Original article

The potential role of the private sector in expanding postabortion care in Addis Ababa, Amhara and Oromia regions of Ethiopia

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Abstract

Background: Unsafe abortion is a major contributor of maternal mortality and morbidity in Ethiopia. High disease burden and underdeveloped infrastructure entail involvement of all partners in responding to health needs in the country. The private sector has apparently not been exploited to the fullest extent so far.

Objective: To assess the potential of private facilities in expanding access to postabortion care (PAC).

Methods: A cross-sectional study of private health facilities in Addis Ababa, Amhara and Oromia was conducted in 2001-2, using a pretested questionnaire and a checklist.

Results: We assessed 88, 31 and 32 facilities in Addis Ababa, Amhara and Oromia, respectively. Treatment was provided by 44%, 52% and 63% of the eligible facilities in Addis Ababa, Amhara and Oromia, respectively. Manual vacuum aspiration (MVA) was used in treating 61% of Addis Ababa patients whereas sharp curettage was used in over 80% of those in Amhara and Oromia. About 80% of women did not get postabortion family planning methods. Patient-provider interaction was generally satisfactory. High-level disinfection (HLD) of non-autoclavable instruments needed improvement. All medium and above clinics have at least one GP and many have nurse/midwives. The vast majority of facilities not giving the service would like to provide comprehensive PAC if staff are trained and equipment made available in the market.

Conclusion: Private health facilities can contribute substantially if given the necessary guidance and support with proper monitoring and evaluation. [*Ethiop.J.Health Dev.* 2003;17(3):157-165]

Introduction

Factors related to pregnancy and childbirth contribute to the death of nearly 600,000 women annually throughout the world (1). Of these, 99% occur in developing countries, unsafe abortion being a major cause. In many developing countries, unsafe abortion is the cause for one in every four maternal deaths, and in some countries as high as 50% (1).

In Ethiopia, maternal mortality ratio (MMR) estimates range between 500 and 1,400 per 100,000 live births (2, 3, 4). One out of every seven women in Ethiopia dies due to pregnancy related causes with more than 50% resulting from unsafe abortion, thus making Ethiopian women at the highest reproductive risk in the world (3). Both community and hospital based studies in Addis Ababa attest to this dire situation, with rates of 25-35% deaths due to unsafe abortion (5, 6). Investigators in other parts of the country have reported higher figures of 27% to 41% (7, 8).

Ethiopia is among 25% of the countries in the world where abortion is restricted by law (9). On the other hand, family planning services continue to be poor, with recent contraceptive prevalence rates (CPR) less than 20% (10,11). Low CPR has been shown to be a contributing factor to unwanted pregnancy often resulting in

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unsafe abortion (12, 13). This might explain the observation that nearly 92% of abortions in an Ethiopian setting were attributed to induced abortion (6).

The situation thus calls for interventions from several angles. Efforts should be made at increasing the Contraceptive prevalence rate (CPR) and expanding prompt and effective maternal health services, including postabortion care (PAC).

The Ethiopian Health Policy states strengthening health services to mothers and children as a priority (14). The Ministry of Health (MOH) has clearly indicated its intentions to expand and strengthen sexual and reproductive health services (15), with PAC as a key component. While the number of health facilities, particularly health centers (HCs) and health posts, has increased substantially, lack of skilled staff, equipment and supplies has limited the benefits (16). The Ethiopian Government, having recognized these gaps, has included other partners in the provision of health care. The Health Sector Development Program II (2002/03-2004/05) upholds the participation of the private sector (17). Such encouragement of the private sector fits well into the global trend of public-private partnership (18-20). Nigerian and Kenyan initiatives have shown encouraging results in this regard (21,22). The advantages of such partnership in Ethiopia, in view of the substantial number of private health facilities (11), cannot be overemphasized.

In order to determine the potential of private health facilities in contributing towards an improved access to PAC, we made a situation assessment in Addis Ababa, Amhara and Oromia, which are currently Ipas focus regions (Fig. 1). In this paper we present the findings of the survey.

Objectives of the assessment

1. To study the situation of PAC services in private health facilities.
2. To assess the potential of the private health sector in expanding PAC.

