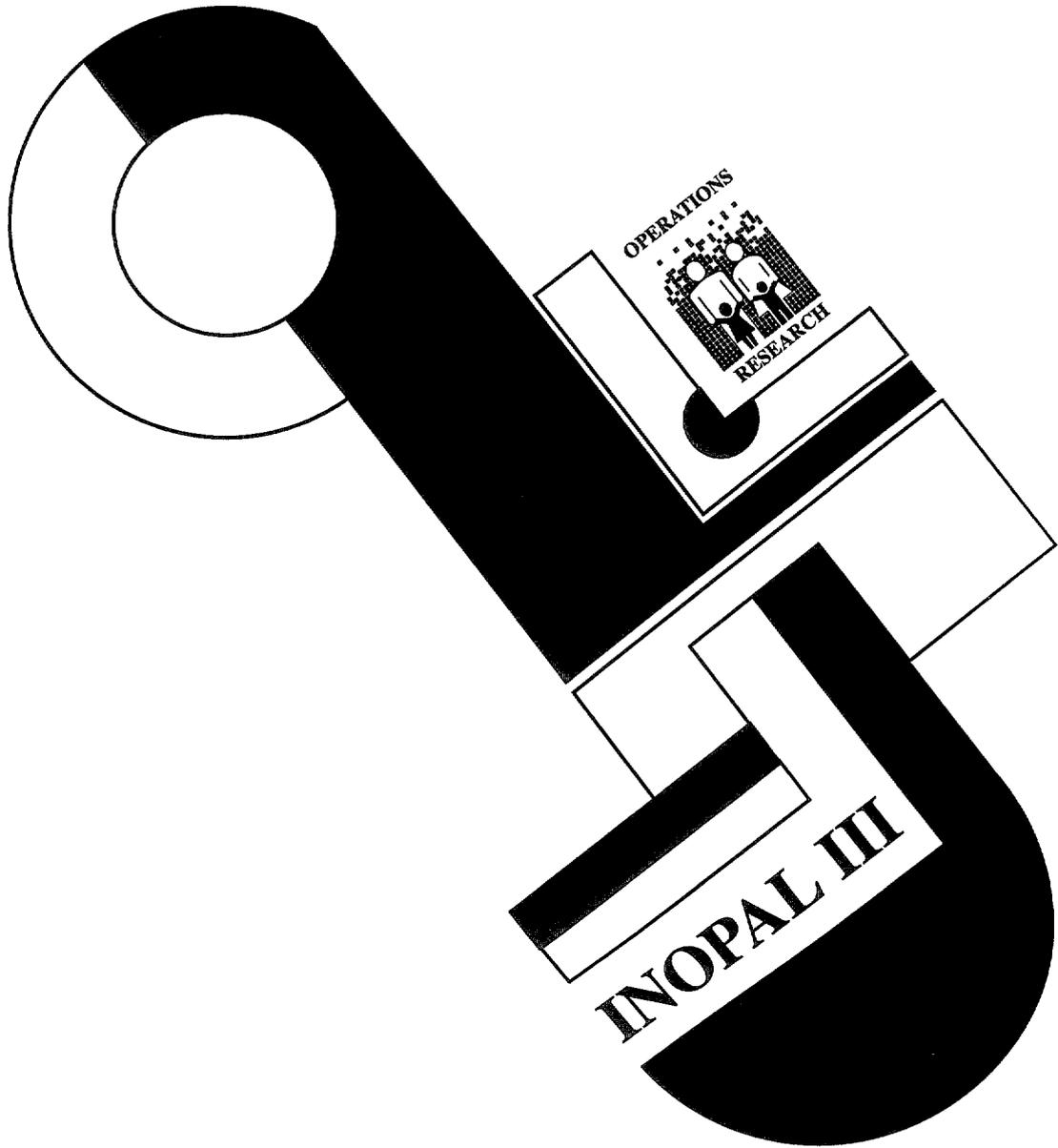
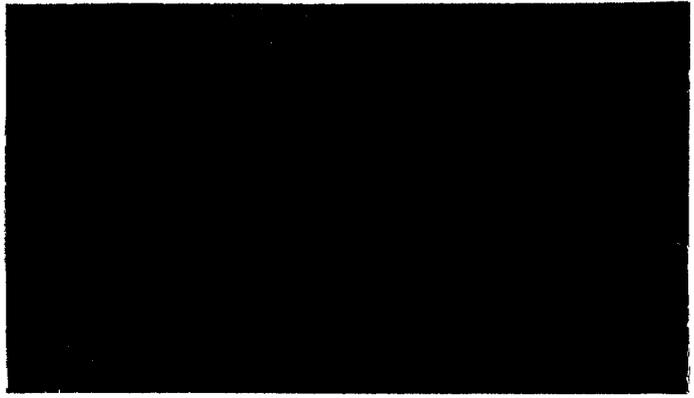


FINAL REPORT



**International obstetric care project
Operations research and technical
assistance on linkages between
emergency obstetric care and family
planning in Latin America and the
Caribbean (LAC)**

INOPAL III

FINAL REPORT

TITLE	International obstetric care project Operations research and technical assistance on linkages between emergency obstetric care and family planning in Latin America and the Caribbean (LAC)
SUB-PROJECT CONTRACT NUMBER	CI95 34A
SUB-PROJECT DATES	July 1, 1995 - September 30, 1998
COLLABORATING AGENCIES	The Population Council and Ipas
PRINCIPAL INVESTIGATORS	Janie Benson, MPH, Ipas
STUDY SITES	Latin America and the Caribbean
REPORT DATE	August 31, 1998
INOPAL CONTRACT NUMBER	AID/CCP-3030-C-00-5007-00

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Most of all, we wish to thank the women and health care staff who freely shared their time and perspectives to enable Ipas to carry out the important research funded under INOPAL III.

