



Is There Value in Adding a Follow-up Visit to Postabortion Care?

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Abbreviations

CT	counseling and testing
FP	family planning
HIV	human immunodeficiency virus
JHU	John Hopkins University
MOH	Ministry of Health
MTCT	mother-to-child transmission
PAC	postabortion care
PMTCT	prevention of mother-to-child transmission
RH	reproductive health
STI	sexually transmitted disease
USAID	United States Agency for International Development

Introduction

The current model for postabortion care¹ (PAC) includes a one-time visit during which emergency medical treatment for complications of spontaneous or induced abortions is provided. The USAID PAC model also includes family planning (FP) counseling, evaluation of sexually transmitted infections (STIs) and treatment, and HIV counseling and/or referral for testing, but the one-visit model often does not allow patients to benefit fully from these services. The addition of a follow-up PAC visit that can act as an entry point for HIV and unintended pregnancy prevention services by offering women voluntary on-site HIV counseling and testing and reinforcement and support of family planning can greatly affect maternal and perinatal health as well as prevent new HIV infections. Studies show that the uptake rate for family planning offered during one-visit PAC sessions can be as low as 2–15 percent (Solo et al., 1999; Diaz et al., 1999; Benson and Hupaya, 2002) and that uptake rates increase significantly when the quality of counseling is improved and counseling actively involves women and their partners in the reproductive care decisionmaking process (Diaz et al., 1999). Improving postabortion FP counseling in three hospitals in Bolivia resulted in women’s acceptance of family planning following PAC increasing by 44 to 77.4 percentage points (Diaz et al., 1999). Adding a follow-up visit to the current PAC model would allow for a more relaxed environment for care-giving where women could receive support regarding FP usage as well as more in-depth counseling on HIV and other STIs that affect their future reproductive health decisions. Offering full voluntary HIV counseling and testing (CT) services would allow women to be counseled through FP decisions in the context of their HIV-status. This follow-up visit model emphasizing voluntary CT and FP services supports development goals to limit new HIV infections and reduce maternal and child mortality rates, while also encouraging a post-procedure visit to evaluate for complications such as infection and excessive bleeding, an intervention shown by research to be beneficial for PAC patients (Mahomed et al., 1997; Ortayli et al., 2001).

This paper will offer evidence of the positive effect of adding a follow-up PAC visit, during which women can fully benefit from voluntary HIV counseling and testing and receive additional support for FP use. Evidence will be presented in terms of the benefits to women receiving PAC services, progress toward development goals, and potential cost savings.

Background

For many of the women receiving PAC services, this is their only interaction with the healthcare system. Offering voluntary CT and FP services to this group of women has the potential to greatly expand the reach and effect of FP and HIV prevention and treatment services and, at the same time, help support the achievement of international development goals. A follow-up PAC visit also provides an opportunity to offer additional health information and services that can improve the health of women and their families. Providing onsite voluntary HIV testing and more in-depth HIV and STI counseling during the follow-up visit will facilitate HIV-positive

The additional services provided to women during a follow-up PAC visit can help support the achievement of selected development goals.

President’s Emergency Plan Goals

- Prevent 7 million new HIV infections
- Provide treatment to 2 million HIV-infected people

UNGASS Goals

- Reduce proportion of infants infected with HIV by 50% by 2010
- Increase percentage of HIV-infected women receiving a complete course of antiretroviral prophylaxis to reduce the risk of mother-to-child transmission
- Increase percentage of people with advanced HIV infection receiving antiretroviral combination therapy
- Increase percentage of patients with STIs at health-care facilities who are appropriately diagnosed, treated, and counseled

UN Millennium Development Goals

- Reduce child mortality
- Improve maternal health

¹ In the context of this paper, PAC refers to care and treatment of complications of *both* spontaneous and induced abortion.

women's access to treatment. In addition, women can receive additional support and counseling on FP use and counseling regarding prevention of mother-to-child transmission (MTCT) of HIV, nutrition, malaria prevention, and postabortion emotional and psychological trauma as needed. Services available to women in a follow-up PAC visit can contribute to a reduction in the number of future abortions, improve maternal and perinatal health through birth spacing and planning, increase the prevalence of HIV testing and access to appropriate care and treatment, as well as provide women with counseling on selected health topics that can improve the health of women and their families.

