Assessment of the Extension of Postabortion Care Services in Senegal

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SUMMARY

USAID supports strengthening of Postabortion Care (PAC) to address complications related to abortion and to reduce maternal mortality and morbidity. In 2004, USAID/Washington's Postabortion Care Working Group selected Senegal to be one of seven focus countries to receive additional funding and focused technical support through Global Leadership Priority funding.

The Ministry of Health (MOH)-Senegal has systematically tested, introduced and scaled-up PAC since 1997 with the help of several national and international partners. Operations Research conducted by EngenderHealth demonstrated that it was feasible to extend PAC services to the primary health level by doctors and midwives. In 2003, Management Sciences for Health (MSH) was charged to assist the MOH to extend services to health centers and posts in its 5 focus regions. During 2000-2004, MSH was the holder of the Project for the Reduction of Maternal Mortality (PREMOMA) and PREMOMA's activities included postabortion care services. From November 2003 to June 2005, Management Sciences for Health (MSH) partnered with the MOH to extend PAC services in 23 Health Districts in the Regions of Kaolack, Louga, Thies, and Ziguinchor and, to a lesser extent, in Fatick. Five hundred and twenty-three providers from 23 health centers and 300 health posts were trained in PAC; all trainees were provided with equipment; a Management Information System (MIS) was developed and a new supervisory approach was installed.

This assessment was requested by the USAID Postabortion Care Working Group to provide timely information to the MOH, USAID/Senegal, USAID/Washington and key stakeholders for setting priorities and guiding investments in PAC. The three overarching objectives were: 1) to assess the achievements of USAID PAC Working Group's financial investments in the extension of PAC services in Senegal; 2) to assess the extent to which the MSH-supported extension of PAC services has occurred; and 3) to document the existing model of services and lessons and challenges that will inform national and global replication and scale-up efforts.

The assessment included a document review, interviews with 23 key stakeholders, visits to seven health centers, seven health posts, two health huts and two regional hospitals across 4 regions, and FGDs with community members including adults and youth of both genders.

The key findings are as follows:

1. Support provided by the USAID/Washington Postabortion Care Working Group was valuable and facilitated PAC expansion in Senegal, demonstrating a feasible model of joint programming by USAID/Global Health Bureau and the Mission. The Mission has replicated the model with other programs and initiatives.

2. The MOH and MSH were successful in incorporating PAC services at the primary health service level.

3. Health posts are able to provide emergency treatment with digital curage.

4. Health centers have the facilities, equipment, supplies and trained personnel available to deliver PAC services with manual vacuum aspiration (MVA).

5. The quality of PAC services at hospitals is inferior to that at the health centers despite having received technical and financial support in the past. This may be associated with cessation of donor support to hospitals for PAC services.

6. Procurement of MVA equipment by the national procurement agency as part of the essential drugs list is being discussed in-country as well as plans to include MVA equipment in the essential drugs list for the PNA bureau to procure, store and supply kits to Districts and Regions as required.

7. The Roi Baudouin health center in Dakar is an ideal training center as it has model infrastructure, a large patient load, and has been providing services since PAC services were first introduced in the country.

8. Pre-service and on-the-job training in PAC is limited and the regional training capacity is weak. Pre-service training of midwives and nurses is exclusively dedicated to digital curage. Low patient loads in most facilities are a constraining factor for organizing training workshops.

9. Many barriers to improving access to PAC services persist, including non-availability of MVA services at the health post level, community perceptions that user fees are high and client-oriented care is poor, and the highly punitive and restrictive conditions under which abortion is provided.

In conclusion, the assessment found many positive aspects of the expansion of PAC services to the primary health care level. The assessment also found many areas that require strengthening to ensure that PAC services can be provided in a sustainable manner. Key recommendations from the assessment include:

1. **Position PAC within health sector reform process to facilitate further institutionalization.** Position PAC within the health sector reform process to facilitate further institutionalization through transference of funding and technical responsibilities to the central and regional levels, and by incorporation of MVA equipment into the national logistics system.

2. **Continue technical and resource support to current sites and improve quality of care** by adoption of client-oriented models, holistic counseling, attention to infection prevention, and availability of contraceptives in the treatment room, and strengthen systems by adequate supervision, inclusion of regional hospitals, and a functional referral/counter-referral mechanism.

3. **Maintain flexibility and negotiate service expansion.** Maintain flexibility and negotiate service expansion by including regional staff and communities in the design and implementation of services as new regions are covered by the program.

4. **Test the incorporation of MVA under strict supervision in selected health posts that have the requisite infrastructure.** On demonstration of feasibility, demand, and no evidence of diversion of off-label use of the technology, MOH might consider incorporation of MVA technology at health post level in the Norms.

5. **Develop new training strategies.** Develop and implement pre- and in-service curricula with focus on integrated treatment including MVA, counseling and referral. All new PAC sites should include all staff posted at facilities in PAC training as a mechanism to address staff turnover. Supervisors need to be trained to be trainers and oversee skill maintenance of providers.

6. **Involve the community.** Educate and inform communities including leaders on obstetric emergencies, their prevention and service availability. Train community traditional birth attendants (TBAs) and leaders to refer and follow-up patients and monitor client-determined service quality. Promote community funded, affordable transportation to address problems of transport.

7. **Reduce access barriers.** Services can be brought closer to clients by extending services to health posts; by charging an all-inclusive price for PAC services; and by improving community-level information on warning signs during pregnancy and sources of care.

8. **Conduct future-oriented research**. There are many potential avenues for service expansion that could and should be explored through operations research including introducing MVA services at selected health posts, the use of misoprostol as a first line management option within PAC, and testing innovative strategies to engage men in their partners' reproductive health.

CONTENTS

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LIST OF ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
CA	Cooperating Agency of USAID
CCF	Christian Children's Fund
CEFOREP	Centre for Training and Research in Reproductive Health
CHU	Centre Hospitalier Universitaire
CHW	Community Health Worker
D&C	Dilation and Curettage
DHS	Demographic and Health Survey
DSR	Division de la Santé de la Reproduction
EOC	Emergency Obstetric Care
FGD	Focus Group Discussion
FP	Family Planning
FY	Fiscal Year
GLP	Global Leadership Priority
HC	Health Center
HIV	Human Immunodeficiency Virus
HLD	High Level Disinfection
IEC	Information Education and Communication
IUD	Intra-Uterine Device
MIS	Management Information System
MOH	Ministry of Health
MSH	Management Sciences for Health
MVA	Manual Vacuum Aspiration
OC	Oral Contraceptive

OR	Operations Research
OR/TA	Operations Research/Technical Assistance
PAC	Postabortion Care
PNA	Pharmacie Nationale d'Approvisionnement (National Procurement Agency)
RH	Reproductive Health
SARA	Soutien à l'Analyse et à la Recherche en Afrique
SDP	Service Delivery Point
SOW	Scope of Work
STI	Sexually Transmitted Infection
TBA	Traditional Birth Attendant
UNFPA	United Nations Population Fund
USAID	United State Agency for International Development
WHO	World Health Organization

BACKGROUND

Over the last decade, Senegal has tested, introduced and scaled-up postabortion care services (PAC) nationally. The process of introducing PAC services was done in a systematic and phased manner. This was carried out under the Africa Operations Research and Technical Assistance Project II (OR/TA II) by the Population Council and the Johns Hopkins Program for International Education in Gynecology and Obstetrics (JHPIEGO) in collaboration with the national Ministry of Health and the Center for Research and Training in Reproductive Health (CEFOREP).

A three element model comprising of: management of abortion complications including use of MVA, family planning services and counseling, and linkages to other reproductive health services was first introduced into tertiary health centers in Dakar. The emphasis was on improvements in service quality including: use of Manual Vacuum Aspiration (MVA) with local anesthesia in lieu of Dilation & Curettage (D&C) under general anesthesia, improved client-provider interactions, referrals, and family planning services. The results of the OR project demonstrated the feasibility of introducing integrated PAC services, reducing costs to clients, increasing the use of modern contraception after evacuation, and reduced duration of hospital stays (CEFOREP and CHU Le Dantec, 1998).

