (1-5)
Number of live children	1.5 (0-8)	1.5 (0-8)	1.6 (1-6)

Source pre-discharge interview with patients

*Not known if these are spontaneous or induced

Objective 1

To measure differences in clinical outcomes, in terms of safety and effectiveness of the clinical technique

Hypothesis MVA is safer and more effective than SC for uterine evacuation in the treatment of incomplete abortion, missed abortion, hydatidiform mole and cases where the embryo is absent

Results regarding safety and effectiveness of MVA and SC are presented in Table 5. All data were obtained from case record forms completed by the attending physician.⁵ In model 1, 19 patients did not have an accompanying case record form while in models 2 and 3, one patient was missing the form.

Safety was defined in terms of the percentage of patients without procedural and post-procedural obstetric and systemic complications. Data indicate that the MVA and SC models are comparable in terms of safety. Physicians recorded virtually no procedural or post-procedural obstetric complications or post-procedural systemic complications (0.0-0.7%).⁶ Higher but comparable figures across all three models were reported for procedural systemic complications.

Effectiveness of the clinical technique was defined in two ways: 1) The percentage of patients with adequate pain control, complete uterine evacuation, and no procedural or post-procedural obstetric complications, and 2) complete uterine evacuation, and no procedural or post-procedural obstetric complications. Thus, one definition included the

⁵ Prior to the initiation of the project, these forms had been piloted with all of the participating physicians in the 6 study hospitals to ensure that the objectives, terms and format were clear.

⁶ These rates compare to those based on data collected from 1994-1997 in IMSS hospitals nationwide that indicate a complication rate for MVA as less than 0.3 percent [4].

physician's evaluation of whether pain control was adequate during the procedure while the other excluded this evaluation of pain control. This parallel analysis was carried out because, in our view, pain control is important to successfully managing a patient whether the clinical technique used is MVA or SC. Most providers, however, do not take pain control into account when defining effectiveness. Thus, we present data to illustrate both perspectives.

Pain control seems to be one of the most challenging aspects of the uterine evacuation procedure, particularly when MVA is utilized since the patient is conscious. In the IMSS system, patients treated with MVA are also administered a paracervical block (accompanied if necessary by an analgesia and/or sedation), patients treated with SC are given a regional or general anesthesia.

When pain control is included in the definition of effectiveness, Model 2 (SC with counseling) performs significantly better than either Model 1 or Model 3 ($p < 0.05$). Particularly striking is that only 83.9 percent of patients were effectively managed in Model 3 where SC is used as the clinical technique vs. 94.1 percent in Model 2. When MVA (Model 1) is compared to SC (Model 2 plus Model 3), no significant difference exists between the two clinical techniques.

When pain control is excluded from the definition of effectiveness, the percentage of women who are effectively managed with MVA significantly increased from 87.1 percent to 98.7 percent. Effectiveness also increased slightly in Model 2 and markedly in Model 3. A significant difference exists when comparing MVA to SC overall ($p < 0.05$).

These results suggest that improving the use of existing pain control protocols would result in more effective procedures, whether using MVA or SC as the clinical technique. Overall, however, MVA is as safe and more effective than SC (when pain control is excluded) in uterine evacuation procedures for a variety of types of abortion.

Table 5 Safety and Effectiveness of the Clinical Technique MVA and SC*

Safety			
	Model 1 (n=232) MVA	Model 2 (n=269)	Model 3 (n=281)
	%	%	%
<i>Procedural Complications</i>			
Obstetric Complications ¹	0 0	0 7	0 0
Systemic Complications ²	3 4	2 6	4 6
<i>Post-Procedural Complications</i>			
Obstetric Complications ³	0 4	0 4	0 0
Systemic Complications ⁴	0 0	0 0	0 4
Effectiveness			
<i>Effectively Managed</i>	MVA	SC	
Including pain control ⁵	87 1	94 1*	83 9
Excluding pain control ⁶	98 7*	96 7	94 6

Source Medical case record form completed by attending physician on each patient

* p < 05

¹ Cervical laceration, air entering in abdominal cavity, uterine perforation

² Vagal reaction, arterial hypertension, sleepiness, cortical depression cortical stimulation, convulsions, allergic reaction, respiratory failure, bronchial obstruction, death

³ Tissue remains in uterus, persistent intrauterine bleeding cervix bleeding, paracervical haematoma

⁴ Hypovolemic shock, persistent cortical depression, persistent respiratory depression, mental confusion, cortical irritability, persistent high blood pressure, arterial hypotension

⁵ Adequate pain control uterine evacuation complete, and no procedural or post-procedural obstetric complications (see *safety*)