Prevention of Future Abortions

Because the users of PAC services are sexually active, in their reproductive years, and most likely not using contraception as a means of HIV prevention or family planning, they constitute a key group for receiving voluntary CT, FP, and other health counseling. Many women at PAC facilities are there because of unintended pregnancies, and if not counseled in FP and birth spacing, will likely have another unintended pregnancy. A study among abortion patients at three sites in Viet Nam reported an average of 2.2 abortions per patient (Nguyen et al., 1998). Among patients admitted for the treatment of abortion complications at the High-Risk Clinic in Kenyatta Hospital in Kenya, 55 percent of those interviewed had had a previous abortion (Webb, 2000). A study of 149 HIV-positive women in Abidjan, Côte d'Ivoire, who were followed postpartum, found that only 39 percent were using contraceptives, leaving them susceptible to future unintended pregnancies. Half of their subsequent pregnancies were unintended and one-third of these were terminated through induced abortions (Desgrees du Lou et al., 2002).

Postabortion FP counseling decreases the risk of subsequent unplanned pregnancies, reducing subsequent abortions. A study conducted in Zimbabwe that followed one group of women who received high-quality FP counseling during their PAC visit and a control group who did not receive counseling reported that significantly more women who received FP counseling during their PAC session used highly effective contraceptive methods, experienced significantly fewer unplanned pregnancies, and underwent fewer repeat abortions than women at the control site (Johnson et al., 2002). Studies show that provision of FP information and counseling is linked to women accepting a FP method with which they are satisfied (Billings et al., 2003). Research concludes that FP counseling offered at the same time and location as emergency treatment can result in increased use of contraceptives, decreased unplanned pregnancies, and reduced repeat abortions (Johnson et al., 2002; Savelieva et al., 2003). Effective FP counseling in PAC is imperative to help these women achieve their reproductive goals, and the addition of a follow-up PAC visit to examine women for complications, support women in the use of their chosen FP method, encourage those who did not accept a method at the initial PAC visit to adopt family planning, and to provide voluntary comprehensive CT services and additional health counseling can further improve the chance for women to maintain their own health and that of their families.

A study conducted in Uganda to evaluate the effectiveness of providing additional training in family planning, STI/HIV counseling, and nutrition to physicians and midwives providing PAC services reported that before the intervention, "there was no routine system of postabortion counseling and no effort to break the cycle of [unintended] pregnancy and unsafe abortion" (Kiggundu, 1999). The training intervention was successful in expanding the services that providers were able to offer PAC patients, successfully integrating PAC, FP, and HIV activities and increasing the benefits for women.

Improved Maternal and Perinatal Health through Birth Spacing and Planning

In addition to the benefits of helping women avoid unintended pregnancies, family planning is essential for women who want to better plan and space future pregnancies. An estimated 32 million unintended pregnancies occur annually among women with unmet need who want to postpone childbearing until a later time, and 28 million unintended pregnancies occur among women who do not want to have any

more children at all. Unintended pregnancies among women with unmet need result in an estimated 26 million births, 26 million induced abortions, and 8 million miscarriages annually (Vlassoff et al., 2004).

Women have the potential to become pregnant as quickly as two weeks after an abortion and proper FP use can allow these women increased time to heal both physically and emotionally after their abortion. Three-quarters of the 803 women involved in a study in Mexico said that they would like to be pregnant again, but 95 to 99 percent reported a desire to wait at least six months (Billings et al., 2003). Studies show that women waiting less than six months after an abortion (both spontaneous and induced) to have another pregnancy are at greater risk for adverse perinatal and maternal outcomes—such as maternal anemia, premature rupture of membranes, preterm delivery, and low birth-weight—than women who wait 18 to 23 months to conceive (Conde-Agudelo et al., 2005). During the follow-up PAC visit, reinforcing counseling on the benefits of birth spacing, supporting women in the use of their chosen FP method, or helping women to adopt an FP method can reduce maternal and infant mortality by expanding the length of the birth interval.