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BACKGROUND

Disability and death resulting from unsafe abortion are among the greatest public health problems in the developing world today. Unsafe abortion is a major contributor to maternal mortality and morbidity, with an estimated 13 percent of all maternal deaths throughout the world attributable to this cause, most of these occurring in developing countries (WHO, 1994)

The term *unsafe abortion* refers to an induced abortion performed under unhygienic conditions and/or by persons unskilled in terminating pregnancy as well as to a spontaneous abortion resulting in complications. Using this definition, the true incidence of unsafe abortion is difficult to measure because of overall problems in the reporting of maternal deaths, underreporting of abortion-related maternal deaths, and misclassification of maternal deaths from abortion in other categories such as infection or hemorrhage. High as the numbers of maternal death attributable to unsafe abortion may be, an even greater number of women suffer long-term disabilities, including sterility and chronic pain. This mortality and morbidity is largely preventable.

An estimated 2.7 to 7.4 million induced abortions are performed in Latin America annually, many of which are performed under clandestine, unsafe conditions (Paxman, et al., 1993). The World Health Organization (WHO) reports that there are 4.6 million unsafe abortions performed in Latin America and the Caribbean (LAC) each year, leading to 6,000 maternal deaths or 24% of all maternal deaths in the region (WHO, 1994). Abortion-related mortality is the principal cause of death for women of reproductive age in many countries in the region. The LAC region has the highest rate of unsafe abortion of any region in the world - 41 per 1000 women of reproductive age (WHO, 1994).

Virtually all health care systems in Latin America and the Caribbean offer treatment for the complications of unsafe abortions. Treatment usually involves uterine evacuation of incomplete abortion performed with sharp curettage (SC, also known as dilation and curettage, or D&C) in a hospital operating room with general anesthesia or high levels of sedation. A relatively long recuperation period on a hospital ward is required for most patients. Furthermore, considerable proportions of scarce health system resources are dedicated to postabortion treatment.

The use of sharp curettage for uterine evacuation is an institutionalized practice in most developing countries despite the existence of a safer, equally effective and less costly technique - vacuum aspiration (Greenslade, et al., 1993). A portable, low-cost version of vacuum aspiration is manual vacuum aspiration (MVA), comprised of a hand-held, single- or double-valve syringe and an assortment of plastic flexible cannulae. MVA services can be offered in outpatient treatment areas with relatively low levels of medications for pain management. Studies conducted in Latin America and Africa found that the use of MVA, coupled with corresponding changes in the organization of services, resulted in marked decreases in patient stay, lower costs of treatment and overall reductions in resources (e.g., staff time, bed space, medications, etc.) compared to the use of SC (Johnson, et al., 1993, Johnson, et al., 1992).

Hospital-based treatment of abortion complications is also characterized by a failure to provide family planning counseling, contraceptive methods and referrals to local services,

thus, the cycle of unwanted pregnancy and unsafe abortion continues. Often, gaps in postabortion care (PAC) services¹ exist due to punitive provider attitudes towards postabortion patients, poor linkages between family planning units and gynecology wards, services that are often centralized in large, specialized hospitals in urban settings, and, a host of political and administrative policies that have long segregated emergency abortion treatment from other reproductive health services.

The 1994 Programme of Action (Paragraph 8.25) endorsed by the International Conference on Population and Development (ICPD) in Cairo specifies strengthening postabortion care as a priority activity. This endorsement highlighted the need for further empirical evidence outlining the positive impact of strengthening PAC services and of how such services could best be organized at hospitals and other sites, particularly in countries where abortion is legally restricted as is the case in most of the LAC region. The international Postabortion Care Consortium² has worked diligently with USAID/Washington to identify the means by which research and training in PAC can be integrated into the Agency's framework of activities. USAID/Washington was receptive to the PAC concept, as reflected in the Office of Population's programmatic priorities which include "reducing the tragedy of unsafe abortion" as a key component (Maguire, 1994). Such international and domestic attention indicates that finding solutions to the problem of unsafe abortion has become accepted as a key element in efforts to reduce maternal mortality and morbidity and to strengthen the provision of reproductive health services generally in developing countries.

Within this environment and, with INOPAL III funding from the USAID, Office of Population, Ipas has designed and carried out operations research (OR) projects in several countries, developed a database from studies conducted around the world addressing PAC, provided technical assistance to health care professionals in the field and engaged in dissemination of PAC OR findings.

PROBLEM STATEMENT

Because of the historic programmatic and policy neglect of the issues surrounding unsafe abortion and the complexity of the topic, there has been a special need for operations research on PAC. Many Ministries of Health in the LAC region perceive the need for increased understanding about how to address PAC and other reproductive health-care needs but have not had experience in integrating these programs into their traditional family planning and maternal health service delivery efforts. In other countries, cultural sensitivities about the topic of abortion have precluded significant discussion and action about PAC at the national level. Furthermore, at the beginning of this project under INOPAL III, few organizations or institutions in the region, including USAID Missions, had

¹ Postabortion care consists of emergency treatment services for complications of spontaneous or unsafely induced abortion, postabortion family planning counseling and services, and links between emergency abortion treatment services and comprehensive reproductive health care (Greenslade et al 1994).

² The Postabortion Care Consortium includes a number of USAID-supported Cooperating Agencies and Ipas.

included PAC among the priorities they established in their population and/or health strategies

The intent of Ipas's operations research on PAC in the LAC region was to enable policy makers, public health authorities at different levels, service providers and researchers to determine the most appropriate strategies for improving the quality and accessibility of PAC. It was also to perform operations research essential to improving the linkages among emergency treatment of abortion complications, postabortion family planning and related reproductive health services. Unresolved issues requiring diagnosis and testing of interventions included: cost-effective staffing patterns for provision of postabortion family planning counseling and services, quality of counseling, logistical support for decentralized postabortion care, roles of long-term and permanent contraceptive methods in emergency treatment settings, women's perspectives on the delivery of PAC, mechanisms for referral of postabortion patients to other reproductive health services, and, the socio-cultural and service delivery environment, as well as other factors, affecting continuation of postabortion contraceptive use.