⁶ Uterine evacuation complete, and no procedural or post-procedural obstetric complications (see *safety*)

Objective 2

To document differences in patient and provider perceptions about information and counseling delivered and received during the process of postabortion care

Hypotheses Patients receiving services with the MVA and SC PAC models (1,2) will rate the information and counseling they received more positively than those receiving services with the conventional SC model (3) Patients receiving services with the MVA PAC model (1) will rate the information and counseling they received more positively than those receiving services with either the SC PAC or the standard SC models (2,3)

Providers delivering services with the MVA and SC PAC models (1,2) will rate the information and counseling provided to women more highly than will those delivering services in the conventional SC model (3) Providers delivering services with the MVA PAC model (1) will rate the information and counseling provided to women more highly than will those delivering services with either SC PAC or conventional SC models (2,3)

In this section we emphasize 1) interactions between women and providers and 2) information and counseling (although we discuss postabortion family planning services in a separate part of this report) Both are reported according to the perceptions of patients after receiving postabortion care in one of the six study hospitals, as noted in their discharge interviews Results related to patients' evaluation of the quality of information and general counseling services are presented in Tables 6 through 12

Table 6 illustrates the perception that patients have of the psychological support offered by hospital staff In each of the three dimensions significant differences exist between the perceptions of women treated in Models 1 and 2 where general counseling is a part of the services and Model 3 in which counseling is not a core component

Table 6 Patients Perception of the Psychological Support Offered to Her by Hospital Staff

<i>Perception of Psychological Support</i>	Model 1 (n=251) %	Model 2 (n=270) %	Model 3 (n=282) %
Felt confident toward the hospital staff who attended to her*	(248/251) 98.8	(266/270) 98.5	(263/282) 93.3
Perceived that hospital staff identified her concerns at the time she entered the hospital*	(145/248) 57.8	(128/266) 47.4	(93/263) 33.0
Perceived that hospital staff helped to address her concerns*	(137/145) 94.5	(122/128) 95.3	(74/93) 79.6

Source pre-discharge interview with patients
p < 0.001

The same pattern emerges when patients are asked whether they received information about their health status and about the uterine evacuation procedure (Tables 7 and 8) Particularly striking is the low proportion of women receiving information about the actual risks of the procedure in models 2 and 3 where SC is utilized These data as reported by women in the pre-discharge interview are confirmed by observation data collected on a sub-sample of patients (Table 9) This type of information was provided to patients either before or during the procedure

Overall, fewer women reported receiving information about possible post-procedural complications and the return to normal life activities in all of the models (Tables 10 and 11) Observation data indicate that in Model 1 most patients are given this information but it is provided to her during the procedure itself rather than afterward while she is recovering and when stress, pain and anxiety are lesser factors in her experience Post-procedure seems to be a more opportune time to provide information to women about possible complications and return to normal life activities

Table 7 Information Received by the Patient about Her Health Status and about the Uterine Evacuation Procedure

Information	Model 1 (n=251) %	Model 2 (n=270) %	Model 3 (n=282) %
<i>Information about Health Status</i>			
Patient's general health status	83.7	87.0	55.7
Patient's specific health problems when attended by physician at hospital	78.5	82.2	67.4
Understood physician's explanation of her specific health problems	(176/197) 89.8	(217/222) 97.7	(161/190) 84.7
<i>Information about the uterine evacuation procedure</i>			
Attending physician explained the procedure used for uterine evacuation	88.4	78.9	36.5
Received information about risks of the procedure	57.0	15.2	5.7
discomfort patient might feel	84.1	30.7	9.2
pain control used during the procedure	79.7	40.4	14.2

Source: pre-discharge interview with patients

*p < 0.05 after comparing the three models on all variables

Table 8 Level of Information Patients Have Regarding the Uterine Evacuation Procedure

Level of Information*	Model 1 (n=251) %	Model 2 (n=270) %	Model 3 (n=282) %
Sufficient	52.6	10.4	2.8
Regular	26.7	14.4	6.7
Insufficient	20.7	75.2	90.4

*Sufficient: Received information about risks, discomfort, and pain control; Regular: received two of three pieces of information; Insufficient: received one or none

Table 9 Observation Data Percentage of Patients Receiving Information about the Uterine Evacuation Procedure

<i>Information</i>	Model 1 (n=30) %	Model 2 (n=33) %	Model 3 (n=31) %
Risk	76.7	33.3	0.0
Discomfort	83.3	33.3	0.0
Pain Control	70.0	33.3	0.0

Source: Observations of patient care

Table 10 Information Received by Patient about Possible Post-Procedural Complications and Returning to Normal Life Activities

