

Training Midwives to Improve Postabortion Care in Ghana

Major Findings and Recommendations
from an Operations Research Project

Operations Research Conducted by
Ministry of Health, Ghana
Ghana Registered Midwives Association (GRMA)
Ipas

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The Adinkra symbols used throughout this report are seen throughout Ghana in daily life. Duafe (Dua Afe) the wooden comb is a symbol of feminine consideration, patience, prudence, and fondness. Osiane Ne Nsormma the moon and stars represents faithfulness, fondness, and benevolence. The moon is often regarded as a symbol of femininity and the moon and stars symbolize the interdependence of women and men in marriage. Nkyinkyinmie twistings stands for toughness, selfless devotion to services, and an ability to withstand difficulties. Each is indicative of the courage and commitment of Ghanaians working to improve women's health throughout Ghana. (Source: A.F. Quarcoo 1994, The Language of Adinkra Symbols, Legon, Ghana: Sebewie Ventures)

Ipas Mission Statement

Ipas works globally to improve women's lives through a focus on reproductive health. Our work is based on the principle that every woman has a right to the highest attainable standard of health, to safe reproductive choices, and to high quality health care. We concentrate on preventing unsafe abortion, improving treatment of its complications, and reducing its consequences. We strive to empower women by increasing access to services that enhance their reproductive and sexual health.

Ipas technologies, training, research and technical assistance

- support the development of women-centered reproductive health policies*
- improve the quality and sustainability of services,*
- ensure the long-term availability of reproductive health technologies, and*
- promote women's active involvement in improving health care*



Acknowledgments

Ghana is one of the first countries in the world to address the problem of unsafe abortion by working to decentralize postabortion care services to the primary level of the health care system. The operations research project presented in this report aimed to produce findings that would provide guidance to the Ministry of Health and Ghana Registered Midwives Association as they worked to implement Ghana's reproductive health policy. This project would not have been possible without the dedicated efforts of many active policymakers, health care providers and patients.

We would especially like to acknowledge the important contributions made by

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Unsafe Abortion Morbidity and Mortality Worldwide

Each year an estimated 585 000 women worldwide die from complications related to pregnancy and childbirth most importantly unsafe abortion hemorrhage obstructed labor sepsis and hypertensive disorders.¹ Ninety nine percent of the women are from Southern or developing countries a full 40 percent reside in African countries. Millions more suffer the short and long term consequences of such complications including infection infertility and chronic pain.

Unsafe abortion contributes significantly to the morbidity and mortality of reproductive age women throughout the world. Globally 13 to 14 percent of all pregnancy-related deaths (75 000 to 80 000 women) are attributable to unsafe abortion while in some countries this figure rises to as high as 60 percent. Women living in Southern countries particularly throughout Africa experience the greatest risk of death as well as short and long-term morbidity from unsafe abortion. Yet unsafe abortion is one of the most easily preventable and treatable causes of maternal mortality and morbidity.

Unsafe abortion refers to
“ the termination of pregnancy performed or treated by untrained or unskilled persons. Regardless of whether an abortion is spontaneous or induced, subsequent events and the care received determine whether the abortion is safe or unsafe.”²³

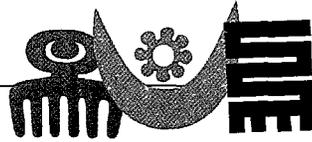
Risk of Death from Unsafe Abortion ⁴	
Africa	1 in 150
Asia	1 in 250
Latin America	1 in 800
Northern countries	1 in 3700

Postabortion Care (PAC)

Postabortion care (PAC) is an approach for reducing mortality and morbidity from unsafe abortion and for meeting the reproductive health needs of women treated for abortion complications. It involves strengthening the capacity of health systems to offer and sustain a set of integrated reproductive health services.⁹

- ◆ emergency treatment for complications of abortion
- ◆ postabortion family planning counseling and services and
- ◆ links between emergency treatment and other reproductive health services

By delivering these services to every woman treated for abortion complications health care providers offer women life saving care counseling about family planning and if desired methods that will enable her to meet her reproductive intentions and other reproductive health services needed by the woman such as STI screening and treatment. All women treated for abortion complications should leave health care facilities with a better understanding of their health and ways to prevent an unwanted pregnancy and repeat abortion.



Midwives and PAC*

Throughout the world physicians working in urban-based secondary- and tertiary-level hospitals traditionally have been the only providers authorized, trained, and equipped to treat complications of unsafe abortion, including incomplete abortion. This situation limits women's access to safe and comprehensive emergency care given the financial, geographic, and social barriers they may face in reaching a hospital and obtaining services.

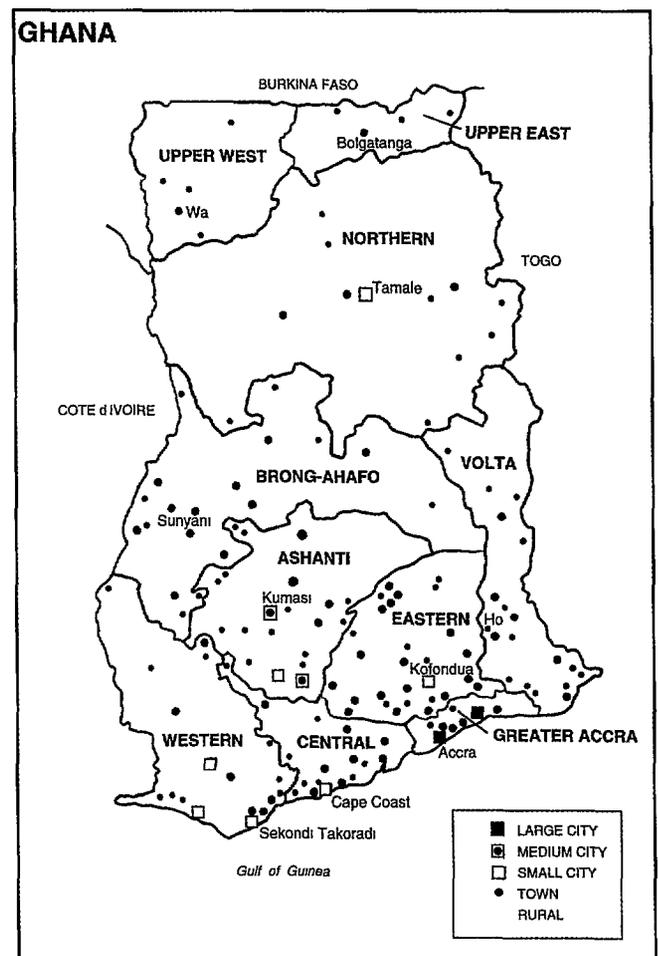
In response, international support has increased in recent years for expanding the skills base of midwives, who are more accessible than physicians and who work in a wide variety of settings, so that they can provide comprehensive PAC services to women in need.

The World Health Organization (WHO), UNICEF, and the International Confederation of Midwives (ICM) have issued statements and guidelines that call for the increased participation of midwives in the provision of PAC services.⁸ Authorizing and equipping midwives with the skills and technology to treat, stabilize, and refer women who experience abortion complications can help to reduce the high rates of abortion-related mortality and morbidity prevalent in countries throughout the world. In addition to providing life-saving emergency care, midwives are in a key position to offer post-abortion family planning information and methods, and can link women to other appropriate reproductive health services.

* Midwife refers to a professional midwife/nurse-midwife who has extensive medical or nursing training and works in a hospital, health center, or private maternity home. It does not refer to a traditional midwife or birth attendant who has learned from experience and from other traditional midwives.

Decentralizing and Integrating PAC Services in Ghana^{7, 8, 9}

Since the 1994 International Conference on Population and Development (ICPD), governments and health systems have begun to recognize the central role that unsafe abortion plays in maternal mortality and morbidity. Few, however, have incorporated strategies to address unsafe abortion into their reproductive health policies and Safe Motherhood Programmes. Ghana is one of the first countries to do so.



