

Responding to Unsafe Abortion in Ethiopia:

A Facility-based Assessment of Postabortion Care Services
in Public Health Sector Facilities in Ethiopia

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Tamara Fetters, MPH



quality of care

t r a i n i n g

postabortion contraception and counseling





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June, 2002



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Executive Summary

In Ethiopia, maternal deaths associated with complications of pregnancy and delivery are among the highest in the world. Several studies indicate that unsafe abortion accounts for up to 25-35% of these maternal deaths (Kwast et al., 1986; Kwast et al., 1989). The burden of unsafe abortion on women, their families and communities, and on the limited resources of the Ethiopian health system is enormous.

In order to explore health systems issues and determine reliable baseline figures prior to program expansion, Ipas Ethiopia collaborated with the Regional Health Bureaus from July to September 2000, to conduct a cross-sectional postabortion care (PAC) assessment in three regions: Oromia, Amhara and Addis Ababa. The main objective of the assessment was to determine the current and future potential capacity and quality of PAC service delivery in public hospitals and health centers. A total of 120 health facilities were included in the study. The proportion of the total facilities located in each of the regions and included in the assessment is summarized in Table 1.

	Proportion of all facilities
Addis Ababa	96%
Oromia	70%
Amhara	38%
Total coverage	62%

Table 1. Region and proportion of all public sector health facilities included in sample

Key Findings of the Assessment Team

■ Access:

Just over half (n=120, 54%) of all facilities surveyed were able to respond to patients suffering from abortion-related complications by performing a uterine evacuation with either sharp curettage or manual vacuum aspiration (MVA). The capacity was much higher in the Amhara and the Oromia regions, where all of the hospitals and 61% of the health centers sampled were able to perform uterine evacuations. Only three (13%) of all of the public sector health facilities in Addis Ababa were able to do so.

■ Use of Manual Vacuum Aspiration (MVA):

Very few of the facilities use MVA. Of the 65 facilities that were able to perform uterine evacuations, only one-quarter have functioning MVA instruments. This information was further corroborated by a record review of the actual procedures performed. The overwhelming majority (94% of the procedures) were completed using sharp curettage. The use of MVA was extremely limited and only document-

ed in 5% of the cases. The remaining patients (1%) with severe complications from abortion were referred to higher-level health facilities for treatment.

■ ***Presentation of postabortion complications:***

In spite of the clinical limitations in many health centers to manage postabortion complications, over two-thirds of the respondents reported that they themselves had encountered at least one client presenting with an incomplete abortion during the past three months. Half of these providers were working in facilities that did not have the capacity to perform a uterine evacuation. Fifteen of these respondents said that they had seen three or more women presenting with postabortion complications during that same time period.

■ ***Emergency transportation and referral networks:***

Only 17 of the 93 health centers (18%) reported being able to provide transportation for obstetric emergencies. The situation is worse for those health centers that have limited capabilities to manage life-threatening complications. Only seven (13%) of these health centers were able to respond with emergency transport to assist a client in need of postabortion care. A record review showed that only three health centers that referred postabortion clients during the three months prior to the study actually provided transport to a patient in crisis. The exchange of clients for PAC services between the public and private sector facilities was almost nonexistent. Only one health center indicated that they commonly received patients referred from private practitioners for the treatment of abortion complications; none of the public sector facilities ever referred patients with abortion complications to private facilities.

■ ***Pain management:***

Over three-quarters of the health facilities that provide uterine evacuation services often take no measures to alleviate pain for patients being treated for abortion-related complications. The most frequently stated reason for not giving any pain control was an absence or shortage of analgesics.

■ ***Postabortion contraception and counseling:***

Despite the wide range of contraceptive methods available in most of the facilities that provide uterine evacuation, the provision of postabortion contraception to women treated for an incomplete abortion was erratic. Only 23% of health facilities that provide uterine evacuation services reported providing postabortion contraceptive services regularly. In most of these facilities, the provision of PAC services was poorly linked with contraceptive counseling and methods. The rest of the facilities either rarely or never provide women with contraception. By contrast, “postabortion counseling” was reported to be a regular service provided by three-quarters of these facilities. However, many of the health staff (46%) currently providing contraceptive methods or counseling to clients have received no special training in contraceptive counseling or provision.

Summary of Recommendations

The restrictive abortion law in Ethiopia means that women with unwanted pregnancies have very few and very difficult options. In desperation, women, their families and their partners put their lives in danger by procuring or inducing unsafe abortions, thereby creating a disproportionate demand for postabortion services. Thus, it is imperative that we address institutional barriers that may further limit a woman's ability to obtain timely postabortion care and increase her risk of morbidity or even death.

The results of this baseline survey have a number of implications for national policy-makers and other stakeholders concerned with improving the availability and quality of PAC services in Ethiopia. A summary of our recommendations is listed below:

Access: Only half of the facilities sampled are able to clinically manage an incomplete abortion; most of these facilities are hospitals. The majority of health centers (57%) in these areas could not manage simple abortion complications in their facilities. The women living in those catchment areas may be several hours from the nearest PAC services and may further delay management of their complications by seeking help nearby in a facility that is not prepared to respond. Expanding access to high-quality postabortion care must continue to be a high priority for both federal and regional governments and other stakeholders.

Training: In order to make PAC services available to every woman who might need them, comprehensive PAC training should be expanded to include nurse-midwives and other health providers in health centers where physicians may be unavailable, too busy to perform these procedures, or not deployed at all. Training for other health-sector cadres and on-the-job training packages would encourage knowledge and technology transfer to help create a sustainable national program without compromising competency standards. In order to do this it is essential that a national training plan be developed that ensures equitable access to PAC services for all Ethiopian women. A plan that promotes and endorses competency standards and guidelines for PAC service providers and supportive personnel will greatly benefit this process.

Supervision and follow-up: Facilities need follow-up technical assistance to support them in the organization of services, continuation of staff training and supervision, improvements to emergency transport systems and recordkeeping.

Management: A stronger emphasis on building managerial capacity and support at the regional level will ensure that PAC is among the region's priorities and included in the Annual Action Plans, routine supervision and the annual budgets of the intervention regions.

Logistics and procurement: PAC efforts must include the development of a sustainable system for the procurement and distribution of MVA instruments and essen-

tial supplies necessary for the proper management of the complications of abortion. MVA instruments and accessories should be easily available to Regional Health Bureaus through standard Ministry of Health procurement channels. Even those centers that had received instruments and provider training in the management of incomplete abortion were most often using sharp curettage to treat clients. Access to MVA instruments through established procurement channels is essential to sustain improvements in care.

Emergency transportation and referral networks: There is a need to develop the networks of client referral and emergency transportation between primary and first-referral facilities. Referral networks should also be established between public and private sector clinics to facilitate better PAC client management and shared training facilities for all practitioners who may encounter PAC patients.

Quality of care: In facilities where PAC services already exist, more emphasis should be placed on improving the quality of these services. It is necessary to develop consistent quality-of-care standards appropriate for each service delivery level for pre-procedure, procedure and post-procedure services. Quality-of-care standards should address the minimal but essential elements of key components, such as instrument processing, infection prevention, pain management, patient waiting time, provider-client relations, and postabortion contraception, as agreed upon by regional and national leaders in the field.