OBJECTIVES

With guidance and assistance from The Population Council and USAID, Ipas carried out activities to achieve the following objectives during the three-year sub-contract:

- 1 Identify and diagnose problems that impede the delivery of high-quality PAC in the LAC region
- 2 Develop and test interventions to improve the quality and accessibility of PAC
- 3 Provide technical assistance to USAID missions in the LAC region and to service providers and researchers on PAC training and services, and OR
- 4 Disseminate PAC OR findings to LAC policy makers, service providers, and researchers and to USAID/Washington and LAC mission officials

SCOPE OF WORK

Overall Description

This three-year sub-contract enabled Ipas to develop three OR sub-projects on PAC in the priority countries of Mexico, Bolivia and Peru, supported a feasibility study and a workshop in Bolivia, and, allowed Ipas to develop DataPAC, a project providing technical support for international PAC OR projects. To accomplish these activities, Ipas worked with LAC institutions, USAID/Washington and LAC missions, and the Population Council's INOPAL staff in the U.S. and in the region. Ipas's Director of Health Systems Research, Janie Benson, served as overall director for the sub-contract and oversaw its programmatic and research activities. Ms. Benson also served as a sub-project investigator along with Deborah Billings, Alison Friedman, Tim King, and Marian Abernathy, other Ipas research and program staff.

Five of the six sub-projects funded in part or in whole by this sub-contract (operations research in Mexico, Peru and Bolivia and the feasibility study and workshop in Bolivia) built

on Ipas's existing programmatic and research activities in the respective countries. The projects supported by INOPAL III were linked to Ipas's ongoing projects, funded by other sources, whenever possible. The sixth sub-project, DataPAC, funded in part by this sub-contract, built on Ipas's existing research activities throughout the world and on Ipas's collaboration with other organizations working on projects in the field of PAC.

Ipas also provided technical assistance for development of PAC OR projects conducted by the Population Council and local collaborators in Mexico and Honduras.

In addition to the six sub-projects, this sub-contract enabled Ipas to participate in working groups, attend conferences and provide dissemination to local and US forums where information on PAC was unavailable.

Operations Research Sub-Projects

Research Methods

The postabortion care operations research sub-projects employed a variety of methods and study designs. Selection of methodology depended on the objectives of the study, research questions to be answered, type and volume of patient caseload, statistical requirements and other factors with diagnostic studies conducted on selected topic areas. Please refer to Table 1 and the final reports for each of the sub-projects for details on diagnostic studies and the research method used.

Generally, the operations research sub-projects' designs included pre- and post-test, case-control, time series and/or other quasi-experimental designs. The studies incorporated a range of quantitative and qualitative methods used in a variety of contexts among a number of informants. Quantitative methods included structured observation of service delivery, medical case record forms and interviews with patients and providers. Review of surgical logbooks and patients' charts and inventories of supplies and equipment provided a detailed picture of postabortion services at project sites in Peru, Mexico and Bolivia. Qualitative methods included semi-structured and open-ended individual and focus group interviews with patients, providers and policy makers. The feasibility study in Bolivia utilized an opinion survey of health policy makers and providers that was administered via a semi-structured questionnaire.

For the Peru and Mexico hospital-based projects, data were used to inform subsequent training and service delivery interventions and to provide feedback to the Ministry of Health or health system policymakers about directions to take to improve services. Baseline assessments collected and analyzed cross-sectional data on current PAC services allowing Ipas and in-country colleagues to assess current locations and types of services offered, patient profiles, costs and potential for sustainability, staffing patterns, organization of services, and opinions of patients, providers and policy makers' about service quality. Post-intervention data in Peru measured the extent of improvements in services after the implementation of an integrated PAC intervention. It is hoped that future funding will become available to permit further analysis, intervention and collection of follow-up data for the Bolivia PAC Assessment project which did only a baseline study.

Table 1
Description of Research Method

Research Project	Research Design and Method
Peru Testing an integrated, hospital-based model of treatment for abortion complications and delivery of family planning	Pre- and post-intervention, time series, observation, time-motion study, structured interviews, review of log book/patient charts, inventory of resources, focus groups, in-depth qualitative interviews
Mexico Comparison of three models of postabortion care	Quasi-experimental design comparing three models of care, observation, time-motion study, structured interviews at discharge and at 7-days and 6-months post-discharge, case record form
Bolivia Assessment of PAC services in the Bolivian public health system	Baseline diagnostic of availability and cost of current PAC practices, structured interviews, observation
Bolivia Feasibility study for the introduction of MVA	Diagnostic assessment, semi-structured interviews with a convenience sample

Service Delivery Models

Treatment of abortion complications with manual vacuum aspiration (MVA) and provision of postabortion family planning formed the core interventions or models tested in the operations research sub-projects. Research in each sub-project examined specific dependent variables of the intervention such as use of MVA for clinically-appropriate patients, provision of postabortion family planning counseling and methods, postoperative medical information given to patients and cost-effectiveness of services. Which variables to examine were determined during the design phase by Ipas, The Population Council and local staff. Please refer to Table 2 and the final reports for each of the OR sub-projects for details of the interventions implemented and models compared.