Source: Demographic and Health Survey 1993



In March 1995 the Ministry of Health (MOH) of Ghana began to implement its Safe Motherhood Programme in an effort to reduce the high level of maternal mortality in the country. Data from the 1993 Demographic and Health Survey and the MOH estimate the maternal mortality ratio at 214-740 per 100 000 live births and WHO documents the lifetime risk of maternal death for Ghanaian women as 1 in 18.^{10 11}

Ghanaian law regarding abortion allows registered physicians in government hospitals or certified private hospitals and clinics to legally induce an abortion under a variety of circumstances including rape, incest, or risk to the physical or mental health of a woman.¹³ Despite these provisions many women throughout the country continue to suffer the consequences of unsafely induced abortion.

Complications resulting from unsafe abortion are a primary cause of maternal mortality. One hospital based study reported that about 22 percent of all maternal deaths are the result of unsafe abortion and a 1994 communique issued by the Ghana Medical Association (GMA) states that unsafe abortion is presently the single highest contributor to our high maternal mortality rate.¹⁴

Community leaders also recognize that unsafe abortion has a serious impact on women's health, as well as on the well being of families and communities. One leader noted during an interview for the research summarized in this report that when a woman dies from unsafe abortion, economic activities that the women do in the community will come to a standstill and if the community depends on them, the community will suffer.¹⁵

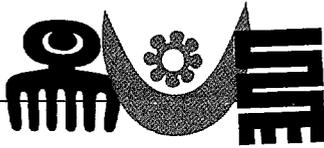
Given the prevailing situation, the Ministry of Health of Ghana recognizes unsafe abortion as a major public health issue that needs to be addressed so that Ghanaian women do not continue to die from complications that can be treated and even prevented. Ghana's National Safe Motherhood Task Force guidelines outline activities to **integrate** PAC into reproductive health training and services. In doing so, PAC is defined as one of an array of key repro-

ductive health services that providers need to offer women. The country's 1996 National Reproductive Health Service Policy and Standards includes PAC as a key component of reproductive health services that must be made more accessible to women throughout the country. In this same document, **decentralization** of services by provider and facility type is a key strategy identified as one way to improve women's access to emergency care and postabortion family planning services. Midwives are defined as appropriate providers of PAC, including treating women with incomplete abortion with manual vacuum aspiration (MVA).^{*} The Policy and Standards therefore recognize midwives' important role as health care providers to the Ghanaian population, particularly the rural population, which represents over 60 percent of Ghana's residents.

Community Leaders Consulted about the Impact of Unsafe Abortion in their Communities

Deaconess, Pentecost Church
Assemblyman
Ankobeahene
Magajia
Tribunal Chair
Treasurer of Red Cross Society
Chief Linguist
Kromthene
Market Queen
District Pastor
Education Welfare Officer
Organizer, 31st December Women's Movement
President, AME Zion Women's Fellowship
Queen Mother
Muslim Community Leader
Vice-President, Market Women Association
Chair, Local Council of Churches

^{*} MVA is safer and equally effective as sharp curettage (SC) in the treatment of incomplete abortion. It is a low cost technology that does not depend on the availability of electricity or operating room facilities, thus making it accessible to providers working in lower resource, primary care settings. WHO has recommended that MVA be available at the primary level as part of a comprehensive effort to reduce maternal mortality.^{17 18}



Operations Research Midwives and PAC in Ghana



Dr Henrietta Odoi-Agyarko, MOH Ghana, on a supervisory visit to midwives in a health center

Within this supportive policy context the operations research (OR) project "Training Non-Physician Providers to Improve Postabortion Care" was initiated in early 1996¹⁹

The objectives of this project were to

- ◆ Document the need for as well as the benefits and challenges of decentralizing the provision of PAC services to primary-level facilities where many trained midwives practice
- ◆ Demonstrate whether postabortion care provided by trained midwives in such primary-level facilities
 - a) **improves access** to emergency life-saving care

- b) **improves linkages** between the emergency treatment of incomplete abortion and the provision of postabortion family planning
- c) is **acceptable** to women health care providers community leaders and policy-makers and
- d) is **safe and feasible** within the Ghanaian context given the existing health infrastructure

- ◆ Develop a systemic model for implementing the Ministry of Health's groundbreaking reproductive health policy on PAC

An important outcome of this project was to produce results that would guide the Ministry of Health and the Ghana Registered Midwives Association in their work to make PAC services more available to women throughout Ghana

Figure 1 illustrates the key steps taken throughout the OR project. Data were collected throughout the project using (see Table 1)

- ◆ **Structured Interviews** policymakers physicians midwives supervisors women treated for incomplete abortion community leaders
- ◆ **Logbook Reviews** in district hospitals maternity homes and health centers to determine the caseload of women treated for incomplete abortion
- ◆ **Cost Assessment of PAC Services to Patients**
- ◆ **Pre- and Post-Training Test of Midwives' Knowledge of PAC**
- ◆ **Skills Assessment of Trained Midwives**
- ◆ **Monitoring/Support Reports of Midwives' Practices**