Methods

Since the organization and distribution of private health facilities in Addis Ababa differs from the less urban sites in Amhara and Oromia, different sampling strategies were employed.

1. Addis Ababa: A two-stage sampling was employed. The 6 zones were the first stage units of which 3 were selected. Since the number of private clinics in each zone varied widely, sampling was made with probability proportionate to size. Out of approximately 226 private facilities capable of doing uterine evaluation (UE) at the time of the study, 31.4% (71) were included. Besides, 17 lower level clinics were also assessed to see what the non-eligible ones do when faced with cases of incomplete abortion. Data was collected from June to August 2001, using a pre-tested questionnaire with both open and closed-ended questions and walkthrough of the facilities guided by a checklist. Sections of the survey instrument consisted of General Information, Abortion Care Clinical Services, Equipment and Supplies, Training Level of Staff in PAC, Postabortion Family Planning, and Service Statistics. Data collectors were Ob/Gyn specialists who interviewed providers and made walkthrough of the facilities. Any PAC provider or other knowledgeable person present in the facility at the time of visit was interviewed, failing which repeat visits would be paid. There was neither patient interview nor observation of uterine evacuation procedures.

2. Amhara and Oromia: Since the number of potentially eligible private health facilities was relatively lower in the 2 other regions (48 in Amhara, 126 in Oromia) and due to logistic factors in terms of time and money, convenience sampling, having the disadvantage of introducing bias, was employed. The assessment in the 2 regions was carried out using the same instruments as in Addis Ababa, from April to June 2002.

3. Definition of PAC:
Defined briefly, PAC includes emergency treatment of abortion complications, counseling on family planning combined with provision of contraceptive methods, access to the reproductive health care system, and linkage to community based services.

Results

Study facilities: Table 1 shows the number and proportion of private health facilities assessed. Out of 88 health institutions assessed in Addis Ababa, 71 (81%) were of medium and above level, thus being capable for treating cases of incomplete abortion. The remaining 17 were lower level. Comparable numbers of 31 and 32 clinics were assessed in Amhara and Oromia, respectively, with relatively fewer higher clinics in both.

Table 1: **Category and number of private health facilities assessed by region, 2001/2.**

Category* of health facilities	**Number and % by region**			***Total***
	Addis Ababa	Amhara	Oromia	
General hospital	4 (4.5)	-	-	4
Maternal and child health center	4 (4.5)	-	-	4
Gyn/obs clinics	2 (2.3)	-	2 (6.3)	4
Higher clinics	32 (36.4)	3 (9.7)	6 (18.8)	41
Medium clinics	29 (33.0)	28 (90.3)	24 (75.0)	81
Lower clinics	17 (19.3)	-	-	17
Total	**88 (100.0)**	**31 (100.00)**	**32 (100.0)**	**151**

Brief note on categories:

1. **General hospitals** have $\geq$ 20 beds, have physicians, nurses and other auxiliary staff, and give 24-hr service in major disciplines of medicine including Gyn/Obs.
2. **MCH Centers** are mainly outpatient, but could have a few beds, usually have Gyn/Obs specialist and nurses and cater for mothers and children.
3. **Gyn/Obs clinics** are equivalent to MCH centers but exclusively for women
4. **Higher clinics** have few beds, are run by specialists and/or have few GPs, have nursing staff, and are permitted to do UE.
5. **Medium clinics** have a GP or health officer responsible for clinical services, usually has a couple of nurses and other auxiliary staff, and are capable of doing emergency UE.
6. **Lower clinics** are run by nurses or other midlevel providers, are expected to stabilize patients with abortion complications and refer to higher level; they are not permitted to do UE.

Access to postabortion care: Out of the 71 eligible private facilities in Addis Ababa, nearly 44% (31) are providing emergency UE. All the 17 lower level clinics are limited to referring patients. On the other hand, about 52% (16/31) of the private clinics in Amhara and 63% (20/32) of those in Oromia are providing emergency UE. All the private hospitals and maternal and child health (MCH)/Ob/Gyn centers in the 3 regions treat incomplete abortion cases, whereas about 40% of higher and medium clinics in Addis Ababa do so. All the higher-level clinics in Amhara and nearly 80% of the ones in Oromia provide UE. Of the medium clinics that have at least one medical doctor, 46% and 50% actually do UE in Amhara and Oromia, respectively. When asked if they were interested in providing UE, nearly all of the respondents in clinics that are capable but not giving the emergency service expressed interest to do so if staff were trained and equipment were made available in the market.