Table 2
Service Delivery Interventions and Models

Research Project	Service Delivery Interventions and Models
Peru	Training and service intervention of integrated service for women treated for incomplete abortion, including reorganization of services to provide out-patient integrated PAC services (MVA treatment and PABFP) in one hospital
Mexico*	Model 1 – refresher training in PAC using MVA with general counseling and specialized PABFP** counseling Model 2 – refresher training in PAC using SC with general counseling and specialized PABFP** counseling Model 3 – refresher training in SC without general counseling and with information about PABFP
Bolivia Assessment	None for this phase
Bolivia Feasibility	Not applicable

*These are existing models of care in selected IMSS facilities

** PABFP – Postabortion family planning

Operations Research Sites

Operations research sub-projects were implemented at the secondary and tertiary hospital level in Peru and Mexico and at the primary, secondary and tertiary levels of the public health system in Bolivia. Collaborating agencies included national and state ministries of health (MOHs), individual hospitals, social security systems, other public sector agencies, non-governmental organizations (NGOs) and local USAID missions. The location of service delivery interventions varied by the type of study, patient caseload, variables to be examined and local capacity. Please refer to Table 3 and the final reports for the sub-projects for details about the sites studied in each project.

Table 3
Research Sites

Research Project	Research Site
Peru	Tertiary-level teaching hospital in Callao Province (within the Lima metropolitan area)
Mexico	Six secondary or tertiary-level urban hospitals located within the Mexico City metropolitan area
Bolivia Assessment	Twelve facilities at primary, secondary and tertiary levels of the health care system within or in close proximity to three urban centers
Bolivia Feasibility	Place of employment of professionals interviewed in four different cities at 64 hospitals, medical schools and government offices

Operations Research Major Results

The Peru study demonstrated that services which integrate treatment of abortion complications with postabortion family planning counseling and method provision improve quality of care, reduce patient stay and decrease costs to the hospital and patient. This includes improvements in clinical services, delivery of family planning counseling, contraceptive method provision.

Results from the Mexico IMSS study demonstrate that MVA is a safe and effective clinical alternative to SC for the treatment of abortion complications. High quality services as well as a greater acceptance and continuation of contraceptive use can be attained when general counseling and family planning services are systematically included in the model of PAC services implemented by providers. Effective counseling can be accomplished without significantly increasing the total time of the PAC process.

The feasibility study in Bolivia demonstrated that in a conservative and historically unstable political environment, key health policy makers and providers agree on the need to introduce MVA for the treatment of incomplete abortion as a means of addressing the problem of maternal mortality stemming from incomplete abortion and improving the quality of existing PAC services. The study also highlighted this group's interest in carrying out a pilot intervention with MVA in the near future (preferably within six months of being interviewed), underlying the importance and urgency policy makers and providers assign to the issue of incomplete abortion.

With the Bolivia PAC assessment it is too early to tell what complete analysis of data will reveal, but preliminary analysis indicated that existing health services have the capacity to treat complications of incomplete abortion at lower (district hospital and health center) levels of the health system. Baseline data also indicated that considerable variability exists in the demand and availability of incomplete abortion services within the public health system.

Please see the attached executive summaries in Annex 1 for each of the OR sub-projects for an overview of the study results. Please refer the final reports for each of the OR sub-projects and the feasibility study for details on results.

Technical Assistance Sub-project

A key outcome of the International Postabortion Care Operations Research Workshop, held in Rosslyn, VA, in September 1995, was the identification of the need for a set of core data collection instruments for use in PAC OR projects in various countries and settings. Researchers also expressed a strong desire for the opportunity to explore with their colleagues the many methodological challenges inherent in PAC OR. In response, the INOPAL III project entitled "Technical support for the international postabortion care operations research program" was awarded to Ipas. This project was made possible through funding from a separate sub-contract from The Population Council with significant support from the sub-contract reported here.

Later named DataPAC, this project was designed to meet the following four, interrelated, goals

- Create an archive of PAC OR reports and publications
- Carry out secondary analyses of PAC OR studies
- Develop a set of standardized ("core") questionnaires
- Complete dissemination of PAC OR resources

An archive was created at Ipas to store copies of reports, publications, presentations, protocols, blank questionnaires and electronic data sets from past PAC OR studies. The archive currently has over 100 titles. Resources from the archive were used as the basis for two comparative analyses of PAC OR, including a review of cost and resource use studies and a review of PAC OR in Latin America since 1993. The cost studies review was presented at the Annual Meeting of the American Public Health Association (Indianapolis, November 1997) and also the Global PAC OR Meeting (New York, January 1998), while the review of PAC OR in the LAC will be a chapter in the forthcoming INOPAL III Final Report. In addition to these presentations and publications of DATAPAC materials, a DataPAC website (<http://datapac.ipas.org>) has been developed. Users of the website can view resources from over 20 PAC OR studies and can request copies of the listed items.

In order to draw on the vast experience and expertise of researchers conducting PAC OR, four Technical Working Groups (TWGs) were formed with representatives from 15 organizations based in Africa, Asia, Latin America and the United States. These TWGs were responsible for reviewing the core questionnaires and other documents related to the DataPAC Project. Developed by Ipas and the Population Council, seven core questionnaire instruments and instruction guides were reviewed by the TWGs, including an overview guide, general information questionnaire, case record review form, cost study manual, patient exit interview, observation guide and inventory checklist. These modules were then translated into Spanish and pre-tested in three hospitals in Peru. In combination, the modules form the DataPAC Core Questionnaire Series, which is available from the DataPAC website. Please refer to the final report for the DataPAC project for more information.

Workshop Sub-project

An introductory workshop on PAC for non-governmental organizations affiliated with the PROCOSI network in Bolivia was held in October 1997, representing a first step toward the introduction of PAC programmatic work by NGOs in Bolivia. NGOs provide a significant proportion of reproductive health care services in Bolivia, including information, education and communication services, community-based clinical services, and, broad community development efforts with reproductive and sexual health components. Twenty-four health-care professionals (including clinicians, health educators, administrators and others) attended the three-day workshop held in La Paz.