Postabortion contraception and counseling: At the time of this study most PAC patients were leaving these facilities without any improved ability to prevent another unwanted pregnancy. A stronger emphasis must be placed on contraceptive counseling and method provision for PAC patients. While many of these women may receive “counseling” about postabortion complications, the quality and consistency of these messages is overlooked. If it is possible, services should be reorganized to eliminate any barriers to contraceptive services and increase method use among PAC patients, including offering contraceptive services in gynecological wards, improving the range of contraceptive methods available, and raising the quality of contraceptive counseling.

Preliminary results of the baseline study have been used to design tools for PAC service delivery improvement and educational sessions for trainers conducted by Ipas. Additionally, workshops and regional factsheets have been used to disseminate results to the Regional Health Bureaus in each of the three study areas. Finally, results will be used to assess change in the study areas over the course of the Ipas project.

Our study shows that relatively few facilities in these regions of Ethiopia are providing comprehensive, high-quality postabortion care services. However, most facilities at the primary, secondary and tertiary levels have the minimal staff and infrastructure available to add postabortion services with relative ease. In facilities where postabortion care is available, simple service delivery improvements have the potential to vastly improve services. A comprehensive and systematic national plan to advance access to postabortion care services to all Ethiopian women is essential and clearly within reach. Only when we address access for all women will we see substantial improvements in maternal mortality and morbidity rates for Ethiopian women.

Introduction

Despite recent global attention drawn to Safe Motherhood and postabortion care (PAC) programs, alarmingly high rates of maternal mortality and morbidity still exist in many parts of the developing world. In Ethiopia, death and morbidity as a result of unsafe abortion is perhaps one of the least discussed health problems in the country. However, the maternal death rate associated with complications of pregnancy and delivery is among the highest in the world. The maternal mortality ratio is 1,400 per 100,000 live births, equivalent to 33,000 maternal deaths each year. Thus, one out of seven Ethiopian women will die of complications related to pregnancy or childbirth; more than half of these deaths are the result of unsafe abortion (Population Action International, 2001). Women in Ethiopia face the highest reproductive risks of any country in the world (Population Action International, 2001).

A study conducted in five hospitals located in Addis Ababa reported an abortion ratio (total abortions per 1,000 live births) of 318 per 1,000 live births (Yoseph et al.,1993). Several hospital-based studies indicate that unsafe abortion may account for up to 25-35% of the maternal deaths in Ethiopia (Kwast et al.,1989;Yoseph et al.,1993). The same authors have also shown that poor clinical postabortion management was among the main avoidable factors contributing to those maternal deaths. Another survey of 32,215 Ethiopian households also published by Kwast in 1989, revealed abortion to be the main cause of maternal deaths in those households and implicated illegal methods of abortion in nearly all (92%) of those cases (Kwast et al.,1989). A multi-year maternal mortality review conducted at a teaching hospital in Addis Ababa found that a disproportionate number of the facility's maternal deaths were among young women. The authors attributed 14% of the maternal deaths in their institution to women under twenty (Yoseph et al.,1988).

Some of the reproductive health problems of Ethiopian women are intertwined with early marriage. Half of Ethiopian women marry by 18, thus lengthening their reproductive histories and increasing their reproductive risks. Many Ethiopian women also face barriers to obtaining family planning services. A limited range of contraceptive methods, coupled with a poor logistics system, contributes to a low nationwide contraceptive prevalence rate of less than 10% (Ethiopian MOH, 2000). Limited access to contraceptives has been clearly identified as a determinant of unwanted pregnancy and, subsequently, unsafe abortion. (Madebo, 1993;Woldemeskel et al.,1999; Getahun, 1999; Hassen, 2000).

The consequences of unsafe abortion are not limited to mortality alone. The burden on women's livelihoods, their families and communities, and on the scarce resources of the health system is undeniably enormous. Yet few studies, if any, have tried to address the impact of morbidity from complications of unsafe abortion, including acute and

chronic pelvic infection and infertility, and the cost implications of unsafe abortion for the health facilities.

One study in five Ethiopian hospitals demonstrated that over 20% of the units of blood available for transfusions were used for the management of postabortion cases (Yoseph et al.,1993). Other studies have reported a mean hospital stay for unsafe abortion cases ranging from two to seven days. Studies show that mean stays were always higher for complications of unsafely performed abortions when compared with stays for patients with spontaneous abortions (Genebo et al., 1987; Madebo et al.,1993; Abdella, 1996; Worku et al.,1999). These data suggest that the resource allocation required for postabortion care services can be expected to be higher in situations where access to safe, elective abortion services is restricted and the contraceptive prevalence is low.

As in many countries, abortion has been practiced in Ethiopia since the earliest of times. In a 1999 cross-sectional study conducted in Ethiopia, 21% of a random selection of married women reported having had at least one abortion (Getahun, 1999). Nevertheless, the abortion law is highly restrictive. The Penal Code makes seeking or performing an abortion a crime except to “save the pregnant woman from grave and permanent danger to life or health which it is impossible to avert in any other way” (Harvard University, 2002). Because of the prevailing legal restrictions, most of these abortions were probably performed under unsanitary and dangerous conditions. Few women are able to pay the fees required for “safer” clandestine abortions available in some urban areas. During interviews conducted in conjunction with Ipas Ethiopia (Gebreselassie, 2001), one young woman told of her abortion experience in this way:

You cannot enter his house before you pray in Cherkos Church. Arriving in the house, I was instructed to have a seat. Being called, the man came and asked me the purpose of my visit. After he had listened to me, he first hesitated to do the abortion procedure. He later asked me how I could be certain about the pregnancy. He seemed not willing to agree to the abortion before he had the result of the pregnancy test. Having seen the medical result, he instructed me to follow him into a separate room. Asking the gestation period of the pregnancy, he set up the fee for the abortion service. Following our negotiation, he started to gather containers filled with various solutions. He gave me a mixture of different solutions from the containers to drink. In addition to the initial dose, he also gave me a container to take with me to my home. If you don't have a container, he charges you 25 cents for the container and gives you the solution with instructions.

While estimates of unsafe abortion in the country are daunting, a National Safe Motherhood Needs Assessment conducted in 1996 revealed serious deficiencies in the provision of emergency care for obstetric complications including, but not limited to,

postabortion care. Most health centers lacked essential equipment and clinical expertise required to manage a postabortion client (Ethiopian MOH, 1996; Jeppsson et al.,1999). The Safe Motherhood assessment determined that only 46% of health centers surveyed had the capacity to perform an emergency uterine evacuation to treat the complications of unsafe abortion (Ethiopian MOH, 1996; Jeppsson et al.,1999). Among health centers that provide emergency uterine evacuation services, sharp curettage was the most common technique used. Although sharp curettage is an acceptable procedure for uterine evacuation, the World Health Organization (WHO) and the International Federation of Gynecology and Obstetrics (FIGO) have called for properly equipped hospitals to abandon curettage and adopt aspiration methods. The use of vacuum aspiration is particularly advantageous in Ethiopia because aspiration generally requires lower levels of anesthesia and pain control, and is a simpler, safer, and more effective procedure (Kiza et al.,1990; Greenslade et al.,1993; Lukman et al.,1996). Additionally, the use of manual vacuum aspiration by midwives has proven to be an effective means in other African countries for expanding postabortion services to women seeking care at primary and lower-level health facilities (Brookman-Amissah et al.,1999).