Figure 1 Key Steps in the OR Project

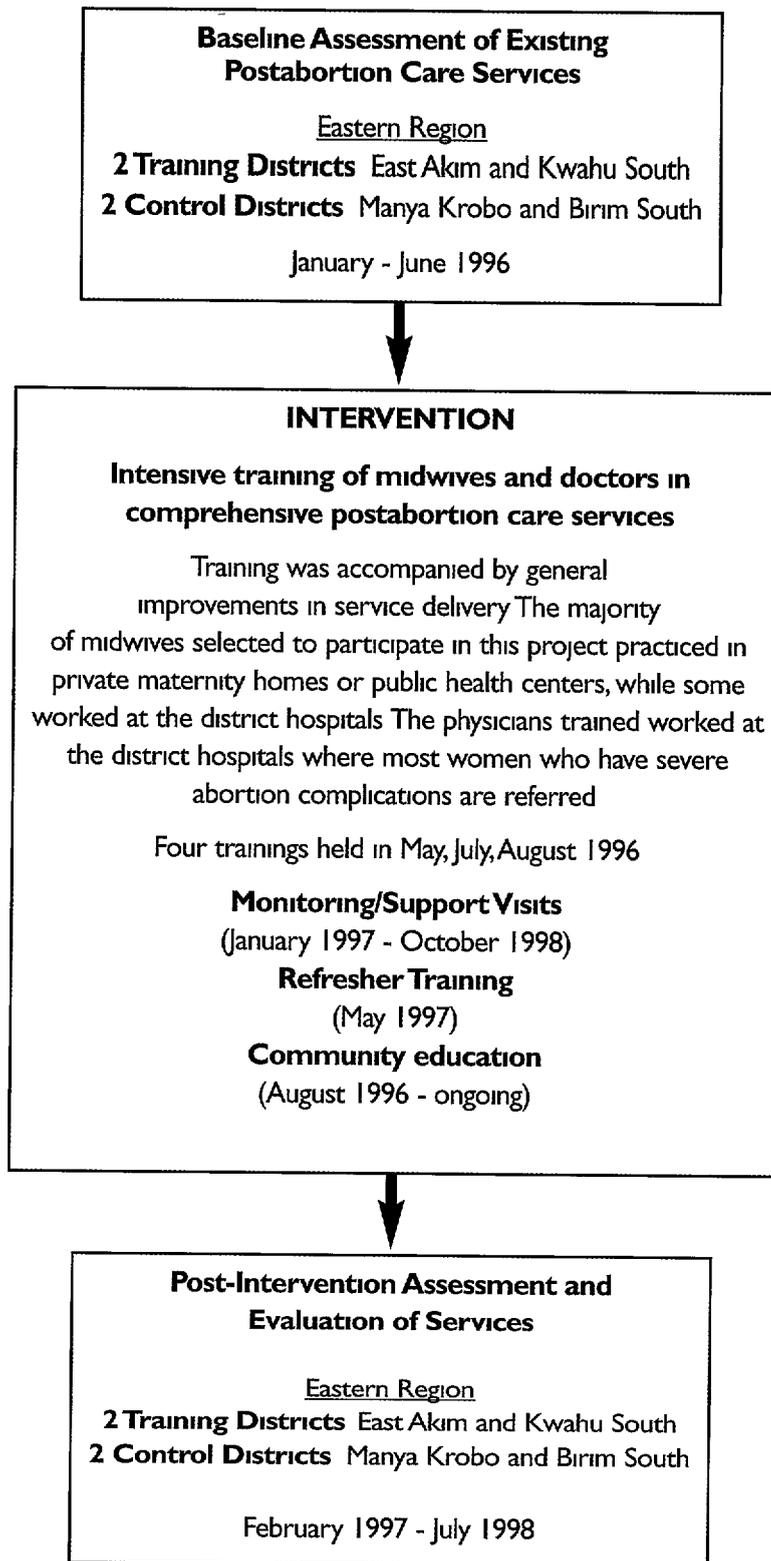


Table 1 Data Collection Instruments Utilized and Sample Sizes

Instrument	Pre-Intervention (n)	Post-intervention (n)
Interview women treated in district hospitals	29	59
Interview women treated by midwives in health centers and maternity homes*	N/A	78
Interview physicians in district hospitals	11	8
Interview midwives in district hospitals	31	19
Interview midwives in public health centers and private maternity homes	50	43
Interview midwife supervisors	13	14
Interview community leaders	20	39
Interview policymakers	9	9
Inventory review supplies and infrastructure of health centers and maternity homes	50	43
Logbook reviews abortion complication caseloads in training and control districts	6 district hospitals Jan-Nov 1995	All sites (district hospitals, health centers, maternity homes) included in the study
Logbook reviews number of women provided with PAC services (using MVA) in training districts	N/A	All sites (district hospitals, health centers, maternity homes) included in the study in training districts
PAC knowledge test	All midwives trained in PAC (40) were administered the test pre- and immediately post-training 34 midwives in the control districts took the test during their baseline interview Eight months post-training, 25 midwives in the training districts and 18 midwives in the control districts re-took the test	
Skills Assessment randomly selected sub-sample of trained midwives	N/A	10
Monitoring/ support visits to trained midwives	N/A	6 visits to each trained midwife
Self-administered questionnaire about midwives' experiences with PAC	N/A	23 trained midwives
Cost assessment of MVA/SC and postabortion family planning services training districts	N/A	3 district hospitals 12 health centers 18 maternity homes

*Interviews were arranged by the attending midwife



Major Findings



*Victoria Darkwah a midwife trained in PAC
in front of her health center*

groups expressed their desire to have more children. A lower percentage of women treated in district hospitals were earning income although those that did engaged in similar income-generation activities as women treated in health centers and maternity homes.

Overall, most women sought care from a health care facility because of vaginal bleeding or abdominal cramping. In some cases both symptoms appeared. The majority of women treated for incomplete abortion had a uterine size equivalent to 12 weeks or less; women whose uterine size was greater than 12 weeks were treated only at district hospitals. Given that midwives practicing in health centers and maternity homes were trained to use MVA to treat incomplete abortion for uterine sizes of 12 weeks or less, these data provide one indication that they are complying with established treatment protocols. Lastly, very few women were using a contraceptive method at the time when they became pregnant with the current pregnancy that ended in abortion, although significantly more women treated at district hospitals were using a method than women treated at health centers and maternity homes.

Profile of Women Treated for Incomplete Abortion in District Hospitals, Health Centers, and Maternity Homes

Table 2 outlines the characteristics of women treated for incomplete abortion in the facilities included in the study during the field periods. Women seeking care in district hospitals were slightly younger than those seeking care in primary level facilities; a greater percentage were age 20 or less (25% vs 14%) and single. These women also had, on average, one less child than did women treated in health centers and maternity homes. Both had a similar mean number of abortions, and the majority of women in both

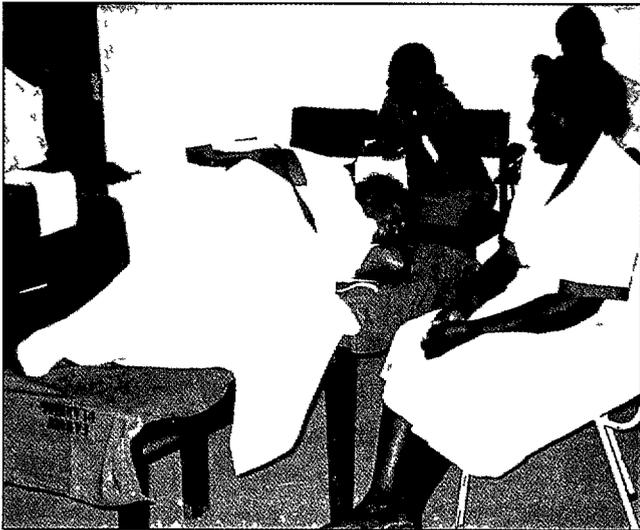
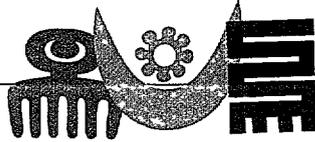
Table 2 Profile of Women Treated for Incomplete Abortion in District Hospitals, Health Centers, and Maternity Homes*

Profile	District Hospitals (n=88)	Health Centers and Maternity Homes (n=78)
Age (mean)	26.2	28.7
Age 20 or less (%)	25.0	14.0
Level of Education (%)		
None	15.9	7.7
Primary	29.5	29.5
Secondary	26.1	7.7
Post-Secondary	2.3	2.6
Other	26.2	52.6
Religion (%)		
Pentecostal	45.4	38.5
Protestant	26.1	29.5
Catholic	10.2	3.8
Muslim	3.4	6.4
Other	10.4	19.2
None	4.5	2.6
Ethnicity/Tribal Identity (%)		
Akan	54.5	74.4
Ga-Adangbe	21.6	5.1
Ewe	17.0	6.4
Hausa	2.3	3.8
Other	4.6	10.3
Currently Earn Income (% yes)	69.3	84.6
Main Activity to Earn Income (%)		
Trading	33.0	41.0
Farming	15.9	12.8
Other	51.1	46.2
Marital Status (%)		
Married	36.4	60.3
Co-habiting	37.5	21.8
Single/never married	23.9	9.0
Number of Children (mean)	2.5	3.5
Number of Abortions (mean)**	1.8	1.5
Desire to have more children (% yes)	73.9	71.8
Main Reason(s) for Seeking Care (%)***		
Vaginal bleeding	86.4	97.4
Abdominal cramping	71.6	62.8
Fever and/or chills	15.9	3.8
Uterine Size (# of weeks)	6-20	6-12
Uterine Size 12 Weeks or Less (%)	78.4	100.0
Use of Contraceptive Method at Time of Pregnancy Ending in Current Abortion (% yes)	14.8	5.1

*Data Sources: District hospitals: patient exit interviews in training and control sites pre- and post-intervention; Health centers and maternity homes: patient exit interviews in training sites post-intervention only.