Importance of HIV in Reproductive Health Decisions

Including FP services as part of emergency treatment is essential to limiting future unintended pregnancies, thus reducing the number of subsequent abortions and maternal mortality and morbidity associated with abortion-related complications. Because a woman's serostatus may directly influence her reproductive decisions, provision of HIV counseling and testing is a logical addition to postabortion FP services. Knowledge of HIV status can help inform decisions about whether to become pregnant in the future, allows for proper planning in choosing a contraceptive method that is appropriate and realistic for each woman's circumstances, and may encourage positive women to seek prenatal care earlier during their next pregnancy. Risk of MTCT of HIV and increased rates of spontaneous abortion among HIV-positive women and the possibility of pregnancy affecting the progression of the disease in positive women also support the idea that women would be well-served to make contraceptive decisions armed with the knowledge of their HIV status.

Studies conducted in Italy and Côte d'Ivoire show that HIV-positive women are significantly more at risk of miscarriage than HIV-negative women (deBruyn, 2002). Fourteen percent of pregnant HIV-positive women in India, Malawi, and Zimbabwe experienced spontaneous abortion (Feldman and Maposhere, 2003; Temmerman et al., 1994; Kumar et al., 1995) and in India, 18.2 percent of HIV-positive women had spontaneous abortion compared with a 3.7 percent of HIV-negative women (Kumar et al., 1995). The addition of voluntary CT to PAC services in light of the strong linkage between HIV status and risk of spontaneous abortion has the potential to diagnose cases of HIV that might otherwise go undetected. A study of 218,357 women in Italy tested for HIV when they presented to hospitals for delivery, induced abortion, or treatment for spontaneous abortion found that the HIV infection rate was significantly higher among the women presenting for spontaneous abortion (Abeni et al., 1997).

A 2002 analysis of 96 abortion procedures in South Africa performed at 25 sites reported that while 89 percent of women received a contraceptive method before leaving, only 1 percent of those women received condoms during PAC counseling (Dickson-Tetteh and Billings, 2002). This low proportion reflects a lack of emphasis, and possibly of training, among service providers on dual protection. It is important that all PAC patients, especially those who are HIV-positive, receive counseling on STI and HIV prevention in addition to FP counseling. Inclusion of HIV counseling in PAC provides a key opportunity to help an audience of women who are sexually active and having unprotected intercourse to understand and be prepared for all of the consequences of unprotected intercourse and unintended pregnancy.

HIV Diagnosis, Access to Treatment, and Prevention of Mother-to-Child Transmission (PMTCT)

PAC service delivery offers an important opportunity to link women who may be at risk for HIV to voluntary CT services, and for those who are HIV-positive, PAC can serve as an entry point for treatment, care and support services. The current one-visit model includes HIV counseling; however, it does not include HIV testing (only a referral in some cases) and the likelihood of women receiving comprehensive HIV counseling during the visit is dependant on the time and human resources available after emergency care for complications is delivered. A follow-up PAC visit would allow for voluntary CT in a nonemergency setting after the woman has had time to recover from her postabortion emergency. Separating counseling and testing from emergency services also removes the challenge of obtaining informed consent for HIV testing at the same time as emergency treatment.

The provision of comprehensive post-test counseling gives HIV-positive women access to information about antiretroviral therapy in the context of future reproductive choices, helping women make informed decisions and prepare for future intended pregnancies. Having knowledge of their status may lead women to seek antenatal care and PMTCT services during their next pregnancy. A study in India from 1997 to 2000 of 30 asymptomatic HIV-positive pregnant adolescents found that 27 who received antiretrovirals had no intrauterine fetal demise/death, intrauterine growth retardation; spontaneous miscarriages; or fetal, infant, or maternal mortality (Chibber and Khurranna, 2003).