<i>Information Variables</i>	Model 1 (n=251) %	Model 2 (n=270) %	Model 3 (n=282) %
In general, patient may experience some health problems	31.9	35.9	9.6
<i>Information about possible post-procedural complications</i>			
Informed about the possibility of			
intense pain	30.3	37.4	9.2
bleeding within two weeks	29.5	41.1	9.2
fever	28.3	31.5	4.6
chills	25.9	26.7	4.3
urinary problems	20.7	34.8	3.2
foul-smelling vaginal discharge	22.7	36.6	2.1
<i>Information about Return to Normal Life Activities</i>			
when it is possible to resume sexual relations	20.7	39.6	10.6
when it is possible to return to work, both in the home and outside	22.7	35.2	11.7
nutrition	16.7	33.3	7.8
when it is possible to resume exercise	6.4	29.3	2.8
medications to take	12.4	31.1	3.9

Source: pre-discharge interview with patients

Table 11 Observation Data Percentage of Patients Receiving Information about Possible Complications and Return to Normal Life Activities

<i>Information</i>	Model 1 (n=30) %	Model 2 (n=33) %	Model 3 (n=31) %
<i>Possible Complications</i>			
Intense pain	73 3	39 4	0 0
Bleeding two weeks	60 0	21 2	0 0
Fever	43 3	18 2	0 0
Chills	26 7	3 0	0 0
Urinary problems	13 3	3 0	0 0
Vaginal discharge	36 7	21 2	0 0
<i>Return to Normal Life Activities</i>			
Resume sex	23 3	6 1	0 0
Return to work	16 7	3 0	0 0
Nutrition	20 0	0 0	0 0
Resume exercise	0 0	6 1	0 0
Medications	6 7	6 1	0 0

Source Observations of patient care

A summary of how informed women are about possible complications and return to normal life activities by model is presented in Table 12 Significant improvements can be made in the implementation of all three models, although those with counseling result in a greater percentage of women leaving the hospital well-informed than the model that does not incorporate counseling

Table 12 Level of Information Patients Have Regarding Possible Clinical Complications and Return to Normal Life

<i>Level of Information</i>	Model 1 (n=251) %	Model 2 (n=270) %	Model 3 (n=282) %
<i>Possible Clinical Complications</i>			
Sufficient	25 1	34 0	3 2
Regular	5 6	7 1	3 9
Insufficient	63 9	58 9	93 0
<i>Return to Normal Life</i>			
Sufficient	6 0	30 0	2 8
Regular	16 0	4 9	6 0
Insufficient	78 0	64 8	91 1

Source pre-discharge interview with patients

*Possible complications Sufficient Received information about 4-6 factors, Regular 2-3 factors, Insufficient received one or none Return to normal Life Sufficient Received information about 4-5 factors, Regular 2-3 factors, Insufficient received one or none

Provider Evaluation of Models

In a structured questionnaire, providers noted their perceptions of the quality of care of services offered through the model implemented by them and their colleagues. Virtually 100 percent of all providers, regardless of the model, noted their satisfaction with the clinical procedure, pain control and infection prevention practices, and counseling offered to patients. Almost all noted that their model of care enabled them to detect concerns that patient and to offer her the necessary support. Relative to the perception and evaluation of services offered by patients, providers overall indicate that higher quality services are delivered. Given the discrepancy between patient and provider perceptions related to the quality of postabortion care provided, we plan to hold a series of workshops with providers who participated in the project in order to gain a better understanding of their views of the services they offered in each of the models.

Given the constellation of measures presented in Tables 6 through 12, we conclude that the quality of care of postabortion care services is significantly better when general counseling of and identification with the patient is part of the standard services offered to women.

Objective 3

To measure differences in patients' perceptions of pain throughout the postabortion care process.

Hypothesis: Pain experienced after the uterine evacuation procedure by patients treated with MVA PAC (1) will subside more quickly than will the pain experienced by those treated with SC PAC or conventional SC (2,3)

During their discharge interview patients were asked whether, at each stage of care, they felt pain and, if so, to indicate the intensity of the pain by choosing a number from zero (no pain) to ten (worst pain) on a Likert-type scale. Data are presented in Table 13.

A similar proportion of women (approximately 60%) treated in all three models noted that they felt pain during the pre-procedure period. Likewise, the intensity of pain they reported was the same. Patients were also asked to describe the pain in their own words and they used terms such as burning, lacerating, opening of the waist, sore, like a punch, like labor pain, and located the pain in their waist, stomach, legs, ovaries, back, abdomen and vagina. Thus they utilized somatic or corporal terms to describe the pain they felt, separate from feelings of anxiety, worry, sadness and fear that they were also experiencing and expressed. Throughout the procedure, patients separate their descriptions of their emotional/affective discomfort from those regarding physical pain.