The Federal Democratic Republic of Ethiopia recognizes the need to expand access and improve the quality of reproductive health services in the country as indicated in the Health Sector Development Program (Ethiopian MOH, 1999). In that document, expansion of PAC services is identified as one of the six key efforts for the country. Before this reprioritization, PAC interventions had often been led by nongovernmental organizations, were small scale, offered limited resources and primarily focused on tertiary institutions. Cognizant of the national commitment to improve PAC services, Ipas Ethiopia, along with other key stakeholders, has launched programs to support the scaling-up efforts of the government. Ipas supports government efforts to expand the availability of safe postabortion care in the public and private health sectors primarily through the training of different health cadres in PAC counseling and service provision. Special attention should be given to the MVA technique and services, expanding linkages with the private sector, promoting information in support of women's ability to exercise their sexual and reproductive rights, and advancing operations research to improve the acceptability and quality of abortion care.

The purpose of the present study was threefold. First, we sought to document reliable pre-intervention baseline data about the status of PAC services in public health sector facilities. Secondly, the study was conducted to determine the current and future capacity and quality of PAC service delivery in public hospitals and health centers. Finally, the assessment enabled Ipas to determine staff training needs for the emergency treatment of abortion complications and postabortion family planning counseling, and to determine the availability, usage of, and need for manual vacuum aspiration (MVA) technology.

Methods

Study design and sampling strategy

A cross-sectional assessment was conducted in the three Ipas Ethiopia priority regions of Oromia, Amhara, and Addis Ababa as shown in the map in Figure 1. While it is impossible to generalize findings from the study area to the entire nation, it is important to note that more than 50% of the population resides in these three regions.



Figure 1. Country map indicating the study regions

The sampling strategies within the regions were determined in collaboration with the Regional Health Bureaus (RHBs) of the respective areas. In Addis Ababa, all health facilities were included, while a purposive multistage sampling technique was used to select the study sites in Amhara and Oromia. The selection process employed in Amhara was decided through consensus by the assessment team comprised of the investigator and the key policymakers of the Regional Health Bureau. They chose to include five administrative zones out of a total of eleven and all accessible hospitals within each selected zone. Two hospitals were excluded due to distance and difficulty of access. Subsequently, the assessment team listed all health centers in the 11 zones and identified a cluster of four to five health centers located within the geographic proximity of each hospital selected for the study. The clusters represent the functional limits of the hospital referral system, as these facilities would be utilized during an actual obstetrical emergency irrespective of administrative zonal boundaries.

In Addis Ababa we intended to survey all of the facilities, but one health center was excluded due to a spoiled questionnaire. The selection process employed in Oromia was purposive multistage sampling. The Oromia Regional Health Bureau (RHB) included as many facilities as possible in the assessment, since the timing of the intended baseline assessment coincided with the supervisory visits done annually by the RHB.

The selection process resulted in higher proportions of facilities included in Addis Ababa and Oromia than in Amhara. In the three regions, a total of 120 health facilities, 27 hospitals and 93 health centers were assessed to determine their capacity to respond to postabortion clients. The distribution of hospitals and health centers and the proportion of the total facilities included in the study in each of the regions is summarized in Table 2.

Table 2. Region and type of facility included in the sample (n=120)

	Hospitals	Health Centers	Total	Proportion of all facilities
Addis Ababa	5	18	23	96%
Oromia	15	56	71	70%
Amhara	7	19	26	38%
Total	27	93	120	62%

Data collection and analysis

A two-part semi-structured questionnaire was developed and pretested. Part A has five sections and was used for facilities that provide clinical treatment to women suffering from abortion-related complications. Part B was used for facilities that were only able to stabilize and refer women suffering from abortion-related complications at the time of this assessment. The questionnaires were separated into sections on facility and equipment assessment, inventory of services provided, staff training needs and capacity, staff interviews, and a review of PAC-related service statistics. The data obtained included information regarding the type and quality of postabortion clinical services, availability of uterine evacuation equipment and supplies, adequacy and privacy of areas where postabortion care is provided, technical skill and training level of staff involved in postabortion care, availability of contraceptive services and types of contraceptive commodities present in the facility, quality of infection prevention practices, and quality of record keeping.

Data were collected during a ten-week period from July to September 2000. Data collectors were family health coordinators, with either a master's degree in public health or a bachelor's degree in science, working with the RHBs in the respective regions. They all had previous experience conducting reproductive health assessments with other organizations operating in the country. The data collectors were trained for two days on the questionnaire content and survey methods.

The interviewees were gynecologists, general practitioners or health officers together with the head midwives responsible for the provision of PAC services. In sites with no PAC services, the head of the facility and the chief MCH nurse/midwife were interviewed. All questionnaires from the regions were brought to the central Ipas office in Addis Ababa for data entry, cleaning, editing and analysis using Epi-Info version 6.0. Univariate proportions and means were computed to determine the status of postabortion care provision in the study sites and regions.

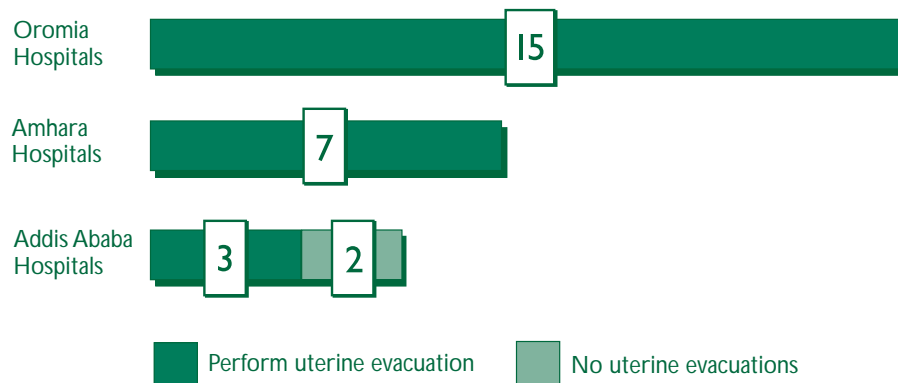
Regional Ministry of Health involvement in the questionnaire design, sampling and data collection was essential to the success of this research. The RHBS collaborated in each step of the process including study design, data collection and dissemination. They also contributed substantially in staff time and supplied all of the vehicles used during the data collection. Because of this involvement, costs were kept relatively low (less than US\$8,000) for research of this scale. Preliminary results of this baseline study have already been used for programmatic improvements, to design PAC training models and to produce region-specific factsheets and hold regional meetings with providers and policymakers within the study areas.

Results

Access to Postabortion Care Services

Postabortion care (PAC) for the management of complications due to spontaneous or unsafely induced abortion is an essential emergency obstetric service. PAC includes emergency treatment of abortion complications, postabortion contraception counseling and services, and linkages to related health services. Managing complications of abortion requires providers with the skills to perform a uterine evacuation, making the procedure one of the most common surgical procedures worldwide. Just over half (n=120, 54%) of all of the facilities in this study were able to respond to patients suffering from abortion-related complications by performing a uterine evacuation with either sharp curettage or MVA. Of the total 120 facilities, health centers comprised 62% and the remaining were hospitals. As shown in Figure 3, all of the hospitals surveyed in Amhara and Oromia were able to provide emergency uterine evacuation treatment for abortion complications. Only three out of the five referral-level public hospitals operating in Addis Ababa were currently providing emergency uterine evacuation treatment to PAC patients.