As a result of this study, the MOH produced national PAC protocols and norms and disseminated them to all 10 regions in the country. At the request of the MOH, JHPIEGO started the decentralization process involving four regional hospitals (Saint-Louis, Diourbel, Kaolack, Ziguinchor) and one district health center (Sokone). This phase involved research funded by UNFPA to identify problems and obstacles linked to decentralization (CEFOREP and UNFPA, 2001). In the following phase, EngenderHealth with support from the Population Council and the Packard Foundation conducted a third OR study in 6 districts in the two regions of Kaolack and Fatick. The OR tested service expansion to 18 health centers and posts in rural areas and the inclusion of professional midwives as providers. The findings documented include improved quality of treatment services and infection prevention practices, better client-provider interactions, shorter stays, an improved referral network and enhanced integration of services. However, deficiencies were noted: counseling was not systematic or comprehensive, clients experienced unnecessary delays, infection prevention practices were inconsistent, and economic and geographic access barriers persisted. Notwithstanding these, the OR demonstrated that quality PAC services could be offered at lower level facilities (DSR and EngenderHealth, 2003). From 2002 to 2004, IntraHealth/PRIME II, in partnership with the MOH, tested a new approach that involved activities at both facility and community levels in the health district of Sokone.[1] This new approach aimed to involve the community in recognizing and responding to emergency situations in pregnancy (Corbett and Nelson, 2003).

[1] Sokone is a district in the region of Fatick.

These efforts facilitated the extension of services from tertiary to primary health care levels with the technical assistance and support of many partners such as CEFOREP, Population Council, JHPIEGO, IntraHealth/PRIME II, Advance Africa, POLICY, SARA, MSH, UNFPA, USAID, and WHO.

In 2003, MSH through the USAID Senegal bilateral program supported extension of PAC to health centers and health posts in the regions of Kaolack, Louga, Thies, and Ziguinchor, which were the focus regions under the bilateral agreement. In each of the four regions, MSH covered between two and four districts and undertook limited activities in Fatick. In addition, the USAID Washington Postabortion Care Working Group supported this initiative by providing $475,000 in Global Leadership Priority funding to the Senegal Mission from FY 2004 to 2006.

Between November 2003 and June 2005, MSH partnered with the Ministry of Health in extending PAC services in 23 health districts (Thiam, Suh, and Moreira, 2006). During this period, 523 health personnel from 323 facilities (23 health centers and 300 health posts) were trained in Postabortion (PAC) care services. The trainees came from a broad range of staff, from program supervisors to counselors. Most of the providers were trained by CEFOREP, and subsequently followed up after training.

This assessment was commissioned by the USAID Washington Postabortion Care

Health service delivery structure in Senegal

Senegal is divided into 11 decentralized health regions (including Dakar) which are further decentralized into districts. Each region encompasses 5 to 10 districts directed by a physician and three supervisors (reproductive health, primary health and health education). The population of a health district is between 150,000 to 300,000 and typically contains one health center and 15-30 health posts under it. Health huts are run by volunteer community health workers attached to the health post.

The region is an administrative health facility which is responsible for managing the budget and logistics and determining the priority programs based on geographic epidemiology. Each region has at least one regional hospital.

Health centers provide primary health care, obstetric and other RH services and also have short term hospitalization facilities. They are of two types based on whether they include an operating room or not—Type II has an operating room and Type I does not. Staff includes gynecologists, general practitioners, a surgeon and an anesthesiologist (in health centers with an operating room), professional midwives, traditional birth attendants (TBAs), nurses and nurse's aides.

Health posts provide a range of preventive and curative services including delivery and other reproductive health services. Health posts are of two types based on whether they offer birthing services. They are staffed by a nurse-in-charge (often male) and, if they offer birthing services, may have a midwife and TBAs in attendance.

Each health post is surrounded by a larger number of community-based health huts, staffed by a TBA selected by the community. She is responsible for immunizations, diarrhea and respiratory infection and malaria management.

Working Group to provide information on the outcome of their investments in Senegal, and to provide relevant and timely information to USAID/Washington and the Senegal Mission as they plan their next phase of activities in expanding PAC services nationally and globally. Senegal has emerged as a resource centre for other countries in the region. Senegal can serve as a catalyst for other country initiatives to introduce and scale-up PAC services. The results of this assessment are intended to provide relevant information to USAID, MOH-Senegal, and other key stakeholders to aid priority setting and guide investments.

OBJECTIVES OF ASSESSMENT

The overarching objectives of the assessment are the following:

1. Assess the achievements of USAID Postabortion Care Working Group's financial investments in the extension of PAC services in Senegal.
2. Assess the extent to which the extension of PAC services has occurred.
3. Document the model for service extension, lessons, and challenges that will inform national global replication and scale-up efforts.

Embedded in these overarching objectives are the following specific domains of enquiry:

1. PAC being mainstreamed within USAID/Senegal's portfolio
    - Are there standardized tools for PAC training, guidelines, policies and indicators?
    - Are Mission field-supported funds available for further PAC support?
    - Has PAC moved from being a vertical Global Leadership Priority to an integrated and integral component of USAID's global health program?
    - Is GLP support a good investment model to be followed?

2. Description of the PAC model
    - Has access to PAC improved? What are the remaining barriers to access?
    - Do all components of the model work?
    - Are services of acceptable quality?
    - What is the level of community engagement including emergency transport arrangements
    - What are the resources and activities required for community dialogue and engagement?
    - Does the referral system (both ways) work?
    - What are the obstacles/challenges for additional national scale-up?

3. Policy and program changes
    - Is PAC an element in the National Minimum Package of Services?
    - Is PAC integrated into the National FP/RH program or is it a stand-alone vertical program?

- Are policies, norms, and protocols current? Are they available at every Service Delivery Point (SDP)?
- Is there a line item in the MOH budget for PAC training, equipment, and supplies including MVA equipment?
- Is the MOH interested in further decentralizing services to the health hut? What role can Community Health Workers (CHWs) fulfill in health huts? Can their job description be expanded to allow patient stabilization, assisting in transportation, and counseling women on FP?
- Are resources available for further extension to lower level facilities?
- To what degree have institutionalization and sustainability been achieved in the regions where MSH has worked? Are trainers and supervisors able to perform their functions without further external support?
- Is there an opportunity to test the use of new drugs and technology?

4. Training
    - To what extent is PAC in-service training available?
    - What type of training format did MSH employ? Were there training materials and curriculum?
    - Does training include both theory and supervised practice? Are trainees certified to provide PAC services? Is the training format good?
    - What aspects of PAC training do trainees retain and what require strengthening?

5. Quality of services
    - What is the infrastructure available in terms of adequate light, water, dedicated space with privacy?
    - Are equipment for MVA and D&C ranging from tables with stirrups, speculums, to autoclaves and sterilizers available?
    - Are drugs, supplies and consumables including gloves, bleach, other infection prevention supplies, pain medications, and contraceptive commodities available?
    - Are trained providers available at most times at health posts and health centers?
    - What are provider attitudes towards young women and/or unmarried women?
    - Do areas where PAC services are provided offer privacy and confidentiality to clients?
    - What is the content and quality of care provided to a patient from counseling (pre, during, post and family planning), pain management, referral, management of complications to contraceptive provision?
    - To what extent are infection prevention procedures including decontamination, sterilization/HLD, waste management and other precautions followed?
    - What is the level of supervisory support provided?
    - How are PAC cases recorded and reported?

6. Linkage/Integration with other reproductive health systems including STI/HIV, safe motherhood, infertility and other services?
    - To what extent are these services integrated with PAC counseling?
    - Is referral and counter-referral functional?

This paper will a) contribute to the global knowledge on PAC service extension; b) provide information on the potentials and challenges of mainstreaming PAC services; c) provide documentation of the Senegalese experience that can be relevant to other countries planning to replicate the model and processes; and d) contribute knowledge to USAID/Washington, USAID/Missions, and national partners as they design PAC programs and make investment choices.

METHODOLOGY OF ASSESSMENT

A case study approach was used to gather information and assess the PAC program in terms of its functioning, coverage and utilization. The assessment process was participatory eliciting input from all relevant stakeholders to ensure that their perspectives were reflected. The aim was to gauge the changes wrought and document the lessons learned in the process of service extension to inform similar future efforts. Quality control was built into the assessment by having two external experts, one from WHO/IBP and one from the PAC Consortium Committee, review the draft final report. Information was gathered in four ways: a) a document review; b) interviews with key stakeholders: c) site visits to health facilities in selected regions: and d) review of MIS data maintained by the MOH.

Document review: The assessment team reviewed existing final and interim reports produced by MSH, USAID strategy papers; reports produced by regional programs (FRONTIERS, SARA); CAs such as EngenderHealth, IntraHealth; national institutions such as CEFOREP; and government policy documents. Information on PAC models from other country settings such as Bolivia, India, Kenya, Peru and Tanzania were reviewed where relevant.