Increasing Access to FP and HIV Counseling and Testing

While FP and STI/HIV information is currently included in the PAC strategy for the one-visit model, providing all of these services to women at the same time as emergency treatment may be challenging. Studies show that some of the lack of uptake of family planning is due to inadequate counseling and the lack of support from male partners (Billings et al., 2003; Garcia-Hernandez et al., 2000; Abdel-Tawab et al., 1999; Centre de Formation et de Recherche en Santé de la Reproduction and Clinique Gynécologique et Obstétricale CHU A. le Dantec, 1998). A follow-up PAC visit will allow for an improved environment for counseling, as it would concentrate on FP services for women who did not accept a method at the time of emergency treatment, support for those who have accepted a method, and ample time for HIV counseling and voluntary HIV testing if the woman desires HIV testing. The staff present at these visits can be trained to provide these specific services. Facilities providing follow-up PAC services can be stocked with the appropriate job aides and written materials. A study conducted in Bolivia reported that contraceptive uptake improved among PAC patients after staff was trained to provide complete information about methods and to encourage women to participate in the choice of a method (Diaz et al., 1999). Before training, the FP acceptance rate was 10 to 15 percent, after counselors received the training it increased to 63 to 88 percent (Diaz et al., 1999). In another study in Kenya where providers were trained to provide postabortion FP counseling and contraceptive distribution, 69 percent of women receiving PAC decided to begin using family planning and 70 percent of those left the facility with an FP method (Solo et al., 1999). This represents a significant increase above the baseline figures of 22 percent deciding to use family planning and only 3 percent leaving with a method.

Dealing with complications due to induced or spontaneous abortion can be traumatizing for women, and some women may experience varying levels of pathological grief symptoms in reaction to the termination of their pregnancy. These women may exhibit inhibition of decisionmaking and initiative (Ney et al., 1994), which makes their effective involvement in counseling and decisionmaking regarding FP and HIV testing limited. Trauma may also be experienced by women presenting for PAC in countries where abortion is illegal. In Diaz's study of PAC programs at three Bolivian hospitals, women often reported being mistreated because medical providers considered them to be criminals who should be punished for inducing abortion. This mistreatment and persecution by physicians kept women from going to the

hospital when they experienced complications and many suffered at home (Diaz et al., 1999). Whether due to feelings of persecution or grief related to the lost pregnancy, trauma can compromise the PAC counseling experience by impeding women's ability to make decisions and participate effectively in the counseling experience.

Removing women from the PAC emergency care environment and placing them in a situation where they can feel comfortable, engage in discussion, and make informed decisions about their own health can improve the provided care and the chances of the information being absorbed. A follow-up PAC visit allows women an opportunity to follow up with providers regarding their procedure, complications, any side effects they may be experiencing with their newly adopted FP method and to ask questions regarding the FP and HIV information that they received during the initial PAC visit. A follow-up visit also allows for additional discussion on other important selected health topics that may not have been the focus of the initial emergency visit, including HIV, and provides a second opportunity for women to initiate FP use. One reason often cited for not accepting family planning is that women want to discuss options with their partner, who may not be with them during the initial PAC visit. A follow-up visit allows women time to discuss options at home with their partner and to return to the follow-up with any remaining questions they may have about methods. This is a key opportunity to engage women in the health system that is missed under the one-visit PAC model.