**Refers to both spontaneous and induced abortion and includes current abortion.

***Patient could name more than one reason.



Midwives roleplay counseling and assessment skills at a PAC training session in 1996

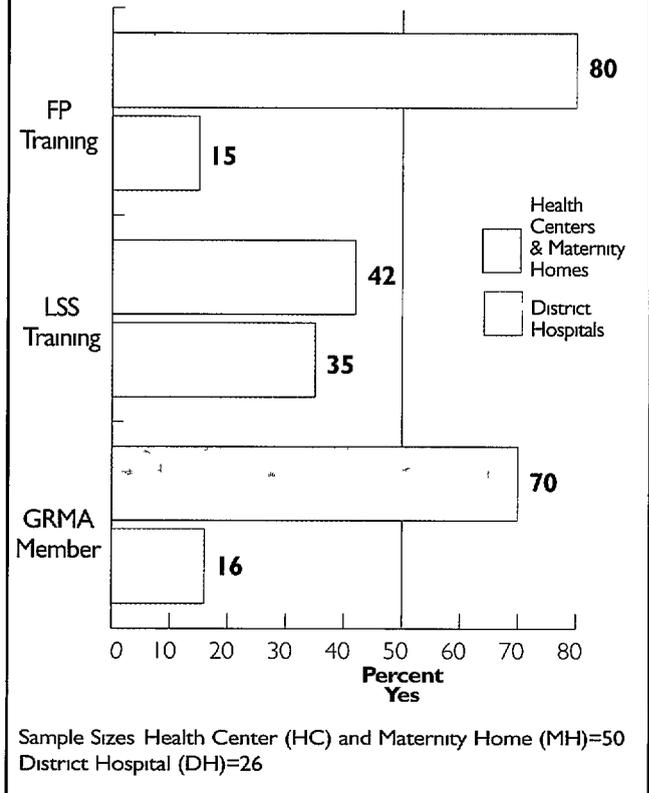
Profile of Midwives Included in the Project

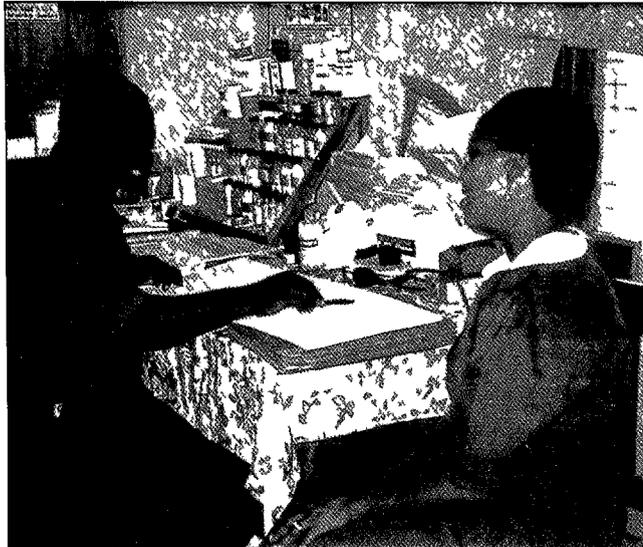
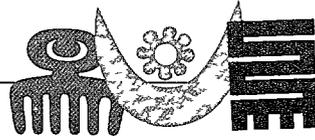
The midwives who participated in the project in both the training and control districts worked in private maternity homes, public health centers or public district hospitals. They ranged in age from 43 to 50 years old and had been practicing as midwives for an average of 18 years. Less than half of all the midwives had received Life Saving Skills (LSS) training prior to the PAC project. Proportions were comparable for those working in primary-level facilities (42%) and district hospitals (35%). Interestingly, almost all of the midwives working in health centers and maternity homes (80%) had prior family planning training compared to only 15 percent of midwives working in district hospitals. Training was highly correlated with GRMA membership, which facilitates midwives' access to ongoing training (See Figure 2). The differing level of training and skill in providing family planning services had an impact on the provision of postabortion family planning services to patients.

Health Facilities Where Midwives Worked

The baseline assessment phase of the project documented that midwives working in health centers and maternity homes had the necessary infrastructure, supplies, and equipment to be able to provide safe emergency care services as well as postabortion family planning services. MVA kits were provided to the midwives subsequent to their training and certification. Most midwives had a variety of contraceptive methods in stock, most commonly condoms (91%), spermicide (94%), combined oral contraceptives (94%), and injectables (97%).

Figure 2 Profile of Midwives Based in Health Centers, Maternity Homes and District Hospitals Training and Control Districts Baseline Assessment





Dr Joseph Taylor on a monitoring/support visit with a private midwife in her maternity home

Training

Competency-based PAC trainings were held in 1996 during four one-week-long sessions. A total of 40 midwives and four doctors from three public district hospitals, 13 public health centers, and 16 private maternity homes in East Akim and Kwahu South participated. Through the joint trainings, providers working in both the private and public sectors came together to learn and share experiences. This later facilitated the strengthening of referral linkages between levels of care as well as between public and private

health facilities.

The content of the program included patient assessment and stabilization, postabortion family planning, infection prevention, pain management, referral, logistical management of services, and treatment of incomplete abortion with MVA, among other topics.

The doctors and midwives in the project were trained together, which helped them gain an appreciation of each others' skills and fostered discussion regarding referral and counter-referral systems between primary level facilities and district hospitals.

Through lectures, videos, discussions, role-plays, practice on a pelvic model, and clinical practice at the hospital, the midwives and doctors became competent in providing women with emergency treatment for incomplete abortion using MVA, as well as postabortion family planning services. Each participant was certified and given MVA instruments only after she or he demonstrated clinical competence, as assessed by the physician and midwife trainers.* Because the number of women with incomplete abortion arriving at the training hospital during the course varied and was at times quite low, some participants had to return to the training center for additional clinical practice before being certified.

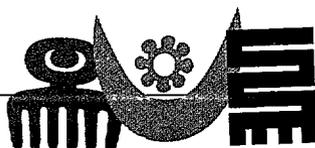
Table 3 Mean Scores Pre- and Post-Training Test for Training and Control Group Midwives^{a, 21}

	Pre-test	Post-test at Training Course (for training group only)	Post-test 7-8 months post-training^b
Training group	187	327	277
Control group	176	N/A	167

^aTotal score possible 43 points

^bPrior to refresher training

* MVA instruments were not purchased with the USAID/MotherCare grant but were donated through the PAC Consortium draw-down account.



The training program was successful in increasing participants' knowledge as measured by a pre- and post-training test. Seven to eight months after their training, the knowledge scores of midwives in the training group remained significantly higher than the scores of the control group midwives (See Table 3).

Training was approached as a process rather than as a one-time event and continued during the monitoring/support visits at which time midwives asked the trainers questions to gain further clarification on issues of concern. A refresher training workshop was held in May 1997 in which 32 of the originally trained providers participated. This workshop addressed areas that needed to be strengthened, as noted during the monitoring/support visits.

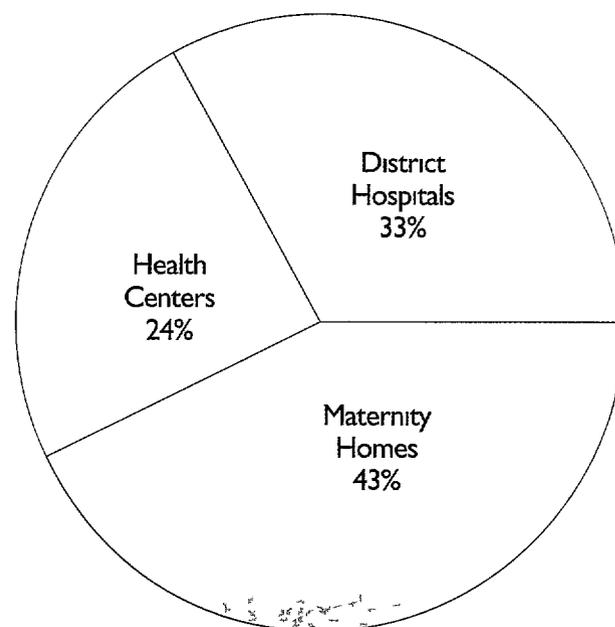
In June 1998, a skills assessment with a randomly selected subsample of trained midwives was undertaken by a physician experienced in PAC but unrelated to the project and a nurse who played the role of a patient. Results indicated that overall the skills of midwives remained strong in all areas including initial assessment of the patient, uterine evacuation, infection control practices, pain management, and postabortion family planning.

Providing PAC Services

After being trained, the midwives and doctors received MVA instruments to be used in the facilities in which they worked, as well as reference materials and logbooks in which MVA cases were recorded. Over the subsequent two years, some participants treated a number of women; others did not treat any patients.