Key stakeholders interviews: The assessment team interviewed 23 key stakeholders and partners representing different constituencies—national partners; civil society actors; donors; CAs; and multilaterals. The list of stakeholders includes the managers at the central level of the MOH: the chief of the Reproductive Health unit and Chief of the National Logistics and Supply Division; national level trainers; regional and district level program managers; community leaders; USAID/Washington; USAID/Senegal; CA partners such as MSH, EngenderHealth and IntraHealth; and the reproductive health advisors at multilateral agencies such as UNFPA and WHO. Information about community reproductive health needs, service responses, and community inputs was gathered from community leaders.

Site visits: The assessment team visited four regions—Fatick, Kaolack, Thies, Ziguinchor—and Dakar city. In each region, the team visited sites where the MSH

support has taken place— seven health centers (five Type I and two Type II) and five health posts, all of which had maternity services.[2] The sites visited were typical of the facilities available in each respective region. In addition, the team visited two regional hospitals, two health huts, and the Roi Baudouin Health Center in Dakar. USAID/Senegal plans to initiate activities in the region of Kolda under the new bilateral and had requested that the research team visit this region to obtain a qualitative description before interventions are implemented. However, the team was unable to visit Kolda due to civil disturbances.

The purpose of including a range of facilities was to allow for comparisons. Hospitals as tertiary level referral facilities are likely to have higher case loads and better infrastructure and can provide a point of comparison with lower level facilities. On the other hand, health huts are the facilities closest to communities and it was important to investigate their potential to contribute to PAC services in the future. The team visited facilities that had implemented PAC as planned by the project as well those that had done so in a partial manner or not at all. This allowed us to draw insights about existing challenges to implementation and to identify facilitating factors among those that successfully implemented the intervention. The Roi Baudouin Health Center was visited because it is the principal site for provider training in MVA and the sole MVA storage and distribution site.

Twenty-seven providers and program managers were interviewed to obtain their observations and perceptions about the gaps, challenges and successes in providing PAC services, including PAC training and the available infrastructure. The team reviewed service records, and observed organizational and logistic aspects of PAC services. There was no opportunity to observe PAC services being provided or to interview PAC clients. Hence, while this assessment can provide information on the readiness to provide PAC services, it offers only limited answers on the quality of care provided to clients and the level of use.

Community FGDs: The team conducted five FGDs with women, men, youth of both sexes, and leaders in the community to ascertain their awareness of PAC services, perceptions of its quality and accessibility, and reactions to health huts being included as service delivery points.

Team: A team of four Senegalese multi-lingual professionals (English, French, Serer, Wolof) and two US-based professionals conducted the assessment. Members of the team complemented each other in terms of skills—social science, clinical services, program research, OR, and training—as well as bringing national and global perspectives.

Development of data collection instruments: In order to collect the information reported above, four data collection instruments were developed in partnership with national level stakeholders including MOH officials, trainers, an MSH representative, IntraHealth, USAID, and the study team. The participatory process used in developing these

[2] 7 of the 23 health centers and 5 of the 300 health posts where MSH had intervened were visited.

instruments ensured timely input into the assessment by key stakeholders and may facilitate subsequent utilization of findings.

The instruments developed to reflect both service and community perspectives include: a facility checklist, a guide for provider interviews, a guide for stakeholder interviews, and a guide for conducting community level FGDs. The facility checklist measured the readiness of the facility to provide PAC services including infrastructure, availability of trained personnel, equipment, supplies, IEC materials, and recording procedures. The provider interviews collected information on training, attitudes, and the practices followed during PAC service delivery. Stakeholder interviews included their opinions on PAC strategy (implementation, decentralization and sustainability), supervision, resources for PAC service delivery, logistics and supply, challenges faced, community needs, and a vision for the future. The depth at which any specific issue was covered varied by the type of stakeholder interviewed. The community FGDs covered the community's perceptions of their reproductive health needs, use of services, prices paid, and the quality of services received.

Training of data collectors in study protocols and ethical procedures: Four data collectors were selected and trained; two were professional midwives working at the MOH and in a mid-level provider training institution and two had specialized skills in conducting FGDs. Three of the data collection instruments were qualitative in nature and emphasis was placed on ensuring a flowing conversation rather than a survey format.

Ethical issues were discussed and integrated into the training of providers including maintenance of privacy, confidentiality, and anonymity of respondents; proper storage of data; and obtainment of informed consent to ensure voluntary participation of respondents. Obtaining informed consent was practiced during training and recorded prior to each respondent's participation.

The field work was carried out during the Ramadan season, and so it was not possible to offer FGD participants food as is the norm. Instead, they were offered a small token of appreciation 2000 CFA (about $ 4) to compensate them for their time and transportation.

Limitations*:* This methodology was adopted to provide a quick but valid and reliable descriptive picture of current services. For reasons of time and resources, a few areas of enquiry were omitted. One limitation is that as clients were not interviewed, it was not possible to obtain their perspectives on the quality of care they received. To an extent, information provided through the community FGDs captured some aspects of how beneficiaries perceive health services and their health care utilization experiences. Second, since abortion is provided under restrictive circumstances and communities are sensitive about the issue, the team did not extensively probe to distinguish between abortions and miscarriage, especially when and how they take place. A third limitation was that data on family planning use by PAC clients were gathered from client casebook registers. As with all types of MIS maintained, these have problems of completeness and accuracy, but they can provide information as to: a) whether a register exists, b) if it is filled, c) the extent to which it is filled, and d) if family planning counseling and service

provision exists in the minds of providers. A fourth and final limitation is that systematic information on the costs of providing PAC services were not collected.

FINDINGS

USAID/Washington's Postabortion Care Working Group Support to PAC Activities in Senegal

In 2001, USAID conducted a global evaluation of the agency's postabortion care program (Cobb *et al*., 2001). Based on the global evaluation, USAID initiated a series of activities to develop a PAC strategy including a review of documents, analysis and synthesis, meetings with stakeholders within USAID, the USAID PAC Working Group and CAs, and drafting of a strategy paper.

In May 2003, the USAID PAC Working Group held a meeting for cooperating agencies, private voluntary organizations, and NGOs where a draft version of the USAID PAC strategy was presented and discussed (PAC Consortium, 2003). One component of the PAC Strategy was designation of focus countries for PAC activities and support. Seven focus countries—Bolivia, Cambodia, Haiti, Kenya, Nepal, Senegal and Tanzania—were chosen based on responses to a questionnaire designed by the PAC Working Group. Required factors for a country to be chosen as a focus country included: commitment from the MOH for PAC and scale-up, planned activities that were aligned with the strategy of the Postabortion Care Working Group, and matching funds provided by the mission with a willingness to fund for multiple years. Each of the focus countries was contacted by the PAC Working Group about their PAC programs and a range of special initiative activities were identified with the USAID mission. Special initiatives included: the sustainability of PAC among private nurse midwives; integration of HIV and PAC services; expansion of PAC services into districts and primary health care facilities; use of IEC and BCC messages to increase the use of PAC services; and establishing community and service delivery partnerships. The plan was for each focus country to establish baseline data for reporting so that the impact of the special initiative activity could be measured.

The USAID PAC Working Group invited Senegal to submit a concept paper for consideration as a focus country. In Senegal, the emphasis was on supporting decentralization of PAC services to lower level health facilities and away from hospitals and other tertiary level facilities. From FY 2004 to 2006, USAID/W provided $475,000 to the Senegal Mission for the decentralization of PAC services. During this period, MSH was the holder of the Project for the Reduction of Maternal Mortality (PREMOMA) in Senegal which followed the Senegal Maternal Health and Family Planning Program (2000-2004). PREMOMA's activities included increasing the availability of family planning services and contraceptives, adolescent education to prevent teen pregnancy, and postabortion care services. PREMOMA's activities in PAC and strategies to reduce maternal morbidity and mortality aligned with the PAC Working

Group's objectives in supporting PAC services. The $475,000 from USAID/W to PREMOMA's $3.37 million was a substantial and significant addition.

The Mission was appreciative of these resources as the funding demonstrated the importance of including and expanding PAC services in Senegal. The funds leveraged from the USAID Postabortion Care Working Group were demonstrated to all national stakeholders. In 2006, the USAID Postabortion Care Working Group provided an additional $200,000 to USAID/Senegal for the replication of a PAC community mobilization program that has been implemented in Bolivia since 2004. This is a "best practice" for community mobilization and has been adapted and used in Egypt and Peru, and currently replicated in Kenya. Since PREMOMA was ending in December 2006, MSH made limited headway into incorporating the community mobilization program. MSH was able to conduct formative research and identify community groups working with youth in the Ziguinchor region because unwanted pregnancy and complications of unsafe abortion among this age group are perceived to be high.