The study conducted in Bolivia reported the percentages of women attending postabortion follow-up in hospitals in La Paz, Santa Cruz, and Sucre as 48.8 percent, 20.8 percent, and 28.4 percent, respectively (Diaz et al., 1999). These rates were for follow-up visits scheduled at the time of discharge for approximately one month after discharge from the initial PAC session. These numbers are relatively low, but in the Diaz study, women were instructed only to report for a follow-up visit to check for complications due to the procedure, and the follow-up visit was not directly linked to the patient receiving any additional services. In the proposed follow-up visit PAC model, the rate of return for follow-up visits would likely increase if women were informed at discharge that the follow-up visit would allow for additional counseling time on any side effects experienced with their FP method, access to FP methods if family planning was not initiated at the time of emergency treatment, and access to voluntary CT services. A follow-up visit scheduled one month following the emergency service for those who chose to initiate FP use during the initial PAC visit can ensure that enough time has passed that any side-effects will be apparent and patients are able to address any severe side-effects and discuss the option of choosing another method rather than discontinuing FP use all together. For women who did not opt to initiate FP use at the initial PAC visit, a follow-up visit may be appropriate two weeks rather than one month after the initial visit. Because fertility returns quickly during the postabortion period, providing these women with another opportunity to choose a method or return with questions may be helpful in preventing future unintended pregnancies. All women should be urged to return for follow-up immediately if they experience complications after emergency PAC treatment.

There is some overlap of counseling topics that will occur between the initial and follow-up PAC visits (FP and HIV counseling). However, the follow-up is not meant to replace the provision of this information during the initial visit, but rather, supplement what the patient has already heard in a more relaxed setting and present an opportunity for the patient to ask follow-up questions and discuss issues in the context of their own particular circumstances.

Benefits of Counseling on Additional Topics

While a follow-up PAC visit allows for more in-depth counseling on topics that are already included in the PAC model (FP and HIV/STI) and provides access to voluntary HIV testing, it also offers an

opportunity to provide counseling on other important selected health topics that can affect women and their families.

Malaria Prevention Counseling

There are approximately 100 malaria-endemic countries and territories. Approximately 25 million African women become pregnant in malaria-endemic areas each year, placing them at risk of maternal and perinatal death (Futures Group, 2005). There are critical consequences of contracting malaria during pregnancy for the mother, including severe maternal anemia, postpartum hemorrhage, an increased susceptibility to co-infection by other bacterial and viral agents (including HIV infection) and death. Risks to the fetus are equally serious and include pre-term delivery, low birth-weight, severe anemia, growth retardation, susceptibility to other bacterial and viral infections, increased risk of MTCT of HIV, and intrauterine demise (Futures Group, 2005).

For HIV-positive women, malaria represents an even greater health threat. In many African countries, the contraction of malaria during pregnancy is considered the single most common cause of spontaneous abortion (JHU, 2000). Malaria and HIV co-infection leads to serious complications as the viral load in HIV-positive patients is increased when co-infected with malaria, and HIV-positive patients experience increased incidence and severity of malarial infection. Co-infection of malaria and HIV during pregnancy can also increase the risk of MTCT of HIV. A study on the effect of placental malaria on MTCT conducted in Uganda reported that MTCT was significantly associated with maternal HIV viral load. Children born to mothers with malaria-HIV co-infection exhibited higher median viral loads than those born to mothers infected with only HIV (Brahmbhatt et al., 2003).

Providing counseling on malaria prevention during the follow-up PAC visit can help women avoid malarial infection overall, especially during their next pregnancy; protect their existing children from infection; and maintain the health of their families. Adding malaria prevention counseling can also help support several international development initiatives including the Global Fund, the World Health Organization's Roll Back Malaria, and the Millennium Development Goals by helping to reduce child mortality, improve maternal health, and limit the number of malaria infections.

Referral for Gender-based Violence

Gender-based violence is a hidden issue among many women in the developing world. Between 27 and 39 percent of women seeking abortions have been victims of abuse sometime during their lifetime (Kaye, 2001). Out of 311 Ugandan PAC patients included in a 2000 study, 70 (23.2%) had induced their abortions and close to 40 percent of those cited domestic violence-related issues as the main reason for inducing (Kaye, 2001). According to a study conducted in Java, the rate of spontaneous abortion among women who experienced physical violence during pregnancy was 10 percent compared with 5.7 percent among those who had not experienced abuse. Among women who had experienced sexual violence during pregnancy, the spontaneous abortion rate was 5.9 percent versus 3.8 percent for those not sexually abused (Hakimi et al., 2001).