Method of uterine evacuation: We looked at the number of patients that were treated for incomplete abortion over the one-year period preceding the day of visit to each health facility. Table 2 shows that manual vacuum aspiration (MVA) technique was employed more frequently (61%) than sharp curettage (31%) to treat 2184 patients in Addis Ababa private facilities. Seventy-four percent of the

Table 2: **Method of UE in Addis Ababa, Amhara and Oromia private health facilities, over a one-year period (2001/2).**

Region	Total number of patients in 1 yr	Number (%) of patients by method of UE	
		Sharp curettage	MVA
Addis Ababa	2184	852 (39.0)	1332 (61.0)
Amhara	477	398 (83.4)	79 (16.6)
Oromia	521	422 (81.0)	99 (19.0)
Total	**3182**	**1672 (52.5)**	**1510 (45.5)**

MVA procedures were done by 2 of the 4 MCH centers. In contrast, less than 17% (79/477) and Oromia were treated using MVA, respectively.

Staffing and staff training: In Addis Ababa, 80% (25/31) of those facilities providing emergency UE had one Gyn/Obs specialist either full time or part time. This is in sharp contrast to Amhara and Oromia clinics where only 37.5% (6/16) and 45% (9/20) of such facilities have these specialists. Luckily, all medium and higher clinics have at least one GP who could provide UE. Nurses and midwives were not found to be primary providers of emergency UE in the facilities assessed. A closer look at the primary UE providers (those who actually do the evacuation) shows a rather low level of training in PAC in all the 3 regions (Table 3). MVA and postabortion family planning (PAFP) were selected as indicators of training since they may not be covered adequately in pre-service curricula.

Table 3: **Training status of UE providers in selected components of PAC, in Addis Ababa, Amhara and Oromia, 2001/02.**

Region	Number of primary* providers	*Area of training*			
		MVA		PAFP	
		Number	(%)	Number	(%)
Addis Ababa	38	14	(36.8)	11	(28.9)
Amhara	28	6	(21.4)	12	(42.9)
Oromia	33	9	(27.2)	12	(36.4)
Total	**99**	**29**	**(29.3)**	**35**	**(35.4)**

**** Primary providers are those that actually do the UE procedure.***

Postabortion family planning(PAFP): About 52%, 100% and 25% of private health facilities providing UE also run regular family planning programs in Addis Ababa, Amhara and Oromia, respectively. Of the 31 facilities doing UE in Addis Ababa, only 1 medium and 1 higher clinics, and 5 hospitals or specialty clinics actually provided PAFP methods frequently or always. In Amhara, 5 medium and 1 higher clinics provided a method, while in Oromia only 3 (2 medium and 1 higher) facilities did so. Although all health facilities reported conducting postabortion family planning counseling (PAFPC), very few actually provide FP methods. Less than 21% (99/477) of the patients in Amhara and about 11% (57/521) of those in Oromia received an FP method.

Quality of postabortion services: We looked into the major components of quality of care. Pain control medications were given by just over 70%, 81% and 50% of the private facilities in Addis Ababa, Amhara and Oromia, respectively. The average waiting time before procedure was 1.25 hours in all 3 regions. None of the clinics had written protocols on UE

procedures, nor did they have standard logbooks.

Patient-provider interaction was generally reported to be high in all 3 regions, with the exclusion of asking for consent where only 58%, 23% and 40% of the patients were asked in Addis Ababa, Amhara and Oromia, respectively.

Over 90% of the private health care providers in Addis Ababa wear pairs of gloves for bimanual exam and evacuation procedures, while the rates are 70% for Amhara and 85% for Oromia. Sterilization of instruments using autoclave was up to standards, but when it comes to high-level disinfection (HLD), deficiency was observed. Reusable instruments were first rinsed in water and soap or detergent such as savlon, with no proper use of the widely available chlorine solution, locally known as 'Berekina'.