After the uterine evacuation procedure, more women treated with MVA than with SC report feeling pain but the intensity is somewhat less. By their time of discharge, the smallest proportion of women reporting pain is the group treated with MVA. These women continue to rate the intensity of the pain they felt as less than those treated with SC. In addition, the decrease in both the proportion of women reporting pain and its intensity from the post-procedure period to time of discharge in Model 1 is more significant than the decrease seen in women treated with Models 2 and 3. Thus, despite

counseling and providers' perceptions of pain control, the clinical technique itself seems to be related to women's evaluation of pain throughout the postabortion care process

Table 13 Percentage of Patients Reported Feeling Pain During Each Stage of Care and Intensity of Pain Reported^{1,2}

Stage of Care	Model 1 (n=251)	Model 2 (n=270)	Model 3 (n=282)
	% (Mean Intensity)	% (Mean Intensity)	% (Mean Intensity)
Pre-procedure	60.2 (6.1)	58.1 (6.4)	61.0 (6.5)
Post-procedure	40.6 (4.7)	23.3 (6.1)	25.2 (5.6)
At time of discharge	11.6 (3.7)	13.0 (5.0)	14.9 (5.0)

Source: pre-discharge interview with patients

¹ Pain intensity reported by women by choosing a number from 0 (no pain) to 10 (worst pain) on a Likert-type scale

² The procedure itself is deleted from this analysis since only women who were treated with MVA were conscious and could report whether pain was present and if so, its intensity

Future analyses will focus on linking the data collected on patients' physical perceptions of pain with their emotional/affective status, information received by the patient about pain and discomfort she may feel, and the actual pain management protocol used to better understand this particular dimension of the postabortion care process

Objective 4

To measure differences in postabortion family planning acceptance at time of discharge from the hospital as well as prevalence of contraceptive use at 7 days and 6 months post-treatment

Hypothesis: Women treated with MVA and SC PAC models (1,2) will be more likely to both accept and continue to use a contraceptive method postabortion than those treated with the conventional SC model (3)

Data presented in Table 14 indicate that significantly more patients treated in models 1 and 2 leave the hospital with information about the advantages of not becoming pregnant immediately as well as about how to avoid another pregnancy, than do those treated in model 3. For example, only 29.4 percent of patients in model 3 noted that the physician or nurse asked them about their plans to become pregnant again, interestingly, this is also the model in which the highest percentage of women perceived that a method was selected for them by a physician (Table 16)

Table 14 Counseling Received by the Patient about Future Pregnancies and Family Planning

<i>Content of Counseling</i>	Model 1 (n=251) %	Model 2 (n=270) %	Model 3 (n=282) %
Information about the advantages of avoiding immediate pregnancy	64.5	84.4	29.4
Information about how to prevent another pregnancy	74.1	74.1	33.0
Physician or nurse asked about patient's plans to become pregnant once again	(151/251) 60.2	(192/270) 71.1	(83/282) 29.4
Information about the possibility of becoming pregnant again before the patient's next menstrual period	(75/151) 49.7	(123/192) 63.7	(36/83) 56.2

Source: pre-discharge interview with patients

Observation results presented in Table 15 confirm women's reporting of the information and counseling they received. It is important to note that the majority of patients received the information reported in Table 15 during the pre-procedure period. It was sometimes reinforced during the procedure but in only three to four cases was the information repeated once again during the post-procedure period when women are most alert and may be most prepared to understand the information and to make a decision based on their needs and expectations.

Table 15 Observation Data: Percentage of Patients Receiving Information about Future Pregnancies and Family Planning

<i>Information</i>	Model 1 (n=30) %	Model 2 (n=33) %	Model 3 (n=31) %
Information about the advantages of avoiding immediate pregnancy	70.0	84.4	19.3
Information about how to prevent another pregnancy	43.3	78.8	19.3
Physician or nurse asked about patient's plans to become pregnant once again	86.7	90.0	9.7
Information about the possibility of becoming pregnant again before the patient's next menstrual period	50.0	78.8	9.7

Source: Observations of patient care

It is clear from the results presented in Table 16 that more women leave the hospital with a contraceptive method when counseling is part of the model. A greater percentage of

women treated in models 1 and 2 leave the hospital with a method than is generally found in IMSS hospitals (52.2% national average 1993-1997)

Across all three models, the IUD is the method most commonly received. Most women in model 1 indicate that the decision to accept a method was one made by herself and with the physician while most women in model 2 note that they decided alone. Women in model 3 are fairly equally divided in their responses although a relatively high proportion stated that they felt that the method had been selected for them by the physician.