A significant percentage of PAC patients may have experienced abuse at some point, whether in relation to their pregnancy or not. Referral at the follow-up PAC visit for counseling related to gender-based violence would provide the woman access to a safe environment for counseling that she may not otherwise have received.

Counseling of Partners

Involving partners of PAC patients in counseling may increase the support that a woman receives once

she returns home. While partners may not always accompany the woman to her initial PAC visit, they may be available to attend the follow-up scheduled PAC visit and benefit from the in-depth counseling provided on topics that they might not otherwise be exposed to, including FP and HIV counseling and testing. Gaining consent from the PAC patient before including her partner in any counseling is, of course, important and no woman should be required to bring her partner to the session. Sixty-five percent of women receiving PAC in one study in Senegal reported that they would like their husband present for FP counseling (Centre de Formation et de Recherche en Santé de la Reproduction and Clinique Gynécologique et Obstétricale Chu A. le Dantec, 1998). A follow-up PAC visit also gives women an opportunity to discuss what they have learned about family planning with their partners at home between PAC visits, increasing communication, even if the male partner does not accompany the woman to the follow-up visit.

A study conducted in Egypt examined the effects of providing counseling to the husbands of PAC patients on the husbands' level of involvement in their spouses' recovery and on patients' recovery and subsequent use of contraception after PAC (Abdel-Tawab et al., 1999). Husbands in the intervention group received counseling on their wives' health, including the need for rest and nutrition, warning signs of complications, return to fertility after initiation of sexual activity, and the need for FP methods to avoid unintended pregnancy. Both the husbands' behavior and the quality of the patients' recovery were improved after counseling. Patients whose husbands received the counseling showed significantly lower levels of emotional distress related to the abortion than did patients whose husbands were not counseled.

Nutrition

A well-nourished woman is better able to deal with the stress of pregnancy as well as fend off infections and maintain her immune system; this is especially true for HIV-positive women. Counseling women on their intake of essential nutrients including folic acid, calcium, magnesium, and vitamin A can greatly support the health of a woman and help speed her recovery and prepare her for healthy pregnancies. Counseling on iron deficiency can help the many women who suffer from anemia.

A follow-up PAC visit allows counselors time to discuss eating habits and resources so women can understand their circumstances and what nutrients they may be lacking. It also allows time for women to ask any questions that come up after their initial PAC visit and to get clarification on information received previously. PAC patient satisfaction rose from 88 percent to 94 percent in Burkina Faso after improved PAC services included counseling on treatment and follow-up during which women could ask questions and receive instructions (MOH Burkina Faso, 1998). Providing women with this kind of positive and interactive healthcare experience may encourage them to seek care for themselves and their families earlier and more regularly and promote overall family health.

Progress Toward Achievement of Development Goals

Services and counseling provided to PAC patients during a follow-up visit can support the achievement of development goals in the areas of HIV, reproductive health (RH), and improvement in maternal and child health.

Offering voluntary HIV testing in addition to HIV counseling in the follow-up PAC visit offers the following benefits:

- Provision of voluntary CT services to women who may not otherwise access counseling and testing
- Access for those who test HIV positive to information on treatment and support services
- An opportunity for the woman to receive FP counseling in the context of her HIV status

- Access to information about PMTCT for future pregnancies

These benefits directly support development goals addressing the prevention of new HIV infections, including reducing the proportion of infants infected; increasing the number of HIV-positive individuals receiving antiretroviral combination therapy; and increasing the percentage of HIV-infected women receiving antiretroviral prophylaxis for PMTCT.