An important aspect of the partnership between the Mission and USAID/Washington was the modality of resource transfer that had been used. The resources that USAID/Washington provided were fed into the existing bilateral, thereby making it easier for the Mission to continue to work with one CA. As one of the Mission informants remarked "*it avoided balkanization*" of resources. As this mechanism of resource transfer proved to be successful, the Mission used it with other initiatives as well. The most current illustration of this mechanism is the initiative on Safe Births Africa that has been launched by USAID/Washington's Global Health Bureau.

In summary, the assessment found that resources from the USAID PAC Working Group were instrumental in sustaining the momentum around expanding PAC services and provide technical support to the MOH.

PAC Model Implemented in Senegal

The team found a divergence of opinion on the PAC model in place. Those interviewed at the central MOH reported that the MOH PAC Norms and Guidelines were based on the PAC Consortium's five element model which had been presented at the 2000 Francophone Africa PAC conference.[3] Other informants reported that the model implemented consisted of three elements: emergency treatment/uterine evacuation including MVA, family planning counseling and referral for other reproductive health service needs. Furthermore, there was divergence of opinion between service providers and supervisors. Many service providers were well informed about the three element model, but interviews with a number of regional and district level program managers revealed a lack of information on the PAC model actually in place. This could be due to the non-participation of some managers in the training of providers.

[3] The PAC Consortium was established in 1993 by Ipas, AVSC (now EngenderHealth), JHPIEGO, Pathfinder, and IPPF to encourage donors such as USAID and other stakeholders to address issues of unsafe abortions.

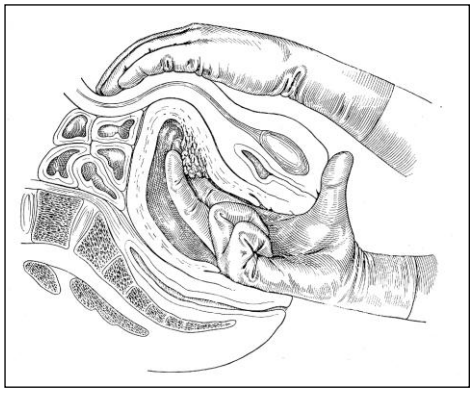
The MOH Norms and Guidelines are being revised and will be based on the updated PAC Consortium's five elements with added counseling and community actions. The USAID model's three core components, while covering the same basic service elements differ from the MOH and the updated PAC Consortium models.[4]

The present Norms only allow MVA use at hospitals and health centers and explicitly disallow it in health posts. It is unlikely that MVA will be included in the new Norms due to concern nationally that it could lead to non-approved use of the technology with negative consequences.

PAC in the MSH Bilateral Contract

According to informants at USAID/Senegal, the intent of the MSH contract was to establish PAC services at the primary level in USAID's five focus regions, without additional inputs to previously established hospital PAC services. One additional health center in Dakar—the Roi Baudouin Health Center—was also included because of its key role as a national provider training center and as the exclusive storage and distribution site for MVA equipment.[5]

MSH began its efforts in a multi-stepped approach. First, a team conducted site visits to assess the ability of facilities to provide PAC services and their potential demand; aspects considered included infrastructure, staffing, caseloads, and utilization of existing reproductive health services by target populations. Second, discussions were held with regional and district level stakeholders about the facilities which would be included in the roll-out. Third, upgrading of knowledge and skills was carried out simultaneously in all the five regions. Knowledge and skills upgrading consisted of five activities: orienting regional and district level teams, training midwives and nurses posted at health centers in PAC with MVA, training chief nurses at health posts in PAC with digital curage, training all providers and TBAs in PAC counseling, and supervising trained providers.



Source: Fatim Tall

MSH based its training strategy on the existing MOH PAC model except for the counseling component. For this component, MSH revised the counseling module that included: pre-treatment, during treatment and post-treatment counseling and updated it. However, the counseling training was conducted separately from the emergency treatment training, thereby missing a valuable opportunity to integrate these two components.

[4] The USAID PAC model includes: (1) emergency treatment (2) FP counseling, provision and selected RH treatment/referral and (3) community empowerment through community awareness and mobilization.

[5] MVA equipment are obtained with non-USAID resources.

MSH assisted the MOH in establishing PAC services by training 523 providers including 104 midwives, 254 nurses, 63 regional and district level supervisors, 6 doctors, and 104 counselors (TBAs and nurse-aides). About half of the midwives and the six doctors posted at the health centers were trained in MVA for uterine evacuation. The rest of the midwives and some of the nurses posted at health posts were trained in digital curage[6] (see diagram on previous page). All 523 trainees received updates in infection prevention and postabortion counseling. In addition, MSH provided the 23 health centers, with the necessary equipment and supplies and encouraged the facilities to establish a dedicated

Highlights from the MSH final report

Achievements

- The MOH Reproductive Health Director is very supportive and interested in establishing quality PAC services at primary level facilities.
- The Senegalese MOH with MSH support achieved a commendable PAC service expansion at primary level services according to MOH Norms.
- In health centers, the number of patients treated for postabortion complications rose from 1178 in 2003 to 2530 in 2005. Of them, 53% were treated with MVA.
- The percentage of patients who received FP counseling post treatment rose from 36% in 2003 to 78% in 2005.
- 56% of patients who received counseling were discharged with a method.
- Through supportive supervision, services were reorganized in the 23 HCs.

Challenges

- Lack of ownership of PAC services at the post level; most patients are referred immediately to a higher level without attempts to manage the problem.
- Lack of referral to other RH services to meet women's needs.
- Lack of community-service links.
- Incomplete use of PAC registers.
- Lack of family planning methods available in the site where emergency services are provided.
- Lack of supervision by MOH in 20 of 23 districts after MSH decreased their frequency of supervisory visits. External transportation assistance for supervision was stated to be required for supervision to occur.
- The regional hospitals did not participate and providers were not happy with support shifted to primary health sites. In addition, hospitals are under the management of the central MOH which did not insist on their participation.

Source: Occasional Paper #5, 2006

[6] Digital curage was the low-technology method of choice before MVA introduction and continues to be used commonly in Senegal to provide emergency uterine evacuation if the cervix is dilated. As shown in the diagram, it is accomplished by inserting two fingers through the dilated cervix into the uterine cavity and extracting loose tissues, thus stemming bleeding.

space for PAC services.

The regional hospitals, which had been supported in previous projects were explicitly not included in the MSH project but some midwives were trained in MVA. No activities were undertaken at the community and health huts either. The community had not been included in the basic MSH PAC Scope of Work (SOW) but during the last year, USAID requested that it be added; focus groups were conducted in three communities but due to time and financial constraints, the only community activity was work with youth theater groups to raise awareness of abortion related issues in Ziguinchor District.

At the end of the bilateral award period, MSH reported that PAC services were established in 23 health centers and 300 health posts. In the health districts covered, MSH reported that there was at least one trained provider in a health post with the necessary clinical skills to: a) evaluate and stabilize a women presenting with incomplete abortion complications; b) perform a digital curage or make an appropriate referral to a health centre or a hospital; and c) counsel about appropriate contraceptive use (MSH, 2004). At the health centre level, at least two providers had been trained in Manual Vacuum Aspiration (MVA) procedures and contraceptive updates and MVA kits and equipment (including speculums, forceps and iodine cups) had been supplied.

Assessment of PAC Services

PAC at the Health Post Level*:*

Services: All health posts provide a range of reproductive health services including prenatal care, delivery, immunization, management of childhood illnesses, family planning, and basic education on sexually transmitted infections including HIV and AIDS. In each facility, at least one provider has been trained in digital curage, infection prevention, and family planning. Theoretically, PAC services are available around the clock, but the low demand, few cases managed, and poor recordkeeping makes it difficult to confirm that services are indeed being provided. For example, on being asked about whether PAC services were offered at her post, one midwife informed that they were and when she sees a patient with postabortion complications, she manages her with digital curage (if the cervix is dilated), ergometrine and antibiotics. The fee for the service was a maximum of 2000 CFA (about $4). In this post, however, no PAC patient had been registered in the first six months of 2006.

Infrastructure: All the health posts visited were clean, comfortable, had running water, although not all had a functioning toilet. All had the necessary equipment to conduct a safe, uncomplicated delivery. Infection prevention materials such as bleach, soap, decontaminants, and sterilizing equipment were present on the day of the visit. Consumables such as gloves and cotton were present in sufficient stock. A range of contraceptives were available including pills, IUD, and condoms, but there were no implants and spermicides. IEC material on PAC services tended to be non-existent; flipcharts for family planning services were more common. Wall posters on a range of

other services such as child immunization, safe delivery, and malaria prevention were available.