From July 1996 through July 1998, a total of 323 women were treated for incomplete abortion with MVA by one of the midwives or doctors trained through this project in the districts of East Akim and Kwahu South. Midwives in private maternity homes provided treatment to 139 women; midwives in health centers provided treatment to 77 of 78 women treated there (one treated by a doctor), and midwives provided some or all of the treatment in 39 of 106

Figure 3 Percent of Total MVA Procedures Performed in Selected Maternity Homes, Health Centers and District Hospitals East Akim and Kwahu South July 1996 - July 1998



Sample sizes Total N=323
MH=139 HC=78 DH=106

cases treated with MVA at district hospitals, while 67 women were treated by physicians alone. Overall, 67 percent of all the women treated for incomplete abortion with MVA in the study sites were directly managed by midwives in primary level facilities—public health centers or private maternity homes (Figure 3). Among the 323 women treated with MVA, no procedure-related complications were recorded. No midwives in the control districts provided emergency care services using MVA.

Physicians working in district hospitals noted that by authorizing and training midwives in the same hospital to treat women who arrive with incomplete abortion, their own workload has become more manageable.



Postabortion Family Planning

Postabortion family planning is an integral part of postabortion care. Postabortion family planning offers a woman the chance to break the cycle of unwanted pregnancy and unsafe abortion by helping her to prevent pregnancy if she so chooses. Given that a woman's fertility returns within the first weeks after an abortion and given that most modern family planning methods can safely be provided to women treated for incomplete abortion (unless there are specific injuries or contraindications) there is international consensus that postabortion family planning should be a priority for country programs.³ Services must also be sensitive to the fact that some women suffering from incomplete abortion may have had a spontaneous abortion and may have lost a wanted pregnancy.

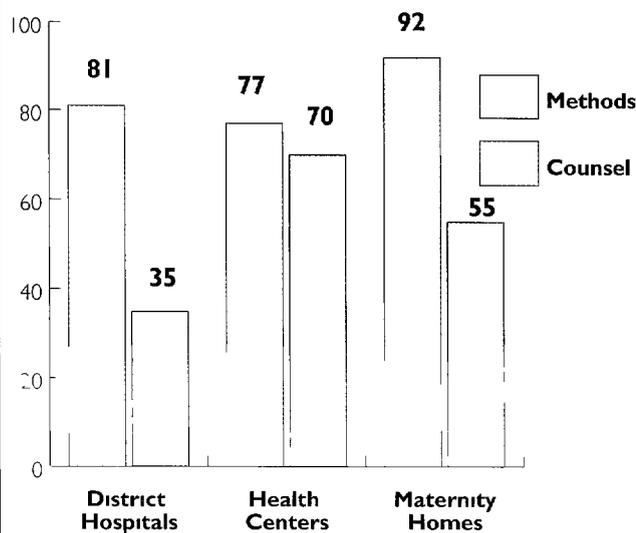
Prior to this project postabortion family planning services were not offered systematically in any of the sites in the four study districts. When women treated for abortion

complications in the district hospitals were asked whether anyone in the hospital had spoken with them personally about family planning 90 percent said "no" and no woman left the hospital with a contraceptive method. Yet 90 percent of the women noted that they would have liked to have received information about family planning 93 percent thought that their partners should also receive such information and 83 percent noted that they thought that women treated for abortion complications would like to receive a method before leaving the hospital.

The training course included information on family planning methods and their use postabortion and participants role-played counseling on family planning. After provider training most of the 323 women treated for incomplete abortion with MVA by providers at the sites in East Akim and Kwahu South received family planning services. More than 90 percent of women treated in maternity homes received family planning counseling and 55 percent received a method at the time of their treatment. More than three quarters of women treated in public health centers were counseled on family planning and 70 percent left with a method. At district hospitals slightly more than 80 percent of women were counseled and 35 percent received a method (Figure 4).⁴ Given women's low prevalence of contraceptive use prior to their postabortion care future work should examine the extent to which women continue to use their methods according to their reproductive intentions after leaving the health care facility.

It should be noted that even after the operations research project in district hospitals family planning methods are still not offered systematically on the ward to women after the MVA procedure. In part this is due to the fact that

Figure 4 Percent of Patients Treated with MVA Receiving Family Planning Services by Facility East Akim and Kwahu South July 1996 - July 1998



Sample sizes District Hospital (DH)=105 Health Centers (HC)=77 Maternity Homes (MH)=131

"The training I had in postabortion care has really helped and improved my skills on the job as a midwife with the training in PAC I can counsel my clients better on family planning and not only with postabortion cases, but with all women who come to me for care as a midwife and need counseling on family planning"

Trained midwife



many of the midwives trained in PAC did not have prior family planning training and felt that they needed to strengthen their skills before offering methods to women (See Figure 2) Methods continue to be offered to women through the family planning clinics on the hospital premises

Access to PAC services

There are a number of ways to define a woman's access to postabortion care services. The geographic availability, financial cost, and time required of services, and the level of comfort women have with health care providers are all important elements of access that can be improved by decentralizing PAC services to primary-level facilities.

Distance

"Abortion care should be made available as close to people's homes as possible and should be carried out by the least specialized personnel who are adequately trained to perform it safely and well."

WHO 1995

While district hospitals serve the areas in which they are located and should be prepared to treat complicated cases referred there, health centers and maternity homes tend to be located outside of urban areas. They are distributed throughout districts so that women seeking care have to travel relatively shorter distances to reach them. This means that less time and money is spent by women and their families. This is especially important for women for whom delays in accessing treatment may be life-threatening. Closer proximity to women's homes also means that they can be closer to their families and, in particular, their

"It is important that emergency treatment be given to these women where they live—the area where I am working is about 50 miles away from the nearest hospital where a doctor is."

Trained midwife

children—a reason expressed by many women in the study for preferring to seek care from a midwife in a health center or maternity home.

Cost

The cost of services varies widely. In general, health centers charge less for PAC services than do district hospitals and maternity homes. Maternity homes, however, often offer the greatest flexibility in payment options, such as accepting payment after the procedure, in installments, or in-kind, and by offering sliding scale fees. The mean cost of MVA services at the health centers was 12,225 cedis; the mean at the maternity homes was 21,183 cedis; and the mean cost of services at the district hospitals in the project was 20,900 cedis for treatment with MVA and 22,975 for treatment with sharp curettage. Prior to the project, women were being charged 38,193 cedis for treatment with sharp curettage at district hospitals.^{2b}

"She did very well. She saw me promptly and did not even want to charge me because I am a widow. If I had gone to the district hospital, the transport cost alone would have been more than the 7,000 cedis she collected from me."

Patient treated by midwife in a maternity home

Waiting Time to Receive Services and Total Time Spent in Facility

Women being treated with MVA are also attended to more quickly than they were prior to the project. At maternity homes and health centers, women are treated almost immediately and are typically discharged after a short rest. Estimates given by patients indicate that the mean length of total stay is about 90 minutes. In contrast, the time that women are required to wait before being treated in district hospitals is over two times (3.5 hours) that of women's total length of stay in primary-level facilities.



Social Factors

Cultural and social access are important factors in making healthcare services accessible to women. Women treated by midwives indicate that they were comfortable talking with the midwives about their problems. Midwives who work in the communities in which they live may have an established and ongoing relationship with local women, and women may find them easier to communicate with than providers who are based in urban hospitals.

“[The midwife] is the only one in the village who takes care of all of us so we all come to her whenever we are sick.”

Patient treated by midwife in a maternity home

Why do women visit midwives for postabortion care?

- ◆ They have confidence in midwives
- ◆ Proximity
- ◆ They know that their health condition is beyond the skill of the TBA
- ◆ The midwife offers various payment options
- ◆ Privacy and confidentiality
- ◆ The midwife offers prompt attention

Creating Effective Referral Systems

The creation of effective referral systems among trained providers and their facilities is essential to a safe and sustainable PAC program in which saving women's lives is the immediate goal. Personal contact and discussion among providers during the PAC training was one strategy employed in this project to develop and strengthen referral mechanisms.

In many cases, women experiencing incomplete abortion arrived at maternity homes and health centers where midwives were able to treat them effectively. However, women also arrived who had complications beyond the skill level of the midwife. In these cases, midwives stabilized the woman and referred her to the nearest district hospital with which the midwife had an established relationship, in part due to the joint physician-midwife PAC training. In most cases, midwives accompanied the woman to the hospital to ensure that she arrived there safely. Transportation and communication are among the most important challenges faced by midwives during emergency referrals, since few have their own vehicles and phone service is not always available, either in the primary level facilities or in the district hospitals.