Figure 3.
Hospitals
Providing
Uterine
Evacuations
(n=27)



In the total sample, the proportion of urban and rural health centers that do not perform uterine evacuations was comparable, at 58% and 55%, respectively. The proportion of health centers not providing PAC clinical services varied dramatically by region. The graph in Figure 4 shows the geographic distribution of primary health centers that provide uterine evacuation and those that only refer patients.

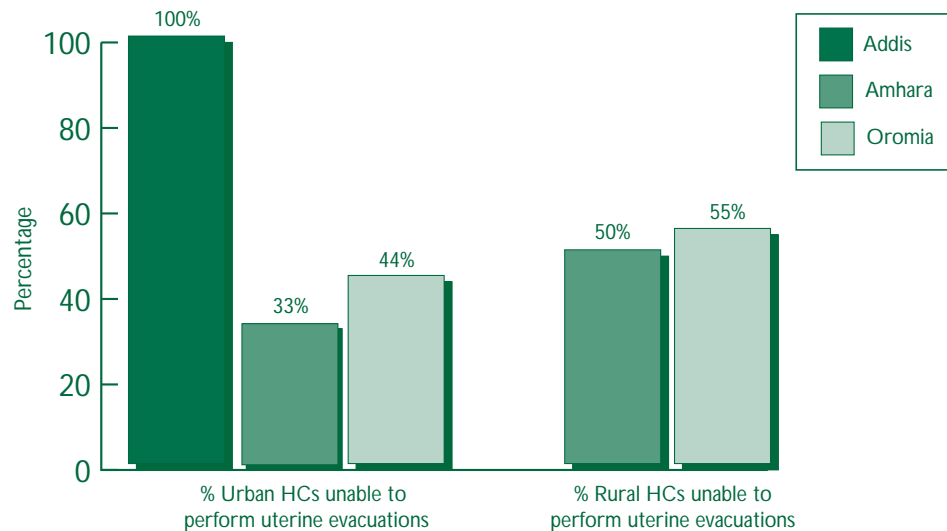


Figure 4.
Health Centers
in study that
must stabilize
and refer uter-
ine evacuation
patients
(n=55,57%)

Of the total health centers surveyed, less than half of the facilities (43%) were able to provide uterine evacuations. With greater distances to travel between health centers and their referral hospitals, the capacity was much higher in the Amhara and Oromia regions where respectively 63% and 50% of the urban and rural health centers sampled were able to perform emergency uterine evacuation treatment at the facility. In contrast, all of the health centers in Addis Ababa are urban but none were providing emergency uterine evacuation services to clients; these cases were all referred to the hospitals. In the total sample, the proportion of urban and rural health centers that perform uterine evacuations was comparable at 42% and 45%, respectively.

Despite the limited capacity to manage postabortion complications in the health centers that do not provide uterine evacuation services (n=55), more than three-quarters of the interview respondents in these facilities said that they themselves had seen at least one patient with complications of an incomplete abortion during the past three months. Almost half of these providers said that they had seen three or more women presenting with postabortion complications during that same time period. In all of these cases the patients had to be referred to a higher-level facility.

While anecdotal evidence in Ethiopia supports the common assumption that abortion care and postabortion care are more commonly provided by private rather than public sector providers, the exchange of clients for PAC services between the public and private sector facilities was almost nonexistent. Only five providers interviewed claimed to know of any private health practitioners who provide services to women suffering from abortion complications. Only one health facility indicated that they commonly received patients from private practitioners referred for the treatment of

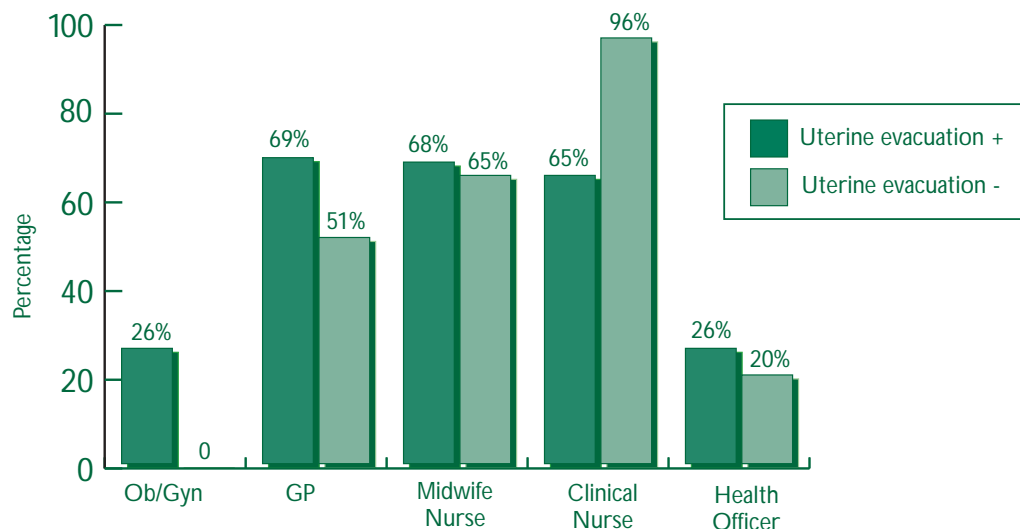
abortion complications; none of the public sector facilities ever referred patients with abortion complications to private facilities. Moreover, a very limited number of public sector facilities had the option to provide emergency transportation when a woman's condition was beyond their treatment capability. Only 15% of all the health centers in the study (n=60) are able to provide emergency transportation for patients with severe complications. This situation is particularly difficult for health centers that do not provide uterine evacuation services, only seven out of these 53 health centers (13%) have emergency vehicles.

Staffing of Service Delivery Points

All gynecologists, general practitioners and health officers trained in Ethiopia receive pre-service training in sharp curettage during undergraduate and postgraduate medical education. Midwives, clinical nurses and health assistants performing or assisting with PAC services indicated that they had been trained during pre-service training to support sharp curettage procedures. The training curriculum was limited to general nursing care and instrument sterilization.

Of the facilities that provide uterine evacuation services, only 26% were staffed by obstetrician/gynecologists. Non-specialists and midlevel providers were much more common, staffing nearly 70% of these facilities. In these facilities, non-specialist physicians and midwives are the providers of uterine evacuation services. Figure 8 summarizes findings on the percentage of facilities staffed by each cadre of health care provider and compares staffing levels between facilities that offer uterine evacuations and those that do not.

Figure 8.
Percentage of facilities with each type of health provider on staff



In general, there was little difference between the distribution of providers in facilities that perform uterine evacuations and those that do not. One notable difference was that facilities with general practitioners and obstetricians were more likely to perform uterine evacuations, whereas facilities with more nurses (who are not allowed to perform uterine evacuations in Ethiopia) and health officers were less likely to offer evacuation services.