Figure 1: **Map of Ethiopia showing the study regions (shaded)**

Discussion

The significance of the contribution of private health facilities in the expansion of access to postabortion care in the three regions assessed cannot be overemphasized, especially in the face of the high burden of consequences of unsafe abortion on the health sector (23).

In Addis Ababa, all the public hospitals studied are providing UE while none of the HCs were doing so (24). This contrasts with the private sector where all the private hospitals and 31% of private clinics are providing the service. The situation in Amhara and Oromia is better since 52% and 63% of the private facilities assessed are providing UE. In terms of staffing, HCs and most private medium and above level clinics have health care workers capable of providing emergency UE. However, if both groups of public and private health facilities continue

referring patients, hospitals could be congested, efficiency compromised, and lives lost.

Emergency UE can be done with MVA or sharp curettage. However, according to studies done elsewhere and in Ethiopia, the supremacy of manual vacuum aspiration (MVA) over sharp curettage in terms of safety and effectiveness, in the treatment of incomplete abortion during the first trimester, has been well established (1,25-28). Our findings indicate that MVA is used by a few private health facilities. This is similar to reports of public sector studies in Ethiopia and South Africa (24,29). In the case of Addis Ababa, however, 2 MCH centers actually did 70% of the MVA procedure, the remaining 30% being done by 29 other facilities. This could be attributed to the presence of senior and highly skilled providers who have had the training in MVA technique. The use of MVA in Addis Ababa private health facilities sharply contrasts with that of the public sector, which is only 5% (24). The main reasons for not using MVA in the remaining private clinics were lack of trained staff and unavailability of MVA equipment in the market. Thus, the potential for making the technique much more widely available through the private sector is real, provided concrete action is taken towards this.

On the other hand, the use of MVA in private clinics in Amhara and Oromia regions was much lower as compared to Addis Ababa. Such a scenario is not unexpected since there is a tendency for concentration of highly seasoned professionals in Addis Ababa. The pattern of use of MVA in the public health facilities was minimal in all the three regions (24).

The vast majority of patients in all 3 regions go home without getting any family planning method. In view of the very low contraceptive prevalence rate in Ethiopia (10, 11), one may not find the low postabortion contraception surprising. But, it has to be looked from the perspective of a woman coming with a life threatening emergency and going back carrying the risk of recurrence due to another unwanted pregnancy, even during the following 2 weeks. PAFP has been proven to decrease the likelihood of repeat abortion that results from unwanted pregnancy (30). The lack of integration of PAC with other reproductive health services perpetuates the problem of unsafe abortion. Interestingly, 100% of providers doing emergency UE claimed to counsel women and advice them on where to get contraceptive methods. But, this is not a guarantee at all, and the best way to assure would have been giving the method chosen by the woman on the spot.

As might be expected, the major contributor to a rather weak or absent PAC is the lack of trained providers. While the majority of those trained in PAC in private clinics are concentrated in Addis Ababa, only few have been trained in the other regions. Besides, the exclusion of nurses and midwives from providing emergency UE services has further accentuated the problem. A lot remains to be done in this regard. The situation is not much different in the public sector (24). Training combined with availability and accessibility of equipment in the market are essential steps that need to be considered. Capacity building of private providers has proven useful in obstetric emergencies in Nigeria and Kenya (21,22) and we have all the reason to expect similar outcomes in Ethiopia.

An average of 75 minutes waiting time for a woman with incomplete abortion before getting UE treatment is too long for an emergency situation, although shorter than in public facilities (24). The procedure should be done within a few minutes in order to have a smoother post-procedure course. A patient coming to a health facility with a life-threatening condition such as incomplete abortion needs a supportive environment. Luckily, most private providers reported good interaction with their patients. This is in contrast to the public facilities in which fewer were having good communication. The use of pain control medication during UE procedure was reasonably high in private clinics as compared to public providers, the latter

complaining of shortage of drugs. One may not be surprised, as the general trend for private providers is to keep their clients satisfied (19). The study shows that the key element of getting consent of the patient before any procedure is deficient in the private clinics as is true for the public sector (24). The explanation could be attitude of providers that whatever procedure they do is in the best interest of the patient, thus obviating the need for consent. This is against standard clinical practice in which the provider is required to get patient's consent before any procedure.