As illustrated in Table 14, women treated in models where counseling is key to service delivery leave the hospital more well-informed—in this case about the method they received—than women treated in model 3.

Tables 17 and 18 present data regarding the prevalence of contraceptive use up to six months post-discharge by model. Sample sizes are smaller than the total sample for discharge interviews since only patients who completed all three interviews (discharge, 7-day, 6-month) were included in the analysis (M1 n=97, M2 n=124, M3 n=111).⁷

Both acceptance and prevalence of all methods are significantly higher in models where counseling was included as part of the standard services offered to women (Table 17, Figure 1). A greater proportion of women received a method when treated in models where counseling is part of the standard services (M1 62.9%, M2 76.6%, M3 33.3%). Of those who received a method at discharge, a similar proportion continue to use the method at 7-days (89-92%). At 6 months, however, a higher percentage of women treated in model 1 are still using their method relative to those treated in models 2 and 3. Overall, Model 1 is the most effective model in terms of the prevalence of contraceptive use in general.

Data regarding specific methods show similar trends (Table 18, Figure 2). The IUD was the most commonly received method by postabortion patients and at 7-days post-discharge a similar proportion of women continued to use this method (93-96%). At 6 months, however, significantly more patients treated in model 1 continued to use the IUD vs those treated in the other models. Model 1 is shown to be the most effective in terms of the prevalence of IUD use.

Oral contraceptives and the injectable were methods accepted by only a small number of women in the three models. More women (n=17) treated in model 2 left the hospital with oral contraceptives than did those treated in models 1 (n=4) and 3 (n=1). Yet most women abandoned this method by 6 months in all three models. Few women left the hospital with an injectable. 5 women in model 1, 8 women in model 2, and 7 women in model 3. By 6 months the number of women in model 1 who continued to use this method remained fairly steady while in models 2 and 3 the number rapidly decreased.

⁷ In models 2 and 3 additional cases were excluded because of insufficient data. In Model 2, two cases were excluded, in Model 3, 19 cases were excluded.

Table 16 Methods and Counseling Received by Patients at Time of Discharge from Hospital

Method of family planning	Model 1 (n=251) %	Model 2 (n=270) %	Model 3 (n=282) %
Received a method	63.3	76.7	36.5
¹ Type of method received	(n=159)	(n=207)	(n=103)
IUD	84.9	74.4	79.6
Oral Contraceptives	6.3	16.4	3.9
Injectable	6.9	8.7	15.5
Other	1.9	0.5	1.0
^{1,2} Method received			
Was chosen by the patient	44.0	80.2	37.9
Was offered by the physician	17.0	16.9	25.2
Was selected by the physician	6.9	1.9	18.4
Was decided upon by both the patient and physician	32.7	6.8	20.4
¹ Information about the method received by patient			
Effectiveness	56.6	53.1	28.2
Advantages	54.7	51.2	25.2
Risks	43.4	47.3	15.5
Secondary Effects	40.3	44.9	10.7
How to use the method	52.8	51.7	20.4
Follow-up	55.3	62.3	22.3
^{1,3} Understood the Information Received	55.0	55.1	23.3
¹ Level of patients' information about the method received			
Well-Informed	49.7	47.3	14.6
Regular	8.2	7.2	10.7
Not informed	42.1	45.4	68.9

Source pre-discharge interview with patients

¹Responses only for patients who received a method

²Multiple responses possible

³According to the patient's own perception

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Table 17 Prevalence of Postabortion Contraceptive Use Any Method

<i>Time of Interview</i>	Model 1 (n=61)* %	Model 2 (n=95)* %	Model 3 (n=37)* %
Discharge	100 0	100 0	100 0
7 days	91 8	87 4	89 2
6 months	83 6	66 3	56 8
<i>Effectiveness</i>	76 7	56 1	50 7

Source pre-discharge, 7-day and 6-month follow-up interviews with patients

*sample sizes (n) equal number of patients accepting any method of the total sample (those completing all three interviews discharge, 7-days, 6-months Model 1=61/97, Model 2= 95/124, Model 3=37/111)