The type of practitioner present in facilities was a central factor in access to evacuation services in these study areas. Most uterine evacuation procedures in Ethiopia are performed by gynecologists or general practitioners. At the regional and referral hospitals, the main provider of all uterine evacuations was the gynecologist. At district hospitals general practitioners provide these services. Sharp curettage was the most common technique used at all of the health centers. Health officers were the main providers of sharp curettage in rural health centers while GPs generally perform this service in urban areas. The involvement of midwives and health officers in performing MVA was almost nonexistent and was reported by only two facilities. The knowledge and use of MVA was often related to the status of the provider, as is illustrated in Figure 9.

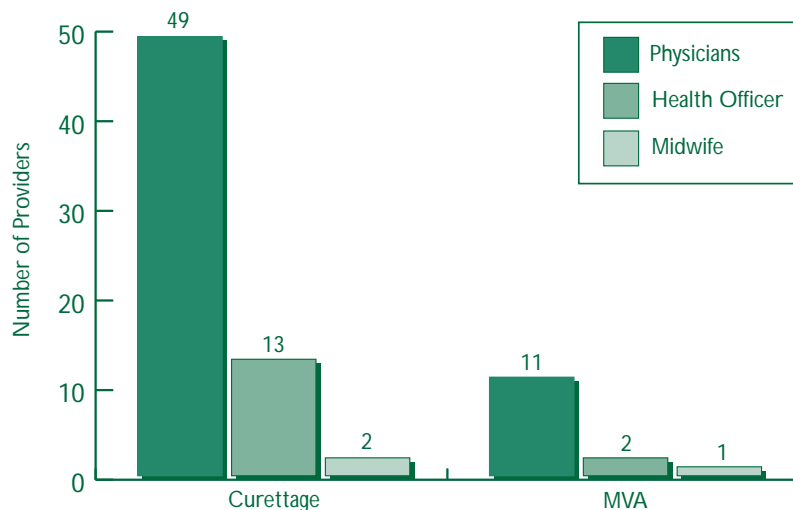


Figure 9. Distribution of the providers of uterine evacuation procedures in study sites (n=65)

Until very recently, the MVA technique was not part of the basic training in Ethiopian medical schools. Training in vacuum aspiration has sometimes been introduced through in-service training initiated by the Ministry of Health and several NGOs, but this was the case for only 15% of the providers included in the study. Less than half of the gynecologists surveyed said that they had been trained in MVA or postabortion family planning. Similarly, only about a quarter of the general practitioners, midwives and health officers were trained in either MVA or PAC ancillary services (Table 3). All of

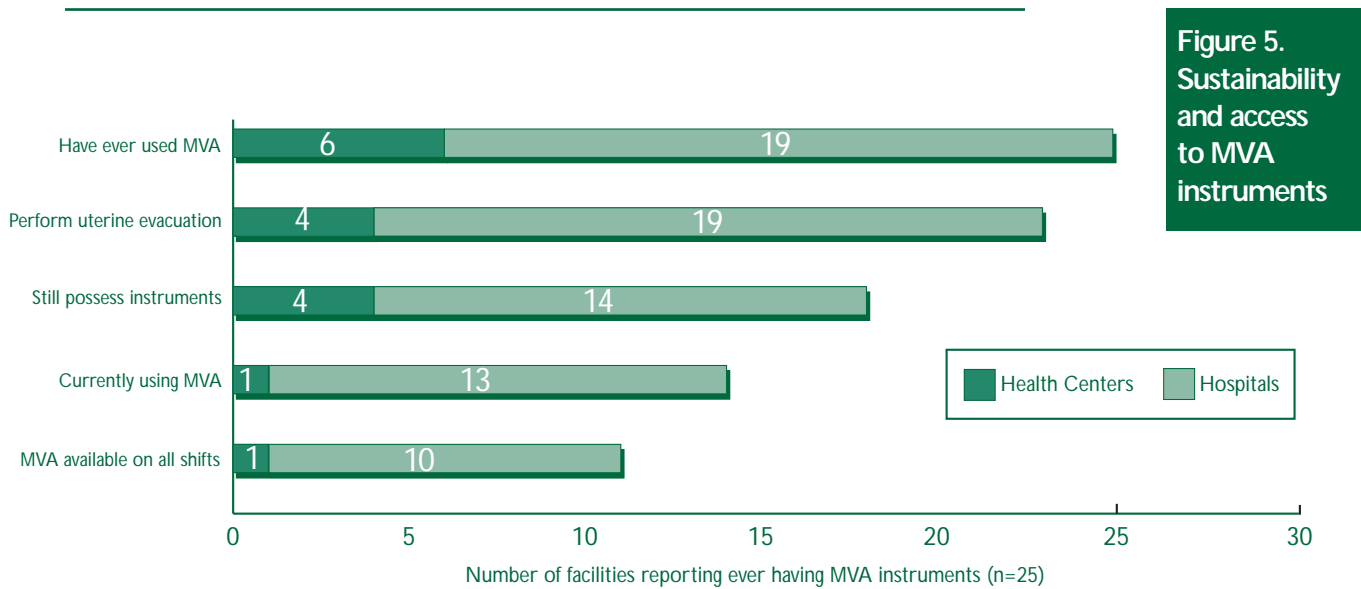
Table 3.
Pre-service
and in-service
training of
health staff
on MVA and
postabortion
family planning
(PAFP) as
reported by
supervisors

Type of Health Practitioner	% ever trained in MVA	% ever trained in PAFP
Obstetrician/Gynecologist (n=30)	47%	43%
General practitioner (n=69)	26%	16%
Midwife nurse (n=82)	22%	15%
Clinical nurse (n=116)	14%	9%
Health officer (n=18)	22%	11%

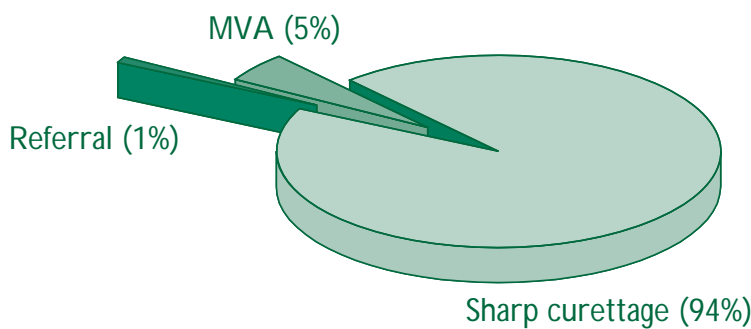
the providers who had received special training on either MVA or postabortion family planning (PAFP) and counseling worked in less than one-quarter of the facilities included in this study. At the time of this study there were six providers trained in MVA or postabortion family planning who were not performing these services.

Use of Manual Vacuum Aspiration (MVA)

MVA is a convenient, safe and effective vacuum aspiration technique used to perform uterine evacuation. Using MVA equipment for PAC offers many benefits. MVA does not require general anesthesia and can be safely used by a wide range of providers in a variety of settings, from rural clinics to referral hospitals. Very few of the facilities included in this study use MVA to treat postabortion patients. Most rely on sharp curettage. Of the 120 facilities sampled, only 25 (21%) reported ever using MVA instruments in their facilities. Of these 25 facilities, two did not currently perform uterine evacuation and only 18 of the other 23 sites still had MVA instruments. Of these 18 facilities, only 14 reported currently using the instruments to perform uterine evacuations. Only 11 of these 14 facilities said that the instruments were always available for trained providers to use on all shifts. A number of the providers commented that the sets were now incomplete, most likely because at the time of this study Ethiopia had no local distributor for MVA equipment. Some providers claimed MVA instruments were kept in a locked area during non-working hours or night shifts. Some health facilities said that staff shortages were so acute that they did not have staff to clean and disinfect instruments. The graph shown in Figure 5 summarizes the findings on MVA instrument accessibility in the study sites.