One midwife with her own maternity home recounts her experience of how important referral was for a woman's emergency treatment and counter-referral for family planning services:

Late one night I was awakened by a young woman in need of medical care at my maternity home. She had been bleeding for three days after giving herself an herbal enema and inserting a stick into her uterus. She had abdominal cramps and profuse bleeding and her brother and senior sister could not get a lorry to transport her to the nearest hospital 15 km away. I diagnosed her with incomplete abortion and treated her with MVA. Because of her high temperature and the distance of her house I kept her at my maternity



home Around 6 30 am after having breakfast and some tea, she began to have severe diarrhea and collapsed Knowing that I had done MVA correctly I did not panic and rather connected another IV line and took her to the hospital At the hospital we met a doctor who was also a participant in the PAC course He quickly examined her and noted that there was no perforation of the uterus After about two hours she responded to treatment She was discharged three days later and was referred for postabortion family planning at my clinic The patient was very grateful to me and the doctor for saving her life, otherwise she would have died of bleeding

In one interesting case the referral actually worked in the opposite direction

Dr Odoi-Agyarko head of the MCH/FP Division of the Ministry of Health tells of one woman she learned of during a supervisory visit

“One time I went to the region and went round with the coordinator I visited about four of the midwives and it was interesting how there was one instance where the doctor in one particular hospital was not available and the nurse in charge of the maternity (unit) had a patient who was bleeding through the vagina and she knew that nearby we had trained this private midwife in the use of MVA And so she referred this client to the private midwife and the private midwife took up the client and then managed her”²⁷

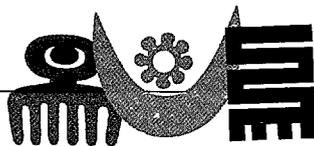
Effective referral and counter-referral systems are essential to ensuring that women with complications receive prompt care by providers trained and in facilities equipped to do so as well as follow-up care once women return to their homes Findings from this project emphasize that while strong links have been made among the providers who were trained together in PAC transportation and communication among different levels of the health system need to be further facilitated

In addition this project did not address the important issue of strengthening referral systems between community-based providers such as traditional birth attendants (TBAs) and midwives in primary level facilities so that women with abortion complications receive emergency attention without delay

Community Education²⁸

Community education was emphasized by health care providers and community leaders as an aspect that is important to preventing unsafe abortion Leaders' suggestions included intensive community education about family planning to avoid unwanted pregnancy as well as attention throughout pregnancy so that problems associated with spontaneous abortion could be detected Leaders placed special emphasis on educating young people and creating opportunities for them particularly young women so that the problems of unwanted pregnancy could be avoided

Immediately after their training midwives began to conduct community education activities as did MOH District Health Education Officers Both midwives and the Health Education Officers spoke with women in churches markets and professional organizations and addressed community members during durbars about the dangers of unsafe abortion and the fact that many midwives were trained and have the knowledge and skills to offer PAC services



Impact of PAC Intervention on Midwives

The midwives in the project found that the ability to provide PAC services was very meaningful to them as health care professionals and as women. Midwives also reported that offering PAC services raised their profile and credibility in their communities in the provision of other reproductive health services.

The testimony of one private midwife trained in the program illustrates these points:

As a midwife, the PAC program has helped me to improve upon my skills. It has also made a lot of women who prior to the rendering of these services were not clients of my home start visiting the home after hearing of successful cases that have been handled by me. In addition, it has made most of my clients confide in me. As a midwife and also a Ghanaian woman, I am proud that this training has enabled me to save the lives of teenagers in the community who came to my home with induced abortion. After treating them I gave them devices that save them from unexpected pregnancy. As a midwife, the knowledge acquired as a result of the PAC training has led people to me who hitherto would not have come to me.

“Since my training, I have been highly respected by the people in the community where I live, because prior to my training they were rushed to nearby hospitals.”

Trained midwife



Dr. Taylor works with a midwife during a monitoring/support visit.

Broad-based Support for Training Midwives in PAC

Throughout the project, interviews were conducted with a broad range of stakeholders, including women who were treated for incomplete abortion, midwives, midwife supervisors, physicians in district hospitals, community leaders, and national-level policymakers, to assess their attitudes about training midwives to provide PAC services. In general, they reported that training and equipping midwives to treat abortion complications and provide postabortion family planning services saves women's lives, saves women money on transportation and services, and reduces physicians' workload in district hospitals. These stakeholders also recognized the need for continued support, and identified the following challenges: strengthening midwives' ability to refer complicated cases to district hospitals as quickly as possible, ensuring that midwives only use MVA equipment for the treatment of incomplete abortion, and strengthening family planning training as part of PAC training.



Conclusions

Health care professionals and policymakers in Ghana have taken groundbreaking steps in their work to improve the reproductive health of Ghanaian women. Training midwives in PAC is one important strategy being implemented ensuring that women suffering the effects of unsafe abortion are able to have easier access to life-saving care as well as family planning services that will help to break the cycle of unwanted pregnancies.

The model presented on page 20 outlines the major components of the successful PAC pilot program in Eastern Region, Ghana.

Findings from this operations research project highlight the benefits and challenges of decentralizing the provision of PAC services to primary level facilities where midwives practice. We have demonstrated that by training midwives to deliver PAC Services, women's access to life-saving care is improved. There are linkages between emergency treatment services and the provision of postabortion family planning services. Training midwives to provide PAC services in primary level facilities is acceptable to a wide range of stakeholders and the services that they provide are safe and feasible given the existing health infrastructure in Ghana.

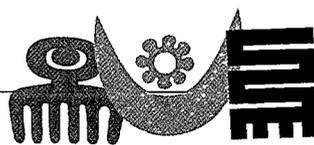
General Lessons Learned from the Project

- ◆ Operations research is a strategy that can be used to incorporate the perspectives of policymakers, physicians, midwives, and women into new policies, protocols, and training programs.
- ◆ Training midwives in postabortion care is a feasible and acceptable strategy for decentralizing PAC services, especially when supportive reproductive health policies and standards are in place.

- ◆ Linking providers and facilities from both the private and public sectors is a feasible and constructive strategy for improving women's access to emergency care and postabortion family planning services.
- ◆ Joint training of midwives working at the primary level and physicians working at district hospitals strengthened referral mechanisms between the two levels of care.
- ◆ Collaborative links with the district hospitals provided midwives with the opportunity to gain additional supervised clinical practice beyond the training sessions.
- ◆ Monitoring/support visits designed to encourage successes and address challenges provided participants with ongoing feedback about the quality of the services they offer and enabled them to express their needs for further training.
- ◆ Midwives found that by engaging in community education activities, they raised general awareness on the issue of unsafe abortion and, as a result, they were sought out by more women who needed treatment for abortion complications.

Specific Challenges

- ◆ Creating opportunities for midwives to engage in refresher training, particularly for those who do not treat any postabortion patients for more than six months.
- ◆ Developing mechanisms for ongoing monitoring and supervision of newly trained providers.
- ◆ Providing opportunities for midwives to develop and upgrade their skills in the provision of family planning services, including such services for postabortion patients.
- ◆ Improving transportation and communication among facilities to ensure prompt care for women with abortion complications.



- ◆ Ensuring easy access to replacement MVA kits and parts
- ◆ Incorporating the third element of PAC—linkages to other reproductive health services—into training and service delivery

Next Steps Safe Motherhood in Ghana

Ghana's commitment to improve women's access to reproductive health services including PAC is strong. Important activities that build upon and expand the lessons learned from the operations research project presented in this report are currently underway.