Additional FP counseling and support for women's use of their chosen FP method provided in the follow-up PAC visit has the potential to increase contraceptive uptake due to the provision of more in-depth and higher quality counseling in a non-emergency setting, resulting in the following benefits:

- Reduction in the number of unintended pregnancies, abortions, and maternal deaths pregnancy-related causes
- Increased birth spacing and knowledge of safe sex practices

These benefits directly support development goals addressing improved maternal health, reduction in child mortality, prevention of new HIV infections, and reduced proportion of infants infected with HIV.

Additional counseling on topics such as nutrition and malaria prevention, among others, support the broad goals of improving maternal and child health. In addition, a positive experience generated by a well-executed second PAC visit can increase the probability of women and their families accessing healthcare services again and in a timely manner—thereby allowing for further improvements in their overall health.

Cost Savings

There are an estimated 200 million pregnancies globally each year (USAID, 2004). With an estimated 10 percent of known pregnancies ending in spontaneous abortion (Medline, accessed online 2005), plus another 20 million abortions performed annually (Cobb et al., 2001); the number of potential PAC patients may be as high as 40 million per year. This finding reveals a large demand for comprehensive and high-quality emergency care and counseling and also an important opportunity to provide women who might not regularly seek healthcare with information and services related to HIV, FP, RH, and other general health and disease prevention issues.

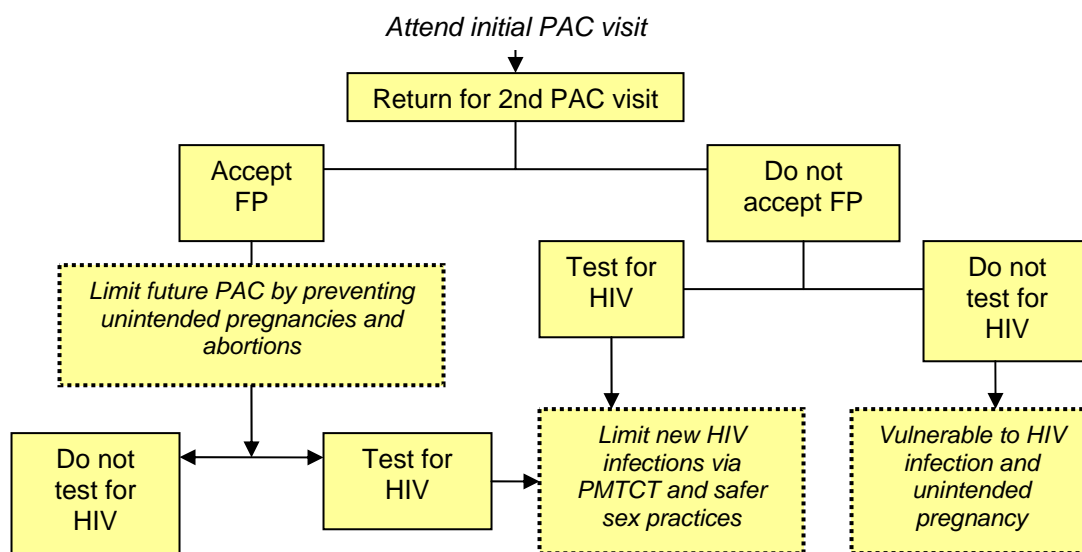
Cost information in a non-hospitalized environment is difficult to find at present, but facility-based research conducted by Futures Group in two countries where PAC is highly medicalized (Ukraine) and less medicalized (Uganda) report that the provision of FP services range from approximately \$7 to \$24 per person per year,² and PAC services range from approximately \$35 to \$180 per person to complete emergency treatment (Futures Group Spectrum Allocate Model field applications). Simply put, FP services are significantly less expensive than PAC services and result in high future savings. While adding a follow-up visit that includes counseling and testing to the current one-visit PAC model would require additional resources to cover the cost of relevant personnel, testing kits, and FP commodities, there is potential for substantial cost savings by limiting the need for future PAC services, PMTCT services, and care and treatment for infected children and orphans. Resources currently spent on family planning and other counseling in the single PAC visit may be lost without a follow-up visit to help women absorb the information they receive and work through FP decisions with trained counselors.