Non-autoclavable instruments need to undergo high-level disinfection (HLD), with the observation of appropriate steps. However, equipment like MVA and accessories, were almost universally rinsed in soap and water immediately after procedure, thus showing a possible deficiency in the training of staff. The recommended steps are, in brief: decontamination with 0.5% chlorine solution (locally known as Berekina) for 10 minutes immediately after use, cleaning with liquid soap and water, and HLD with 0.5% chlorine for 20 minutes, and rinsed with sterile (boiled and cooled) water (31). The instruments should then be used immediately or stored in a sterile container for a maximum of one week. A strength that came out in this assessment was the employment of proper sterilization techniques using autoclave. Some 30% or more of the providers wore sterile gloves only on one hand while doing bimanual pelvic examination. This was under the perceived or real pretext of shortage of supplies. Hence, infection prevention requires revisiting.

Record keeping and reporting were either absent or very poorly done at best. An example is one big private health facility that is renowned for its PAC services that did not keep records. The poor recording may be a result of keeping the number of patients served deliberately low for various reasons. However, the most palatable reasons are lack of training and shortage of staff.

A discussion of quality of care is incomplete without considering referral. Although 45% of Addis Ababa private facilities assessed claimed to provide transportation to patients, it is not known how many of the patients actually reached the appropriate center in time. The situation could be worse as we go to rural areas where transportation is even much scarcer. Thus, the referral system in place is probably not responding to actual needs, in turn calling for making the service available closer to the community.

Conclusion and recommendations

This study has shown that the private sector can substantially improve access to quality postabortion care. The majority of facilities assessed have expressed interest in improving their service to patients with incomplete abortion if providers get training and equipment is made available in the market. Thus, efforts should be made to exploit the good will of the private facilities capable and legally eligible to do UE in alleviating the burden of abortion-related morbidity and mortality. Making policy changes to allow nurses and midwives to do emergency UE as midlevel providers needs to be considered. The status of HLD requires serious intervention through training and strong supervision by the respective health authorities in order to minimize if not eliminate any risk of transmitting infection.

The study has a gap of not having the views and experiences of patients that could have helped in substantiating claims of providers. Also, actual UE procedures were not observed. Therefore, future studies need to include patient exit interviews and procedure observation for a more complete picture, especially with respect to the quality of care.

Acknowledgements

We appreciate the cooperation of the respective regional health bureaus, zonal health departments, private clinic owners and professionals. Tamara Fetters, Research Associate at Ipas Head Office, reviewed the manuscript and gave very useful comments.

The authors would also like to acknowledge the contribution of Dr. Adanech Belay, Dr. Tesfaye Haileselassie and Mr. Aferawork Alem who participated in the collection of data. The David and Lucile Packard Foundation financially supported the work.