A record review performed in the facilities that currently provide emergency uterine evacuation services (n=65) confirmed the limited utilization of MVA technology. The records of 46 facilities (those that kept records of procedures) revealed that a total of 1,295 women suffering from abortion-related complications were managed in these health facilities during the previous three months. As shown in Figure 6, the overwhelming majority of women (94%) were treated using sharp curettage.



The use of MVA was extremely limited and only documented in 5% of the cases. The remaining few patients (1%) with severe complications from abortion were referred to higher-level health facilities for treatment.

Postabortion Family Planning Services (PAFP)

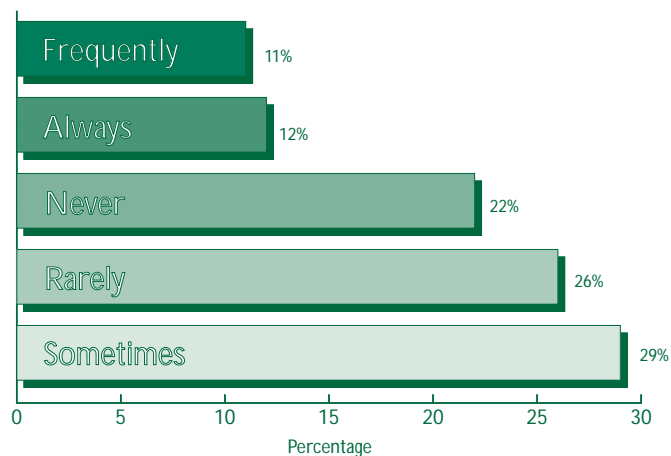
As illustrated in Table 4 there was little difference in the range of contraceptive methods available in the facilities that provided PAC services and those that did not.

Table 4.
Availability of contraceptive commodities in health facilities

Contraceptive method usually available in the facility	% that provide PAC services and FP method (n=65)	% that do NOT provide PAC services but provide FP method (n=55)
Combined oral contraceptives	100%	96%
Progestin-only pills	86%	93%
Injectables	97%	95%
Intrauterine devices	34%	29%
Condoms	89%	84%
Norplant®	14%	2%

Only Norplant® implants were somewhat more likely to be available in the facilities that provided PAC services. However, only two facilities claimed that they did not usually provide any family planning methods. The existing provision of postabortion contraception to women treated for an incomplete abortion was erratic; only 23% of the health facilities that provide uterine evacuation services reported providing postabortion contraception services frequently or all of the time. The rest of the facilities either rarely or never provide this service, resulting in a missed opportunity for preventing future unwanted or unintended pregnancies (Figure 7).

Figure 7.
Distribution of health facilities providing postabortion family planning services (n=65)



Although most of the providers interviewed claimed that contraceptive counseling was carried out in their facilities (n=65, 77%), many of the providers currently counseling and providing contraceptive methods had never received any special training in family planning service delivery. In most of the facilities (88%) that provide postabortion contraceptive services, the site of family planning service delivery was in the Maternal and Child Health/Family Planning Unit, separate from the location of PAC service delivery. Thus, most postabortion patients were either asked to go elsewhere in the facility to receive contraceptive methods, given a referral, or asked to return another time.

Quality of Postabortion Care Services

A framework of fundamental elements necessary for the delivery of high-quality postabortion care has been developed by Ipas and revised for the USAID global PRIME Project in 1998. This framework provides guidance on the development and use of indicators that can be used to monitor and evaluate the quality of abortion-related services. Indicators such as appropriate technologies, technical performance, client-provider interaction, information and counseling, and essential equipment and supplies are encompassed in the framework shown in Figure 10.

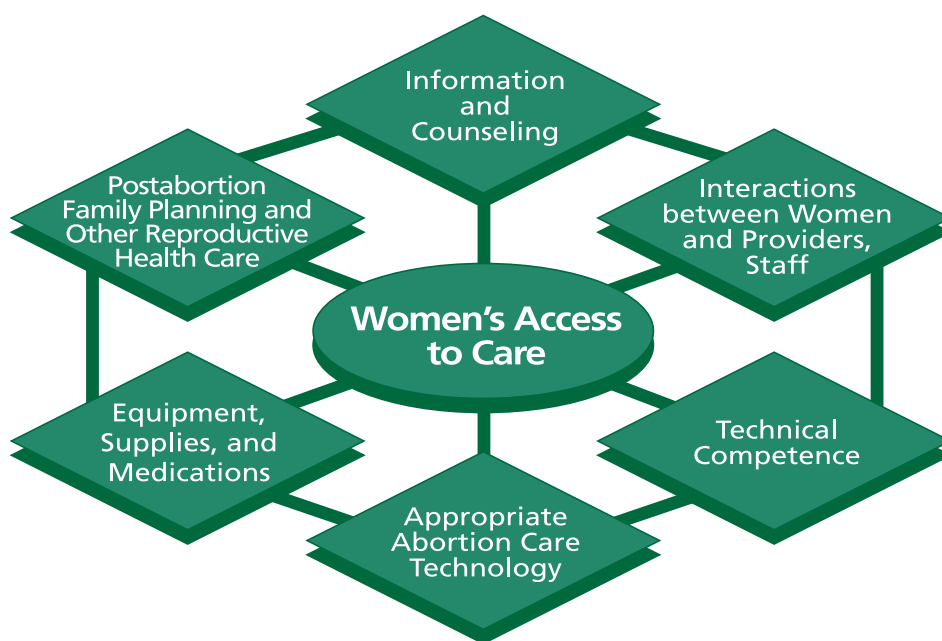


Figure 10. PAC framework for quality of care

*Postabortion Care Services: an Update for PRIME,
F.C. Greenslade and W.H. Jansen.*

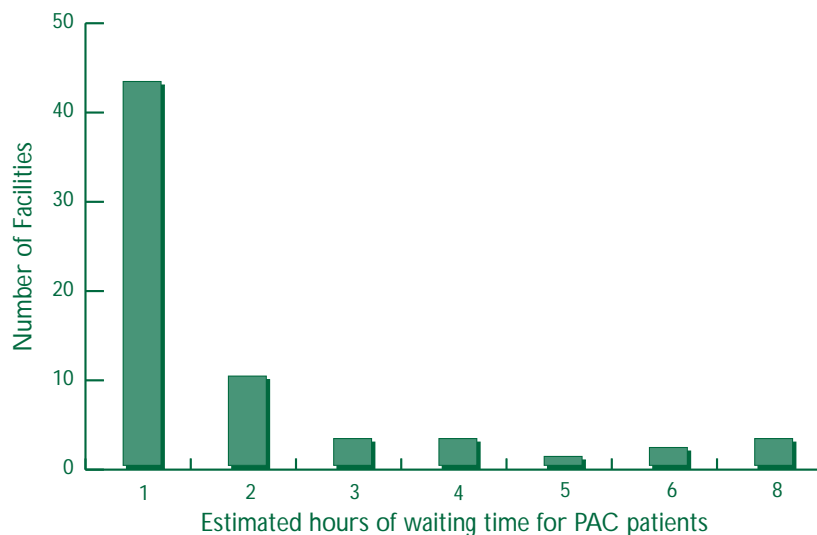
While plans are underway in Ethiopia to conduct a PAC quality-of-care study that includes client observation and exit interviews, these activities were outside the scope of this assessment. Interviewers in this study were able to observe and record information on appropriate technology, equipment and supplies that have been selected as proxy measures for assessing the quality of PAC services. More specifically, these include providers' reports and observation of:

- Average length of waiting time and hospital stay for uterine evacuation clients
- Pain management for uterine evacuation clients
- Infection prevention techniques
- Supplies, equipment and infrastructure
- Location of uterine evacuation services
- Client-provider interaction and recordkeeping

The analysis of these variables was conducted for all of the 65 facilities that currently provide PAC services.

Providers were asked to estimate the average waiting time for treatment for a woman presenting with postabortion complications (Figure 11). Most providers estimated an average waiting time of one to three hours, but indicated that some clients can wait up to eight hours. Respondents were also asked to estimate the average hospital stay for patients suffering from abortion-related complications. The figure varied for treatment of patients using manual vacuum aspiration, 11 hours, and those being treated with sharp curettage, 15 hours.

Figure 11.
Providers' estimates of waiting times for PAC patients (n=65)



Over three-quarters of the health facilities often take no measures to alleviate pain for patients being treated for abortion-related complications. The most frequently stated reason for not giving any pain control was an absence or shortage of analgesics. Research suggests that negative provider attitudes about abortion patients may cause providers to give women less medication so that they are “taught a lesson” (Bohmer, 2002). For whatever reason, the lack of medication for PAC patients reported by these providers is alarming and certainly warrants further study and action. Figure 12 shows the most common practice for pain management corresponding to the technique for uterine evacuation. Nearly 80% of the PAC facilities do not regularly provide pain medications to women during their uterine evacuation, regardless of the type of evacuation procedure.

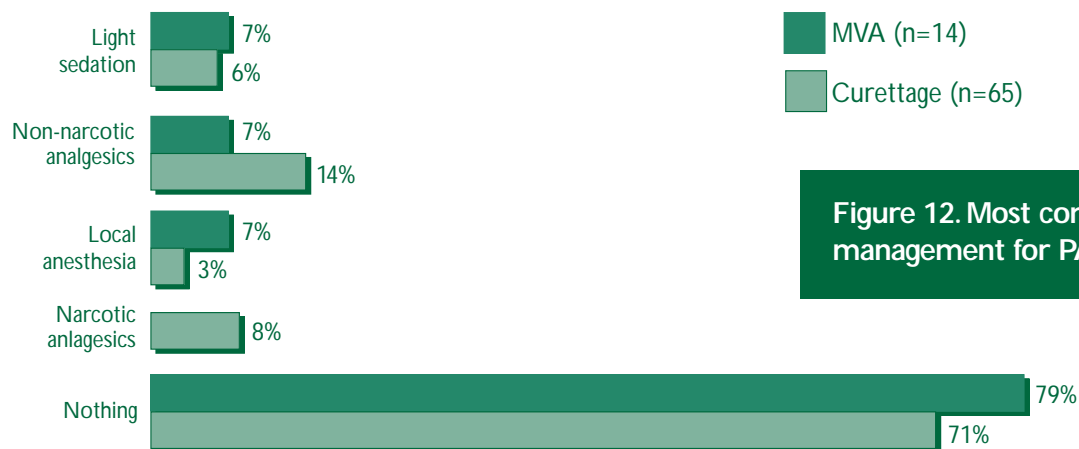


Figure 12. Most common pain management for PAC patients

Some key indicators of infection prevention were also examined during the present study. Although providers in almost all facilities (98.5%) reported that they wear gloves for bimanual pelvic examination and for uterine evacuation procedures, wearing a glove on only one hand was observed to be the rule rather than the exception. Furthermore, although all facilities have running water, washing hands prior to bimanual pelvic examination (30%) or uterine evacuation (10%) was rarely practiced. Despite reporting that they commonly decontaminate reusable items like curettes, tenaculum and MVA cannulae (78%), we only observed decontamination materials in 63% of facilities on the day of the visit. Many providers also told us they were using Savlon® for decontaminating reusable items. Unfortunately, Savlon® is an ordinary disinfectant that is inadequate for use as a high-level decontaminant.

As is the case with pain control medications, most of the health facilities also encounter shortages of essential supplies needed to manage obstetric emergencies.

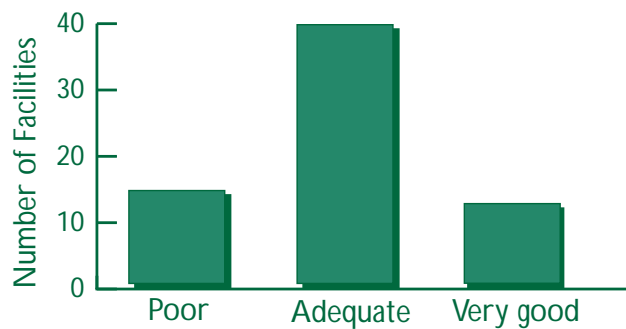
Oxygen supply necessary for emergency resuscitation was available in only 15% of the facilities. At the time of this study, parenteral antibiotics essential for the management of septic abortion were available in less than 40% of the facilities. Table 5 summarizes these findings on essential supplies and commodities necessary to provide basic essential obstetric care.

Table 5.
Percentage of facilities (n=65) that report regular availability of essential supplies

Type of essential supply	Percentage of PAC SDPs with supply
Oxygen	15%
Pain control medications	22%
Antibiotics	39%
Decontamination materials	63%
Gloves	66%
Speculae	77%
Tenaculae	79%

Many of the interviewers also observed that facilities often had limited privacy for postabortion patients. This is particularly troubling in instances when PAC patients may require more extensive counseling regarding abortion care or linkages to other reproductive health services. Interviewers were asked to give satisfaction ratings for privacy on the service sites designated for PAC patients. The results are included in Figure 13.

Figure 13.
Privacy rating for PAC patients



In addition to issues of privacy, interviewers were also asked to describe the location of uterine evacuation procedures. Over half of the facilities perform uterine evacuations in the delivery room. Only 22% of the facilities have a designated PAC procedure room. Table 6 presents these observations.

Location of uterine evacuation procedures	Percentage of SDPs
Delivery room	58%
PAC procedure room	22%
Side room on ward	9%
Operating theatre	6%
Combination of the above	5%

Table 6. Location of uterine evacuation procedures (n=65)

In order to examine the patient-provider interactions, providers were asked how often and on what issues they talk with their clients. Providers working in most of the facilities reported that they regularly inform their clients about their clinical diagnosis, the type of uterine evacuation procedure performed, and the outcome of the procedure. However, nearly 50% of the providers stated that they do not ask or only sometimes ask PAC patients for their consent for procedures like uterine evacuation. Providers working in about half of the facilities also reported that they rarely or never inform postabortion patients about the possibility of a repeat pregnancy even before the return of menses. Providers working in 85% of the facilities reported never or only sometimes asking patients about their reproductive intentions, specifically, when they would like to have a pregnancy occur again.