The Ministry of Health in Ghana has an established goal of improving the availability and quality of Safe Motherhood clinical skills including LSS and PAC through a double pronged strategy of decentralization and integration with other reproductive health services. The Ghana Registered Midwives Association is committed to improving and expanding the skills of its member midwives in both the private and public sectors. Throughout 1999, both the MOH and GRMA are working with PRIME technical partners INTRAH, Ipas, and the American College of Nurse Midwives (ACNM) on an initiative to strengthen the capacity to provide high quality integrated Safe Motherhood services including LSS and PAC in three regions: Eastern Region, Brong Ahafo Region, and Ashanti Region. Activities include training the MOHs Regional Resource Teams (RRTs)*, GRMA regional trainers/supervisors, physicians and midwives from private and public sector hospitals and primary health care facilities, and physicians and nurses from the Planned Parenthood Association of Ghana (PPAG).⁴

* RRTs have been established in each of Ghana's ten regions. Each is composed of five to six public sector service providers including physicians and midwives who are responsible for training and supervising reproductive and maternal health services. Overall, they are responsible for implementing the national RH service policies, standards, and protocol, and Safe Motherhood protocol in their respective regions.

The overall goal of these ongoing activities is to improve the availability of a wider range of integrated services in primary level facilities.

General Recommendations

Training

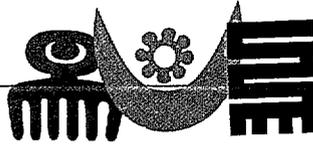
- ◆ Train all midwives in PAC skills
- ◆ Develop systems to ensure that in-service refresher training takes place once a year so that midwives and physicians can discuss case studies, update their skills and knowledge, and learn from one another
- ◆ Encourage networking among providers so that they can support one another when they return to their facilities
- ◆ Add PAC to the training curriculum of all midwifery schools

Medical Instruments and Supplies

- ◆ Facilitate access to MVA kits and replacement parts through the Ministry of Health, GRMA, GSMF, and other distributors so that services can be continued without interruption

Record-Keeping

- ◆ Ensure that accurate record keeping is maintained in all facilities so that advances made and problems encountered can be documented and addressed



Monitoring, Support and Supervision

- ◆ Maintain a regular schedule of monitoring/support visits during which emphasis is placed on strengthening the skills learned during training to ensure provider competency. A structured checklist should accompany the supervisor so that all essential points are covered during the visit.

Postabortion Family Planning Services

- ◆ Ensure that all women treated for abortion complications receive family planning services before they leave the health care facility. These services should meet the reproductive needs and desires of the woman.
- ◆ Train all midwives to deliver family planning services, particularly those midwives who have not had previous family planning skills training, so that they can offer counseling to all postabortion patients and methods to those who wish to delay their next pregnancy.

Maintaining Quality Standards

- ◆ Create mechanisms and opportunities for midwives who have not treated a woman with incomplete abortion for at least six months to participate in the MVA procedure in order to gain additional clinical practice.

Decentralizing Services to the Community Level

- ◆ Systematically and strategically involve TBAs at the community level in activities including recognizing signs and symptoms of abortion complications, history taking, resuscitation, referral, family planning counseling and services and community education.
- ◆ Strengthen linkages between TBAs at the community level and midwives working in health centers and maternity homes so that women with abortion complications have immediate access to emergency care services as well as to follow-up care.

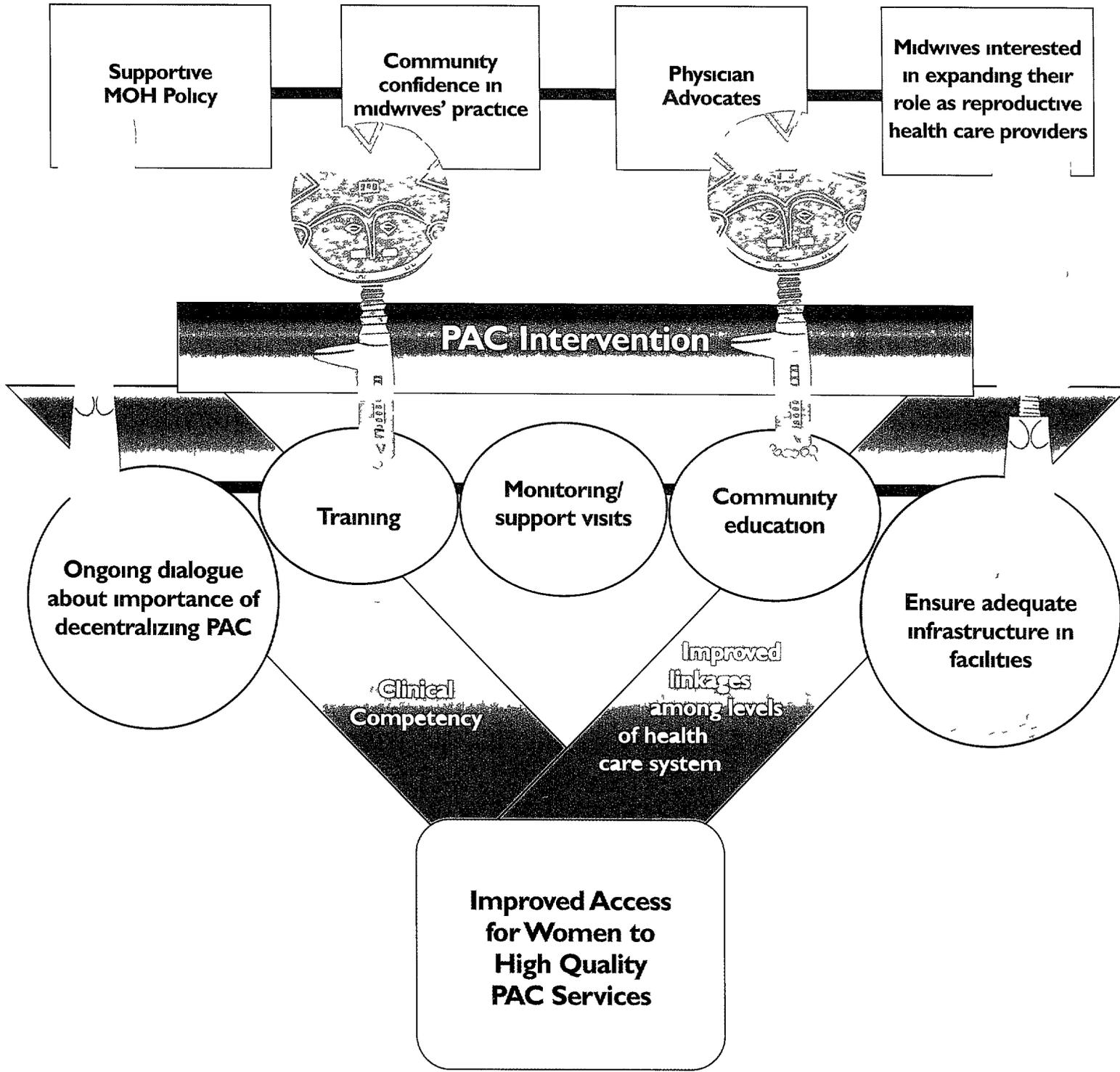
- ◆ Conduct operations research to assess the most effective ways to involve TBAs in identifying complications, stabilizing women and referring them to the next level of care in a timely manner.

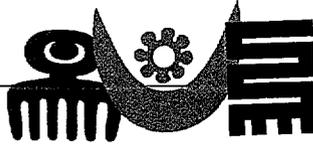
Community Education

- ◆ Conduct intensive community education so that women and their families know how to avoid unsafe abortion, can recognize the danger signs and symptoms for which professional health services should be sought, and are aware of the services that midwives have to offer in such emergency cases.
- ◆ Develop educational materials that are appropriate to the communities in which they will be presented and used. Health educators and midwives should utilize local languages, concepts and images in the materials they develop.
- ◆ Integrate information about unsafe abortion into the larger packet of educational services developed through the Safe Motherhood Programmes.

Ghanaian policymakers and healthcare providers have taken bold and innovative steps toward addressing the issue of unsafe abortion in their country. Their initiative should serve as a model for healthcare systems throughout the world as one way to ensure that women have ready access to the basic reproductive health services that can save their lives.