Since the event there have been multiple requests for technical assistance on a variety of issues related to PAC, and other agencies and funding institutions have come to the fore to facilitate implementation of several of the recommendations of the workshop participants. Among the recommendations to be implemented is the creation of an inter-institutional

coordinating task force on PAC (known by its Spanish acronym – CICAPA), and the future replication of the workshop for representatives of NGOs in other areas of the country. The fact that more professionals are able to speak knowledgeably about the impact of unsafe abortion on women's lives in Bolivia and are familiar with the PAC approach has facilitated broader policy discussions, including the incorporation of treatment of first trimester hemorrhage in the national basic insurance package (announced in August of 1998)

Technical Assistance Component

In addition to research and programmatic technical assistance to individual sub-projects, Ipas staff provided support for the development of other research. In Mexico, Ipas's technical assistance was utilized for development of a PAC OR project with the government employee's health system and for the cost component of a PAC study in a regional hospital. These projects were carried out by the Population Council and in-country collaborators. In Honduras, Ipas led a diagnostic assessment of PAC services at the country's leading teaching hospital and assisted with questionnaire development for a PAC study there. Furthermore, Ipas provided information on PAC issues to USAID missions in the region as requested.

Please refer to objective 3 under the heading "Meeting the Objectives" for a list of formal technical assistance provided by Ipas under this sub-contract.

Dissemination Component

Dissemination workshops were carried out in all countries where sub-projects were conducted. In Peru, for example, workshops to communicate research findings were held for staff of the study hospital, for other local and international reproductive agencies, at national and regional professional meetings and for USAID mission staff. Study results were also presented at annual meetings of the American Public Health Association, at Population Council operations research meetings and for USAID/Washington personnel. In Mexico, findings were presented to staff at each of the participating hospitals and was selected as one of 400 presentations, of 1170 applicants, to the VII National Meeting of Medical Research, Mexican Institute of Social Security, Morelos, Mexico. Ipas and the Population Council also organized a PAC workshop for staff of the Hospital Escuela in Honduras in 1997.

Please refer to objective 4 under the heading "Meeting the Objectives" for a list of formal dissemination activities provided by Ipas under this sub-contract.

Ipas served on the organizing committee for the International Conference on Postabortion Care Operations Research held in New York in early 1998. This meeting brought together researchers from Asia, Africa, Latin America and the United States to present and discuss findings from PAC studies throughout the world. The meeting was the first of its kind to synthesize PAC findings to date and define research needs for the future. Investigators from Peru and Mexico presented data from the INOPAL-supported projects, Janie Benson presented a paper on future directions of PAC operations research.

MEETING THE OBJECTIVES

IPAS met the objectives of the sub-contract in many ways. In addition to individual sub-projects, the INOPAL sub-contract supported participation in working groups, attendance at workshops and conferences, presentations of papers and technical assistance provided through formal and informal channels. The following outline indicates how each of the sub-projects and additional activities helped meet each objective.

Objective 1 - Identify and diagnose problems which impede the delivery of high-quality postabortion care in the LAC region

Activities meeting this objective include

- Operations research in Peru: Testing an integrated, hospital-based model of treatment for abortion complications and delivery of family planning
- Operations research in Mexico: Comparison of three models of postabortion care
- Operations research in Bolivia: Assessment of PAC services in the Bolivian public health system
- Feasibility study for the introduction of MVA in Bolivia
- DataPAC, which includes an archive of PAC OR reports and publications, secondary analyses of PAC OR studies and the DataPAC Core Questionnaire Series
- Introductory Workshop on PAC for NGO's in the PROCOSI Network in La Paz, Bolivia in October 1997
- Coordination, presentation and attendance at the International Postabortion Care Operations Research Workshop in Rosslyn, VA in September 1995

Objective 2 - Develop and test interventions to improve the quality and accessibility of postabortion care

Activities meeting this objective include

- Operations research in Peru: Testing an integrated hospital-based model of treatment for abortion complications and delivery of family planning
- Operations research in Mexico: Comparison of three models of postabortion care

Objective 3 - Provide technical assistance to USAID mission in the LAC region and to service providers and researchers on postabortion care training and services, and operations research

Activities meeting this objective include

- Operations research in Peru: Testing an integrated hospital-based model of treatment for abortion complications and delivery of family planning

- PAC training including use of MVA instruments and PABFP training of health care providers in February and March 1997 by Dr Jose David Ortiz Mariscal and Ms Martha Maria Blandon
- Operations research in Mexico Comparison of three models of postabortion care
 - Training of 8 social workers and 6 nurses as interviewers and observers, including intensive practice with instruments through role-play and actual interviews with women being treated for abortion complications in hospitals, in June 1997 by Dr Jaime Fuentes and Dr Deborah Billings
- Operations research in Bolivia Assessment of PAC services in the Bolivian public health system
 - Training of 12 physicians and social scientists as interviewers in the area of PAC service provision in April 1997 by Dr Victor Huapaya, Ms Claudia De la Quintana and Ms Alison Friedman
- Feasibility study for the introduction of MVA in Bolivia
 - Training of 3 social scientists as interviewers in area of reproductive health and MVA in September 1997 by Ms Claudia De la Quintana, Ms Alison Friedman and Diagnosis/Marketing
- DataPAC
 - DataPAC website at [http //datapac ipas org](http://datapac.ipas.org)
 - Distribution of 200 English and 200 Spanish DataPAC Core Questionnaire Series
- Organization and presentation at the Taller de Difusión Sobre Investigaciones en Atención Postaborto held in La Paz, Bolivia, in July 1998
- Introductory Workshop on PAC for NGO's in the PROCOSI Network in La Paz, Bolivia in October 1997
- Seminar-workshop on PAC for the staff of the Ob-Gyn Department of the Hospital Escuela in Tegucigalpa, the leading teaching hospital for Honduras, in June 1997 led by Dr Victor Huapaya, Ms Janie Benson and Ms Marian Abernathy
- Assessment of the organization of PAC services at the Hospital Escuela, Tegucigalpa, Honduras in June 1997, with written and oral reports presented to the Ob-Gyn Department chiefs and USAID/Honduras, by Dr Victor Huapaya, Ms Janie Benson and Ms Marian Abernathy
- Attendance at the meeting of the Working Group on Reproductive Health and Family Planning held at the World Bank in Washington, DC, in June 1996 by Dr Ronnie Johnson
- Coordination, presentation and attendance at the International Postabortion Care Operations Research Workshop in Rosslyn, VA, in September 1995