Table 18 Prevalence of Postabortion Contraceptive Use IUD

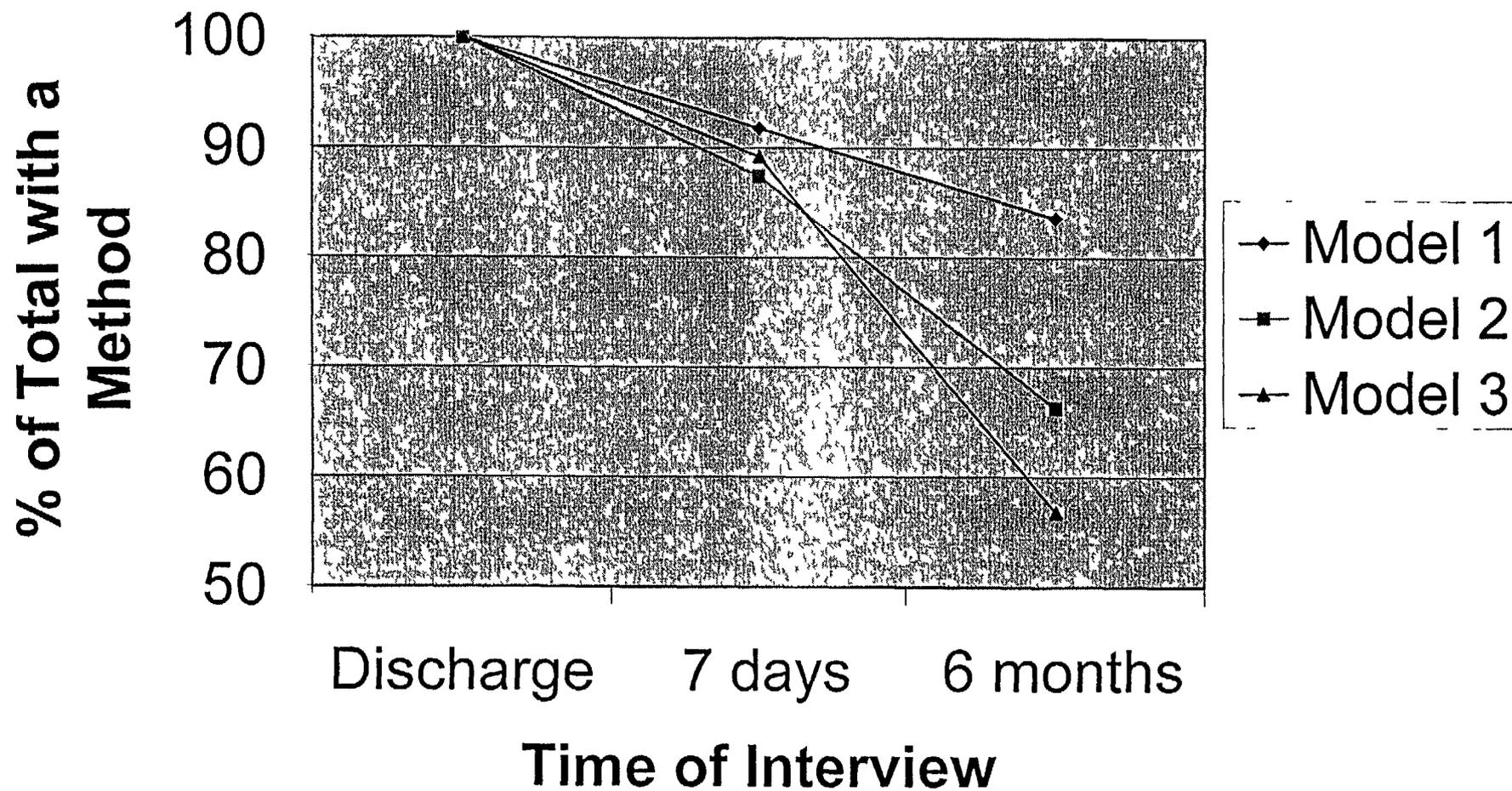
<i>Time of Interview</i>	Model 1 (n=50) %	Model 2 (n=70) %	Model 3 (n=29) %
Discharge	100 0	100 0	100 0
7 days	96 0	94 3	93 1
6 months	88 0	78 6	62 1
<i>Effectiveness</i>	84 5	74 1	57 8