² The total cost of providing FP shown includes the average cost of a full mix of methods with the exception of sterilization.

One PAC service model in Oaxaca, Mexico—including the MVA procedure, FP counseling, availability of a contraception method, and availability of educational materials—was estimated at US\$180.22³ per patient (Brambila et al., 1999). The FP counseling component of this cost included staff costs for counseling (\$1.60) and the distribution of contraception (\$1.30), totaling \$2.90. Even if we double this FP cost to reflect increased time spent with patients and add in CT costs estimated at \$13 per patient (Stover et al., 2006), the total cost of the second visit would likely be under \$20.⁴ This expenditure is minimal when compared with the costs that this additional visit may avoid, which includes costs such as:

- A follow-up PAC visit for future terminated or lost pregnancies: \$35–\$180 per patient (Brambila et al., 1999; Futures Group Spectrum Allocate model application, Uganda)
- Cost of PMTCT services for HIV-positive women who would limit pregnancies but do not accept an FP method during the initial PAC visit: \$50 per patient (Stover et. al., 2006)
- Cost of supporting orphans as a result of HIV-related deaths or deaths due to pregnancy/labor/abortion complications: \$224–\$652 per child per year for an estimated 11 years each (Stover et. al., 2006).

When analyzing costs, it is clear that even if the PAC cost in a country is as low as \$35 per person, there is still a significant cost benefit to adding a follow-up PAC visit during which women might be more likely to adopt family planning as a result of higher quality counseling, and have the opportunity to access voluntary CT services that they otherwise might not seek. Expanding access to these services can potentially reduce the number of new infections and increase access to care and treatment for those who test HIV positive, as well as increase access to family planning, limiting future abortions. The benefits of adding a follow-up visit can be seen in the following diagram, illustrating that PAC patients who accept a FP method and accept voluntary counseling and testing for HIV during a follow-up PAC visit are potentially limiting the need for future PAC services by preventing unintended pregnancies and abortions and also limiting new HIV infections via PMTCT and the adoption of safer sex practices.



³ This cost included hospitalization, all necessary medical staff, instruments, supplies, and costs associated with the model such as meetings, trainings and follow-up visits.

⁴ These costs may be slightly higher depending on the preferred method. For example, the costs of an intrauterine device and Norplant may be higher due to increased time spent by the provider for insertion and higher injectable commodity cost.

Conclusion

While the current one-visit model of PAC does include FP and STI/HIV counseling, these services do not receive enough attention when lumped in with emergency treatment. The introduction of a follow-up PAC visit that includes voluntary HIV testing, higher quality counseling on a range of selected health topics—FP, HIV, malaria prevention, male involvement, and nutrition—has the dual potential of significantly increasing the acceptance of an FP method by women receiving PAC services and increasing HIV testing and access to treatment among a key group for HIV services.

The positive effects that could be achieved through a follow-up visit (a reduction in the number of subsequent abortions, unintended pregnancies, maternal mortality, and new HIV infections) have much larger implications than the cost savings and the achievement of goals addressed in this paper. Women who know their HIV-status and are able to plan their fertility in the context of HIV are more likely to remain healthy and, therefore, more productive members of the economy and community. The ability to better plan and space pregnancies also supports the health of the mother and family. By bringing these women in for a follow-up visit, they have the opportunity to receive more in-depth and related information and services in a safe and calmer environment. A follow-up PAC visit provides benefits both in terms of cost savings incurred by reductions in unintended pregnancies and HIV transmission and in terms of the health benefits realized by PAC patients, their families, and communities. These benefits are in addition to the positive affects that a follow-up PAC visit can have on the achievement of the goals associated with the President's Emergency Plan, the United Nations General Assembly Special Session, and the Millennium Development Goals.

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