Objective 4 - Disseminate postabortion care OR findings to LAC policy makers, service providers and researchers, and to USAID/Washington and LAC mission officials

Activities meeting this objective include

- **Operations research in Peru Testing an integrated, hospital-based model of treatment for abortion complications and delivery of family planning**
 - **Featured in The Population Council INOPAL III Final Report chapter on PAC OR in LAC, forthcoming**
 - **Multiple presentations in Peru to NGOs, Ob-Gyns, regional and national authorities and USAID/Peru by Ms Janie Benson, Ms Marian Abernathy and Dr Victor Huapaya throughout the course of the project**
 - **Inclusion of study results in an operations research book to be published in Spanish by the Population Council/Peru and a local university, "Mejoramiento de Calidad y Reducción de Costos en un Modelo Integrado de Atención Postabortion Resultados Preliminares," forthcoming**
 - **Presentation at the Global PAC OR Meeting in New York, NY in January 1998 by Dr Victor Huapaya and Ms Janie Benson**
 - **Presentation at APHA in Indianapolis, IN in November 1997 by Ms Janie Benson**
 - **Presentation at APHA in Indianapolis, IN in November 1997 by Ms María Rosa Gárate**
 - **Poster session at APHA in New York, NY in November 1996 by Ms Janie Benson**
- **Operations research in Mexico Comparison of three models of postabortion care**
 - **Presentation at the IMSS VII Reunión Nacional de Investigaciones Médicas, Oaxtepec, Morelos, Mexico in September 1998 by Dr Jaime Fuentes**
 - **Featured in The Population Council INOPAL III Final Report chapter on PAC OR in LAC, forthcoming**
 - **Presentation of findings to providers at 6 hospital/study sites in Mexico in August 1998 by Dr Jaime Fuentes and Dr Deborah Billings**
 - **Presentation at the Global PAC OR Meeting in New York, NY in January 1998 by Dr Jaime Fuentes in collaboration with Dr Deborah Billings**
- **Operations research in Bolivia Assessment of PAC services in the Bolivian public health system**
 - **Featured in The Population Council INOPAL III Final Report chapter on PAC OR in LAC, forthcoming**
 - **Presentation at APHA in Washington, DC in November 1998 by Marian Abernathy, forthcoming**
 - **Poster session at APHA in Washington, DC in November 1998 by Alison Friedman, forthcoming**
 - **Organization and presentation at the Taller de Difusión Sobre Investigaciones en Atención Postaborto held in La Paz, Bolivia in July 1998**

- Feasibility study for the introduction of MVA in Bolivia
 - Presentation at APHA in Washington, DC in November 1998 by Marian Abernathy, forthcoming
 - Publication of findings in *SIEPP* No 9, August 1998, "Resumen de Investigaciones Actuales Población, Desarrollo, Salud Sexual y Reproductiva," by Julio Córdova, Claudia De la Quintana and Alison Friedman
 - "Actitudes y Opiniones Frente Al Método AMEU" by Diagnosis/Marketing, August 1998
 - Presentation at the Taller de Difusión Sobre Investigaciones en Atención Postaborto held in La Paz, Bolivia, in July 1998
- DataPAC
 - DataPAC website at [http //datapac ipas org](http://datapac.ipas.org)
 - Distribution of 200 English and 200 Spanish DataPAC Core Questionnaire Series
 - Featured in The Population Council INOPAL III Final Report chapter on PAC OR in LAC, forthcoming
 - Presentation at the Global PAC OR Meeting in New York, NY in January 1998 by Tim King
 - Poster session at APHA in Washington, DC in November 1998 by Tim King, forthcoming
 - Presentation at APHA in Indianapolis, IN in November 1997 by Tim King
- Introductory Workshop on PAC for NGO's in the PROCOSI Network in La Paz, Bolivia in October 1997
 - Formal proceedings *Memorias del Taller "Sensibilización y Orientación sobre Atención Postaborto"* have been published with copies distributed to the First National PAC Dissemination workshop held July 22, 1998 in La Paz, to PROCOSI member organizations and participants of the workshops, and, to Ipas's key project directors and consultants throughout Latin America
 - Featured in Ipas's July 1998 *Dialogue* issue on sensitization workshops held in Bolivia
 - Presentation at APHA in Washington, DC in November 1998 by Marian Abernathy
- Attendance at the INOPAL III Semi-Annual Meeting in Puebla, Mexico in March 1998 by Dr Deborah Billings and Tim King
- Presentations made at the INOPAL III Semi-Annual Meeting in Copán Ruinas in Honduras in June 1997 by Dr Victor Huapaya, Ms Janie Benson and Ms Marian Abernathy
- Presentations made at the Asociación Latinoamérica de Investigadores en Reproducción Humana (ALIRH) in Cuzco Peru in April 1997 by Dr John Nagahata and attendance by Ms Janie Benson
- Presentation at the All OR/TA Semi-Annual Meeting in Rosslyn, VA in November 1996 by Janie Benson

- Presentation and attendance at the INOPAL III Semi-Annual Meeting in Antigua, Guatemala in April 1996 by Ms Marian Abernathy and Ms Colleen Bridger

CONCLUSIONS

Significant advances have been made during the past three years in understanding strategies for improving the quality and accessibility of PAC services for women throughout Latin America. Findings from the operations research projects conducted by Ipas have consistently indicated that the problems associated with unsafe abortion can be addressed successfully with careful analysis of the particular circumstances of care and informed intervention that addresses a locale's specific needs. Many improvements can be attributed to the use of MVA as a safe, effective, and cost-effective method of treating incomplete abortion, but operations research findings also demonstrated that training and raising the awareness of service providers to the needs of women also contribute to the overall improvements in care. Both are valuable lessons that should be pursued and shared with others.