Source pre-discharge 7-day and 6-month follow-up interviews with patients

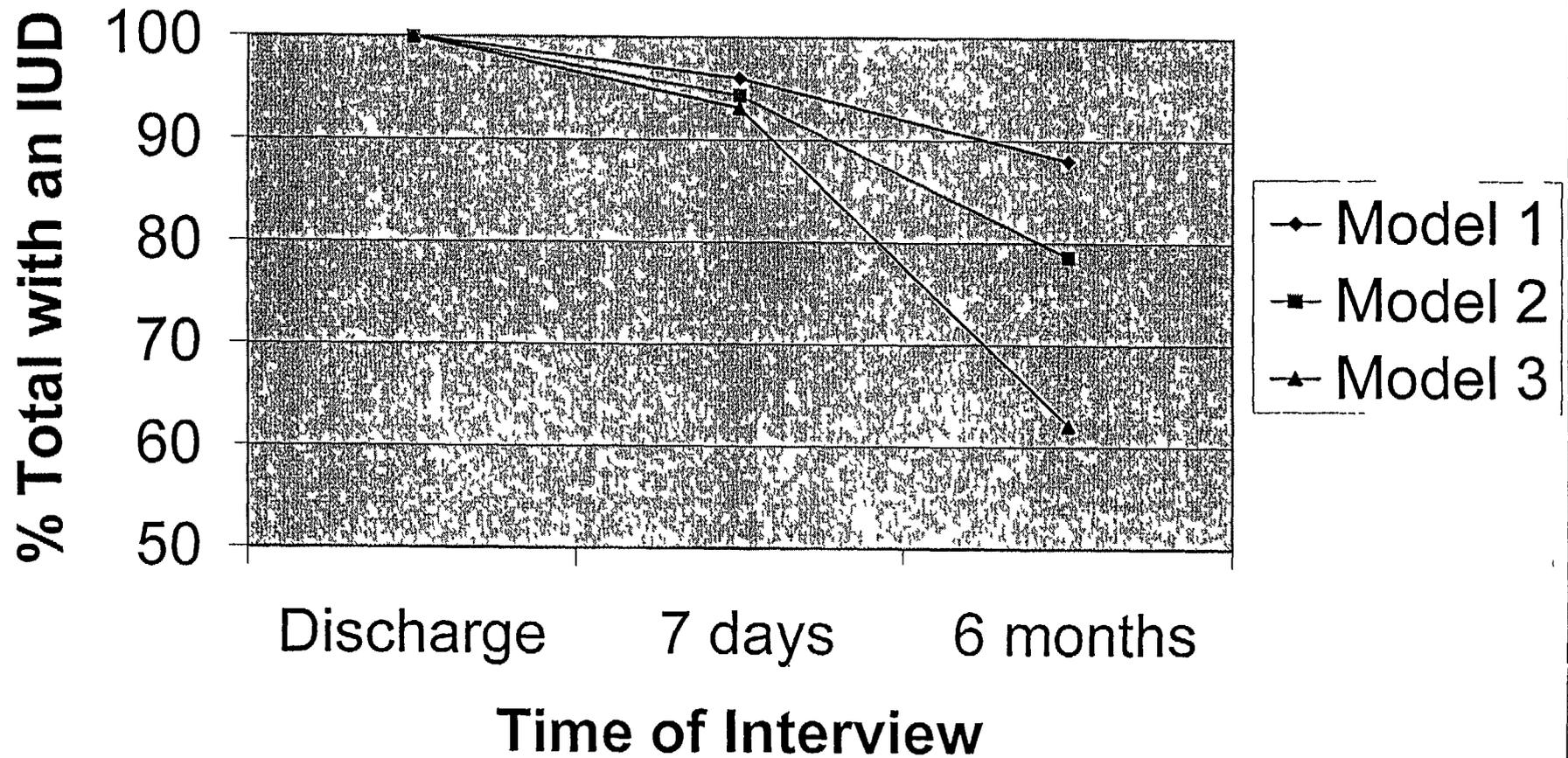
*sample sizes (n) equal number of patients accepting an IUD of the total sample (those completing all three interviews discharge, 7-days, 6-months Model 1=50/97, Model 2= 70/124, Model 3=29/111)

Figures 1 and 2

Prevalence of Postabortion Contraceptive Use: All Methods



Prevalence of Postabortion Contraceptive Use: IUD



Objective 5

To compare costs and resource utilization in the delivery of postabortion care services
Hypotheses The provision of MVA PAC (1) services is less expensive and utilizes fewer resources than SC PAC (2) The cost of and resources used in both PAC models (1,2) will be somewhat greater (because of counseling received by the patient), but not significantly so, than those used in the conventional SC model (3)

In the following section we present only an analysis of the time spent by patients in the hospital Future work will emphasize a more detailed presentation of the cost and resource data that were collected during the field period

Data were collected by observers who followed the patient throughout the process of care These patients are a sub-sample of the total sample of patients who completed discharge interviews

In each of the models, the mean time spent by patients during the process of postabortion care did not differ significantly (Table 19) Total time ranged from 6 to 8 hours The pre-procedure period comprised the highest proportion of the total time spent by patients Regardless of the model implemented, pre-procedure time is related to factors not linked to postabortion care specifically, such as the administrative procedures particular to each hospital