References

1. World Health Organization. Complications of Abortion. WHO, Geneva 1995.
2. Kwast, BE, Rochat, RW and Kidanemariam, W. Maternal mortality in Addis Ababa. Studies in family planning 1986;17:288-301.
3. Population Action International. A world of difference: Sexual and reproductive health & risks. Washington DC 2001.
4. Berhane Y. Andersson T, Wall S, Byass P and Hogberg U. Aims, options and outcomes in measuring maternal mortality in developing socities. Acta Obstetrica et Gynecological scandinavica. 2000;79(11): 968-972.
5. Yoseph S and Kifle G. A six-year review of maternal mortality in a teaching hospital in Addis Ababa. Ethiop. Med J 1988; 26:115-20.
6. Kwast BE, Bekele M, Yoseph S, Gossa A, Mehari L and Frost O. Confidential enquiries into maternal deaths in Addis Ababa, Ethiopia, 1981-1983. Journal of Obstetrics and Gynecology of Eastern and Central Africa 1989;8:75-82.
7. Ali Y. Analysis of maternal deaths in Jimma Hospital, southwestern Ethiopia. Ethiop Med J 1994;32:125-29.
8. Ashebir G. Review of maternal mortality at Jimma Hospital, Southwestern Ethiopia. Ethiopian Journal of Health Development 2000;14 (2):215-223.
9. Imperial Ethiopian Government, Penal Code of Ethiopia 1957.
10. Ethiopia Demographic and Health Survey. Central Statistical Authority, Addis Ababa, Ethiopia 2001.
11. Federal Democratic Republic of Ethiopia, Ministry of Health. Health & Health Related Indicators. MOH, Addis Ababa 2001.
12. Madebo T and Gebretsadik T. A six-month prospective study on different aspects of abortion. Ethiop Med J 1993;31:165-172.
13. Woldemeskel Y and Chekol A. Induced abortion and prevalence of sexually transmitted infections and contraceptive behaviour in abortion cases, Gambella Hospital. Ethiopian Journal of Health Sciences 1999;9(2):77-83.
14. Transitional Government of Ethiopia, Health Policy. Addis Ababa, September 1993.
15. Federal Democratic Republic of Ethiopia, Ministry of Health, Strategic Plan. Addis Ababa, 1999.
16. Health Sector Development Plan of Ethiopia. Mid Term Review March 2001.
17. Federal Democratic Republic of Ethiopia, Health Sector Development Programme II, 2002/03-2004/05.
18. Buse K and Walt G. Global public-private partnerships: Part I-a new development in health? Bulletin of WHO 2000;78(4):549-561.
19. Buse K and Walt G. Global public-private partnerships: part II-what are the health issues for global governance? Bulletin of WHO 2000;78(5):699-709.
20. Preker AS, Harding A and Travis P. “Make or buy” decisions in the production of health care goods and services: new insights from institutional economics and organizational theory. Bulletin of WHO 2000;78(6):779-790.
21. Chukudebelu W, Ikeme A, Okaro J et al. Involving the private sector in improving obstetric care, Anambra State, Nigeria. International Journal of Gynecology and Obstetrics 1997;59(2):S107-S112.
22. Rogo, KO, Orero S and Oguttu M. Preventing unsafe abortion in Western Kenya: An innovative approach through private physicians. Reproductive Health Matters 1998;6(12):77-83.
23. Ethiopian Society of Obstetricians and Gynecologists. Survey of unsafe abortion in selected health facilities in Ethiopia 2002. Berhanena Selam Printing Press, Addis Ababa.

24. Gebreselassie H and Fetters T. Responding to unsafe abortion in Ethiopia: A facility-based assessment of postabortion care services in public health sector facilities in Ethiopia 2002; Chapel Hill, NC, Ipas.
25. Kizza AP and Rogo KO. Assessment of the manual vacuum aspiration (MVA) equipment in the management of incomplete abortion. East African Medical Journal 1990; 67(11): 812-821.
26. Greenslade FC and Jansen WH. Postabortion care services: an update from PRIME. Resources for women's Health 1993;1(2):1-12.
27. Brookman-Amissah E, Taylor JE, Baird D et al. Decentralizing postabortion care in Africa: A call to action. African Journal of Reproductive Health 1999;3(1):109-114.
28. Lukman Y and Pogharian D. Management of incomplete abortion with MVA in comparison to sharp metallic curettage in an Ethiopian setting. East African Medical Journal 1996;73:58-603.
29. Fawcus S, McIntyre J, Jewkes RK et al. Management of incomplete abortions in South African public hospitals. South African Medical Journal 1997;87(4):438-442.
30. Johnson BR, Singatsho N, Sherry LF and Tsungai C. Reducing unplanned pregnancy and abortion in Zimbabawe through postabortion contraception. Studies in Family Planning 2002;33(2):195-202.
31. Processing MVA equipment and other items. In Judith Winkler, Elizabeth Oliveras and Noel McIntosh, eds. Postabortion Care: A Reference Manual for improving Quality of Care. Chapel Hill, NC: The Postabortion Care Consortium, 2000;1-17 (Ch.8).