This project, as a means of technical assistance, has been highly successful as well. Clear evidence is in the number of times and number of different ways in which information on PAC and postabortion family planning has been disseminated. In addition, health care providers and administrators were intimately involved in the implementation of the OR projects under INOPAL, as principal investigators, interviewers and observers. Their participation in the overall research process worked to increase their appreciation for and skills in conducting operations research.

Ipas's extensive presence in the LAC region has enabled staff to maximize the impact of the work carried out under this sub-contract. The researchers for these projects have been asked numerous times to speak to colleagues, send materials, act as reviewers and help others organize presentations regarding the work done under this sub-contract. For the most part, such dissemination activities have been paid for by funds outside of the sub-contract. For example, presentations of the Peru project were made at SPOG 97, a conference for ob-gyn's, and at FECASOG in November 1997. Funds for the speakers' travel came from outside the sub-contract's funding.

The policy impact of the research conducted through INOPAL III is seen in every country. The studies have provided guidance to health care leaders at local, regional and national levels regarding how best to institutionalize high-quality postabortion care services. With the sub-contract, Ipas was able to work within countries that have had difficulty framing and addressing the issue of unsafe abortion. We and our local counterparts have successfully reached service providers and policy makers in varied social and political settings to work with them to develop programmatic activities that would address unsafe abortion within their specific contexts. The role of local USAID missions in recognizing the public health importance of PAC has contributed to these improvements. Finally and most importantly, the ultimate beneficiary of this work are the women of Latin America.

The accomplishments achieved under this sub-contract will serve as a strong base for the next round of operations research in LAC, as well as in other regions of the world. Under Frontiers, we plan to build on the lessons learned and to begin to fill gaps in areas such as

sustainability of PAC programs, decentralization of services, scaling-up strategies, and meeting the needs of adolescent women. These are all examples of priority areas for future study.

Ipas is thankful to have had the opportunity to work with The Population Council and USAID on the important issue of unsafe abortion. We look forward to the opportunity to continue conducting operations research that will address the needs and concerns of women, health care providers and health care systems throughout the world.

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ANNEX 1

EXECUTIVE SUMMARIES

An article detailing and discussing some of the findings of AN OPERATIONS RESEARCH PROJECT TO TEST A COMPREHENSIVE, HOSPITAL-BASED MODEL OF POSTABORTION CARE SERVICE DELIVERY IN PERU

"IMPROVING QUALITY AND LOWERING COSTS IN AN INTEGRATED POSTABORTION CARE MODEL IN PERU"

ABSTRACT

With the goal of improving the quality of emergency care for women who suffer from abortion complications, to provide family planning services to these patients and to reduce costs, Hospital Carrion, located in the Callao province of the metropolitan area of Lima, Peru, upgraded its postabortion services. Hospital personnel were trained in the use of manual vacuum aspiration (MVA), in interpersonal communication, and in family planning counseling and services. Improvements were also made to the hospital's infrastructure.

A comparison of 102 patients receiving postabortion care (PAC) prior to the intervention to 102 patients receiving care afterward demonstrated that providers had switched from sharp curettage to MVA for the treatment of incomplete abortion. There was a reduction in the number of pelvic exams performed on patients, a decrease in the average length of patient hospital stay from 33.3 hours to 6.4 hours and a significant drop in patients' perception of pain prior to the treatment procedure. Patient satisfaction with services improved and the use of a family planning method after postabortion care increased from 31 percent to 64 percent of the patients surveyed. The hospital re-organized its services so that postabortion care was converted from an inpatient procedure requiring hospitalization, to an outpatient service, average cost per patient treated dropped from US\$119 to US\$45. In the post-intervention period, there was an increase in the amount of information given to patients about family planning, their medical diagnosis and some aspects of post-treatment care. There was a decrease in information provided about warning signs indicating a need for further treatment.

The authors analyze the potential for sustainability of improvements in PAC services.

A COMPARISON OF THREE MODELS OF POSTABORTION CARE IN MEXICO

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

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.

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 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, of these, 353 patients 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.

AN ASSESSMENT OF POSTABORTION CARE (PAC) SERVICES IN THE BOLIVIAN PUBLIC HEALTH SYSTEM

EXECUTIVE SUMMARY

Bolivia has one of the highest rates of maternal mortality in Latin America, with the single greatest cause of the mortality attributed to complications of unsafe abortion. Under-utilization of public health services due of limited access and mistrust of the medical system, legal restrictions to safe induced abortion, and low levels of use of modern family planning methods all contribute to the high incidence of unsafe abortion, which comes to the attention of the formal health system only once the woman presents with complications of incomplete abortion. Currently, very little is known about the extent of PAC services on a national basis.

The Bolivian Ministry of Health and Social Welfare (MSPS) has targeted complications of incomplete abortion as a health priority, and agreed in 1996 to conduct an opinion survey of health professionals and policymakers in an effort to determine the feasibility of introducing manual vacuum aspiration (MVA) for the treatment of incomplete abortion. The results of this study, *Feasibility Study for the Introduction of MVA*, published recently, indicate strong support among both health authorities and health providers for incorporation of MVA in emergency services for the treatment of incomplete abortion. Consonant with this important step in improving the quality and access of postabortion care, the Ministry has expressed its support for a diagnostic study that would provide the government and other organizations working in reproductive health with baseline data on the availability, quality, and cost of postabortion care in the public sector. With final analysis of this study's findings, we hope to determine the range and quality of existing PAC services, as well as the potential for adding new PAC services within the existing public health structure.