Most facilities had the requisite equipment and supplies for providing PAC services.

Infrastructure varied widely among the five health posts visited. The most modest health posts have one large labor and postpartum room, a birthing room, and an office with an exam table. At the other extreme, a well-appointed health post could have multiple consultation rooms, a laboratory, X ray and ultrasound facilities in addition to the labor and delivery room.[7] (although this health post had received support from another donor).

Recordkeeping: As in many developing countries, records maintained at the health posts tended to be incomplete and in some instances, inaccurately completed. Three of the five health posts had the PAC register provided at the time of the training, and aggregated data from these health posts reveal that between January and June 2006, 1098 deliveries were recorded ranging from 63 to 527 per post. Over the same time period, 90 PAC patients had been recorded (range 0-14), and of these, 7 patients were managed with digital curage and 22 were referred; no information was recorded on the remaining 61 PAC cases.

In summary, most health posts have infrastructure and personnel that would allow PAC services to be provided, particularly those where a midwife is available. At present, providers are trained in emergency treatment with digital curage. MVA could be incorporated in health posts that have trained providers, equipment, a sufficient patient load to maintain provider skills, and close supervision. But current client loads are very low and providers are hesitant to even triage clients because of perceptions that most women will not have dilated cervixes; thus, providers prefer to refer them to the nearest health center or hospital. Also, providers reported that women with postabortion complications tend to consult the community TBA first, who, if unable to provide a solution by means of traditional medicines and digital curage, will refer the bleeding woman to the "hospital", bypassing the health post.

PAC at the Health Center Level

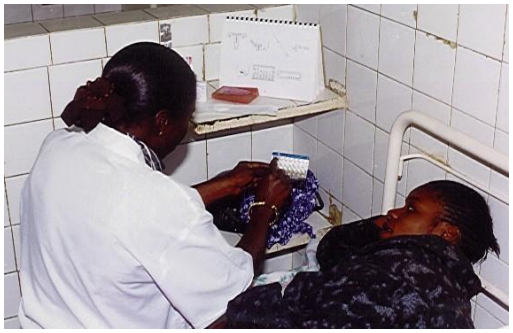
The team visited five Type I and two Type II health centers.

Services: Health centers offer the same range of services as do health posts. The team found PAC services including MVA mostly available around-the-clock in all health centers visited with a few night time exceptions. This was due to the absence of a trained

[7] One of the Health Posts visited had received support from the Belgian Government for infrastructure improvement and was perhaps, an outlier.

provider or non-availability of MVA equipment, which was stored under lock and key with only one person with access to it. In these cases, either the patient was treated with digital curage or MVA service was postponed to the next morning. MSH had attempted to resolve the issue of locked MVA equipment by insisting that one staff member have the key with them all twenty-four hours. Some providers implicitly stated that locking equipment was a precaution to prevent any off-label use of the equipment.[8]

Infrastructure: Most, but by no means all health centers had the necessary basic infrastructure and equipment for quality PAC services including privacy, sufficient space, availability of running water and sufficient light (see Table 1 below). However, deficiencies were noted in equipment and supplies; deficiencies are highlighted in bold in the table. None of the health centers visited had two complete MVA kits; most had one complete set and parts of a second set. Most did not have a dedicated PAC service room. With few exceptions, all health centers had the necessary equipment and supplies for infection prevention. In some sites, although bleach was available, the decontamination solution was not prepared and available in advance for its need. Most sites had appropriate flip charts and FP samples but there was a dearth of wall mounted IEC materials appropriate to the clients' literacy, language and culture. We did observe several Tiarht posters: these are useful to providers but their density of words, contents, and lack of illustrations may not help patients chose a method.



Provider counseling a client on family planning and on how to take the pill.

Recordkeeping: Every health center had a PAC register which was more or less filled out correctly.[9] As can be seen in Table 2, PAC case loads varied from a minimum of 6 to a maximum of 100 clients per clinic per month, an average of one case per month. Five of the six cases had been recorded as being treated with MVA; such a low case load is not sufficient to maintain provider skills. We were not able to ascertain whether the low PAC case load was due to a lack of information in the community about the availability of services or other clinic or provider-based reasons.

Uterine evacuation method: As table 2 shows, MVA is the treatment of choice and was used for 69 percent of the cases. Surprisingly, digital curage continues to be used in about 25 percent of the cases and D&C is used in three percent of cases and in those health centers that had an operating room. Of note, none of the 6 doctors trained in MVA had treated a patient with this method, the reasons for which are not clear. Digital curage

[8] The team did not probe if indeed off-label use of MVA equipment occurred.

[9] One Health Center maintained an alternate PAC register that had a different format and recorded a slightly different set of information. Nevertheless, there was considerable overlap between the two types of registers.

appears to continue in sites when there is no MVA trained provider available or when MVA equipment is not available.

Table 1. Selected indicators of PAC service quality and preparedness in 7 health centers and 2 hospitals visited

Infrastructure	**H.C. (N=7)**	**Hosp (N=2)**	**Comments**
Cleanliness	**5**	**1**	
Provide for patients' comfort	7	**0**	
Privacy/confidentiality	7	**0**	
Services, prices and schedules posted	**1**	**1**	Not posted where patients could read them
Running water	**6**	2	
Adequate lighting in treatment room	7	**1**	
Functioning toilet	7	2	
Dedicated PAC treatment space	5	**0**	PAC treatment in very busy and public delivery room in both hospitals
Equipment			
Exam table with stirrups	**4**	2	
At least 2 specula (double valve) and sponge and ring forceps	7	2	
At least 2 complete MVA kits (syringes, valves, adapters, size 6-12 cannulae)	**0**	**0**	At least one complete kit if parts of partial kits are put together
Electric vacuum aspirator	**0**	**1**	
Autoclave, boiler	**6**	2	
Emergency kit	**2**	**1**	
PAC-specific register	7	2	
FP patient cards	**5**	2	
Norms/protocols/guidelines available	**3**	**1**	
Infection prevention materials			
Sharps containers	**6**	**1**	
Bleach, liquid soap, plastic basins	7	2	Bleach available but solution **not** prepared in 2 HC and 1 hospital
Contaminated materials' disposal system	**5**	2	
Drugs, contraceptives			
Analgesics	**6**	**1**	
1% Xylocaine	7	**1**	
Contraceptive methods	7	2	All methods (exceptions IUD and Norplant missing in one HC each) but **no methods in treatment room in any one of 9 sites**
IEC			
Posters on danger signs in treatment and counseling rooms	**2**	**1**	
FP poster in treatment and counseling sites	**4**	**1**	**Even where present, posters are not culturally, language (only in French) and literacy level appropriate**
FP flipchart	**6**	**1**	
FP sampler	**5**	**1**	
STI/HIV	**2**	**0**	

Note: Numbers in columns are counts. Highlighted numbers indicate facilities that did not match the observer's expectations or norms**.**

Table 2. **Case Load in 7 Health Centers and 2 Hospitals: January-June, 2006**

	HC I (N=5)	**HC II (N=2)**	**Hospital (N=2)**
Number of deliveries	2944	1077	662
Number of PAC patients	292 Range (6-100)	213 Range (70-94)	191
Number of patients treated by MVA	206 (71%)	147 (69%)	98 (51%)
Patients treated by digital curage	67 (23%)	59 (28%)	60 (28%)
Patients treated by D&C	0	7 (3%)	25 (12%)
Patients referred	81	69	
Patients counseled in FP	285 (97%)	185 (87%)	165 (86%)
Patients received method	173 (59%)	48 (23%)	85 (45%)
Patients counseled and received method (% of those counseled)	61%	26%	52%

Note: The total numbers of patients treated by MVA, digital curage and D&C do not add up to the numbers of PAC patients due to omissions in record-keeping at the facilities.

Provider knowledge and attitudes to family planning: Family planning services are recognized by all providers as part of PAC. Many spoke at length about their conviction of the importance of family planning use postabortion and their practice of counseling the women before discharge. The assessment found that systematic and comprehensive family planning counseling does occur. and that in rare instances when it does not, work overload and or patients' wish to leave the facility immediately were the primary reasons. When questioned about appropriate family planning methods to use postabortion, many providers responded that hormonal methods (pills, injectables, implant) were their first choice. Few mentioned condoms and several stated that the IUD was the least appropriate. Only one provider mentioned that natural methods were not appropriate. It is also important to note that according to the national DHS in 2005, approximately one in ten women uses contraception.