Review of registers and logbooks in each of the facilities was far from satisfactory. Although it is commonly stated that a large proportion of PAC patients are young and unmarried, it is difficult to validate this statement without more detailed and complete recordkeeping. Collection of data on pain control, type of procedure and postabortion method acceptance should be required for facilities that have received in-service training in PAC service delivery. Some of these logbook indicators can be used as proxy measurement for sustained quality improvements. Almost 30% of the facilities providing uterine evacuations kept no records of the procedures. Even in those facilities that kept records, incomplete information was common. In particular, very few facilities recorded information on uterine size (11%), pain control medication given (13%), family planning counseling offered (4%), and family planning method accepted (2%) for postabortion patients.

Discussion and Programmatic Implications

The restrictive abortion law in Ethiopia means that women with unwanted pregnancies have very few and very difficult options. In desperation, women, their families and their partners put their lives in danger by procuring or inducing unsafe abortions, thereby creating a disproportionate demand for postabortion services. The technical interventions needed to prevent maternal deaths from abortion complications are well understood. Yet, delays in care-seeking behavior of PAC clients are common; women are often reluctant to disclose information that could place them in legal peril or simply at odds with commonly accepted social norms against abortion. Thus it is imperative that we address institutional barriers that may further limit a woman's ability to obtain timely postabortion care and increase her risk of morbidity or even death.

The demand for high-quality postabortion services at all levels of service delivery is undeniable. Research indicates that all types of providers, public and private, traditional and biomedical, at all levels of service delivery encounter women requiring postabortion care. The results of this baseline survey have a number of implications for national policymakers and other stakeholders concerned with improving the availability and quality of PAC services in Ethiopia. A summary of our recommendations is listed below:

- **Access:** In spite of strong national commitment to improve the accessibility and quality of postabortion services in Ethiopia, only slightly more than half (n=120, 54%) of all facilities surveyed were able to respond to patients suffering from abortion-related complications by performing a uterine evacuation with either sharp curettage or manual vacuum aspiration (MVA). The use of MVA was higher in the semiurban and rural areas than in the capital city of Addis Ababa, where only three referral facilities (13%) use MVA to manage an incomplete abortion. Although a higher proportion of all women in the semiurban and rural areas may have access to PAC services, we know little about their socioeconomic and physical barriers to care. Almost 40% of health centers in these areas could not manage simple abortion complications in their facilities. The women living in those catchment areas may live several hours from the nearest PAC services and may further delay management of their complications by seeking help nearby in a facility that is not prepared to respond.
- **Training:** There is a need for comprehensive PAC training including clinical techniques, pain management and postabortion family planning for physicians, nurse-midwives and other staff cadres involved in PAC service provision. In order to make PAC services available to every woman who might need them, training should be expanded to include nurse-midwives in health centers where physicians

may be unavailable, too busy to perform these procedures or not deployed at all. Every effort should be made to decentralize these services beyond the small number of providers primarily in secondary and tertiary care facilities.

Programming efforts, like training other health sector cadres and on-the-job training packages, should encourage knowledge and technology transfer that will help to create a sustainable national program without compromising competency standards. In order to do this it is essential that a national training plan be developed that ensures equitable access to PAC services for all Ethiopian women. A plan that includes competency standards and guidelines for PAC service providers and facilities will greatly benefit this process.

- **Supervision and follow-up:** Facilities need follow-up technical assistance to support them in the organization of services, continuation of staff training and supervision, improvements in emergency transport systems, and recordkeeping.
- **Emergency transportation and referral networks:** Only 18% of providers reported that they were able to provide transportation for obstetric emergencies. The situation is notably worse for those health centers that are not able to perform uterine evacuations. These facilities are more likely to refer PAC clients, yet a record review showed that only three health centers that referred PAC clients during the three months prior to the study actually provided transportation to a patient in crisis. There is a need to develop the networks of client referral and information sharing between primary and first-referral facilities and between public and private sector clinics to facilitate better PAC client management and shared training facilities for all practitioners who may encounter PAC patients.
- **Management:** A stronger emphasis on building managerial capacity and support at the regional level will ensure that PAC is among the region's priorities and included in the Annual Action Plans, routine supervision and the annual budgets of the intervention regions.
- **Logistics and procurement:** PAC efforts must include the development of a sustainable system for the procurement and distribution of MVA instruments and essential supplies necessary for the proper management of the complications of abortion. MVA instruments and accessories should be easily available to Regional Health Bureaus through standard Ministry of Health procurement channels. Only one-quarter of the facilities that provide PAC services have functioning MVA instruments. Even within these facilities, the 18 MVA kits are being used by a small num-

ber of providers. This simple procedure is available to few women, all of whom are dependent on provider availability and training in MVA use.

- **Quality of care:** In facilities where PAC services already exist, more emphasis should be placed on improving the quality of these services. It is necessary to develop consistent quality-of-care standards appropriate for each service delivery level for pre-procedure, procedure and post-procedure services. Quality-of-care standards should address the minimal but essential elements of quality, such as instrument processing, infection prevention, pain management, patient waiting time, provider-client relations and postabortion contraception, as agreed upon by regional and national leaders.
- **Postabortion contraception and counseling:** At the time of the study, most PAC patients left these facilities without any improved ability to prevent another unwanted pregnancy. A stronger emphasis must be placed on contraceptive counseling and method provision for PAC patients. If it is possible, services should be reorganized to eliminate any barriers to contraceptive services and increase method acceptance among PAC patients, including offering contraceptive services in gynecological wards, improving the range of contraceptive methods available, and raising the quality of contraceptive counseling.

In most of the facilities, family planning was poorly linked with uterine evacuation services. Very few clients had the opportunity to obtain postabortion contraception in an easily accessible manner. One well-documented service delivery improvement is to provide contraceptive methods in the same location as other PAC services. Eliminating barriers, such as referrals for services or appointments, to contraceptive provision has been proven to increase method acceptance among PAC patients (Solo et al., 1999).

Service delivery improvements in contraceptive services should not be limited to infrastructure alone, but must also address the quality of these services. Although “postabortion counseling” was reported to be a regular service provided by three-quarters of these providers, many of the health staff (46%) currently providing contraceptive methods or counseling to clients have received no special training in the provision of family planning methods and nearly half reported that they did not regularly discuss return to menses with their PAC patients. Improving the range of contraceptive methods available and the quality of counseling has been shown to increase method acceptance and potentially decrease method discontinuation rates (Simmons et al., 1997).

Our study shows that relatively few facilities in these regions of Ethiopia are providing comprehensive, high-quality postabortion care services. However, most facilities at the primary, secondary and tertiary levels have the staff and infrastructure available to add postabortion services with relative ease. In facilities where postabortion care is available, simple improvements have the potential to vastly improve services. A comprehensive and systematic national plan to advance access to postabortion care services to all Ethiopian women is essential and clearly within reach. Only when we address access for all women will we see a substantial reduction in maternal mortality and morbidity for Ethiopian women.

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