In order to assess the quality, availability, and costs of current PAC services, five data collection instruments were applied at the primary, secondary and tertiary levels of the health system, in the form of administrative, client, and provider interviews, infrastructure inventory and logbook checklist, and observation of patient services, including a time-motion study of PAC costs.

Initial baseline study results were disseminated through a conference on postabortion care (PAC) operations studies in Bolivia, in July, 1998, and have been accepted for presentation at the American Public Health Association annual meeting, in November, 1998. Upon completion of data analysis, articles will be submitted for publication in peer-reviewed scientific and professional journals.

INTRODUCTORY WORKSHOP ON POSTABORTION CARE (PAC) FOR NON-GOVERNMENTAL ORGANIZATIONS (NGOS) AFFILIATED WITH THE PROCOSI NETWORK

EXECUTIVE SUMMARY

This document reports on an introductory workshop on postabortion care (PAC) for non-governmental organizations (NGOs) affiliated with the PROCOSI network in Bolivia

The workshop, held in October 1997, represented the initial introduction of programmatic work by NGOs in the area of PAC in Bolivia. NGOs provide a significant proportion of reproductive health care services in Bolivia, including information, education and communication services, community-based clinical services, and, broad community development efforts with reproductive and sexual health components. Twenty-four health-care professionals (including clinicians, health educators, administrators and others) attended the three-day workshop held in La Paz.

Since the event, there have been multiple requests for technical assistance on a variety of issues related to postabortion care, and other agencies and funding institutions have come to the fore to facilitate implementation of several of the recommendations of the workshop participants. Among the recommendations to be implemented is the creation of an interinstitutional coordinating taskforce on PAC (known by its Spanish acronym – CICAPA), and the future replication of the workshop for representatives of NGOs in other areas of the country. The fact that more professionals are able to speak knowledgeably about the impact of unsafe abortion on women's lives in Bolivia and are familiar with the PAC approach has facilitated broader policy discussions, including the incorporation of treatment of first trimester hemorrhage in the national basic insurance package (announced in August of 1998).

FEASIBILITY STUDY FOR THE INTRODUCTION OF MANUAL VACUUM ASPIRATION (MVA) IN BOLIVIA

ABSTRACT

Based on a request from the Secretaría Nacional de Salud (SNS) [now the Ministerio de Salud y Previsión Social – MSPS] of Bolivia, the collaborating agencies conducted an opinion survey of 64 clinical health care professionals and policy-makers. This survey assessed the acceptability of introducing manual vacuum aspiration (MVA) for the treatment of incomplete abortion in Bolivian public sector health facilities and the feasibility of conducting a pilot study of postabortion care (PAC) with MVA in the near future.

A semi-structured interview was conducted on a convenience sample of health care officials, administrators, and clinicians in four major cities located in diverse geographic and ethnic regions of the country. The survey was intended to assess the interviewees' knowledge of PAC services, their familiarity with new reproductive health technologies, their perceptions of barriers to provision of PAC services, and the likelihood that he or she would participate in a pilot study of PAC with MVA at some future date.

In general, the healthcare professionals were favorably disposed towards introducing MVA into public sector hospitals, and supported a proposal to carry out a pilot MVA project, preferably within six months. Their positive response also indicates a high level of political support for introducing MVA, a critical element in incorporating PAC into the national public health system. The next stage in introducing MVA as part of PAC services should take the form of a pilot study of PAC in select hospitals with accompanying training in MVA use for public health providers.

TECHNICAL SUPPORT FOR THE INTERNATIONAL POSTABORTION CARE OPERATIONS RESEARCH PROGRAM (THE DATAPAC PROJECT)

EXECUTIVE SUMMARY

A workshop on postabortion care operations research (PAC OR) conducted in hospital settings was convened in September 1995 in Washington, DC. Participants included approximately 25 representatives from USAID, Cooperating Agencies and other international agencies. A key outcome of the workshop was the identification of the need for a set of core data collection instruments for use in PAC OR projects in various countries and settings. Researchers also expressed a strong desire for the opportunity to explore with their colleagues the many methodological challenges inherent in PAC OR. In response, the INOPAL III project entitled, "Technical support for the international postabortion care operations research program", was awarded to Ipas. Later named "DATAPAC", this project was designed to meet the following four, interrelated, goals:

1. Archive of PAC OR reports and publications,
2. Secondary analyses of PAC OR studies,
3. A set of standardized ("core") questionnaires, and,
4. Dissemination of PAC OR resources

An archive was created at Ipas to store copies of reports, publications, presentations, protocols, blank questionnaires, and electronic datasets from past PAC OR studies. The archive currently has over 100 titles. Resources from the archive were used as the basis for two comparative analyses of PAC OR, including a review of cost and resource use studies and also a review of PAC OR in Latin America (LAC) since 1993. The cost studies review was presented at the Annual Meeting of the American Public Health Association (Indianapolis, November 1997) and also the Global PAC OR Meeting (New York, January 1998), while the review of PAC OR in the LAC will be a chapter in the forthcoming INOPAL III Final Report. In addition to these presentations and publications of DATAPAC materials, a DATAPAC website (<http://datapac.ipas.org>) has also been developed. Users of the website can view resources from over 20 PAC OR studies and also request copies of the listed items.

In order to draw on the vast experience and expertise of researchers conducting PAC OR, four Technical Working Groups (TWGs) were formed with representatives from 15 organizations based in Africa, Asia, Latin America, and the United States. These TWGs were responsible for reviewing the core questionnaires and other documents related to the DATAPAC Project. Developed by Ipas and the Population Council, seven core questionnaire instruments and instruction guides were reviewed by the TWGs, including an overview guide, general information questionnaire, case record review form, cost study manual, patient exit interview, observation guide, and inventory checklist. These modules were then translated into Spanish and pretested in three hospitals in Peru.

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