Availability and access to FP methods postabortion: All facilities had a choice of contraceptives with the exception of implant and IUDs, each of which was not available in one facility. All facilities had a choice of pills, injectables, condoms and spermicide, and no stock-outs of contraceptives were reported. However, no site had any contraceptive available in the space where emergency treatment is provided. Despite the availability of contraceptives in the pharmacy, enthusiastic providers, and the majority of women being counseled on family planning, the process of obtaining a contraceptive before discharge is not client-friendly. To obtain a selected method, women need to pay for the contraceptive at the cashier, visit the family planning unit if it is open, and fill a prescription at the pharmacy or both.[10] As the records in the family planning unit,

[10] The family planning unit does not function on the same schedule as the PAC unit. Family planning units are typically open only during the day.

pharmacy and the PAC/emergency treatment unit are not linked, it is difficult to verify if the women recorded as having "received" a method in the PAC unit did indeed obtain a method before leaving the facility. Given that the women had recently undergone a stressful event, the process of obtaining a method is cumbersome and lengthy, and women may not choose to get a method immediately. As Table 2 shows, in health centers, the PAC register indicated that most women receive family planning counseling, but a smaller proportion received a family planning method before discharge, with health centers I better able to provide a method than health centers II. From these records, however, it is not possible to establish whether the women actually received their preferred method. Even as the MSH final report states that 56 percent of patients were discharged with a method in 2005 and our visited sites reported that 59 percent in Type I health centers and 23 percent in Type II health centers were discharged with a method in the first 6 months of 2006, we have no independent way to verify these data.

In summary, the infrastructure with acceptable privacy, equipment, supplies and trained personnel is available for PAC services at the visited health centers. Nevertheless, there are many areas of service delivery and practice that can be improved.

Areas requiring strengthening

- It is necessary to establish and address reasons for low demand in some facilities and set a minimum monthly case load for MVA services to be available at specific facilities. If caseloads are not met, providers can maintain skills by performing procedures on models under supervision.
- Infection prevention and counseling can be strengthened. In contrast to post-treatment FP counseling, pre and intra treatment counseling are not as established and systematic.
- In contrast to post-treatment family planning counseling, pre and intra treatment counseling is not as established or systematic.
- Supervision is weak. MSH had designed a supervisory system including trained supervisors and job aids that would allow for the MOH to increasingly take on greater responsibility as the project wound down. However, MSH reported that in their final evaluation, only in three out of 25 districts did supervisors continue regular supervision with no additional vehicle support.
- The referral and counter-referral mechanism is also weak with no information on where the patient was referred and their subsequent status. Use of counter-referral notes is practically non-existent.

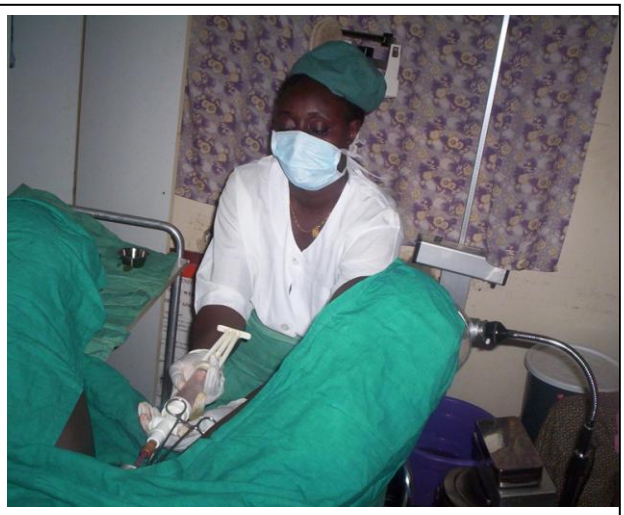
PAC at Hospitals

Services: In the two hospitals visited PAC services were available around-the-clock, but not necessarily with MVA. In contrast to the health centers, as table 1 shows, service

quality was considerably worse and not commensurate with the level of the facility and infrastructure available.

Infrastructure: Despite the infrastructure and staff available, hospitals appeared to be unsanitary spaces offering poor client-oriented care. In neither hospital was a private, dedicated area for PAC services found. In both hospitals, patients are managed in the birthing area, an area with a lot of staff movement but little attention. In contrast, in one of the hospitals visited, there is a well appointed room designated exclusively for implant insertion; this room could be a good model for demonstrating how PAC services could be organized and delivered.

As at health centers, MVA equipment was not complete and had a number of missing cannulae, and some cannulae were beyond their useful lifetime. All necessary supplies for infection prevention were available, though decontamination and washing solutions were not pre-prepared in one hospital and staff were not fully informed about the new high-level disinfection procedures for the newly distributed and improved MVA equipment. The maintenance of MVA equipment was also found wanting. Staff were also not fully informed of the new high-level disinfection procedures for the newly distributed and improved MVA equipment. Drugs such as analgesics and local anesthetics were available in only one of the hospitals. IEC materials appropriate to patients were not found although in one hospital, the Tiarht poster and a poster with a drawing and the message "family planning is a responsibility" in French were posted. It was more common to find posters on STI management and Emergency Obstetric Care (EOC) management charts with algorithms suitable for providers. In a setting where less than a third of women are literate (31%), pictorial posters to communicate messages on danger signs in pregnancy and on family planning placed in waiting rooms would be more appropriate.



Providers feel confident in their ability to conduct MVA.

Both hospitals were staffed by an adequate number of trained professional midwives and physicians, but they were reluctant to talk openly about the facilities' experiences with PAC. Most of the providers had been formally trained and felt confident about their ability to provide MVA. In addition, nurses and TBAs had been trained in family planning counseling and infection prevention.

Recordkeeping: Dedicated PAC registers were found in both obstetric departments. As shown in table 2, half the clients were managed with MVA, approximately one third by digital curage, and the remainder by D&C. In terms of case loads, 191 PAC cases were

seen at both hospitals; 51 percent were managed with MVA, 13 percent with D&C and 31 percent by digital curage. It is notable that digital curage, a method that should be less utilized in higher level facilities, tends to be offered at a higher rate in hospitals than at health centers. It is possible that as with health centers, it is offered when no trained provider or MVA equipment are available.

Family Planning Services: As with the health centers, family planning methods are not available in the treatment room or ward where women recover. Again, after counseling, the woman who chooses a specific method is sent to the family planning unit where she is given a prescription which she must take to the pharmacy to purchase her method. There is no documentation on how many women actually followed this convoluted path.

Hospitals and some health centers are equipped with sonograph machines.

In summary, despite the infrastructure and staff available to provide PAC services, hospitals appeared to be unsanitary spaces, offering poor client-oriented care. MVA equipment is not readily available nor is it properly maintained. These findings suggest that the lack of donor support to tertiary level facilities subsequent to the extension of services to lower levels has been detrimental. Hospitals have not been able to operate independent of additional technical and resource support from donors.

PAC at the Roi Baudouin Health Center in Dakar: Often referred to as a hospital, this Dakar district health center, though not included in MSH projects, was visited because it is one of three sites used for the original OR study, it continues to be the principal site for midwife and resident physician MVA training, and it serves as the sole distribution center for MVA equipment.

Services: PAC services have been in place since 1997. MVA is only available during the day five days a week. At other times, women are sent to the operating room for D&C or digital curage. MVAs are performed by the 2 midwives and resident physicians on staff as well as trainees. Nurses' aides assist by preparing the equipment, counseling women in FP and providing verbacaine[11] during the emergency evacuation procedure.

Infrastructure: There is a room set up exclusively for MVA and a small adjoining room serves as recovery and counseling space. Four MVA kits and all other necessary equipment and supplies, including Xylocaine (local anesthesia), are available in the MVA room, but on the day of the visit, no prepared bleach solution was found. The recovery and counseling room had samples of contraceptives but no flipchart, brochures or posters.

[11] "Verbacine" refers to verbal anesthesia as part of pain management.

Recordkeeping: There is no PAC register designed by the MSH initiative but records are kept in a card system in the MVA room. The records document that 970 PAC clients were seen in the first six months of 2006: over half were treated with MVA (55%), under a third by digital curage (29%), and a little over a tenth with D&Cs performed in the operating room by physicians (13%); 19 aspirations with a vacuum machine had also been conducted.