Model of Improving Access to Postabortion Care Decentralization of Services in Ghana





The following materials were produced from this operations research project

- Postabortion Care Training Curriculum for Midwives
- Training Midwives to Improve Postabortion Care in Ghana Overhead presentation and notes
- Ababio K and TL Baird Working to Reduce Maternal Mortality Midwifery Today No 45 Spring 1998
- Baird TL DL Billings B Demuyakor Community Education Efforts Enhance Postabortion Care Program in Ghana submitted to the American Journal of Public Health
- Billings DL Training Midwives to Improve Postabortion Care A Study Tour in Ghana October 12-19 1997 February 1998 Report funded by USAID/REDSO/ESA USAID/Bureau for Africa POLICY Project
- Billings DL TL Baird V Ankrah JE Taylor K Ababio S Ntow Training Midwives to Improve Postabortion Care in Ghana MotherCare Matters Vol 6 No 4 October 1997—Special Edition
- Billings DL TL Baird V Ankrah JE Taylor K Ababio S Ntow Midwives in Ghana Offer Comprehensive Postabortion Care Forthcoming in 1999 volume on Operations Research on Postabortion Care Ed Dale Huntington Population Council
- Brookman-Amisshah E JE Taylor TL Baird DL Billings H Odoi-Agyarko KPP Ababio F Quarcopome Decentralizing Postabortion Care in Africa A Call to Action African Journal of Reproductive Health March 1999
- MOH GRMA IPAS Training Non-Physician Providers to Improve Postabortion Care Baseline Assessment of Postabortion Care Services in Four Districts of Eastern Region Ghana January 1997 NC Ipas
- Otsea K TL Baird DL Billings JE Taylor Midwives Deliver Postabortion Care Services in Ghana Dialogue Vol 1 No 1 June 1997 NC Ipas
- Taylor J T Baird D Billings K Ababio Training Midwives in Postabortion Care International Support for Programs and Policies Proceedings from The First World Congress on Maternal Mortality Marrakesh Morocco March 8-14 1997 Monduzzi Editore 1997
- UN Radio Program Unsafe Abortion in Ghana Written produced and narrated by Annella Wynyard
- Winn Reynolds H Assessing the Impact of a Postabortion Care Training Program on Midwives Knowledge in Ghana Masters Thesis School of Public Health Department of Health Behavior and Health Education University of North Carolina at Chapel Hill 1998 Thesis advisor Dr Karl Bauman Reader Dr Deborah Billings

Endnotes

- ¹ World Health Organization 1996 *Revised 1990 Estimates of Maternal Mortality A New Approach by WHO and UNICEF* Geneva World Health Organization
- ² World Health Organization 1997 *Abortion A Tabulation of Available Information 3rd Ed* Geneva World Health Organization
- ³ World Health Organization 1995 *Complications of Abortion Technical and Managerial Guidelines for Prevention and Treatment* Geneva World Health Organization
- World Health Organization 1994 *Abortion Tabulation of Available Data on the Frequency and Mortality of Unsafe Abortion 2nd Ed* Geneva World Health Organization
- For more information on PAC see Greenslade FC McKay H Wolf M and McLaurn K 1994 *Post Abortion Care A Womens Health Initiative to Combat Unsafe Abortion Advances in Abortion Care* 4(1) North Carolina IPAS
- Taylor J Baird T Billings D Ababio K 1997 *Training Midwives in Postabortion Care International Support for Programs and Policies* In Weinstein D and Chervenak F eds *The First World Congress on Maternal Mortality Marrakesh (Morocco) March 8-14 1997* Italy Monduzzi Editore
- Baird TL Billings DL Taylor JE 1997 *Promoting Integration and Decentralization of Postabortion Care and Family Planning in Ghana* Paper presented at the 1997 meeting of the American Public Health Association Indianapolis IN
- ⁸ Greenslade FC Jansen WH 1998 *Postabortion Care Services An Update from PRIME* *Resources for Women's Health* Vol 1(2) North Carolina Ipas
- Salter C Johnston HB Hengen N 1997 *Care for Postabortion Complications Saving Women's Lives Population Reports Series L(10)* Baltimore Johns Hopkins School of Public Health Population Information Program
- ¹⁴ Ghana Statistical Service (GSS) and Macro International Inc (MI) 1994 *Ghana Demographic and Health Survey 1993* Calverton MD GSS and MI
- ¹¹ *National Reproductive Health Service Policy and Standards* 1996 Ghana Ministry of Health
- ¹ World Health Organization 1996 *Revised 1990 Estimates of Maternal Mortality A New Approach by WHO and UNICEF* Geneva World Health Organization
- ¹³ See *Criminal Code (Amendment) Law* 1985 PN D C L 102 The Gazette (Accra Tema Ghana Publishing Corporation)
- ¹⁴ Deganus Amorn S 1993 *Unsafe Abortion and the Safe Motherhood Initiative in Sub Saharan Africa* Presented at the Medical Womens International Association Congress Nairobi Kenya
- ¹ Ghana Medical Association Communique 1994 Position resolved at the 36th Annual General Conference Kofondua
- ¹ Excerpts from interviews conducted with community leaders in the Eastern Region districts of East Akim Birm South Manya Krobo and Kwahu South during the operations research project
- ¹ Baird TL Gringle RE Greenslade FC 1995 *MVA in the Treatment of Incomplete Abortion Clinical and Programmatic Experience* North Carolina IPAS
- ¹⁶ World Health Organization 1995 *Complications of Abortion Technical and Managerial Guidelines for Prevention and Treatment* Geneva World Health Organization
- ¹ Operations research (OR) has five basic steps problem identification and diagnosis strategy selection strategy experimentation and evaluation information dissemination and information utilization Fisher A Lang J Stoeckel J and Townsend J 1991 *Handbook for Family Planning Operations Research Design Second Edition* New York Population Council
- ⁹ Life Saving Skills (LSS) is a competency based training program developed by ACNM The skills included are those skills which allow midwives to recognize and respond to emergencies The main goal of LSS is to help midwives prevent maternal and infant mortality and morbidity by identifying and taking necessary action when problems occur in pregnancy labor delivery and the early postpartum period See Marshall MA and Buffington S 1998 *Life Saving Skills Manual for Midwives 3rd Ed* Washington DC American College of Nurse Midwives
- ¹ For more detailed analysis see Winn Reynolds H 1998 *"Assessing the Impact of a Postabortion Care Training Program on Midwives Knowledge in Ghana"* Masters Thesis School of Public Health Department of Health Behavior and Health Education University of North Carolina at Chapel Hill
- Module 5 Postabortion Care of the *Reproductive Health Training for Primary Providers* series was used for the skills assessment See Winkler J Verbeist S 1997 *Postabortion Care Services Module 5* in PRIME *Reproductive Health Training for Primary Providers A SourceBook for Curriculum Development* Chapel Hill NC INTRAH
- ¹ World Health Organization 1997 *Post Abortion Family Planning A Practical Guide for Programme Managers* Geneva World Health Organization
- ⁴ Data obtained from MVA logbooks maintained in facilities Women's reproductive desires and intentions were not recorded in the logbooks so we can not state what proportion of women received the method they desired
- World Health Organization 1995 *Complications of Abortion Technical and Managerial Guidelines for Prevention and Treatment* Geneva World Health Organization
- ⁶ At the time of this report \$1 00 = 2 300 cedis The cost includes relevant service fees such as consultation inpatient bed fee procedure or theater fee anesthesia medications (antibiotics analgesics haematomics IV fluid and oxytocics) and supplies (gloves antiseptics cotton wool and gauze)
- ² UN Radio Program 1998 *Unsafe Abortion in Ghana* Written produced and narrated by Annella Wynyard
- ⁹ See Baird TL Billings DL Demuyakor B *"Community Education Efforts Enhance Postabortion Care Program in Ghana"* Submitted to *American Journal of Public Health*
- ⁹ For more details see project proposal *Decentralizing and Integrating Life Saving Skills and Postabortion Care through the Safe Motherhood Program in Ghana* 1998 INTRAH Ipas ACNM