The mean time spent by patients during the procedure and after is similar across all models One exception was a hospital in model 2 in which a number of women who receive services live quite a distance from the facility At times they need to wait for their families before leaving the hospital and thus must wait longer than women, in general, who receive services in other hospitals in the study

Table 19 Time Spent by the Patient During Each Stage of Care

Stage of Care	Model 1 (n=28) Mean		Model 2 (n=33) Mean		Model 3 (n=25) Mean	
	Minutes	Hours	Minutes	Hours	Minutes	Hours
	Pre-procedure	5965	3 55	8267	4 17	8340
Procedure	2227	1 32	1335	0 67	1445	0 83
Post-procedure	3519	2 09	6392	3 23	1890	1 08
TOTAL	11,033	6 56	15,994	8 07	11,675	6 71

Source observations of patients throughout process of care

CONCLUSIONS

Overall, the hypotheses proposed at the beginning of this project were supported by the data. MVA was found to be as safe and effective as SC for uterine evacuation. When pain control was excluded from the analysis of effectiveness, MVA scored significantly better than SC. Patients treated in models 1 and 2, in which counseling was systematically included as part of the services, rated the information and counseling they received more highly than did those treated in model 3. In some areas such as possible complications and return to normal life, women treated with SC PAC (model 2) received more information than did women treated in the other models. More women treated in model 1 received information about the uterine evacuation itself due, in part, because patients are conscious during the procedure. No differences were seen in providers' evaluations of the models. Patients' perceptions of the intensity of pain throughout the postabortion care process subsided more rapidly for women treated with MVA in model 1 than it did for women treated with SC in models 2 and 3. More patients treated in MVA and SC PAC models (1,2) accepted and continued to use a contraceptive method postabortion than did those treated in model 3. More specifically, prevalence was highest among those patients treated in model 1. Further analysis is needed to discuss the differences in cost and resource use in depth. The data presented in this report indicate that patients treated in the three models spend a comparably short amount of time in the hospital regardless of the clinical technique used and whether or not counseling is provided.

Table 20 presents a general summary of the various elements of postabortion care that were examined in this project. Based on these findings, we conclude that Models 1 and 2 provide the most advantages to patients, although Model 1 results are slightly higher. Further analysis is needed to determine which model is best for physicians and the health care system. It is clear that model 3 services need to be modified in order to improve their quality and effectiveness.

Table 20 Summary of Elements of Postabortion Care Service Delivery Models*

<i>Elements</i>	Model 1 MVA PAC	Model 2 SC PAC	Model 3 SC Standard
Safety Procedural Obstetric Complications	2	2	2
Safety Procedural Systemic Complications	1	1	1
Safety Post-Procedural Obstetric Complications	2	2	2
Safety Post-Procedural Systemic Complications	2	2	2
Effectiveness with Pain Control	1	2	0
Effectiveness without Pain Control	2	1	1
Psychological Support	2	2	1
Information about Health Status	2	.	1
Information about UE procedure	2	0	0
Information about Possible Post-Complications	1	1	0
Information about Return to Normal Life	0	1	0
Decrease in Pain Intensity	2	1	1
Counseling about Future Pregnancy and FP	1	2	0
Received a Family Planning Method	2	2	0
Information about the Method	2	2	0
Prevalence of Method Use up to 6 Months	2	1	1
Effectiveness	2	1	1
TOTAL	28	25	13

*Scoring is based on the results presented in tables throughout the report. Each element receives the following number of points: 2=optimal level, 1=regular, 0=least optimal level. When no significant difference exists between models, each is granted the same number of points.

PLANS FOR FUTURE WORK/ANALYSES

This report presents a preliminary analysis of the data collected during the INOPAL project, "A Comparison of Three Models of Postabortion Care in Mexico." Future work will focus on examining each of the themes included in this report in greater detail.

- Develop multivariate models that predict the probability of accepting a family planning method postabortion and continuing to use the method by six months post-discharge,
- Link pain-related data—patient's affective status, pain reports (descriptions and intensity), counseling and information provided to patient, pain control protocols used with the patient—to better understand pain perceptions and pain control during the postabortion care process,
- Further analysis to confirm or reject the strong impression that a high proportion of women arrive at the hospitals with complications of spontaneous abortion. If this is the case, there are implications for the kinds of information and counseling that women may need regarding their health status that they are not receiving currently. This may also affect method acceptance and prevalence.
- Workshops with health care personnel in the hospitals included in the study to gain a better understanding of their experiences in implementing the models and their analysis of the data.

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