Family Planning Services: 930 of the PAC clients (96%) were recorded as having been counseled in family planning, but there is no information on whether the discharged women left with a method. The researchers were informed that women received family planning counseling in the recovery room, where oral contraceptives were the only method available; all other methods were only available by prescription in the family planning unit which functions only on Monday to Friday. All women are asked to return a week later; records maintained in the MVA room suggest that most do return for this check up, but family planning use is not recorded.

DISCUSSION

Extensive Use of Digital Curage: Digital curage has been in use in Senegal for a long time and is the only evacuation method approved by the MOH in health posts. It continues to be used in health centers and hospitals despite the availability of MVA. Persistent use may be due to a lack of accessibility to MVA equipment to all staff or at all times, provider inertia to adopt a newer technology, and proponents among providers who are comfortable with this technique.

Procurement and Storage of MVA Equipment: Currently, MVA equipment is not part of the national procurement, supply and logistics system. Discussions are underway between the various units within the Ministry of Health (the Reproductive Health Unit, the PNA—National Procurement Agency) and development partners to include MVA equipment in the essential drugs list and for the PNA to procure, store and supply them to the regions and districts, as required.

The Roi Baudouin Health Center has been procuring and storing MVA kits since June 2006. This was an ad hoc arrangement that began in the absence of any formal system, because of IPAS preference and the presence of a PAC champion at the Roi Baudouin Health Center. However, this system appears to have led to rivalry and resentment among other health centers because Roi Baudouin has a monopoly on the procurement and sales of MVA equipment and thus is able to generate revenue. Furthermore, the process of ordering MVA equipment is multi-stepped and cumbersome, requiring signed coupons from the Ministry and the full purchase price in cash before the equipment can be bought. Program managers and administrators of other health centers feel that greater transparency in the entire process of procuring MVA equipment would be helpful. Specifically, little is known about where and which manufacturer the MVA equipment comes from, the wholesale price, and the price charged to the health facilities. Currently, the price of an MVA kit was reported to be between CFA 25,000 and CFA 28,000 (approximately $50-$55).

In summary, it is clear that the procurement, storage, and supply process needs to rest at the PNA to resolve some of these issues and to facilitate the mainstreaming of PAC equipment into the logistics and supply system.

Providers' Training and Competence: During pre-service training, the principal training school for midwives and nurses in Dakar (ENDSS) does cover PAC, albeit cursorily. The training is exclusively dedicated to digital curage; other components of the PAC model such as MVA, counseling, family planning, and referral are not included. Practical training in digital curage takes place at the Aristide Le Dantec Hospital, Centre de Santé Roi Baudouin, Institut d'Hygiène Sociale, and Centre de santé Nabil Choucair.

During the extension of PAC services phase, MSH trained 523 providers in PAC. Three types of training were provided: for midwives and nurses in health centers, for nurses-in-charge, and for counselors. Most providers were knowledgeable about the main components of PAC and were aware of the importance of integrating family planning counseling after treatment. Trained midwives stated that they felt competent to provide unsupervised MVA after performing 3-5 supervised evacuations. They are also aware that counseling on issues other than family planning is important, but the extent to which this is practiced is unclear. The level of postabortion family planning knowledge was, in general, acceptable but there was a positive bias towards hormonal methods. The IUD was thought not to be appropriate, not because it may worsen a pre-existing reproductive tract infection, but because "*it is important to wait until the uterus recovers from the pregnancy and inflammation resolves*." There was very little knowledge of fertility awareness methods; only one provider mentioned it. Very few providers mentioned the appropriateness of condom use.

In contrast to providers, regional supervisors are not entirely clear about the PAC model and the three elements. We conjecture that this may stem from their less than complete participation in the training of providers and thus not being informed. Some doctors also alluded to the use of misoprostol for PAC and during delivery; however, they were less clear about the specifics of use, and requested better information and guidance.

This young TBA had conducted two deliveries in her health hut in the preceding three days.

Access to PAC services: There is an explicit awareness and acknowledgement at the community level about the occurrence of abortions, both spontaneous and induced. Youth, especially if not married, were perceived to be using clandestine abortion to address unplanned pregnancy. Whether this perception is true was difficult to gauge; however, youth are not commonly registered at PAC sites, perhaps because they seek services elsewhere or

have no need of these services. In principle, PAC services are accessible to a large proportion of the populations in the districts where MSH supported the MOH to introduce and strengthen the services. Communities are aware of services for emergency treatment during pregnancy but may not be very knowledgeable about PAC services per se. In practice, there are several barriers that prevent women with complications from accessing services. The barriers range from geography and physical distance, lack of transportation options and financial burden to lapses in service quality.

Geographic access: If services are fully available at all of the 300 health posts that MSH has supported, then geographic access will have been greatly improved. However, if the five health posts that the team visited are indicative of the universe of health posts providing PAC, then it would appear that PAC services, if provided at all, are minimally available to women at the health post level. Providers at health posts appear to prefer all postabortion patients to health centers or hospitals, without first determining whether they could be managed on site. Clients too may prefer to go directly to a higher level facility in an emergency.

Transportation to health facilities continues to hinder access. While some communities have established transportation for all obstetric and other emergencies, others rely on the ambulance from health centers. In many communities, there is no organized transportation system and choices are limited. Women and their families struggle to find a means for reaching a health center or hospital.

> *"…to reach the health hut 5 minutes are necessary, two hours to reach the hospital…" (woman)*

Even though taxis are available in some areas, they are expensive and often will not accept to transport a bleeding woman because the blood will soil their vehicle.

> *"…we pay a taxi 1000 CFA during the day and 2000 CFA during the night.." (woman).*

> *"…we sell parts of our goods to pay for the taxi…"(man)*

Compounding the issue are poor roads that cannot be navigated without a four-wheel drive vehicle. Choices in this situation are limited to horse-drawn carts with the associated discomfort and pain.

Perceptions of poor service quality at facilities were frequently mentioned. When experiencing a complication, women tend to first consult the community TBA before visiting a formal health care provider because the TBAs are perceived to have better skills than clinic providers, to make women feel welcome, and to charge less. Women reported that TBAs are able to manage most cases with digital curage and herbal remedies. When this line of management is not possible, TBAs refer women to a health center or hospital.

"...women prefer usually to find matrons at their home, because they have more experience and they are kind…" (woman)

"...women give birth rarely in the hospital cause of the bad attitude of the providers toward them…" (man)

"...women give birth at matron's home, because their services are cheaper than the hospital…" (woman)

They frequently complained that health facility providers did not treat them with respect and sometimes had a punitive attitude towards them.

"...some providers insult and mistreat unmarried women who came for PAC…" (woman)

"...during the weekend, the midwife stores all the materials; so patients cannot receive PAC…" (woman)

Repeatedly, communities reported that traditional birth attendants and some health providers performed abortions. Since induced abortion is restricted and there is sensitivity around the issue, it was not possible to probe further about the role and types of services that different providers offered.[12]

Financial barriers to seeking health services were frequently mentioned by both women and men. They believed that the price of services is not affordable in health centers and hospitals ($10 to $20). For example, regional hospitals charge 10,000 CFA for PAC services.

Indicating that other options are cheaper, one woman said

"I prefer to buy aspirin at the drugstore or drink lemonade or pulps…they are cheaper options…"

In addition to the price of service patients often have to bring supplies themselves including bleach, gloves, and analgesics. Should they wish to begin contraception afterwards, they need to factor in the price of the product. Their out-of-pocket expenses are further increased by having to pay for transportation to and from the facility. In contrast, TBAs charge 1 or 2 thousand CFAs ($2 to $4) for their service and transportation costs are minimized.

User fees and the inability of community members to pay were repeatedly mentioned by men and women, and members of health committees. In some communities, health committees provided funding and some have established fund raising strategies, for example, through sales of mosquito nets. Some have set aside funds for transportation in emergency cases, particularly for indigent patients. Occasionally community leaders also

[12] Abortion is permitted on the sole grounds of saving the woman's life.

contribute towards finding solutions for emergency transportation needs, notably religious and military leaders. As one FGD respondent reported:

> *"…a solidarity fund is implemented in the village for emergency transportations of pregnant women…" (man)*

Others reported:

> *"…often, the religious leaders collect some funds for emergency transportation of pregnant women…" (woman)*

> *"…the firemen and the military insure also emergency transportation…" (woman)*

Lack of full information about the range of available services and their cost is fairly widespread. Communities were not included when planning the PAC extension activities and communities are not always well informed about their role and may not be aware of where services are available and at what cost, especially among the youth. It is possible that patients are also reluctant to request services because they are not clear about the differences between spontaneous and induced abortions, and when PAC services may be used. When the abortion has been induced, communities are reluctant to seek services out of fear of punitive measures by the health authorities.

Potential for Future PAC Integration at the Community Health Huts: Each community in Senegal has a health hut; however, a large proportion are non-functioning. There is an effort from the MOH to establish minimal services in all huts. Health huts are a community responsibility and funded by community funds. The team visited two of the more accessible health huts to obtain a general impression of their situation and their potential for participating in PAC services. Staff in the visited sites consisted of 7 TBAs, three of them trained in PAC. They are responsible for attending uncomplicated births, vaccinations and child survival interventions. The TBAs who staff these minimal facilities do not counsel on family planning even those who had presumably been at PAC training. We did not determine if these TBAs attend home births in the community.

Both visited huts were comfortable and clean and one had running water, good lighting, working toilet and a place for deliveries. There was minimal equipment and infection prevention materials, (bivalve specula, forceps, sterile gloves, sharps container, bleach). Analgesics were found but family planning methods including condoms were not available in these sites.

Thirty-eight women had delivered at the two huts from January to June 2006 and one had been referred. No patients with postabortion complications had been registered and no women were counseled on FP.

Most interviewed providers in health centers and posts felt that there is potential to expand selected PAC activities to the huts in the following aspects: community education

on pregnancy prevention and danger signs in pregnancy, identification of complications, rapid referral and assistance with transportation arrangements in emergency cases; follow-up of women who were seen in health facilities, FP counseling and selected FP methods distribution. No key informant recommended that emergency treatment be provided in these sites.

RECOMMENDATIONS

With MSH support, the Senegal MOH has greatly improved access to PAC services of generally acceptable quality in health centers and, to a lesser extent, in health posts in a relatively short period of three years. It is crucial for USAID to continue to support the existing services and facilitate further expansion into new districts and regions. Such support is important to facilitate MOH's PAC programming efforts in a socio-cultural and policy context where unwanted pregnancy and abortion are sensitive topics.

1. **Mainstreaming PAC:**
   - The PAC initiative can gather further momentum if this important reproductive health service were positioned within health sector reform policy so that it can garner support and resources especially from decentralized government bodies.
   - Focus on institutionalization and sustainability by gradual transference of funding, technical and administrative responsibilities from the Central to Regional MOH.
   - To further facilitate the extension of services throughout the country, engagement with other donors and development partners to support similar initiatives will be essential.
   - Establish comprehensive PAC training including MVA as the preferred treatment technology at pre-service professional schools and at regional training centers. Consider on-the job by trained trainers in sites that have sufficient case loads to allow trainee practice.
   - Incorporate MVA equipment into the National Logistics system.

2. **Continue efforts to improve quality of care**
   Despite progress, there is still much that can be done to assure that service quality is continuously improved and available around-the-clock in all established sites. Specific areas that can benefit from additional support are:
   - Monitor facilities to gauge the extent of demand and changes over time. Should demand be too low to maintain provider skills, the program manager needs to examine the possible reasons for low utilization. If no specific correctable reason is identified, providers' skills need to be maintained by supportive supervisory visits and practice on pelvic models. If these have no results, the MVA equipment should be withdrawn and used in locations with heavy caseloads.
   - Expand holistic counseling needs to the entire PAC service experience for all women.
   - Ensure family planning methods are present in the room where emergency treatment is provided.

- Strengthen infection prevention procedures, including those related to the maintenance of MVA equipment.
- Develop and distribute IEC materials appropriate to the clients' literacy and culture and train providers in their use.
- Integrate regional hospitals into the intervention where services have been established and in new regions so that service quality improves and is at least as good as that found in the health centers visited by the assessment team.
- Include hospitals in future support so that existing service quality improves and is at least as good as that found in the health centers.
- Design and establish a realistic and achievable supportive supervisory system with regional managerial staff with a clear understanding and explicit MOH commitment that supervision is the exclusive responsibility of the MOH.
- Continuously monitor and provide client oriented care at hospitals, health centers and posts so women develop a positive image of providers and experience good service.
- The MOH must continuously monitor and ensure client-oriented care at hospitals, health centers and health posts so that communities develop a positive image of providers and experience good service.

3. Expand service availability

- Facilitate discussions between Regional Directors, supervisors, all cadres of providers, and the communities to be served before initiating work in a new region. Disseminate the lessons learned thus far to policy makers and program managers at all levels so that they are taken into account in the introduction of new services.
- Consider incorporating MVA treatment option in selected health posts and testing the use of misoprostol as an alternative first option treatment within PAC as described in the Research section to follow.
- Consider introducing PAC within health huts with a scope of work established by MOH managers, the community and CHW's. CHWs posted at health huts can be trained to identify and refer pregnancy complications, counsel women and couples on family planning and provide non-clinical family planning methods.
- USAID and its partners need to maintain great flexibility when programming activities to conform to MOH and community opinions without sacrificing the important components of the intervention.

4. Modify training

- Promote sustainability of PAC services by including PAC training in pre-service education of midwives, nurses and doctors through incorporating a comprehensive PAC module into the curricula; for example, the Ipas Women-Centered Postabortion Care Curriculum.
- Decentralize in-service and on-the-job training to regional trainers to maintain service quality in the face of considerable staff turnover. In addition to training

new providers, include all cadres of staff from nurse auxiliaries to supervisors to orient all to PAC services and promote buy-in.

- Develop a curriculum integrating counseling, treatment and referral with accompanying training materials. Specify roles for trainers at the regional and district levels where the case load is sufficient to develop skills.
- To ensure skills maintenance by trained providers, supervisors should have primary responsibility for assessing and upgrading provider skills.

5. Involve the community

- The community is a key stakeholder in PAC and should be involved in the design, establishment and monitoring of PAC services.
- Conduct information and education sessions in the communities served to address knowledge gaps in reproductive health, safe motherhood, and the availability of services. Men, in particular, need to improve their knowledge and attitude towards women's health and problems.
- Involve key community stakeholders and structures in PAC education and promotion of women's autonomy to seek care in life-threatening family emergencies to provide social legitimacy to discussions around miscarriages and abortion. Particular attention needs to be paid towards reducing community fears about the current abortion laws in seeking PAC services.
- Utilize the mechanism of existing community women's groups to provide information on reproductive health and service options. For example, there is potential to use microcredit groups as a vehicle to educate the women's community and share income generation with funding of a transportation system.
- Evaluate MSH's efforts to engage with youth theater in Ziguinchor as a mechanism to improve community knowledge and health seeking behaviors. If found cost-effective, document and replicate the model in different settings.

6. Improve access by reducing barriers

- Improve geographic access by establishing comprehensive PAC services with MVA in health posts that satisfy pre-established conditions (necessary infrastructure, interested providers, and sufficient demand for services).
- Train community TBAs to refer women to nearest health site with PAC services, follow-up referred women and provide family planning counseling. They could become intermediaries for reporting cases of poor quality to the community health committee.
- Address financial barriers by establishing an all inclusive price for services including a three month supply of family planning methods. For women who cannot afford this cost, health committees can advocate cost reductions and/or provide financial assistance.
- Address transportation problems by stimulating communities to organize and support a transportation system with affordable charges for women/couples with with the ability to pay, and a strategy for poorer women to have assistance.
- Provide information to communities about the availability of services by a well-designed IEC strategy using appropriate means and trained messengers.

7. **Undertake further Operations Research to increase access and strengthen services**
    - Determine the feasibility, safety, acceptability and cost of introducing MVA in selected health posts which meet essential criteria.
    - Providers currently use misoprostol ad hoc without guidelines, training or full information, and it will be important to assess the possible use of misoprostol as a first line treatment option within PAC for women who are not bleeding profusely and piloting the use of the medication with an evidence-based approach.
    - Husbands and families are important gatekeepers who can facilitate or hinder utilization of PAC services by their wives and partners. It is important to devise innovative strategies to involve men in the reproductive health of their partners. An OR on different models of involving men will be useful.

CONCLUSIONS AND UTILIZATION

This assessment was designed to provide information to the USAID Postaborton Care Working Group on a number of domains ranging from policy, service delivery, to engagement with communities. Findings from this assessment have been disseminated at USAID/Washington and in Senegal. In Senegal, the findings were discussed in depth with key stakeholders including the MOH, USAID/Mission, and CAs. The assessment findings are being used to inform the current bilateral supported by USAID. Further, the assessment included external reviews by experts from Ipas and WHO to enable the broader dissemination of findings globally including the PAC consortium.

The principal message from this assessment is to continue support and technical assistance to PAC services with an emphasis on expanding all dimensions of access.

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